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FERC's Certification of New Interstate Natural Gas Facilities

Revising the 1999 Policy Statement for 21st Century Conditions

Susan F. Tierney, Ph.D.
Analysis Group

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Acknowledgments

This report reviews and draws upon insights from the comments filed by thousands of groups and individuals in the Federal Energy Regulatory Commission's ("FERC") Docket PL18-1-000. Through this docket, FERC requested comment on whether and, if so, how it should modify its 1999 Policy Statement that guides its review of natural gas facilities proposed for approval under the Natural Gas Act. This report reflects the author's review of these comments.

This is an independent report by Susan Tierney at Analysis Group, supported with funding from the Sustainable FERC Project at Natural Resources Defense Council. The report reflects the judgment of the author alone.

About Susan Tierney

Dr. Tierney, a Senior Advisor in Analysis Group's Denver office, is an expert on energy and environmental policy analysis, regulation and economics, with a focus on the electric and natural gas industries. She is a former Assistant Secretary for Policy at the U.S. Department of Energy, and a state cabinet official for environmental affairs and a public utility commissioner in the state of Massachusetts. She has testified before Congress and state legislatures, as well as in proceedings before state and federal courts and regulatory agencies. As a consultant, she has advised and worked on issues for a variety of clients, including energy companies, government agencies, grid operators, energy customers, investors, tribes, foundations, environmental groups, other non-governmental groups, and others.

About Analysis Group

Analysis Group provides economic, financial, and business strategy consulting to leading law firms, corporations, and government agencies. The firm has more than 950 professionals across 14 offices in North America, Europe, and Asia. Since 1981, Analysis Group has provided expertise in economics, finance, health care analytics, and strategy to top law firms, Fortune Global 500 companies, government agencies, and other clients worldwide.

Analysis Group's energy and environment practice area is distinguished by expertise in economics, finance, market modeling and analysis, regulatory issues, and public policy, as well as deep experience in environmental economics and energy infrastructure development. We have worked for a wide variety of clients including (among others) energy producers, suppliers and consumers, utilities, regulatory commissions, other federal and state agencies, tribal governments, power-system operators, foundations, environmental organizations, other non-governmental organizations, financial institutions, and start-up companies.

Preface

In April 2018, the Federal Energy Regulatory Commission ("FERC") opened an inquiry[1] to consider what, if any, changes were needed to its 1999 Policy Statement that guides FERC's review of applications to build natural gas pipelines and associated infrastructure.[2] Major developments have occurred in the gas industry over the past 20 years; these changes prompted FERC to consider whether its policy was in need of revision.[3]

Over 1,600 organizations and individuals submitted formal comments in response to the inquiry. Commenters, including the author of this report,[4] weighed in on one or more of the four topics FERC identified as critical to its evaluation, which were:

1. FERC's reliance on preliminary contracts between pipeline developers and potential shippers ("precedent agreements") to demonstrate need for a proposed project;
2. FERC's consideration of affected landowners' interests, particularly with respect to eminent domain;
3. FERC's evaluation of the environmental impacts of proposed facilities; and
4. The efficiency of the Commission's review processes.[5]

The paper summarizes key themes that emerge from these comments, and makes findings and recommendations for changes that FERC should make in its pipeline certification process.

[1] FERC, *Certification of New Interstate Natural Gas Facilities*,163 FERC ¶ 61,042, Notice of Inquiry, Docket No. PL 18-1-000, April 19, 2018 (hereafter "FERC NOI").

[2] FERC, Statement of Policy, *Certification of New Interstate Natural Gas Pipeline Facilities*, Docket No. PL99-3-000; 88 FERC ¶ 61,227 (September 15, 1999) (hereafter "Policy Statement").

[3] FERC NOI, page 1.

[4] Comments of Susan F. Tierney, Ph.D., before the FERC, *Certification of New Interstate Natural Gas Facilities*, Docket No. PL18-1-000, July 25, 2018, available at https://www.analysisgroup.com/globalassets/content/insights/publishing/tierney_comments_ferc_pipeline_certification.pdf (hereinafter "Tierney Comments").

[5] FERC NOI, pages 45-46.

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Summary for Policy Makers

FERC's approvals of new natural gas pipelines have led to a substantial increase in U.S. pipeline capacity over the past two decades. Relying on its authority under the Natural Gas Act ("NGA"), and guided by its 1999 Policy Statement for certificating new interstate gas pipeline facilities, FERC has approved 474 projects and rejected only two. As of July 2019, approved projects totaled 278 Bcf/d of capacity and nearly 23,773 new miles of pipeline. The amount of capacity approved since 1999 is nearly double the all-time record for gas use in a single day, set in January of 2019. Actual pipeline capacity added between 2000 and 2018 was 254 Bcf/d.

There has been strong public interest in response to FERC's April 2018 request for comments on whether the agency should modify its two-decades-old 1999 Policy Statement. Over 1,600 organizations and individuals submitted comments to FERC and weighed in on the four topics FERC identified as critical to its evaluation: (1) FERC's reliance on precedent agreements between pipeline developers and potential shippers to demonstrate need for a proposed project; (2) FERC's consideration of affected landowners' interests, particularly regarding eminent domain; (3) FERC's evaluation of the environmental impacts of proposed facilities; and (4) the efficiency of the Commission's reviews.

Comments on FERC's pipeline-approval process fall into two clusters: those seeking to retain the status quo versus those urging FERC to revise its approval process. The two groups provide the following perspectives:

- ***Retain the status quo:*** This group of commenters, comprised largely of oil and/or gas companies, industry trade associations, business groups, large industrial gas consumers, labor unions, and politicians from mainly gas-producing states, recommends that FERC retain the 1999 Policy Statement. In their view, FERC's approach is working well, appropriately identifies and supports determinations of project need, provides ample opportunities for public participation in the process, and properly addresses the environmental impacts of proposed projects. An underlying premise of this perspective is that FERC's role is to approve the development of new pipelines when at least two parties—a pipeline developer and a prospective shipper—want to and are willing to pay for that new capacity, and then to work to minimize the adverse environmental and landowner impacts associated with getting that pipeline sited, built and into operation. Many of these commenters conclude that if anything were to change in FERC's approach, it should be to make the process even more efficient, with shorter and more predictable timelines, and with less burden on applicants.

- ***Revise the 1999 Policy Statement:*** These commenters, including state attorneys general, state utility and environmental regulatory agencies, politicians from states affected by pipeline projects or concerned about carbon emissions, academics and other industry experts, environmental organizations, publicly owned gas utilities, libertarian think tanks, and individual citizens, urge FERC to modify how it reviews projects. In such a revised approach, FERC's reviews would ensure that pipeline infrastructure additions occur only if they: are required by the public

interest after considering all relevant factors; produce greater benefits than costs (including through consideration of environmental externalities); do not impose undue burdens on landowners and communities; and enable the orderly development of plentiful supplies of natural gas at reasonable prices. These commenters call upon FERC to strengthen its public participation processes (and the resources devoted to supporting them) so as to better inform and help restore public confidence in the agency's pipeline decisions.

Comments on FERC's 1999 Natural Gas Pipeline Policy Statement: The Core Disagreement Among Commenters

Underlying the different perspective among commenters is a fundamental disagreement in how FERC carries out its duties under the Natural Gas Act ("NGA") and the National Environmental Policy Act ("NEPA").

- The NGA declares that "the business of transporting and selling natural gas for ultimate distribution to the public is affected with a public interest, and that Federal regulation . . . is necessary in the public interest."
- NEPA requires FERC to take a "hard look" at the environmental impacts of a proposed project and determine whether any environmental impacts would be significant.

Further, the U.S. Supreme Court has found that the principal purpose of the NGA is to serve the public's interest in encouraging the orderly development of plentiful supplies of natural gas at reasonable prices. *NAACP v. Federal Power Commission*, 425 U.S. 662, 669-70 (1976). Rather than promoting natural gas development at any cost or in any manner, the NGA calls for doing so in an orderly and reasonable way. The NGA further directs FERC to approve natural gas pipeline projects only if they are required by the "public convenience and necessity."

Commenters essentially disagree on the extent to which FERC's process for reviewing—and, in virtually all cases, approving—natural gas pipeline is fulfilling these statutory directives.

This white paper discusses both perspectives but devotes more attention to the issues raised by those seeking changes to FERC's current process. While this white paper reflects both perspectives, it spends more time on the issues raised by those seeking changes to FERC's current process. For one thing, it would be repetitive to keep reminding the reader that commenters in the former group prefer a continuation of the status quo. But also, where changes are being advocated, the proponents of change often bear the explanatory burden—to cite evidence of problems with the status quo, to address the concerns of those benefitting from the status quo, and to explain why new approaches are supported by economic realities or issues of distributional fairness, administrative efficiency, or consistency with policy and law.

To restore confidence that FERC will approve only those pipelines that are in the public interest, the agency should adopt and implement numerous changes. FERC's approach needs to be updated to reflect current conditions and to assure that the agency carries out its duties under the NGA in a way that credibly satisfies its public interest purpose—that is, to encourage (as explained by the U.S. Supreme Court) "the *orderly* development of plentiful supplies of natural gas at reasonable prices," and approve gas pipeline projects only if they are needed, consistent with the "public convenience and necessity."

Key findings weigh in favor of FERC making important changes in its approach to reviewing and, where appropriate, approving projects:

- ***Regarding FERC's need analysis for proposed projects and the agency's practice of relying on precedent agreements to demonstrate project need***:

  - **The origins of "certificates of public convenience and necessity" ("CPCN")—the permit that FERC issues to pipeline applicants when it approves a project under Section 7 of the NGA—point to reasons why FERC should and can conduct more fulsome reviews of whether a new pipeline is needed.** Before the NGA was enacted, states were responsible for issuing CPCNs to pipeline developers. These state-regulatory origins (which continue to this day in state reviews of many other types of energy facilities) support a more robust need assessment by FERC, and suggest (through examples from the states' current practices) that such reviews are within the analytic and evidentiary capability of utility regulators.

  - **FERC should make project need the threshold issue in its review of project proposals.** The 1999 Policy Statement's threshold review focuses on whether the monetary costs of a new project will be shifted from new customers to existing ones. But this consideration of monetary subsidies should not overshadow other important cost shifts: There are real costs associated with gas pipelines (e.g., taking of private property valued by owners well above the market price of their land; local air pollution emitted from compressor stations; visual impacts of rights of way) that are neither reflected in the price of gas-transportation service nor monetized in other ways. FERC's initial focus on price-related subsidies sends the wrong message about the costly impacts of new pipelines. These other impacts are borne by parties who may not otherwise benefit from the project, and such economic transfers from the direct beneficiaries of a project (i.e., the pipeline company, the shippers) to others are also a form of subsidization. Addressing these cost shifts, or externalities, falls squarely within the scope of an economic regulator. FERC should focus first on project need.

  - **As an economic regulator, FERC should rely on benefit-cost analyses to determine project need.** Presently, FERC relies almost exclusively upon the existence of precedent agreements as the means to determine whether a project is needed; FERC then determines, on a case-by-case basis, whether a project's economic benefits outweigh the adverse economic impacts on a limited set of "Relevant Interests": (1) existing customers of the pipeline applicant; (2) competing pipelines and their customers; and (3) affected landowners and communities. Only after FERC undergoes this inquiry does it examine the adverse environmental impacts of the project and whether/how to minimize or mitigate them. (Utilizing this test, FERC has approved all but two of the 476 pipeline applications it has acted upon.) Using a more fulsome need analysis that relies on a more systematic benefit/cost framework, would better align with FERC's responsibilities under the NGA. Such a framework would include information about economic and environmental benefits and costs, without necessarily converting all impacts into dollars. FERC would evaluate whether a project proposal's unmitigated environmental impacts (i.e., externalities), when combined with any other residual adverse economic impacts on Relevant Interests, outweigh the benefits of the project (e.g., benefits to the counterparties in the precedent agreements). Such an approach could make use of the kinds of information that FERC already collects on

projects over the combined course of its NGA need analysis and NEPA environmental review. This perspective is rooted in an understanding that FERC is an economic regulatory agency and that a project's environmental impacts have economic costs (i.e., externalities) that should be taken into account as part of the public interest finding about project need.

- **FERC's need analysis should broaden its review of impacts on Relevant Interests**. In the 1999 Policy Statement, FERC focuses on whether there are adverse impacts on three core Relevant Interests. This is too narrow a lens in the public interest context of CPCN decisions. Others with an interest in whether a project is developed and put into service include: s*tates* (e.g., with regard to their ability to satisfy their own policy goals, either through denial or approval of the project); *regional infrastructure and energy market considerations (*as informed by a comprehensive review of demand projections and by the existence of other facilities or new competing projects in the region); and *impacts on environmental, cultural, and natural resource systems*, as well as on land uses and related economic activities.

- **FERC should examine "all relevant factors" in determining need—as called for in the 1999 Policy Statement—and not simply rely on precedent agreements.** The 1999 Policy Statement explicitly states that FERC "will consider all relevant factors" to determine need. However, FERC relies almost exclusively on the existence of precedent agreements to find need. The Commission could rely on many different types of information in an "all relevant factors" approach, including: information from the open season process; intended uses of gas by shippers that have signed precedent agreements; any affiliate relationships among shippers and project sponsors; anticipated impacts on Relevant Interests and others; state policies relating to energy and reduction of greenhouse gas ("GHG") emissions; and the utilization of other pipeline infrastructure in the region. Such information is routinely required in state siting proceedings for other energy projects and comports with the scope and depth of information that is necessary and appropriate given FERC's NGA obligations.

- **FERC should give no special weight to precedent agreements in determining project need, and should give little weight to precedent agreements among affiliates without an analysis of whether such agreements result from the exercise of market power**. FERC's need analysis should take into account the existence of any precedent agreements, but without additional evidence, such agreements are not enough to demonstrate project need. Such agreements reflect the private interests of two counterparties, and do not necessarily reflect the public interest. FERC has a history of exercising vigilance in addressing the risk that affiliates will exercise vertical market power in providing non-affiliated parties with non-discriminatory access to needed delivery facilities (e.g., electric and gas transmission). The Commission should bring the same care to its certification of proposed gas facilities.

- ***Regarding FERC's attention to landowners' interests in situations where FERC approvals might lead to pipeline companies' potential exercise of eminent domain***:

  - **FERC should assure that it issues certificates only to projects with a public purpose, in particular where those decisions lead to the taking of land, and reliance on precedent**

agreements is insufficient to establish that public purpose. Unless FERC modifies its approach to determining need, there is no assurance that the taking of private land *is* for a public purpose as required by the Constitution. Taking of land cannot be for the purpose of serving private interests. FERC should give great weight to the concerns of landowners in the agency's need analysis.

- **Fairness and due-process considerations require FERC to take additional steps to address landowners' interests.** Under FERC's current approach of issuing "conditional" CPCNs—i.e., CPCNs issued prior to the project applicant obtaining all other federally mandated permits—project applicants can condemn private property and may be permitted to begin significant pre-construction activities (e.g., tree felling), while the project applicant awaits other federally mandated permits. FERC should either refrain from issuing conditional CPCNs or should incorporate language in any conditional CPCN so as to explicitly limit the ability of the pipeline company to disturb landowners' property for the project until (and if) all of the required approvals are issued. FERC should also go out of its way to improve its procedures for ensuring timely, meaningful and clear notifications to landowners about project reviews.

- ***Regarding FERC's evaluation of the environmental impacts of proposed facilities***:

  - **FERC should strengthen its NEPA assessments in many ways, and incorporate these findings into the agency's need determinations under the NGA.** FERC should expand its determination of significant versus non-significant impacts and broaden its identification and consideration of project alternatives. Under the NGA, FERC should recognize that environmental impacts of projects are externalities, whose costs are not reflected in prices and whose effects are typically shifted from parties to a transaction (e.g., signatories to precedent agreements) to others. Economic regulation, in the context of reviewing projects for CPCNs, should take such impacts into account. FERC's practice of deciding that it is too hard, uncertain, or unforeseeable to identify, assess, and calculate GHG emissions associated with a pipeline, and then concluding that such impacts are insignificant (in the context of a NEPA review), leads to a structural bias in FERC's environmental and need determinations. FERC ends up systematically understating the importance of environmental impacts, which impairs its determinations under both NEPA and the NGA. In effect, because FERC deems things, like indirect GHG emissions, to be insignificant under NEPA, FERC will never consider them as part of its CPCN analysis under the NGA. FERC does not shy away from addressing issues affected by uncertainty and complexity in other important issues on which the Commission is charged with making decisions. Uncertainty and complexity in the evidentiary records on Section 7 applications should not be grounds for FERC to short-shrift its NEPA and NGA obligations.

  - **FERC should strive to more fully satisfy NEPA's "hard look" standard.** Not only does FERC have obligations under NEPA to examine project alternatives "to the fullest extent possible" (including a no-project alternative), but the agency also has public-interest obligations under the NGA to approve projects only when they are needed, and a serious review of no-project

alternatives would inform that question of need.

- **FERC should give great weight to state policies in considering and weighing environmental impacts.** Although the NGA assigns to FERC the responsibility to certificate gas pipeline proposals, this does not mean that FERC should ignore the policy goals of states affected by pipeline projects. This point—that FERC should factor into its NGA and NEPA decisions on proposed pipelines the implications for states' ability to satisfy their own climate-related statutes—is critical to assuring that FERC implements both statutes so as to avoid the *dis*orderly development of gas delivery infrastructure that will not be needed to serve markets where there will need to be much lower GHG emissions in the future.

