

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

**In the Matter of** ) **Docket Nos. CP13-499, CP13-502**  
**Constitution Pipeline Project and** )  
**Wright Interconnect Project** )

**REQUEST FOR REHEARING OF ALLEGHENY DEFENSE PROJECT AND  
DAMASCUS CITIZENS FOR SUSTAINABILITY**

Pursuant to section 19(a) of the Natural Gas Act (“NGA”), 15 U.S.C. §717r(a) and Rule 713 of the Federal Regulatory Energy Commission’s (“FERC”) Rules of Practice and Procedure, 18 C.F.R. §385.713, the Allegheny Defense Project (“Allegheny”) and Damascus Citizens for Sustainability (“DCS”) (collectively, “Intervenors”) hereby requests rehearing of FERC’s “Order Issuing Certificates and Approving Abandonments,” issued December 2, 2014 in the above-captioned proceeding (“Order”). This order grants Constitution Pipeline Company (“Constitution”) authority to construct a 124-mile-long pipeline and related facilities extending from Susquehanna County, Pennsylvania to interconnections with the Iroquois Gas Transmission System (“Iroquois”) in Schoharie County, New York, and to enter into a capacity lease agreement with Iroquois whereby Iroquois will construct the compression necessary for Constitution to deliver the natural gas, and will lease to Constitution the incremental capacity associated with the proposed compression (together, the “Constitution Pipeline Project” or “Projects”). This order also grants Iroquois authorization to construct and operate compression facilities and modify existing facilities at its Wright Compression Station in Schoharie County (“Wright Interconnection Project”), and to abandon by lease to Constitution the incremental capacity associated with the project. Intervenors requests that both the Order and the Final Environmental Impact Statement (“FEIS”) be withdrawn and the environmental analysis redone in a manner that complies with FERC’s obligations pursuant to the National Environmental Policy Act (“NEPA”), 42 U.S.C. § 4321 *et seq.*, and the NGA, 15 U.S.C. § 717 *et seq.*

All communications regarding this request should be addressed to and served upon Ryan Talbott, 5020 NE 8th Avenue, Portland, OR 97211 and J.J. Zimmerman, 13508 Maidstone Lane, Potomac, MD 20854.

**I. Statement of the Issues**

1. FERC violated NEPA by failing to adequately consider the indirect and cumulative effects of natural gas drilling, failing to produce a complete FEIS, failing to prepare a programmatic regional EIS, and improperly segmenting the Constitution Pipeline Project from other connected, cumulative, and/or similar projects. 40 C.F.R. § 1508.8(b) requires FERC to consider the indirect effects of a proposed action. 40 C.F.R. § 1508.7 requires FERC to consider the incremental effect of the proposed action when combined with past, present, and reasonably foreseeable future effects. FERC “must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. §1500.1(b). FERC must also provide a “full and fair discussion of significant environmental

impacts”. 40 C.F.R. §1502.1. 40 C.F.R. § 1502.4(b) requires federal agencies, in certain circumstances, to prepare a programmatic EIS for “broad federal actions.” Finally, 40 C.F.R. § 1508.25(a) requires FERC to consider connected, cumulative, and similar actions in the same EIS as the proposed action.

a. Indirect effects

FERC claims that “for an agency to include consideration of an impact in its NEPA analysis as an indirect effect, approval of the proposed project and the related secondary effect must be causally related, i.e., the agency action and the effect must be ‘two links of a single chain.’” Order at P 98 (*citing Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394 (9th Cir. 1980)). FERC then concludes that “there is an insufficient causal link for any additional development in Pennsylvania to be considered an indirect impact of the projects.” *Id.* at P 100. As will be explained below, shale gas production in the Marcellus (and Utica) Shale formations and the Constitution Pipeline Project are “two links of a single chain” so the Ninth Circuit’s *Sylvester* decision actually supports the need for a much broader analysis of the indirect effects of Marcellus and Utica Shale gas production.

FERC further claims that “because the exact location, scale, and timing of any future production facilities is unknown, additional analysis would not inform our decision making.” Order at P 101. An impact is reasonably foreseeable, however, if it is “sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision.” *Sierra Club v. Marsh*, 976 F.2d 763 (1st Cir. 1992). As will be explained below, however, it is sufficiently likely that a person of ordinary prudence would take Marcellus and Utica shale gas production into account in reaching a decision on the Projects.

Moreover, FERC did not consider the effect the Projects would have on the public health risks caused by exposure to radon and its radioactive progeny by delivering gas containing these radioactive materials to consumers. The limited general discussion of radon present in the FEIS does not make any quantitative evaluation of the radioactivity levels that will be present in the gas delivered by the Constitution Pipeline for combustion in range tops, space heaters and other appliances. FERC contends this evaluation is “beyond the scope” of this pipeline project, yet it acknowledges that: 1) the gas that will be delivered to consumers will be Marcellus shale gas; 2) gas from the Marcellus shale of Pennsylvania is in the zone with the highest potential levels of radon; 3) the radon levels in natural gas pipelines are highly variable; and 4) radon levels as high as 1450 picocuries per liter have been found in shale gas transported by pipelines. FERC notes that storage and processing of shale gas can reduce radon levels before the gas is distributed to consumers, but there is no commitment by the applicants nor any conditions applied by FERC to even monitor the radon levels in this pipeline, let alone require storage or processing requirements to reduce radon levels consistent with the long standing principle that exposures to radioactive materials should be limited to be as low as reasonably achievable (“ALARA”). In its comments on the DEIS in this case, DCS specifically requested that FERC include a condition that the applicants monitor radon levels in the pipeline and other facilities involved in this case. FERC “noted” this request from DCS in its response to comments document in the FEIS but ignored the request for radon monitoring without any further discussion in the Order issued on December 2, 2014.

Furthermore, FERC is required to engage in “reasonable forecasting” because “speculation...is implicit in NEPA.” *Northern Plains Resource Council v. Surface Transportation Board*, , 668 F.3d 1067, 1079 (9th Cir. 2011). Reasonable forecasting of induced Marcellus and Utica Shale gas production would provide meaningful information to inform FERC’s decision about whether the Project is in the public interest. Even if FERC does not know the extent of such production, it is certainly aware of its nature and may not simply ignore the effect. *Mid States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520, 549 (8th Cir. 2003).

b. Cumulative impacts

FERC claims that a cumulative impacts analysis “may require an analysis of actions unrelated to the proposed action if they occur in the project area or region of influence of the project being analyzed.” Order at P 103 (*citing* CEQ Guidance, *Considering Cumulative Effect under the National Environmental Policy Act* (January 2007)). FERC then constructs an arbitrarily narrow geographic scope in order to substantially limit consideration and disclosure of the environmental impacts of past, present, and reasonably foreseeable natural gas drilling in the Marcellus and Utica shale formations. The CEQ guidance that FERC relies on actually supports a much broader analysis of cumulative impacts than FERC used in the FEIS.

