UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Certification of New Interstate Natural Gas Facilities Docket No. PL18-1-000

<u>COMMENTS OF NEW JERSEY CONSERVATION FOUNDATION, THE</u> <u>WATERSHED INSTITUTE, AND SIERRA CLUB</u>

We respectfully submit these comments and recommendations in response to the Commission's Notice of Inquiry,¹ which seeks to revisit its implementation of the 1999 Certificate Policy Statement.² The Certificate Policy Statement contains the Commission's comprehensive understanding of its obligations under the Natural Gas Act (NGA)³ when considering Section 7 authorizations. As such, it reflects the Commission's interpretation and intended implementation of the NGA's public convenience and necessity standard. Importantly, the existing Policy Statement underscores the Commission's understanding that the public convenience and necessity standard, and the attendant statutory grant of eminent domain authority, require that the Commission conduct a robust assessment of project need, and balance any substantiated need against the proposed project's adverse impacts. By carefully executing this assessment, the Commission fulfills its mandate to protect the public interest by engaging in a robust consideration of myriad factors.⁴

I. INTRODUCTION

¹ See generally Certification of New Interstate Natural Gas Facilities, Notice of Inquiry, 163 FERC ¶ 61,042 (2018) [hereinafter NOI].

 ²Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227, 61,743 (Sept. 15, 1999), clarified, 90 FERC ¶ 61,128, further clarified, 92 FERC ¶ 61,094 (2000) [hereafter Certificate Policy Statement].
 ³ 15 U.S.C. § 717f(c) (2012).

⁴ See Fed. Power Comm'n v. Transcontinental Gas Pipeline Co., 365 U.S. 1, 7 (1961) (quoting United States v. Detroit & Cleveland Navigation Co., 326 U.S. 236, 241 (1945)); Order Denying Rehearing, 163 FERC ¶ 61,128 (May 18, 2018) (LaFleur, dissenting in part) ("As I have said repeatedly, deciding whether a project is in the public interest requires a careful balancing of the economic need for the project and all of its environmental impacts.").

In December 2017, FERC Chairman Kevin McIntyre announced that the Commission would revisit its Policy Statement, observing that there have been significant changes in the energy landscape since 1999.⁵ Commissioners LaFleur and Glick also expressed support for the Commission's reassessment of its pipeline certification practices, noting that its current practice does not do enough to fully consider whether a project is needed.⁶ Current market factors, including increased Marcellus Shale gas production and transmission infrastructure, increased capacity from bi-directional flows,⁷ demand-response, energy efficiency, and state policies requiring emissions reductions support the Commission's position that its current certification practice should be reexamined.⁸ The NOI generally seeks recommendations for shifting its practice with respect to each of the following four categories: (a) methodology for determining need, including recommendations for how it should consider precedent agreements as evidence of need; (b) treatment of eminent domain and landowner impacts; (c) assessment of environmental impacts; and (d) improving certificate application process efficiency.⁹ In doing so, the Commission seeks to ensure that its current practice comports with the goals of the Policy Statement, and ensures that certificates are only issued when required by the public convenience

⁵ News Release, FERC, *FERC to Review its 1999 Pipeline Policy Statement* (Dec. 21, 2017), https://www.ferc.gov/media/news-releases/2017/2017-4/12-21-17.asp#.Wvxuw4gvyUl.

⁶ Cheryl LaFleur, Comm'r, Fed. Energy Regulatory Comm'n, Remarks at Commission Meeting (Dec.

^{21, 2017),} https://www.ferc.gov/CalendarFiles/20180104102157-transcript.pdf, at 51-53; Richard Glick,

Comm'r, Fed. Energy Regulatory Comm'n, Remarks at Commission Meeting (Dec. 21, 2017),

https://www.ferc.gov/CalendarFiles/20180104102157-transcript.pdf, at 58-60.

⁷See GREG LANDER, SKIPPING STONE, ANALYSIS OF REGIONAL PIPELINE SYSTEM'S ABILITY TO DELIVER SUFFICIENT QUANTITIES OF NATURAL GAS DURING PROLONGED & EXTREME COLD WEATHER (WINTER 2017-2018) (2018), Exhibit A to FERC Docket No.CP15-558, Accession No 20180213-5082 ("As shown above, the pipeline flow for this region is now bi-directional, which greatly expands the available capacity, without the addition of new pipes in the ground. Extra deliveries are possible because capacity owners can schedule multiple receipts and deliveries along their "contracted paths" within these zones. These shippers have rights to the "path" between their contracted receipt and delivery points; and, can segment this capacity and use it to deliver gas through that capacity in a myriad of ways.").

⁸ NOI at 2; 42 U.S.C. § 4332-4370f (2012). Pipeline companies now confirm that gas demand is "increasingly uncertain, particularly beyond a 35-year horizon." ANR Pipeline Company, Section 4 Rate Case, Docket No. RP16-440, Exhibit No. ANR-035 at page 24, lines 3-4 (January 29, 2016).

⁹ See NOI at 1-2.

and necessity, or are otherwise denied.¹⁰ As set out in the Certificate Policy Statement, in order to implement this standard in accordance with the NGA, the Commission must "appropriately consider the enhancement of competitive transportation alternatives, the possibility of overbuilding, the avoidance of unnecessary disruption of the environment, and the unneeded exercise of eminent domain."¹¹ Our recommendations are designed to assist the Commission in meeting that goal.

II. RESPONSES TO NOTICE OF INQUIRY

A. Revisiting the Commission's Practice for Determining Need (A1-A10)

In its Certificate Policy Statement, the Commission recognized definitively that multiple factors were critical to its independent determination of need under the NGA when assessing any newly proposed gas transmission infrastructure:

Rather than relying only on one test for need, the Commission will consider all relevant factors reflecting on the need for the project. This 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.¹²

Despite this clear articulation of Commission responsibility to consider factors not limited to

precedent agreements when determining need, the Commission has acknowledged that its current

practice is to rely on precedent agreements to determine project need.¹³ The Commission's

¹⁰ Transcontinental Gas Pipeline Co., 356 U.S. at 17; 15 U.S.C. 717f(e) (2012) (if the pipeline applicant fails to demonstrate that the project is within the public interest, "such application shall be denied.") (emphasis added). ¹¹ NOI at 3; *see also Certificate Policy Statement*, 88 FERC at ¶ 61,737 1.

¹² Certificate Policy Statement, 88 FERC at ¶ 61,747 (emphasis added).

¹³ For example, Intervenors in Docket CP15-558 submitted a FOIA request to the Commission seeking, "a copy of documents containing, reflecting or providing analysis representing the FERC staff review of economic data related to project need, prepared in relation to the PennEast pipeline project")" *See* Exhibit A, letter dated August 8, 2017, from Jennifer Danis, submitted electronically. The Commission listed three responsive documents, "comprised of precedent agreements and subsequent amendments." *See* Exhibit A, letter dated September 29, 2017, from Commission staff Leonard M. Tao to Jennifer Danis.

policy was developed during a period when gas markets were being developed, and new gas infrastructure was a means of promoting competition and integrating fragmented networks into integrated gas transportation systems.¹⁴ Precedent agreements were seen as a means to finance new transportation infrastructure without subsidization by existing customers.¹⁵ While the Policy Statement expressed concern with potential impacts on captive customers of existing pipelines, in practice the Commission ignored these considerations, presuming that consumers would benefit from increased competition.¹⁶ This circumvented the NGA's mandate to protect consumer interests,¹⁷ by assuming that increased competition does so without ensuring such competition exists and whether consumers are the beneficiaries. As the events in the California electricity crisis demonstrated, determining the efficacy of competitive markets in protecting consumer interests requires empirical evidence and active Commission oversight.¹⁸

We offer below recommendations for data and analyses that the Commission should include in a robust assessment of need and determination of consumer benefit, and provide a roadmap for an appropriate process in which to consider them. Doing so will satisfy the Commission's well-founded concern that exclusive reliance on precedent agreements as a proxy for need fails to appropriately implement the statutory safeguards for consumers and the public interest required by the NGA.¹⁹

¹⁴ STEVE ISSER, NATURAL GAS DEREGULATION IN THE US: 1970-2000, 55-60 (May 18, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3182854; NOI at 12-18.

¹⁵ NOI at 26, 35.

¹⁶ NOI at 29.

¹⁷ See Process Gas Consumers Group v. FERC, 177 F. 3d 995,1002 (D.C. Cir. 1999) (citing Federal Power Com'n v. Hope Natural Gas Co., 320 U.S. 591, 610 (1944)).

¹⁸ California, ex rel. Lockyer v. FERC, 383 F.3d 1006, 1013, 1015–18 (9th Cir. 2004), *cert. denied*, Coral Power, L.L.C. v. Cal. ex rel. Brown, 551 U.S. 1140 (2007); STEVE ISSER, ELECTRICITY RESTRUCTURING IN THE UNITED STATES: MARKETS AND POLICY FROM THE 1978 ACT TO THE PRESENT 286-304 (Cambridge, 2015).

¹⁹ See, e.g. Cheryl A. LaFleur, Statement of Commissioner Cheryl A. LaFleur on Order Issuing Certificates and Granting Abandonment Authority, FERC,

A1. Should the Commission consider changes in how it determines whether there is a public need for a proposed project?

Yes. Given that the gas pipeline network has been built out, and that gas markets are generally considered workably competitive, the Commission should move forward to a more skeptical approach to proposed projects. In 2015, FERC Staff noted that ". . . midstream investments over the past 10 years have largely relieved natural gas transportation constraints."²⁰ From 2007 through 2016, the Commission approved 234 gas pipeline projects, accounting for 121 Billion Cubic Feet per day (Bcfd), with 10,250 miles of pipe estimated to cost approximately \$51.2 billion.²¹ Nearly 12 Bcfd and 773 miles of interstate gas pipeline capacity went into service in 2017. In addition, in 2017 the Commission certificated 49 pipeline projects encompassing 30.8 Bcfd of capacity and 2,739 miles of pipeline.²² So far in 2018, the Commission has certificated 9 pipeline projects encompassing 3.4 Bcfd and 234 miles of pipeline.²³

The key driver of the expansion of the pipeline network has been the development of the Marcellus shale, and to a lesser extent, the Utica shale. The Marcellus Shale formation sits

Nos. CP15-554-000, CP16-10-000 (Oct. 13, 2017) ("The Certificate Policy Statement established a policy for determining economic need that allowed the applicant to demonstrate need relying on a variety of factors, including environmental advantages of gas over other fuels, lower fuel costs, access to new supply sources or the connection of new supply to the interstate grid, the elimination of pipeline facility constraints, better service from access to competitive transportation options, and the need for an adequate pipeline infrastructure. However, the Commission's implementation of the Certificate Policy Statement has focused more narrowly on the existence of precedent agreements.").

²⁰ FERC, STATE OF THE MARKETS REPORT 2015, at 4 (Mar. 2016), https://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2015-som.pdf.

²¹ Susan Tierney, *Natural Gas Pipeline Certification: Policy Considerations for a Changing Industry*, Analysis Group 16 (Nov. 6, 2017).

²² FERC, STATE OF THE MARKETS REPORT 2017, at 4 (April, 2018), https://www.ferc.gov/CalendarFiles/2018041 9115952-A3-staff-presentation-full-version.pdf.

²³ See FERC, Approved Major Pipeline Projects (2009-Present), https://www.ferc.gov/industries/gas/indus-act/pipelines/approved-projects.asp (last updated May 1, 2018).

beneath ninety-three million acres that cross Pennsylvania, southern New York, eastern Ohio, and northern West Virginia. The oil and gas industry combined horizontal drilling with a hydraulic fracturing ("fracking") technique to extract gas from shale reservoirs, beginning with the Barnett shale of Texas in the early 2000s. The growth of gas production in the Marcellus and Utica areas - a combined growth of 12 Bcf/d since 2011 - accounts for 89% of the United States' total growth in gas production.²⁴ The Energy Information Agency (EIA) estimates that takeaway capacity in the Northeast United States will have expanded to more than 23 Bcf/d, up from an estimated 16.7 Bcf/d at the end of 2017 and more than three times the takeaway capacity at the end of 2014.²⁵

It is hard to imagine a pressing need for major additional expansions of the gas pipeline network. The Commission should consider its pro-market regulatory approach to have been largely successful and begin asking tougher questions of project proposals, "For whom, For what?" With pipeline capacity growth far outpacing gas demand growth,²⁶ the danger of a glut of regulated pipeline capacity threatens a repeat of past events and the resultant regulatory and legal battles as shareholders attempt to rescue their investments by imposing costs on consumers.

The Commission has neither the legal mandate, the institutional capacity or the desire to become the central planner for the network energy industries. Rather, the Commission's promarket regulatory approach can address the current displays of market power, and correct

²⁴ U.S. EIA, *New Pipeline Projects Increase Northeast Natural Gas Takeaway Capacity*, TODAY IN ENERGY (Jan. 28, 2016).

²⁵ U.S. Energy Information Administration (EIA), *Northeast Region Slated for Record Natural Gas Pipeline Capacity Buildout in 2018*, TODAY IN ENERGY (May 18, 2018).

²⁶ Gas consumption rapidly increased from 22.9 Tcf in 2009 to 27.2 Tcf in 2015, but since then growth has completely stopped the last two years. This growth was primarily driven by electricity generation, and to some extent by industrial consumption. U.S. EIA, MONTHLY ENERGY REVIEW 85, 87 (April 2018), https://www.eia.gov/totalenergy/data/

monthly/pdf/mer.pdf. With the rapid penetration by renewable energy, the emergence of storage as an alternative peak load resource, and aggressive energy efficiency measures, future growth is unlikely to match past trends.

distorted market signals. The energy industries have been subject to boom-bust cycles since at least the discovery of Drake's well in the 1860s. The Commission's responsibility is to ensure that investors, and not consumers, pay the price for "irrational exuberance" and resulting overinvestment. This requires the Commission's careful examination of major projects, their financial structure, their legal entanglements, market risks and private benefits, to determine whether consumers face implicit risks. Rates are only part of the analysis. Often a deal is structured so the private actors can garner the option value of a gas spike, while consumers may face regulatory price increases if purchase contracts are voided due to bankruptcy. The options for transferring risks have increased with both the complexity of project financing, and corporate parents who own both gas and electricity assets. While a merchant generator in a competitive market has limited options, a parent company who owns a LDC, a gas fired generator, and builds a pipeline to service them has more opportunities to arbitrage between markets and state and federal regulation.

A2. In determining whether there is a public need for a proposed project, what benefits should the Commission consider?

The Commission's economic focus under the NGA should be the consumer benefits of a project. In theory, interstate gas pipelines are proposed and built to allow shippers to meet unserved demand, or to allow producers to move gas from capacity constrained supply areas, to satisfy public need.²⁷ However, gas shippers are often motivated to establish new pipelines financed through long-term contracts for capacity with local distribution companies ("LDCs")

²⁷ *Nat'l Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145, Docket No. CP15-115-001, Accession No. 20170203-3051 (Feb. 3, 2017) (Bay, Commissioner, separate statement on order granting abandonment and issuing Certificates).

and utilities that are the pipeline companies' own affiliates and subsidiaries of the pipeline company. By shifting existing shipping volumes from unaffiliated legacy pipelines to pipelines controlled by the parent company, payments by ratepayers to a third party pipeline company may instead be paid to the affiliated pipeline company.²⁸ In this way, savvy owners can receive a return on investment even for unnecessary pipeline capacity,²⁹ while captive ratepayers on legacy systems bear the risk of overbuild,³⁰ and construction gratuitously engenders adverse environmental and property impacts.³¹ This paradigm threatens the integrity of the markets that the Commission has worked for decades to protect.

The Commission should be wary of efficiency arguments for new pipelines, based on increased market efficiency, in light of evidence that pipelines may be wielding market power, instead of promoting competition. The gas pipeline system, even after deregulation of gas supplies, remains in a grey area between monopoly and competition. The Commission is mandated on the one hand to protect consumers from the exercise of monopoly power, and excessive costs, and on the other to ensure reliable supplies of gas.³² Adding to the complexity of this task, the interactions of gas and electricity market means that regulation in one market impacts the other market, and provides additional opportunities to exercise market power or engage in self-dealing. Given the massive pipeline building campaign of the new millenium, the

 ²⁸ GREG LANDER, ANALYSIS OF PUBLIC BENEFIT REGARDING PENNEAST PIPELINE, in Intervenors' Comments on PennEast's Application, Docket No. CP15-558, Accession No. 20160311-5209, exhibit A at 18 (Mar. 9, 2016)
 ²⁹ Id. at 18–20.

³⁰ *Nat'l Fuel Gas Supply Corp.*, 158 FERC ¶ 61,145, Docket No. CP15-115-001, Accession No. 20170203-3051 at 3.

³¹ Since 2009, the Commission has tolled its time to rule on the merits of cases requesting rehearing in 99% of its gas pipeline orders, with an average tolling delay of 194 days. See Pet. for Extraordinary Writ at 5, Appalachian Voices v. FERC, No. 18-1006, (D.C. Cir. Jan. 8, 2018); see also Ex. G to Pet. for Extraordinary Writ. During that delay, condemnation proceeds, and irreparable environmental destruction commences. The Commission's current practice of issuing "tolling orders" is further addressed in Part D below, and we provide recommendations for restricting and/or discontinuing this tool in the pipeline certification context.

 $^{^{32}}$ Whereas gas was a limited supply to be conserved, supplies are now plentiful, and different factors must be considered. *See* Florida Southeast Connection, LLC, 162 FERC ¶ 61,233 at P 17 (2018)).

major hubs are essentially interconnected.³³ Most constraints are either local in nature, or seasonal, and major new pipeline capacity is an inefficient answer to either situation. Even were an applicant to provide data showing that *some* prices to *some* customers may be lower, without the Commission examining the impact on all potentially affected customers, it cannot determine whether there is an overall price benefit to the proposed project.

The problem with economic efficiency arguments is that under perfect equilibrium, policies that maximize efficiency should also maximize consumer benefit. However, in the gas pipeline world, the best that can be achieved is "workable competition."³⁴ The worst case scenario, of course, is having ratepayers finance excess returns on unneeded assets; yet this is happening under current Commission practice of relying only on precedent agreements to establish need. The Commision is mandated to protect against that outcome, and the current proliferation of projects where utility holding companies are transacting on both sides, as both developer and long-term shipper, while facing limited or flat load growth, presents significant risk that this will continue to happen.

The FTC/DOJ merger guidelines put the burden of proving merger efficiencies on the merging parties, and require that these efficiencies be large enough to provide sufficient savings to reverse the merger's potential to harm customers by preventing price increases in the market.³⁵ The Commission should take a similar approach, and require parties proposing a new project to show how it will provide benefits to gas consumers. The Commission should also publicly solicit evidence of potential injury to consumers, such as captive customers of existing

³³ FERC, *supra* note 20, at 4.

³⁴ STEVE ISSER, WHAT IS WORKABLE COMPETITION, ANYWAY (AND WHY SHOULD WE CARE) (Dec. 2016), at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2880147.

³⁵ FEDERAL TRADE COMMISSION & DEPARTMENT OF JUSTICE, HORIZONTAL MERGER GUIDELINES 29-31(Aug. 19, 2010), https://www.ftc.gov/sites/default/files/attachments/merger-review/100819hmg.pdf.

pipelines who cannot avail themselves of competitive opportunities created by the new pipeline.³⁶ The problem with net benefit arguments is they implicitly assume side payments to "losers," but in the real world these payments are rarely made.

A3. If the Commission were to look beyond precedent agreements, what types of additional or alternative evidence should the Commission examine to determine project need?