- **FERC should consider both direct and indirect impacts of proposed facilities and the gas volumes they propose to deliver.** Too often in its pipeline reviews, FERC selectively applies its examination of direct, indirect and cumulative impacts of proposed facilities. FERC often incorporates as benefits the reduction in air emissions associated with use of gas to displace higher-emitting fossil fuels, as well as power-system reliability benefits where more gas is available. And yet, in its 2018 orders relating to the *Sabal Trail* and *New Market* projects, FERC declined to look at GHG emissions from gas use because, the order stated, the agency does not have authority over them. Other federal agencies have not adopted so narrow a view when they examine the environmental implications of a new infrastructure project (such as a new road or bridge project). Those agencies' reviews go beyond the anticipated environmental impacts of siting, constructing, and operating the project itself, presumably because its very purpose is to enable its use by parties seeking to drive vehicles on the new facility. These agencies, like FERC, do not have jurisdiction over uses of facilities, but they still assume that the projects are being built for a purpose and take into account the direct and indirect impacts of the project.

- **FERC should quantify and monetize GHG emissions impacts wherever reasonably feasible to do so.** Policymakers increasingly rely on quantitative metrics to evaluate the impact of GHG emissions, including through use of the Social Cost of Carbon. Clearly, GHG emissions impose costs and risks on society—including on peoples' health and wellbeing, on infrastructure, on the natural environment and economic activity—as discussed extensively in the scientific literature on the impacts of climate change. FERC has deep experience in relying upon quantitative estimates in other areas of its work (e.g., in market-power analyses supporting requests for market-based rate authority) and should not shy away from reviewing records where applicants and others introduce quantitative, monetary estimates of the direct and indirect impacts of pipelines' GHG emissions.

- **FERC should improve its assessment of project impacts on environmental justice ("EJ") communities and on tribes.** The 1999 Policy Statement calls for FERC to consider the distributional impacts of pipelines across stakeholder communities. FERC's approach to date, however, has been too narrow. FERC reviews should assure that there is a robust presentation of information on the character of impacts on EJ communities and on tribes, and give great weight to such impacts in the agency's NEPA review and in reaching public-

interest findings under the NGA, given the disproportionate and cumulative adverse impacts on those communities compared to the benefits derived from pipeline projects themselves.

- ***Regarding the efficiency of the Commission's review processes***:

  - **FERC should not prioritize streamlining its certification process over improving its need analysis and environmental reviews**. Questions of whether and how FERC should streamline its process are inextricably linked to the other issues that are the subject of this inquiry, including the need for FERC to review in a more fulsome way the NGA issues surrounding project need. Although many in the pipeline industry are frustrated with current time frames for pipeline reviews and seek shorter reviews of applications, the complex issues related to project need and environmental impacts, and considerations related to the potential exercise of eminent domain, call for FERC to take whatever time is necessary to ensure a full and fair collection and consideration of the evidence. FERC's goal should be to assure that there is a sound evidentiary basis for determining whether projects are needed and in the public interest. That objective is much more important than the goal of shortening the time frame for reviewing projects, and a process that provides for a full and fair record for decision is essential for the credibility of FERC's decisions.

  - **FERC should clarify the pre-application/pre-filing process to allow for more meaningful public input into project proposals.** If FERC intends for the pre-filing process to allow for potential constructive changes in project proposals, then FERC should issue more explicit guidance to ensure that pipeline project developers provide sufficient and timely information and clear process steps so that interested members of the public have an authentic opportunity to influence the proposed project.

  - **FERC should devote greater resources to provide opportunities for more informed and effective public participation processes**. Given the inherent and increasingly controversial nature of its decisions about whether new gas pipeline projects are in the public interest, FERC should provide more meaningful opportunities for public input into the need for and impacts of specific facility proposals. Many of the suggestions from commenters would require FERC to devote more resources to the Section 7 certification process. Investments to enhance the quality and quantity of public participation opportunities would help build much-needed public confidence in the agency's review process.

  - **FERC should consider use of Programmatic Environmental Impact Statements ("PEIS").** FERC should consider use of a PEIS, especially in regions of the country where there are likely to be multiple pipeline proposals. A PEIS approach would allow FERC to take a more complete assessment of direct, indirect, and cumulative impacts and a more well-rounded review of regional capacity needs, and allow for more streamlined reviews of individual project proposals in a relevant region.

The body of comments submitted to FERC in 2018 provides a sound basis for updating and revising its approach to reviewing proposals to construct new pipelines.

I. Introduction

A. Background

In April 2018, the FERC initiated a proceeding to investigate what, if any, changes are warranted to its 1999 Policy Statement,[6] which guides FERC's review of interstate gas pipeline proposals.

As FERC described in its Notice of Inquiry ("NOI"), many changes have occurred in the industry and in energy markets generally in the two decades since FERC issued its 1999 Policy Statement. These include:

(1) a revolution in natural gas production technology leading to dramatic increases in production;
(2) new areas of major natural gas production;
(3) flows on pipeline systems becoming bidirectional or reversing;
(4) the increased use of gas as a fuel source for electricity generation, resulting in a closer relationship between gas transportation and power generation;
(5) increased concerns regarding FERC's determination of project need, particularly its use of precedent agreements;
(6) increased concerns expressed by landowners and communities affected by proposed projects;
(7) increased interest regarding the Commission's evaluation of the impact that GHG emissions associated with a proposed project have on global climate change;
(8) an increased focus on environmental concerns within the NGA public interest determination; and
(9) a desire to expand or to limit the Commission's evaluation under NEPA.[7]

There also has been a significant increase in pipeline capacity since 1999. Since then, FERC has approved 474 projects, totaling 278 Bcf/d of capacity and reflecting nearly 23,773 new miles of pipeline.[8] In the same time frame, FERC has rejected only two pipeline applications.[9] From 2000 through 2018, 254 Bcf/d of new pipeline capacity were added and went into operation.[10]

FERC approvals of new natural gas pipelines have led to a substantial increase in pipeline capacity over the past two decades.

In its NOI, FERC asked parties to comment on four topics related to its pipeline reviews:

(1) FERC's practice of relying on precedent agreements to demonstrate project need;

[6] *See generally 1999* Policy Statement.

[7] FERC NOI, pages 2-3 (with formatting changed from a paragraph form in the original, to a numbered list here, with acronyms used for terms that have already been defined in this report).

[8] These figures are as of July 31, 2019. https://www.ferc.gov/industries/gas/indus-act/pipelines/approved-projects.asp (accessed October 20, 2019).

[9] *Jordan Cove Energy Project*, 154 FERC ¶ 61,190 (2016); *Turtle Bayou Gas Storage Company*, 135 FERC ¶ 61,233 (2011).

[10] Energy Information Administration ("EIA"), https://www.eia.gov/naturalgas/data.php#pipelines (accessed October 20, 2019).

(2) the implications of FERC's decisions on pipeline companies' potential exercise of eminent domain and on landowner interests;

(3) the manner in which FERC evaluates project alternatives and environmental effects of proposed facilities under the NGA and NEPA; and

(4) the efficiency and effectiveness of the Commission's certificate processes.[11]

FERC received over 1,600 comments in response, the vast majority of which came from groups and individuals who seek changes in FERC's approach. This paper reports on a representative cross-section of the comments filed.[12] Commenters included energy companies and industry trade associations, state attorneys general, state utility and environmental regulators, members of Congress, Indian tribes, labor unions, think tanks and academics, environmental groups, and individual citizens, among others.[13]

In response to FERC's April 2018 request for comments on whether the agency should modify its two-decades-old pipeline-approval policy, there has been strong public interest in this issue.

B. The two perspectives discussed in this paper

Not surprisingly, the comments fall into two clusters: comments from those who support the 1999 Policy Statement as is, and from those who seek changes in FERC's approach.

Those arguing for the status quo include oil and/or gas companies, industry trade associations, national and regional business groups, large industrial gas consumers, labor unions, and politicians from mainly gas producing states. These parties argue that the Commission should not change the 1999 Policy Statement, because it has "worked well,"[14] provides a "durable framework" for analyzing applications in a "reasoned, consistent and predictable manner,"[15] remains flexible,[16] and has a "proven"[17] track record for ensuring that the nation's gas-delivery infrastructure keeps pace with the abundant supply of natural gas made available through hydraulic fracturing.[18]

[11] FERC NOI, pages 45-46.

[12] See Appendix for the list of comments reviewed for this paper.

[13] This paper uses the following citation convention for comments submitted in the FERC NOI docket: Rather than saying "Comments of [party]" or "[Party's] Comments," a citation will refer to the name of the commenting party only and with a page number (which refers to the submitted comments) where relevant.

[14] Electric Power Supply Association ("EPSA"), page 3.

[15] Interstate Natural Gas Association of America ("INGAA"), page 1; Natural Gas Council (whose members include INGAA, the American Gas Association ("AGA"), the American Petroleum Institute ("API"), the Independent Petroleum Association of America ("IPAA"), the Natural Gas Supply Association ("NGSA"), page 1; API, pages 3-4; NextEra Energy, page 4.

[16] INGAA, page 18; EPSA, page 1; API, page 3; Northeast Gas Association, page 1; Edison Electric Institute ("EEI"), pages 5, 14.

[17] U.S. Chamber of Commerce ("US Chamber"), page 9; AGA, page 2.

[18] Many of these comments focus on the role of natural gas in the nation's economy, rather than on specific aspects of FERC's review of pipeline proposals. See, for example: the letter from Senator Steve Daines and 31 other U.S. senators and representatives (hereafter "Daines et al."); Natural Gas Council, page 1; API; AGA; IPAA; NGSA; INGAA; US Chamber; National Association of Manufacturers ("NAM"), pages 1-4; Pennsylvania Chamber of Business and Industry ("PA Chamber"); Independent Oil & Gas Association of West Virginia; Pennsylvania Independent Oil & Gas Association. Note that throughout its comments and focusing on New England, the Industrial Energy Consumers Group argues that the 1999 Policy Statement does not go far enough in ensuring that needed natural gas pipelines are approved.

Several themes emerge in these comments, including that: FERC should not incorporate into its NEPA reviews information about environmental impacts from the production or use of natural gas; the current process affords sufficient opportunities for landowners and other interested constituencies to participate in the process; and if FERC decides to make changes to the 1999 Policy Statement, it should focus on streamlining the overall review and shortening its timeline.[19]

Comments on FERC's pipeline-approval process fall into two clusters: those seeking to retain the status quo versus those urging FERC to revise the approval process.

Commenters on the other side, including state attorneys general, state utility and environmental agencies, politicians from states affected by new pipeline projects and with policy goals to reduce greenhouse gas ("GHG") emissions, academics and other industry experts, environmental organizations, libertarian think tanks, and individual citizens, argue that FERC needs to change its current process in a number of ways. These commenters argue that the U.S. already has seen significant infrastructure investment and capacity additions in the past two decades, that less may be needed in the future in light of the need to reduce the GHG emissions,[20] that concerns about condemnation of land in favor of capacity expansion are increasing,[21] and that environmental harms need to be accounted in more meaningful ways.

A theme among these commenters is that FERC's current standard protects the *applicant's* interests by using a "one-dimensional approach [i.e., reliance on precedent agreements] when evaluating need."[22] These commenters argue that FERC should return to an "all relevant factors" basis for determining whether a project is needed.[23] Many of these parties ask the Commission to ensure better communications between applicants and landowners (and with FERC itself), more limited intrusions on landowners and their property, and enhanced opportunities for authentic public participation, including through creation of an Office of Public Participation and by "ensuring that the Commission gives special consideration to environmental justice and tribal concerns."[24] Finally, many of these commenters want FERC's NEPA review to consider the upstream, downstream, and cumulative environmental impacts of GHG emissions from production, delivery and use of natural gas.[25]

[19] INGAA; US Chamber; API; New England Local Distribution Companies ("NE LDCs"); Williams Companies; National Grid.

[20] Environmental Defense Fund ("EDF"); Attorneys General of Massachusetts, Illinois, Maryland, New Jersey, Rhode Island, Washington, and the District of Columbia (hereafter "State Attorneys General"); Attorney General of New York ("NY AG"); Tierney Comments.

[21] New Jersey Department of Environmental Protection ("NJ DEP"), page 1, noting that the State of New Jersey has a dual role as a landowner as well as a permit-issuing entity.

[22] North Carolina Department of Environmental Quality ("NC DEQ"), pages 2-3. See also: Harvard Electricity Law Initiative.

[23] See, for example, Public Interest Organizations (representing over 5 dozen different environmental and other non-governmental organizations which are listed in the Appendix to this paper), pages ii-iii; State Attorneys General, pages 1-3; Supplemental Comments of Public Interest Organizations, pages 7-8; APGA, pages 2-6; Franklin County; Public Interest Organizations, pages ii-iii; EDF, pages 36-37; Tierney Comments, pages 6, 10, 14, 25-33; Piedmont Environmental Council, page 2; Appalachian Trail Conservancy, page 3; Freshwater Accountability, pages 2-7.

[24] Public Interest Organizations, page 109.

[25] Institute for Policy Integrity, pages 5-6, 18; Harvard Electricity Law Initiative, pages 14-19; Public Interest Organizations, pages 108-109.

C. Overview of paper

This white paper uses a representative cross-section of the comments filed in FERC's NOI docket to analyze whether changes to the 1999 Policy Statement are appropriate and reasonably necessary to assure that FERC fulfills its duties under the NGA. In particular, the focus is on changes that may be needed for FERC to administer its responsibilities in ways that credibly satisfy its public interest purpose—that is, to encourage "the *orderly* development of plentiful supplies of natural gas at reasonable prices,"[26] and only to approve projects for the "public convenience and necessity." This paper concludes that is important for FERC to adopt and implement many of the changes advocated in this proceeding.

The discussion below follows the organizational framework adopted by FERC in its NOI, focusing on four topics:

(1) The Commission's need determination and the role of precedent agreements in it;

(2) Landowners' interests in projects where the issuance of a FERC certificate may lead to the exercise of eminent domain;

(3) FERC's review of environmental impacts under the NGA and NEPA; and

(4) The efficiency and effectiveness of the Commission's process.

The Appendix lists the comments that were reviewed for this paper.

[26] *NAACP v. Federal Power Commission*, 425 U.S. 662, 669-70 (1976) (emphasis added).

II. Need determination under the NGA

A. Introduction and background

The 1999 Policy Statement outlines a multi-step process[27] to determine whether a proposed gas project should receive a CPCN under Section 7 of the NGA.[28]

First, FERC assesses whether a project proposed by an established pipeline company requires subsidization from any its existing customers.[29] Second, FERC evaluates whether the applicant has attempted to minimize any adverse economic impacts on the developer's existing customers, on existing pipelines in the market or their captive customers, or on affected landowners (the "Relevant Interests").[30] If, despite mitigation, the project still would have residual adverse economic impacts on these Relevant Interests, then FERC undertakes a third step to balance the evidence of public benefits against the expected adverse effects.

The 1999 Policy Statement suggests that although FERC's review is primarily an economic test, FERC "will consider all relevant factors" to determine project need.[31] The amount of evidence required, and the categories of harm and benefit reviewed, are determined on a case-by-case basis with a view toward proportional impact. Under the 1999 Policy Statement, precedent agreements are significant evidence of need, though it notes that a proposal with multiple non-affiliate, arm's-length precedent agreements may present a greater indication of need than a proposal backed only by a precedent agreement with a corporate affiliate. Only where FERC concludes that a project's economic benefits outweigh the adverse economic impacts under this framework does it then consider the adverse environmental impacts of the project and whether/how to minimize or mitigate them. Utilizing this test, FERC has approved all but two of the approximately 476 pipeline applications on which it has ordered approval or rejection.

In the NOI, FERC asked many questions aimed at determining whether the current framework is workable and consistent with the agency's statutory duties. The comments submitted by parties in response to the NOI reveal starkly different perspectives on whether FERC's process and standards are working to meet the NGA's public-interest purpose: to encourage "the orderly development of plentiful supplies of natural gas at reasonable prices,"[32] and to approve only projects consistent with the public convenience and necessity.[33]

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[27] Policy Statement, Section III.A. This description of FERC's review process draws upon the discussion in my prior paper: Susan Tierney, "Natural Gas Pipeline Certification: *Policy Considerations for a Changing Industry,"* November 6, 2017, pages 10-11, available at https://www.analysisgroup.com/globalassets/content/insights/publishing/ag_ferc_natural_gas_pipeline_certification2.pdf. That paper referenced FERC's process description for reviewing gas pipeline proposals. FERC, "Processes for Natural Gas Certificates—Application Process" web page (hereafter "FERC web page"), https://www.ferc.gov/resources/processes/flow/gas-2.asp, accessed October 20, 2019.

[28] This is sometimes called FERC's "certification authority" or "Section 7(c) Certification Authority."

[29] Policy Statement, Section III.B.

[30] Policy Statement, Section III.C.

[31] Policy Statement, Section III.C, especially page 23.

[32] U.S. Supreme Court decision in *NAACP v. Federal Power Commission*, 425 U.S. 662, 669-70 (1976).

