

**INTERVENORS' COMMENTS ON PENNEAST'S APPLICATION**

**FERC DOCKET #CP15-558**

**SUBMITTED ON BEHALF OF:**

**NEW JERSEY CONSERVATION FOUNDATION**

**AND**

**STONY BROOK-MILLSTONE WATERSHED ASSOCIATION**

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## **INTERVENORS' COMMENTS ON PENNEAST'S PROPOSED ANSWER**

Intervenors submit the following comments on the Proposed Answer of the PennEast Pipeline Company (“PennEast”), FERC Docket #CP15-558, Document Accession #20151113-5247.<sup>2</sup> In Part I, Intervenors provide the Federal Energy Regulatory Commission (“FERC,” or the “Commission”) with evidence and analysis showing that the PennEast Pipeline Project (“PennEast project”) cannot meet the Natural Gas Act legal standard for need, and that the economics do not support this project. In Part II, Intervenors demonstrate that the PennEast application also forms an insufficient basis to conduct the required National Environmental Policy Act (“NEPA”) analysis of project purpose and need. In Part III, Intervenors provide compelling reasons for FERC to suspend review of this project pending a regional gas market planning initiative. Part IV contains Intervenors’ preliminary critique of the current data and analysis contained in the inconsistent record with respect to alternatives. Part V demonstrates that PennEast’s proposed narrow interpretation of cumulative impacts from similar actions will not suffice under NEPA. And in Part VI, Intervenors renew their request that FERC hold an evidentiary hearing given the inaccurate and misleading record data that PennEast has submitted. Part VII concludes by requesting that FERC suspend review of this application, or, in the alternative, deny a certificate of public convenience and necessity given the

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<sup>2</sup> The Commission’s regulations generally do not permit answers to protests. See 18 C.F.R. § 385.213(a)(2) (2015) (“An answer may not be made to a protest . . . unless otherwise ordered by the decisional authority”) (emphasis in original). Where, as here, PennEast’s proposed answer serves to muddy the record rather than clarify it, the Commission should reject PennEast’s request for a waiver of 18 C.F.R. § 385.213(a)(2) (2015). If, however, the Commission does accept PennEast’s answer, Intervenors submit the following comments to dispel the misleading arguments contained therein.

updated data and analysis in this record demonstrating that the project does not meet the statutory standard under either the Natural Gas Act or under NEPA.

**I. PENNEAST FAILS TO PROVIDE ANY CREDIBLE EVIDENCE UPON WHICH FERC COULD FIND THAT THE PROPOSED PROJECT IS REQUIRED BY THE PUBLIC CONVENIENCE AND NECESSITY**

To approve the construction of a pipeline project by issuing a certificate under section 7 of the Natural Gas Act (“NGA”),<sup>3</sup> FERC must find that the proposed project “is or will be required by the present or future public convenience and necessity.”<sup>4</sup> To execute this statutory directive, FERC has developed a policy guiding its determination of whether a proposed project is so required.<sup>5</sup> In evaluating a new pipeline proposal under section 7 of the Natural Gas Act, FERC acknowledges that it must examine impacts to the following interests: “the existing customers of the pipeline proposing the project, existing pipelines in the market and their captive customers, . . . landowners and communities affected by the route of the new pipeline.”<sup>6</sup> If, after its own assessment, it has developed a record showing that none of these interests will be adversely affected by the proposed pipeline after mitigation measures are taken, FERC may proceed to complete review under the National Environmental Policy Act (“NEPA”).<sup>7</sup> However, where these interests are adversely affected

then the Commission will proceed to evaluate the project by balancing the evidence of public benefits to be achieved against the residual adverse effects. This is essentially an economic test. Only when the benefits

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<sup>3</sup> 15 U.S.C. § 717f.

<sup>4</sup> 15 U.S.C. § 717f(e).

<sup>5</sup> See Certification of New Interstate Nat. Gas Pipeline Facilities (Certificate Policy Statement), 88 FERC 61,227 (1999), clarified, 90 FERC ¶61,128, further clarified, 92 FERC ¶61,094 (2000).

<sup>6</sup> Id. at 61,745.

<sup>7</sup> Id.

outweigh the adverse effects on economic interests will the Commission then proceed to complete [NEPA review] where other interests are considered.<sup>8</sup>

As a threshold matter, the PennEast Pipeline Company (“PennEast”) has failed to provide credible evidence that indicates this project is required by public convenience and necessity. PennEast’s application for the PennEast Pipeline Project (“PennEast project”) violates both FERC’s certificate policy and the NGA by: (a) failing to demonstrate public need and demand; (b) considering an improperly narrow set of private interests; and (c) considering an impermissibly narrow set of adverse impacts.<sup>9</sup> FERC requires that “[t]o demonstrate that its [pipeline] proposal is in the public convenience and necessity, an applicant must show public benefits that would be achieved by the project that are proportional to the project’s adverse impacts.”<sup>10</sup> Here, PennEast has not shown that there is any public need that could yield such benefits, much less that its project outweighs the project’s adverse impacts. FERC should reject PennEast’s application as not required by the public convenience or necessity.

#### **A. PennEast Fails to Provide Credible Evidence of Public Need**

PennEast fails to adduce evidence demonstrating that there is public need for its project. This ought to be the end of FERC’s inquiry, providing a sound legal basis to deny PennEast’s certificate of public convenience and necessity. As set out in great detail

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<sup>8</sup> Id.

<sup>9</sup> See FERC Docket #CP15-558, Accession #20150925-5029, 20150925-5030 (PennEast application for certificate of public convenience and necessity)

<sup>10</sup> Certificate Policy Statement at 61,748.

below, Intervenor and other commenters have provided FERC with affirmative data and analyses demonstrating that, in fact, there is no “need” for the PennEast project. PennEast has given FERC several different conclusory descriptions of the alleged need for its project:

- “to provide a long-term solution to bring the lowest cost natural gas available in the country produced in the Marcellus Shale region in northern Pennsylvania to homes and businesses in New Jersey, Pennsylvania and surrounding states”;
- to respond “to market demands in New Jersey and Pennsylvania”;
- “to serve markets in the region with firm, reliable access to the Marcellus supplies versus the traditional, more costly Gulf Coast regional supplies and pipeline pathways” and to “enhance[e] the region’s supply diversity”; and
- to “provide a benefit to consumers, utilities and electric generators by providing enhanced competition among suppliers and pipeline transportation providers.”<sup>11</sup>

These assertions of public need can be distilled down to the following three claims: (1) the project will increase reliability; (2) the project will lower costs; and (3) the project will fill unmet market demand.<sup>12</sup> As set forth in more detail below, and in the expert report attached hereto as Exhibit A, PennEast has not provided sufficient factual evidence to support these claims, and the record now contains evidence directly contradicting them. Accordingly, FERC cannot substantiate a of public convenience and necessity, which it could then weigh against adverse impacts in its NGA section 7 certification process.

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<sup>11</sup> FERC Docket No. CP15-558, Accession No. 20150925-5028, Resource Report 1 (“PennEast R.R. 1”) at 1-2.

<sup>12</sup> Id.



## **1. PennEast fails to demonstrate that its project will improve reliability**

Reliability is assured when customers can obtain the supplies for which they have contracted. PennEast has failed to identify an enduring reliability issue in the region served. For customers of firm pipeline capacity, including local gas distribution companies in this region, analysis shows that there is currently far more than enough firm capacity to meet customers' needs -- even during peak winter demand. "In total, there are 49.9% more resources available to meet peak day demand from local gas distribution companies in the region than is needed."<sup>13</sup>

For customers who have contracted for interruptible service, reliability is an economic decision and depends heavily on the forecasted frequency of service interruptions. The Eastern Interconnection Planning Collaborative issued a report in July 2015 that describes several approaches for improving reliability of electric generation and mitigating pipeline constraints, "for low frequency, short duration constraints resulting in the non-scheduling or interruption of gas-fired generation."<sup>14</sup> The economics of two primary methods identified in the EIPC study, dual fuel and purchasing natural gas from LNG facilities, were analyzed in greater detail by Skipping Stone.<sup>15</sup> This analysis shows that the PennEast project is not a cost-effective solution. "Based on our analysis of

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<sup>13</sup> See "Analysis of Public Benefit Regarding Penn East Pipeline", at 7-9, attached hereto as Exhibit A (Study commissioned by The New Jersey Conservation Foundation to evaluate whether PennEast will lower costs to consumers and to examine unserved demand for firm capacity.).

<sup>14</sup> Eastern Interconnection Planning Collaborative, Interregional Transmission Development and Analysis for Three Stakeholder Selected Scenarios and Gas-Electric System Interface Study ("Gas-Electric Report") (July 2, 2015), <http://www.eipconline.com/phase-ii-documents.html>.

<sup>15</sup> See Exhibit A at 9-11.

alternative costs, one can readily see that it is highly unlikely that an electric generator will choose to bear the fixed cost burden of the firm pipeline capacity and would be economically better off choosing oil or LNG for the few days each year of high, coincident, gas demand.”<sup>16</sup>

**2. PennEast also fails to demonstrate that its project will reduce costs, and current data and analysis show the opposite -- that it will increase costs for consumers or customers**

Data show, contrary to PennEast claims that it will lower costs, that a) Marcellus prices will escalate when new pipeline capacity comes online, and in fact, have already started to do so; and b) the cost differential in the region served by PennEast will shrink, with or without PennEast. For several years, Marcellus natural gas prices have been trading “well below the Henry Hub national benchmark price because of the area’s high gas production and limited pipeline takeaway capacity.”<sup>17</sup> But building PennEast creates additional capacity, which economists expect will raise, not lower, Marcellus natural gas prices.<sup>18</sup> Now, “[n]ew pipeline investment is expected to increase takeaway capacity from the low cost Marcellus/Utica shale and reduce regional surpluses and increase gas prices by 2018.”<sup>19</sup> This occurs because the “spread between Henry Hub and Marcellus natural gas prices narrows as pipeline capacity grows.”<sup>20</sup> “New pipelines are already allowing larger amounts of gas to travel from the Marcellus to end users, with the spot price spread

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<sup>16</sup> Id at 4.

<sup>17</sup> U.S. Energy Information Administration, Natural Gas Weekly Update (Jan. 7, 2016), [http://www.eia.gov/naturalgas/weekly/archive/2016/01\\_07/index.cfm](http://www.eia.gov/naturalgas/weekly/archive/2016/01_07/index.cfm).

<sup>18</sup> See id.; see also Exhibit A at 12-15.

<sup>19</sup> Public Service Enterprise Group, Edison Electrical institute 2015 Financial Conference (2015), <https://www.sec.gov/Archives/edgar/data/81033/000119312515370394/d77337dex99.htm>.

<sup>20</sup> See U.S. Energy Information Administration, Natural Gas Weekly Update (Jan. 7, 2016), [http://www.eia.gov/naturalgas/weekly/archive/2016/01\\_07/index.cfm](http://www.eia.gov/naturalgas/weekly/archive/2016/01_07/index.cfm).

between Henry Hub and Leidy Hub decreasing over the last year. The spread has been slashed by more than half in the past 12 months, to 69 cents/MMBtu, as of Feb. 19, from \$1.74/MMBtu as of Jan. 29, 2015.”<sup>21</sup>

Moreover, existing natural gas prices are already at a low point, with New Jersey prices being amongst the lowest in the nation.<sup>22</sup> Thus, PennEast’s assertion that the project is needed because it will lower costs is contrary to both the facts in this particular case and also the economic reality in the natural gas market.