Precedent agreements should be considered necessary but *not* sufficient to justify a pipeline project. The Commission must distinguish between the benefit provided to participants in a project, and the impact of the project on the economics of pipelines and other markets in that region.³⁷ Obviously, the participants expect to receive a net benefit, or they would not be willing to invest or contract as purchasers. However, if the project would result in significant excess capacity, the question becomes *why* is the project attractive in that environment. Investors should be aware that transportation prices will decline in that case, so understanding why the pipeline is attractive would provide insight into both the pipeline's economics and the regional gas transport market. The Commission has limited resources to conduct these kind of analyses, but a commitment by the Commission to be receptive to data and empirical analysis of regional gas

³⁶ See Part D, *infra* (setting out recommendations for a Commission process to consider independent data). Data regarding consumer harm from independent experts, nonparties, and state ratepayer advocates should be weighed more heavily by staff in its ultimate analysis.

³⁷ Certifying pipelines that heavily rely on affiliate agreements runs counter to pro-market regulatory objectives by harming incumbents within the market who "simply cannot compete because of the tilted economics flowing from the affiliate relationship." FERC Docket No. CP17-40-000 & CP17-40-001, Accession No. 20180326-519, Answer of the Environmental Defense Fund to Spire STL Pipeline LLC's Data Response (Mar. 26, 2018). See also PennEast Rehearing Request at 32, FERC Docket No. CP15-558, Accession No. 20180213-5082 ("The behavior of LDCs can impose an insurmountable barrier to new projects that lack an affiliate connection. Non-affiliated transportation operators cannot compete in adding new capacity as long as prospective shippers are only interested in contracting for capacity from pipelines in which their affiliated unregulated companies own a substantial interest. Once local distribution companies vertically integrate into the transportation market, it loses features of a competitive marketplace. The result, absent a demonstration of market demand growth matched to the proposed new capacity, is very likely to be stranded capacity, significantly reduced value of the invested capital on the line(s) meeting current demand, and increased costs for captive customers throughout the impacted region.")

markets will encourage challengers to projects to support this avenue of inquiry.³⁸ Factors that the Commission should scrutinize include gas demand growth, potential substitutes among end uses, changes in public policy that will impact demand, and peak shaving and other means of reducing the need for additional pipeline capacity. If these alternatives are less expensive than pipeline expansion, with fewer attendant impacts, then the Commission cannot certify that a project for additional gas transmission infrastructure is required by the public interest. Such projects will fail to show public need and the Commission's inquiry can stop there. Additionally, the Commission should examine how to encourage alternative investments within its regulatory purview, by ensuring that market signals are not distorted in favor of gas transmission infrastructure and weighted against those other investments.

A4. Should the Commission consider distinguishing between precedent agreements with affiliates and non-affiliates in considering the need for a proposed project?

Arms length precedent agreements should be considered to be more valid evidence supporting one factor in the Commission's need determination than affiliate precedent agreements. Since an independent customer is motivated only by its self-interest, its decision should be based on relative prices and terms between transportation alternatives.³⁹ The management of an affiliate, even if nominally independent, is aware of the goals of the parent company and has an incentive to maximize earnings of the parent as well as the affiliate

³⁹ For example, during the open season for PennEast, an alternative project - Diamond East - was offered at a somewhat lower cost and similar terms. *See* Williams Announces Open Season For Transco Pipeline's Diamond East Project, The Williams Companies, Inc. (Aug. 26, 2014), http://investor.williams.com/press-release/williams/williams-announces-open-season-transco-pipelinesdiamond-east-project ("Unlike competing projects designed to serve the New Jersey Market Pool, Diamond East is a cost effective expansion along an existing Transco corridor."). Three New Jersey LDCs chose to purchase long-term

³⁸ Increased public participation and transparency during this process can help the Commission ensure that its analysis is not only considering data and analyses supplied by those with a vested financial interest. *See infra* Part D.

capacity on PennEast, in lieu of a myriad of options available in the market, including Diamond East. What is clear about their decision process is the result: the option that they chose remunerates their own stockholders.

company. In the case where both the parent and affiliate are investors in a pipeline project, the value of an affiliate precedent agreement should be highly discounted. When the affiliate is a LDC, the LDC's customers are at risk of failure of other purchasers to fulfill their contractual obligations. Risk is shifted from the parent company developing the pipeline to final customers with no commensurate savings for those customers. In fact, since many of these projects have requested returns on equity based on a level of risk that has been partially shifted to the LDC's customers, rates may be excessive. If the other precedent agreements are shorter in length than the contract with the LDC, those customers may find themselves on the hook for increased costs down the road.

Left unchecked by Commission oversight, the growing "pipeline capacity bubble" will create stranded assets. Unlike projects where participants are disciplined by market risk (as with merchant generators), affiliate driven projects may crowd out "good" projects while sticking final customers with the cost of financing stranded assets:

With the magnitude of new pipeline projects under development in addition to those deployed over the past 10 years, there are signs that a gas pipeline capacity bubble is forming. A capacity bubble could impose unnecessary costs on energy customers for expensive yet unneeded pipeline capacity, and ultimately constrain deployment of lower cost energy sources like wind and solar in the future considering the long financial lives and expense of new capacity. Where new pipeline capacity is financed by market participants who choose to risk their capital to capture benefits, the prospects of an overbuild are not particularly troublesome from the economic standpoint of society as a whole. However, **a pipeline capacity build-out induced by policies designed to spread the costs of new infrastructure on captive retail or electric ratepayers will almost surely become un-economic, undermine market drivers for more efficient solutions and impose unacceptable long term environmental and economic costs.⁴⁰**

⁴⁰ Testimony of N. Jonathan Peress, Director of Air Policy, Environmental Defense Fund, Before the Senate Energy and Natural Resources Committee, "Oil and Gas Pipeline Infrastructure and the Economic, Safety, Environmental, Permitting, Construction, and Maintenance Considerations Associated with that Infrastructure" at 4, (June 14, 2016), https://www.energy.senate.gov/public/index.cfm/files/serve?File_id=51079A26-DD96-4FB5-8486-411C8A7F9024 (emphasis added).

While non-arm's length, lucrative contractual arrangements between a pipeline developer and its affiliates may be economically rational for the contracting parties, these private transactions are not proxies for market demand, and present no case for public need or benefit. Accordingly, these contracts cannot serve to satisfy the Commission's obligation to examine independently market demand, and accurately assess need when doing a robust public interest balancing test.

A5. Should the Commission consider whether there are specific provisions or characteristics of the precedent agreements that the Commission should more closely review in considering the need for a proposed project? Should the Commission consider whether the contracts are subject to state review?

The Commission should consider specifically whether the precedent agreements lock in rates or expose purchasers to rate increases if projected volumes of gas transported fail to materialize. When the customer is a generation plant in a competitive market, the Commission must examine how the contract deals with the plant being "out of the money." Who bears the risk if gas supplies fall short of projections for pipelines built to new producing regions? If this risk is born by the customer, for example, in the case of an affiliated LDC that is able to pass higher costs along to end users, then it becomes a "head I win, tails you lose" situation. The devil is in the details, and so is a proper assessment of public need. The Commission should consider whether state review can discipline contracts or if the Commission frequently notes that it is the State's role to protect affiliated local distribution company ("LDC") shipper's captive customers.⁴² However, even when a state Commission reviews these agreements, few states have

⁴¹ Many states do not have regulatory structures requiring LDC pre-approval for transmission agreements with pipeline companies, or other safeguards to prevent uneconomic projects from being built. Given this regulatory vacuum, the public interest requires that Commission protect robustly against affiliate abuse on a prospective basis. ⁴² See, e.g., PennEast Pipeline Co., LLC, 162 FERC ¶ 61,053, 2018 WL 487260 at *34-35 (Jan. 19, 2018) [hereinafter PennEast Order]. While some states do, in fact, require LDCs to demonstrate capacity shortage prior to allowing those LDCs to contract for expensive long-term firm capacity contracts, New Jersey has

the resources to properly analyze a deal, and will tend to defer to the Commission's judgment. State regulators and consumer advocates are likely to focus on the upfront cost of transportation, and ignore risk sharing and long-term implications of an affiliate precedent agreement. Commission staff are better positioned to elucidate details of an agreement which would aid state deliberations.

Significant regulatory lag by the Commission can be a strong motive to build pipelines as this can provide higher rates of returns with lower risk than alternative investments.⁴³ The Commission should determine whether the pipeline owner, the recipient of potential above market returns on capital will bear the risk, after the initial precedent agreements expire, of a decline of revenues on a long-lived asset, or will captive customers bear that burden. The Commission should examine whether the economics of a pipeline should be based on a shorter economic life in a more uncertain environment. A shorter life means more rapid depreciation and higher rates (making some greenfield projects less attractive to customers relative to existing capacity), but less out year risk.

A6. In its determinations regarding project need, should the Commission consider the intended or expected end use of the natural gas? Would consideration of end uses better inform the Commission's determination regarding whether there is a need for the project?

historically conducted prudency review for least cost only after project construction. It is hardly alone in this practice. *See* FERC Docket No.CP17-40-000 & CP17-40-001, Accession No.20180326-519, Answer of the Environmental Defense Fund to Spire STL Pipeline LLC's Data Response (Mar. 26, 2018) ("[T]he current Missouri regulatory oversight structures are not designed to protect against unreasonable affiliate transportation costs."). Where the state has engaged in no process to ensure that consumers are protected from economic harm flowing from new firm transportation capacity, and that such contracts serve a public use, FERC must engage in this analysis to fulfill the NGA's explicit and implicit mandates. Even when a state has regulatory pre-approval, the Commission must satisfy itself independently that the applicant has made a compelling case demonstrating the Certificate Policy Statement factors for public need have been met, in compliance with the NGA.

⁴³ Jeff Makholm & Wayne Olson, *Fueling the Price of Power (and Gas): The Rising Profitability of Pipelines and the Need for Collective Action*, ELECTRICITY J. 24, 7-13 (2011).

The Commission should consider the intended use of the gas, not in the context of making judgments of how gas should be utilized (attempts to do so in the past caused serious distortions in gas markets), but to determine the reasonableness of projections of gas demand and the potential for substitution at the end use level. For example, if most of the customers of a proposed pipeline are LDCs primarily serving residential and commercial demand, and growth of this demand is limited or flat, then justification for the pipeline built around increased gas demand should engender serious skepticism.⁴⁴ The Commission should heavily discount this assertion as an indicia of need, and require the applicant to provide substantial evidence of this projection. Additionally, as set out in Part D below, the Commission should solicit independent data relevant to this assertion.

A7. Should the Commission consider requiring additional or alternative evidence of need for different end uses? What would be the effect on pipeline companies, consumers, gas prices, and competition?

Yes. A major pipeline project, if it is based on need and not speculation or the desire to exploit the potential for above market returns on equity will include a well-researched market analysis. The absence of detailed market studies should be a considerable red flag. Simply acquiring precedent agreements, especially from affiliates, without determining the potential

⁴⁴ Increasingly, gas transmission projects are being proposed based on applicants' invocation of 'increased reliability.' Yet, "[u]nlike the electric market, the wholesale gas market offers no corollary "reliability" definition, nor an associated well-defined process for evaluating or establishing standards for "reliability." Thus, if a project proponent asserts a gap in reliability that its project is designed to address, this assertion must be contextualized and examined to see what it actually means." GREG LANDER, SKIPPING STONE, ANALYSIS OF RELIABILITY IN ELECTRIC & GAS MARKETS, COST SAVINGS AND PROJECT NEED (2016), Exhibit A Docket No. CP15-558, Accession No. 20161201-5105 (Dec. 1, 2016). The Commission must require analyses and data that would allow a determination of 'increased reliability' for any given project. "While PJM states that its market can benefit from expanding pipeline infrastructure, neither it, nor its market participants would bear the costs of such potential benefit which runs counter to both cost causation / cost responsibility and users pay principles." *See Analysis of Reliability*.

market for additional gas, is evidence that the "demand" for the project is dependent on turnback of existing capacity.⁴⁵ The Commission should require information that would allow its independent analysis of project purpose and need, as required by the NGA. These are long-lived projects that will create "path dependence" in a region, impacting gas end users and electricity markets. Understanding the implications of a pipeline project, and how it may interact or interfere with the goals and policies of states and other jurisdictional entities in a region, will lead to more reasoned decision making by the Commission.

As the Commission has seen in electricity markets, where reliability requires regulatory intervention to ensure sufficient investment in the quantity of generation and attributes such as ramping, competition in energy network industries is more complicated than simply entry and exit decisions. Depending on private investors to reach an optimal public solution is the triumph of hope over experience. Excess investment in regulated assets can result in additional costs that are passed along to consumers. Insufficient investment can result in price peaks and shortages,⁴⁶ but additional pipeline capacity is merely one option to address supply constraints, and in many cases, when constraints are short-lived, the least efficient solution.⁴⁷ When the purpose of a gas

⁴⁵ See FERC Docket #CP17-40-000 & CP17-40-001, Accession #20180326-519 Answer of the Environmental Defense Fund to Spire STL Pipeline LLC's Data Response (Mar. 26, 2018) (Answer regarding Spire's proposed pipeline, predicated on a single affiliate precedent agreement, explaining "that, similar to other gas utilities, Laclede has taken advantage of an emergent investment strategy to develop pipeline infrastructure (the Spire STL Pipeline) by imposing natural gas transportation costs on captive retail customers (Laclede) while its affiliate pipeline developer (Spire STL) garners returns (in excess of risk) for the new pipeline build."). The Spire project involves significant turnback of capacity by the affiliate-LDC holding the long-term precedent agreement for 100% of the proposed new capacity, in a market where there is significant excess capacity. The Spire STL pipeline proposal epitomizes the dangers to consumers from the Commission's current practice. There is no attendant state regulatory safeguard to prevent such projects from filling the Commission's pipeline certification docket; the Commission must adopt new practices to fulfil the NGA's consumer protection mandate.

⁴⁶ Price spikes may be due to actual constraints on gas deliverability but may also be the result of strategic behavior by owners of capacity rights. Levi Marks, Charles F. Mason, Kristina Mohlin, & Matthew Zaragoza-Watkins, *Vertical Market Power in Interconnected Natural Gas & Electricity Markets* (Working Paper, Oct. 2017), https://www.researchgate.net/publication/321385958 Vertical Market Power in Interconnected Natural Gas and

_Electricity_Markets.

⁴⁷ Energyzt Advisors, LLC, Natural Gas Storage in New England and the Impact of LNG on Winter Prices, Presentation to the New England Association of Energy Engineers (Jan. 6, 2016).

pipeline is to supply gas fired generation, the Commission should examine whether expanding electricity transmission might be a better option, because it allows multiple sources to service electricity demand, instead of locking in gas generation. Changes in electricity market rules in response to the Polar Vortex have provided incentives to gas-fired generators to invest in dual fuel capability (reducing gas demand during peak periods).⁴⁸ Gas storage may be a better option if gas supply is constrained for short-periods, as is historically typical.⁴⁹ It would be counter-productive to overinvest in gas transportation, adding substantial costs to final gas prices, to provide only the possibility of a de minimis competitive impact on gas prices. Moreover, the NGA requires that the Commission protect consumers against certification of new gas transmission infrastructure that has minimal, if any, price benefit, and has significant economic and environmental drawbacks.

A8. How should the Commission take into account that end uses for gas may not be permanent and may change over time?

This is a conundrum that faces planners and regulators in all energy network industries. What is the optimal investment in capital intensive, long-lived assets faced with shifting population, technology and economic trends? Private actors, due to higher discount rates, tend to

⁴⁸ PJM's Capacity Performance design elucidated investments by generators to improve availability. Gas generators began procuring firm pipeline capacity and converting generators to dual fuel capability. Grid Resiliency Pricing Rule, Comment of the Independent Market Monitor for PJM ,FERC Docket No. RM18-01, Accession No. 20171023-5520, at 26-27 (Oct. 23, 2017). The New England ISO took measures to encourage more dual fuel capability and to increase market flexibility. Grid Resiliency Pricing Rule, Comment of Potomac Economics, Docket No. RM18-01, at 26-27 (Oct. 23, 2017).

⁴⁹ As the Commission has noted, projects are typically designed to meet only peak demand, which may occur only a handful of days per year. Absent market distortion, building new gas transmission, and purchasing long-term firm capacity is the most expensive way to address those needs. Buying additional supply in the spot market, even during periods of price spikes, is still a far more economic way to address any unmet demands. *See* Motion for Leave to Answer and Answer on Behalf of New Jersey Conservation Foundation and Stony Brook-Millstone Watershed Association, FERC Docket CP15-558-001, Accession #20180315-5143, at 6 (March 15, 2018) ("Those choosing to buy Citygate Spot Priced Gas often do so because they make the calculation that it is in their overall interest to do so rather than paying for year-round pipeline capacity....Indeed, data on all trades and prices during the recent thirteen day cold spell shows that during the recent winter, industrial customers paying Citygate Spot Priced Gas would have saved almost \$80,000 over a sing year compared to the cost of contracted firm capacity plus supply area prices.")

have shorter time horizons, but even then, as gas market fluctuations over the last two decades and the dramatic decline in renewable energy costs demonstrate, events can quickly overtake what seemed to be rational decisions. The Commission, entrusted with the responsibility of taking into account the interests of all market participants, including future customers, has an even more difficult task.

One answer that comports with the NGA's intent and mandate is to accept that it is impossible to predict the future with any accuracy, and focus on maintaining optionality for the energy system as a whole. Individual actors focus on the risk and volatility of an investment or portfolio of investments, but the Commission must take both a wider and longer view. When weighing different options for energy supply or reliability, the Commission should include flexibility as a desired attribute, and attempt to discourage investments that could potentially lead to large stranded regulatory costs. Even when the financial risks fall primarily on private actors, the Commission should consider the consequence of locking out alternative solutions that might present less economic risk to third parties. By doing so, the Commission will proactively create a more measured and holistic public benefit analysis.

A9. Should the Commission assess need differently if multiple pipeline applications to provide service in the same geographic area are pending before the Commission? For example, should the Commission consider a regional approach to a needs determination if there are multiple pipeline applications pending for the same geographic area?

The Commission should definitely take a regional approach to assessing need where two or more large pipeline projects may potentially expand gas supply to a geographic area to the extent that they are likely to create substantial excess capacity. Large increments of additional gas transport capacity could lock-in associated gas end use investments as the purchasers of excess supply attempt to induce additional gas demand to justify their investment. As noted above, this is exactly the situation that should raise concern, where large infrastructure investments may prove to be uneconomic in the future, and other sustainable and more economic options may be crowded out. The Commission's approach would not be different per se, but its needs assessment must account for *all* proposed additional capacity designated to serve the same geographic area. When assessing regional data and projections for the multiple proposed projects, the Commission would be able to determine whether there is any unmet demand, and then have an appropriate context within which to evaluate if the public requires any additional infrastructure to serve that region. This is an integral part of the Commission's duty to establish that any findings of public need rest on substantial evidence.

A10. Should the Commission consider adjusting its assessment of need to examine (1) if existing infrastructure can accommodate a proposed project (beyond the system alternatives analysis examined in the Commission's environmental review); (2) if demand in a new project's markets will materialize; or (3) if reliance on other energy sources to meet future demand for electricity generation would impact gas projects designed to supply gas-fired generators?

As pointed out above, this is exactly the analysis of "need" required to make balanced judgments as to the benefit from additional pipeline capacity. If short-run "need" can be met through small incremental investments in gas storage or upgrades to existing pipelines, then there is no reason to build large, expensive new pipelines. Moreover, doing so would controvert the NGA's mandate to certificate only those pipelines that are required by public need and in the public interest. Gas pipelines and gas fired generation can usually be built in a relatively short period of time once regulatory approval is granted. Once constructed, they will impact energy markets and consumers for decades. The Commission needs to account for the impact of state actions on future demand for gas, and for gas fired electricity generation. The Regional Greenhouse Gas Initiative (RGGI) is planning on expanded and more stringent standards that will further reduce emissions from electricity generation, making gas fired generation relatively more expensive. Funds from the RGGI auctions are used by many member states to finance energy efficiency measures and renewable energy.⁵⁰ New Jersey has pledged to rejoin,⁵¹ and Virginia is planning to join RGGI.⁵² California has also initiated its own carbon cap and trade program. Numerous states have taken various measures to encourage increased penetration of renewable generation. As public concern with climate change continues to grow, more states and municipalities may take measures to reduce the consumption of fossil fuels, including gas.⁵³ Regardless of Executive Branch attitudes toward the existence of anthropogenic climate change, if concern with climate change leads to actions that reduces consumption of gas, this is a "fact on the ground" that the Commission must take into account when independently assessing future demand for gas.