[33] INGAA states its view that the purpose of the NGA was to protect consumers and "that the Commission's public interest evaluation is not a license to promote the general welfare." INGAA, page 24.

B. Project "need" and the "public convenience and necessity"

A fundamental difference between the two camps of commenters is whether commenters think that FERC's current approach to determining project need is sufficient. As described further below, those favoring the status quo argue that the current process provides an effective approach that promotes the development of needed gas infrastructure, competitive gas markets, and access to gas for a wide variety of uses and positive outcomes, all of which, these commenters argue, accords with the NGA's legislative intent. Commenters seeking change generally argue that FERC's reliance on precedent agreements to identify need contradicts both the language of the 1999 Policy Statement and the NGA, and that this reliance has become a proxy for the entire public convenience and necessity standard. These commenters further argue that, to the extent FERC considers other factors, it focuses only on the Relevant Interests, and that this narrow set does not sufficiently capture all of a project's potential impacts on affected communities and on society more broadly. These commenters likewise argue that their interpretation better accords the intent of the NGA.

a. Voices from industry: The current process properly analyzes need

Many industry members characterize the 1999 Policy Statement, including FERC's evaluation of project need, as a "resounding success"[34] that has "withstood the test of time."[35] Commenting on its own behalf and for others, [36] the Interstate Natural Gas Association of America ("INGAA") views the 1999 Policy Statement as a "durable framework"[37] that "has promoted and perpetuated competitive natural gas commodity markets by ensuring timely, efficient, predictable and market-responsive development of natural gas pipelines," which it views as "central to the purpose of the NGA."[38]

This framework, according to INGAA, rightly stands on FERC's reliance on precedent agreements[39]—whether between two arm's-length entities or among affiliated companies—to determine project need. According to INGAA, "[p]recedent agreements are the best and most objective demonstration of public need," because they reflect long-term and often substantial financial commitments by sophisticated market participants.[40]

In fact, INGAA appears to hold the view that as long as two counterparties sign up for new delivery capacity, FERC's job is done on the question of need for the project: "The Commission should not look behind precedent agreements, nor should it require applicants to provide additional evidence of

[34] TransCanada Pipeline, page 2.

[35] INGAA, page 89.

[36] INGAA's comments also were explicitly endorsed by: Marcellus Shale Coalition; UGI Energy Services; Duke Energy; NextEra Energy; Dominion Energy; National Fuel Gas Supply Company; Kinder Morgan Entities; PA Chamber of Commerce; Sempra LNG; Enable Interstate Pipelines; Eversource Energy; National Grid.

[37] INGAA, pages 16-32. Many other commenters (e.g., the Natural Gas Council, API, NextEra Energy, and Sempra LNG) use the exact same language in characterizing the Commission's approach to reviewing pipeline applications.

[38] INGAA, pages 28.

[39] "[U]nless the totality of circumstances merit additional analysis or explanation, it is unnecessary for the Commission to request additional information about specific provisions in precedent agreements." INGAA, page 5.

[40] "Sophisticated shippers bear the financial risk that a proposed pipeline will be able to meet their supply and demand projections and would not purchase the capacity if it were not in their economic interest to do so." INGAA, page 27.

public need. Such an analysis would introduce uncertainty into the certificate process and would certainly increase the likelihood of protracted proceedings at the Commission and subsequent litigation."[41] For INGAA, the need for predictability supports maintaining the status quo, as it "provides the project sponsor, the shippers, and the Commission with a bright-line test that the courts have approved as a valid demonstration of need under NGA Section 7."[42]

Many other commenters from the gas industry note similar arguments.[43] They describe FERC's current approach as providing "a consistent, transparent, predictable process for timely development,"[44] a "reasonable, flexible framework,"[45] and "an effective and proven tool"[46] that encourages development of needed additions of gas-delivery infrastructure.[47]

b. Other voices: Changes are needed to determine project need

Many commenters disagree with FERC's approach to determining project need. For example, many suggest that FERC should analyze project need as its threshold question in reviewing projects.[48] The apparent rationale for FERC's current approach—with the threshold question focusing on whether existing customers would subsidize the new capacity addition—is to avoid circumstances in which the pipeline company's existing customers end up transferring economic value to the beneficiaries of a new project through underwriting some or all of the new project's costs.

This construct largely focuses on the question of whether the monetary cost impacts of a new project are shifted from one group of parties to another. But this consideration of subsidies as the threshold question overlooks other important cost impacts (and cost shifts) of proposed projects: First, it positions the subsidy issue as more important than all other economic aspects of a benefit/cost analysis that should be central to the FERC's need analysis. Second, in light of the fact that some of the true costs associated with gas pipelines (e.g., taking of private property valued by owners at an amount higher than the fair market value; local air pollution emitted from compressor stations; visual impacts of rights of way) are neither reflected in the price of gas-transportation service nor monetized, focusing on price-related subsidies sends the message that these other cost impacts matter less in FERC's decisions. These other impacts are borne by parties who may not otherwise benefit (directly or indirectly) from the project, and such transfers of

FERC should make project need the real threshold issue in its review of project proposals.

[41] INGAA, page 31.

[42] INGAA, page 31.

[43] INGAA, pages 25-27; API, page 5-7; Adelphia Gateway LLC, page 7; AGA; EEI; Kinder Morgan Entities; NextEra Energy; New England LDCs; SW Gas Corporation; Spectra Energy; EEI, page 7; EPSA, page 5; Marcellus Shale Coalition; Driftwood Pipeline; Dominion Energy; Industrial Energy Consumers of America; Adelphia Gateway; Tallgrass Pipeline; TransCanada; EQT Midstream Partners; Williams Companies; South Jersey Companies.

[44] National Grid, page 2.

[45] EPSA, page 6.

[46] AGA, page 2.

[47] Kinder Morgan, pages 4-6; Iroquois Gas, page 14; DTE Energy, page 3.

[48] NC DEQ, pages 1-2; Land Trust Alliance, page 6; Tierney Comments, pages 5, 9-13.

costs from the direct beneficiaries of a pipeline project (i.e., the pipeline company and the shippers) to others are also a form of subsidization from the latter to the former.

Addressing these cost shifts, or externalities, falls squarely within the scope of an economic regulator. I made this point in my own comments on the 1999 Policy Statement: "The NGA and the Policy Statement recognize the importance of addressing externalities in Certificate reviews, because the actions of the applicant and the consumer of its services are not the only interests affected by an approval of new facilities to provide gas-transportation services. Other people are affected by the private decisions of pipeline service providers and shippers. Taking these external effects of pipeline projects into account is fundamentally consistent with sound economic regulation."[49]

Many commenters argue further that FERC's need determinations should rely on a robust assessment of whether a project's benefits exceed its costs,[50] and that FERC should consider evidence of market need along with all other public convenience and necessity factors. The Harvard Electricity Law Initiative, for example, recalls that the "public convenience and necessity standard was a common element of state regulatory schemes prior to the enactment of the [NGA]" and that, when enacting the NGA, Congress "mimicked" these state regulatory schemes.[51]

The Public Interest Organizations likewise observe that"[t]here is no evidence in the NGA's legislative history that supports an intent to limit the phrase 'public convenience and necessity' to mean less than how it had been interpreted for the previous 50 years."[52] Citing the CPCN's 19th century origins,[53] these commenters observe that state agencies executed their CPCN reviews by conducting

[49] Tierney Comments, pages 11-12. In my comments, I cited the seminal text on utility regulation: *e.g.*, James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, 2nd Edition, Public Utility Reports, 1988, page 37: "An externality or spillover occurs when there is a benefit or cost enjoyed by or imposed on other members of society by the activities of a producer or consumer that are not enjoyed or borne exclusively by the direct causer." See also page 33: "The goals or rationales of regulation in the public interest may be economic (to correct market failures)….The traditional public interest view of regulation is to protect consumers against high or discriminating prices or unreliable service. . . . [M]ost existing regulatory programs are based upon several different rationales. . . : (1) natural monopoly; (2) prevention of undue price discrimination; (3) externalities; (4) conservation of resources: (5) informational disparities; (6) destructive, ruinous, or cutthroat competition; and (7) other justifications."

[50] Institute for Policy Integrity, pages 2, 43-48; EDF, page 36; State Attorneys General, page 2; Tierney Comments, page 14.

[51] Harvard Electricity Law Initiative, pages 2-4, 13 (footnotes in the original have been omitted here).

[52] Public Interest Organizations, page 15.

[53] As a former public utility regulator in Massachusetts, I was particularly interested to read the Public Interest Organizations' description (on pages 13-15 of their comments) of the roots of the CPCN: "One of the first uses of the term [CPCN] occurred in Massachusetts at the end of the 19th century. At that time, states—rather than the federal government—oversaw the approval of new railroad infrastructure . . . . From experience, the Massachusetts [Railroad] Board saw that investor demand was not synonymous with the public interest. It was concerned that—without additional protections—railroad applicants would be able to use investor interest as a *de facto* demonstration of need, despite concerns that other motivating factors could influence the investors' decisions, or that investor interest, standing alone, is not inherently a proxy for need . . . . [T]he Massachusetts legislature … amended its railroad permitting laws to state that the Massachusetts Board had to certify that the 'public convenience and necessity require[d] construction of [the] railroad proposed.' Under this more rigorous system, the Massachusetts Board still approved most railroad projects. But the new authority enabled it to reject projects that had failed to show that, when considering all relevant factors, the project was in the public interest. For example, the Massachusetts Board denied a proposed project to build a railroad along a beachfront because the purported need for the train was 'outweighed by the fact that the beach traversed' would 'cease to be attractive when it is defaced and made dangerous by a steam railroad.'. . . By the 1920s, the 'public convenience and necessity' standard had been introduced in a variety of states and, critically, began to be added to reviews of gas projects. Factors considered in these reviews included the avoidance of 'wasteful duplication' and the 'social costs (or benefits) not reflected in the financial costs (or benefits)' of a proposed project, including environmental damage, such as the 'tearing up of streets or the erection of multiple sets of poles in order to provide multiple delivery of gas, electric, telephone, water, and related services' . . . . [I]nvestor demand was not a universal proxy for need, and investor demand did not universally override the public interest review."

"a holistic review that analyzed all relevant factors, economic and non-economic, in tandem, to determine whether a project was in the public convenience and necessity."[54]

These state regulatory origins (which continue to this day in state reviews of other types of energy facilities that require a state CPCN) support a much more robust need assessment by FERC, and suggest (through examples from the states' current practices) that such reviews are within the analytic and evidentiary capability of utility regulators, even if it were to mean that FERC would have to add professional analytic capabilities.

The origins of the CPCN—the permit that FERC issues to pipeline applicants when the agency approves a project under Section 7 of the NGA—point to reasons why FERC should (and can) conduct more fulsome reviews of whether a new pipeline is needed.

Also, such an approach could make use of the kinds of information that FERC already collects on projects over the combined course of its need analysis (under the NGA) and its environmental review (under NEPA). But FERC implementation of a comprehensive benefit/cost analysis would require FERC to modify the way it uses (or, more accurately, too often ignores) that information in determining need.

Specifically, in such a need analysis, FERC would evaluate whether the remaining, unmitigated environmental impacts (i.e., externalities), when combined with any residual adverse economic impacts on the developer's customers, on other pipelines or their captive customers, on landowners, or on others, for that matter, outweigh the benefits of the project (e.g., benefits to the counterparties in the precedent agreements and to others).[55]

Such an approach would better align with FERC's responsibilities under the NGA. This more fulsome benefit/cost framework would include information about benefits and costs, and while it need not be formulaic using a common unit of measurement (e.g., dollars), it would include quantitative metrics where practical.[56] As explained by the Institute for Policy Integrity, benefit/cost analyses are commonly used and are even a recommended best practice by the Office of Management and Budget, as they provide "a formal way of organizing the evidence on the key effects—good and bad—of the various alternatives that should be considered."[57]

As an economic regulator, FERC should rely on benefit-cost analyses to determine project need.

[54] Public Interest Organizations, pages 15-16.

[55] State Attorneys General, pages 1-3; EDF, page 36.

[56] Tierney Comments, page 20; EDF, pages 37-38 ("Although the Commission has declined in the past to conduct a monetized cost-benefit analysis, prior Environmental Impact Statements have detailed, down to the dollar, the economic benefits of the estimated construction workforce, labor income, operational workforce, labor income, indirect employment, consumables expenditures, and other costs. A similar detailing of both costs and benefits could be extended to the Commission's weighing of benefits and adverse effects under the Natural Gas Act.") . *See also* Institute for Policy Integrity, pages 7, 9, and 43-48.

[57] Institute for Policy Integrity, pages 44-45.

C. Other recommendations for changing FERC's need determination

a. FERC should examine all relevant factors in determining need

A common theme among those asking FERC to modify its need determination is that FERC should actually implement the "all relevant factors" methodology as explicitly outlined in the 1999 Policy Statement.[58] The "all relevant factors" test derives from FERC's obligation under the NGA "to consider 'all factors bearing on the public interest'[59] when making a Certificate decision[.]"[60] In practice, however, FERC relies nearly exclusively on the existence of precedent agreements to find project need.[61] The Commission's failure to consider all relevant factors is inconsistent with encouraging the *orderly* development of gas supply, as it "is not 'orderly' to greenlight every project that has engaged at least one interested shipper."[62]

FERC should examine "all relevant factors" in determining need—as called for in the 1999 Policy Statement—and not simply rely on precedent agreements.

Without FERC changing its current approach to include "all relevant factors"—such as taking into consideration state policies, energy demand projections and the anticipated end uses of gas, regional factors such as the presence of other existing or proposed pipelines, community and landowner impacts, and environmental impacts—there might be unintended and negative consequences, as well as the unnecessary taking of land through eminent domain. Many commenters are concerned that the pipeline system might be overbuilt relative to long-term demand,[63] resulting in unwarranted expenditures (with costs borne by captive shippers[64]) and stranded costs[65] (something that was of concern to FERC back in 1999). They point to other ways—such as ensuring that gas markets are functioning as efficiently as possible[66]—to serve demand besides building new pipelines.

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[58] Policy Statement, page 23 ("Rather than relying only on one test for need, the Commission will consider all relevant factors reflecting on the need for the project. These might include, but would not be limited to, precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market.") See: State Attorneys General, pages 1-2; NC DEQ, page 3; Land Trust Alliance, page 4; Appalachian Trail Conservancy, page 2; Giles and Roanoke Counties, Virginia, pages 1-2; Public Interest Organizations, pages 1-4; EDF, page 36; Tierney Comments, pages 25-28.

[59] Footnote 3 of the State Attorneys General cites to *Atl. Ref. Co. v. Pub. Serv. Comm'n*, 360 U.S. 378, 391 (1959). *See* also NGA §7 (c), (e), 15 U.S.C. § 717f (c), (e).

[60] State Attorneys General, pages 1-2, further citing (in footnote 4) to *Sierra Club v. FERC*, 867 F.3d 1357, 1373 (D.C. Cir. 2017).

[61] Public Interest Organizations, pages 1-2 ("Since the initiation of the Policy Statement, there has never been a project with precedent agreements in place that did not receive a certificate of public convenience and necessity. Thus, the weight that the Commission places on precedent agreements has not only artificially narrowed the meaning of 'need,' but also has undermined the Policy Statement's intent to balance 'need' against other important factors.").

[62] Public Interest Organizations Supplemental Comments, page 3. *See* also Tierney Comments, page 30.

[63] EDF, pages 21-28, 38; Public Interest Organizations, pages i-iii, 108; Tierney Comments, page 30.

[64] APGA, pages 2-7.

[65] EDF, page 12; Public Interest Organizations, page iii (". . . a recent study showed that $32 billion of proposed gas pipelines are subject to stranded cost risk").

[66] EDF, pages 1-2 (and more generally on pages 4, 8-9, and 12). On page 12, EDF cites the points made by CNG Transportation regarding the then-proposed Millennium Pipeline project in 1999: "[T]here is considerable uncertainty about *how much* demand growth there will be, *where* it will be located, and *when* that new capacity will be needed. In addition, it is unclear how demand growth that actually materializes can best be satisfied. In order of preference, the demand should be satisfied through (1) increased utilization of existing capacity through the use of interruptible transportation, released capacity, and newly available firm capacity that may be turned-back by traditional shippers; (2) capacity on new pipelines that are already being constructed; (3) relatively inexpensive and environmentally-friendly expansions of existing systems or systems now under construction; and (4) new greenfield pipeline(s)."

The Commission could rely on many different types of information in an all-relevant-factors approach,[67] including information about the open season process, intended uses of gas by shippers that have signed precedent agreements, any affiliate relationships among shippers and project sponsors, anticipated impacts on Relevant Interests and others, state policies relating to energy and GHG-emission reductions, and the utilization of other pipeline infrastructure in the region. This information is entirely consistent with what is routinely provided in state siting proceedings to review other types of energy infrastructure projects.[68]

As noted by many commenters, the Commission could consider such information, including through information requests that probe gaps, complexities or other issues in submissions and by holding hearings to address issues in dispute.[69]

In response to INGAA's[70] and other parties'[71] concerns that a shift by FERC away from its reliance on precedent agreements would lead to less predictable and much more complex reviews using much less reliable information,[72] the Public Interest Organizations point out that FERC has significant and competent experience in various types of agency investigations where it reviews technically complicated information supplied by applicants, intervenors, and FERC's own staff.[73] Examples of proceedings in which FERC collects, reviews, and makes decisions based on technical information from petitioners and others (and often does so in the context of contested filings) include: FERC enforcement actions; rate cases; market-power analyses; reviews of regional transmission organizations' transmission tariffs and market rules; and NEPA reviews.