Importantly, FERC Commissioners are concerned with protecting captive, rate-paying customers of competing pipelines from price increases. PennEast adds significant excess capacity to the market in eastern Pennsylvania and New Jersey;<sup>23</sup> as shippers on PennEast reduce their contracts on competing, legacy pipelines, the impact will be to increase, rather than decrease costs to gas customers in the region. Costs will increase for two reasons. First, rate-payers currently recoup significant value from reselling excess capacity on the secondary capacity market. This value would plummet if PennEast’s capacity were to come online. Second, if rates are raised on existing pipelines to recover lost revenue, existing rate-payers would be exposed to higher costs.<sup>24</sup> As set out in greater detail in Part III below, FERC must examine this regional economic data.

### **3. PennEast fails to demonstrate unmet demand to support its project**

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<sup>21</sup> SNL Financial, “Mega-projects linked to Appalachian shale top list of planned pipelines,” by Arsalan Gul, February 25, 2016, attached hereto as Exhibit B.

<sup>22</sup> EIA.gov, State Historical Residential Natural Gas Prices, [http://www.eia.gov/dnav/ng/xls/NG\\_PRI\\_SUM\\_A\\_EPG0\\_PRS\\_DMCF\\_M.xls](http://www.eia.gov/dnav/ng/xls/NG_PRI_SUM_A_EPG0_PRS_DMCF_M.xls)

<sup>23</sup> Exhibit A at 8-9 “In total, there are 49.9% more resources available to meet peak day demand...”

<sup>24</sup> See Exhibit A at 12-15.

To demonstrate demand-side need for its project, PennEast relies on rudimentary analysis, conclusory statements, self-commissioned studies, circular reasoning, and precedent agreements with its own subsidiary companies. These cannot serve to “develop whatever record is necessary” for FERC to conclude that the PennEast project’s benefits outweigh its adverse impacts.<sup>25</sup>

First, PennEast makes sweeping claims of demand-side need based upon a single winter price spike in gas during the winter 2013/2014.<sup>26</sup> PennEast’s conclusion that this particular winter price spike justifies the PennEast expansion does not stand up to economic analysis.<sup>27</sup> Most electric generation customers do not purchase firm capacity and choose a more cost-effective strategy to meet their needs.<sup>28</sup> Other regions that have conducted an economic analysis of natural gas demand have come to this very conclusion. For example, the Massachusetts Attorney General’s office commissioned an independent regional economic analysis to determine whether there were less harmful alternatives than greenfield pipeline construction to meet the state’s energy needs. Even though there were serious physical constraints to the existing natural gas pipeline system, that study revealed that new pipeline construction was the least economical way to meet regional need.<sup>29</sup> Moreover, as it stands, analysis of gas flows within PJM during the Polar Vortex event

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<sup>25</sup> See Certificate Policy Statement at 61,749.

<sup>26</sup> PennEast R.R. 1 at 1-5-1-7.

<sup>27</sup> See Exhibit A at 5.

<sup>28</sup> See Gas Electric Report

<sup>29</sup> See Power System Reliability in New England: Meeting Electric Resource Needs in an Era of Growing Dependence on Natural Gas, Analysis Group, Inc. (Nov. 2015) (“Even under a ‘stressed system’ scenario, there are cheaper, less carbon intensive ways [than additional new natural gas pipelines] to ensure electric reliability, like energy efficiency and demand response, that are less risky for ratepayers.”), attached hereto as Exhibit C; See also “Solving New England’s Gas Deliverability Problem Using LNG Storage and Market Incentives,” Skipping Stone (2015), attached hereto as Exhibit D.

showed that some pipelines never reached full flow capacity.<sup>30</sup> Since that winter, FERC and PJM have implemented policies that have fundamentally changed and improved the coordination of natural gas and electricity in the PJM region.<sup>31</sup> These improvements were put to the test in the harsh winter of 2014/15 and enabled the system to maintain reliable operations.<sup>32</sup>

Further, PennEast's application is full of conclusory statements as to market demand.<sup>33</sup> Such conclusory statements do not reflect the reality of New Jersey's and Pennsylvania's economic situations. For Pennsylvania, there is a negligible deficiency of natural gas.<sup>34</sup> It is also a net exporter of natural gas.<sup>35</sup> A further indication that New Jersey's current supply is sufficient to meet demand, New Jersey has some of the lowest natural gas prices in the entire nation.<sup>36</sup> In fact, in April, 2015, it had the lowest residential natural gas rates in the entire nation.<sup>37</sup> Finally, a recent study indicated that the PennEast pipeline would result in a 53% surplus beyond current demand in Southeast PA and NJ.<sup>38</sup>

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<sup>30</sup> See Exhibit A at 4.

<sup>31</sup> "Expert Analysis Shows Reforms Made After Polar Vortex Already Meet Grid Reliability Concerns," New Jersey Conservation Foundation, March 9, 2016, attached hereto as Exhibit E.

<sup>32</sup> Id.

<sup>33</sup> See e.g., PennEast R.R. 1 at 1-2 ("The Project was developed in response to market demands in New Jersey and Pennsylvania")

<sup>34</sup> Pennsylvania Public Utility Commission, Pennsylvania Gas Outlook Report 2014 at 28-29 (2014), [http://www.puc.state.pa.us/NaturalGas/pdf/Gas\\_Outlook\\_Report-2014.pdf](http://www.puc.state.pa.us/NaturalGas/pdf/Gas_Outlook_Report-2014.pdf)

<sup>35</sup> EIA.gov, International & Interstate Movements of Natural Gas by State (2014), [https://www.eia.gov/dnav/ng/ng\\_move\\_ist\\_a2dcu\\_SNJ\\_a.htm](https://www.eia.gov/dnav/ng/ng_move_ist_a2dcu_SNJ_a.htm).

<sup>36</sup> EIA.gov. State Historical Residential Natural Gas Prices (2015), [https://www.eia.gov/dnav/ng/ng\\_pri\\_sum\\_a\\_EPG0\\_PRS\\_DMcf\\_m.htm](https://www.eia.gov/dnav/ng/ng_pri_sum_a_EPG0_PRS_DMcf_m.htm)

<sup>37</sup> EIA analysis indicating that New Jersey has the lowest gas prices in the nation during April 2015 (2016), [http://www.eia.gov/dnav/ng/xls/NG\\_PRI\\_SUM\\_A\\_EPG0\\_PRS\\_DMCF\\_M.xls](http://www.eia.gov/dnav/ng/xls/NG_PRI_SUM_A_EPG0_PRS_DMCF_M.xls).

<sup>38</sup> Labyrinth Consulting Services, Inc., Professional Opinion on the Proposed PennEast Pipeline Project (June 18, 2015).

PennEast also relies upon self-generated “evidence” of consumer benefits documented in a study that PennEast itself commissioned.<sup>39</sup> This study “fails to examine actual pipeline contracts and available resources to meet peak demand in determining whether PennEast is, in fact, needed to meet demand.”<sup>40</sup> In fact, using Concentric's own demand data, Skipping Stone’s analysis shows that “there are 49.9% more resources available to meet peak day demand from local gas distribution companies in the region than is needed....”<sup>41</sup> In the absence of real external evidence of market demand, PennEast’s self-commissioned studies cannot be relied upon by FERC as proof of public benefits; the conflict of interest is clear.

PennEast also relies on circular reasoning to argue that long-term projections demand its project be built: that because natural gas consumption is predicted to increase in future decades, the PennEast project is consistent with consumer demand.<sup>42</sup> This argument does not stand up to basic logic. Even if increased gas consumption is predicted, it does not follow that such an outcome is in the public convenience and necessity, as required for NGA certification.<sup>43</sup>

Finally, PennEast relies on precedent agreements with twelve gas shippers as prima facie evidence on market demand.<sup>44</sup> Six of these twelve shippers, or their parent, sister, or

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<sup>39</sup> See PennEast R.R. 1 at 1-5 (citing Concentric Energy Advisors, Estimated Energy Market Savings from Additional Pipeline Infrastructure Serving Eastern Pennsylvania and New Jersey (2015)).

<sup>40</sup> See Exhibit A at 7.

<sup>41</sup> Id. at 9.

<sup>42</sup> See PennEast R.R. 1 at 1-5–1-6.

<sup>43</sup> Cf. Julia Frayer & Marie Fagan, Maine Energy Cost Reduction Act: Cost Benefit Analysis of ECRC Proposals 6, 32, 41 (2015), prepared for Maine Public Utilities Commission (finding that increase in natural gas supply to Maine would not be in public interest, despite predicted rate decreases and existence of private contracts for gas supply).

<sup>44</sup> PennEast R.R. 1 at 1-2 to 1-5.

subsidiary companies, fully comprise the ownership of PennEast.<sup>45</sup> As noted by FERC, precedent agreements must be considered among many factors as evidence of project need:

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.<sup>46</sup>

Indeed, these precedent agreements alone are evidence primarily of the interests of PennEast's owners and shippers in the project, and not market demand.<sup>47</sup>

PennEast cannot demonstrate that the project is based on new demand. PennEast's construction would displace supply from existing legacy pipelines and result in elevated costs for other pipeline shippers. FERC has a duty to protect the interests of "captive customers," and ratepayers by keeping their costs down.<sup>48</sup> Were FERC to rely on PennEast's empty claims with respect to public need, such reliance would violate the Natural Gas Act's legal requirements. Moreover, any finding made by FERC as to public demand for natural gas should be made and acted upon through a process of regional gas supply planning, and not through purely isolated decisions that miss the forest for the trees.

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## **B. PennEast's Application Considers an Improperly Narrow Set of Interests**

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<sup>45</sup> See *id.* at 1-3; FERC Docket No. CP15-558, Accession No. 20150925-5028, Application of PennEast Pipeline Company, LLC for Certificates of Public Convenience and Necessity and Related Authorizations ("PennEast Application") at 6-7.

<sup>46</sup> Certificate Policy Statement at 61,747.

<sup>47</sup> See Exhibit A at 20.

<sup>48</sup> See Certificate Policy Statement at 61,743 (stating that FERC's certificate policy should "protect captive customers").

<sup>49</sup> See *infra* part III.

PennEast’s burden is not a light one; after demonstrating public need for its project, a pipeline applicant must “develop whatever record is necessary . . . for the Commission to be able to find that the benefits to the public from the project outweigh the adverse impact on the relevant interests.”<sup>50</sup> Determining whether the public convenience and necessity are met inherently requires FERC to balance factors that go beyond the narrow private interests of a section 7 project’s beneficiaries. This is reflected in FERC’s certification policy, which provides that “the Commission will consider the effects of the project on all the affected interests; this means more than the interests of the applicant, the potential new customers, and the general societal interests.”<sup>51</sup> Moreover, under section 7 of the NGA, FERC necessarily cannot determine whether the “public convenience and necessity” require a pipeline project, while considering only specific private interests.<sup>52</sup> In properly weighing public benefits against adverse impacts, FERC must consider such public interest factors as:

- preserving ecosystem services provided by wetlands and other natural features along the pipeline route;
- safeguarding ratepayers from stranded infrastructure costs;
- ensuring the pipeline project is consistent with the long-term development of energy supply, including clean energy resources, in the project region; and
- as discussed in part I.C below, broad environmental and public health impacts of gas extraction, shipping, and combustion.

However, in its project application before FERC, PennEast describes the purpose and need for its project in reference to particular private interests: natural gas shippers, utilities, electric generators, and energy users to be served, as well as fleetingly to local

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<sup>50</sup> Certificate Policy Statement at 61,749.