1. Stranded Assets and Stranded Costs Should be Considered in the Assessment of Need

One issue that was implied, but not directly addressed, in the "need" questions raised in the NOI, is the potential for stranded assets and stranded costs. The Commission, as well as state PUCs, have unpleasant memories of the political battles over assigning the cost of transitions

⁵⁰THE REGIONAL GREENHOUSE GAS INITIATIVE (RGGI), THE INVESTMENT OF RGGI PROCEEDS IN 2015 (Oct. 2017) https://www.rggi.org/sites/default/files/Uploads/Proceeds/RGGI Proceeds Report 2015.pdf.

⁵¹ Marie French & Danielle Muoio, *New Jersey Targets RGGI Proposal*, POLITICO NEW YORK July 6, 2018,

https://www.politico.com/states/new-york/newsletters/politico-new-york-energy/2018/07/06/new-jersey-targets-rggi-proposal-082791.

⁵² Nicholas Kusnetz, *Virginia Launches Plan to Join East Coast Carbon Market, Cut Emissions 30%*,"INSIDE CLIMATE NEWS, Nov. 16, 2017, https://insideclimatenews.org/news/15112017/

virginia-carbon-market-cap-trade-rggi-greenhouse-gas-coal-emissions-climate-change.

⁵³ Doyle Rice, *More States Sign On to U.S. Climate Alliance to Honor Paris Agreement*, USA TODAY, June 8, 2017, https://www.usatoday.com/story/news/nation/2017/06/08/more-states-sign-us-climate-alliance-honor-paris-agreement/102629160/.

from regulated to quasi-competitive markets. These changes, while providing overall benefits and encouraging innovation, also imposed large costs on existing actors.

Stranded costs are primarily a political decision, as the Courts never created a legal obligation to compensate utilities for the loss of value of regulated assets during the transition to deregulated electricity markets. Utility consultants tried to portray the issue as one of economic efficiency and legal rights, rather than as a political question of how to distribute the costs of a socially desirable transition in market structure. The argument for stranded costs postulated an obligation under a hypothetical "regulatory compact" that required recovery of the full value of assets as the quid pro quo for regulatory constraints over prices and the utility's return on capital. The problem with this explanation is that no such "regulatory compact" existed in regulatory law as it was an invention of consultants hired by utilities to protect their interests.⁵⁴

While the current administration denies the existence of climate change, it is unlikely the Courts will accept reliance upon these statements as support for recovery of stranded costs if future executive actions or laws impose carbon taxes, fees, cap and trade or other regulatory measures that make investments in pipeline or other regulated assets uneconomic. There is a long stream of Supreme Court precedent, from *Hope Natural Gas*⁵⁵ to *Duquesne*,⁵⁶ delineating the authority of the regulatory agency over the rates of a regulated utility.⁵⁷ The Supreme Court has also recognized the existence of climate change and the role of greenhouse gases, in *Massachusetts*.⁵⁸ Since that time, the evidence of anthropogenic climate change has grown

⁵⁴ Isser, *supra* note 18, at 201-02.

⁵⁵ Fed Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 602-03 (1944).

⁵⁶ Duquesne Light Co. v. Barasch et al., 488 U.S. 299 (1989).

⁵⁷ "The due process clause has been applied to prevent governmental destruction of existing economic values. It has not and cannot be applied to insure values or to restore values that have been lost by the operation of economic forces." Market Street Railway Co. v Railroad Comm'n of California et al., 324 U.S. 548, 567 (1945).

⁵⁸ Massachusetts v. Environmental Protection Agency, 549 U.S. 497 (2007).

stronger, as the thousands of peer reviewed articles and both the Fourth National Climate Assessment⁵⁹ and the fifth report of the IPCC⁶⁰ make clear.

The Commission need not take a stance on this issue to note that there is a significant probability that in the future actions may be taken to curtail the emissions of GHGs at a national level. Such actions may threaten the economic viability of large, long-term investments in fossil fuel infrastructure. Investors in projects that fall under Commission jurisdiction should not rely on future Commissions or the Courts to protect said investments, and should incorporate these risks in their decision making process. Given that there is reasonable foreseeability of such government action, investors should not expect recovery of lost asset value from ratepayers, especially in the light of the NGA mandate to protect consumers.⁶¹

B. The Exercise of Eminent Domain and Landowner Interests (B1-B5)

Both Section 717f of the NGA and the 5th Amendment of the U.S. Constitution require the Commission to carefully administer its delegated power of eminent domain in Section 7 certificate proceedings, and require the Commission to authorize only projects for which it has made a final determination of public use.⁶² At the threshold, as set out in Part A, *supra*, the

⁵⁹ D.J. Wuebbles et al., *Climate Science Special Report: Fourth National Climate Assessment, Volume I*, U.S. Global Change Research Program (2017).

⁶⁰ R.K. Pachauri & L.A. Meyer (eds.), *Climate Change 2014: Synthesis Report Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Intergovernmental Panel on Climate Change (2014).

⁶¹ Since the financial sector has begun to recognize these risks, the Commission would simply be requiring project proposers to do due diligence. MARYAM GOLNARAGHI, THE GENEVA ASSOCIATION, CLIMATE CHANGE AND THE INSURANCE INDUSTRY: TAKING ACTION AS RISK MANAGERS AND INVESTORS: PERSPECTIVES FROM C-LEVEL EXECUTIVES IN THE INSURANCE INDUSTRY (2018); Jeremy Taylor et al., Lazard Asset Management, *The Growing Importance of the "E" in ESG* (June 4, 2018).

⁶² The Commission acknowledges that its issuance of a certificate is the legal predicate for delegating eminent domain authority to a private pipeline applicant, yet currently the Commission does not ensure the applicant's exercise of that authority comports with either Section 717f(h) or the public use clause of the 5th Amendment. *See* Certification of New Interstate Natural Gas Pipeline Facilities, 83 Fed. Reg. 18,020, 18,031 (Apr. 25, 2018)

Commission should independently examine whether there is public need for a proposed project. This public need inquiry is essential to the ultimate public interest inquiry, to protect consumers, and to assess the proposed project's harms versus benefits. An affirmative determination by the Commission that the benefits outweigh the harms—in other words, that the project is in the public interest—conveys to the applicant the right of eminent domain. Accordingly, the Commission's public need inquiry becomes especially important today, as the national gas infrastructure approaches full build, and the claimed public benefits of additional buildout grow dubious.⁶³

Absent an affirmative public interest determination, the Commission cannot delegate eminent domain authority to private corporations under Section 7 of the NGA and the 5th Amendment.⁶⁴ Accordingly, our recommendations aim to ensure that any future delegations of eminent domain authority are narrowly circumscribed by the Commission to only those proposed projects with an affirmative public interest determination. Moreover, such delegations must be confined to the scope of the affirmative determination by the Commission.

1. NOI Question B1: Should the Commission consider adjusting its consideration of the potential exercise of eminent domain in reviewing project applications? If so, how should the Commission adjust its approach?

^{(&}quot;Although Commission authorization of a project through the issuance of a certificate of public convenience and necessity under the NGA conveys the right of eminent domain, the Commission itself does not grant the use of eminent domain across specific properties."); *see also* Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 543 (2005) ("If a government action is found to be impermissible—for instance because it fails to meet the 'public use' requirement or is so arbitrary as to violate due process—that is the end of the inquiry. *No amount of compensation can authorize such action.*").

⁶³ See, e.g., Barbara Blumenthal, Analysis of Natural Gas consumption & Pipeline Capacity in New Jersey, THE NEW JERSEY CONSERVATION FOUNDATION (July 23, 2018), attached hereto as Exhibit B. "Substantial excess pipeline capacity is currently available for use in New Jersey and industry projections show that the excess is more than sufficient to meet market demand until 2030 and beyond – independent of any new policies that would reduce in-state emissions from natural gas."). See id.

⁶⁴ See 15 U.S.C. § 717f(h) (outlining the right of eminent domain for the construction of pipelines); U.S. CONST. amend. V ("[N]or shall private property be taken for public use, without just compensation.").

In 1938, the public faced a looming crisis in which homes might not have enough heat for the winter because resources were devoted to supporting war efforts; thus, supplies were difficult to procure. To avert the crisis, Congress provided for regulation of the interstate transportation of gas in lieu of exclusive control by state governments.⁶⁵ The Federal Power Commission (now FERC) was granted the power to award certificates of public convenience and necessity to those projects that it found to be essential to the public's interest in receiving adequate supplies of gas, and that would protect the public from abuses that arise from private control of the gas supply.⁶⁶ Yet shortages continued, both in steel and in transportation options for home heating, as gas companies flared off gas in the fields rather than subject themselves to federal regulations. There was still no integrated and reliable network of gas pipelines by the end of the Second World War, with much of the gas stopping short of city limits. Thus, in 1947, Congress amended the NGA to authorize the exercise of delegated federal eminent domain by certificate holders.⁶⁷ With these certificates, companies could more easily build new gas pipelines to heat homes and create a national system of gas transportation.

In the following decades, Congress realized that the nation's waters, air, and coastal zones were increasingly suffering from pollution and development stresses, and that those resources were essential for the health, safety, and welfare of its citizens.⁶⁸ As recently as 2005, Congress amended the NGA to explicitly reaffirm that additional gas pipelines cannot come at

⁶⁵ Natural Gas Act, 15 U.S.C. §§ 717-717z (2018).

 ⁶⁶ Id. § 717f(c). See also id. § 717j(a) (providing Commission authority to review state compacts "to aid in the conservation of natural-gas resources within the United States"). In 1938, Congress was concerned with conserving *limited* gas resources and only certifying projects that were absolutely required to protect the public interest.
 ⁶⁷ Natural Gas Act Amendments, Pub. L. No. 80-245, 61 Stat. 459 (1947).

⁶⁸ Congress passed the Federal Water Pollution Control Act in 1948, which was significantly amended and ultimately became the Clean Water Act. Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. §§ 1251-1388 (2016); Ch. 758; P.L. 845, June 30, 1948 (establishing a federal-state partnership for the purposes of eliminating the "public nuisance" of water pollution); *See also* Coastal Zone Management Act, 16 U.S.C. §§ 1451-1466 (2016); Clean Air Act, 42 U.S.C. §§ 7401-7671q (2016).

the expense of clean water, air, and living oceans.⁶⁹ The Commission, in turn, has consistently acknowledged and conveyed to applicants the important role of those federal environmental authorizations in its certification process, including the fact that such authorizations circumscribe the Commission's certification authority.⁷⁰

a. <u>The Intersection between the Commission's Need Determination and</u> <u>Eminent Domain</u>

Section 7(h), which is predicated on satisfying Section 7(c)'s public convenience and

necessity standard, contains Congress' 1947 grant of eminent domain authority. Any invocation

of Section 7(h) authority must also comport with the 5th Amendment of the U.S. Constitution,

the underlying source of this delegated federal eminent domain authority. In recent orders, the

Commission has indicated that it uses its public convenience and necessity analysis as a proxy to

satisfy the 5th Amendment's public use requirement.⁷¹

⁶⁹ Energy Policy Act of 2005 Pub. L. No. 109-58, 119 Stat. 685 (2005). This principle was well-established decades ago by Section 401 of the Clean Water Act, 33 U.S.C. 1341(a), when Congress made abundantly clear that, "No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be."

⁷⁰The Commission has articulated this message across all facets of its proceedings, from cautioning applicants to seek those federal authorizations expeditiously, even during pre-filing, to explicitly making its own authorizations contingent on securing those approvals, and upholding states' authority to deny such certifications. *See* Regulations Implementing the Energy Policy Act of 2005, 71 Fed. Reg. 62,912 n.9 (Oct. 27, 2009) (codified at 18 C.F.R. Parts 153, 157, 375, 385) (encouraging applicants to submit robust applications for additional federal authorizations early in the process, even during pre-filing, because "completion of the Commission's assessment of an application often rests on other agencies reaching favorable determinations on separate authorization requests"); *Constitution Pipeline Co., LLC Order Issuing Certificates & Approving Abandoment*, 149 FERC ¶ 61,199 at Appendix, Environmental Condition 8 (noting that the Certificate order is conditioned on Constitution obtaining all "applicable authorizations required under federal law (or evidence of waiver thereof)"); *Constitution Pipeline Co., LLC Order on Petition for Declaratory Order*, 162 FERC ¶ 61,014 (Jan. 11, 2018) (upholding NYDEC's denial of Section 401 CWA certification), reh'g request for further reconsideration granted, March 14, 2018, reh'g request denied, 162 FERC ¶ 61,029 (July 19, 2018).

⁷¹ See Order Issuing Certificates and Granting Abandonment Authority, 161 FERC \P 61,043 (Oct. 13, 2017) ("The Commission, having determined that the MVP Project is in the public convenience and necessity, need not make a separate finding that the project serves a 'public use' to allow the certificate holder to exercise eminent domain. In short, the Commission's public convenience and necessity finding is equivalent to a 'public use' determination.").

Recognizing that condemnation by a private party of private and public lands constitutes a harm and requires a public use, the Commission set out a "sliding scale approach" to use when assessing an applicant's potential exercise of eminent domain.⁷² The broader the sweep of proposed condemnation, the higher the applicant's burden of proof for establishing public need and public benefits.⁷³ When even a modest exercise of eminent domain is contemplated, the Commission's policy requires the applicant to produce substantial evidence⁷⁴ of significant public benefits.⁷⁵ Yet, 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, as discussed above, 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.⁷⁶

For example, the Commission's order granting a certificate for the Atlantic Coast

Pipeline recognized that there was ample existing infrastructure and that the proposed project rested on nearly 100-percent affiliate-generated demand.⁷⁷ Precisely because "all but one of the shippers [parties to precedent agreements were] affiliated with the project's developers,"⁷⁸ intervenors urged the Commission to follow the "all relevant factors" approach to its public need

⁷² Certificate Policy Statement, 88 FERC at ¶ 61,743.

⁷³ *Id.*; *See also Jordan Cove Energy Project, LP*, 154 FERC \P 61,190 (Mar. 11, 2016) (denying Certificates because "generalized allegation of need... do not outweigh the potential for adverse impact on landowners" from the significant use of eminent domain).

⁷⁴ 15 U.S.C. § 717r(b); 5 U.S.C. § 706(2)(E); Mobil Oil Corp. v. Fed. Power Comm'n., 483 F.2d 1238, 1257-58 (D.C. Cir. 1973) (confirming that the requirement of substantial evidence in administrative decision making applies to the Commission's decisions under the NGA).

⁷⁵ *Certificate Policy Statement*, 88 FERC at ¶ 61,749.

⁷⁶ See, e.g., Atlantic Coast Pipeline, LLC, 161 FERC ¶ 61,042, 2017 WL 4925429, at*13 at P 55 (Oct. 13, 2017)
("We find that the contracts entered into by those shippers are the best evidence that additional gas will be needed in the markets that the ACP Project intends to serve."); Mountain Valley Pipeline, LLC, 161 FERC ¶ 61,043, 2017 WL 492525, at *9 (Oct. 13, 2017) ("We find that the contracts entered into the shippers are the best evidence that additional gas will be needed in the markets that the MVP and Equitrans Expansion Projects are intended to serve.").
⁷⁷ Atlantic Coast Pipeline, 2017 WL 4925429, at *8-17.

⁷⁸ *Id.* at *11..

inquiry. Nevertheless, the Commission found that the precedent agreements were "the best evidence that additional gas [would] be needed."⁷⁹ But this inquiry conflated private interests with public interests.⁸⁰

On the same day, the Commission granted a certificate for the Mountain Valley Pipeline.⁸¹ The two projects had similar proposed end-uses.⁸² There, too, intervenors submitted data showing that regional pipeline infrastructure was overbuilt and urged the Commission to measure public need against all relevant factors, not limited to the applicant's precedent agreements with affiliates; yet as has been its uniform practice, the Commission held that precedent agreements — even self-dealing ones — were the best and only required evidence of public need.⁸³ The Commission then assumed that this "need" satisfied its obligation to determine public interest and public use.⁸⁴ Having determined on this basis that a pipeline is required by the public convenience and necessity, the Commission disclaims any power to limit the eminent domain authority of the certificate holder.⁸⁵ Pipeline companies have sought to seize

⁷⁹ *Id.* at *13.

⁸⁰ *Id. See also id.* at *19 (the Commission determined that its "public convenience and necessity finding" is proxy for a "public use" finding).

⁸¹ Mountain Valley Pipeline, 2017 WL 4925425 at *1.

⁸² See Commissioner LaFleur's dissents in the Mountain Valley Pipeline and Atlantic Coast Pipeline orders. *Atlantic Coast Pipeline, LLC*, 2017 WL 4925429, at *98-100 (Commissioner LaFleur, dissenting); *Mountain Valley Pipeline, LLC*, 2017 WL 4925429, at *82-84 (Commissioner LaFleur, dissenting).

⁸³ *Id.* ¶¶ 61,297-99. *Compare Rover Pipeline, LLC*, 158 FERC ¶ 61,109 (Feb. 2, 2017) (stating that "[i]t is current Commission policy to not look beyond precedent or service agreements" and noting that there is "nothing in the policy statement or in any precedent construing it to suggest that it requires, rather than permits, the Commission to assess a project's benefits by looking beyond the market need reflected by the applicant's existing contracts with shippers") *with Certificate Policy Statement*, 88 FERC ¶ 61,227, *clarified*, 90 FERC ¶ 61,128 (Feb. 9, 2000), *further clarified*, 92 FERC ¶ 61,094 (July 28, 2000) at ¶ 61,747 ("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.") (emphasis added).

⁸⁴ Other examples of the Commission's practice of resting on precedent agreements alone to satisfy the NGA's public interest requirement include: *Rover Pipeline LLC*, 2017 FERC LEXIS 171, 158 FERC ¶ 61,109 (Feb. 2, 2017); *Fla. Southeast Connection, LLC*, 154 FERC ¶ 61,080, 61,484-85 (Feb 2., 2016).

⁸⁵ Rover Pipeline, 2017 FERC LEXIS at *50; Atlantic Coast Pipeline, 161 FERC at ¶ 61,236.

up to 65% of the route in some states,⁸⁶ and even those high percentages do not accurately reflect landowner impacts for the reasons set out below, such as the high cost of legal representation and unfair bargaining power, which lead people to believe they have no choice but to settle. The Commission's current practice of assessing public need and benefit based only on precedent agreements fails to comport with the 5th Amendment's public use clause.

b. <u>Conditional Certificates Compound the Issues surrounding Eminent</u> <u>Domain</u>

Compounding the harm from the Commission's current practice of relying on only precedent agreements to determine both public need and benefit, the Commission's practice of issuing certificates that precede Clean Water Act (CWA), Clean Air Act (CWA), Coastal Zone Management Act (CZMA) and other environmental analyses, leads to a factual vacuum on the other side of the public interest scale: assessing harm from proposed projects.⁸⁷ Thus, the Commission must also reform its handling of projects for which the applicant has failed to obtain outstanding federal authorizations.

The NGA states that the Commission "shall have the power to attach to the issuance of the certificate ... such reasonable terms and conditions as the public convenience and necessity may require."⁸⁸ The Commission has used this authority to conditionally approve pipelines that

⁸⁶ See PennEast Order, at *2; New Jersey AG Opposes Eminent Domain PennEast Natgas Pipeline, REUTERS, Mar. 23, 2018, https://www.reuters.com/article/us-ugi-penneast-natgas-pipeline/new-jersey

⁻ag-opposes-eminent-domain-for-penneast-natgas-pipeline-idUSKBN1GZ2XJ.