The bottom line is that FERC should take the approach that is necessary and appropriate given its responsibilities under Section 7 of the NGA, even if doing so involves technically complicated and contentious records.

b. FERC should broaden the scope of "Relevant Interests"

Many commenters also encourage FERC to broaden its definition of Relevant Interests because of the inappropriately narrow focus of the 1999 Policy Statement on only three core interests (i.e.,

[67] Tierney Comments, Attachment 3; Public Interest Organizations' Supplemental Comments, pages 5-6.

[68] Institute for Policy Integrity, pages 44-48.

[69] Tierney Comments, Attachment 3; Public Interest Organizations' Supplemental Comments, pages 5-6.

[70] In addition to discussing why it regards precedent agreements as the best indicator of need for a project, INGAA expresses concerns that a broader review would return FERC to the so-called "Ashbacker" days: (on pages 46-47 of INGAA's comments, with footnotes in the original omitted here):

> Before the Commission issued the Certificate Policy Statement, heavily contested certificate applications could take years to resolve . . . . The process sometimes took even longer if the Commission was required to choose among projects competing to serve a given market. These so-called "Ashbacker" proceedings were not identical to the type of regional studies currently suggested, but they were analogous. They required the Commission to conduct hearings to determine how much capacity would be needed in a given area and then decide which of the various competing projects was best able to fulfill those needs . . . . Because these contested proceedings were so unwieldly and time-consuming, the Commission moved away from setting competitive applications for hearing. Instead, the Commission concluded that "[a]llowing market forces to determine the success or failure of the projects is the most efficient mechanism to assure the maximum use of facilities."

[71] See, e.g.: Marcellus Shale Coalition; UGI Energy Services; Duke Energy; NextEra Energy; Dominion Energy; National Fuel Gas Supply Company; Kinder Morgan Entities; PA Chamber; Sempra LNG; Enable Interstate Pipelines; Eversource Energy; National Grid.

[72] INGAA, e.g., pages 83, 90, 94, 98, 103.

[73] Public Interest Organizations' Supplemental Comments, pages 6-7.

existing customers of the pipeline; competing pipelines and their customers; and affected landowners/communities). Others have a pertinent interest in whether a project is developed and put into service, and FERC should take those interests into account in light of the agency's authority under the NGA—that is, to serve the public's interest in encouraging the *orderly* development of plentiful supplies of natural gas at reasonable prices[74] and to approve only needed projects.

Commenters[75] illustrate this point by pointing to such varied constituencies as:

- *Pipeline applicants and their customers* (e.g., counterparties to precedent agreements). There may be cost savings or cost increases to existing captive customers,[76] or changes in the opportunities for existing and/or new customers to access to natural gas.[77]

FERC's need analysis should broaden its review of impacts on "Relevant Interests."

- *Landowners, neighbors and communities affected by pipeline projects* (including public and private entities, some of whom may not have given rights to their land to pipeline applicants),[78] especially in light of the "enormous consequences [that result from a FERC's determination], not the least of which is that it allows a certificate holder to take private land to suit 'their own economic interests,' notwithstanding the economic interests of landowners."[79]

- *States* affected directly by proposed facilities and their operations or indirectly in the market region(s) to be served by the proposed project. States may have policy objectives (such as environmental, land use, and energy plans,[80] or a policy to reduce GHG emissions from the power sector and other parts of the economy[81]) or other interests that may be advanced or stymied by specific new projects, with potential implications for useful economic life of the project.[82]

- *Regional infrastructure and energy market considerations,*[83] as informed by a comprehensive review of near-term and long-term demand projections[84] for the end uses of

[74] *NAACP v. Federal Power Commission*, 425 U.S. 662, 669-70 (1976).

[75] State Attorneys General; Public Interest Organizations; Institute for Policy Integrity; Tierney Comments; EEI; Laborers International Union of North America; INGAA; API.

[76] NPGA, pages 2-7.

[77] Public Interest Organizations, page 48.

[78] Niskanen Center, page 1; NJ DEP, page 2; Public Interest Organizations, page 50; PA DEP, pages 2-3.

[79] Public Interest Organizations' Supplemental Comments, page 11.

[80] State Attorneys General, pages 4, 6, 8, 11: Ohio Environmental Council, page 6;

[81] Comments of U.S. Senators Sheldon Whitehouse, Jeffrey Merkley, Benjamin Cardin, Chris Van Hollen, Edward Markey, and Brian Schatz (hereafter "Whitehouse et al."); State Attorneys General, pages 3-4, 12, 17-20; Columbia University's Sabin Center for Climate Change Law (hereafter "Sabin Center"), page 6.

[82] NC DEQ, pages 3-4; Pennsylvania Department of Environmental Protection ("PA DEP"), page 2; EDF, pages 21-22, 27-28; Tierney Comments, pages 35-36; Public Interest Organizations, page 43; EDF, pages 21-22.

[83] Many, but not all, comments from parties in the gas industry advocated against FERC taking regional market considerations into account in its need determinations (and to retain, instead, its reliance on the existence of precedent agreements). See for example: INGAA; API; Tallgrass; Driftwood Pipeline. Note that the New England LDCs (pages 5, 10), however, do want FERC to consider regional needs because they think it will help support pipeline expansion.

[84] States Attorney General, pages 5-6; NC DEQ, pages 1-2; PA DEP, pages 2-3; Public Interest Organizations, page 46; EDF, generally; Sabin Center, page 5; Appalachian Trail Conservancy, page 2. *See* Sabin Center, page 3: "As natural gas pipelines are long-lived assets, typically

the natural gas to be delivered over the facilities and by the existence of other facilities and/or new competing projects in the relevant region.[85] (Notably, other federal reviews of projects, such as road or bridge projects, include the air-pollution implications of use of the road or bridge, rather than just the emissions associated with siting and constructing the project.[86])

- *Impacts on environmental, cultural, and natural-resource systems*, as well as on existing and planned land uses and related economic activities, as a result of the facilities' construction and operations as well as the upstream and downstream use of natural gas.[87] Reflecting a position held many commenters,[88] the Sabin Center recommends that as "part of its public interest assessment, FERC should evaluate the likely climate change impacts of expanding natural gas transportation infrastructure, taking into account all associated direct and indirect greenhouse gas emissions."[89]

c. FERC should accord no special weight to precedent agreements

One of the starkest areas of disagreement among commenters relates to the weight that the Commission should give to precedent agreements in determining project need.[90] As described previously, those supporting the status quo see this approach as helping the Commission avoid contentious proceedings that "look behind" such agreements or "second guess" the market.[91]

remaining in operation for at least fifty years, FERC should consider the long-term outlook for natural gas demand . . . . As most shipper contracts have terms of just five to fifteen years, they provide little indication of whether a pipeline will be needed over its full useful life, of fifty years or more." EDF, a long-time supporter of competitive markets, observes on page 23 of its comments that "[p]ipeline operators are now acknowledging that natural gas demand is 'increasingly uncertain'" especially in the long run, and points to the 2016 testimony from a witness for ANR Pipeline Company (in FERC Docket No. RP16-440) who said "that factors of demand may limit the amount of available supplies that could be expected to flow on ANR's system, including: (1) technological development in alternative energies . . .; (2) potential gains in energy efficiency; and, (3) energy and environmental legislation/regulation" and that "wind and solar, are likely to offer a viable competitive alternative to natural gas."

[85] The Public Interest Organizations observe (on pages 41-42) that while "the Policy Statement was intended to protect against overbuilding, the Commission typically reviews gas pipeline applications in isolation [even where projects have been proposed within the same region], creating the risk of wasteful duplication and unnecessary infrastructure that exceeds the region's needs. Considering each pipeline proposal in isolation also prevents the Commission from understanding how similar proposals cumulatively affect climate, natural resources, and consumer prices."

[86] Tierney Comments, page 7, 42.

[87] Sabin Center, pages 3, 5-9; Washington State Department of Ecology, page 2; Public Interest Organizations, pages 2-3, 48.

[88] Whitehouse et al.; State Attorneys General, pages 4, 12-20; Public Interest Organizations, pages 4, 13, 78-105; Institute for Policy Integrity, pages 24-43; California Public Utility Commission; Harvard Electricity Law Initiative, generally (pages 1-2: "Market regulators are therefore recognizing that GHG emissions are a substantial financial risk for companies, and investors are increasingly accounting for 'climate risk.' These risks may shorten the useful life of natural gas infrastructure, resulting in stranded assets that might burden customers and certificate holders." (footnotes omitted)).

[89] Sabin Center, pages 6-7: "In this context: *Direct* emissions refer to those arising from the use of natural gas transportation infrastructure. They result primarily from natural gas leaks and venting (i.e., fugitive emissions), which release methane, a highly potent greenhouse gas, with a twenty-year global warming potential of at least eighty-four . . . . *Indirect* emissions are those associated with upstream and downstream activities on the natural gas supply chain. Significant methane is released during upstream activities – i.e., natural gas extraction, production, and processing – primarily due to gas leaks and venting." State Attorneys General, pages 20-21: "By determining public benefit without regard to adverse environmental impacts and without consideration of the climate harm caused by a project, the Commission is failing to meet its obligations under both the NGA and NEPA."

[90] APGA; Sabin Center; Public Interest Organizations, pages ii-iii, 23-40; EDF, pages 21-26; Piedmont Environmental Council, page 2; Tierney Comments, page 2-35.

[91] INGAA, pages 25-27; API, pages 5-7; Spectra Energy; EEI, page 7; EPSA, page 5; Marcellus Shale Coalition; Driftwood Pipeline; Dominion Energy; Berkshire Hathaway; National Fuel Gas Distribution Company; Eversource; New England LDCs; UGI Energy Services.

They support FERC's reliance on precedent agreements, as well as FERC's practice of not distinguishing between agreements entered into by affiliated parties versus others. Commenters offer several rationales for maintaining FERC's reliance on precedent agreements, including the following points made by INGAA.

FERC should give no special weight to precedent agreements in determining project need, and should give little weight to precedent agreements among affiliates without an analysis of whether such agreements result from the exercise of market power.

- Precedent agreements reflect legitimate business arrangements for capital-intensive pipeline projects, where the pipeline company looks to the parent companies of potential shippers to back the development of a project. FERC should not question the business decisions made by these sophisticated private parties.[92]
- FERC should honor the fact that many shippers are local distribution companies whose commitments have been or will be reviewed by state regulators, and recognize that where such reviews do not occur, shippers are entering into the arrangements at their own financial risk.[93]

For the most part, commenters from outside of the industry do not suggest that the existence of precedent agreements is *per se* irrelevant. Rather, they urge FERC to afford no greater weight to such agreements than to the many other factors that should be relevant to FERC's need. Both the American Public Gas Association ("APGA"), which represents publicly owned gas distribution companies, and the Public Interest Organizations point out that such an approach would return to the position reflected in the 1999 Policy Statement—that is, that the existence of a precedent agreement is a relevant factor, but should not be treated as dispositive.[94] Even assuming that it is economically rational for pipeline applicants and prospective shippers to sign a precedent agreement, its existence is not enough to show that it is in the public interest and should not excuse FERC from its duty to determine whether the project is required for the public convenience and necessary.[95]

INGAA (and others in the gas industry that recommend that FERC not expand its need analysis in instances where precedent agreements exist) would effectively put private companies—rather than FERC—in charge of deciding project need. Under such an approach, if a pipeline developer can show that it has entered into at least one precedent agreement with a prospective shipper, that the project would require no subsidization from existing customers, and that the developer can minimize or eliminate adverse impacts on the Relevant Interests, then it can be almost certain that its project will receive a CPCN.[96] While this would enhance predictability of FERC decisions, it would not necessarily mean that projects are in the public interest, as the NGA requires.

[92] INGAA, pages 33-34.

[93] INGAA, page 34.

[94] Public Interest Organizations, pages 18, 49; Public Interest Organizations' Supplemental Comments, page 8; APGA, pages 3 and 7. *See* also Tierney Comments, pages 32-33; New Jersey Division of Rate Counsel, pages 7-11.

[95] Public Interest Organizations, page 41.

[96] INGAA, page 31.

Many commenters urge FERC to accord little weight to precedent agreements among affiliated companies in the absence of further action to look beyond the contracts to find evidence of project need. As suggested by the State Attorneys General,[97] Enable Interstate Pipelines,[98] Boardwalk Pipeline Partners,[99] industry experts,[100] EDF,[101] and the Public Interest Organizations,[102] FERC should be wary of adverse impacts on retail customers and competing pipelines and their customers, the potential exercise of market power, and the risk of overbuilding infrastructure.

As I noted in my own comments, FERC regulates affiliates in other contexts. FERC has a history of vigilantly addressing the risk that affiliates will exercise vertical market power in providing non-affiliated parties with non-discriminatory access to needed delivery facilities (e.g., electric and gas transmission assets). The Commission should bring this type of perspective and a similar level of scrutiny to its certification of new gas facilities in light of their very long-lived nature, the risk of overbuilding, and an approval process that may well lead to subsequent court proceedings in which private property can be condemned for public purposes.

[97] They urge FERC to "employ a rebuttable presumption that affiliate contracts do not demonstrate need wherever a pipeline project would not proceed absent affiliate contracts." State Attorneys General, pages 5, 8.

[98] Enable Interstate Pipelines notes the increasing number of pipeline applications supported by affiliates that are utilities with captive customers as a trend that "is particularly troubling when there is no demonstrated need for additional pipeline capacity in the market the proposed pipeline project is designed to serve. In such instances, the Commission should apply heightened scrutiny. . . . Further, the Commission has long recognized the potential for affiliate abuse and self-dealing and has adopted rules governing the relationships among affiliates in other contexts . . . . It is essential that the Commission discourage anticompetitive behavior, and encourage and foster competitive interstate transportation markets." Enable Interstate Pipeline, pages 6-7, 11 (footnotes omitted).

[99] Boardwalk Pipeline Partners argues that for "projects that are supported largely by precedent agreements entered into by affiliates of the pipeline, the Commission should ensure that the agreements are the product of genuine competition rather than an attempt to bolster the bottom line of the pipeline and affiliate's common parent. This will ensure that pipeline projects are built only if actually needed and will prevent the underutilization of existing infrastructure that could occur if a customer abandoned an incumbent pipeline to take service on a new pipeline constructed by an affiliate." Boardwalk Pipeline Partners, pages 1-2, 12.

[100] Ryan Emanuel, Ph.D., page 1; Tierney Comments, page 33.

[101] EDF encourages the Commission to scrutinize proposals by affiliates: "Such transactions seek to obligate retail ratepayers for capacity while affiliate midstream entities, and consequently the parent company's shareholders, enjoy a return on equity in excess of risk—thus warranting increased scrutiny from regulators regarding prospective market need." EDF, page 2, and pages 28-35.

[102] Public Interest Organizations, page iii. These commenters state further (on pages 3-4) that "[t]o be clear, we are not asking the Commission to decide whether a precedent agreement is 'legitimate'—rather, we are asking the Commission to recognize that an arm's-length transaction inherently has more probative value for demonstrating economic need than one created by related companies within the same corporate family."

III. Landowners' interests where eminent domain may be used

A Section 7 certificate from FERC conveys to the applicant the right to exercise eminent domain to take property needed to construct and operate the pipeline. The 1999 Policy Statement recognizes this connection: "Landowners whose land would be condemned for the new pipeline right-of-way, under eminent domain rights conveyed by the Commission's certificate, have an interest as does the community surrounding the right-of-way. The interest of these groups is to avoid unnecessary construction, and any adverse effects on their property associated with a permanent right-of-way[.]"[103]

The NOI asked for comments on whether the current approach appropriately considers the unneeded exercise of eminent domain.

A. Project need, landowners' interests, and eminent domain

Many commenters from the gas industry urge FERC to maintain its current approach because, in their view, it is working well, adequately takes into account the interests of landowners and others, and provides appropriate incentives to minimize the use of eminent domain.[104] They advise FERC to avoid giving undue influence to landowners ("one segment of the stakeholder population").[105]

Many other commenters argue, however, that unless FERC changes the way it determines whether a project is needed, then the exercise of eminent domain should not flow from its certificates, because the taking of private land can only occur for a public purpose. Commenters as diverse as the Niskanen Center,[106] the Piedmont Environmental Center,[107] the State Attorneys General,[108] The Nature Conservancy,[109] and the Public Interest Organizations[110] raise this concern, with several of them arguing that FERC's singular reliance on precedent agreements to determine project need does not support a finding that the project is needed for a public purpose. Rather, they argue, it means that land is being taken for a private purpose.

The Niskanen Center ("Niskanen"), a libertarian think tank, pointedly argues that it is "a fundamental matter of justice . . . that government should forcibly take private property only as a measure of last

[103] Policy Statement, page 24. In its 2000 order clarifying the Policy Statement, FERC recognized "that, under section 7(h) of the NGA, a pipeline with a Commission-issued certificate has the right to exercise eminent domain to acquire the land necessary to construct and operate its proposed new pipeline when it cannot reach a voluntary agreement with the landowner. Even though the compensation received in such a proceeding is deemed legally adequate, the dollar amount received as a result of eminent domain may not provide a satisfactory result to the landowner and this is a valid factor to consider in balancing the adverse effects of a project against the public benefits." 90 FERC ¶ 61,128, page 19.