Additionally, as stated above, FERC is required to engage in “reasonable forecasting” because “speculation...is implicit in NEPA.” *Northern Plains*, 668 F.3d 1067, 1079 (9th Cir. 2011). Even if FERC does not know the extent of Marcellus/Utica gas extraction, it is certainly aware of its nature and may not simply ignore the effect. *Mid States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520, 549 (8th Cir. 2003). While FERC need not engage in analysis that is “fruitless or well nigh impossible,” it also “may not go to the opposite extreme” by treating a project in isolation when there is persuasive evidence concerning other projects with similar environmental consequences. *Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975). FERC must consider the “inter-regional” cumulative effects that the Constitution Pipeline Project will have, including increased shale gas extraction in the Marcellus and Utica Shale formations. *See Natural Resources Defense Council v. Hodel*, 865 F.2d 288, 299 (D.C. Cir. 1988).

c. The FEIS is incomplete and cannot support the conclusions contained therein or in the Order.

FERC “must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. § 1500.1(b). Further, FERC must provide a “full and fair discussion of significant environmental impacts.” 40 CFR §1502.1. The large number of uncompleted surveys and consultations demonstrates that the FEIS is significantly incomplete and, therefore, unsuitable as a basis for FERC’s Order.

d. FERC must prepare a programmatic EIS for natural gas infrastructure in the Marcellus/Utica shale region.

A programmatic EIS is sometimes required “for broad Federal actions.” 40 C.F.R. § 1502.4(b). “Programmatic NEPA reviews address the general environmental issues relating to broad decisions, such as those establishing policies, plans, programs, or suite of projects, and can effectively frame the scope of subsequent site- and project-specific Federal actions.” CEQ, *Effective Use of Programmatic NEPA Reviews*, p. 10 (2014). “A well-crafted programmatic NEPA review provides the basis for decisions to approve such broad or high-level decisions such as identifying geographically bounded areas within which future proposed activities can be taken or identifying broad mitigation and conservation measures that can be applied to subsequently tiered reviews.” *Id.*

Allegheny Defense Project commented extensively on the need for FERC to prepare a programmatic EIS for the Marcellus and Utica shale region. *See* DEIS comments at pp. 2-24. Such an analysis is critical for the public to understand the actual scope of environmental impacts from natural gas infrastructure projects in the Marcellus and Utica shale formations. FERC, however, “determined that it is neither a prudent use of agency resources, nor within [its] authority, to conduct a ‘programmatic EIS.’” FEIS, App. S-336. As will be explained below, this is an insufficient basis for not preparing a programmatic EIS in light of CEQ regulations and guidance.

e. Segmentation

The Constitution Pipeline Project is improperly segmented from other connected, cumulative and/or similar projects. Connected actions are those actions that “are closely related and therefore should be discussed in the same impact statement.” 40 C.F.R. § 1508.25(a)(1). Cumulative actions are those actions that “when viewed with other proposed actions have cumulatively significant impacts” that should be discussed in an EIS. *Id.* at § 1508.25(a)(2). Similar actions are those actions that “when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide for evaluating their environmental consequences together, such as common timing or geography” that should be considered in an EIS when that is the best way to “assess adequately the combined impacts of similar actions or reasonable alternatives to such actions.” *Id.* at § 1508.25(a)(3).

FERC should have considered Tennessee’s Northeast Energy Direct Project and the Leatherstocking Project as cumulative and/or similar actions in the Constitution Pipeline Project EIS. In *Delaware Riverkeeper v. FERC*, the D.C. Circuit Court of Appeals held that FERC improperly segmented four pipeline projects along Tennessee Gas Pipeline Company’s 300 Line and failed to consider the cumulative impacts of the four pipeline projects together. 753 F.3d 1304 (D.C. Cir. 2014). The court noted that project timing is relevant for determining whether “FERC was obliged to take into account the other ‘connected’ or ‘similar’ projects...when it conducted the NEPA review for the Northeast Project.” *Id.* at 1318. Here, the Northeast Energy Direct and Leatherstocking Projects are cumulative and/or similar projects that FERC must consider in the same EIS.

2. FERC violated the Endangered Species Act (“ESA”) by failing to complete required consultations with the U.S. Fish and Wildlife Service (“FWS”) regarding impacts to endangered species in the immediate area of the Projects, and by issuing the Order before FWS determined whether formal consultation and a Biological Opinion (“BO”) were required. FERC has

determined that the Projects are not likely to adversely impact the endangered dwarf wedgemussel and northern monkshood, but FWS has not concurred in these determinations. FERC also determined that the Projects are likely to adversely impact the northern long-eared bat, which is proposed for federal listing, and has very recently requested a conference opinion with respect to this species. In each case, the possibility exists that formal consultations will be required, yet FERC chose to issue the Order conditioned upon completion of the consultation process. This violates the ESA because it permits Constitution and Iroquois to commit irreversible resources to the projects. The ESA is also violated because issuance of the Order means that there is no longer a legal mechanism to enforce implementation of the reasonable and prudent alternatives that FWS may suggest, to mitigate jeopardy or adverse effects on species' habitats.

3. FERC violated that NGA by failing to consider the indirect effects and cumulative impacts of shale gas extraction related to the Constitution Pipeline Project. When deciding whether to issue a certificate of public convenience and necessity ("Certificate"), FERC examines the environmental impact, other alternatives, technical competence, financing, rates, market demand, gas supply, long-term feasibility, and other issues concerning a proposed project that are relevant to the public interest. Certification of New Interstate Natural Gas Pipeline Facilities, Statement of Policy, 88 FERC ¶ 61,227, Docket No. PL99-3-00 (Sept. 15, 1999) at 22-23, 27, *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement); *see generally Permian Basin Area Rate Cases*, 390 U.S. 747, 791 (1967). One of the goals of the Certificate Policy Statement is "the avoidance of unnecessary disruption of the environment." *Id.* at 2. In determining whether a project unnecessarily disrupts the environment, FERC must consider the upstream impacts caused by shale gas extraction in the Marcellus and Utica Shale formations. FERC failed to consider these impacts and, therefore, cannot know whether it is avoiding unnecessary disruption of the environment and whether the Constitution Pipeline Project is in the public convenience and necessity.

## II. Argument for Rehearing

**A. FERC violated NEPA by failing to properly consider the indirect effects and the cumulative impacts of the Projects, by relying on an incomplete FEIS, by failing to prepare a programmatic EIS, and by improperly segmenting Constitution Pipeline Project from other actions.**

**1. FERC violated NEPA by failing to properly account for the indirect effects of gas drilling in the Marcellus and Utica shale formations.**

FERC violated NEPA by failing to consider gas drilling and hydraulic fracturing activities in the Marcellus and Utica shale formations and by failing to consider radioactive radon exposure to the public that will consume gas from these Projects as indirect effects of the Projects. Indirect effects are:

[C]aused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

40 C.F.R. § 1508.8(b). It is reasonably foreseeable that FERC’s authorization of the Project, which allows Constitution and Iroquois to increase capacity, will “include growth inducing effects and other effects related to induced changes in the pattern of land use” in the Marcellus and Utica Shale regions including “effects on air and water and...ecosystems.” FERC has an obligation to take a hard look at the environmental effects of Marcellus and Utica shale extraction and at the public health risks from exposure to radioactive substances by consumption of the gas delivered by the Projects as indirect effects of the Projects.<sup>1</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

For various reasons, however, FERC claims that shale gas extraction activities are not an indirect effect of the Project. FERC claims that in order to be considered an indirect effect, the agency action and the effect must be “two links of a single chain” and that the “there is an insufficient causal link for any additional development in Pennsylvania to be considered an indirect impact of the projects.” Order at PP 98; 100. FERC further claims that “because the exact location, scale, and timing of any future production facilities is unknown, additional analysis would not inform our decision making.” Order at P 101. FERC also asserts that the exposure to radon from burning the gas from the Projects is beyond the scope of this EIS. FEIS at 4-187. As will be explained below, FERC’s interpretation of CEQ’s NEPA regulations and case law is erroneous. Therefore, FERC should have considered Marcellus and Utica shale gas drilling activities and radon levels and risks from the gas delivered by these Projects as indirect effects of the Projects.