<sup>51</sup> Id at 61,747

<sup>52</sup> See 15 U.S.C. § 717f(e).



economic interests during project construction.<sup>53</sup> The interests of this narrow set of private parties are insufficient for full consideration of “all the affected interests” under FERC’s own certificate policy or of the NGA’s mandate to consider the “public convenience and necessity.”<sup>54</sup>

To properly consider all affected interests and balance the public benefits and adverse impacts of the PennEast project, FERC must consider local jobs and consumer interests in clean energy development, including renewables, efficiency, and conservation, that may be lost as an opportunity cost of natural gas build-out.<sup>55</sup> FERC must also consider broad *public* interests, including those interests in ecosystem health, clean air, clean water, and a balanced atmosphere that may be affected by increased fossil fuel extraction, shipping, and combustion enabled by the PennEast project.<sup>56</sup> Yet PennEast’s application includes only a cursory review of energy efficiency and renewables as alternatives to its project.<sup>57</sup> FERC must consider true regional costs of stranded assets from overbuilding, as the energy sector moves forwards to reach its goals of lower emissions, and environmental sustainability. PennEast’s application is therefore inadequate, and should be rejected.

**C. PennEast Fails to Fully Consider Environmental Impacts, Which are Residual Adverse Effects Relevant to the Public Convenience and Necessity**

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<sup>53</sup> See PennEast R.R. 1 at 1-2 to 1-6.

<sup>54</sup> *Id.*

<sup>55</sup> Union of Concerned Scientists. *The Natural Gas Gamble: A Risky Bet on America’s Clean Energy Future* (2015), [www.ucsusa.org/naturalgasgamble](http://www.ucsusa.org/naturalgasgamble).

<sup>56</sup> See *infra* part I.C.

<sup>57</sup> See *generally* FERC Docket No. CP15-558, Accession No. 20150925-5028, Resource Report 10 (“PennEast R.R. 10”) at 10-3–10-6.

PennEast also fails to fully account for broad and lifecycle environmental impacts that properly bear upon FERC’s task to balance “the evidence of public benefits to be achieved against the residual adverse effects.”<sup>58</sup> FERC must consider these grounds in assessing PennEast’s application. In deciding whether to issue a certificate of public convenience and necessity, FERC is charged with making a broad public interest determination.<sup>59</sup> FERC’s certificate policy describes relevant factors as: “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.”<sup>60</sup> Under FERC practice, certain environmental interests not considered in the course of economic balancing “may need to be separately considered in a certificate proceeding.”<sup>61</sup> However, even while environmental review proceeds concurrently with FERC’s economic balancing, environmental factors are still relevant to FERC’s ultimate “public convenience and necessity” determination.<sup>62</sup> To hold otherwise would be to deny that FERC considers adverse public effects of environmental degradation to be relevant to the public convenience and necessity.

To be sure, courts have established limits to the types of public interest considerations within FERC’s purview—for example, by finding employment discrimination by regulated entities to be outside the scope of federal energy regulation

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<sup>58</sup> Certificate Policy Statement at 61,745.

<sup>59</sup> See 15 U.S.C. § 717f(e); Columbia Gas Transmission, LLC v. 1.01 Acres, More or Less in Penn Twp., York City, Pa., 768 F.3d 300, 331 (3<sup>rd</sup> Cir. 2014) (“A key Congressional goal in enacting the NGA [was] to have FERC balance the competing public interests involved. . . .”); see also Certificate Policy Statement at 61,737 (describing FERC’s certificate policy as designed to “determin[e] whether there is a need for a specific project and whether, on balance, the project will serve the public interest”)

<sup>60</sup> Id.

<sup>61</sup> Id. at 61,747.

<sup>62</sup> See Certification of New Interstate Nat. Gas Pipeline Facilities, 90 FERC 61128, 61397–98 (2000) (clarifying Certificate Policy Statement).

statutes.<sup>63</sup> Nevertheless, certain considerations are squarely within the scope of those directives given to FERC by Congress. Consider FERC’s own description of its mandate:

Under the NGA, the Commission is charged with furthering the public interest in authorizing the construction and operation of interstate natural gas pipelines. . . . As Congress, the Commission, and the courts have interpreted it over the decades, this mission includes, among other things, the assurance of adequate supplies of natural gas to consumers, and the assurance of adequate competition among suppliers to cut costs and improve market conditions for the benefits of consumers. It also includes factors as diverse as considerations of clean air and other environmental benefits, and the energy security of the nation.<sup>64</sup>

Courts have also described environmental considerations as within FERC’s scope.<sup>65</sup>

Within the boundaries of FERC’s regulatory directives, the Commission has leeway to fully consider environmental protection and conservation of natural resources as factors affecting the public convenience and necessity.<sup>66</sup>

However, Penneast fails to adequately consider various pipeline impacts relevant to the present and future public convenience and necessity, including:

- greenhouse gas emissions and air quality impacts associated with methane and volatile organic compound emissions in the extraction and shipping of natural gas on the proposed pipeline;
- greenhouse gas emissions and air quality impacts associated with the combustion of natural gas shipped by the proposed pipeline; and
- groundwater contamination and land use impacts associated with hydraulic fracturing used to extract shale gas to be shipped using the proposed pipeline.

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<sup>63</sup> See NAACP v. Fed. Power Comm’n, 520 F.2d 432, 441 (D.C. Cir. 1975) (holding that “Congress has not charged the [Federal Power] Commission [FERC’s predecessor] with advancing all public interests, but only the public’s interest in having the particular mandates of the Commission carried out”).

<sup>64</sup> Guardian Pipeline, L.L.C., 94 F.E.R.C. 61269, 61948 (2001).

<sup>65</sup> See, e.g., NAACP, 520 F.2d at 441 (describing “the conservation of natural resources” as within FERC’s ambit, and noting that “[i]t has . . . been held that environmental considerations are the proper concern of the Commission”).

<sup>66</sup> See NAACP v. Fed. Power Comm’n, 425 U.S. 662, 670 n.6 (1976) (upholding D.C. Circuit decision and noting that “the Commission has authority to consider conservation, environmental, and antitrust questions”).

These impacts must be considered as specifically applicable to PennEast’s application, and as as applicable to regional energy development.<sup>67</sup>

There is some argument to be made that such environmental impacts are in fact “economic” impacts that should be considered specifically in the course of FERC’s economic balancing. Yet whether in the course of economic balancing,<sup>68</sup> or through the additional layer of environmental balancing,<sup>69</sup> these public environmental impacts must be weighed: they are highly relevant to the public interest, but PennEast fails to address them. FERC cannot determine that the public convenience and necessity *require* the PennEast project to built, without adequate consideration of such factors that are eminently material to the public convenience and necessity as clean air, clean water, land preservation, and climate systems. However, PennEast fails to adequately examine these impacts.

**D. Having Failed to Establish Public Need, or Other Public Benefits, and Ignoring Consideration of Adverse Impacts, PennEast’s Application Necessarily Fails to Demonstrate that Public Benefits Could Outweigh its Adverse Effects**

Section 7 of the NGA does not contemplate FERC as a simple gatekeeper. Rather, as set out in detail above, FERC must find that the public interest is “required” by the project.<sup>70</sup> As FERC itself describes its certification process:

After the applicant makes efforts to minimize the adverse effects, construction projects that would have residual adverse effects would be approved only where the public benefits to be achieved from the project can be found to outweigh the adverse effects.<sup>71</sup>

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<sup>67</sup> See *infra* part V.

<sup>68</sup> See *Certificate Policy Statement* at 61,745.

<sup>69</sup> *Id.*

<sup>70</sup> 15 U.S.C. § 717f(e).

<sup>71</sup> *Certificate Policy Statement* at 61,747.

Yet here, PennEast presents a deficient application that fails to consider “all the affected interests,” and that fails to adequately demonstrate public need for additional gas. In weighing what scant public benefits remain on the table, against significant adverse effects, including the project’s expected contribution to long-term and widespread environmental problems, FERC should deny PennEast’s application as not required by the public convenience and necessity.

## **II. PENNEAST FAILS TO PROPERLY SET FORTH PROJECT PURPOSE AND NEED UNDER NEPA**

As set forth above, the PennEast project requires a “certificate of public convenience and necessity” under section 7 of the NGA.<sup>72</sup> FERC’s issuance of such a certificate will generally be a major federal action significantly affecting the environment, triggering the requirement for FERC’s preparation of an environmental impact statement (“EIS”) under NEPA.<sup>73</sup> Among NEPA’s required EIS components is a statement of purpose and need.<sup>74</sup> FERC guidelines set forth expectations for project applicants as to information to be provided to FERC to inform the Commission’s preparation purpose and need statements.<sup>75</sup>

PennEast falls short under NEPA by impermissibly limiting the project’s statement of purpose and need. FERC cannot be limited to considering the interests of the beneficiaries of the project, and even more specifically, FERC cannot be limited to

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<sup>72</sup> 15 U.S.C. § 717f(c)(1)(A).

<sup>73</sup> See 42 U.S.C. § 4332(C); 18 C.F.R. § 380.6(a). FERC has committed to preparing an EIS for PennEast.

<sup>74</sup> 40 C.F.R. §1502.13.

<sup>75</sup> See FERC, Guidance Manual for Environmental Report Preparation (“2002 E.R. Guidance”) at 3-6 (2002).

considering the interests of PennEast and its shippers. For these reasons, FERC should reject the PennEast’s application.

**A. PennEast’s Stated Project Purpose and Need are Improperly Limited to the Interests of the PennEast Project’s Beneficiaries**

In setting forth a purpose and need statement in an EIS, an agency may neither be so narrow as to unreasonably foreclose all but one alternative, nor may it be so broad that “an infinite number of alternatives would accomplish [the stated] goals and the project would collapse under the weight of the possibilities.”<sup>76</sup> Courts have explained that the scope of a purpose and need statement must track relevant congressional intentions with respect to the proposed federal action.<sup>77</sup>

As set forth in part I above, in approving a pipeline application under section 7 of the NGA, FERC must conclude that the proposed project “is or will be required by the present or future *public* convenience and necessity; otherwise such application shall be denied.”<sup>78</sup> And because FERC must make a broad public interest determination in considering a section 7 certificate application, the purpose and need statement in the corresponding EIS must encompass broad public interest goals that track FERC’s directive under section 7 of the NGA.

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<sup>76</sup> Citizens Against Burlington, 938 F.2d at 196.

<sup>77</sup> Id. (stating that an agency should “take into account the needs and goals” of applicants, but that “[p]erhaps more importantly,” an agency should consider relevant congressional intentions). Cf. HonoluluTraffic.com v. Fed. Transit Admin., 742 F.3d 1222, 1230 (9th Cir. 2014) (upholding purpose and need statement where “[t]he stated objectives compl[ied] with the intent of the relevant federal statutes”).

<sup>78</sup> 15 U.S.C. § 717f(e) (emphasis added).

However, as currently written, PennEast’s application frames the purpose and need of the PennEast project only with respect to its expected direct beneficiaries: natural gas shippers, utilities, electric generators, and energy users to be served, as well as to local economic interests during project construction.<sup>79</sup> But environmental review of a section 7 project under NEPA may not be limited to these narrow purposes and needs alone, where FERC’s ultimate decision under the NGA must be in the broad public interest. As described in part I.A above, the “public convenience and necessity” does not refer only to those members of the public who will directly benefit from a section 7 project, nor does a section 7 project exist in a vacuum. PennEast’s purpose and need statement under NEPA must therefore track FERC’s broad mandate to make decisions in the public interest, in order that alternatives to the project may fully be considered.<sup>80</sup> Because PennEast frames its project purpose and need too narrowly, PennEast’s purpose and need submission to FERC is deficient under NEPA.