[104] API, page 11-12. See also: INGAA; Kinder Morgan Entities; Marcellus Shale Coalition; Northeast Gas Association; Cheniere; UGI Energy Services; Greater Susquehanna Chamber of Commerce; PA Chamber of Business and Industry; National Grid; Berkshire Hathaway; EPSA; AGA; DTE Energy; TransCanada Pipeline; Spectra Energy; Rio Grande LNG; Industrial Energy Consumers of America.

[105] API, pages 11-12.

[106] Niskanen Center, generally.

[107] Piedmont Environmental Center, page 3, noting in particular that pipelines designed to serve LNG export terminals are particularly concerning in that their purpose is to serve private supplier and transporter interests, along with foreign demand for gas.

[108] State Attorneys General, pages 22-23.

[109] The Nature Conservancy, pages 3-4.

[110] Public Interest Organizations, pages 4-5 and 52-55.

resort, when truly for public use[.]"[111] The State Attorneys General also observe that use of eminent domain should be a last resort and that FERC's current approach does not—but should—require an enhanced showing of public benefit for projects that are heavily reliant on eminent domain.[112] The Public Interest Organizations likewise encourage the Commission to incorporate information about eminent domain into need determinations so that the agency can better inform itself about whether to assign greater weight to landowners' interests and concerns.[113]

Comments from the State of New Jersey, as an owner of public lands, offer a concrete example of why FERC should give great weight to landowners' interests in decisions about whether pipeline benefits outweigh pipeline costs and whether projects are needed. In New Jersey, certain lands have been explicitly preserved by state or local governments—at a substantial public cost—for the benefit of the public (e.g., to conserve environmentally sensitive and agricultural properties). The New Jersey Department of Environmental Protection argues that the state's strong land preservation policies conflict with FERC certificate authorization of eminent domain of conserved land: "When New Jersey preserves or conserves property, it agrees with the landowner to perpetually preserve the land. Because a [CPCN] authorizes eminent domain, it is possible the land assumed to be set aside forever can be developed with a new pipeline."[114]

FERC had the right idea when it stated in the 1999 Policy Statement that that landowners have an interest in avoiding unnecessary construction and adverse effects[115] (including conveying to the pipeline company the authority it can rely upon to take property for a public purpose). But unless FERC modifies its approach to determining need (i.e., where FERC, in effect, equates need with the existence of a precedent agreement between two or more counterparties), then there is no assurance that the taking of private land *is* for a public purpose. FERC should give great weight to the concerns of landowners in the agency's need analysis.

FERC should assure that its certificate approvals are only for public purposes, in particular where those decisions lead to the taking of land. Reliance on precedent agreements is insufficient to establish that public purpose.

[111] Niskanen Center, page 1.

[112] State Attorneys General, page 22. Tierney Comments, page 46-48.

[113] The Public Interest Organizations provide legal arguments regarding this nexus between FERC's need analysis and eminent domain, noting (among other things) on pages 52-55 that in practice, "the Commission has not required any greater evidentiary showing for projects requiring extensive use of condemnation relative to those requiring little or none. Rather, . . . the Commission relies on a single data point—the existence of a precedent agreement, often between affiliates—to authorize virtually all projects, regardless of the extent to which they involve condemnation, be it for public or private lands . . . . The Commission's current practice of assessing need based only on precedent agreements fails to comport with the Fifth Amendment's public use clause."

[114] NJ DEP, page 2.

[115] Policy Statement, page 24. In its 2000 order clarifying the Policy Statement, FERC recognized "that, under section 7(h) of the NGA, a pipeline with a Commission-issued certificate has the right to exercise eminent domain to acquire the land necessary to construct and operate its proposed new pipeline when it cannot reach a voluntary agreement with the landowner. Even though the compensation received in such a proceeding is deemed legally adequate, the dollar amount received as a result of eminent domain may not provide a satisfactory result to the landowner and this is a valid factor to consider in balancing the adverse effects of a project against the public benefits." 90 FERC ¶ 61,128, page 19.

B. FERC should make other changes to address landowners' interests

Several commenters suggest changes to FERC's procedures to better protect landowners.[116] A specific example relates to FERC's current practice of issuing conditional CPCNs—that is, authorizing projects that have not received all of the other federally mandated permits. Under this practice, applicants with conditional CPCNs often take steps to condemn and take land of property owners for a number of pre-construction purposes, which involves disturbing parts of the property, felling trees,[117] and other effects.

There are several legal and policy problems with this practice. First, according to Niskanen, this has enabled "[c]ertificate holders to use eminent domain to take property when it is speculative whether the pipeline will ever be built, or whether it will be built on the property that has been taken"[118] and that this violates the public purpose requirement of the Takings Clause ("If the proposed project is never built, then by definition the taking did not (and could not) satisfy that criterion.").[119] The State Attorneys General add that FERC's practice of issuing conditional CPCNs undermines state authority, by allowing pipeline companies to condemn land before receiving all required permits and authorizations, including ones reviewed by states.[120] Additionally, given FERC's almost exclusive reliance on a single data point (i.e., the existence of a precedent agreement) to determine need, the Public Interest Organizations argue that FERC is essentially delegating the public purpose determination, which is required for eminent domain under the Fifth Amendment, to private corporations.[121]

In order to avoid such problems, FERC should either refrain from issuing conditional CPCNs at all or incorporate language in any conditional CPCN so as to explicitly limit the ability of the pipeline company to take land (or even disturb landowners' property) for the project until (and if) all of the required approvals are issued.[122] Additionally, in light of the inherently aggressive exercise of governmental authority to allow for the condemnation of property for public purpose, FERC should go out of its way to improve its procedures for ensuring timely, meaningful and clear notifications to landowners that may be potentially affected by the exercise of public domain.

Fairness and due process considerations require that FERC take additional steps to address landowners' interests.

[116] State Attorneys General, pages 32-33; Niskanen Center, pages 29-32; Public Interest Organizations, pages 4-5, 51; NJ Division of Rate Counsel, pages 16-24.

[117] Public Interest Organizations, pages 4-5, 55-57; Niskanen Center, pages 2-21.

[118] Niskanen Center, page 29. Note that Niskanen also raises specific procedural concerns about how notice of a proposed project is provided to affected landowners, and argues that FERC's current procedure violates the Due Process Clause in several ways (discussed on pages 2-19). These include: providing "inadequate notice to landowners that they must intervene in certificate proceedings in order to preserve their rights to judicial review; arbitrarily short times to intervene; and inconsistent and confusing information about intervention requirements. Collectively, these practices are so egregious as to create the impression that FERC has designed a system to intentionally deprive landowners of their rights to judicial review of the Commission's actions." Niskanen argues that such practices not only frustrate property owners' intervention and participation in FERC proceedings, but as a consequence, also inhibit those landowners from seeking rehearing or judicial appeal of Commission orders, since only those who have properly intervened may seek such remedies.

[119] Niskanen Center, page 31.

[120] State Attorneys General, pages 32-33.

[121] Public Interest Organizations, page 51.

[122] Niskanen Center, pages 29-32; Public Interest Organizations, pages 55-57.

IV. Evaluation of environmental impacts under NEPA and NGA

A. Introduction

The Commission reviews proposed gas pipelines under both the NGA and NEPA. NEPA requires FERC to take a "hard look" at the environmental impacts of a proposed project and determine whether any environmental impacts would be "significant."[123] FERC then "incorporates a proposed project's environmental impacts into the balance of factors under the public convenience and necessity"[124] review under the NGA. As noted in the NOI, "there has been increased stakeholder interest regarding the alternatives that the Commission evaluates in its public interest determination, how the Commission addresses climate change, and the evolving science behind GHG emissions and climate change."[125] The NOI "invites comments on the . . . ways that the Commission could review its environmental evaluations within the bounds of NEPA and the NGA."[126]

Energy industry commenters argue that FERC's approach to evaluating a project's environmental impacts remains valid; they strongly discourage FERC from expanding its environmental reviews under either statute.[127] These commenters call upon FERC to continue to conduct NEPA assessments that focus on the direct environmental impacts of pipeline construction and operations and not on the environmental impacts from upstream production or downstream use of natural gas.[128] Some industry commenters explicitly urge FERC to refrain from examining cumulative environmental impacts within a particular region where one or more pipeline expansion projects is proposed, or from relying upon the Social Cost of Carbon to measure GHG emissions from projects.[129]

Commenters from outside the industry generally view FERC's current process as failing to integrate environmental impact information collected and analyzed during the NEPA process into the Commission's need analysis under the NGA. They further argue, as described further below, that FERC's NEPA analyses do not meet the "hard look" standard because they do not adequately: analyze project alternatives; account for the implications of state policies and environmental justice impacts; consider the direct and indirect environmental impacts of facilities; assess the cumulative impacts of facilities in affected regions; consider GHG emissions; or enable coordination among the federal government and states in reviewing a project's environmental impacts.

[123] See, for example, Kristina Alexander, "Overview of National Environmental Policy Act (NEPA) Requirements," Congressional Research Service, Order Code RS20621, January 11, 2008.

[124] FERC NOI, pages 51-52.

[125] FERC NOI, pages 51-52.

[126] FERC NOI, pages 51-52.

[127] EEI, page 2; US Chamber; INGAA; Northeast Gas Association; Tallgrass Pipeline; Dominion; Sempra.

[128] INGAA; Competitive Enterprise Institute; API; Marcellus Shale Coalition; National Fuel Gas Supply; National Fuel Gas Distribution; Rio Grande LNG; NextEra Energy; Spectra Entergy; Process Gas Consumers; TransCanada; Cheniere; Independent Oil and Gas Association of WV; EEI; and National Grid.

[129] API; INGAA; Process Gas Consumers; Cheniere; Berkshire Hathaway; National Grid.

B. Incorporating NEPA assessment results into the NGA need analysis

Many commenters address the question of whether FERC's need determinations should incorporate information gathered through the NEPA process.

Gas-industry commenters who encourage the Commission to retain its current "durable framework" view FERC's NEPA review of a project's environmental impacts as separate from the agency's NGA need determination. In this approach, the need determination precedes the NEPA analysis, and the latter informs the process in which FERC balances the construction-related and operations-related environmental impacts of a project already identified as needed.[130]

Those seeking changes view the environmental impacts revealed through the NEPA process as critical to the agency's evaluation of whether a project is cost-beneficial and therefore needed.[131] As explained by the Institute for Policy Integrity, "the Commission should adopt a policy to incorporate environmental consequences—including direct, upstream and downstream emissions—directly into the balancing test it uses when evaluating whether a project is required" under the NGA, which compels the Commission "to exercise its expert judgment to advance only those projects and under such conditions as meet the public convenience and necessity test."[132] The Harvard Electricity Law Initiative similarly notes that "Section 7 uniquely provides the Commission with authority to regulate exit and entry, a power that it does not wield over public utilities regulated under the [FPA]"[133] and explains that when the CPCN standard was developed, one "rationale . . . was to 'protect the community against social costs sometimes described as externalities.' In assessing externalities under the public convenience and necessity standard, regulators historically focused on public safety and environmental damage."[134]

FERC should strengthen its NEPA assessments in many ways, and take their findings into account in the agency's need determinations under the NGA.

This perspective is rooted in an understanding that FERC is indeed an economic regulatory agency[135] and that a project's environmental impacts have economic costs (i.e., externalities) that should be taken into account as part of the public-interest finding about whether a project is needed. FERC itself has pointed to this underlying character of its work—i.e., that it is an economic, rather than an environmental regulator—in defending against the push to

[130] Note, for example, FERC's statement in Mountain Valley Pipeline, 161 FERC ¶ 61,043 (2017) (paragraph 135) that an "EIS identifies a project's purpose and need to define the parameters for the alternatives analysis, not to determine whether the project is in the public interest. It is the Commission, in its order on the certificate application, that evaluates project need under section 7(c) of the NGA." (Footnotes in the original are omitted.)

[131] These commenters include the State Attorneys General, Public Interest Organizations, Institute for Policy Integrity, Harvard Electricity Law Initiative.

[132] Institute for Policy Integrity, page 4. See also, Institute for Policy Integrity, pages 11-13.

[133] Harvard Electricity Law Initiative, page 13.

[134] Harvard Electricity Law Initiative, pages 3-4 (citations omitted). Also, these comments conclude that "[a]ccounting for economic and environmental risks of GHG emissions in a certificate proceeding fits within the historic meaning of the public convenience and necessity standard. Guarding against stranded assets is consistent with the CPCN's public utility rationales of avoiding duplicative infrastructure and promoting a rational investment climate."

[135] For example, on page 14 of the Policy Statement, where FERC describes how it balances the interests of potentially affected parties, FERC says that it applies an economic test to determine whether "the benefits outweigh the adverse effects on economic interests" and, if so, then proceeds "to complete the environmental analysis where other interests are considered."

incorporate more fully environmental impacts into its Section 7 reviews. But the flaw in this thinking is that economic markets (including the entry/exit of gas pipeline infrastructure) often fail to incorporate fully into prices the environmental impacts associated with the energy facilities and energy systems affected by FERC decisions. It would be consistent, rather than inconsistent, with FERC's authority as an economic regulator for the agency to take such externalities into account in its decisions regarding project need analyses.

C. Assessing project impacts using NEPA's "hard look" standard

Several commenters recommend that FERC execute more faithfully on its NEPA obligations to "take a hard look" at potential environmental impacts of the facilities it reviews,[136] including "direct and cumulative impacts, as well as any 'reasonably foreseeable' indirect impacts."[137] The State Attorneys General argue for a more comprehensive impacts review—"both to satisfy [FERC's] legal obligations and to help forestall challenges to Commission decisions."[138] The Public Interest Organizations similarly emphasize that "the Commission has used uncertainty as a justification for refusing to fully analyze certain impacts,"[139] even in the face of the "hard look" review requirement under NEPA.

FERC should strive to more fully satisfy NEPA's "hard look" standard.

Uncertainty and complexity in the issues and evidentiary records before the agency should not be grounds for FERC to evade its NEPA obligations. These conditions routinely characterize many of the important issues on which the Commission is charged with making decision in the context of other authorities the agencies exercises.

D. Improving FERC's consideration of project alternatives under NEPA

NEPA also requires FERC to consider project alternatives, including a "no action" alternative (i.e., not building the project). The alternatives analysis required by NEPA is often characterized as "the heart of the environmental impact statement."[140] INGAA and the American Petroleum Institute ("API") view FERC's current approach to identifying and assessing project alternatives as appropriate and maintain that it should not be expanded to look beyond alternative routes or activities within the natural gas delivery sector.[141]

Others argue, however, that FERC's alternatives analyses do not adequately explore the impacts of

[136] *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (citations omitted). As pointed out by the State Attorneys General, NEPA "requires the Commission to take a 'hard look' at the full range of environmental impacts associated with proposed pipeline infrastructure." State Attorneys General, page 2, citing *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976) (citation omitted); *Coal. for Responsible Growth & Res. Conservation v. FERC*, 485 F. App'x 472, 474 (2d Cir. 2012).

[137] State Attorneys General, page 9, citing "42 U.S.C. § 4332(2)(C)(i); 40 C.F.R. §§ 1502.16, 1508.8(a), (b); *see also* 40 C.F.R. § 1508.7 (a cumulative impact is 'the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions'); *Sierra Club v. Marsh*, 976 F.2d 763, 767 (1st Cir. 1992) (a 'reasonably foreseeable' impact or action is 'sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision')."

[138] State Attorneys General, page 9.

[139] Public Interest Organizations, page 70.

[140] State Attorneys General, page 10, citing 40 C.F.R. § 1502.14; *see* also *Union Neighbors United, Inc. v. Jewell*, 831 F.3d 564 (D.C. Cir. 2016); Public Interest Organizations, page 81.

[141] INGAA, Section 6; API, Section 5.

the "no action" alternative.[142] The State Attorneys General criticize FERC's narrow review of alternatives (e.g., non-gas energy alternatives, energy storage, demand-reduction measures).[143]

The New Jersey Division of Rate Counsel[144] and the Public Interest Organizations[145] independently suggest that a robust alternatives analysis would also take into account the impacts on existing pipelines (e.g., usage) and whether other new pipeline proposals would be redundant. The Chesapeake Coalition further argues that project alternatives should include routes through roadways and other corridors to avoid or minimize impacts.[146]

FERC should strengthen its NEPA assessments by expanding its requirements for identifying and reviewing project alternatives.

Not only does FERC have obligations under NEPA to examine project alternatives "to the fullest extent possible" (including a no-project alternative) but also the agency has public-interest obligations under the NGA to approve projects only when they are needed, and a serious review of no-project alternatives would inform that question of need.