⁸⁷ The Commission also frequently concludes its EIS process and issues Certificates without final substantive consultations such as required by National Historic Preservation Act (NHPA). *See. e.g.* PennEast Order, at *72. While ACHP regulations do provide that the Section 106 process "does not prohibit agency official [sic] from conducting or authorizing nondestructive project planning activities before completing compliance with section 106," this flexibility is limited to actions that "do not restrict the subsequent consideration of alternatives to avoid, minimize or mitigate the undertaking's adverse effects on historic properties." 36 C.F.R. § 800.1(c) (2018). Because Certificate Orders include decisions on projects that restrict subsequent consideration of alternatives, they do not meet this regulatory exception.

⁸⁸ 15 U.S.C. § 717f.

have not been granted permits under the CWA, CAA, CZMA, and NHPA. These conditional certificates do not allow the applicant to begin construction or even pre-construction until the proper federal authorizations are received—however, they have been used by applicants to seize land for the pipeline through eminent domain.⁸⁹ These conditional certificates were never contemplated by the NGA, because the laws requiring additional federal authorizations were passed decades after the power to attach conditions was granted. That power anticipated conditions to fully-functioning, valid certificates; not conditional certificates that do not become valid until other federal authorizations have been granted.⁹⁰ If the Commission maintains (1) its practice of issuing certificates prior to the applicant's receipt of all federal authorizations and (2) its view that even conditional certificates come with unrestricted condemnation power under Section 7(h) of the NGA, then the Commission ought not to issue conditional certificates to any applicant who proposes to exercise eminent domain.⁹¹ Condemnation prior to full federal authorization violates both the NGA's requirements for the issuance of a certificate with attendant ability to construct , and the 5th Amendment's public use requirement. Before full

⁸⁹ While the Commission will not authorize such construction or pre-construction activities in states where Clean Water Act Section 401 certification has not been received, the Commission has previously approved such activities where just one state along a route has issued its 401 certification. This practice subjects landowners to property seizures that are per se unnecessary for the construction of a pipeline, in contravention of Section 717f(h). Following the recommendations set out herein with respect to access should allow the Commission to uniformly prevent such a result going forward.

⁹⁰ See Panhandle E. Pipe Line Co. v. FERC, 613 F.2d 1120, 1131-32 (D.C. Cir. 1979); N. Nat. Gas, 827 F.2d at 780-81. The language regarding attaching reasonable conditions is from a 1942 amendment to the Natural Gas Act and as such, could not have contemplated that the finding itself of public interest and necessity could be conditioned on the critical public interest factors provided by the Clean Water Act, Clean Air Act, and Coastal Zone Management Act. Amendment to Natural Gas Act, Pub. L. No. 77-444, 56 Stat. 83 (1942) (codified at 15 U.S.C. § 717f (1988)).
⁹¹ As more fully discussed below, in the alternative, the Commission should limit the delegation of eminent domain authority until the ancillary federal authorizations have been granted. Given the Commission's broad interpretation of its power to condition certificates, it would be well within this broad interpretation to circumscribe the applicants' eminent domain authority to the right of entry necessary to pursue other federal authorizations. In fact, using a conditional grant of eminent domain would be directly analogous to the Commission's current use of conditional certificates issued prior to granting the full Section 7 authorization to construct,

federal authorization, it is impossible to know whether either of those requirements are satisfied. We address each in turn below.

i. The NGA "Public Convenience and Necessity" Requirement

To issue a certificate, the Commission must find that the applicant's project is "required by the present or future public convenience and necessity."⁹² The environmental analyses performed under the CWA, CAA, and CZMA, for example, provide critical environmental analyses without which a final balancing test of public interest cannot be performed. By denying authorization under one of those acts, an agency provides the Commission with information indicating that the applicant's project is counter to the public interest. Where the Commission has issued conditional certificates to applicants who proposed to use eminent domain, such applicants can prematurely use those conditional authorizations to condemn lands for projects that have been or may ultimately be (after taking environmental analyses into account) found not to be in the public interest.

By making the public convenience and necessity finding contingent, the Commission acknowledges that such a finding cannot be made without the information revealed in an environmental analysis. The Commission necessarily limits the scope of such certificates "because completion of the Commission's assessment of an application often rests on other agencies reaching favorable determinations on separate authorization requests."⁹³ The Commission's regulations recognize the need for these authorizations early in the process—as part of its application, or even pre-filing if the applicant so chooses—not after lands have been

⁹² 15 U.S.C. § 717f(e).

⁹³ Regulations Implementing the Energy Policy Act of 2005, 71 Fed. Reg. at n.9.

condemned.⁹⁴ The Commission should ensure that certificates that it has explicitly limited to grant the holder very little actual authority are not then used to take private citizens' land for a project that the Commission has not finally determined to be required by the public convenience and necessity.⁹⁵

Moreover, the Commission's own interpretations and findings support the conclusion that an applicant should not be granted condemnation power before full federal authorization. The NGA gives the Commission the power to "attach to [the Certificate] ... such reasonable terms and conditions as the public convenience and necessity may require."⁹⁶ The Commission has listed conditions permitted by this clause in its regulations.⁹⁷ These conditions pertain to timing, transferability, notice, and technical limits on operation pressure. These conditions are all technical in nature, without bearing on the essential public interest inquiry required by the NGA. By promulgating these regulations, the Commission has shown that it interprets the NGA as allowing it to attach only such technical conditions to any certificate it issues. Granting certificates that are conditioned on the applicant later providing supporting information that is critical to the determination of public convenience and necessity (such as environmental analyses

⁹⁴ See 18 C.F.R. 157.14(a)(13) (2018) (requiring application to include a statement identifying each federal authorization the project proposal requires, and information as to the date of application for those authorizations, or reasons why any request would not already have been submitted); 71 Fed. Reg. 62912 n.9 (noting that applicants using the pre-filing process can "compress the time needed to obtain Commission authorization. . . . In large part, this is because completion of the Commission's assessment of an application often rests on other agencies reaching favorable determination on separate authorization requests").

⁹⁵ See Sierra Club v. FERC, 867 F.3d 1357, 1373 (D.C. Cir. 2017) ("Congress broadly instructed the agency to consider 'the public convenience and necessity' when evaluating applications to construct and operate interstate pipelines" and that, in doing so, the Commission "will balance 'the public benefits against the adverse effects of the project,' including adverse environmental effects"). *See also* Pub. Utils. Comm'n of Cal. v. FERC, 900 F.2d 269, 281 (D.C. Cir. 1990) (noting that the public interest standard under the NGA includes factors such as the environment and conservation, particularly as decisions concerning the construction, operation, and transportation of gas in interstate commerce "necessarily and typically have dramatic natural resource impacts").

⁹⁶ 15 U.S.C. § 717f(e).

⁹⁷ 18 C.F.R. § 157.20.

performed under the CWA, CAA, and CZMA) does not meet the Commission's promulgated regulatory implementation of the NGA.

ii. The Condemnation Restriction to those Lands Necessary to Construct

The NGA itself further confirms that only certificates for fully authorized projects should trigger delegation of condemnation authority, stating that a certificate holder can use the power of eminent domain to acquire "the **necessary** right-of-way to **construct**, operate, and maintain a pipe line … and the **necessary** land" if it cannot acquire them by contract (emphasis added).⁹⁸ In fact, those were the only types of certificates contemplated when the condemnation authority was congressionally delegated. The stated restriction to "necessary" lands is reaffirmed by case law.⁹⁹ Pursuant to the CWA, CAA, and CZMA permitting processes, the applicant may be obliged to alter the route of the pipeline to avoid sensitive resources and protect water quality. Because the route is subject to change until all federal authorizations are issued, it is impossible to know whether any parcel of land is "necessary" for the applicant's project. Therefore, a certificate conditioned on receiving additional federal authorizations should never be confused with a grant of unfettered eminent domain authority under Section 7(h).

iii. The 5th Amendment's Public Use Requirement

⁹⁸ 15 U.S.C. § 717f(h) (emphasis added). This provision was added to the Natural Gas Act in 1947, decades prior to the existence of ancillary federal authorizations that were required in order for a fully operation certificate.
⁹⁹ Transwestern Pipeline Co. v. 17.19 Acres of Prop. Located in Maricopa Cty., 550 F.3d 770, 776 (9th Cir. 2008) (noting that to use eminent domain under the NGA, a party must show "that the land to be taken is necessary to the project"); Mountain Valley Pipeline, LLC v. An Easement to Construct, Operate, & Maintain a 42-Inch Gas Transmission Line Across Props. in the Ctys. of Nicholas, Greenbrier, Monroe & Summers, No. 2:17-cv-04214, 2018 WL 1004745, at *1 (S.D.W. Va. Feb. 21, 2018) ("[A] certificate holder has the power of eminent domain over properties that are necessary to complete an approved project."); Nexus Gas Transmission, LLC v. City of Green, No. 5:17CV2062, 2017 WL 6623511, at *2 (N.D. Ohio Dec. 28, 2017); Gas Transmission Nw., LLC v. 15.83 Acres of Permanent Easement, 126 F. Supp. 3d 1192 (D. Or. 2015); Millennium Pipeline Co. v. Certain Permanent & Temp. Easements, 777 F. Supp. 2d 475, 479 (W.D.N.Y. 2011).

Even a justly compensated taking is not authorized by the 5th Amendment unless that taking has satisfied the threshold requirement: a public purpose.¹⁰⁰ The information revealed by environmental analysis is essential to a 5th Amendment balancing test of public purpose. Consequently, any exercise of eminent domain in the absence of the requisite environmental analysis cannot satisfy the public purpose requirement of the 5th Amendment and such a taking is therefore not valid.

Notwithstanding the foregoing, if the Commission determined to adhere to its current practice of issuing preliminary certificates that precede CWA, CAA, and CZMA authorizations, the Commission should only delegate the condemnation authority of Section 7(h) commensurate with the scope of the certificate and circumscribe its grant of eminent domain authority to only those survey access rights necessary to collect the additional data essential to a final determination of public interest. This limited grant would only be required in those states currently lacking the legal ability to provide pre-condemnation access for private entities that need such access to complete applications for those additional federal authorizations.

2. NOI Question B2: Should applicants take additional measures to minimize the use of eminent domain? If so, what should such measures be? How would that affect a project's overall costs? How could such a requirement affect an applicant's ability to adjust a proposed route based on public input received during the Commission's project review?

The clearest path to minimizing applicants' use of eminent domain is for the Commission to adopt the clarifications and practices suggested herein for carefully assessing need in accordance with all relevant factors. Additionally, as set out herein, providing for a conditional

¹⁰⁰ Lingle, 544 U.S. at 543 ("If a government action is found to be impermissible—for instance because it fails to meet the 'public use' requirement . . . —that is the end of the inquiry. No amount of compensation can authorize such action.").

exercise of temporary eminent domain authority that enables applicants to access lands across the potential project route for the limited purpose of acquiring data necessary for environmental impact analysis will also minimize the use of eminent domain. The Commission's sliding scale analysis, identified in the Policy Statement, attempts to address limitations on the use of eminent domain, and the Commission should scrupulously apply it to assess whether or not a project is in the public interest prior to authorizing permanent condemnations. Implementing such changes to the Commission's current practice would also provide applicants additional flexibility to adjust a proposed route, as applicants would no longer permanently condemn properties prior to assessing what resources exist along the route, and applicants would instead only condemn those lands absolutely necessary for constructing the proposed pipeline.¹⁰¹

3. NOI Question B3: For proposed projects that will potentially require the exercise of eminent domain, should the Commission consider changing how it balances the potential use of eminent domain against the showing of need for the project? Since the amount of eminent domain used cannot be established with certainty until after a Commission order is issued, is it possible for the Commission to reliably estimate the amount of eminent domain a proposed project may use such that the Commission could use that information during the consideration of an application?

The Commission's consideration of the potential use of eminent domain is addressed above, in response to Question B1. It would appear from Question B3 that the Commission is essentially concurring with our response to Question B1 above, which describes how the Commission's current practice does not employ any sliding scale analysis as described in the

¹⁰¹ See 15 U.S.C. 717f(h) (allowing condemnation to obtain "the *necessary* right-of-way to construct, operate, and maintain a pipe line") (emphasis added); Midwestern Gas Transmission Co. v. Dunn, No. M2005-00824-COA-R3-CV, 2006 WL 464113, at *2 (Tenn. Ct. App. Feb. 24, 2006) (providing a state right of access for a proposed interstate pipeline because "Midwestern pointed out that if it could not obtain a right of temporary entry to the properties along the proposed route to conduct the requisite examinations and surveys, it would be required to file condemnation proceedings against all potentially affected properties without knowing whether these properties were even suitable for the construction and maintenance of a natural gas pipeline. According to Midwestern, this option would result in takings of private property that might ultimately prove unnecessary for the final project").

Policy Statement. Question B3 suggests that one possible reason for the Commission's failure to do so is that the Commission remains unclear regarding how to assess and evaluate those impacts. As set out below, we propose specific tools and timing for the Commission to deploy in its future analyses weighing the use of eminent domain against the showing of need.

First, to truly implement the Policy Statement's sliding scale —which approach properly affirms the need to weigh a project's adverse impacts against any project benefits—the Commission must consider more than only the extent of post-certificate eminent domain use by applicants. The Commission must also consider the extent of *pre*-certificate actions by applicants to assert an unfair bargaining advantage over landowners. In fact, the Commission's current practice of merely considering of the post-certificate "amount of eminent domain used" fails to accurately measure the costs for landowner-condemnees as well as for those landowners who settle on unfair terms. Given the Commission's approval rate for Section 7 applications, which hovers historically around 99 percent, and the applicant's strong arm tactics, ¹⁰² the Commission cannot rely on an applicant's representation that its exercise of eminent domain is limited. As the gatekeeper to an applicant's ability to command disproportionate bargaining power, given the applicant's likely recourse to eminent domain, the Commission must investigate and consider the record of how that power has been abused.

Given the above evidence of harm, the Commission should require applicants to proffer proposed landowner offer letters to the Commission so that it can ensure that the applicant is not

¹⁰² PennEast's "offer" to Loretta Varhley exemplifies this problem. PennEast's letters to Mrs. Varhley offered to purchase a set of rights exceeding the right to lay down a pipeline, and threatened her with an eminent domain action if she failed to accept their offer. PennEast withheld information essential to Mrs. Varhley's decision, such as whether the eminent domain action would concern the right to lay a pipeline or the larger bundle of rights demanded by PennEast. PennEast also imposed short deadlines that curtailed Mrs. Varhley's ability to review the offer and her alternatives. Declaration of Varhley, PennEast Pipeline Co. v. Permanent Easement for 0.18 Acres in Hopewell Township, No. 3:18-cv-01776 (D.N.J. Mar. 22, 2018).

using the certification process to obtain rights beyond what it would be entitled under the scope of the requested certificate. Doing so would be an important step towards the Commission's careful administration of its condemnation authority.¹⁰³ It would also be consistent with a crucial underlying purpose of the NGA: "to protect consumers against exploitation at the hands of natural gas companies."¹⁰⁴ Specifically, the Commission could: (1) require the applicant to submit a copy of letters offering to contract for survey access; (2) provide form letters to the applicants to ensure proper disclosures of landowner rights; and (3) institute a financial penalty system for applicant agents who affirmatively abuse the potential delegation of federal eminent domain authority. For example, land agents often inform residents that if they do not agree to sell or provide access, that the applicant will simply condemn their property.¹⁰⁵

Second, it is indeed possible for the Commission to reliably estimate the amount of eminent domain a proposed project may use and to consider that information during its

¹⁰³ If the government itself were exercising the power of eminent domain, it would have a duty to fairly compensate landowners whose property was subject to condemnation. See, e.g., VA. CODE ANN. § 25.1-230 (West 2018) ("[E]ach member of the body determining just compensation shall take an oath before an officer authorized by the laws of this Commonwealth to administer an oath that he will faithfully and impartially ascertain the amount of just compensation to which a party is entitled."); F.M.C. Stores, Co. v. Morris Plains, 100 N.J. 418 (1985) ("[I]n the condemnation field, government has an overriding obligation to deal forthrightly and fairly with property owners It may not conduct itself to achieve or preserve any kind of bargaining or litigational advantage over the property owner Its primary obligation is to comport itself with compution and integrity, and in doing so government may have to forgo the freedom of action that private citizens may employ in dealing with one another."). Here, however, the power of eminent domain is being exercised under delegation to a private pipeline company, which is far from being impartial. Rather, the company is charged with economically benefiting its shareholders by paying the lowest possible amount for "compensation." The Commission, to ensure the constitutional administration of the eminent domain power it delegates, can require applicants to conform their offers to the initial appraisal value. In practice, applicants advise landowners that they will use an alternative, far lower appraisal in condemnation proceedings, wielding the impending certificate to undercut any "bargaining power" a market-based land sale presumes.

¹⁰⁴ Fed. Power Comm'n v. Hope Gas Co., 320 U.S. 591, 610 (1944); *see also* Pennsylvania Power Co. v. Fed. Power Comm'n, 343 U.S. 414, 418 (1952) ("A major purpose of the [Power] Act is to protect power consumers against excessive prices."); Columbia Gas Transmission, LLC v. 1.01 Acres, More or Less in Penn Twp., York City, Pa., 768 F.3d 300, 331 (3d Cir. 2014).

¹⁰⁵ See Ann Neumann, A Pipeline Threatens Our Family Land, N.Y. TIMES, July 12, 2014, https://www.nytimes.com/2014/07/13/opinion/sunday/a-pipeline-threatens-our-family-land.html (recounting land agents' typical response when landowner asks what happens if they will not consent to a contract for access: "Williams Partners, an Oklahoma-based natural gas transporter, would prefer to negotiate, he cheerily said, but the company would invoke the federal right of eminent domain if she didn't.").
application review process. The Commission can elicit condemnation data from the applicant at several points during the process. The pre-filing process affords the first opportunity to collect eminent domain data. The applicant's initial filing must include: a "detailed description of the project, including location maps and plot plans ... that will serve as the initial discussion point for stakeholder review"; a list of stakeholders who have already been contacted, if any; and a plan to facilitate stakeholder participation.¹⁰⁶ The detailed description requirement ensures that the applicant knows which lands need to be acquired. The Commission can use the latter two requirements to seek the applicant's estimate of the extent to which negotiation for those lands will be required and successful. The Commission is also entitled, during the pre-filing process, to arrange stakeholder meetings attended by the applicant.¹⁰⁷ The Commission can use these opportunities to solicit further estimates.

Applicants who do not participate in the pre-filing process can be required to estimate potential condemnation in their applications. Existing regulations require that each application include a description of the project (with a geographical map) and facts showing that the project is required by the public convenience and necessity.¹⁰⁸ The Commission should implement these regulations to require an estimate of the condemnation needed for the project: the project description will indicate which lands may need to be condemned, and the landowners' interests bear on the analysis of public convenience and necessity. Alternatively, the Commission should require the applicant to submit an estimate of anticipated condemnation as one of the "additional

¹⁰⁶ 18 C.F.R. §§ 157.21(d)(4), (7), (11).

¹⁰⁷ *Id.* § 157.21(f)(8).

¹⁰⁸ *Id.* §§ 157.6(b)(2), (4), 157.14(a)(6).

exhibits necessary to support or clarify [the] application,"¹⁰⁹ because this estimate is essential to the Commission's analysis of public convenience and necessity.

Under existing regulations, applicants are required to notify all affected landowners, and afterwards to submit an updated list of affected landowners to the Commission, indicating those who could not be notified.¹¹⁰ This is a good time for the applicant to revise its estimate of potential condemnation to correlate with notices. Between the filing of the application and hearing upon the application, the Commission can and frequently does require applicants to submit additional data.¹¹¹ The Commission is, under its existing regulations, well-positioned to solicit eminent domain data at times other than those provided by the regulations described above. As set out above, however, we recommend that the Commission assess the condemnation impacts to landowners at the time of initial application, given the disparate power existing between landowner-condemnee and pipeline applicant.