**B. PennEast’s Stated Project Purpose and Need are Even More Improperly Limited to the Interests of PennEast and its Partners**

While PennEast claims that there is both business-side and user-side benefit to the project, it improperly relies on a narrow set of private interests (including PennEast’s own interests), failing to actually establish end-user *demand*. Indeed, as noted in part I.A.3 above, PennEast improperly infers public demand from its precedent agreements, and by relying on its own self-affirming evidence and statements as to consumer-side need.<sup>81</sup>

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<sup>79</sup> See PennEast R.R. 1 at 1-2 to 1-6; see also supra I.B.

<sup>80</sup> See Citizens Against Burlington, 938 F.2d at 196.

<sup>81</sup> See also PennEast R.R. 1 at 1-2 to 1-6.

Therefore, PennEast’s purpose and need statement only genuinely encompasses narrow business interests. But PennEast’s and shippers’ interests alone are insufficient for a purpose and need statement in NEPA review of a NGA section 7 project. As noted in the foregoing subpart, purpose and need statements must track the congressional purposes behind whatever authority is directing the federal agency in its instant action. Therefore, where a section 7 determination requires that public convenience and necessity be satisfied, a purpose and need statement must go beyond the narrow purposes of the private interests driving the project. In some cases, courts have specifically explained that the scope of a purpose and need statement cannot be framed around the private motivations of a permit applicant, at least where an agency’s directive includes broader public interest considerations.<sup>82</sup> Under the NGA, FERC is required to find that the public interest is served by the project. Accordingly, the purpose and need statement in an EIS for a section 7 project must adequately encompass public interests. To the extent that conclusory assertions, self-interested studies, and self-serving precedent agreements are the only evidence as to the demand-side purpose and need of the project,<sup>83</sup> the public interest is left out of the equation, leaving only the narrow private interests of shippers and PennEast as within the project’s purposes. This renders PennEast’s submissions deficient under NEPA, which requires FERC to define project purpose and need such to include those interests to

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<sup>82</sup> See, e.g., Nat’l Parks & Conservation Ass’n v. Bureau of Land Mgmt., 606 F.3d 1058, 1072 (9th Cir. 2010) (invalidating 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”); see also Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 669 (7th Cir. 1997).

<sup>83</sup> See supra part I.B.III. To the extent that the larger context in the region’s energy development has been ignored, see infra part III.



be considered in FERC's underlying NGA decision--and under section 7 of the NGA, FERC must consider the public convenience and necessity.

**III. FERC MUST EXERCISE ITS EXISTING AUTHORITY UNDER THE NATURAL GAS ACT TO REQUIRE REGIONAL GAS PLANNING, SO IT MAY FACTUALLY DETERMINE WHETHER PENNEAST'S CERTIFICATE IS REQUIRED BY THE PRESENT OR FUTURE PUBLIC NECESSITY, CONTRARY TO PENNEAST'S CONTENTION THAT FERC MAY EXAMINE THIS PIPELINE CERTIFICATE IN A VACUUM**

**A. The Natural Gas Act Requires Regional Planning**

To approve the construction of a pipeline project under section 7 of the NGA,<sup>84</sup> FERC must find that the proposed project "is or will be required by the present or future public convenience and necessity."<sup>85</sup> Where a project will have adverse impacts, FERC conducts an "economic test" wherein "the evidence of public benefits to be achieved" are balanced against the "residual adverse effects" of the project.<sup>86</sup>

In conducting this economic balancing, FERC cannot reasonably find that the present or future public convenience and necessity require a pipeline project, while assessing only a single pipeline's localized positive and adverse effects in isolation. Natural gas distribution is inherently regional in nature, and the public interest cannot be

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<sup>84</sup> 15 U.S.C. § 717f

<sup>85</sup> 15 U.S.C. § 717f(e).

<sup>86</sup> Certificate Policy Statement at 61,745. See also *supra* part I.

effectively safeguarded through the piecemeal, ad hoc approvals of individual pipelines in a vacuum, without coordinated planning to ensure that pipeline proposals fit within long-term, regional plans.

Further, FERC cannot properly rely on the opportunistic applications of individual pipeline companies acting alone, to ensure that the public convenience and necessity require a given project. Individual pipeline companies may stand to profit from the development of a particular pipeline,<sup>87</sup> even where the public interest would be maximized through more coordinated regional development. Under current practice, operators compete for customers, who may then allow contracts to expire on existing pipelines, resulting in more pipelines than may be needed to satisfy actual demand.<sup>88</sup> Such an approach violates the Natural Gas Act: under the NGA, pipeline approvals must track the requirements of the public interest, not the requirements of private interests.

Moreover, FERC may not properly rely on precedent agreements between a pipeline company and gas shippers who own, or who are affiliated with owners of that pipeline to demonstrate that a particular pipeline best meets public need in the area to be served. This allows for self-dealing: gas shippers may see an opportunity to profit, and effectively manufacture “evidence” of public need for that project by signing shipping contracts with themselves.<sup>89</sup> FERC should not recognize such self-dealt precedent agreements as definitive/or substantial evidence of public benefit in the “public

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<sup>87</sup> *Id.* at 20.

<sup>88</sup> *See* Kunkel, Cathy, Institute for Energy Economics and Financial Analysis, “A Note of Caution on Zeal Around More U.S. Gas Pipelines. (“One result of an unplanned approach is that the pipeline capacity companies have proposed dwarfs the amount of gas expected . . . . The cost of that underutilized infrastructure would largely be borne by the rate-paying public.”).

<sup>89</sup> Exhibit A at 20.

convenience and necessity” certification process—evidence of a particular opportunity to profit is not evidence that a particular pipeline is in the best interests of the region being served.

Regional planning in pipeline development would help ensure that pipelines are built in a way that is required by the public convenience and necessity, and address the market failure that occurs when shippers and pipeline companies have a financial incentive to propose “uneconomic” projects. In the electric transmission context, FERC exercises its authority to require public utility transmission providers to coordinate electricity transmission planning and share costs for new electricity transmission capacity.<sup>90</sup> It directs transmission planning to be done at the regional level rather than state level, reducing collective action problems and thus increasing cost efficiency.<sup>91</sup> It does this via Order 1000, which followed Order 888 and Order 890, requiring public utility transmission providers to provide open access to facilities and conduct open and transparent regional planning.<sup>92</sup> This approach was upheld as a legitimate exercise of FERC’s preexisting authority under the Federal Power Act.<sup>93</sup>

In order to properly perform the economic analysis under FERC’s certificate policy, as set out in Part I above, and in order to ensure that the public convenience and necessity require the construction of particular pipelines, FERC should exercise its analogous

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<sup>90</sup> Federal Energy Regulatory Commission, Order No. 1000 - Transmission Planning and Cost Allocation (Nov. 9, 2015), <http://www.ferc.gov/industries/electric/indus-act/trans-plan.asp>.

<sup>91</sup> Federal Energy Regulatory Commission, Final Rule on Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, <http://breakingenergy.sites.breakingmedia.com/wp-content/uploads/sites/2/2011/08/FERCOrder1000Presentation.pdf>

<sup>92</sup> *Id.*

<sup>93</sup> *S. Carolina Pub. Serv. Auth. v. F.E.R.C.*, 762 F.3d 41 (D.C. Cir. 2014).

authority under the Natural Gas Act,<sup>94</sup> and ensure coordination in the development of a regional pipeline network.<sup>95</sup> Collectively, these operators would be able to determine the actual demand for natural gas and associated infrastructure. Under this process, pipeline companies would be directed to build the appropriate amount of pipelines, in appropriate locations, to satisfy the demand in a cost efficient manner and allocate the costs of the pipelines appropriately. This process would not require FERC to pick winning and losing pipeline proposals but would direct the industry to the appropriate amount of capacity and the least damaging routes for projects.

In fact, FERC’s record of approving every pipeline project it considers demonstrates that absent such an order, it will continue to fall short of fully implementing the statutory requirement to determine which projects are necessary. First, FERC has authority over the construction of new pipeline facilities. As Intervenors explain above, the statutory standard for approving new gas pipeline projects is that the project must be “required by the present or future public convenience and necessity.”<sup>96</sup> Because the development of a particular pipeline may produce impacts that affect regional consumers, and because consumers in a region will benefit from a coordinated approach to gas pipeline development, the Natural Gas Act requires FERC to assess whether current regional natural gas needs are being met and whether coordination may better suit public convenience and necessity such that new projects are “required” or not. A coordination-focused analysis such as those performed under Order 1000 would delineate when projects actually are

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<sup>94</sup> 15 U.S.C. § 717f(a).

<sup>95</sup> The language of 16 U.S.C. §§ 824, 824d, and 824e (Federal Power Act §201, 205, and 206), which firmly establish FERC’s authority to require regional transmission planning under Order 1000, are closely tracked by 15 U.S.C. §§ 717, 717c, and 717d (Natural Gas Act §1, 4, and 5) respectively.

<sup>96</sup> 15 U.S.C. § 717(f).

required by public convenience and necessity, and when they are merely duplicative and may not be required in light of better regional planning.<sup>97</sup>

In a market such as this one, where precedent agreements involve affiliates, and LDC involvement distorts the regular market signals, and allows the costs of pipeline construction to be borne by the ratepayers, FERC must engage in a broader analysis in order to fulfill its mandate under the Natural Gas Act. As it did with Order 1000, FERC can better fulfill this statutory mandate by issuing a corresponding order under the Natural Gas Act, and engage in regional and interregional planning, coordination, and cost allocation. FERC cannot certify the PennEast project until such regional planning is underway, allowing FERC to adequately safeguard the requirements of the public convenience and necessity.

#### **B. NEPA Requires Consideration of Regional Development**

As set forth in part II.A above, a purpose and need statement under NEPA must track an agency's congressional directives in making the underlying decision. Because FERC must consider regional gas development in certifying section 7 projects, as shown above, FERC must accordingly include regional interests in a purpose and need statement<sup>98</sup>

FERC's "hard look" under NEPA requires it to examine aspects of regional economic analysis of need, including changes in scheduling and delivery, demand response, efficiency, renewables, oil-fired generation, and purchasing gas from LNG

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<sup>97</sup> Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 76 Fed. Reg. 49842 (Aug. 11, 2011) (to be codified at 18 C.F.R. pt. 35) (pincited at the Commission's determinations for its authority to promulgate the transmissions planning and cost allocation reforms).

<sup>98</sup> See Citizens Against Burlington, 938 F.2d at 196; see also HonoluluTraffic.com, 742 F.3d at 1230.

facilities as alternatives to new construction.<sup>99</sup> Here, PennEast fails to include regional energy development interests in its purpose and need submission to FERC, further making PennEast’s application deficient under NEPA.

In addition, NEPA requires that federal agencies analyze both the direct and indirect effects of applicable federal actions.<sup>100</sup> “Direct effects . . . are caused by the action and occur at the same time and place.”<sup>101</sup> “Indirect effects . . . are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”<sup>102</sup>

Because the certification of a given pipeline will affect the course of pipeline development in a region overall, FERC must, in conducting NEPA review for a pipeline project, analyze applicable impacts of not just the particular project, but also impacts of regional pipeline development to the extent it is indirectly affected by a pipeline’s construction. PennEast fails to do so here.