E. Strengthening FERC's determination of whether impacts are significant

Many commenters disagree with the way the Commission determines whether environmental impacts are significant under NEPA and whether the impacts inform public-interest decisions under the NGA. The Sabin Center, the Institute for Policy Integrity, the Harvard Electricity Law Initiative, the Public Interest Organizations, and others encourage the Commission to return to its practice in recent years (until its March 2018 order on the *Sabal Trail* remand)[147] of examining and taking into consideration the upstream and downstream impacts (including GHG emissions) associated with use of natural gas. These commenters argue that by announcing in its *New Market* order[148] that the

[142] Pennsylvania State Agencies, page 6; State Attorneys General, page 11, citing "40 C.F.R. §1502.14 (c) (the analysis must '[i]nclude reasonable alternatives not within the jurisdiction of the lead agency'); *see* also Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18,026, 18,033 (March 23, 1981) ("In determining the scope of alternatives to be considered, the emphasis is on what is 'reasonable' rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative.") *See* also: Institute for Policy Integrity, pages 15; NJ DEP, pages 4-5 ("alternatives analysis should include new technology and clean energy [non-gas] alternatives"); Public Interest Organizations, page 81, citing *Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1114 (D.C. Cir. 1971).

[143] Attorneys General, page 11. (Also, page 12: "Natural gas is but one of many resources that can be utilized to meet customers' electric and thermal needs. Storage or electric system upgrades, for example, may be more cost-effective than pipeline expansion, particularly to satisfy peak demand. The Commission's alternatives analysis should analyze thoroughly and robustly all reasonable non-gas energy alternatives, including, where applicable, renewables and other clean-energy sources, 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—accounting for state renewable portfolio standards and other programs and policies.")

[144] NJ Division of Rate Counsel, page 13.

[145] Public Interest Organizations, page 81: FERC should "more adequately consider whether two or more pipeline projects might be duplicative, to reduce or avoid the scope of environmental impacts that would result from building and operating multiple projects. Similarly, the Commission should more seriously consider alternative routes that include as much co-location with existing pipeline corridors or rights-of-way as possible."

[146] Chesapeake Coalition, pages 1-2.

[147] FERC, *Florida Southeast Connection, LLC Transcontinental Gas Pipe Line Company, LLC Sabal Trail Transmission*, LLC Docket Nos. CP14-554-002, CP15-16-003, CP15-17-002, Order on Remand Reinstating Certificate and Abandonment Authorization, 162 FERC ¶ 61,233, March 14, 2018 (hereafter "Sabal Trail Order"), page 17.

[148] FERC, *Dominion Transmission, Inc.*, Order Denying Hearing, Docket No. CP14-497-001, 163 FERC ¶ 61,128, May 18, 2018 (hereafter "New Market Order"), page 19.

Commission would not disclose upstream and downstream GHG emissions, FERC failed to adhere to the court's decision in the *Sabal Trail* case.[149]

The Public Interest Organizations submit that FERC must include climate change impacts, including GHG emissions, in its significance determination under NEPA.[150] They conclude that the "Commission fails to fully analyze its approvals' impacts on climate change . . . when it bases its determinations of significance on a comparison to total national or global inventories," as "NEPA does not allow agencies to ignore environmental impacts based on their size, because small contributions can have substantial adverse effects."[151]

The Commission's current approach leads to a structural bias in the Commission's environmental and need determinations. FERC decides that it is too hard, uncertain, or unforeseeable to identify, assess, and calculate the GHG emissions associated with a pipeline, and then FERC conflates this alleged unknowability with insignificance. This structural bias leads the Commission to systematically understate and undervalue the importance of environmental impacts, and does so in a way that is not supported or explained by the evidence, impairing the agency's determinations under both NEPA and the NGA. In effect, because FERC deems these emissions to be insignificant under NEPA, FERC also will never consider them as part of its public convenience and necessity analysis under the NGA.

FERC should strengthen its NEPA assessments by more carefully considering the significance of various types of direct, indirect and cumulative impacts.

F. Paying greater respect to state policies and permitting issues

The State Attorneys General and the North Carolina Department of Environmental Quality ("NC DEQ") encourage the Commission to evaluate the consistency of a proposed pipeline's anticipated GHG emissions with relevant federal, regional, and state energy and climate goals, to provide relevant context for determining whether those emissions are significant.[152] The State Attorneys General point out that many states have adopted GHG emissions-reduction mandates that could be threatened by the rapid build-out of gas infrastructure. Therefore, they argue that the Commission

[149] Sabin Center, pages 5-9; Institute for Policy Integrity, generally; Harvard Electricity Law Initiative, pages 14-19; Public Interest Organizations, pages 87-97.

[150] Public Interest Organizations, page 95. On this issue of cumulative impacts, these commenters state further that the fact "that the emissions from any one source may be relatively small does not excuse the Commission from considering the climate change impacts of a source under NEPA. Additionally, GHG emissions can be meaningfully evaluated even when there is considerable uncertainty about the exact timing and location of the activities giving rise to the emissions. Indeed, there are many environmental impacts the Commission regularly considers where no specific limit exists. For example, the Commission regularly evaluates whether the loss of acres of forest or wetlands is significant, despite the absence of a legally enforceable or established numerical limit or threshold on how many trees may be cut or how many acres of wetlands may be impacted."

[151] Public Interest Organizations, pages 95-96, pointing out that there "are benchmarks the Commission could reference in determining whether a certain volume of GHG emissions is significant. These include EPA's major emitter threshold of 25,000 tons per year of carbon-dioxide equivalent and state carbon reduction targets."

[152] State Attorneys General, pages 18-19, citing (on page 19) "*Cf. Ctr. For Biological Diversity v. Cal. Dep't of Fish & Wildlife*, 62 Cal.4th 204, 225–27 (2015) (rejecting agency's approach to significance where agency failed to provide a reasoned explanation for how estimated project emissions compare to achieving statewide greenhouse gas reduction target)." NC DEQ, page 2.

should weigh the effect of a project's GHG emissions on states' abilities to comply with their own climate and energy laws and policies.[153]

Further, the NC DEQ notes that FERC's own 2002 guidance manual for environmental report preparation 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."[154]

More generally, the State Attorneys General call upon FERC to "better coordinate its review with that of state and local permitting agencies."[155] Specifically, they ask FERC to: issue CPCNs only after states have completed their reviews under the Clean Water Act, the Clean Air Act, and coastal zone reviews; expressly condition CPCNs on compliance with state and local land use requirements and environmental permits; and refrain from issuing partial notices to proceed prior to acting on rehearing requests. Working together, the State Attorneys General state that "[t]hese reforms would increase efficiency, transparency, and predictability while reducing the likelihood of post-Certificate litigation."[156]

Although, in the federal/state jurisdictional split in regulating the gas industry, the NGA assigned to FERC the responsibility to certificate gas pipeline proposals, this does not mean that FERC should ignore the policy goals of states that are affected by such pipeline projects. The point—that FERC should factor into *both* its NGA and NEPA decisions on proposed pipelines the implications for states' ability to satisfy their own climate-related statutes—is critical to assuring that FERC exercises both authorities so as to avoid the *dis*orderly development of gas delivery infrastructure that will not be needed to serve markets where there will be significant reductions in GHG emissions in the future.

FERC should give great weight to state policies in considering and weighing environmental impacts (including as part of project need under NEPA).

G. Considering direct, indirect, and cumulative impacts of proposed projects

Considerable disagreement surrounds the manner in which the Commission is exercising its duties to examine the direct, indirect and cumulative environmental impacts of project proposals under NEPA and in turn as part of its responsibilities under Section 7 of the NGA.

[153] State Attorneys General, pages 19-20 ("Massachusetts has adopted a broad portfolio of laws and regulations to reduce economy-wide greenhouse gas emissions by 25 percent by 2020 and 80 percent by 2050 from 1990 levels, ... Washington State has adopted greenhouse gas reduction goals to reduce overall state emissions of greenhouse gases to 1990 levels by 2020 and fifty percent below 1990 levels by 2050 . . . The District of Columbia's climate and energy plan, Clean Energy DC, proposes to reduce the District's greenhouse gas emissions by 50 percent below 2006 levels by 2032.") (footnotes omitted).

[154] NC DEQ, page 4.

[155] State Attorneys General, page 22 (and more generally, pages 22-33).

[156] State Attorneys General, pages 23-24, 32 (and more generally, pages 23-33). See also NJ DEP, pages 4-5.

As noted previously, many energy-industry commenters argue that FERC should not expand its environmental reviews under NEPA.[157] This would mean that FERC would focus only on the direct environmental impacts of pipeline construction and operations, and not on the environmental impacts from upstream production or downstream use of natural gas.[158] Some explicitly urge FERC to refrain from examining cumulative environmental impacts within a particular region where one or more pipeline expansion projects is proposed, or from relying upon the Social Cost of Carbon to measure GHG emissions from projects.[159]

But FERC's reviews tend to cherry-pick the circumstances under which it looks at the upstream and downstream effects of the fuel transported over pipelines. On the one hand, for example, the 1999 Policy Statement states that FERC may consider a project's potential public benefits, including its ability to serve unserved demand, lower costs to consumers, increase electric reliability, or advance clean air objectives—all of which specifically refer to anticipated purposes and end uses of the natural gas to be delivered through the proposed facility. As I note in my NOI comments, "even 'serving demand' is tied inherently to the delivery and use of gas, because few parties would buy delivery services without intending to ever use the commodity itself."[160] Similarly, a proposed facility could not result in increased electric reliability unless the gas is used (which it almost always is, once delivered[161]), nor could the facility provide clean-air advantages unless the gas is used (e.g., to displace use of oil in heating buildings or to displace output at a coal-fired power plant). Consumers cannot enjoy the promised benefits of lower fuel costs unless they actually use the gas when it is cheaper to do so.[162]

As the Institute for Policy Integrity points out, the "effects [of producing and using natural gas] are not only 'reasonably foreseeable,' but transporting and burning natural gas is generally the entire purpose of pipeline construction or expansion."[163] According to the Harvard Electricity Law Initiative, FERC has routinely recognized various diverse uses of gas, "including 'national defense, conservation

[157] EEI, page 2; US Chamber; INGAA; Northeast Gas Association; Tallgrass Pipeline; Dominion; Sempra.

[158] INGAA; Competitive Enterprise Institute; API; Marcellus Shale Coalition; National Fuel Gas Supply; National Fuel Gas Distribution; Rio Grande LNG; NextEra Energy; Spectra Entergy; Process Gas Consumers; TransCanada; Cheniere; Independent Oil and Gas Association of WV. Not that EEI and National Grid ask FERC to refrain from taking into consideration the GHG emissions from upstream production or downstream end use of gas unless those impacts are well identifiable and known.

[159] API; INGAA; Process Gas Consumers; Cheniere; Berkshire Hathaway. National Grid argues that use of the Social Cost of Carbon is for benefit-cost analyses, which are not applicable in NEPA reviews.

[160] Tierney Comments, page 26.

[161] Harvard Electricity Law Initiative, page 15 ("Downstream GHG emissions are direct effects of the issuance of a CPCN. Natural gas infrastructure, particularly pipelines, are constructed to transport natural gas so that it can be consumed. GHG emissions are therefore an inevitable effect of natural gas delivery. Because natural gas is typically 'delivered as it is consumed,' the environmental effects of the consumption occur at essentially the same time as the delivery. For some uses, such as power generation, GHG emissions may occur at nearly the same place as the delivery.") (Footnotes omitted.).

[162] Institute for Policy Integrity, page 5: "approval of a new transportation project reduces the costs of supplying the gas to the market, which reduces the gas's market price to consumers, which increases consumers' demand for the gas, which increases the amounts of gas that producers are willing to supply and that consumers will want to combust. That increased willingness to supply and demand for combustion causes upstream and downstream greenhouse emissions."

[163] Institute for Policy Integrity, page 6, citing the D.C. Circuit Court opinion in *Sabal Trail* (*Sierra Club v. FERC*, 867 F.3d 1357, 1372 (DC Cir. 2017).

of natural gas, air pollution, antitrust considerations,' and local land and environmental impacts" as part of its certificate decisions.[164]

Many other commenters provide legal and technical support for FERC rethinking its recently modified approach to examining indirect impacts of pipeline projects.[165] These commenters start from the position that NEPA requires agencies to comply with the law to the fullest extent possible,[166] to take a hard look at environmental impacts,[167] and to examine the reasonably foreseeable indirect effects of projects as well as direct impacts of them.[168] Many commenters focus on the need for FERC to faithfully administer its legal responsibilities by examining the upstream and downstream impacts associated with the gas to be transported on pipelines under review by the agency,[169] and question FERC's recent position that it need not examine downstream impacts of gas use on GHG emissions, pointing out this inconsistency between the court's prior holding in *Sabal Trail*.[170]

The State Attorneys General offer that, in light of the *Sabal Trail* remand, the Commission "should be doing more as part of its environmental reviews" to analyze the upstream and downstream climate-related impacts of pipeline projects:[171] "There is relative certainty about the likely fate of the gas that will be transported by pipeline projects: combustion. Indeed, if a pipeline project is *not* needed to transport additional quantities of gas for combustion, the Commission would have no basis to approve the pipeline project."[172] The Institute for Policy Integrity makes similar points in its

[164] Harvard Electricity Law Initiative, pages 9-12.

[165] For example: Institute for Policy Integrity, page 2 ("NEPA and the Natural Gas Act require analysis of direct and indirect (including upstream and downstream) emissions associated with potential projects. The Commission should clarify that analysis of upstream and downstream emissions associated with potential projects is required pursuant to NEPA, in line with the weight of federal case law."), and pages 4-43; NC DEQ, pages 5-8; Pennsylvania State Agencies; Harvard Electricity Law Initiative, pages 4-19; Sabin Center, pages 5-9; State Attorneys General, pages 9-20; Public Interest Organizations, pages 87-100.

[166] *Calvert Cliffs' Coordinated Committee v. Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971), *cert. denied*, 404 U.S. 942 (1972); *Flint Ridge Development Co. v. Scenic Rivers Association of Oklahoma*, 426 U.S. 776 (1976).

[167] *Marble Mountain Audubon Society v. Rice*, 914 F. 2d 179 (9th Cir. 1990); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989) (citations omitted).

[168] *Minnesota Public Interest Research Group v. Butz*, 498 F.2d 1314 (8th Cir. 1974); *Fritiofson v. Alexander*, 772 F.2d 1225 (5th Cir. 1985).

[169] Sabin Center, pages 5-9; Institute for Policy Integrity, generally; Harvard Electricity Law Initiative, pages 14-19; Public Interest Organizations, pages 87-97; State Attorneys General, pages 12-17; Senator Whitehouse et al.; Ohio Environmental Council, pages 10-13; NC DEQ, page 5; Washington State Department of Ecology.

[170] Harvard Electricity Law Initiative, page 15 (footnotes omitted): if "the Commission does not find that GHG emissions are *direct* effects of the issuance of a CPCN, it must find that the GHG emissions are indirect effects. Numerous federal courts have held that downstream GHG emissions are an indirect effect of permitting new fossil fuel production. As one court summarized, 'combustion emissions are an indirect effect of an agency's decision to extract [ ] natural resources.' In *Sierra Club v. FERC*, the D.C. Circuit extended this logic to the Commission's certificate orders, explaining that 'it is not just reasonably foreseeable' that transported gas will be burned, 'it is the project's entire purpose.' . . . . The Commission likewise has an obligation to consider upstream GHG emissions as an indirect effect. Permitting new natural gas infrastructure may induce an increase in natural gas production and emissions associated with production and gathering. NEPA regulations require agencies to consider growth-inducing impacts, and numerous courts have held that the induced growth effects of a project are reasonably foreseeable under NEPA."

[171] State Attorneys General, pages 12-13, also citing FERC's Order Denying Rehearing, Dominion Transmission, Inc., 163 FERC ¶ 61,128 (May 18, 2018).

[172] State Attorneys General, page 13. (Footnotes omitted.) "Moreover, NEPA's requirement that the Commission take a 'hard look' at the impacts of pipeline projects obligates the Commission to comprehensively and carefully consider the proposed project's contribution to climate change—an urgent environmental and public health crisis. Federal case law makes clear that the Commission cannot evade this far-reaching requirement by claiming that climate impacts are characterized by some uncertainty. NEPA does not require a perfect forecast. Where there is uncertainty about project impacts, the Commission must provide a 'summary of existing credible scientific evidence which is relevant' to those impacts. There are many analytical tools and data available to help the Commission estimate upstream and downstream

extensive legal, economic and policy comments on this issue, arguing that "*Sabal Trail* leaves little doubt as to the necessity of upstream and downstream emissions analysis, and numerous federal courts have reached the same conclusion with respect to other federal agencies' NEPA analysis."[173]

Pointing to NEPA's requirement that agencies assess the cumulative impacts of projects, many commenters[174] further argue that the Commission's narrow review of individual projects fails to account for the cumulative impacts that can result from "individually minor but collectively significant actions"[175] in single region over time. The State Attorneys General also assert that the Commission's project-by-project review—what they call a "piecemeal review of natural gas infrastructure" projects—risks to approve more capacity than is in the public interest.[176]

To avoid criticisms (and evidence) that FERC selectively applies its standards for examining direct, indirect, and cumulative impacts of proposed facilities (including GHG emissions associated with production and consumption of fuel delivered over those facilities), FERC should modify the approach as enumerated in its *Sabal Trail* and *New Market* orders: FERC's need analysis and, in turn, its environmental reviews already provide multiple opportunities for applicants to discuss the environmental impacts of *using* the gas, not just transporting it. And yet, ironically, in its *Sabal Trail* order in March of 2018, the Commission said that its "authority under section 7 of the NGA has no direct connection to the production or end use of natural gas."[177] And in its *New Market* order, the Commission stated that it "does not control the production or consumption of natural gas."[178]…. And yet, literally speaking, the Commission's authority over delivery facilities is the very thing that enables producers and end users to connect.