Absent the submission by the applicant of executed contracts for land acquisition, the Commission must assume that all properties can only be acquired through condemnation. It must be considered, weighed, and disclosed in a draft Environmental Impact Statement (DEIS). By keeping itself apprised of the applicant's expected use of condemnation authority throughout the process, the Commission can ensure that the applicant chooses a route that minimizes conflict and can prevent the applicant from using its strong negotiating position to obtain more rights than the certificate would potentially authorize.¹¹²

¹⁰⁹ *Id.* § 157.14(b).

¹¹⁰ *Id.* §§ 157.6(d)(1), (5).

¹¹¹ *Id.* § 157.14(c).

¹¹² The "material impact" of eminent domain authority on pipeline-landowner negotiations is noticed in Bluegrass Pipeline Co., LLC v. Kentuckians United to Restrain Eminent Domain, Inc., 478 S.W.3d 386, 390 (Ky. Ct. App. 2015), *review denied*, No. 2015-SC-000330-D, 2016 Ky. LEXIS 77 (Feb. 10, 2016).

4. NOI Question B4: Does the Commission's current certificate process adequately take landowner interests into account? Are there steps that applicants and the Commission should implement to better take landowner interests into account and encourage landowner participation in the process? If so, what should the steps be?

The current process, as set out above, neither quantifies nor assigns any particular weight to impacts on either landowners' interests or the land's functional and intrinsic value. Having failed to account for landowner interests, the Commission cannot determine what weight they can and should bear on the Commission's assessment of a project's public interest. There are several tools available to the Commission to fill this gap to properly weigh landowner and public interests in the lands an applicant proposes to condemn.

The Commission could quantify public interests in open space and conservation lands by using Benefit Transfer Methodology (BTM): an accepted tool used to assess the economic value of "ecosystem services" (benefits arising from ecosystems). It has already been used to put a price tag on the environmental effects of the Mountain Valley Pipeline.¹¹³ A BTM analysis begins with taking account of the types of land use in the study area: the Mountain Valley study uses the satellite-collected data in the National Land Cover Dataset.¹¹⁴ Analysts like Earth Economics compile databases of ecosystem services provided by various types of land use, as well as the yearly economic value of those services.¹¹⁵ To value the ecosystem services provided by a project site, the Commission would multiply the yearly value of each service by the units (e.g., acres) of land providing it. The sum of these values is the yearly value of all ecosystem

 ¹¹³ SPENCER PHILLIPS ET AL., ECONOMIC COSTS OF THE MOUNTAIN VALLEY PIPELINE: EFFECTS ON PROPERTY VALUE, ECOSYSTEM SERVICES, & ECONOMIC DEVELOPMENT IN VIRGINIA & WEST VIRGINIA (2016).
 ¹¹⁴ Id. at 15.

¹¹⁵ Earth Economics provides ecosystem valuation services using its own database. *See Ecosystem Services Valuation*, EARTH ECONOMICS, http://www.eartheconomics.org/ecosystem-service-valuation/ (last visited July 18, 2018); *see also Ecosystem Valuation Toolkit*, EARTH ECONOMICS, http://www.eartheconomics.org/ecosystem-valuation-toolkit (last visited July 18, 2018).

services from the project site. The stream of yearly ecosystem services can be capitalized¹¹⁶ like any other income stream—although it has been suggested that the discount rate should be lowered to accommodate certain unique qualities of ecological resources.¹¹⁷

> 5. NOI Question B5: Should the Commission reconsider how it addresses applications where the applicant is unable to access portions of the right-ofway? Should the Commission consider changes in how it considers environmental information gathered after an order authorizing a project is issued?

The Commission currently has no meaningful practice or procedure to consider and act on applicants' voluminous, post-certificate environmental information submittals. The PennEast Pipeline exemplifies how such deferred submittals lead to serious problems. The PennEast docket contains many repeat data requests from the Commission to the applicant, beginning with PennEast's initial application, and continuing unresolved even upon Commission's issuance of a certificate order approving the pipeline and acknowledging the outstanding data requests.¹¹⁸

To issue EISs that estimate the impact of projects without all the required federal authorizations, like PennEast, the Commission has had to rely on several untested assumptions to fill in the gaps in the data it has. But the Commission has not then revised the EISs after the project sponsor finally provides all necessary data nor tested those assumptions' remaining

¹¹⁶ Capitalization of a series of payments is the calculation of the total present value of all the payments, accounting for the "time value of money:" the fact that a nominal amount is worth more when received sooner, and less when received later. The reduction in value per unit of time (usually a year) is the "discount rate," which depends on factors such as the rate of interest and the uncertainty of the payment.

¹¹⁷ Aaron Schwartz & Maya Kocian, *Beyond Food: The Environmental Benefits of Agriculture in Lancaster County, Pennsylvania*, EARTH ECONOMICS (2014).

¹¹⁸ FERC Docket No. CP15-558-000, Accession Nos. 20151030-3011, 20151124-3028, 20160210-3025, 20160329-3046, 20160429-3039, 20160603-3039, 20161012-3040, 20161107-3010. The information still outstanding at the time of the Order Issuing Certificates to PennEast, 162 FERC \P 61,053, is enumerated in Appendix A, "Environmental Conditions for the PennEast Pipeline Project."

accuracy.¹¹⁹ These assumptions and the resulting distortion of the EIS's conclusion factor into the Commission's decision to issue a Certificate; thereafter, it is too late to reexamine the EIS assumptions unless the Commission provides a formal process to reopen such conditional certificates.¹²⁰

Setting aside the inherent inability of any agency to engage in reasoned decision making concerning unexplored and undisclosed environmental harms, the Commission has no current mechanism to rectify its decision if and when such harms are finally, properly disclosed. The Commission clearly has both the authority and the obligation to do just that. Without revisiting its initial public interest determination after the Commission obtains the substantive environmental data frequently lacking at the time the Commission issues its conditional certificates, it cannot meet its legal obligation to only approve pipelines that serve the public interest under the NGA.

There are a few possible means for the Commission to meet its legal obligation of balancing benefits against harms to yield an appropriate final public interest determination. First, the Commission can require that the applicant submit applications that contain all data necessary to make such a determination from the outset. Second, if the application is not complete to begin with, the Commission should prepare supplemental environmental impact

¹¹⁹ Cf. Sabal Trail Transmission, LLC Order on Remand Reinstating Certificate and Abandonment Authorization, 162 FERC ¶ 61,233, 2018 WL 1364645 (March 14, 2018) (Commission reinstating Certificate vacated by D.C.Circuit Court of Appeals, after completing court-mandated SEIS to address gaps in data and analyses). The Council of Environmental Quality (CEQ) regulations also require that an agency "shall prepare supplements to either draft or final environmental impact statements if . . . [t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. §1502.9(c)(1)(ii) (2018). CEQ regulations also require that an "agency shall revise [the scope of its EIS] determinations . . . if significant new circumstances or information arise which bear on the proposal or its impacts." *Id.* §1501.7(c).
¹²⁰ The Commission recently granted an appeal of its failure to disclose information incorporated by reference into an EIS, for good reason. The Commission's duty to timely and proactively disclose such information is well-established under both NEPA and FOIA. *See* Letter from James Danly, General Counsel, FERC to Diana Csank, Staff Attorney, Sierra Club, FOIA No. FY18-7 (Apr. 1, 2018).

statements when the missing information is submitted, revisiting its initial finding that the project serves the public interest.

a. The Commission Should Reject Incomplete Applications

Existing regulations give the Commission the power to reject incomplete applications, establishing "a forthright obligation of the applicant" to "set forth **all** information necessary to advise the Commission **fully**" on the proposed project.¹²¹ All regulations governing the form and content of Certificate applications apply "strictly," with "the burden of adequate presentation" resting on the applicant.¹²² Yet the Commission frequently fails to exercise this power: it does not turn away applications that lack crucial information. By adhering to existing law, and rejecting applications lacking substantial data, the Commission could ensure that projects do not continue of their own momentum along a tightly scheduled trajectory without requisite data.

b. <u>If the Commission Continues to Accept Applications Lacking Significant Data, It</u> <u>Should Prepare a Supplemental EIS When Applicants Provide Complete Data</u>

The primary purpose of an EIS is to put NEPA's policy of environmental protection into action: to that end, regulations mandate that it "shall provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment."¹²³ EISs fulfill NEPA's purpose when they are used as a tool for "focusing the agency's attention on the environmental consequences of a proposed project,

¹²¹ 18 C.F.R. § 157.5(a)-(b) (emphasis added).

¹²² *Id.* § 157.5(c).

¹²³ 40 C.F.R. § 1502.1.

[ensuring] that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast."¹²⁴

Because NEPA's crucial purpose is to inform and focus decision making, the Commission should change how it considers environmental information gathered after an order authorizing a project is issued by utilizing a supplemental EIS to fulfil NEPA's essential purpose.¹²⁵ Just as the Commission must include all information that is "relevant to reasonably foreseeable significant adverse impacts" if the cost of obtaining it is not "exorbitant," if the Commission continues to issue certificates that are predicated on the applicant later obtaining environmental data, the Commission ought to use a supplemental EIS to analyze and disclose this information to the public.¹²⁶

c. Access to Rights-of-Way

When an applicant is unable to access the proposed project's route to collect data before the Commission makes a Section 7(e) determination, the need for some limited exercise of eminent domain delegation is particularly important, both to protect landowners from permanent condemnation, as well as to ensure a robust public interest analysis. The applicant's inability to survey the right-of-way can preclude data collection essential to reasoned decision making. Because of the Commission's current practice of delegating full eminent domain authority or

¹²⁶ *Id.* § 1502.22(a). *See also* U.S. House Comm. on Nat. Res., Hearing Memorandum—Full Committee Oversight Hearing Titled "Modernizing NEPA for the 21st Century," at 4 (Nov. 27, 2017),

¹²⁴ Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989).

¹²⁵ 40 C.F.R. § 1502.9(c)(1).

http://naturalresources.house.gov/uploadedfiles/hearing_memo_--_fc_ov_hrg_on_nepa_11.29.17.pdf ("CEQ regulations require that federal agencies prepare the EIS 'concurrently with and integrated with' all other environmental requirements. Many complex actions require compliance with literally dozens of other federal, state, tribal, and local laws, and thus, the NEPA process is intended to act as an 'umbrella' with the EIS forming the overarching framework 'to coordinate and demonstrate compliance with these requirements."") (emphasis added by U.S. House Comm. on Nat. Res.) (citations omitted).

none at all, certain projects can bring its duties into collision: the Commission cannot authorize a project without a full environmental analysis under NEPA and cannot make a final finding of public interest absent state CWA certification; yet, the applicant cannot obtain the necessary environmental information without access to the resources at stake.

While some states grant access for surveying purposes to pipeline companies, others preclude applicants for Commission certification from entry and, therefore, survey of lands along the potential pipeline route.¹²⁷ For projects that traverse states lacking pre-certification property access, if the Commission continues to issue certificates conditioned on the applicants' receipt of Section 401 CWA authorization, then the Commission should attach a certificate condition limiting the applicants' exercise of eminent domain authority to a temporary right of access to collect such data necessary for pursuit of ancillary federal authorizations. In doing so, the Commission would give proper meaning to the NGA's circumscription of the delegation of eminent domain authority to those lands necessary for construction of the project. Moreover, the Commission would resolve the outstanding constitutional questions surrounding the applicants' use of initial authorizations—which are not authorizations to construct under the NGA—to condemn properties prior to states' Section 401 CWA analysis. This would also conserve Commission resources currently expended on vetting projects that cannot pass state CWA

¹²⁷ *Compare* Midwestern Gas Transmission Co. 2006 WL 464113, at *15 ("A policy that rigidly enforced an absolute right to exclude others from one's property at the property owner's whim could well have the practical effect of undermining the property rights of others. If companies with the power of eminent domain cannot temporarily access properties along the proposed route of a linear construction project to perform the examinations and surveys necessary to site the project, they will likely be forced to file condemnation complaints much earlier in the process and against a much greater number of properties. Such a process would create clouds on the titles of large numbers of properties for long periods of time before the company, the courts, and the appropriate governmental regulatory agencies have even determined which properties will ultimately be needed for the construction of the final project."); Texas E. Transmission, LP v. Barack, 2014 WL 1408058, at *3 (S.D. Ohio Apr. 11, 2014) (granting a pipeline company access under Ohio law to a property for purpose of surveying, appraising, and conducting any necessary examinations); *with* N.J. STAT. ANN. §§ 20:3-15, -16 (West 2018) (excluding individuals or private corporations vested with the authority of condemnation from rights of preliminary entry).

certification for their preferred project route, as well as ensure that the Commission's final determination of public interest under the NGA is based on a full accounting of adverse environmental impacts.

C. Assessing Environmental Impacts (C1-C7)

In its Certificate Policy Statement, the Commission recognized that large gas transmission projects bring a suite of adverse impacts, both to landowners and the environment. Importantly, the Commission made clear that it considers a proper evaluation of adverse environmental impacts to be crucial in its ultimate determination of whether or not a proposed project serves the public interest under the Natural Gas Act. It is equally apparent that the Commission has struggled both procedurally and substantively with its role in adverse environmental impacts and giving appropriate weight to those impacts in its public interest determination.¹²⁸

1. <u>Recommendations for Treating Incomplete Data on Adverse</u> <u>Environmental Impacts</u>

As set out in Part B above, for projects that traverse states lacking a right of precondemnation survey access, the Commission has resorted to issuing *conditional* Section 7 certifications, replete with detailed caveats and often upwards of fifty "environmental conditions" as its means of addressing the application's underlying lack of environmental data. While the Commission acknowledges in conditional Section 7 certificates that its finding of

¹²⁸ Dominion Transmission, Inc. Order Denying Rehearing, 163 FERC ¶ 61,128, 2018 WL 2289563, at * 26 (May 18, 2018) [hereinafter Dominion Order Denying Rehearing] (Commissioner LaFleur, dissenting in part) ("I hope that the ongoing generic inquiry on the Certificate Policy Statement will provide an opportunity for additional consideration of what information the Commission should require in its pipeline applications and how it should factor into our analysis. In this way, we can work to ensure that our environmental reviews and public interest determinations, including consideration of climate change impacts, are robust and complete.").

public interest depends on the applicant's fulfilment of those environmental conditions, this practice results in inefficient authorization of projects that cannot meet substantive environmental standards under critical federal environmental laws. Even more critically, the Commission's conditional authorizations fall short of the NGA's requirement to protect the public interest, ¹²⁹ and NEPA's mandate to take a hard look at, and to disclose, adverse environmental impacts that flow from these major federal actions.¹³⁰

The Commission should institute a formal review procedure that comports with the NGA, NEPA, and gives substantive federal environmental laws well-deserved comity. If the Commission continues to grant conditional certifications, it should include therein a condition notifying the applicant that the certificate is subject to change after the Commission's preparation of a supplemental EIS that gathers, discloses, and analyzes the often voluminous missing data. Doing so will allow the Commission to accurately assess the impacts from route variations and other project changes required once those data are amassed. Additionally, as discussed below, those data may have critical impacts on core NEPA inquiries, such as the Commission's alternatives analysis. The Commission should produce a supplemental EIS accounting for and assessing all of these data. Only at that juncture, and in accordance with its formal procedure, should the Commission render a final public interest determination -- one that can rest upon complete impacts data and rigorous environmental analysis.¹³¹

2. <u>Recommendations for appropriately treating uncertainty in weighing adverse impacts</u>

¹³⁰ See Found. on Econ. Trends v. Heckler, 756 F.2d 143, 154 (D.C. Cir. 1985) (finding that "[s]imple conclusory statements of 'no impact' are not enough to fulfill an agency's duty under NEPA").

¹²⁹ See id., at *24 (Commissioner LaFleur, dissenting in part) ("As I have said repeatedly, deciding whether a project is in the public interest requires a careful balancing of the economic need for the project and all of its environmental impacts.") (internal citations omitted).

¹³¹ Sierra Nevada Forest Prot. Campaign v. Rey, 573 F. Supp. 2d 1316, 1325 (E.D. Cal. 2008), *aff'd in part*, *reversed in part and remanded by* Sierra Forest Legacy v. Sherman, 643 F.3d 1161 (9th Cir. 2011).

Despite announcing and opening this NOI docket, the Commission has recently engaged in the troubling practice of announcing new policies outside of a rulemaking context -- instead appending those untested policies to individual transmission certificate orders.¹³² One such ad hoc pronouncement, presenting the Commission's intended treatment of project emissions data as bearing on climate change, epitomizes the Commission's difficulty in confronting uncertainty.¹³³ Commissioners LaFleur and Glick both dissented in part, based on the inchoate and abrupt policy change, as well as the Commission's failure to apprehend how it should weigh adverse impacts that bear the taint of uncertainty:

Climate change poses an existential threat to our security, economy, environment, and, ultimately, the health of individual citizens. Unlike many of the challenges that our society faces, we know with certainty what causes climate change: It is the result of greenhouse gas emissions, including carbon dioxide and methane—which can be released in large quantities through the production and the consumption of natural gas. Accordingly, it is critical that, as an agency of the federal government, the Commission comply with its statutory responsibility to document and consider how its authorization of a natural gas pipeline facility will lead to the emission of greenhouse gases, contributing to climate change.¹³⁴

And this is precisely what NEPA contemplates: that the Commission will use the best science

and data to anticipate and evaluate the potential adverse environmental impacts flowing from its

¹³² See Dominion Transmission, Inc. Order Issuing Certificate, 155 FERC ¶ 61,106, 2016 WL 1723521 (Apr. 28, 2016); Order Issuing Certificate re DTE Midstream Appalachia, LLC, 162 FERC ¶ 61,238, 2018 WL 1364678, at *30, Docket No. CP17-409, Accession No. 20180315-4001 (Mar. 15, 2018) (LaFLeur and Glick dissenting) (creating a "'new policy approach towards motions to intervene out of time" by virtue of an individual pipeline order); Sabal Trail Transmission, LLC Order on Remand Reinstating Certificate and Abandonment Authorization, 162 FERC ¶ 61,233, 2018 WL 1364645 (March 14, 2018). As discussed briefly in Part D below, this creates inefficiencies and engenders litigation. Going forward, Commission policy ought to result from reasoned consideration of its core responsibilities under the NGA and NEPA, and the Commission should consistently implement those laws across certification assessments, not engaging in 'individualized' policy or reactionary rulemaking.

¹³³ Dominion Order Denying Rehearing, 2018 WL 2289563, at *23-30.

¹³⁴ Dominion Order Denying Rehearing, 2018 WL 2289563, at *27-30 (Commissioner Glick, dissenting in part); *see also id.* at * 26 (Commissioner LaFleur, dissenting in part) ("I consider the downstream information relevant to our public interest determination under the NGA. NEPA does not circumscribe the public interest standard under the NGA.") (internal citations omitted); *Columbia Gas Transmission, LLC*, 164 FERC ¶ 61,036, 2018 WL 3498278, at * 24 (July 19, 2018) (Glick, dissenting in part) ("believe the Commission cannot find that the Project is in the public interest without first considering the significance of the Project's contribution to climate change.").

decision making.¹³⁵ Moreover, NEPA requires the Commission to contend with uncertainty by attempting to eliminate it as much as possible through sound scientific modeling, weighing and disclosing uncertainty and potentiality of adverse impacts in its decision making.¹³⁶ NEPA precludes the Commission from using the presence of uncertainty as an excuse to ignore all reasonably foreseeable direct and indirect impacts and accord them no weight in a public interest analysis.¹³⁷ To help it fulfill this obligation, the Commission must require applicants to provide additional information for Section 7 certification, such as source, intended storage, distribution and end use for the gas proposed to be transported.¹³⁸ NEPA requires the Commission to

¹³⁸ See Tennessee Gas Pipeline Co., L.L.C., 163 FERC ¶ 61,190, 2018 WL 2986387, at *3 n.5 (June 12, 2018) (LaFleur, Comm'r, concurring) ("One reason the Commission lacks the specificity of information to determine causation and reasonable foreseeability is because we have not asked"); Dominion Order Denying Rehearing, 2018 WL 2289563, at * 28. (Glick, dissenting in part) ("The Commission has several opportunities throughout the pre-filing and formal application processes to issue a data request to the pipeline developer seeking information about the source of the gas to be transported as well as its ultimate end use."). See also 40 C.F.R. § 1502.22(b)(1) (even if such information "cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known," the Commission must "evaluat[e] such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.").