**a. Because the Constitution Pipeline Project will induce further shale gas extraction in the Marcellus and Utica Shale formations, a sufficient causal relationship exists.**

FERC claims that the “there is an insufficient causal link for any additional [gas] development in Pennsylvania to be considered an indirect impact of the projects.” Order at P 100. Although FERC does not cite the opinion, it is clear that FERC is relying, at least in part, on the Second Circuit’s unpublished decision in *Coalition for Responsible Growth v. FERC*, 485 Fed. Appx. 472, 2012 WL 1596341 (2d Cir. 2012). In that case, which is not binding precedent, the Second Circuit simply accepted all of FERC’s arguments at face value without considering *any* of the case law that FERC relied on in the underlying proceedings. *Id.* See also *Central New York Oil and Gas Co., LLC*, 137 FERC § 61,121, at PP 81-101 (2011), *order on reh’g*, 138 FERC ¶ 61,104, at PP 33-49 (2012). An examination of the case law reveals why it was arbitrary and capricious to exclude Marcellus and Utica shale gas extraction activities as an indirect effect of the Project.

For example, FERC cites *Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394 (9th Cir. 1980), to claim that an agency need only consider something as an indirect effect if the agency action and the effect are “two links of a single chain.” Order at P 98. Here, Marcellus

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<sup>1</sup> Although Allegheny’s comments specifically requested that FERC consider the environmental impacts of Marcellus and Utica shale gas drilling, neither the FEIS nor the Order specifically responds to concerns raised about drilling in the Utica shale.

and Utica Shale gas extraction activities and the Project *are* “two links of a single chain.” This is supported by multiple industry and government sources, not to mention common sense.

In 2011, the National Petroleum Council (“NPC”), a federal advisory committee that reports to the Secretary of Energy, published a report noting that:

The 2007 NPC *Hard Truths* study described infrastructure as a *key link in the chain, connecting supply to markets*, and found that knowledge of existing infrastructure and planning for new infrastructure could fall short of meeting market needs. Sufficient natural gas midstream infrastructure, including gathering systems, processing plants, *transmission pipelines*, storage fields, and LNG terminals, is *crucial* for efficient delivery and functioning markets....New infrastructure will be required *to move natural gas from regions where production is expected to grow to areas where demand is expected to increase*.

NPC, Prudent Development: Realizing the Potential of North America’s Abundant Natural Gas and Oil Resources, pp. 51-52, 2011 (emphasis added), *available at* <http://www.npc.org/reports/rd.html> (Attachment 1).<sup>2</sup> In other words, without “sufficient natural gas midstream infrastructure, including....transmission pipelines,” gas extracted “from regions where production is expected to grow,” such as the Marcellus and Utica shale formations, will not have a way to reach “areas where demand is expected to increase.” Thus, the NPC clearly considers upstream shale gas extraction and midstream LNG terminals as “two links of a single chain” that transports natural gas to downstream market areas.

According to Constitution’s application, its pipeline system “is well-positioned to transport North Central Pennsylvania production to major, high-demand markets, including New York and New England.” *See* Application at 16. In other words, the proposed Constitution Pipeline would be a “key link in the chain” connecting “North Central Pennsylvania production to major, high-demand markets, including New York and New England.” FERC’s notion that there is an insufficient causal connection between gas drilling and the Constitution pipeline is without merit.

FERC itself considers shale gas extraction and infrastructure (including transmission pipelines) as “two links of a single chain.” For example, as Allegheny Defense Project explained in the comments on the DEIS (at p. 18), FERC’s Strategic Plan for FY2014-2018 states that the “development of interstate natural gas infrastructure – *pipelines*, storage, and LNG facilities – is a *critical link in ensuring that natural gas supply can reach market areas*.” FERC, Strategic

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<sup>2</sup> It is worth noting that Commissioner Philip D. Moeller served on the Coordinating Subcommittee that participated in preparing *Prudent Development*. NPC, Prudent Development, App. B, p. B-6 (2011), *available at* <http://www.npc.org/reports/rd.html> (Attachment 2). In addition, two other senior FERC officials served on two relevant subgroups that participated in the preparation of *Prudent Development*. Jeff C. Wright, the Director of FERC’s Office of Energy Projects, served on the Gas Infrastructure Subgroup of the Resource & Supply Task Group, *Id.* at B-20, and FERC’s Senior Technical Advisor, C. Webster Gray, served on the Offshore Operations Subgroup of the Operations & Environment Task Group. *Id.* at B-23.

Plan FY2014-2018, p. 17 (Mar. 2014) (emphasis added), *available at* <http://www.ferc.gov/about/strat-docs/FY-2014-FY-2018-strat-plan.pdf> (Attachment 3). It is disingenuous for FERC to claim that there is an “insufficient causal link” between the proposed Constitution Pipeline Project and gas drilling activities in the Marcellus and Utica Shale formations when its own Strategic Plan says that gas pipelines are a “critical link” that connect natural gas supply areas with market areas.

Furthermore, according to Cabot Oil and Gas, one of the project shippers, the proposed Constitution Pipeline “is *specifically designed to transport our Marcellus production to both the New England and New York markets.*” Cabot Oil and Gas Corp., 2012 Annual Report at 4 of PDF Document (emphasis added) (Attachment 4). FERC cannot claim with a straight face that there is an “insufficient causal link” between gas drilling in the Marcellus shale and the Constitution Pipeline when one of the project shippers and partners in the project admit that the pipeline is “specifically designed” to transport its “Marcellus production.” FERC knows that there is a close causal connection but simply chooses to ignore it.

FERC attempts to bolster its argument by claiming that the causal connection between gas drilling and the Project is insufficient because “natural gas development, including development utilizing hydraulic fracturing techniques, will continue and indeed is continuing, with or without the proposed project.” Order at P 100. This ignores the fact that once the Constitution Pipeline is operational, it is almost certain to induce further extraction in the Marcellus and Utica shale formations. FERC’s argument is reminiscent of a similar argument made by the Surface Transportation Board that was rejected by the Eighth Circuit.

In that case, the Surface Transportation Board argued that because many utilities were likely to switch to the kind of low-sulfur variety of coal that a planned railroad would make available, “this shift will occur regardless of whether [the railroad company’s] new line is constructed.” *Mid States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520, 549 (8th Cir. 2003). The Eighth Circuit rejected this argument outright:

...the proposition that the demand for coal will be unaffected by an increase in availability and a decrease in price, which is the stated goal of the project, is illogical at best. The increased availability of inexpensive coal will at the very least make coal a more attractive option to future entrants into the utilities market when compared with other potential fuel sources, such as nuclear power, solar power, or natural gas. Even if this project will not affect the short-term demand for coal...it will most assuredly affect the nation’s long-term demand for coal[.]

*Mid States*, 345 F.3d at 549. FERC’s argument is similarly illogical because once the Constitution Pipeline is operational and the target market areas of New York and New England are connected to gas production in North Central Pennsylvania, it makes drilling in Pennsylvania much more likely.