FERC should consider both direct and indirect impacts of proposed facilities and the gas volumes they propose to deliver.

FERC seems to acknowledge that fact, selectively: In the same *Sabal Trail* order, the Commission said that certain public benefits of a proposed facility (i.e., "increasing electric reliability") "accrue from the proposed project itself, not from the end use of the transported natural gas."[179] But how could that facility improve electric reliability without the end users actually having access to and

greenhouse gas emissions, as demonstrated in part by the Commission's past use of studies from the Department of Energy and other entities to estimate 'upper-bound' climate emissions." State Attorneys General, pages 14-15 (with footnotes in the original text omitted).

[173] Institute of Policy Integrity, page 9.

[174] See comments of: Chesapeake Conservancy, pages 1-2; Appalachian Trail Conservancy, page 4 ("As stated in 40 C.F.R. §1508.7, 'cumulative impacts result from the incremental effect of the action when considered in light of other past, present, and reasonably foreseeable actions.' Consideration of cumulative impacts is necessary for the avoidance, minimization, and fair compensation for impacts that individually may appear to be minor but, over time and in concert with other activities, become significant. Accordingly, the FERC should cumulatively assess all proposed pipeline projects within the same region when determining the need for any one specific project in that region"); Association of State Wetland Managers (Association of State Wetland Managers "recommends that the Commission strengthen consideration of cumulative impacts, especially cumulative adverse effects (CAE), when assessing need under circumstances where multiple pipeline applications to construct or develop in the same geographic area are pending before the Commission. Cumulative adverse effects are the accumulation of adverse effects across space and time . . . ."); Institute of Policy Integrity (a "new natural gas transportation project contributes cumulatively to the entire upstream emissions of the supply site and the downstream emissions of the combustion.").

[175] Public Interest Organizations, page 83 (footnotes omitted).

[176] State Attorneys General, pages 9-10.

[177] Sabal Trail Order, page 17.

[178] New Market Order, page 19.

[179] Sabal Trail Order, page 20.

using the gas? And if using the gas contributes to increasing electric reliability, then it also contributes to emissions from combusting the gas. "[A]s recently as March of 2018, the Commission has entertained examination of the benefits of burning gas delivered by a Section 7(c) facility [in the Sabal Trail order], but decided not to give weight to the negative impacts of burning gas also delivered by the same facility."[180]

Further, as I note in my comments,[181] other federal agencies have not adopted so narrow a view when they examine, for example, the environmental implications of a new infrastructure project (such as a new road or bridge project). To the contrary, these agencies' environmental reviews of projects go beyond the anticipated environmental impacts of siting, constructing, and operating the infrastructure project, presumably because the very purpose of such a new road or bridge project is to enable its use by parties seeking to drive vehicles on highways and bridges. These agencies, like FERC, do not have jurisdiction over how vehicles use the facilities, but still assume that the roads or bridges are being built for a purpose.

H. Quantifying and monetizing GHG emission impacts

The question of whether, and if so, how the Commission should quantify and monetize the impacts of GHG emissions sparked significant differences among commenters. Industry representatives not only dispute the propriety of quantifying GHG emissions associated with production and combustion of the gas delivered through pipelines, but also specifically oppose the Commission's use of the Social Cost of Carbon as a means of estimating the economic impacts of any GHG emissions directly or indirectly associated with projects.[182]

FERC should quantify and monetize GHG emissions impacts where it is reasonably feasible to do so.

But many other commenters[183] take the opposite position. The State Attorneys General dispute FERC's (and the industry's) position that no standard methodology exists to translate a project's GHG emissions into physical effects on the environment and point out that the Social Cost of Carbon is a "scientifically based, peer-reviewed method."[184] The

[180] Tierney Comments, page 42, citing page 13 of FERC's *Sabal Trail* order ("In addition, the vast majority of the lifecycle GHG emissions associated with the natural gas delivery chain are a result of the end use of the natural gas, not the construction or operation of the transportation facilities subject to the Commission's jurisdiction. Thus, the downstream GHG emissions associated with a proposed project are primarily a function of a proposed project's incremental transportation capacity, not the facilities . . ."). The Public Interest Organizations commented that the "timing of this NOI comes on the heels of a D.C. Circuit Court of Appeals decision involving [Sabal Trail], which compelled the Commission to quantify downstream emissions in its NEPA analysis or explain more specifically why it cannot do so. Although the Commission quantified the downstream emissions in its supplemental EIS, the Commission found that there was no method to determine the significance of the emissions. But shortly after the Commission issued its order on remand for Sabal Trail, the Commission shifted its policy to severely limit its disclosure and/or consideration of downstream emissions." Public Interest Organizations, pages 99 (footnotes in the original text are omitted).

[181] Tierney Comments, pages 42-43.

[182] API; INGAA; Cheniere; Berkshire Hathaway; Process Gas Consumers; National Grid.

[183] Institute for Policy Integrity, pages 4-23; State Attorneys General; Sabin Center; Harvard Electricity Law Initiative; Public Interest Organizations).

[184] State Attorneys General, pages 17-18 (specifically noting and contesting the Commission's conclusion that ". . . 'any attempt by the Commission' to determine whether such emissions are significant for the purposes of NEPA review 'would be arbitrary.' On the contrary, it is arbitrary and unlawful for the Commission to monetize and compare other benefits and impacts of pipeline projects without taking a similar approach to greenhouse gas emissions.") (footnotes in the original text are omitted).

Institute for Policy Integrity further describes detailed methodological approaches[185] that the Commission can, and should, use to quantify and monetize the impacts of GHG and other emissions,[186] noting that the "Commission risks undervaluing the climate consequences of a project when it fails to put those consequences on equal footing with the adverse consequences to customers, competitors, landowners, and local communities, even though they are a reasonably foreseeable consequence of the project. The climate consequences that result from an increase in greenhouse gas emissions due to a pipeline project are just as 'real' as the adverse consequences to [sic] that the Commission considers in its balancing test."[187]

The Public Interest Organizations point out that FERC's decision to decline to conduct a monetized cost-benefit analysis that takes GHG impacts into account is inconsistent with prior Environmental Impact Statements that "have detailed, down to the dollar, the economic benefits of the estimated construction workforce, labor income, operational workforce, labor income, indirect employment, consumables expenditures, and other costs."[188]

Policymakers are increasingly relying on quantitative metrics to measure the impact of GHG emissions, including through use of the Social Cost of Carbon. Clearly, GHG emissions do impose costs and risks on society—including on peoples' health and wellbeing, on economic systems, on infrastructure, and on the natural environment, among other things—as discussed extensively in the scientific literature on climate change and its impacts[189] and in the literature on the social cost of carbon.[190] FERC has deep experience in relying upon quantitative estimates in other areas of its work (e.g., in market-power analyses supporting proposals by electric companies for market-based rate authority; in enforcement actions) and should not shy away from reviewing and relying upon records where applicants and others introduce quantitative, monetary estimates of the direct and indirect impacts of GHG emissions relating to pipeline projects.

[185] For example, the Institute for Policy Integrity offers detailed recommendations on the types of information that FERC should request from applicants regarding the expected source(s), end use(s) and amounts of gas to be transported through a proposed project. Additionally, the Institute for Policy Integrity recommends that where project applicants are not able to provide precise information, then FERC should use reasonable default estimates and available tools to calculate upstream and downstream GHG emissions. And the comments offer detailed suggestions for such estimates and tools. Institute for Policy Integrity, pages 2 and 27-43 generally.

[186] "Monetizing the climate damages associated with the tons of carbon dioxide, methane, and nitrous oxide emitted provide important and necessary context to these effects, in line with NEPA's information disclosure purpose. Among other important benefits, monetizing emissions aids in the determination of whether environmental effects are 'significant' can assist FERC in assessing whether a pipeline is in the public interest pursuant to the Natural Gas Act . . . . Monetization of climate damages would also allow the Commission to incorporate climate damages more clearly into its Section 7 analysis." Institute for Policy Integrity, page 21.

[187] Institute for Policy Integrity, page 22.

[188] Public Interest Organizations, page 38. On the specific question of the need for the Commission to address the particular global-warming implications of methane emissions, the Public Interest Organizations encourage FERC to use the most current information available at any point in time.[188] They observe that the Commission's current practice "understates the climate impact of methane emissions by using an outdated estimate of methane's global warming potential. This is important because methane is a much more potent GHG than carbon dioxide." Public Interest Organizations, page 98.

[189] *See* the 2018 National Climate Assessment, available at https://nca2018.globalchange.gov.

[190] *See*, for example, National Academies of Sciences, Engineering, and Medicine, "Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide," The National Academies Press, 2017, available at https://doi.org/10.17226/24651.

I. Considering impacts on environmental justice communities and tribes

Finally, commenters recommend that the environmental reviews proactively consider EJ issues, including by examining project alternatives that would be sited away from these populations.[191] Such approaches would take into consideration the cumulative effect of pipeline projects and the presence of various forms of industrial and other developments with intensive land use and environmental impacts. Many of the comments from tribal governments, state agencies, environmental groups, and public interest organizations raise particular concerns that without focusing on such EJ impacts, the Commission fails to satisfy the "hard look" standard.[192]

Noting that the costs and benefits of pipelines are not spread equally across communities, and that marginalized groups often bear a much higher share of the costs than of benefits, the NC DEQ argues that the "[l]ong-term effects on communities impacted by pipelines are not adequately considered under current FERC guidelines" and that the Commission should "affirm that environmental justice is a major consideration throughout the pipeline certification process."[193] The Public Interest Organizations add that pipelines disproportionately affect low-income and minority communities: "More than one million African Americans—or approximately 2.4 percent of the overall African American population—live within half a mile of oil and gas facilities . . . . The significant health impacts associated with these exposures are well-documented."[194] They note that EJ concerns are not restricted to disturbances from construction and maintenance of the pipelines, but also include water contamination, methane leaks, and other emissions from the pipeline and compressor stations, as well as "the risk of catastrophic accidents."[195]

With respect to impacts on tribes, many commenters point out that these are not only disadvantaged communities but also groups of people with sovereignty over their lands and cultural values related to them.[196] The Coushatta Tribe of Louisiana notes that, because the Commission's review is rooted in a Western interpretation of ownership and economics, it is "therefore unable to acknowledge the cultural/historical costs Indian tribes incur when projects disturb their sacred

[191] Public Interest Organizations, page 81.

[192] Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, pages 2-3; Coushatta Tribe of Louisiana, generally; Multiple Tribes; Ohio Environmental Council, pages 8-9; Public Interest Organizations, pages 74-81; Public Interest Organizations' Supplemental Comments, pages 18-19; Professor Ryan Emanuel, generally.

[193] NC DEQ, pages 8-9. These comments reference the U.S. Environmental Protection Agency's definition of environmental justice: "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with the development, implementation, and enforcement of environmental laws, regulations, and policies."

[194] Public Interest Organizations' Supplemental Comments, page 18. The Public Interest Organizations also note the legal frameworks that supplement NEPA with regard to environmental justice.

[195] Public Interest Organizations, page 78-79. "In the NEPA process, the Commission has an obligation to consider the potential adverse health effects on those who live closest to compressor stations. At pollution levels documented in recently approved pipeline projects, compressor station emissions include significant amounts of harmful pollutants, including particulate matter (PM2.5) and nitrogen oxides (NOx)."

[196] The Coushatta Tribe of Louisiana, page 2 ("Federally-recognized Indian tribes own land in fee and in trust throughout the United States. Some tribes' lands are vast, spanning hundreds of thousands of acres, while other tribes have more modest land holdings with some as small as a few acres. In some cases, Indian tribes' current landholdings coincide with those tribes' historic land occupancy and include their historically- and culturally- significant sites. In other cases, federally-recognized Indian tribes may have historic and/or cultural ties to land that is not within their current land inventory. Accordingly, Indian tribes have interests in land both as land-owners and as the past indigenous occupiers of land that does not currently belong to them but is significant to their cultural and historical heritage.").

sites."[197] The Commission's current approach also fails to classify cultural and historic losses as direct costs.[198] Accordingly, the tribe recommends that the Commission should acknowledge that damage to land with cultural or historical significance to a tribe is not merely a "collateral 'impact' subject to mitigation" but "an actual cost that should be sufficiently weighty to overcome a financial 'need' for a proposed project in at least some cases."[199]

Considering that the distributional impact of pipelines across stakeholder communities was an element of the 1999 Policy Statement, FERC's current treatment of such impacts is far too narrow, as described elsewhere in this paper. FERC reviews should assure that there is a robust presentation of information on the character of impacts on EJ communities and on tribes, and give great weight to such impacts in the agency's NEPA review and public-interest findings in light of the disproportionate and cumulative impact on those communities compared to the benefits derived from pipeline projects themselves.

FERC should improve its assessment of project impacts on environmental justice communities and on tribes.

[197] The Coushatta Tribe of Louisiana, page 3.

[198] The Coushatta Tribe of Louisiana, page 3.

[199] The Coushatta Tribe of Louisiana, page 3.

V. The efficiency and effectiveness of FERC's review process

A. Introduction

In the NOI, FERC sought feedback on the transparency, timing, and predictability of its review process.[200] In response, commenters weighed in on those issues and also offered views on how FERC could improve its review process by better providing opportunities for public participation. Clearly, pipeline applicants are frustrated with the increasing timelines for and the growing complexity of Commission reviews, along with the growing litigiousness of participants in the process. Many local landowners and communities,[201] state agencies, and non-governmental organizations are frustrated with processes that seem intimidating, demanding of significant time and attention and technical expertise, and structured in ways that do not provide meaningful opportunities to influence the routing or design of proposed projects and/or the Commission's decisions on whether to approve them.

B. Streamlining FERC's review processes

Some commenters thus call for greater efficiency: Pipeline companies and gas trade associations urge the Commission to streamline the scope of reviews, take the lead role in coordinating permits across multiple agencies, and shorten overall certification schedules.[202] Duke Energy encourages a greater degree of transparency,[203] and both Boardwalk Pipelines and EEI suggest that FERC should make its website more accessible, including through better electronic platforms.[204]

Others encourage the Commission to reform its review processes first with an eye toward sufficiency, rather than efficiency.[205] Many stakeholders ask the Commission to change its processes to assure that all interested parties—regardless of their resources and including members of EJ communities and tribes—have meaningful and timely opportunities to participate in certification processes.[206]

[200] FERC NOI, pages 53-54.

[201] Supplemental Comments of Public Interest Organizations, pages 12-14.

[202] INGAA; EEI; US Chamber; Williams Companies; PA Manufacturers Association; Marcellus Coalition; Tallgrass Pipelines; TransCanada; New England LDCs; API; Center for LNG; National Association of Manufacturers; National Grid; National Fuel Gas Supply.

[203] Duke Energy, pages 68-69.

[204] Boardwalk Pipelines; EEI, page 19.

[205] Public Interest Organizations, page 8: "The Commission should focus its efforts on ensuring that it has a robust review process; afterwards, it can consider how to implement that robust process in the most efficient manner. It does not benefit anyone—be it landowners or pipeline applicants—for a project to be held up in protracted litigation because the Commission did not perform a thorough initial review."

[206] Public Interest Organizations, pages 6-7. Also, the Public Interest Organizations point out on pages 101-102 that the Department of Energy's audit of FERC reviews of pipelines "underscores that the process lacks transparency and analytical rigor, as opposed to timing and predictability. In fact, the information gaps in the current certificate process prevented auditors—just as they have prevented staff and the Commissioners—from 'verify[ing] the extent to which stakeholder comments were considered, aggregated, and reflected in the environmental documents or final orders that are issued to grant or deny applications.' This resonates with the intense public discontents and mistrust of the current process, which are reflected in the enclosed affidavits and countless public comments. The good news is that the problems of transparency and analytical rigor are eminently solvable." (Footnotes omitted.)

The questions of whether and how FERC should streamline its process are inextricably linked to the other issues that are the subject of this inquiry, including the need for FERC to review in a more fulsome way the issues surrounding project need (under the NGA). Although many entities in the gas delivery businesses are frustrated with current time frames for disputed pipeline reviews and seek much shorter reviews of Section 7 applications, other commenters argue that the public-interest considerations related to the potential exercise of eminent domain call for FERC taking whatever time is necessary to ensure a full and fair collection and consideration of the evidence.

FERC should not prioritize streamlining of its certification process over making improvements in its need analysis and environmental reviews.

FERC's goal should be to assure that there is a sound evidentiary basis for determining whether proposed pipelines are needed as consistent with the public interest after a thorough consideration of need and environmental impact. That objective is much more important that an objective to shorten the agency's timeframe for reviewing projects. A process that incorporates steps and elements to ensure a full and fair record for decision is essential for the credibility of FERC's decisions. Streamlining of agency reviews should be a secondary goal relative to assuring public confidence in the quality and reasonableness of FERC's process for building and considering evidence about whether a project is needed and, if so, whether it can be constructed and operated in ways that minimize environmental impacts.