¹³⁵ See Sierra Club v. Dep't of Energy, 867 F.3d 189, 198 (D.C. Cir. 2017) ("[t]he basic thrust of an agency's responsibilities under the NEPA is to predict the environmental effects of proposed action before the action is taken and those effects fully known."); Scientists' Inst. for Pub. Info., Inc. v. Atomic Energy Comm'n, 481 F.2d 1079, 1092 (D.C. Cir. 1973).

¹³⁶ 40 C.F.R. § 1508.27(b)(5) ("The following should be considered in evaluating intensity: . . . the degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks."). While an agency does not have to analyze every uncertainty within the environmental analysis, it must address uncertainties raised by outside parties that have reasonable support. *See* Lands Council v. McNair, 537 F.3d 981, 1001 (9th Cir. 2008).

¹³⁷ Potomac All. v. U.S. Nuclear Regulatory Comm'n, 682 F.2d 1030, 1037 (D.C. Cir. 1982) ("It is well recognized that a lack of certainty concerning prospective environmental impacts cannot relieve an agency of responsibility for considering reasonably foreseeable contingencies that could lead to environmental damages."); City of Davis v. Coleman, 521 F.2d 661, 676 (9th Cir. 1975) ("[W]e must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as a "crystal ball inquiry.") See also S. Fork Band Council of Western Shoshone of Nevada v. Dep't of Interior, 588 F.3d 718, 729 (9th Cir. 2009) (finding that uncertainty caused by the agency's "limited understanding of the hydrologic features of the area does not relieve [the agency] of the responsibility under NEPA to discuss mitigation of reasonably likely impacts at the outset."); Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 731 (9th Cir. 2001) ("An agency must generally prepare in EIS if the environmental effects of a proposed agency action are highly uncertain."); Sierra Club v. Norton, 207 F. Supp. 2d 1310, 1333-34 (S.D. Ala. 2002) (holding a finding of no significant impact [FONSI] was arbitrary and capricious when the agency determined there would not be a significant effect on a species while acknowledging it did not know what the effect of the project would have on the species); Makua v. Rumsfeld, 163 F. Supp. 2d 1202, 1217 (D. Hawai'i 2001) (allowing a suit to go forward when the agency knew the predicted environmental effects but were uncertain about the "intensity and nature of those effects."); Nat'l Audubon Soc'y v. Butler, 160 F. Supp. 2d 1180 (W.D. Wash. 2001) (requiring an EIS when the agency indicates uncertainty about the significance of an anticipated environmental impact).

address not only uncertainty regarding the nature of project impacts, but also uncertainty regarding their breadth and scope.¹³⁹ The latter can be discerned by requiring applicants to provide it.

3. The Commission's treatment of alternatives under NEPA.

In its NEPA process, the Commission routinely adopts applicants' stated purpose and need for proposed projects.¹⁴⁰ The Commission has stated that it does not perform or disclose its need analysis within the EIS process.¹⁴¹ Since a purpose and need statement "will fail if it unreasonably narrows the agency's consideration of alternatives so that the outcome is preordained,"¹⁴² the Commission's decision not to explore project purpose and need within the NEPA context - and not until its order issuing a certificate - prevents the Commission from properly assessing an appropriate range of alternatives to applicants' proposals. Accepting applicant's statement of purpose and need for NEPA purposes necessarily undercuts the "heart of

¹³⁹ Dominion Order Denying Rehearing, 2018 WL 2289563, at * 28 (Glick, dissenting in part) ("Forecasting environmental impacts is a regular component of NEPA reviews and a reasonable estimate may inform the federal decisionmaking process even where the agency is not completely confident in the results of its forecast.").
¹⁴⁰ See, e.g., Fed. Energy Regulatory Comm'n, PennEast Pipeline Project—Final Environmental Impact Statement, at 1-3–1-4 (April 7, 2017) [hereinafter PennEast Final EIS].

¹⁴¹ See, e.g., Commission Letter to Senator Lesniak, FERC Docket No. CP15-558, Accession No. 20161103-0023 ("The EIS briefly discusses PennEast's stated purpose, but does not determine whether the need for the Project exists. Project need will be determined separately by the Commission in its Order to approve or deny the project."); Letter from Cheryl A. LaFleur, Acting Chairman, FERC, to Cory A. Booker, United States Senator, FERC Docket No. CP15-558-000 (Apr. 19, 2017) ("The EIS...does not constitute...determination of public need...The Project need will be determined separately by the Commission in its Order "). As set out in Part D below, the Commission should reveal the independent economic analysis upon which it relies to determine need either (1) in the draft EIS, or (2) as a separate matter of public record in the relevant docket, when it makes that threshold determination. Current Commission practice, in which its mandated conclusions (but not its staff economic analysis) regarding public need are not disclosed until after it has made its public convenience and necessity determination, does not comport with NEPA's disclosure requirements and deprives the public of any opportunity to weigh in. ¹⁴² Protect Our Cmtys. Found. v. Jewell, 825 F.3d 571, 579 (9th Cir. 2016) (quoting Alaska Survival v. Surface Transp. Bd., 705 F.3d 1073, 1084 (9th Cir. 2013)); see also Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt., 606 F.3d 1058, 1072 (9th Cir. 2010) (invalidating a purpose and need statement where the agency "adopted [the applicant's] interests as its own to craft a purpose and need statement so narrowly drawn as to foreordain approval"); Simmons v. U.S. Army Corps of Eng'rs, 120 F.3d 664, 669 (7th Cir. 1997) (rejecting an EIS that was based on "wholesale acceptance of [the project applicant's] definition of purpose"); Citizens Against

Burlington v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991).

the environmental impact statement," the alternatives analysis,¹⁴³ by leading the Commission to ignore alternatives that do not involve the construction of a pipeline to transport gas.¹⁴⁴

Rather, as discussed in Part A above, the Commission should engage in a rigorous analysis to determine whether there are true capacity deficits and explore ways to meet any documented unmet peak demand in the region the project proposes to serve, rather than evaluating only a very narrow set of alternatives that provide additional pipeline infrastructure. Because "many projects are designed for peak use," it "is rarely the case" that gas transmission pipelines are consistently, if ever, full.¹⁴⁵ Gas-fired generators, which benefit from excess capacity, have a peak demand curve that complements gas transmission for home heating: when one is at peak, the other experiences low demand.¹⁴⁶ A rigorous public need analysis, considering all the factors described in Part A above, should be deployed to inform what alternatives are available to meet any public need for additional gas transmission capacity to serve a disclosed region or end use.¹⁴⁷

In particular, "[a] no action alternative in an EIS allows policymakers and the public to compare the environmental consequences of the status quo to the consequences of the proposed action."¹⁴⁸ To date, however, the Commission has summarily dismissed no-action alternatives

¹⁴³ See 40 C.F.R. §1502.13-14. See also; W. Watersheds Project v. Abbey, 719 F.3d 1035, 1052 (9th Cir. 2013) (noting that all alternatives that can "feasibly meet the project's goal . . . should be considered in detail"); Busey, 938 F.2d at 196.

¹⁴⁴ See, e.g., PennEast Order, at *80 ("because the proposed Project's purpose is to transport natural gas," the Commission did not consider renewables as an alternative.). This reasoning conflicts with the Commission Guidelines discussed in FN 150 herein, and is wholly inconsistent with NEPA's mandate to consider reasonable alternatives.

¹⁴⁵ PennEast Order, at *52 ("This estimate also assumes the maximum capacity is transported 365 days per year, which is rarely the case because many projects are designed for peak use.").

¹⁴⁶ See GREG LANDER, SKIPPING STONE, ANALYSIS OF PUBLIC BENEFIT REGARDING PENNEAST PIPELINE, in Intervenors' Comments on PennEast's Application, Docket No. CP15-558, Accession No. 20160311-5209, exhibit A at 18 (Mar. 9, 2016).

¹⁴⁷ As Commissioner LaFleur noted, such information can be ascertained by asking the applicant to disclose it in its initial application. *See Atlantic Coast Pipeline*, *LLC*, 2017 WL 4925429, at *98-100; *Mountain Valley Pipeline*, 2017 WL 4925425, at *82-84.

¹⁴⁸ Ctr. for Biological Diversity v. U.S. Dep't of the Interior, 623 F.3d 633, 642 (9th Cir. 2010).

for gas transmission projects by asserting that if it did not certify the project at hand, other transmission projects or facilities "might" or "could" be proposed in their stead, with attendant environmental impacts.¹⁴⁹ If the Commission follows the recommendations presented herein regarding a proper assessment of need, that alone will eradicate such speculation or uncertainty, ensuring that the Commission is well-positioned to carefully consider the actual impacts of a no-action alternative. The Commission currently has guidelines in place that provide for a more critical alternatives analysis. These guidelines recognize that consideration of energy alternatives, including clean energy alternatives, are germane to the analysis of a no build alternative under NEPA.¹⁵⁰ By rigorously implementing these guidelines, the Commission will ensure that it has engaged in reasoned decision making, only issuing certifications for projects that are required to be built.¹⁵¹

4. <u>The Commission Must Improve its Cumulative Impacts Analysis.</u>¹⁵²

¹⁴⁹ See, e.g., PennEast Final EIS, *supra* note 140, at 3-3 (the no-action alternative "could" have environmental impacts from hypothetical capacity projects that "could" arise).

¹⁵⁰ Commission guidelines instruct project applicants to "[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," and to "[d]iscuss energy alternatives in sufficient detail to convincingly present the advantages or disadvantages of natural gas relative to oil, coal, electricity, and other alternative fuels readily available in the project area," including "relative impacts on air quality, . . . relative transportation impacts . . ., and relative environmental and economic impacts associated with the construction of natural gas-based versus alternative fuel-based facilities." FERC, GUIDANCE MANUAL FOR ENVIRONMENTAL REPORT PREPARATION 3-106 (2002). While some applicants submit this information for non-jurisdictional facilities, many do not. *See e.g.*, Columbia Gas Transmission, LLC, 2018 WL 3498278, at *23 (LaFleur, concurring) ("I believe, in cases such as this, we should request that pipeline applicants provide more specific environmental information about related non-jurisdictional projects. Here, Columbia provided limited details on the Mountaineer Project, therefore we were only able to disclose very limited information on the environmental impacts of the Mountaineer Project as part of our cumulative impacts analysis.") (internal citations omitted).

¹⁵¹ See 15 U.S.C.§ 717f(e) (providing the Commission can grant certification to a project that "is or will be required by the present or future public convenience and necessity; *otherwise such application shall be denied.*") (emphasis added).

¹⁵² Because the Commission asked a number of questions on climate change impacts, analysis of those impacts are incorporated by reference below is a separate section. However, a project's greenhouse gas emissions also must be evaluated as part of the Commission's assessment of a project's cumulative impacts.

The Commission's approach to addressing uncertainty presents additional problems throughout its NEPA cumulative impacts review. NEPA's mandate that agencies must look at cumulative impacts is premised on scientific acceptance of the collective environmental destruction that can occur from incremental impacts resulting from multiple sources.¹⁵³ Currently, the Commission discloses but does not assign any particular weight to cumulative impacts because it has not adopted appropriate quantification tools to assist with such calculations and analysis.¹⁵⁴ Yet such tools exist. "[T]o ignore the economic value (including monetary value) of nature is to reduce the ability to make robust arguments that have a chance of informing decisions for the conservation of important ecosystems. The use of monetary valuation in many cases enhances the social visibility of the benefits brought about by environmental protection and restoration."¹⁵⁵ One rich source of ecological impacts assessment tools is the Environmental Impact Assessment Review, a refereed, interdisciplinary journal serving a global audience of practitioners, policy-makers, regulators, academics and others with an interest in the field of impact assessment journal that has been published for decades. There are also books and treatises devoted to ecological impacts assessment tools.¹⁵⁶ In addition, there is a global network of researchers, practitioners, and users of various types of impact assessment from all parts of the

¹⁵³ See 40 C.F.R. § 1508.7 (assessment of cumulative impacts must include all "impact[s] on the environment which result[] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions."); Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1214 (9th Cir. 1998) ("If several actions have a cumulative environmental effect, this consequence must be considered in an EIS.") (internal quotation and citation omitted).

¹⁵⁴ See, e.g., Grand Canyon Tr. v. Fed. Aviation Admin., 290 F.3d 339, 342 (D.C. Cir. 2002) (observing that "it makes sense to consider the 'incremental impact' of a project for possible cumulative effects by incorporating the effects of other projects into the background 'data base' of the project at issue") (internal quotation and citation omitted).

¹⁵⁵ DANIELA RUSSI ET AL., THE ECONOMICS OF ECOSYSTEMS & BIODIVERSITY (TEEB) FOR WATER & WETLANDS 26 , http://doc.teebweb.org/wp-content/uploads/2013/04/TEEB_WaterWetlands_Report_2013.pdf (providing tools for economic modeling and assessment of water and wetlands impacts so they may be considered in reasoned decision making). TEEB economic valuation tools have been developed for precisely this purpose.

¹⁵⁶ See, e.g., Y. Anjaneyulu & V. Manickam, ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGIES (2011).

world representing multiple disciplines and professions.¹⁵⁷ Section 7 projects result in forest destruction and segmentation, wetlands loss, water quality impacts, endangered species impacts, and air quality impacts,¹⁵⁸ among others.

The Commission catalogues such impacts from the project under consideration, and discusses other projects impacting the same resources, providing acreage data for physical losses, but its analysis stops there. The Commission's NEPA analysis has never found a project to result in significant adverse impacts because it has not implemented any methodology for giving meaning to that qualitative assessment. There are many economic valuation tools to choose from, and the Commission's selection and utilization of any one of them would provide a concrete and meaningful way for it to assign value to the cumulative impacts of the proposed project together with other projects affecting the same resources; it will yield an in-depth quantitative analysis rather than a conclusory, qualitative one. In turn, the Commission will be better equipped to weigh appropriately adverse environmental impacts in an ultimate public interest determination.¹⁵⁹

¹⁵⁹ Comments submitted to this NOI docket by the Environmental Protection Agency recommended that the Commission use valuation tools like the Social Cost of Carbon for "project analyses when [the Commission] determines that a monetary assessment of the impacts associated with the estimated net change in GHG emissions provides useful information in its environmental review or public interest determination." United States Environmental Protection Agency, Comments, Docket No. PL18-1-000, at 4–5 (filed June 21, 2018). In doing so, the EPA explicitly acknowledged that such valuation yielded information for ultimately determining whether or not a project was in the public interest. *See* Dominion Order Denying Rehearing, 2018 WL 2289563, at *27 (Commissioner Glick, dissenting in part) ("Climate change poses an existential threat to our security, economy, environment, and, ultimately, the health of individual citizens....For that reason, the Commission cannot determine whether a natural gas pipeline is in the "public interest" without considering the effect that granting a certificate will have on climate change. I certainly cannot support issuing a certificate where the Commission has not made its best

¹⁵⁷ The International Association for Impact Assessment was organized in 1980 and has over 1700 members from 120 nations. IAIA Vision & Mission, INT'L ASS. FOR IMPACT ASSESSMENT, http://www.iaia.org/about.php (last visited July 24, 2018).

¹⁵⁸ As noted by Commissioners Glick and LaFleur, upstream and downstream emissions must be fully disclosed and analyzed in the Commission's direct, indirect and cumulative impacts analysis. See Dominion Order Denying Rehearing, 2018 WL 2289563, at * 26 (Commissioner LaFleur, dissenting in part) ("At a time when we are grappling with increasing concern regarding the climate impacts of pipeline infrastructure projects, the Commission should not change its policy on upstream and downstream impacts to provide less information and be less responsive. Rather, I believe the Commission should proactively seek and disclose in pipeline proceedings more information regarding both upstream production and downstream enduse.").

5. <u>Climate Change</u>

Commenters adopt the portions of the Comments of Public Interest Organizations,¹⁶⁰ submitted in this docket, regarding the vital importance of including, quantifying, and disclosing upstream and downstream emissions based on full-burn, and using the Social Cost of Carbon tool for impacts valuation.

D. Recommendations to Improve Commission Review Process Efficiency (D1-D4)

The Commission has already laid the groundwork for a review process that can be implemented to improve its efficiency. This review process is found in the Commission's Certificate Policy Statement and in its regulations. First, the Commission should strictly enforce the Certificate Policy Statement's requirement that the following data will be used to assess project need, and consider all of these indicia: precedent agreements, demand projections, potential cost savings to consumers, or a comparison of projected demand with the amount of capacity currently serving the market.¹⁶¹ Second, the Commission can strongly enforce its existing regulations that require applicants to provide substantial economic and environmental data and analyses in their initial applications, and deny applications that do not contain requisite materials.

Once the Commission has interpreted strictly its rules requiring the quantity and quality of data submissions to support an application, the Commission should establish the following five-step process for the collection of public input and comment on the data that it has gathered.

effort to collect information regarding those emissions. Accordingly, I believe that the NGA's public interest standard requires the Commission to consider greenhouse gas emissions associated with the incremental production and consumption of natural gas caused by a new pipeline.").

¹⁶⁰ Comments of Public Interest Organizations, authored by Sustainable FERC Project, Natural Resources Defense Council, Earthjustice, et al.

¹⁶¹ Certificate Policy Statement, 88 FERC ¶ at 61,750.

First (1), it should publish notice on the docket that it is soliciting and collecting independent economic data addressing the applicant's asserted need. Second (2), the Commission should direct its staff to analyze all data regarding need, both publicly submitted and applicant-generated. Third (3), it should publish a report containing staff's independent analysis of need, together with all data utilized to produce this report.¹⁶² Fourth (4), it should provide a comment period on staff's economic report; and finally fifth (5), it should provide a final staff report addressing public need.¹⁶³

If the Commission report yields a positive finding of unmet demand, then the Commission should proceed to its NEPA inquiry, in which a true accounting of alternatives to the verified purpose and need for the proposed project, including no-action, can be produced. For projects spanning states that fail to provide access for environmental and geotechnical surveying, the NEPA process should utilize best currently available data, forecasting, environmental economic valuation tools, in consultation with other federal and state agencies, to produce a draft EIS and then final EIS that explicitly identify any missing data and substantive analyses that have the potential to alter its findings.¹⁶⁴ The Commission should inform both the applicant and

¹⁶² See, e.g., E. Tennessee Nat. Gas Co. v. Sage, 361 F.3d 808, 819 (4th Cir. 2004) (describing Commission process in which initial comment was sought on project need, and then noting that "FERC released its preliminary [economic] determination on March 27, 2002. In this document, *which did not cover environmental issues*, the Commission found that the Patriot Project would . . . supply gas to new electric generation plants, meet the needs of local utilities for additional gas, and bring gas service to portions of southwestern Virginia for the first time.") (emphasis added).

¹⁶³ This process would yield a well-vetted record that is substantially less resource intensive than an evidentiary hearing, which the Commission may also provide under existing regulations to develop a robust record for need determinations. *See, e.g.*, 18 C.F.R. §§ 385.206, .502, 506 (2018); *see also* Corrosion Proof Fittings v. E.P.A., 947 F.2d 1201, 1214 (5th Cir. 1991), opinion clarified (Nov. 15, 1991) ("The [substantial evidence] test 'imposes a considerable burden on the agency and limits its discretion in arriving at a factual predicate."") (internal citations omitted); Mobil Oil Corp.483 F.2d at 1260 (the Natural Gas Act requires that the record "should contain sufficient unimpeachable - or at least persuasive - evidence to support the conclusion the Commission has reached. ... A 'whole record,' as that phrase is used in this context, does not consist merely of the raw data introduced by the parties. It includes the process of testing and illumination ordinarily associated with adversary, adjudicative procedures.").