FERC also claims that the causal link between the Constitution Pipeline and induced gas drilling in Pennsylvania is insufficient because “Constitution asserts that there is adequate ongoing, existing production to fully supply its proposed project.” Order at P 100. This ignores the steep decline curve in the average Marcellus shale gas well. For example, “the average first



year decline rates across Pennsylvania appear to range from approximately 60% to 80%.” Penn State Extension, Appalachian Basin Decline Curve and Royalty Estimation, July 27, 2014, *available at* <http://extension.psu.edu/natural-resources/natural-gas/news/2014/07/appalachian-basin-decline-curve-and-royalty-estimation-part-1> (Attachment 5). This is relevant since “the initial decline, or decrease in production, over the first year of operation of a shale well is an important variable in estimating the potential for future production.” *Id.* See also Penn State Marcellus Center for Outreach and Research, PA Estimated Cumulative Production & Decline Curves (Attachment 6). With average rates of decline between 60% to 80%, it is likely that more drilling and fracking will occur as the industry attempts to keep production up.

**b. Induced gas drilling in the Marcellus and Utica shale formations is reasonably foreseeable.**

FERC claims that “because the exact location, scale, and timing of any future production facilities is [allegedly] unknown, additional analysis would not inform our decision making.” Order at P 101. FERC does not need to know the “exact location, scale, and timing” of future gas drilling activities to engage in reasonable forecasting. Rather, “when the *nature* of the effect is reasonably foreseeable but its *extent* is not, [an] agency may not simply ignore the effect.” *Mid States*, 345 F.3d at 549 (emphasis in original). See also *Habitat Education Center v. U.S. Forest Service*, 609 F.3d 897, 902 (7th Cir. 2010). Furthermore:

*[P]rojects need not be finalized before they are reasonably foreseeable.* “NEPA requires that an EIS engage in reasonable forecasting. *Because speculation is ... implicit in NEPA*, [ ] we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as crystal ball inquiry.” As the [EPA] also has noted, “reasonably foreseeable future actions need to be considered even if they are not specific proposals.”

*Northern Plains Resource Council v. Surface Transportation Board*, 668 F.3d 1067, 1078-79 (9th Cir. 2011) (citations omitted) (emphasis added).

Just like the Surface Transportation Board in Northern Plains, FERC is attempting to shirk its responsibilities under NEPA by labeling any attempt to analyze the environmental impacts of shale gas extraction in the Marcellus and Utica shale formations as “crystal ball inquiry.” No crystal ball is required, however, for FERC to engage in reasonable forecasting of shale gas extraction in the Marcellus and Utica shale formations. See Allegheny Defense Project DEIS comments at pp. 25-26 (discussing various U.S. Geological Survey reports regarding the landscape impacts of Marcellus shale gas extraction activities).

In a 2012 presentation provided through the Penn State Cooperative Extension, The Nature Conservancy (“TNC”) estimated that 60,000 shale gas wells could eventually be drilled in Pennsylvania. TNC, Marcellus Gas Well & Pipeline Projections. p. 13, *available at* <http://extension.psu.edu/natural-resources/forests/private/training-and-workshops/2012-goddard-forum-oil-and-gas-impacts-on-forest-ecosystems/marcellus-gas-well-and-pipeline-projections>. (Attachment 7). TNC reviewed how these projected wells would be distributed on the landscape under various well pad development scenarios. *Id.* It also analyzed where Marcellus Shale drilling was likely to occur (*Id.* at 15-17) and how many miles of new pipelines and the direct

and indirect effects of those pipelines on forests by 2030 (*Id.* at 21). For example, by 2030, TNC estimated that there could be 10,000 – 25,000 miles of new gathering pipelines causing an estimated 60,000 to 150,000 acres of direct forest clearing and 300,000 to 900,000 acres of forest edge effects. *Id.* at 21.

According to TNC, pipeline mileage in Pennsylvania will at least double if not quadruple by 2030. *Id.* at 22. The footprint from pipeline alone is projected to be larger than the “cumulative area impacted by all other Marcellus gas infrastructure combined.” *Id.* Thus, when shale gas wells, roads, and other associated infrastructure (besides pipelines) are included, these figures will be much higher. This information is useful as it relates directly to FERC’s goal in its Certificate Policy Statement of avoiding “unnecessary disruption of the environment.” Therefore, there is a clear causal connection between the Constitution Pipeline Project and gas drilling in the Marcellus and Utica shale formations. Such gas drilling is reasonably foreseeable. Therefore, FERC violated 40 C.F.R. § 1508.8(b) by failing to consider gas drilling as an indirect effect of the Constitution Pipeline Project.

Similarly, the health risks from exposure to radon and other radioactive substances from consumption of the gas that will flow through the pipeline and facilities approved by FERC in this case is another link in the same chain at issue in the FEIS. FERC has no data and has not required the applicants to monitor, collect and report any of the radon levels in the gas that will be transported by the Projects. This is despite the fact that the agency acknowledges that radon levels in gas pipelines are highly variable and that burning natural gas in homes can release radon into the air inside these homes.

**2. FERC violated NEPA by failing to fully consider the cumulative impacts of the Projects, including the impacts of gas drilling in the Marcellus and Utica shale formations.**

Even if FERC does not consider shale gas extraction in the Marcellus and Utica Shale formations to be an indirect effect of the Constitution Pipeline Project, such extraction is certainly a cumulative impact that must be considered. Cumulative impact is the:

[I]mpact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions *regardless of what agency (Federal or non-Federal) or person undertakes such other actions.*

40 C.F.R. § 1508.7 (emphasis added). Past, present, and reasonably foreseeable shale gas extraction is a cumulative impact that must be considered in the environmental analysis of the Constitution Pipeline Project. FERC’s failure to adequately consider the cumulative impacts of shale gas extraction violated the cumulative impact regulation.

FERC tries to dodge its legal obligation to consider the cumulative impact of shale gas extraction by claiming the mandate of § 1508.7 is somehow discretionary. First, FERC reads the “regardless of what agency” language out of the 40 C.F.R. § 1508.7. *See* Order at P 103. After reading this language out of the regulation, FERC then references a 1997 CEQ guidance document to claim that a “cumulative impacts analysis **may** require an analysis of actions **unrelated to** the proposed project **if** they occur *in the project area or region of influence of the*

*project being analyzed.” Id.* (bold emphasis added; italicized emphasis in original). FERC’s interpretation of the CEQ regulation and guidance is erroneous.

The CEQ regulation states that cumulative impacts must be considered “regardless of what agency (Federal or non-Federal) or person undertakes such other action.” 40 C.F.R. § 1508.7. In other words, unlike indirect effects, which are “caused by the action,” 40 C.F.R. § 1508.8(b), there is no causation element for an agency’s consideration of cumulative effects. Therefore, an analysis of cumulative effects, by definition, must be broader than an analysis of indirect effects.

It is also important to note that there is no requirement in the regulation that non-jurisdictional actions must “occur in the project area or region of influence of the project being analyzed” for those actions to be included in a cumulative impact analysis. Thus, FERC’s attempt to use the 1997 CEQ guidance to impose a rigid geographic scope in order to substantially and arbitrarily narrow the cumulative impact analysis area is simply not supported by the regulation. Moreover, the 1997 CEQ guidance itself does not support FERC’s constricted view of cumulative impacts. For example, the guidance states that:

For a project-specific analysis, it is often sufficient to analyze effects within the immediate area of the proposed action. When analyzing the contribution of this proposed action to cumulative effects, however, the geographic boundaries of the analysis *almost always should be expanded*. These expanded boundaries can be thought of as differences in hierarchy or scale. Project-specific analyses are usually conducted on the scale of counties, forest management units, or installation boundaries, *whereas cumulative effects analysis should be conducted on the scale of human communities, landscapes, watersheds, or airsheds*.