#### **IV. HAVING UNDULY NARROWED ITS PORTRAYAL OF PROJECT PURPOSE AND NEED, PENNEAST THEN FAILED TO PROPERLY EXPLORE ALTERNATIVES**

##### **A. PennEast’s Artificially Narrow Construction of Project Purpose and Need has Precluded a Hard Look at any No-Build or an Alternative Energy Solution**

The project purpose and need statement serves to set the parameters of the alternatives analysis of a DEIS, insofar as alternatives are assessed in part according to

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<sup>99</sup> See also EPA Comments on the Draft Guidance Manual for Environmental Report Preparation for Applications Filed Under the Natural Gas Act, dated 1/19/2016, from USEPA NEPA Compliance Division Director Karin Leff, to FERC Secretary Kimberly Bose at 1 (“[W]e recommend FERC request the applicant provide information regarding the purpose and need for the proposed project in the context of the broader natural gas supply market.”); see also Exhibit A at 10-11.

<sup>100</sup> 40 C.F.R. § 1502.16(a)–(b).

<sup>101</sup> 40 C.F.R. § 1508.8(a).

<sup>102</sup> Id.

their likely achievement of project purposes.<sup>103</sup> Moreover, CEQ regulations require EISs to “[r]igorously explore and objectively evaluate all reasonable alternatives,” including a no action alternative,<sup>104</sup> and that EISs “[i]nclude reasonable alternatives not within the jurisdiction of the lead agency,”<sup>105</sup> Accordingly, FERC regulations require that project applicants submit an analysis of alternatives to any proposal, including a no action alternative, and “demonstrate how environmental benefits and costs were weighed against economic benefits and costs, and technological and procedural constraints.”<sup>106</sup> Specifically as to a no action alternative, FERC 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.”<sup>107</sup> Moreover, CEQ and FERC regulations both require the consideration of alternatives in EISs, including a no action alternative (in this case: no pipeline).

PennEast’s application is also fundamentally flawed insofar as it conflates demand for natural gas with underlying demand for energy. Energy demand can be met with

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<sup>103</sup> See 2015 Draft E.R. Guidance at 4-13; see also Webster, 685 F.3d at 422.

<sup>104</sup> 40 C.F.R. §1502.14(a), (d).

<sup>105</sup> 40 C.F.R. §1502.14(a)

<sup>106</sup> 18 C.F.R. § 380.12(l).

<sup>107</sup> 2002 E.R. Guidance at 3-106.

substitutes such as energy conservation and efficiency, measures that are more cost-effective than supplying additional fuel.<sup>108</sup> Energy demand may also be met with renewable energy, which has shown to generate more jobs than corresponding use of conventional fuels.<sup>109</sup> Clean energy options such as efficiency, conservation, and renewables, also carry the benefit of reduced environmental impacts.

PennEast’s cursory review of clean energy options fails to adequately explain why these alternatives do not also meet the alleged energy supply shortage.<sup>110</sup> PennEast’s analysis dismisses a no-action alternative as essentially futile, in that shippers “would likely pursue alternate natural gas transportation projects that could potentially result in similar environmental impacts.”<sup>111</sup> PennEast is essentially threatening that its affiliates and partners will ignore the environmental impacts of their activities notwithstanding FERC’s certification decision. PennEast also glosses over energy efficiency as a means of meeting energy demand, noting that “[e]nergy conservation has been successful in some areas”<sup>112</sup> However, PennEast neglects to substantively discuss why conservation is not a preferable alternative, except to state without evidence that efficiency measures will not eliminate the need to construct new pipelines. Finally, PennEast engages in only a cursory analysis of renewable energy alternatives, characterizing them as ill-suited for the eastern U.S., insufficient to substitute for certain uses of natural gas, and producing environmental

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<sup>108</sup> See International Energy Agency, Energy Efficiency Market Report 2015 at 107–08 (2015).

<sup>109</sup> See generally U.N. Industrial Development Organization & Global Green Growth Institute, Global Green Growth: Clean Energy Industrial Investments and Expanding Job Opportunities (2015) (finding also that energy efficiency generates more jobs than do conventional fuels).

<sup>110</sup> See generally PennEast R.R. 10 at 10-3–10-6.

<sup>111</sup> Id. at 10-4.

<sup>112</sup> Id. at 10-5.



impacts of their own.<sup>113</sup> PennEast’s dismissive, superficial analysis of clean energy alternatives fails to establish that any public demand for energy that may exist in Pennsylvania and New Jersey, is somehow confined to demand for gas—and not clean energy substitutes that may carry fewer adverse impacts.

PennEast’s application too narrowly defines demand in terms of *natural gas* demand, rather than underlying demand for energy. For consumers, natural gas is in most cases a means to an end. In order for a New Jersey gas or electricity ratepayer to maintain a given indoor air temperature, or to achieve a given level of refrigeration, computer or television use, etc., the ultimate outcomes are the same regardless of the particular input mix of natural gas, renewable energy, or energy efficiency. There are of course differences between these energy sources with respect to price tag, environmental impacts, and other factors that may affect the welfare of the ratepayers themselves as well as the general public—and that is what the alternatives analysis is for. To the extent that any FERC DEIS adopts PennEast’s unduly narrow articulation of purpose and need, constraining it to only natural gas demand, it would fail to satisfy NEPA, because the resulting alternatives analysis would be rendered inadequate.

Yet to whatever extent the PennEast project purpose and need is framed specifically in natural gas terms, as PennEast has done in its application, adopting a DEIS would fail to include a robust comparison of the environmental impacts, including life cycle impacts, under the proposed project versus clean energy alternatives. Indeed, PennEast’s

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<sup>113</sup> Id. at 10-6.

application itself includes only a cursory review of energy efficiency and renewables.<sup>114</sup>

PennEast’s analysis:

- dismisses a no-action alternative as essentially futile, in that shippers “would likely pursue alternate natural gas transportation projects that could potentially result in similar environmental impacts,” *id.* at 10-4;
- glosses over energy efficiency as a means of meeting energy demand, *id.* at 10-5 (noting that “[e]nergy conservation has been successful in some areas” without substantively discussing why it is not a preferable alternative, except to state without evidence that efficiency measures will not eliminate the need to construct new pipelines); and
- engages in only a cursory analysis of renewable energy alternatives, characterizing them as ill-suited for the eastern U.S., insufficient to substitute for certain uses of natural gas, and producing environmental impacts of their own.<sup>115</sup>

Meanwhile, PennEast’s analysis does not include:

- lifecycle environmental impacts of natural gas infrastructure buildout, including from extraction and combustion;
- local and sustained employment opportunities associated with clean energy development;
- cost savings associated with energy efficiency; or
- continuing price drops of renewable energy.<sup>116</sup>

As discussed above, FERC’s DEIS may not adopt a similarly cursory and dismissive approach to clean energy. Under NEPA, this would be a clear failure to

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<sup>114</sup> See generally Penn East R.R. 10 at 10-3–10-6.

<sup>115</sup> *Id.* at 10-6.

<sup>116</sup> See, e.g., National Energy Technology Laboratory (U.S. Dept. of Energy), Life Cycle Greenhouse Gas Analysis of Natural Gas Extraction and Delivery in the United States (2011); U.N. Industrial Development Organization & Global Green Growth Institute, Global Green Growth: Clean Energy Industrial Investments and Expanding Job Opportunities (2015); International Energy Agency, Energy Efficiency Market Report 2015 (2015); International Renewable Energy Agency, Renewable Power Generation Costs in 2014 (2015).

“[r]igorously explore and objectively evaluate all reasonable alternatives,”<sup>117</sup> resulting from a deficient purpose and need statement framed centrally around natural gas demand.<sup>118</sup><sup>119</sup>

Energy demand can also be met with renewable energy, which has shown to generate more jobs than corresponding use of conventional fuels.<sup>120</sup>

**B. Project Need has Been Defined so Narrowly that Even FERC has had to ask PennEast to Consider Different Receipt Points and Line Alterations in Order to Properly Consider Alternative Routes**

Although Intervenors believe that a proper analysis of project need would reveal that PennEast is unnecessary, if FERC were to move forward with a DEIS and consider alternative routes to this narrowly proposed pipeline project, it must require data sufficient to support an analysis of the environmental harms from various route alternatives. Such route alternatives ought not to consider the receipt points as fixed, and should include looping to available lines, increased compression and other shipping and receipt points.

**V. CONSTRUCTION OF PENNEAST WOULD CAUSE SIGNIFICANT ENVIRONMENTAL HARM, WHICH FERC MUST CONSIDER TOGETHER WITH SIMILAR PROJECTS ADVERSELY IMPACTING THE SAME RESOURCES, IN THIS DEIS SO THAT IT CAN PROPERLY BALANCE HARM AGAINST ANY VERIFIED PUBLIC NEED**

PennEast argues that the various concurrent regional pipeline proposals are not

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<sup>117</sup> 40 C.F.R. §1502.14(a) (providing that such alternatives include those courses of action outside the decision-making agency’s jurisdiction)

<sup>118</sup> See Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 666 (7th Cir. 1997) (“If the agency constricts the definition of the project’s purpose and thereby excludes what truly are reasonable alternatives, the EIS cannot fulfill its role.”).

<sup>119</sup> See International Energy Agency, Energy Efficiency Market Report 2015 107–08 (2015), <https://www.iea.org/publications/freepublications/publication/MediumTermEnergyefficiencyMarketReport2015.pdf>

<sup>120</sup> See generally U.N. Industrial Development Organization & Global Green Growth Institute, Global Green Growth: Clean Energy Industrial Investments and Expanding Job Opportunities (2015) (finding also that energy efficiency generates more jobs).

“connected” actions, and, almost as an afterthought, notes that the projects are not cumulative or similar actions. This scant treatment reflects the dearth of support that exists for PennEast’s notion that FERC does not need to consider the impacts from these similar, cumulative actions within the confines of a single EIS. To assess PennEast’s potential environmental impacts, NEPA’s implementing regulations require FERC to examine both “[c]umulative actions,” defined as projects with “cumulatively significant impacts,” as well as “[s]imilar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.”<sup>121</sup>

Here, FERC must examine the cumulative impacts of the following similar actions within the PennEast EIS: (1) Constitution pipeline; (2) Columbia East Side Expansion; (3) Garden State Expansion; (4) Leidy Southeast Expansion; (5) Atlantic Sunrise; (6) NorthEast Supply Link; (7) Tennessee Gas Pipeline; (8) Pilgrim Pipeline; (9) Diamond East; (10) Southern Reliability Link; (11) South Jersey Gas; (12) Marc-1; and (13) Marc-2. In order to properly calculate the environmental costs of this proposed project, FERC must assess the cumulative costs from the other similar projects in its draft EIS. These cumulative impacts include, but are not limited to: (1) greenhouse gas emissions, (2) permanent harm to rare (special concern, threatened and endangered species), (3) wetland degradation and losses, (4) interior forest habitat degradation or conversion to non-forest habitat, and (5) water quality degradation.

**A. PennEast’s Proposed Pipeline Would Cause Increased Greenhouse Gas**

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<sup>121</sup> 40 C.F.R. § 1508.25(a)(2), (3).