¹⁶⁴ The EIS and any supplements thereto must rely on evidence that is available to the public. Any data or analyses incorporated by reference must be disclosed, as required by both NEPA and FOIA.

the public that it will revisit its NEPA findings in a supplemental final EIS containing all outstanding environmental data and analyses, as those may substantially change the Commission's ultimate determination of public interest.

Following this process will increase meaningful public participation, as well as reduce protracted litigation.¹⁶⁵ The Commission's current practice, in which it does not disclose its economic analysis, and only shares economic conclusions when it issues a Certificate, precludes both the public and independent energy experts from providing the Commission with a balanced perspective that serves as a check on the applicant's private corporate goals.¹⁶⁶ This helps the Commission fulfill its essential goal under the NGA - guarding the public interest.¹⁶⁷

While acting as lead agency, the Commission should continue to respect the role of federal and state agencies charged with implementing substantive environmental statutes. Requiring applicants to consult with those agencies regarding proposed projects as early in the process as possible can also minimize the potential that the Commission expends its own staff resources on projects for selected routes that are, from the outset, difficult to plan consistent with state water quality and ecologically sensitive resources. Moreover, performing a threshold, robust economic assessment of need should substantially reduce the Commission's workload, as applicants become newly aware that Commission resources will not be expended fully vetting projects that lack indicia of public need, and are ultimately not in the public interest.

¹⁶⁵ Chairman Kevin J. McIntyre discusses his views on energy and his goals as Chairman, FERC Podcast Transcript (Dec. 15, 2017), https://www.ferc.gov/media/podcast/2017/12-20-transcript.pdf ("I think we owe it to stakeholders and to the public itself to be as transparent as we can...").

¹⁶⁶ Guarding the public interest requires fair and impartial decision making, which, in turn, cannot be premised exclusively upon information generated and selectively provided by the regulated community.

¹⁶⁷ Pennsylvania Power Co. v. Fed. Power Comm'n, 343 U.S. 414, 418 (1952) ("A major purpose of the (Power) Act is to protect power consumers against excessive prices."); Fed. Power Comm'n v. Hope Gas Co., 320 U.S. 591, 610 (1944); Columbia Gas Transmission, LLC v. 1.01 Acres, More or Less in Penn Twp., York City., Pa., 768 F.3d 300, 331(3rd Cir. 2014).

III. CONCLUSION

The NGA's mandate, from its inception, has always been to protect the public interest against exploitation at the hands of private corporations in control of limited resources.¹⁶⁸ In 1938, that meant conserving and allocating limited gas resources, as well as managing steel supply shortages, to ensure that the public's energy needs were met. Congress was determined to protect the public's interest in having a safe and secure energy supply. As Commissioner Glick recently stated,

Climate change poses an existential threat to our security, economy, environment, and, ultimately, the health of individual citizens....For that reason, the Commission cannot determine whether a natural gas pipeline is in the "public interest" without considering the effect that granting a certificate will have on climate change. I certainly cannot support issuing a certificate where the Commission has not made its best effort to collect information regarding those emissions. Accordingly, I believe that the NGA's public interest standard requires the Commission to consider greenhouse gas emissions associated with the incremental production and consumption of natural gas caused by a new pipeline.¹⁶⁹

When grappling with changes to its implementation of the existing Certificate Policy Statement,

the Commission must first focus on requiring and incorporating all data that yields a robust determination of whether there is public need for the additional gas transmission infrastructure in

the region and for the uses disclosed by the applicant. Then the Commission must incorporate

the recommendations herein that will assist it in amassing and quantifying the full scope of

adverse environmental impacts that may result from that developing new infrastructure. Such

¹⁶⁸ Fed Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591, 602-03 (1944).; *see also* Pub. Utils. Comm'n of Cal. v. FERC, 900 F.2d 269, 281 (D.C. Cir. 1990) (quoting NAACP v. FERC, 425 U.S. 662, 670 (1976)) ("[t]he broad public interest standards in the Commission's enabling legislation are limited to 'the purposes that Congress had in mind when it enacted this legislation.'"). The D.C. Circuit Court further explained that, for the Natural Gas Act, these purposes include "encourag[ing] the orderly development of plentiful supplies of . . . natural gas at reasonable prices'" as well as "conservation, environmental, and antitrust issues.'" *Id.* (quoting NAACP, 425 U.S. at 670 n.6).

¹⁶⁹ Dominion Order Denying Rehearing, 2018 WL 2289563, at * 27 (Glick, dissenting in part).

environmental harms bring attendant significant economic damages, capable of making the proposal uneconomic, in addition to inflicting public harms from loss of clean air, clean water and physical safety resulting from accelerated climate change factors. The Commission cannot determine that the public requires a project to be built if on balance, building it will cause more harm than benefit.

Respectfully submitted,

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As counsel for **New Jersey Conservation Foundation** and **The Watershed Institute**

Kelly Martin Director, Beyond Dirty Fuels Campaign **Sierra Club** Federal Energy Regulatory Commission Washington, DC 20426 SEP 2 9 2017

Re: FOIA No. FY17-97 Response Letter

VIA ELECTRONIC AND REGULAR MAIL

Jennifer Danis Eastern Environmental Law Center 50 Park Place, Suite 1025 Newark, NJ 07102 jdanis@easternenvironmental.org

Dear Ms. Danis:

On August 8, 2017 you filed a request for information pursuant to the Freedom of Information Act (FOIA) and the Federal Energy Regulatory Commission's (Commission or FERC) FOIA regulations, 18 C.F.R. § 388.108 (2017).¹ Specifically, you requested documents containing, reflecting, or providing analysis representing the FERC staff review of economic data related to project need, prepared in relation to the PennEast pipeline project, FERC Docket No. CP15-558-000.

A search of the Commission's non-public files identified three non-public documents that may be responsive to your request. These documents, which are comprised of precedent agreements and subsequent amendments (hereafter "Precedent Agreements"), were filed as privileged and confidential by PennEast Pipeline Company, LLC (PennEast). In accordance with Commission regulations, on September 15, 2017, Commission staff notified PennEast of your request and provided an opportunity to comment pursuant to 18 C.F.R. § 388.112.

PennEast submitted comments on September 22, 2017 objecting to the release of the documents on the grounds that they are both non-responsive and exempt from disclosure pursuant to FOIA Exemption 4. PennEast asserts that because the Precedent Agreements contain trade secrets and commercial or financial information obtained from a person as privileged or confidential, that they should be protected, consistent with to FOIA Exemption 4.²

Commission staff agrees that the documents are protected from disclosure under FOIA Exemption 4. FOIA Exemption 4 protects from disclosure "trade secrets and commercial or financial information obtained from a person and privileged or

¹ 5 U.S.C. § 552, *as amended* by the FOIA Improvement Act of 2016, Pub. L. No. 114-185, 130 Stat. 538 (2016).

² See 5 U.S.C. § 552(b)(4) (protecting certain confidential commercial information).

confidential." The Precedent Agreements contain negotiated terms and commercially sensitive information that is confidential financial information not customarily released to the public. *See National Parks & Conservation Ass'n v. Morton*, 498 F.2d 765, 770 (D.C. Cir. 1974) (commercial or financial matter is 'confidential' for purposes of the exemption if disclosure of the information is likely to have either of the following effects: (1) to impair the Government's ability to obtain necessary information in the future; or (2) to cause substantial harm to the competitive position of the person from whom the information was obtained.").

The Precedent Agreements are confidential for purposes of FOIA Exemption 4 because release of the data would reveal confidential commercial information about private companies which could cause substantial harm to PennEast and other referenced companies in the agreement. In addition, release would impair the Government's ability to obtain such information in the future. Accordingly, the documents will not be disclosed.

As provided by the FOIA and 18 C.F.R. § 388.110(a)(1) of the Commission's regulations, any appeal from this determination must be filed within 90 days of the date of this letter. The appeal must be in writing, addressed to James Danly, General Counsel, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C., 20426, and clearly marked "Freedom of Information Act Appeal." Please include a copy to Charles A. Beamon, Associate General Counsel, General and Administrative Law, at the same address.

You also have the right to seek dispute resolution services from the FOIA Public Liaison of the agency or the Office of Government Information Services (OGIS). Using OGIS services does not affect your right to pursue your appeal. You may contact OGIS by mail at Office of Government Information Services, National Archives and Records Administration, Room 2510, 8601 Adelphi Road, College Park, MD 20740-6001; email at ogis@nara.gov; telephone at 301-837-1996; facsimile at 301-837-0348; or toll-free at 1-877-684-6448.

Sincerely eonard M. Tao

Director Office of External Affairs

cc: James D. Seegers, Esq. Counsel for PennEast Pipeline Company, LLC 1001 Fannin Street, Suite 2500 Houston, TX 77002 jseegers@velaw.com jdanis@easternenvironmental.org - Electronic FOIA Request Form FOIA-2017-97 Accepted: August 8, 2017 Webform@ferc.gov <webform@ferc.gov> Track 2 Mon 8/7/2017 10:35 AM To: Sterling Poteat < Sterling.Poteat@ferc.gov>; FOIA-CEII < FOIA-CEII@ferc.gov, Date: September 6, 2017

Title:

First Name: Jennifer Last Name: Danis Organization: Eastern Environmental Law Center Street Address: 50 Park Place, Ste. 1025 Street Address2: City: Newark State: NJ **Zip Code: 07102** Country: United States Phone: 9734241485 Fax: Email: jdanis@easternenvironmental.org **Request Type: FOIA**

Your Request: A copy of documents containing information regarding

Reasonably describe the records you are seeking: On behalf of its clients, New Jersey Conservation Foundation and Stony Brook Millstone Watershed Association, we request a copy of documents containing, reflecting or providing analysis representing the FERC staff review of economic data related to project need, prepared in relation to the PennEast pipeline project, FERC Docket: CP15-558-000. The existence of such analysis was referenced in FERC CP15-558, Accession #20170421-0010 ("The Commission will consider . . . the results of staff's review of the project's design, market demand, costs, financing, and rates before making its decision on whether or not to authorize this project.") FERC Docket CP15-558, Accession # 20161103-0023 states that project need, the subject of this FOIA request, is not contained within the EIS for this project.

Intake Method: Web Requested Delivery Method: Electronic Copy Reason for Expedited: Submitter Expedited Justification:

I certify that the above statement(s) concerning expediting processing are true and correct to the best of my knowledge and belief: No Payment of Fees: Request Fee Waiver

Fee Waiver Justification: In order to help to determine Eastern Environmental Law Center's (EELC) status for purposes of determining the applicability of any fees, you should know that EELC is a 501(c)(3), and this request is not made for a commercial use, but rather in the public interest. I request a waiver of all fees for this request. Disclosure of the requested information to me is in the public interest because it is likely to contribute significantly to public understanding of the operations or activities of the government and is not primarily in my commercial interest. It will be used by clients to pursue environmental advocacy and further their clean energy program goals.

Date Received: 08-07-2017 10:35:16 AM EDT

ELIBRARY INDEX SHEET

Submittal 20150925-5030 Document Components 09/24/2015 CP15-558-000 09/25/2015 Application of App PennEast Pipeline Company, LLC for Certificates of Cor Public Convenience and Necessity and Related Authorizations under CP15-558. Availability: Privileged

Application/Petition/Request / Certificate of Public Convenience and Necessity Analysis of Regional Pipeline System's Ability to Deliver Sufficient Quantities of Natural Gas During Prolonged and Extreme Cold Weather (Winter 2017-2018)



Author: Greg Lander

For

The New Jersey Conservation Foundation



www.skippingstone.com February 11, 2018

About Skipping Stone

Skipping Stone is a global energy markets consulting and technology services firm that helps clients navigate market changes, capitalize on opportunities and manage business risks. Our diverse services include market assessment, strategy development, strategy implementation, managed services, talent management and innovation collaboration. Market sector focus areas include natural gas and power markets, renewable energy, demand response, technology services and distributed energy resources. Skipping Stone's model of deploying only energy industry veterans has delivered measurable bottomline results for over 260 clients globally. Headquartered in Boston, the firm has offices in Atlanta, Houston, Los Angeles, Tokyo and London. For more information, visit www.SkippingStone.com

Skipping Stone operates Capacity Center which is a proprietary technology platform and data center that is the only all-in-one Capacity Release and Operational Notice information source synced with the Interstate pipeline system. Our database not only collects the data as it occurs, it is a storehouse of historical Capacity Release transactions since 1994. We also track shipper entity status and the pipeline receipt and/or delivery points, flows and capacity. Our analysts and consultants have years of experience working in natural gas markets. Capacity Center has worked with over a hundred clients on a wide variety of natural gas market and pipeline related reports and projects.

Headquartered in Boston, the firm has offices in Atlanta, Houston, Los Angeles, Tokyo and London. For more information, visit <u>www.SkippingStone.com</u>.

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Skipping Stone previously analyzed the justification for PennEast as required to provide year round service, or even to ostensibly meet peak winter demand, and found no evidence that it was required.¹ See Analysis of Reliability in Electric and Gas Markets, Cost Savings and Project Need (Nov. 28, 2016); PennEast Analysis of Alternatives (Sept. 12, 2016); Analysis of Public Benefit Regarding PennEast Pipeline (Mar. 9, 2016). Skipping Stone hereby updates that analysis with the data from the most recent winter to date², and presents its results.

When assessing the need for <u>additional</u> interstate pipeline capacity, the central question should be whether the current pipeline system is able to deliver sufficient quantities of natural gas under stress; more specifically, during prolonged and extreme cold weather. The recent period of historic and prolonged cold weather in December 2017 and January 2018 provides an excellent opportunity to address this central question.

Our analysis shows that gas flow for this region is now bi-directional, which has greatly expanded the available delivery capacity, without the addition of additional, pipeline capacity into the subject region. In fact, recent performance shows that the system delivered in Zones 5 and 6 ~23% more natural gas than the total contracted delivery capacity on the Transco pipeline in Zones 5 and 6. This growth in delivered capacity has occurred with capacity in existence as of this writing, i.e., without building any additional pipeline capacity into the subject regions. The growth results from the bi-directional flow of gas in the Transco system, which allows for multiple deliveries within and across Zones using the same pipeline path.

This analysis shows that PennEast is not needed to meet peak winter demand, not even for a single day, even during extreme weather events. Given the addition of Atlantic Sunrise capacity by June 2018, which increases capacity in the region by another 14%, and the existence of substantial, in-region, interstate-pipeline connected, peaking supplies³, it is difficult to imagine any scenario for at least a decade where additional pipeline capacity will be required.

Background

Transco is one of five major interstate pipeline networks that enter, exit or run through New Jersey. Transco, a major supplier to the region, is the predominant destination for more than 90%+ of proposed PennEast supplies and thus examination of the physical and market dynamics evidenced on Transco this past winter provides an important and dispositive insight into the central question under study. On the Transco system, New Jersey is located in Zone 6, which runs from Maryland to New York City and Long

³ There are LNG vaporization facilities connected to Transco: 1) in the Zone 6 NY pricing region of Transco; 2) from the Cove Point MD LNG Terminal which feeds Transco near the Zone 5/6 border; 3) in Zone 6 Philadelphia; and 4) by contract on Algonquin where a Transco shipper receives LNG in Providence RI into Algonquin which delivers the receipt quantity by "backhaul" to Transco outside NY for delivery by Transco to the Transco Shipper in NYC.



¹ FERC's Order correctly notes that projects like PennEast are typically aimed at addressing only peak demand. ² The data for the winter to date includes data encompassing the weather episode referred to as the "bomb-

cyclone" and/or the "bomb-o-genesis" ³ There are LNG vaporization facilities connected to Transco: 1

Island. South of Transco's Zone 6, is Transco's Zone 5. Zone 5 runs from ~the Georgia/South Carolina Border to the Virginia/Maryland border.

Generally, pipeline capacity, while fully subscribed, is fully utilized only during extreme cold weather, when heating needs are fully met and electric generation plants and other customers with interruptible contracts use the remaining available capacity in the secondary market⁴. Historically, pipelines in the New Jersey region were fully utilized only 20-30 days per year, and depending on cost and availability of peaking supplies, new pipeline capacity may be warranted when existing pipeline capacity is fully utilized to meet firm demand around 50 -60 days per year. Traditionally, LDCs are the primary customers for firm capacity, as they are required to ensure that pilot lights do not go out for residents and businesses, especially during prolonged periods of cold weather.

Historically, Transco's supply sources were located in Texas and the Gulf Coast and brought to the Northeast throughout the year. This analysis shows that the historic pattern has changed and that Transco is no longer a uni-directional system. With uni-directional flow, the amount of gas that could be delivered was constrained by the physical, forward haul, capacity of the pipeline, resulting in full utilization 20-30 days per year.

The direction of gas flow in the mid-Atlantic and Northeast region has changed significantly in the past few years for several reasons. First, large quantities of natural gas are now supplied from the Marcellus region, into Transco at locations in Zone 5 and Zone 6. Second, substantial new pipeline capacity has been added both to Transco and to other pipelines in the region (many of which connect, and deliver gas, to Transco) since 2011.

⁴ Pipeline capacity into, out of, and throughout the Northeast is "fully subscribed". "Fully subscribed" means that were every contract to be scheduled from primary receipt point(s) to primary delivery point(s) up to the Maximum Daily Transportation Quantity on the contract, there would be no remaining firm, primary to primary, capacity that the pipeline would have available to sell. Fully subscribed does not take into account use of, or possible amount of, firm capacity available for transacting deliveries through segmentation. Neither does fully subscribed mean fully utilized even on a once through (i.e., no segmentation) basis. During periods of less than full utilization, a pipeline can sell interruptible capacity and/or contract holders can release (sell) a portion of their unutilized firm capacity to others; both of which are commonly referred to as the "secondary market".



New analysis of recent peak demands

Exhibit 1. Analysis of Transco pipeline contracted capacity and deliveries during recent period of winter peak demand⁵



Exhibit 1.

Our analysis is shown in Exhibit 1. During the period from November 1, 2017 through January 20, 2018, analysis of gas contracts and deliveries on the Transco pipeline in Zone 6 shows that

- The contracted delivery capacity in Zone 6 was **4.9** billion cubic feet per day (Bcf/d). This total is the maximum "firm" capacity contracted by LDCs and others to locations in Zone 6. (depicted by the green line)
- Most days, holders of firm capacity do not actually use all of this capacity, even during winter months. On average, **4.1** Bcf/d was utilized to deliver to Zone 6 locations (the brown line) during this period evidenced by the average of actual scheduled deliveries.
- The data shows that scheduled deliveries by Transco (depicted by the light blue line) were (and resultant utilization of Zone 6 capacity was) higher than the maximum contracted Zone 6 delivery capacity on many days. In Zone 6 alone, at its peak, the system delivered more than 5.23 Bcf/d. This means that the system delivered ~300 million cubic feet per day more than the maximum contracted delivery capacity, an increase of ~6% over contracted delivery capacity.

⁵ All contract data obtained from Transcontinental Gas Pipe Line Informational Postings, Index of Customers listing for 01/01/2018. All Scheduled Quantity data obtained by direct computer to computer electronic data interchange from pipeline database that also displays data on the pipeline's informational postings of Operationally Available (OA) capacity. OA data provides the scheduled quantity at every location as well as the remaining "operationally available" quantity at such location. Each location's scheduled quantity is identified as a "receipt" or "delivery" quantity.



 Notably, even on the highest Zone 6 demand day on the Transco system, there remained 1.7 Bcfd of capacity through Zone 6 (i.e., in addition to the contracted delivery capacity into Zone 6) that was not utilized to meet Zone 6 demand.

The high level of Zone 6 deliveries plus the 1.7 Bcfd of remaining, Path, capacity through Zone 6 to the south shows that there is now "extra" capacity that is available to provide natural gas to customers in Zone 6's region that did not exist when the Transco line was uni-directional and flowing to the north from the Gulf Coast during the winter months.

Below, in Exhibit 2 is analysis of Transco pipeline contracts and deliveries during the same recent period of winter peak demand encompassing Transco Zone 6 plus the mid-Atlantic region of Transco (i.e., Zone 5).