CEQ, *Considering Cumulative Effects under the National Environmental Policy Act*, p. 12 (1997) (emphasis added). In other words, CEQ says agencies should be considering cumulative impacts at a much broader scale than what FERC did in the FEIS.

FERC further relies on the 1997 CEQ guidance stating that “it is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.” Order at P 103 (*quoting* CEQ Guidance at 8.). First of all, the notion that considering the cumulative impacts of past, present, and reasonably foreseeable shale gas extraction in the context of the Constitution Pipeline Project is somehow akin to analyzing the “cumulative effects of an action on the universe” is absurd on its face. Natural gas production and transport are two obviously related steps in the process of delivering natural gas to consumers. To ignore the cumulative environmental effects of the extraction of shale gas is to ignore effects that are truly meaningful and gives an incomplete picture of whether the Constitution Pipeline is in the public convenience and necessity. The same is also true for the environmental and public health risks from exposure to the radon and other radioactive materials present in the gas that will flow through the pipeline involved here.

Moreover, as stated above, the 1997 CEQ guidance recommends looking well beyond the project area for various resources in a cumulative effects analysis. CEQ says that it may be necessary to look at cumulative effects at the “ecosystem” level for vegetative resources and

resident wildlife, the “total range of affected population units” for migratory wildlife, an entire “state” or “region” for land use, and the “global atmosphere” for air quality. 1997 CEQ Guidance, p. 15. The analysis in the FEIS falls well short of this.

For example, FERC states that the cumulative impacts analysis area (i.e., “region of influence”) for “major projects...including natural gas well permitting projects” is only those projects “within 10 miles of the proposed area for [the Constitution Pipeline and Wright Interconnect Projects].” Order at PP 103, 105; FEIS at 4-217. As explained in comments on the DEIS, by limiting the cumulative impacts analysis area for gas drilling projects to “within 10 miles” of the proposed Projects, FERC is arbitrarily ignoring substantial and long-term effects on wildlife. See Allegheny Defense Project DEIS comments at 37. Allegheny Defense Project specifically commented that the high level of shale gas drilling in northern Pennsylvania is likely causing bobcats to relocate to southern New York where fracking has not been allowed since 2008. *Id.* at pp. 28-29, 37. The Department of Interior (“DOI”) similarly expressed concern that 10 miles was too narrow an analysis area for cumulative impacts and suggested at least “a distance of 25 to 50 miles.” DOI DEIS comments at 13. FERC’s response to these comments demonstrates that it has not taken a hard look at cumulative impacts.

For example, in response Allegheny Defense Project’s comments, FERC simply stated that “the increase of bobcats in New York is noted,” FEIS, App. S-416, and that:

Impacts on wildlife species from construction of any of the projects in the area of the proposed projects generally would be local, temporary, and minor, although some displacements could be permanent. Therefore, cumulative impacts are not expected to be significant for any individual wildlife species relative to the population *in the region of influence*.

FEIS, App. S-429 (emphasis added). In response to DOI’s concerns, FERC simply stated that “the comment regarding temporal and geographic scale for the cumulative impacts analysis is noted.” This demonstrates that FERC has not taken a hard look at the cumulative impacts on wildlife. FERC’s claim that “cumulative impacts are not expected to be significant for any individual wildlife species relative to the population in the region of influence,” i.e., within 10 miles of the proposed Projects, necessarily ignores the broader impacts to wildlife beyond this narrow corridor. FERC claims it is using the CEQ guidance on cumulative impacts, but ignores the fact that the guidance expressly recommends looking at the cumulative impacts at the “ecosystem level” for resident wildlife and the “total range of affected population units” for migratory wildlife.” 1997 CEQ Guidance, p. 15. FERC offers no rational explanation for its extremely narrow corridor for considering cumulative impacts on wildlife.

It should also be noted that the Environmental Protection Agency (“EPA”) recently criticized FERC’s cumulative impact analysis in another proceeding regarding the proposed Algonquin Incremental Market (“AIM”) Project (FERC Docket No. CP14-96-000). In that case, FERC prepared a DEIS for the AIM Project but refused to consider the cumulative impacts of Marcellus Shale gas extraction because such extraction was “greater than 10 miles from the project construction areas, air quality control regions and sub-watersheds crossed by the project.” EPA, Comments on the AIM Project, p. 10 (Sept. 29, 2014) (Attachment 8). EPA recommended

that FERC “reconsider this rationale” because “geographic proximity is not in and of itself the standard” for including other actions in a cumulative impact analysis. *Id.*

The same holds true in this project. FERC has offered no rational explanation for its 10-mile “region of influence” for considering the cumulative impacts of other major projects like gas drilling operations. No less than three other federal agencies have either specifically told FERC or provided guidance suggesting that FERC’s cumulative impacts analysis area is far too narrow when it comes to looking at impacts on resource areas such as wildlife. FERC failed to respond to these comments in any meaningful way and, therefore, it cannot be considered to have taken a hard look at the long-term cumulative impacts on wildlife.

FERC also relies on the Second Circuit’s decision in *Natural Resources Defense Council v. Callaway*, 524 F.2d 79 (2d Cir. 1975), to claim that it is only required to include “such information as appears to be reasonably necessary under the circumstances for evaluation of the project rather than to be so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible.” Order at P 103 (*quoting Callaway* at 524 F.2d at 88).<sup>3</sup> The Second Circuit went on to state, however, that “an agency may not go to the opposite extreme” by treating a project in isolation when there is persuasive evidence concerning other projects with similar environmental consequences. *Callaway*, 524 F.2d at 88. Indeed, the court noted that such a reading was inconsistent with Congress’s purpose in passing NEPA:

As was recognized by Congress at the time of passage of NEPA, a good deal of our present air and water pollution has resulted from the accumulation of small amounts of pollutants added to the air and water by a great number of individual, unrelated sources.

“Important decisions concerning the use and the shape of man’s future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades.” S.Rep.No.91-296, 91 Cong., 1<sup>st</sup> Sess. 5 (1969). NEPA was, in large measure, an attempt by Congress to instill in the environmental decisionmaking process a more comprehensive approach so that long term and cumulative effects of small and unrelated decisions could be recognized, evaluated and either avoided, mitigated, or accepted as the price to be paid for the major federal action under consideration. The fact that another proposal has not yet been finally approved, adopted, or funded does not foreclose it from consideration, since experience may demonstrate that its adoption and implementation is extremely likely.

*Id.* Thus, the *Callaway* decision does not support FERC’s refusal to consider the cumulative effects of ongoing and reasonably foreseeable Marcellus and Utica Shale gas extraction activities because FERC does not know the extent of such ongoing and future drilling. *See* Order at P 105. Even if FERC does not know the extent of such production, it is certainly aware of its nature and may not simply ignore the effect. *Mid States Coalition for Progress v. Surface Transportation Board*, 345 F.3d 520, 549 (8th Cir. 2003). As the Ninth Circuit has explained:

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<sup>3</sup> Footnote 70 of the Order cites *New York Natural Res. Def. Council v. Kleppe*, 429 U.S. 1307, 1311 (1976). Intervenors could not find that any case matching that citation.