## **Emissions in an Already Non-Compliant Area**

Contrary to PennEast's assertion in its proposed answer, the draft EIS must calculate greenhouse gas emissions from its proposed project.<sup>122</sup> If one were to rely upon PennEast's unsupported (and herein discredited) assertion that there is unmet demand, and that its project would therefore not displace legacy pipeline capacity, then the project itself will necessarily cause additional greenhouse gas emissions, which PennEast must analyze. But if upon analysis of the data Intervenors and others have submitted, FERC determines that there is not unmet demand for this gas capacity, it must still examine the greenhouse gas emissions from the natural gas production, transport, and combustion associated with this project. EPA, in commenting on FERC's treatment of GHG effects from proposed pipelines, stated that FERC has made, "[I]n our view, an incorrect determination that no methodology exists to determine how an individual project's incremental contribution to GHG would translate into physical effects on the global environment...."<sup>123</sup> EPA further asserted that FERC should "include emissions associated with the production, transport, and combustion of the natural gas," in addition to "GHG emissions from the construction and operation of the project."<sup>124</sup> PennEast's assertions to the contrary are unsupported both by NEPA, and by the USEPA's determinations that FERC must consider the very analyses that PennEast would have FERC ignore.

### **B. The PennEast Project Would Cause Irreversible Harm to State Rare (Special Concern, Threatened and Endangered) Species**

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<sup>122</sup> Proposed Answer of the PennEast Pipeline Company, FERC Docket #CP15-558, Document Accession #20151113-5247 at 21-32.

<sup>123</sup> See EPA Comments on the Draft Guidance Manual for Environmental Report Preparation for Applications Filed Under the Natural Gas Act, dated 1/19/2016, from USEPA NEPA Compliance Division Director Karin Leff, to FERC Secretary Kimberly Bose at 2.

<sup>124</sup> Id.

## 1. Long-tailed Salamanders would be imperiled by implementation of PennEast

Constructing the proposed PennEast pipeline project would cause irreversible, adverse impacts to the long-tailed salamander, a New Jersey threatened species.<sup>125</sup> This species has documented habitat in multiple places along the proposed route, and potential habitat along significant stretches of the route. In fact several of the waterbodies crossed by the proposal were listed as non-degradation waters as a result of actual usage by the species as well as documented habitat.<sup>126</sup> Importantly, only a small percentage of the route has been surveyed, and these populations were not found by PennEast -- rendering its environmental data inaccurate and misleading as to potential environmental costs. In addition, even along the small portion of the route that has been surveyed, as demonstrated by the population that PennEast *missed*, many other existing populations may simply not have been documented sufficiently, because this fossorial species is difficult to find and requires more than a cursory survey effort.<sup>127</sup>

Despite this limited effort by the applicant, Intervenors note that Dr. DeVito reports on a population of long-tailed salamander (*Eurycea longicauda*) that was documented in 2015 on the Little Nishisakawick Creek, a Category 1 stream, in Holland Township, NJ.<sup>128</sup> The observations were made both above and below the proposed pipeline crossing near milepost 88.4.<sup>129</sup> The Holland Township Natural Resource inventory also indicates that this species is known to occur in Holland Township.<sup>130</sup> Again NJDEP listed this water as a

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<sup>125</sup> See Report of Dr. Emile DeVito, submitted herein as Exhibit G.

<sup>126</sup> 2003 N.J. Regulations 15970 (2003).

<sup>127</sup> *Id.*

<sup>128</sup> See Exhibit G at pp. 2-6.

<sup>129</sup> *Id.* p. 3.

<sup>130</sup> Highlands Environmental Resource Inventory for Township of Holland, p. 20.

category one in part because of “sightings of the threatened long-tailed salamanders.”<sup>131</sup>

Additionally, many of the proposed crossings of headwater streams in other locations along the proposed pipeline route also present potential long-tailed salamander habitat.<sup>132</sup>

PennEast’s current pipeline route will bisect this threatened species’ existing documented habitat. The stream and wetland crossing method proposed by PennEast for this steeply sloped forested location will be open-cut and will also require a 75 foot swath through the forested wetlands bordering the stream, and a 125-135 foot swath of clearing through the forested riparian zone, which consists of both upland and wetland habitat elements. Since the Nishisakawick Creek is an antidegradation stream that requires a 300 foot wide riparian zone, these impacts are extremely significant because they will not only devastate the salamanders’ forest habitat but result in the degradation of the creek.<sup>133</sup>

PennEast’s approach to addressing impacts to this species and its habitat is to simply institute a timing restriction and conduct more surveys. Yet more surveys and timing restrictions will do nothing to maintain the habitat of this imperiled species. The proposed pipeline route would also directly adversely impact the C-1 streams -- of which there are 49 crossings -- as well irreversibly damage 95 wetland complexes, and remove upland forest canopy, which would further fragment the salamander’s already scarce habitat. This project would constitute a significant impact on the habitat of this species, in violation of New Jersey’s laws designed to protect against precisely such an outcome.<sup>134</sup>

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<sup>131</sup> 2003 N.J. Regulations 15970 (2003).

<sup>132</sup> Id.

<sup>133</sup> These salamanders are especially valuable to their wetlands habitat, and therefore their presence results in a wetlands designation of exceptional value.

<sup>134</sup> N.J.A.C. 7:7A-7.2.B3 and 7:13-10.6(D)

FERC is required to assess these environmental impacts under NEPA, rather than deferring them to other agencies.<sup>135</sup>

## **2. PennEast would also negatively impact populations of the endangered Red shouldered hawk**

Red shouldered hawk provides an excellent example regarding why the impacts of forest fragmentation should not be trivialized and that the proposed PennEast project will serve to significantly degrade the natural resources of Hunterdon and Mercer Counties. Increased competition from forest fragmentation has nearly decimated the red shouldered hawk.<sup>136</sup> Linear pipeline projects such as PennEast open canopy and fragment forests, enabling red tailed hawks to displace or kill red shouldered hawks.<sup>137</sup> There may be as few as twenty breeding pairs of red shouldered hawk left in New Jersey.<sup>138</sup> And PennEast acknowledges that the proposed project will fragment the habitat of the red-shouldered hawk.<sup>139</sup> PennEast further acknowledges that in several related cases, habitat fragmentation has led to declines in breeding populations and increased competition. *Ibid.*

In fact, forest fragmentation favors habitat generalists, such as great horned owls, which are voracious predators of the endangered red shouldered hawk.<sup>140</sup> Thus, in New Jersey, despite “best management practices,” and “mitigation” during the proliferation of

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<sup>135</sup> See supra I.C.

<sup>136</sup> See Exhibit G at 7.

<sup>137</sup> Id. at 8.

<sup>138</sup> See Exhibit G at 6-9.

<sup>139</sup> Resource Report 3, Appendix 3B-2.

<sup>140</sup> Id. p. 8.



linear projects, this imperiled species continues to decline.<sup>141</sup> And the red-shouldered hawk is just one of many species that contribute to the diversity and well-being of the interior forests of Hunterdon County and Mercer County. PennEast acknowledges the ecological significance of these forests.<sup>142</sup> PennEast proposes to permanently clear hundreds of acres of these forests.<sup>143</sup> This clearing will destroy the ecosystem of the forest interior, and will pose a grave danger to the red-shouldered hawk.

The proposed forest clearing will not just damage the habitat of the red-shouldered hawk, but also the habitats of many of the birds and animals that the red-shouldered hawk preys upon, including blue jays, frogs, voles, squirrels and chipmunks.<sup>144</sup> A similar population of red-shouldered hawks in southern Michigan suffered from habitat fragmentation about two decades ago.<sup>145</sup> Due to increased competition resulting from the altered habitat, that population of red-shouldered hawks was ultimately replaced by another species. *Ibid.* Habitat fragmentation can also expose the nests of red-shouldered hawks to new predators.<sup>146</sup> When red-shouldered hawks can no longer protect their young, evidence indicates that they may abandon the region entirely.<sup>147</sup>

In sum, the proposed project will cause fragmentation of the habitats of many forest interior species, including the red-shouldered hawk. This habitat fragmentation will disrupt their food chain, force increased competition, and invite new predators. A number of peer-reviewed studies of the fragmentation of habitats for other populations of

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<sup>141</sup> *Id.* pp. 8-9.

<sup>142</sup> *See* Resource Report 3, p. 3-27.

<sup>143</sup> *Id.* at p. 3-47.

<sup>144</sup> Resource Report 3 pp. 3-37 to 3-39.

<sup>145</sup> Exhibit G at 6-7.

<sup>146</sup> *Id.* p. 7.

<sup>147</sup> *Ibid.*

red-shouldered hawks, detailed in Exhibit G, showed that habitat fragmentation ultimately caused the abandonment or extirpation of those populations. Clearly, such adverse impacts as habitat fragmentation are not capable of mitigation, and FERC must account for this harm in any weighing of environmental costs of PennEast against specious “benefits.”

**C. Approving the PennEast Project Would Also Result in Adverse Impacts to Wetlands and Riparian Areas.**

FERC must include wetlands impacts when weighing the environmental costs against any verified public need. PennEast has yet to provide site-specific wetlands data from which FERC or other agencies could determine what the actual environmental impacts would be, nor has it provided plans for how it would avoid such impacts. Moreover, the proposed route continues to shift, rendering a true accounting of environmental costs extremely difficult. However, given that the proposed route crosses 95 wetlands complexes, and C1-designated high quality streams 49 times, the resulting sedimentation from construction alone would: (1) damage populations of benthic invertebrates<sup>148</sup> and fish species, filling in interstices between rocks and gravel on the stream bottom with sediment; and (2) change the porosity and composition of surrounding hydric and riparian soils through disturbance, compaction, and sedimentation.<sup>149</sup>

Under the best of construction conditions, even implementing “best management practices,” these impacts occur throughout the construction site and propagate downstream. Inevitably, with 49 stream crossings, rainfall events will cause additional, unexpected, and overwhelming high water flow rates and erosion conditions at many of the stream

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<sup>148</sup> The primary food source for long-tailed salamanders. Exhibit G, at 6.

<sup>149</sup> Id.

crossings. The hydro-geology of these tributaries of the Delaware River -- often steep ravines with fractured bedrock -- is noted for the incredibly flashy nature during rainfall events. No construction practices are capable of successfully controlling the sediment loads that will occur at many of these stream locations. Stream and wetland habitat degradation through soil compaction, erosion, and siltation will be permanent and irreversible. Such impacts cannot be successfully mitigated, either on or off-site.

Even if massive expenditures were employed to remove sediment, repair erosion, and re-create stable streambank and stream-bottom conditions, the losses to rare floral and faunal elements would be irretrievable and irreversible. These permanent impacts to public trust resources are, in fact, not permitted on conservation lands, nature preserves, and other lands held in the public trust.

Contrary to PennEast's assertion that there will be no permanent wetland loss from construction of the Project, conversion of palustrine forested wetlands and palustrine scrub/shrub wetlands into palustrine emergent wetlands represents a significant loss -- and the environmental reality of 'temporary disturbances' is that they become permanent.<sup>150</sup> Allowing such losses becomes even more egregious when one considers that they are contemplated on preserved lands. PennEast almost appears, in fact, to have specifically targeted preserved land, because of the tremendous overlap between the route and these critical lands.