C. Improving the pre-applications/pre-filing process

The 1999 Policy Statement reflects FERC's expectation that pipeline developers will conduct a pre-filing process that begins months ahead of the actual filing of a certificate application. This pre-application process is intended to allow for the identification and potential resolution of landowner and other stakeholder concerns early in the process so that the application filed at FERC has already addressed problems and so that it might be possible to expedite FERC's reviews and minimize/eliminate adverse impacts on affected parties.[207]

In practice, applicants' implementation of pre-filing processes is mixed. There is significant variation in how pipeline developers engage with potentially affected or interested parties (including state agencies and tribes[208]), and not just Relevant Interests.[209] The Coalition for American Heritage recommends that FERC incorporate into its pre-filing process guidance the consultation requirements of Section 106 of the National Historic Preservation Act of 1966, which requires federal

[207] P. Parfomak, "Interstate Natural Gas Pipelines: Process and Timing of FERC Permit Application Review," Congressional Research Service, January 16, 2015 (hereafter "CRS 2015"), pages 1-2. Also, on pages 3-4 of its comments, The Nature Conservancy recalls that the "pre-filing process was implemented to achieve avoidance and minimization of impacts through early identification conflicts between the project and environmental, cultural, and socio-economic values. Current practice falls short however, when project operators rush to submit pre-filing packages specifying alignments that fail to avoid complex terrain and/or resources with high conservation, cultural, or socio-economic value resources."

[208] Association of State Wetland Managers.

[209] Recall that the Policy Statement identifies core "relevant interests" as existing customers of the pipeline applicant, competing pipelines and their customers, and affected landowners and communities. 1999 Policy Statement, page 23.

agencies to consider and review the effects on historic properties of projects they carry out, fund or approve.[210]

The Nature Conservancy offers extensive suggestions for improving the pre-filing process, especially through FERC "requiring pipeline developers to . . . incorporat[e] reasonably available environmental, cultural, and socio-economic data into a least-cost path analysis to determine the projects' initial preferred alternative."[211] The Nature Conservancy urges FERC to require such an approach to increase the likelihood that a proposed route "avoids impacts, and significantly improve[s] both the effectiveness of the pre-filing process, the efficiency of subsequent resource report preparation, and the environmental outcomes of project development."[212]

FERC should clarify the pre-application/ pre-filing process to allow for more meaningful public input into project proposals.

If FERC intends for the pre-filing process to allow for meaningful input and potential constructive changes in project proposals, then FERC should issue guidance to ensure that pipeline project developers provide sufficient and timely information and clear process steps so that interested members of the broadly defined public have an authentic opportunity to influence the proposed project. Such an approach would provide substantive means to improve project proposals as well as improving the credibility and confidence in the project development and review process.

D. Providing opportunities for more meaningful public participation

Many commenters ask FERC to provide additional opportunities for members of the public to learn about project proposals in timely and more easily accessible ways, so as to enable them to provide informed and relevant input into FERC's process. Suggestions include:

- Creating and funding an Office of Public Participation at FERC;[213]
- Expanding stakeholder outreach and public meetings in the pre-filing stage and in NEPA reviews;[214]
- Changing FERC's current public meeting format (in which individuals are separated into small groups) so as to allow members of the public to hear and learn from each other;[215]

[210] Coalition of American Heritage, page 3.

[211] The Nature Conservancy, page 5. Specifically, "the Conservancy recommends that data be compiled to map: protected areas, including preserves and conservation easements, and public lands managed primarily for uses with which utility construction is incompatible; areas with high biodiversity value, including areas with occurrences of endangered species, endemic and/or restricted range species, highly threatened and unique ecosystems, and areas associated with critical evolutionary processes; migratory bird habitat; areas of cultural and historic significance; geology, hydrology and topography, including cave and karst complexes; landslide risk and incidence; drinking water supply; and other factors of interest to the affected public. We stress that nearly all of these datasets are extant and readily procurable." The Nature Conservancy, page 4.

[212] The Nature Conservancy, page 5.

[213] Public Interest Organizations, page 105.

[214] Coalition for American Heritage, page 4.

[215] Giles and Roanoke Counties, Virginia.

- Loosening *ex parte* communications rules for certain parties, especially for tribes, to enable them to ask questions of FERC staff on an informal basis;[216]
- Improving FERC's website to make it more user-friendly;[217]
- Providing timely updates and notifications to interested members of the public;[218]
- Having applicants bear the initial burden of proof by requiring them to provide sufficient information that the project serves the public interest and therefore should be approved;[219]
- Holding hearings (and allowing for discovery) where there are disputed issues of material fact;[220]
- Eliminating FERC's current practice of issuing "tolling orders," which indefinitely delay judicial review.[221]

Given the inherent and increasingly controversial nature of its decisions about whether new gas pipeline projects are in the public interest, FERC could improve the public credibility of such decisions by providing more meaningful opportunities for public input into the need for, and impacts of, specific facility proposals. Although many of the suggestions would require FERC to devote more resources to the Section 7 certification process, such an investment to enhance the quality and quantity of public participation opportunities would help build much-needed public confidence in the agency's review process.

FERC should devote greater resources to provide opportunities for more informed and effective public participation processes.

E. Increasing efficiency through use of a Programmatic EIS

Several commenters[222] suggest that FERC could carry out more efficient pipeline-review processes by conducting Programmatic Environmental Impact Statements ("PEIS") for project proposals and certification decisions. As noted by The Nature Conservancy, a PEIS allows for "coordinated, predictable, and transparent Federal environmental review and permitting," which is consistent with the process streamlining objectives of the Trump Administration's "One Federal Decision" policy.[223] The Sabin Center suggests that a PEIS of FERC's certification policy would be responsive to criticisms that the agency relies on piecemeal evaluations of project applications.[224]

Under guidance from the Council on Environmental Quality (the agency that oversees federal agencies' adherence to NEPA requirements),[225]

[216] Kinder Morgan, pages 36-37.

[217] Giles and Roanoke Counties, Virginia; NJ DEP, pages 5-6.

[218] Chesapeake Conservancy, page 3; NJ DEP, page 6.

[219] Public Interest Organizations, pages 104-105.

[220] Public Interest Organizations, page 105.

[221] Public Interest Organizations, page 106.

[222] Coalition for American Heritage, page 106; Piedmont Environmental Council, page 4; Sabin Center, page 2; The Nature Conservancy, pages 9-10.

[223] The Nature Conservancy, page 3, referencing Executive Order 13807.

[224] The Sabin Center, page 2.

[225] CEQ, "Effective Use of Programmatic NEPA Reviews," December 18, 2014 (hereafter "CEQ NEPA Guidance"), https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Effective_Use_of_Programmatic_NEPA_Reviews_Final_Dec2014_searchable.pdf.

> a well-crafted programmatic NEPA review provides the basis for decisions to approve such broad or high-level decisions such as identifying geographically bounded areas within which future proposed activities can be taken or identifying broad mitigation and conservation measures that can be applied to subsequent tiered reviews. . . . [A] programmatic NEPA review can provide a starting point for analyzing direct, indirect, and cumulative impacts. Using programmatic NEPA reviews allows an agency to subsequently tier to this analysis, and analyze narrower, site- or proposal-specific issues. This avoids repetitive broad level analyses in subsequent tiered NEPA reviews and provides a more comprehensive picture of the consequences of multiple proposed actions. . . . A programmatic NEPA review can also be an effective means to narrow the consideration of alternatives and impact discussions in a subsequent tiered NEPA review.[226]

FERC should consider use of a PEIS, especially in regions of the country where there are likely to be (or already are) multiple pipeline proposals. A PEIS approach would allow FERC to take a more complete assessment of direct, indirect, and cumulative impacts and a more well-rounded review of regional capacity needs, and do so in a way that allows for more streamlined reviews of individual project proposals in a relevant region.

FERC should consider use of Programmatic Environmental Impact Statements.

[226] CEQ NEPA Guidance, page 10.

VI. Conclusions

Thousands of stakeholders interested in FERC's processes and policies for certifying new natural gas pipelines have taken advantage of the Commission's requests for comments on issues relating to need determinations, landowners' interests in the context of eminent domain, environmental reviews under NEPA, and opportunities for efficiency improvements in FERC's review procedures. The rich set of comments provides a strong foundation on which the Commission can consider how to ensure that its reviews allow for the development of projects found to be consistent with the "public convenience and necessity" and to do so in ways that respect the burdens on applicants, members of the public, and the Commission's resources as well.

Several observations and conclusions emerge from this body of comments:

- FERC approvals of new natural gas pipelines have led to a substantial increase in pipeline capacity over the past two decades.
- In response to FERC's April 2018 request for comments on whether the agency should modify its two-decades-old pipeline-approval policy, there has been strong public interest.
- Comments on FERC's pipeline-approval process fall into two clusters: those who seek to retain the status quo versus those urging FERC to revise the approval process.
- This white paper discusses both perspectives but devotes more attention to the issues raised by those seeking changes to FERC's current process.
- To restore confidence that FERC will approve only those pipelines that are in the public interest, the agency should adopt and implement numerous changes.

Key findings that support modifications in FERC's approach include the need for changes in FERC's need analysis, the attention it affords to concerns of affected landowners, its environmental reviews, and its procedures for reviewing project proposals.

- Regarding FERC's need analysis for proposed projects and the agency's practice of relying on precedent agreements to demonstrate project need:
  - The origins of the CPCN point to a more fulsome review by FERC of whether a new pipeline is needed.
  - FERC should make project need the threshold issue in its review of project proposals.
  - As an economic regulator, FERC should rely on benefit-cost analyses to determine project need.
  - FERC's need analysis should broaden its review of impacts on Relevant Interests.
  - FERC should examine "all relevant factors" in determining need, as called for in the 1999 Policy Statement, and not simply rely on precedent agreements.
  - FERC should give no special weight to precedent agreements in determining project need, and should give little weight to precedent agreements among affiliates without an analysis of whether such agreements result from the exercise of market power.
- Regarding FERC's attention to landowners' interests in situations where FERC approvals might lead to pipeline companies' potential exercise of eminent domain:

  - FERC should assure that it certificates projects only for public purposes, and does so in particular where those decisions lead to the taking of land. Reliance on precedent agreements for need determinations is insufficient to establish public purpose.
  - Fairness and due-process considerations require FERC to take additional steps to address landowners' interests.

- Regarding FERC's evaluation of environmental impacts of proposed facilities:
  - FERC should strengthen its NEPA assessments in many ways, and take their findings into account in the agency's need determinations under the NGA.
  - FERC should strive to more fully satisfy NEPA's "hard look" standard.
  - FERC should give great weight to state policies in considering environmental impacts (including as part of project need and under NEPA).
  - FERC should consider both direct and indirect impacts of proposed facilities and the gas volumes they propose to deliver.
  - FERC should quantify and monetize GHG emissions impacts where reasonably feasible to do so.
  - FERC should improve its assessment of project impacts on environmental justice communities and tribes.

- Regarding the efficiency of the Commission's review processes:
  - FERC should not prioritize streamlining of its certification process over making improvements in its need analysis and environmental reviews.
  - FERC should clarify the pre-application/pre-filing process to allow for more meaningful public input into project proposals.
  - FERC should devote greater resources to provide opportunities for more informed and effective public participation processes.
  - FERC should consider use of a PEIS for some gas projects.

Appendix

Comments Filed in Docket PL18-1-000 and Reviewed for this Report

American Cultural Resources Association
American Midstream Partners
American Gas Association (AGA)
American Petroleum Institute (API)
American Pipeline Contractors Association
American Public Gas Association (APGA)
Appalachian Trail Conservancy
Association of State Wetland Managers
Attorneys General of Massachusetts, Illinois, Maryland, New Jersey, Rhode Island, Washington, and the District of Columbia
Attorney General of New York
Berkshire Hathaway Pipeline Company
Boardwalk Partners
Cabot Oil and Gas
California Public Utilities Commission (CPUC)
Center for LNG
Cheniere
Chesapeake Conservancy
Chesapeake Bay Foundation
Coalition for American Heritage
Columbia University – Sabin Center
Competitive Enterprise Institute
Con Edison of New York
Delaware Riverkeeper Network
Dominion Energy
Driftwood Pipeline Company
DTE Energy
Duke Energy
Edison Electric Institute (EEI)
Electric Power Supply Association (EPSA)
Enable Pipeline
Environmental Defense Fund (EDF)
Eversource
EQT Midstream Partners
Freshwater Accountability Project
Giles and Roanoke Counties, Virginia
Greater Susquehanna Chamber of Commerce
Harvard Electricity Law Initiative
Independent Oil and Gas Association of West Virginia
Independent Petroleum Association of America (IPAA)
Industrial Energy Consumers Group
Industrial Energy Consumers of America
Institute for Policy Integrity
Interstate Natural Gas Association of America (INGAA)
Iroquois Pipeline
Kinder Morgan Entities (Natural Gas Pipeline Company of America)
Laborers International Union Network
Land Trust Alliance
Marcellus Shale Coalition
National Association of Manufacturers (NAM)
National Fuel Gas Distribution Company
National Fuel Gas Supply Company
National Grid
Natural Gas Council (comprised of AGA, API, IPAA, INGAA, and NGSA)
Natural Gas Supply Association (NGSA)

New England Local Distribution Companies (NELDCs)
New Jersey Department of Agriculture
New Jersey Department of Environmental Protection (NJDEP)
New Jersey Division of Rate Counsel
NextEra Energy
Niskanen Center
North Carolina Department of Environmental Quality (NC DEQ)
Northeast Gas Association
Ohio Environmental Council
Ohio Farm Bureau Federation
Pennsylvania Department of Environmental Protection (PA DEP)
Pennsylvania Chamber of Business and Industry (PA Chamber)
Pennsylvania Manufacturers Association
Piedmont Environmental Coalition
Portland Cement
Process Gas Consumers
Public Interest Organizations
    Reflecting the comments of the following organizations: Natural Resources Defense Council; Sustainable FERC Project; Sierra Club; Earthjustice; Friends of Nelson; Southern Environmental Law Center; Public Citizen; Catskill Mountainkeeper; Riverkeeper, Inc.; GreenFaith; Conservation Law Foundation; Environmental Law and Policy Center; Union of Concerned Scientists; Center for Biological Diversity; Yogaville Environmental Solutions; WE ACT for Environmental Justice; Friends of Buckingham; Scenic Hudson, Inc.; Western Environmental Law Center; Virginia Interfaith Power & Light; Waterkeeper Alliance; Altamaha Riverkeeper; Assateague Coastal Trust/Assateague Coastkeeper; Bayou City Waterkeeper; Black Warrior Riverkeeper; Cahaba Riverkeeper; Calusa Riverkeeper; Cape Fear River Watch; Chattahoochee Riverkeeper; Choctawhatchee Riverkeeper; Colorado Riverkeeper; Columbia River Estuary Action Team; Emerald Coastkeeper; Environmental Law and Policy Center; Flint Riverkeeper; Green Riverkeeper; Hackensack Riverkeeper; Haw River Assembly; Humboldt Baykeeper; Lake Worth Waterkeeper ; Lower Susquehanna Riverkeeper Association; Middle Susquehanna Riverkeeper Association, Inc.; Milwaukee Riverkeeper; NY/NJ Baykeeper; Pamlico-Tar Riverkeeper; Potomac Riverkeeper Network; Quad Cities Waterkeeper, Inc.; Raritan Riverkeeper; Rogue Riverkeeper; Seneca Lake Guardian; Waterkeeper Alliance Affiliate; Shenandoah Riverkeeper; ShoreRivers; St. Johns Riverkeeper; Suncoast Waterkeeper; Tampa Bay Waterkeeper; Tennessee Riverkeeper; Upper Allegheny River Project; Wabash Riverkeeper Network; West Virginia Headwaters Waterkeeper; White River Waterkeeper; Winyah Rivers Foundation, Inc.; Youghiogheny Riverkeeper with Mountain Watershed Association; and Yuba River Waterkeeper
Rio Grande LNG
Sempra Energy
Senator Daines *et al*.
    reflecting Senators Steve Daines (MT), John Barrasso (WY), Cory Gardner (CO), Lisa Murkowski (AK), Bill Cassidy (LA), John Hoeven (ND), James Inhofe (OK), James Risch (ID); and Representatives Paul Gosar (AZ), Brian Babin (TX), Rob Bishop (GA), Tom Emmer (MN), Doug LaMalfa (CA), Scott Tipton (CO), Jason Lewis (MN), G.T. Thompson (PA), Alex Mooney (WV), Greg Gianforte (MT), Kevin Cramer (ND), Randy Weber (TX), John Culberson (TX), Jeff Duncan (SC), David McKinley (WV), Ron Estes (KS), Steve Pearce (NM), Todd Rokita (IN), Pete Sessions (TX), Don Young (AK), Pete Olson (TX), David Schweikert (AZ), Debbie Lesko (AZ), Ralph Norman (SC)
Senator Warner *et al*.
    reflecting Senators Mark Warner (VA) and Tim Kaine (VA)
Senator Whitehouse *et al*.
    reflecting Senators Sheldon Whitehouse (RI), Jeffrey Merkley (OR), Benjamin Cardin (MD), Chris Van Hollen (MD), Edward Markey (MA), Brian Schatz (HI)
South Jersey Companies
Southwest Gas Corporation, Paiute Pipeline Company, Southwest Gas Transmission Company
Spectra Energy
Susan Tierney
Tallgrass Energy
The Nature Conservancy
TransCanada
UGI Energy Services
U.S. Chamber of Commerce
WEC Energy
Williams Companies