[P]rojects need not be finalized before they are reasonably foreseeable. “NEPA requires that an EIS engage in reasonable forecasting. Because speculation is ... implicit in NEPA, [] we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as crystal ball inquiry.” As the [EPA] also has noted, “reasonably foreseeable future actions need to be considered even if they are not specific proposals.”

*Northern Plains*, 668 F.3d at 1078-79 (citations omitted) (emphasis added).

Another case supporting the need for FERC to consider the reasonably foreseeable impacts of Marcellus and Utica Shale gas extraction at a broader scale is *Natural Resources Defense Council v. Hodel*, 865 F.2d 288 (D.C. Cir. 1988). In *Hodel*, the D.C. Circuit remanded the case because the Department of Interior failed to adequately consider the “inter-regional” cumulative impacts of its 5-year oil and gas leasing program in the outer continental shelf on migratory species. *Id.* at 299. The court noted that it would “eviscerate NEPA” to approve of the DOI’s environmental analysis. *Id.* Like the DOI in *Hodel*, FERC is ignoring the “inter-regional” impacts of Marcellus and Utica Shale gas extraction.

According to recent research published in *Environmental Science & Technology*:

Potential effects on terrestrial and aquatic ecosystems can result from many activities associated with the extraction process and the rate of development, such as road and pipeline construction, well pad development, well drilling and fracturing, water removal from surface and ground waters, establishment of compressor stations, and by unintended accidents such as spills or well casing failures....The cumulative effect of these potential stressors will depend in large part on the rate of development in a region. Depending on extent of development, oil and gas extraction has the potential to have a large effect on associated wildlife, habitat and aquatic life.

Brittingham, M.C., et al., *Ecological Risks of Shale Oil and Gas Development to Wildlife, Aquatic Resources and their Habitats*, *Environmental Science & Technology*, pp. 11035-11037 (Sept. 4, 2014) (citations omitted) (Attachment 9). This research further explains the impacts of shale gas drilling:

- Shale oil and gas development changes the landscape. Land is cleared for pad development and associated infrastructure, including pipelines, new and expanded roads, impoundments, and compressor stations, and much of this exploration and development is occurring in relatively undeveloped landscapes. Seismic testing, roads, and pipelines bisect habitats and create linear corridors that fragment the landscape. *Id.* at 11037 (citations omitted).
- Habitat fragmentation is one of the most pervasive threats to native ecosystems and occurs when large contiguous blocks of habitat are broken up into smaller patches by other land uses or bisected by roads, transmission lines, pipelines or other types of corridors. Habitat fragmentation is a direct result of shale development with roads and pipelines having a larger impact than the pads (Table 1). For example, in Bradford and Washington counties Pennsylvania, forests became more fragmented primarily as a result of the new roads and pipelines associated with shale development, and development

resulted in more and smaller forest patches with loss of core forest (forest > 100 m from an edge) at twice the rate of overall forest loss. Pipelines and roads not only resulted in loss of habitat but also created new edges. Similar results have been shown in other studies. *Id.* (citations omitted).

- Fragmentation from linear corridors such as pipelines, seismic lines, and roads can alter movement patterns, species interactions and ultimately abundance depending on whether the corridor is perceived as a barrier or territory boundary or used as an avenue for travel and invasion into habitats previously inaccessible. *Id.* (citations omitted).
- [T]he New York State Department of Environmental Conservation estimates that development of one horizontal well requires over 3300 one-way truck trips. This is a concern because roads of all types have a negative effect on wildlife through direct mortality, changes in animal behavior, and increased human access to areas, and these negative effects are usually correlated with the level of vehicular activity. Even after a well is drilled and completed, new roads and pipelines provide access for more people, which results in increased disturbance. *Id.* at 11038 (citations omitted).
- In Wyoming, Sawyer et al. found that mule deer migratory behavior was influenced by disturbance associated with coal bed gas development and observed an increase in movement rates, increased detouring from established routes, and overall decreased use of habitat along migration routes with increasing density of well pads and roads. *Id.* (citations omitted).
- Exploration and development of the shale resource is associated with both short-term and long-term increases in noise. In the short term, site clearing and well drilling, [high volume hydraulic fracturing], and construction of roads, pipelines and other infrastructure are a limited time disturbance similar to disturbance and sound associated with clearing land and home construction (Table 1). Depending on number of wells drilled, construction and drilling can take anywhere from a few months to multiple years. Compressor stations, which are located along pipelines and are used to compress gas to facilitate movement through the pipelines, are a long-term source of noise and continuous disturbance (Table 1). Because chronic noise has been shown to have numerous costs to wildlife, compressors have potential to have long-term effects on habitat quality. *Id.* (citation omitted).
- For many species of wildlife, sound is important for communication, and noise from compressors can affect this process through acoustical masking and reduced transmission distances. Studies on effects of noise from compressors on songbirds have found a range of effects including individual avoidance and reduced abundance, reduced pairing success, changes in reproductive behavior and success, altered predator-prey interactions, and altered avian communities, for example, refs 55-59 Greater sage-grouse (*Centrocercus urophasianus*) gather at leks where males display in order to attract females. Lek attendance declined in areas with chronic natural gas-associated noise and, experimentally, sage-grouse were shown to experience higher levels of stress when exposed to noise. *Id.* (citations omitted).
- Because of the large overlap between the Appalachian shale play and core forest habitat in the East, many forest species are vulnerable to development. Area-sensitive forest songbirds are primarily insect-eating Neotropical migrants, are an important component of forest ecosystems, and, as a group, many have declined in numbers in response to forest fragmentation. These birds are area-sensitive because breeding success and abundance are highest in large blocks of contiguous forest, and numerous research

studies have documented negative effects of fragmentation on abundance and productivity....The impact that shale development has on this group of species will depend on the scale and extent of development. *By some estimates, less than 10% of potential shale gas development has occurred in the Appalachian basin. If this is the case, there is the potential for a 10-fold increase in the amount of shale gas development which would likely have negative impacts on area-sensitive forest songbirds and other forest specialists.* *Id.* at 11040 (citations omitted) (emphasis added).

- Development of shale resources, which clears land for well pads and roads, is occurring across a large portion of the native range of brook trout, especially in Pennsylvania (Figure 3). If remaining high-quality stream reaches become unsuitable to brook trout, there may be further fragmentation of the larger meta-population. *Id.*
- Freshwater mussels are an additional taxonomic group of interest because of already high numbers of listed species and relative sensitivity to toxicants. The endangered Indiana Bat, (*Myotis sodalis*), is another example of a species where a large portion of its native range is within areas of shale development (Figure 3). Gillen and Kiviat 2012 reviewed 15 species that were rare and whose ranges overlapped with the Marcellus and Utica shale by at least 35%. The list included the West Virginia spring salamander (*Gyrinophilus subterraneus*), a species that is on the IUCN Red List as endangered and whose range overlaps 100% with the shale layers. It requires high quality water and is sensitive to fragmentation suggesting that this species is at great risk to oil and gas development. The list also included eight Plethodontid salamanders, a group that tends to be vulnerable because of the overlap between their range and shale layers, their dependence on moist environments and sensitivity to disturbance. *Id.* at 11040-11041.