It is vital for FERC to understand that these lands were not selected for preservation without reason -- and many of these preserved lands possess uniquely important wetland,

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<sup>150</sup> See PennEast (Resource Report 2 ) (“For temporarily disturbed wetlands, restoration and revegetation following completion of construction will be performed in place, in kind with the appropriate wetland plantings.”)

riparian and upland habitats, including habitat for rare, threatened and endangered species. And while, in general, the theory behind compensatory wetland mitigation is to attempt to replace (as fully as possible) the functions and public benefits of lost wetlands, when it is used as a justification for finding no significant impact to preserved lands, FERC must examine this proposition with an extremely critical eye.<sup>151</sup> But New Jersey regulations currently lack an objective method to assess unique habitat quality.<sup>152</sup> Preserved lands can function as a proxy for a standardized scoring system. In New Jersey, they typically contain rare remnant natural communities and house special concern species that are subject to very narrow habitat requirements. PennEast's one-size-fits-all mitigation mentality cannot substitute for accurate assessment of extant flora and fauna, particularly on these preserved lands. Moreover, under 40 C.F.R § 230.40, many of these preserved land areas within the PennEast pipeline route are further defined as sanctuaries and refuges and thus considered to be Special Aquatic Sites. PennEast has done little to nothing to

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<sup>151</sup> Careful application of the 404(b)(1) guidelines, for example, can expressly protect these special areas by acknowledging that adverse impacts to such preserved lands may not be mitigable. For example, the Chicago District of the US Army Corps of Engineers (USACE) "has identified that mitigation cannot mitigate impacts to all sites. The USACE considers that "the functions and values of high quality areas may be considered to be un-mitigatable under the 404(b)(1) Guidelines" and that "impacts to these areas will not typically be permitted." Examples of these areas include but are not limited to; endangered and threatened species habitat, lands with high-quality plant communities, streams with natural channels and stream segments of high biological value and areas providing habitat for uncommon animals or breeding habitat." [Chicago District Permittee Responsible Mitigation Requirements, revised October 2009] These are the very qualities that led to the selection of these preserved lands as critical to preserve in an untampered condition.

<sup>152</sup> For example, the application of a floristic quality index (FQI) provides an accurate, objective method to identify rare and unique habitats that are un-mitigatable and irreplaceable. This method has been used to identify natural areas, facilitate comparisons between sites, and perform long-term monitoring of remnant natural quality and of habitat restoration. It can be used to characterize rare habitats and identify those sites with plant communities that are too unique to be impacted and replaced. The FQI is a biotic or content based index based on a numerical score called the Coefficient of Conservatism (C). The underlying scientific basis for the FQI is that plant species differ in their tolerance to the type, frequency, and amplitude of disturbance and that plants exhibit a varying degree of fidelity to remnant natural habitats.

show that it has made any realistic attempt to avoid unmitigable impacts to unique preserved lands, sanctuaries and refuges located along the route.

#### **D. Interior Forest Habitat Destruction**

PennEast's portrayal of its pipeline route as minimally harmful because it is in some areas co-located along existing rights of way at best displays a genuine ecological misunderstanding of the existing habitat along the route crossings, and at worst, is intentionally misleading as to the amount of harm the project would inflict. New Jersey has a number of interior forest habitat species that have suffered steep decline over the last decade, leading to their listing as rare (state special concern, threatened or endangered). These listings have increased as more pipelines have been built because the type of harm from these linear projects -- loss of forest interior -- simply cannot be mitigated, either on-site or off-site. Once these forests are opened to sunlight, increased invasives, increased predation and temperature changes alter their fundamental ecological characteristics.<sup>153</sup>

Every natural gas pipeline project that FERC has certificated in the past decade, has been given that regulatory approval because FERC has made the finding under NEPA that any environmental harm would be mitigated.<sup>154</sup> In fact, FERC has approved 100% of natural gas pipeline applications in this region that it has considered. Yet, rare species continue to be listed as threatened and endangered, and there is virtually no data revealing that mitigation efforts have even resulted in the stabilization or increase in a species or

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<sup>153</sup> Both the long-tailed salamander and the red shouldered hawk are included in the listed of "New Jersey's wildlife species of greatest conservation need that depend upon forests." See New Jersey Department of Environmental Protection, New Jersey Statewide Forest Resource and Assessment Strategies (2010), <http://www.state.nj.us/dep/parksandforests/forest/docs/NJFSassessment.pdf>.

<sup>154</sup> See e.g., Transcontinental Gas Pipe Line Company, LLC, 149 FERC ¶ 61,258 (2014); Tennessee Gas Pipeline Co., LLC, 139 FERC ¶ 61,161 (2012), Order on remand, 153 FERC ¶ 61,215 (2015).

public trust resource at risk. In fact, the monitoring required where mitigation has taken place is short-term, insufficient, lacks the sensitivity to determine actual success, and in virtually every case the monitoring ends before actual conclusions can be drawn. Typically, monitoring ends when a threshold vegetation cover is attained, and shortly thereafter the mitigation and restoration sites are overrun with alien, invasive species, or hydrologic parameters fail to be maintained or attained, resulting in complete failure of the mitigation or restoration attempts in the long-term. Regulatory construct does not translate into environmental reality.

#### **E. Water Quality Degradation**

As described more fully in Exhibit G, and in Sections V(B)(1) and V(C) above, implementation of PennEast would degrade water quality in C-1 designated streams, failing to meet the legally required antidegradation standards. PennEast's Resource Reports simply note that the pipeline will cross numerous Category 1 antidegradation streams and that in order to "reduce potential and overall impacts, the majority of streams will be crossed using dry construction technology."<sup>155</sup> But PennEast provides no detail from which FERC could reasonably assess the true environmental costs to those streams from this project's construction, as they discard all impacts as "temporary."

Importantly, PennEast states that "[i]n-stream construction across waterbodies may cause both direct and indirect impacts to fish habitat, fish resources, and other aspects of

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<sup>155</sup> "Category one waters" means those waters designated in the tables at N.J.A.C. 7:9B-1.15(c) through (i), for protection from measurable changes in water quality based on exceptional ecological significance, exceptional recreational significance, exceptional water supply significance or exceptional fisheries resource(s) to protect their aesthetic value (color, clarity, scenic setting) and ecological integrity (habitat, water quality and biological functions). See N.J.A.C. 7:9B-1.15.

aquatic ecology. In-stream pipeline construction could remove vegetation and habitat, temporarily increase sedimentation and turbidity in the water column, increase the potential for streambank erosion, temporarily disturb streambed foraging areas, and temporarily increase the potential for fuel or chemical spills.”<sup>156</sup> PennEast further indicates that blasting of stream bottom with explosives may be necessary, but summarily notes that “[i]mpacts [to aquatic resources] from construction-related sedimentation and turbidity will be limited to short-term, temporary disturbances...”<sup>157</sup> Thus, PennEast’s own resource reports catalog impacts to these C-1 antidegradation streams, indicating that there will be construction related turbidity and sedimentation, and that potential impacts to aquatic biota are anticipated. PennEast also indicates that after blasting habitat and refugia will be limited to areas upstream and downstream of the work area -- simply another way of stating that habitat in the blast area will be eliminated.

In fact, the simple action of clearing the land, regrading and smoothing the pipeline right of way (“ROW”), compacting and altering the physical structure of the native soils within the ROW, and replacing forest with ground cover will increase the amount of stormwater runoff generated during each storm event.<sup>158</sup> Based on TR-55 runoff coefficients (USDA, 1986), even for the best drained soils (hydrologic soil group A), the increase in the runoff coefficient value when converting woods to lawns, ranges from 30%-50%. The impacts associated with this increase in runoff will likely be greater on steeper sloped lands that have been recently as they will be more difficult to stabilize.<sup>159</sup>

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<sup>156</sup> Resource Report 3 p. 3-11.

<sup>157</sup> Id. p. 3-90.

<sup>158</sup> Exhibit G at 5-6.

<sup>159</sup> Ibid.

Moreover, the presence of compacted soil in the corridor have reduced capacity for recharge and will thus further increase runoff.<sup>160</sup> All of these construction related issues will lead to an increase in the mobilization and transport of pollutants and an increased opportunity for overall soil erosion.<sup>161</sup>

Peterson (1993)<sup>162</sup> found a greater number and depth of pools in corridors than in adjacent areas and attributed this to the greater density of streambank vegetation which caused the stream to scour substrate instead of eroding stream banks. This response to the removal of riparian forest was more recently illustrated by research done of 16 streams in eastern North America by the Stroud Water Research Institute (1993). This study showed that riparian deforestation causes channel narrowing, which reduces the total amount of stream habitat and ecosystem per unit channel length and compromises in-stream processing of pollutants and that wider forested reaches had more macroinvertebrates, total ecosystem processing of organic matter, and nitrogen uptake per unit channel length. Peterson (1993) also reported that the removal of tree canopy on new ROWs increases stream insolation during the short term, but within two years the areas are bordered by dense shrubs and emergent vegetation and water temperatures are not significantly greater when compared with upstream forested reaches.

Perennial streams in this area are mostly streams in which their hydrology is derived from groundwater discharge. The shallow groundwater sources and flow paths that are essential to maintaining the hydrology of the headwater streams is given no consideration in the resource reports. The diminishment of flow related to the modification

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<sup>160</sup> Ibid.

<sup>161</sup> Ibid.

<sup>162</sup> Referenced scientific literature will be submitted to Docket CP15-558 under separate cover.



of groundwater flow paths can modify the hydrology of sensitive headwater streams and thus constitute a conflict with their antidegradation designation. FERC must also consider climate change within this context, when calculating environmental costs from impacts to antidegradation streams due to the increased frequency of extreme precipitation anticipated for New Jersey.<sup>163</sup> These larger precipitation events will alone cause problems such as stream bank erosion and increase sediment loading -- without pipeline construction. Thus, it is important to consider that it would only take one such low frequency storm event to occur during site construction to create a massive erosion problem similar to that experienced during construction of Tennessee Gas's Northeast Upgrade. Increased turbidity, sedimentation, erosion, habitat loss from water quality degradation and loss of benthic communities would add up to a tremendous environmental cost on the NGA and NEPA balance sheets -- with no countervailing public benefits.

**VI. AN EVIDENTIARY HEARING IS NECESSARY BECAUSE THE INFORMATION PENNEAST HAS PRESENTED TO FERC IS HIGHLY QUESTIONABLE**

Given that PennEast's claims are either unsubstantiated or based on data that intervenors and others have demonstrated to be misrepresented, FERC must now hold an evidentiary hearing in order to independently assess the credibility of data entered into this docket. While FERC generally has discretion whether to hold an evidentiary hearing, it must hold one when there are "genuine issue[s] of material fact" that "may [not] be

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<sup>163</sup> See Georgetown Climate Center, *Understanding New Jersey's Vulnerability to Climate Change* (2014), [http://www.georgetownclimate.org/sites/www.georgetownclimate.org/files/understanding-new-jerseys-vulnerability-to-climate-change\\_0.pdf](http://www.georgetownclimate.org/sites/www.georgetownclimate.org/files/understanding-new-jerseys-vulnerability-to-climate-change_0.pdf).

adequately addressed on the written record.”<sup>164</sup> Indeed, such issues are impossible to resolve on a written record when, as is the case here, “motive, intent, or credibility are at issue or there is a dispute over a past event.”<sup>165</sup> PennEast’s numerous unsubstantiated claims raise significant credibility concerns that can only be addressed through a trial-type proceeding.