Exhibit 2.

This Exhibit 2 analysis shows that:

- The contracted delivery capacity in Zone 5 and Zone 6 was **7.4** Bcfd). This total is the maximum "firm" capacity contracted by LDCs and others to locations in Zones 5 and 6. (depicted by the green line)
- Most days, holders of firm capacity do not actually use all of this capacity, even during winter months. On average, ~7.1 Bcf/d (depicted by the brown line) was utilized during this period evidenced by actual scheduled deliveries. Thus, on average, at least 300 million cubic feet per day of the capacity was available to others in the secondary market.
- Scheduled deliveries by Transco (depicted by the light blue line) were (and resultant utilization of combined Zones 5 & 6 capacity was) often higher than the sum of the maximum contracted Zones 5 and 6 delivery capacity. At its peak, the system delivered more than 9.6 Bcf/d. This means that the system delivered ~2.2 Bcfd more than the maximum contracted delivery capacity, an increase of ~23% over combined, contracted, delivery capacity.

The data also shows that segmentation (discussed below) allowed even higher deliveries on the coldest days when demand was highest. Up to 500 million cubic feet per day (MMcfd) or 0.5 Bcfd of additional deliveries were made through segmentation on the coldest days. (the blue peaks above the light blue line)

The high level of deliveries shows that there is now "extra" capacity that is available to provide natural gas to customers in both the Zone 5 and Zone 6 regions that did not exist when the Transco line was unidirectional and flowing to the north during the winter months.

Below, in Exhibit 3 Skipping Stone presents the net "mass balance" view of Zone 6 during the same time period presented in Exhibits 1 and 2. A net mass balance for a zone of a pipeline system is the sum of all scheduled receipts in that zone over a time period minus all scheduled deliveries in that zone over the same time period.⁶ For our purposes the time period is, for each point plotted, a single day. Under this analysis a negative number indicates that there are more deliveries out of the pipe in the Zone than receipts into the Zone; and, a positive number indicates there is an excess of receipts in the zone; in which case the gas has to leave Zone 6 and proceed to Zone 5⁷ (i.e., move southward towards the Gulf Coast).



Exhibit 3.

As can be seen in Exhibit 3, above, even on the day of highest prices and highest deliveries to Zone 6 locations, there was net southward export of Zone 6 receipts to Zone 5. This means that the root cause of the episode of highest NY price was not related to the availability of gas in Zone 6, because Zone 6, on

⁷ Transco does not have a Zone 7 and all deliveries to other pipelines in Zone 6 are counted as Zone 6 deliveries.



⁶ Scheduled receipts include scheduled withdrawals from storage (a receipt into the pipelines) as well as scheduled injections into storage (a delivery out of the pipeline).

that day was exporting gas to Zone 5; but rather, an inability of NY to receive supplies from Transco at the pertinent NY Zone 6 pricing locations that are reported to the trade press.⁸

Below, in Exhibit 4, Skipping Stone presents a "what-if" chart. The what-if pertains to how the net flows of Transco Zone 6 would have looked had the final quantity of Transco capacity associated with the Atlantic Sunrise Project been on line and fully utilized over the subject time period, instead of it being available under the Transco schedule of ~June 2018.



As presented above, had Atlantic Sunrise come online 6 or more months early and been fully utilized, on the highest priced day, fully **1.5** Bcfd would have been available for incremental load in Zone 6 or more likely for export southward to Zone 5. Keep in mind that this is 1.5 Bcfd of excess capacity, on the highest priced and highest Zone 6 demand day, and it represents ~1 ½ "PennEasts-worth" of capacity, before PennEast were to lay even one mile of pipe.

In addition, the result of a bi-directional pipeline, in a region well supplied by other interstate pipelines, is that the system itself has become highly reliable, and can compensate for major disruptions with no loss of service.

As shown above, the pipeline flow for this region is now bi-directional, which greatly expands the available capacity, without the addition of new pipes in the ground. Extra deliveries are possible because capacity owners can schedule multiple receipts and deliveries along their "contracted paths" within these zones. These shippers have rights to the "path" between their contracted receipt and delivery points; and, can segment this capacity and use it to deliver gas through that capacity in a myriad

⁸ The "Zone 6 NYC" pricing point is generally considered the Consolidated Edison and National Grid city gate locations as well as some far eastern Essex, Union, and Middlesex county locations in New Jersey.



of ways. Imagine a line that runs from South to North; and, as shown below, from the receipt point at "A" to a delivery point at "F".



Through Segmentation, Path Capacity Used is 30,000 Dthd on Path between A and F

Exhibit 5.

Further, imagine A is in Zone 4; B, C, and D are in Zone 5; and, E and F are in Zone 6. For example, as pictured above, the shipper with 10,000 Dthd from A to F can receive gas in Zone 4 to deliver in Zone 5, and then obtain additional gas in Zone 5 to drop off further along in Zone 5; then pick up additional gas (ex. at point "E") and deliver it to point "F" further along in Zone 6. This is referred to as segmentation and enables a 10,000 Dthd path to be used, as in this example to transact use of the path to move 30,000 Dthd (i.e., 3 fold the contracted path capacity). This strategy allows for multiple deliveries within and across Zones as long as no more than 10,000 Dthd is being used along any segment – in other words no overlapping is permitted. Moreover, while the above graphic depiction of path "A to F" (south to north) exists today, Atlantic Sunrise and other recent Transco projects that have already come into service have created "F to A" (north to south) paths of capacity which can be scheduled simultaneously with "A to F" paths of capacity. This pathing (A to F and F to A) enables at a minimum the 9.1 Bcfd of capacity on a once through basis and as shown in Exhibit 2 enabled the 9.6 Bcfd of deliveries through segmentation of the Path capacity.

The data shown above in Exhibit 2 and Exhibit 4 demonstrate that during this period of high demand, existing path capacity **added 23%** to the capacity available to serve loads reflected by firm delivery point contracts (i.e., the total of which are represented by the green line in Exhibit 2); and when supplemented by the capacity coming on line in mid-2018 with Atlantic Sunrise's completion, the **9.1** Bcfd of combined Zone 5 and Zone 6 Path capacity will become **10.4** Bcfd or **140%** of (and ~**3.0** Bcfd greater than) the currently existing **7.4** Bcfd of contracted delivery point capacity to Zones 5 and 6 locations.


Analysis of natural gas consumption and pipeline capacity in New Jersey

Author: Barbara Blumenthal, Ph.D.

for

New Jersey Conservation Foundation

July 24, 2018





Analysis of natural gas consumption and pipeline capacity in New Jersey

This briefing addresses several key questions about the future of gas consumption and pipeline capacity in New Jersey, including:

- 1. Is there sufficient pipeline capacity to meet the needs of New Jersey local gas companies?
- 2. Will New Jersey climate policies reduce in-state consumption of natural gas?
- 3. Is there sufficient pipeline capacity to meet the needs of gas generators located in New Jersey?
- 4. In the event that the few remaining coal plants close in New Jersey, is there sufficient pipeline capacity to provide enough gas to other gas-fired power plants in New Jersey to replace this annual generation?
- 5. In the event that three nuclear power plants close in New Jersey by 2030, is there sufficient pipeline capacity to provide sufficient gas to other gas-fired power plants in New Jersey to replace this annual generation?
- 6. Is the additional capacity that PennEast pipeline would provide needed to meet current or future gas demand in New Jersey under any scenario?

Summary

Substantial excess pipeline capacity is currently available for use in New Jersey and industry projections show that <u>the excess</u> is more than sufficient to meet market demand until 2030 and beyond – independent of *any new policies* that would reduce instate emissions from natural gas.

This finding is not surprising, given that New Jersey is well-supplied by a network of five major interstate pipeline networks and that 2.6 billion cubic feet per day (bcf/d) of delivery capacity was added between 2011 and 2018, which increased the capacity available for delivery in New Jersey by 52%.

The finding of excess capacity was confirmed again in February 2018, using new data from the extreme cold period (referred to as the "Bomb Cyclone") from December 2017 through January 2018:



"This analysis shows that PennEast is not needed to meet peak winter demand, not even for a single day, even during extreme weather events. Given the addition of Atlantic Sunrise capacity by June 2018, which increases capacity in the region by another 14%, and the existence of substantial, inregion, interstate-pipeline connected, peaking supplies, it is difficult to imagine any scenario for at least a decade where additional pipeline capacity will be required."¹

Moreover, the excess of pipeline capacity will grow if demand for natural gas declines over the next five years, as is currently projected. ² Over this period, market forces are projected to *reduce gas-fired generation in New Jersey*. Gas consumption for residential and commercial building systems is also expected to continue its *gradual decline* over the next five years.

These trends suggest that gas consumption in New Jersey likely reached its peak in 2016. If additional climate policies are enacted that reduce emissions from building systems and electric generation, annual natural gas consumption would continue to decline steadily through 2030 and beyond.

This analysis also examines several possible events that would temporarily increase instate gas consumption. For example, if existing coal plants and nuclear power plants were replaced by in-state gas-fired generation plants, current gas pipeline capacity would be more than sufficient to meet the additional projected need. These short-run events would not alter the course of the projected longer-run decline of natural gas consumption. Climate policies would continue to drive a reduction in natural gas usage from 2018 to very low levels by 2050.

¹ Analysis of Regional Pipeline System's Ability to Deliver Sufficient Quantities of Natural Gas During Prolonged and Extreme Cold Weather (Winter 2017-2018), Skipping Stone, February 11, 2018, p.3. ² Joint comment letter from NRDC, et al on 'Ensuring New Jersey's Re-Entry into RGGI Includes a 2020 Carbon Cap Level That Maintains the Program's Environmental Integrity," June 5, 2018.



Substantial excess pipeline capacity is available in New Jersey

Pipelines are designed to meet demand in peak periods and are underutilized in most regions of the U.S. between 350 and 365 days each year. Analysis of projected gas demand by 2030 shows that **current pipeline capacity is more than sufficient to meet future demand**, even without anticipated additional climate policies.

New analysis from February 2018 examined pipeline utilization during the winter of 2017 to 2018 and shows substantial excess capacity, even on peak winter days.

Analysis of future peak demand and pipeline capacity for New Jersey ³

In 2011, the "actual delivery" rate of pipelines in New Jersey reached 5 billion cubic feet on the coldest day. To estimate future demand for natural gas, Skipping Stone used data from a key government study (NARUC) based on industry projections of demand in the Eastern Interconnect and gas pipeline network for 2030.⁴ These projections assume that peak usage in New Jersey will increase by 25% to reach 6.8 bcf on the coldest day by 2030.⁵

³ Skipping Stone previously analyzed the justification for PennEast as required to provide year round service, or even to ostensibly meet peak winter demand, and found no evidence that it was required. See Analysis of Reliability in Electric and Gas Markets, Cost Savings and Project Need (Nov. 28, 2016); PennEast Analysis of Alternatives (Sept. 12, 2016); Analysis of Public Benefit Regarding PennEast Pipeline

⁽Mar. 9, 2016).

Skipping Stone first determined the **demand requirements** in 2011 and those projected for 2030 based on the 2014 report commissioned by the National Association of Regulatory Utility Commissioners ("NARUC") and the Eastern Interconnection States' Planning Council ("EISPC"). The NARUC/EISPC report provides a detailed picture of demand for pipeline capacity that existed in 2011 and projected demand in 2030.

⁴ Skipping Stone, March 9, 2016.

⁵ The growth rate for peak period natural gas demand in New Jersey is estimated as 25% in the NARUC/EISPC Report between 2011 and 2030, a period where the population of New Jersey is expected to grow by only 10%. This increase in potential demand is based on industry participant projections from 2014 and are higher than more current projections of future demand for natural gas by EIA. In addition, there are many factors that would reduce future consumption. For example, new standards for furnace efficiency for both new construction and replacement furnaces as well as other energy efficiency measures may reduce the growth of natural gas consumption over this period.



This projected demand was compared to existing pipeline capacity in 2016 to determine whether there will be sufficient capacity to meet projected need in 2030. The analysis shows that there was an enormous buildout of new pipeline capacity available in New Jersey, built between 2011 and 2016, totaling an additional **2.3 bcf/d of new pipeline capacity**, an increase of 52%.

Diagram 1 depicts the pipeline capacity available to meet New Jersey peak demand by 2016, updated to include new capacity available by 2018. The Atlantic Sunrise expansion of the Transco pipeline added 0.3 bcf/d of capacity to New Jersey in 2017. Finally, substantial pipeline deliverable capacity has been added in the past two years that did not require the construction of physical pipelines. Recent analysis of Tetco and Transco pipelines shows that both are now bidirectional, meaning gas can flow in both directions depending on where the demand is on a given day.

With bidirectional flow, pipelines are able to deliver gas beyond 100% of their physical capacity by scheduling multiple deliveries in both directions within a zone. Estimates are that the deliverability of both pipelines have recently increased by more than 10%. Diagram 1 includes a conservative estimate of 0.5 bcf/d of additional pipeline capacity that this change made available to New Jersey.

The diagram also shows expected peak demand against the available pipeline capacity. The **red line** shows projected peak demand in 2030 from the NARUC study, and actual peak demand in 2011. Climate policies will likely further reduce peak gas usage in New Jersey so the **green line** indicates the direction of future peak demand assuming that modest climate policies are in effect.

The conclusion in March 2016 was clear: "Skipping Stone's analysis of existing pipeline capacity and future market demand shows that there is no demand for natural gas, even as far out as 2030, that would be unmet by either current pipeline capacity or existing supplemental resources." New Jersey's excess capacity has only grown since 2016.





Diagram 1. Analysis of pipeline capacity updated to 2018 and projected demand

The March 2016 analysis also evaluated peak-day projections from local gas companies in the northeast Pennsylvania and New Jersey region that would be served by the proposed PennEast pipeline and compared this demand to existing pipeline capacity in 2016. This analysis showed that there was substantial excess regional capacity in 2016, estimated at 50% more than required by these gas utilities.

Analysis of Transco pipeline capacity during winter 2017-2018

Analysis in February 2018 confirms that excess capacity exists in New Jersey even during the peak period of prolonged cold weather.



"When assessing the need for additional interstate pipeline capacity, the central question should be whether the current pipeline system is able to deliver sufficient quantities of natural gas under stress; more specifically, during prolonged and extreme cold weather. The recent period of historic and prolonged cold weather in December 2017 and January 2018 provides an excellent opportunity to address this central question." ⁶

Diagram 2 shows the results of this analysis, which found 1.7 bcf of unused capacity on just one of the five interstate pipelines in New Jersey during the most recent period of peak winter demand.



Diagram 2. Transco pipeline capacity utilization during Winter 2017-18

The Transco pipeline's Zone 6⁷ includes New Jersey, New York, Pennsylvania, and Maryland.

Within Zone 6 of Transco there is 5 bcf/d of capacity under contract, representing the entire physical capacity of the pipeline. During the recent period of extreme cold

⁶ Skipping Stone, February 2018.

⁷ https://www.midstreambusiness.com/contents-under-pressure-new-pipelines-ease-marcellus-takeaway-troubles-834846



weather, for a total of thirteen days, the amount of gas <u>actually delivered</u> was higher than the total capacity contracted, which represents the physical capacity of the pipeline, reaching 5.3 bcf/d.

Because the Transco pipeline now operates bidirectionally, there is substantial additional capacity available to customers purchasing capacity on the secondary market. A total of 7.0 bcf/d of delivery capacity was available during this period, of which **1.7 bcf/d went unused**.

The proposed PennEast pipeline would increase the amount of already existing excess delivery capacity during peak demand by 1 bcf/d.

Background on Transco system

"Transco is one of five major interstate pipeline networks that enter, exit or run through New Jersey. Transco, a major supplier to the region, is the predominant destination for more than 90%+ of proposed PennEast supplies and thus examination of the physical and market dynamics evidenced on Transco this past winter provides an important and dispositive insight into the central question under study. On the Transco system, New Jersey is located in Zone 6, which runs from Maryland to New York City and Long Island.



"Generally, pipeline capacity, while fully subscribed, is fully utilized only during extreme cold weather when heating needs are fully met and electric generation plants and other customers with interruptible contracts use the remaining available capacity in the secondary market. Historically, pipelines in the New Jersey region were fully utilized



only 20-30 days per year, and depending on cost and availability of peaking supplies, new pipeline capacity may be warranted when existing pipeline capacity is fully utilized to meet firm demand around 50-60 days per year. Traditionally, LDCs are the primary customers for firm capacity, as they are required to ensure that pilot lights do not go out for residents and businesses, especially during prolonged periods of cold weather.

"Historically, Transco's supply sources were located in Texas and the Gulf Coast and brought to the Northeast throughout the year. This analysis shows that the historic pattern has changed and that Transco is no longer a unidirectional system. With unidirectional flow, the amount of gas that could be delivered was constrained by the physical, forward haul, capacity of the pipeline, resulting in full utilization 20-30 days per year.

"The direction of gas flow in the Mid-Atlantic and Northeast region has changed significantly in the past few years for several reasons. First, large quantities of natural gas are now supplied from the Marcellus region, into Transco at locations in Zone 5 and Zone 6. Second, substantial new pipeline capacity has been added both to Transco and to other pipelines in the region (many of which connect, and deliver gas, to Transco) since 2011." ⁸

Potential increase in gas-fired electricity generation in New Jersey and pipeline capacity

Coal Plants. Market forces could lead to the closing of the three remaining coal plants in New Jersey in the near term. This generation (1,300 GWh per year) would be replaced by the lowest-cost mix of generation within the regional PJM network. In the unlikely event that all of the generation is replaced with in-state, gas-fired electric generation, the additional gas required would total just 8 bcf per year, less than 2% of New Jersey's gas consumption.

Nuclear Plants. The Salem and Hope Creek nuclear power plants (3,360 MW capacity) currently provide about 28,000 GWh of generation each year to PJM, which represents 37% of New Jersey's retail electric sales. If these nuclear power plants close prior to 2030, the loss of generation would be replaced by a mixture of gas-fired generation, possibly coal and renewables from within PJM, and by demand response and energy efficiency. The most likely scenario is that a significant portion of this generation would be located outside New Jersey, and New Jersey would increase its net import of electricity from other PJM states.

⁸ Skipping Stone, February 2018.



The maximum increase in gas consumption in New Jersey would occur if nuclear power were replaced solely by in-state gas-fired generation. In this unlikely event, gas consumption would increase by 18%, or 0.5 bcf on peak days. Current modeling projects that about half of this generation would be located in New Jersey, representing a 9% increase of gas consumption, with a peak daily requirement of 0.25 bcf.

Summing Coal and Nuclear Phase-Outs. In total, if all three nuclear power plants and remaining coal plants were to retire by 2030 and were replaced solely with in-state gas-fired generation, New Jersey would require 0.6 bcf/d per day of additional peak pipeline capacity, at most. The above analysis shows the state already has at least 1.3 bcf/d excess pipeline capacity, more than sufficient to meet demand even if the aforementioned coal and nuclear plants close. With new climate policies, the excess capacity available in New Jersey will only grow from 1.3 bcf/d to 2 bcf/d or more by 2030, without the construction of any new pipeline capacity.

New Gas-Fired Power Plants in New Jersey

Unless nuclear plants close in the medium term, it is unlikely that total gas-fired generation in New Jersey would expand beyond current levels. Instead, any new gas plants would likely replace generation at older, less efficient gas plants. If a net expansion did occur, additional pipeline capacity would not be required for several reasons. First, gas-fired electric plants peak during the summer months when pipeline capacity is not constrained. Second, gas-fired electric generation plants rarely subscribe to new (or firm) pipeline capacity as the cost is significantly higher than other options available to them. Under current conditions, gas plant owners save money each year by simply buying the "leftover" gas available in the marketplace year-round and paying higher "spot" prices for a few days in the winter when demand is highest. Third, current levels of excess pipeline capacity would be sufficient to provide gas to new gas-fired plants that might be built along existing transmission corridors.