The Brittingham research demonstrates the substantial impact that shale gas drilling is having and will continue to have on wildlife throughout the Marcellus and Utica shale formations. FERC has an obligation under NEPA to take a hard look at these impacts on a much broader scale than that contained in the FEIS. Indeed, Figure 3 in the Brittingham study reveals precisely why FERC must expand the cumulative effects analysis area for resource areas such as wildlife. *See Brittingham, et al., at 11042.*

The map in Figure 3 overlays the spatial position of unconventional vertical and horizontal wells with the distribution of brook trout classification. Between 2000-2013, at least 7,336 unconventional wells were drilled in Pennsylvania. *Id.* Many of these wells are in the northeastern part of the state where the Constitution Pipeline is proposed. The mass of shale gas wells in this part of Pennsylvania extends for approximately 100 miles. By limiting the cumulative impacts analysis area for wildlife to within 10 miles of the proposed pipeline, FERC necessarily ignores the obvious and substantial environmental impacts of related shale gas drilling that extend far beyond that narrow corridor. By using such a narrow corridor in this and other proceedings, it is clear that the vast amount of cumulative effects of gas drilling are being ignored by FERC.

The statements in Table 1 below demonstrate why FERC failed to take a hard look at the cumulative impacts of gas drilling in relation to the Constitution Pipeline Project.

**Table 1: Response to FERC’s Cumulative Impacts Analysis in the FEIS**



<b>FERC Statement in FEIS</b>	<b>Response</b>
<p>...because the proposed projects and other non-jurisdictional project-related facilities in the area would not have a significant adverse impact on water resources, and considering the significantly greater geographic and time scale for development of the Marcellus Shale, the proposed projects and other non-jurisdictional project-related facilities in the area would not contribute in any significance to cumulative impacts on water resources that may be associated with development of the Marcellus Shale. FEIS at 4-245.</p>	<p>This statement is conclusory and there is no analysis to support it. FERC also seems to suggest that because development of the Marcellus Shale will take place over a long period of time and over a broad geographic area, that this somehow minimizes cumulative impacts. This stands the cumulative impacts analysis on its head though since looking at cumulative impacts incrementally is the whole point of analyzing and disclosing such impacts. Therefore, FERC did not take a hard look at the cumulative impacts of gas drilling on water resources.</p>
<p>Construction of any Marcellus Shale development projects would also result in some long-term loss of wildlife habitat due to aboveground structures and well pads....Impacts on wildlife species from construction of any of the projects listed in table 4.13-1 would be local, temporary, and minor. Therefore, cumulative impacts are expected to be negligible for any individual wildlife species relative to the population in the region of influence. FEIS at 4-248.</p>	<p>These statements are clearly inconsistent. On the one hand, FERC admits that Marcellus shale gas drilling would “result in some long-term loss of wildlife habitat.” On the other hand, FERC claims that such impacts “would be local, temporary, and minor.” Such inconsistency demonstrates that FERC did not take a hard look at the cumulative impacts of gas drilling on wildlife. Moreover, FERC in no way attempts to actually analyze what the “long-term loss of wildlife habitat” would be and which species would be most impacted. Additionally, as explained above, FERC’s use of a narrow corridor for analyzing cumulative impacts on wildlife necessarily diminishes the broader landscape level impacts that have already occurred. FERC must quantify these impacts on a regional level to get a baseline reading so that the public understands the actual scale of these impacts.</p>
<p>Construction of the projects identified in table 4.13-1, such as...Marcellus Shale development[] and non-jurisdictional project-related facilities, and Constitution’s project could result in cumulative impacts on waterbodies and fisheries from sedimentation and turbidity, habitat alteration, stream bank erosion, fuel and chemical spills, water depletions, entrainment or entrapment due to water withdrawals or construction crossing operations, blasting, and operational pipeline failure if constructed on the same waterbody in a similar timeframe. We expect that most of</p>	<p>Expecting that future project proponents will “minimize impacts...as much as possible” is not a substitute for FERC’s obligation to consider cumulative impacts. Moreover, the cumulative impacts of gas drilling are not “temporary and limited to construction of the projects.” As explained in Brittingham (2014):</p> <p>Extraction of shale resources also includes development of access roads, many of which are paved and which previous research on forestry activities has shown to increase risk of sedimentation in receiving water bodies. The effects of sediment and siltation on streams are well-known and include loss of habitat and sensitive</p>

<p>the projects in the region of influence, including the NED Project and the Leatherstocking Project, would be designed so as to minimize impacts on waterbodies, and therefore fisheries and aquatic resources, as much as possible. . . .In addition, any impacts on waterbodies and therefore fisheries and aquatic resources would be temporary and limited to construction of the projects. As such, none of these impacts are expected to be cumulatively significant because of their temporary nature and the impacts avoidance and mitigation measures that would be implemented. FEIS at 4-248.</p>	<p>species; abrasion of periphyton; covering of periphyton, plants and egg masses; reduced feeding efficiency of benthic macroinvertebrates and fish, and reduced primary productivity and fish reproductive success. . . .Elevated concentrations of selenium have also been reported in flowback waters from the Marcellus shale. . . .[Selenium] can be highly toxic particularly to aquatic life. Brittingham at 11038-11039.</p> <p>These cumulative impact are not “temporary and limited to construction of the projects.” Rather, these impacts will last for years, if not decades, into the future. Even assuming that all project proponents’ mitigation efforts are implemented, the incremental impacts of the projects could easily lead to substantial cumulative impacts. FERC, however, simply assumes that mitigation measures and the illusory “temporary” nature of gas drilling means that there are no cumulatively significant impacts. This is without merit and, therefore, FERC has not taken a hard look at the cumulative impacts on water resources.</p>
<p>Because protection of threatened, endangered, and other special status species is part of the federal and state permitting processes, cumulative impacts on such species would be reduced or eliminated through conservation and mitigation measures identified during those relevant permitting processes. Consequently, we conclude that past and present projects in combination with the proposed projects would have minor cumulative effects to special status species. FEIS at 4-248 – 4-249.</p>	<p>This is conclusory. FERC offers absolutely no analysis other than 100% faith that project proponents will comply with future federal and state permit conservation and mitigation measures. This demonstrates that FERC did not take a hard look at the cumulative impacts on special status species.</p>
<p>We focused our analysis of potential cumulative land use impacts on projects [including Marcellus Shale development] located close by or immediately adjacent to the proposed construction workspaces. . . .Visual impacts associated with operation of Marcellus Shale and other natural gas development result from maintained rights-of-way for gathering lines and other pipelines, well pads, compressor stations, meter stations, and gas processing facilities. . . .Project proponents for</p>	<p>Once again, FERC erroneously claims that long-term and geographically extensive impacts from gas drilling will, somehow, “mostly be limited to the construction phase and would be temporary and minor.” Figure 3 in the Brittingham (2014) study dispels this notion. For example, the map in Figure 3 reveals thousands of shale gas wells in northeastern Pennsylvania. This extensive development is not a “temporary and minor” impact on land use, recreation, special interest</p>