**A. PennEast’s Economic Claims Must be Subject to Rigorous Cross-Examination, Given the Contradictory Data and Analysis Contained in This Record**

In particular, PennEast’s claims about the pipeline’s economic impacts are grounded upon suspect and opaque methodology, and have now been soundly refuted in this record. As detailed in Part I above, PennEast makes conclusory and misleading statements in its attempt to establish need for the pipeline. While PennEast alleges that the project “was developed in response to market demands in New Jersey and Pennsylvania,” it provides no data to support this purported demand-side need.<sup>166</sup> FERC itself has recognized that increased pipeline capacity in recent years has resulted in the Northeast becoming a net exporter in 2015, which suggests that existing pipelines already exceed local demand.<sup>167</sup>

PennEast points to a single winter price spike—an anomaly in contrast with an overall downward trend in price—as its basis for demand-side need, but Intervenor have already provided analysis showing that this price spike was not the result of insufficient

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<sup>164</sup> Minisink Residents for Environmental Preservation and Safety v. FERC, 762 F.3d 97, 114 (D.C. Cir. 2014) (quoting Cajun Elec. Power Coop., Inc. v. FERC, 28 F.3d 173, 177 (D.C. Cir. 1994)).

<sup>165</sup> Union Pacific Fuels, Inc. v. FERC, 129 F.3d 157, 164 (D.C. Cir. 1997).

<sup>166</sup> PennEast R.R. 1 at 1-2.

<sup>167</sup> See 2015-2016 Winter Energy Market Assessment: Item No. A-3 at 7-8 (Oct. 15, 2015), <https://www.ferc.gov/market-oversight/reports-analyses/mkt-views/2015/10-15-15-A-3.pdf>.

pipeline capacity.<sup>168</sup> Moreover, recently implemented electric market reforms such as “Supply Assurance Programs” further obviate the need for additional supply during peak winter periods.<sup>169</sup> But even if there were unmet market demand, PennEast’s analysis remains entirely deficient in assessing the economic value of alternatives to natural gas, such as the demand-side cost savings associated with the continuing price drops and energy efficiency of renewable energy.<sup>170</sup> These all raise questions about the veracity of PennEast’s assertions that the company should be compelled to answer.

PennEast’s economic expert, Econsult, similarly makes unsupported claims about the economic impact of the pipeline. According to the Goodman Report submitted by Intervenor, “The PennEast Analysis has not provided adequate documentation of the methodology used in its economic modeling, making it impossible to understand how the company developed its employment estimates.”<sup>171</sup> Not surprisingly, there are inconsistencies between the Direct Onsite Construction Jobs that the project allegedly will create and the Total Jobs that will, as a result, be supported. Moreover, Econsult does not provide a definition of what constitutes a job or the duration of the 12,160 temporary jobs supported, both of which make it impossible to “evaluate with certainty the employment benefits estimated for the Project.”<sup>172</sup>

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<sup>168</sup> See Exhibit A at 5.

<sup>169</sup> *Id.* at 17.

<sup>170</sup> See Exhibit A at 5 (“The Commission should institute a full evidentiary proceeding with discovery and cross-examination to determine what demand is being met by the proposed pipeline and whether less disruptive and more cost effective alternatives exist to meet such demand.”)

<sup>171</sup> Ian Goodman and Brigid Rowan, Expert Report on the PennEast Pipeline Project Economic Impact Analysis for New Jersey and Pennsylvania at 21-22 (Nov. 4, 2015), <http://njconservation.org/docs/PennEastEconomicReport.pdf>, hereinafter known as the “Goodman Report.”

<sup>172</sup> *Id.* at 42.

The Goodman Report concludes, as a result, that PennEast and Econsult overstate the number of jobs that will be created by approximately two-thirds or more.<sup>173</sup> This is especially troubling because such methodological failures stand in contrast with Econsult's previous practices. As the Goodman Report notes, Econsult was also hired to conduct economic analysis for the Mariner East pipeline project. However, "the job numbers for Mariner East are expressed in FTEs. Therefore Econsult is familiar with this best practice in employment impact analysis, but chose not to present the PennEast job numbers in this standard and meaningful manner."<sup>174</sup> Econsult's deliberate decision to present misleading data warrants intense scrutiny of both its motivations and the role that PennEast played in encouraging such omissions.

**B. PennEast's Environmental Data and Claims Must Likewise be Subject to Rigorous Cross-Examination, Given the Contradictory Data and Analysis Contained in This Record**

PennEast's environmental data are either inaccurate, or remain incomplete. For example, PennEast has portrayed any environmental impacts from the 49 proposed C-1 stream crossings as capable of mitigation. This assertion, which is directly contradicted by overwhelming scientific literature documenting the failures of mitigation to compensate for wetlands disturbances and loss, for interior forest habitat disruption, and for water quality preservation, should prompt FERC to examine this issue in an evidentiary, trial-type hearing. Decades-long regulatory reliance on "best management practices" has failed to protect New Jersey from ongoing wetlands destruction, species and habitat loss, and water quality degradation. And despite the occasional, partial success of decades-old mitigation

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<sup>173</sup> *Id.* at 33.

<sup>174</sup> *Id.* at 21.

projects, today those same mitigation projects would not succeed given the overwhelming proliferation of invasive species and cumulative habitat losses. The negative impacts on plant communities were most pronounced in those areas with greater initial diversity and quality vegetation, as they were found to be the most susceptible to degradation.<sup>175</sup> All study sites in the pipeline corridor experienced compaction and lower soil moisture inside the pipeline corridor. In addition, NJDEP prepared a document entitled Freshwater Wetlands Mitigation that evaluated the status of 90 select freshwater wetland mitigation sites around the State of New Jersey and determined that, between 1988 and 1999, wetland mitigation practices were not effective in meeting NJDEP's requirements. The report indicated that less than one out of every two acres of proposed mitigation resulted in achieving a freshwater wetland. This shocking statistic clearly illustrates why simply appending conditions to a certificate of public convenience and necessity that require compliance with state permits and regulations does not fulfil FERC's task of assessing the true adverse impacts from proposed projects.

Given this documented record of mitigation failures attendant with natural gas pipeline projects, at some point, the absolute fallacy of the ability to compensate for the adverse impacts from pipeline construction and operation must be cast aside in favor of environmental reality.<sup>176</sup> Granting Intervenor's request for an evidentiary hearing would provide a forum for FERC to assess the true environmental costs of PennEast, and provide

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<sup>175</sup> See Erik R. Olson and James. M. Doherty, The legacy of pipeline installation on the soil and vegetation of southeast Wisconsin wetlands, Ecological Engineering 39:53-62 (2012) (finding that soils within pipeline corridors had higher bulk density, lower depth to refusal, and lower soil moisture).

<sup>176</sup> For reference to actual pipeline impacts and violations, see Stop the Pipeline, What FERC Says Should Happen vs What Actually Happens (2015), <http://dec.stopthepipeline.org/what-ferc-says-should-happen-vs-what-actually-happens/>

it with a credible basis for fulfilling its Natural Gas Act and NEPA mandates to weigh such costs against any verifiable public benefits.

**C. PennEast's Numerous Misrepresentations, Both in the Record and in its Interactions With Affected Homeowners, Significantly Undermine its Credibility**

The record still remains unbelievably incomplete, and worse -- rife with misrepresentations as to its contents. Given that PennEast's application was submitted in September 2015, and given that both FERC and NJDEP have repeatedly requested that PennEast submit critical missing information, this alone should provide FERC a sound basis for suspending its review. For example, on March 1, 2016, the Delaware Township Committee noted that "PennEast has not contacted the relevant historical organizations as it claimed in its letter dated December 14, 2015."<sup>177</sup>

Unfortunately, here, PennEast has complemented its misrepresentations in the written record with an abject indifference to the law when surveying the proposed route of the pipeline. PennEast surveyors have repeatedly entered private and public lands without permission. In a letter to Intervenor NJCF dated August 11, 2015, PennEast even acknowledged that its agent had entered NJCF property to conduct native bat surveys, despite the fact that NJCF had expressly denied PennEast permission to enter its property.

<sup>178</sup> While PennEast chalked up the incident to "mistake," the credibility of its claim is belied by numerous allegations of trespass in Pennsylvania and New Jersey.<sup>179</sup>

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<sup>177</sup> Letter from Delaware Township to FERC (Mar. 1, 2016), FERC Docket #CP15-558, Accession Number 20160309-0046.

<sup>178</sup> Letter from PennEast to New Jersey Conservation Foundation (Aug. 11, 2015), attached hereto as Exhibit F.

<sup>179</sup> See, e.g., Sallie Graziano, State Police Respond to Call About PennEast Surveyors, NJ.com (Oct. 2, 2015, 3:12 PM), [http://www.nj.com/hunterdon/index.ssf/2015/10/hunterdon\\_land\\_trust\\_responds\\_to\\_trespass\\_by\\_penne.html](http://www.nj.com/hunterdon/index.ssf/2015/10/hunterdon_land_trust_responds_to_trespass_by_penne.html);

In response, rather than respect the privacy and property rights of homeowners, PennEast has instead, despite its assurances to the contrary, engaged in aerial surveying along the proposed pipeline route.<sup>180</sup> Affected municipalities and private landowners have already raised concerns about the impact of repeated, low-flying aircraft. In a letter to the PennEast Pipeline Company, Delaware Township in Hunterdon County, N.J. asked that the company provide advance notice of such overhead flights: “This is a rural, farming community. Overhead planes and helicopters alarm residents. They terrify livestock, especially horses.”<sup>181</sup> PennEast representatives have continued to deny, however, the use of aerial surveys,<sup>182</sup> despite the fact that the Federal Aviation Administration has confirmed the operation of helicopters, at least on one occasion, “on behalf of the PennEast Pipeline Project for the purpose of aerial survey along the proposed pipeline route.”<sup>183</sup> Finally, PennEast has ignored, and continues to ignore, residents’ concerns on both sides of the Delaware River.<sup>184</sup>

## VII. CONCLUSION

PennEast’s repeated bad faith attempts to engage honestly with affected communities in New Jersey and Pennsylvania, coupled with the baseless and misleading claims in its submissions to FERC, reflect a complete disregard for FERC procedures,

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Jim Dino, Residents Accuse Gas Pipeline Surveyors of Trespassing, Standard Speaker (Jan. 13, 2016), <http://standardspeaker.com/news/residents-accuse-gas-pipeline-surveyors-of-trespassing-1.1994626>.

<sup>180</sup> See Letter from FAA to Jacqueline Evans (Jan. 14, 2016), attached hereto as Exhibit H.

<sup>181</sup> Letter from Delaware Township Committee to PennEast Pipeline Company (Nov. 28, 2015), FERC Docket #CP15-558, Accession Number 20151207-0081.

<sup>182</sup> See transcript of Conversation between Jacqueline Evans and Jeff England of UGI, attached hereto as Exhibit I.

<sup>183</sup> Exhibit H, Letter from FAA to Jacqueline Evans (Jan. 14, 2016).

<sup>184</sup> See, e.g., Letter from Lower Saucon Township to PennEast (Feb. 19, 2016), FERC Docket #CP15-558, Accession Number 20160309-0045 (“A number of Lower Saucon Township residents have . . . express[ed] dismay that PennEast Pipeline Company is not responding to their questions and concerns about the pipeline. These include residents whose property will be impacted by the proposed route of the pipeline. . . .”)

policies, and the laws from which those derive. This record now contains documentation directly contradicting the PennEast's project's economic and environmental underpinnings, as well as demonstrating the mendacity of PennEast's public representations as to data collection and results. And where PennEast has failed to update its application to reflect changing market conditions, such indifference for data accuracy provides another reason to convene an evidentiary hearing as the appropriate vehicle to properly assess this application, should FERC continue to entertain it. Only rigorous cross-examination at an evidentiary hearing can illuminate the unacceptable lengths to which PennEast will go to obtain approval for this project, and allow FERC to meet its legal obligations under the Natural Gas Act and NEPA.