<p>gathering lines for Marcellus Shale development and non-jurisdictional project-related facilities would restore disturbed areas in accordance with state permitting agency requirements, thereby limiting permanent visual impacts on those areas where previously existing forest would not be allowed to reestablish within the new permanent right-of-way....Whereas these permanent visual impacts may be locally noticed, generally they would not be inconsistent with the existing visual character of the area. Therefore, the proposed projects’ contribution to cumulative impacts on land use, recreation, special interest areas, and visual resources would mostly be limited to the construction phase and would be temporary and minor. FEIS at 4-249 – 4-251.</p>	<p>areas, and visual resources. Rather, it is a long-term change in the landscape that was succinctly captured by the Pennsylvania Supreme Court:</p> <p>“By any responsible account, the exploitation of the Marcellus Shale Formation will produce a detrimental effect on the environment, on the people, their children, and future generations, and potentially on the public purse, perhaps rivaling the environmental effects of coal extraction.” <i>Robinson Township v. Commonwealth of Pennsylvania</i>, 83 A.3d 901, 976 (2013).</p> <p>FERC’s conclusion that these impacts are “temporary and minor” is not only irresponsible, it is insulting to the people who live and recreate here. Even Pennsylvania’s governor has expressed concerns about the rapidly changing landscape:</p> <p>“...at the same time as this [increased domestic gas] development occurs, we must be mindful of and sensitive to the issues of local communities affected by this development. The significant increase of infrastructure development to transport natural gas to markets raises unique concerns and questions for communities who host these pipelines...I [] strongly urge FERC to seek coordination to the greatest extent possible among other proposed pipeline projects that seek to move natural gas to market. A recurring issue raised by local residents is whether we are efficiently deploying infrastructure – and the appropriate level of communication is occurring between potential project developers – in a manner that minimizes and mitigates overall disturbance on both the environment and local communities.” Governor Tom Corbett, Comments on Atlantic Sunrise Project, Aug. 18, 2014 (Attachment 10).</p> <p>The FEIS is neither a responsible account nor mindful of the substantial and long-term cumulative impacts posed by both jurisdictional and non-jurisdictional projects. Therefore, FERC failed to take a hard look at the cumulative impacts on land use, recreation, special interest areas, and visual resources.</p>
<p>The cumulative impact of the proposed projects and the other projects listed in table 4.13-1 on infrastructure and public services would depend on the number of projects under construction at one time...increased use of local roadways from multiple projects could</p>	<p>FERC cannot conclude that there will be “no long-term cumulative effect on infrastructure” by relying solely on Constitution’s commitment to repair roads damaged during construction of the proposed pipeline. Once again, FERC ignores the cumulative impacts of</p>

<p>accelerate degradation of roadways and require early replacement of road surfaces. However, Constitution committed to repair any roadways damaged during installation of the proposed pipeline....No long-term cumulative effect on infrastructure and public services is anticipated. FEIS at 4-252.</p>	<p>gas drilling on infrastructure such as roads and bridges. These impacts are substantial. For example, “the [NYSDEC] estimates that development of one horizontal well requires over 3300 one-way truck trips.” Brittingham et al., at 11038 (2014). According to Brittingham, there are at least 6,355 horizontal wells in Pennsylvania. <i>Id.</i> at 11042, Fig. 3. That amounts to nearly 21 million one-way truck trips. Even limiting the analysis to just Susquehanna County, where FERC claims there are 904 unconventional wells, FEIS at 4-233, that still amounts to approximately 3 million one-way truck trips in just one county. This amount of heavy truck traffic has an enormous impact on roads and bridges. According to FERC, however, if you just look at the Constitution Pipeline in isolation, there is “no long-term cumulative effect on infrastructure.” This is arbitrary and capricious and FERC has not taken a hard look at the cumulative impacts on infrastructure.</p>
<p>Ongoing drilling activities of Marcellus Shale natural gas reserves and other projects in the area such as non-jurisdictional project-related facilities and Marcellus Shale development projects (table 4.13-1), would involve the use of heavy equipment that would generate emissions of air contaminants and fugitive dust during construction....Operation of the proposed projects, Marcellus Shale drilling activities, other FERC-jurisdictional projects, and other nearby projects would also contribute cumulatively to existing air emissions....Although outside the extent of the Commission’s jurisdiction, it is anticipated that Marcellus Shale development activities would result in increased long-term emissions of criteria pollutants, HAPs, and GHGs within the region. FEIS at 4-254 – 4-255.</p>	<p>While FERC acknowledges the obvious (that gas drilling will result in increased long-term emissions of criteria pollutants, HAPs, and GHGs), it fails to in any way try to quantify these increases. “NEPA requires that an agency consider cumulative impacts of an action and of foreseeable related actions.” <i>Kern v. BLM</i>, 284 F.3d 1062, 1077 (9th Cir. 2002) (noting that previous EA “did not attempt to quantify the cumulative emissions from potential development.”). FERC has not attempted to quantify emissions from past (and relatively recent) gas drilling. This is arbitrary and capricious and FERC has not taken a hard look at the cumulative impacts on air pollution.</p>
<p>Emissions of GHGs from Constitution’s project would not have any direct impacts on the environment in the area of the projects. Currently, there is no standard methodology to determine how the proposed Constitution Pipeline Project’s relatively small incremental</p>	<p>Noticeably absent from FERC’s cumulative impact analysis on climate change is any mention of gas drilling in the Marcellus and Utica shale formations. ADP specifically commented that FERC must take into account methane emissions from “natural gas</p>

contribution to GHGs would translate into physical effects of the global environment. The GHG emissions from the construction and operation of Constitution's project would be negligible compared to the global GHG emission inventory....Operation of the new turbines associated with Iroquois' project could result in the existing Wright Compressor Station becoming a major source of GHGs requiring a Title V application and permit at start-up of the new compressors. However, the GHG emissions during construction and operation phases of the compressor station would be a maximum of 177,08 tpy of CO<sub>2</sub>e, which would be very small when compared with the U.S. Greenhouse Gas Inventory of 6.63 billion metric tons of CO<sub>2</sub>e (EPA 2009)....Currently proposed and potential future projects, such as the NED Project, that would connect to the Constitution project could also require the construction and operation of compressor stations. These compressor stations would undergo the relevant state and federal permitting and mitigation process and would be subject to pertinent mitigation requirements. We assume that all existing compressor stations are operating within permit guidelines, and any proposed compressor stations would operate within the same guidelines for their facility. Therefore, anticipated emissions from proposed compressor stations in the region are expected to be similar to that of the Wright Interconnect Project and would be subject to mitigation measures set forth in the PADEP and NYSDEC permitting requirements. Therefore, we conclude the proposed projects would not significantly contribute to GHG cumulative impacts. FEIS at 4-256 – 4-257.

extraction and transportation.” See DEIS comments at 34. In response, FERC states that ADP's “statements regarding relative emissions for production to end-use fossil fuels are noted” and then refers to another response to Comment CO26-19. See FEIS, App. S-425. FERC's response to that comment states:

“We acknowledge that methane, a primary component of natural gas, is a potent greenhouse gas....We have [] updated section 4.11.1 regarding methane leakage.” FEIS App. S-325.

Section 4.11.1 of the FEIS, however, only considers “fugitive GHG emissions” in relation to the Constitution Pipeline and Wright Compressor Station, not in relation to the cumulative impacts of gas drilling. This is a major flaw in the FEIS since, as FERC admits, methane is a potent GHG. According to a recent *Washington Post* article:

“The country's biggest methane ‘hot spot,’ verified by NASA and University of Michigan scientists in October, is only the most dramatic example of what scientists describe as a \$2 billion leak problem: the loss of methane from energy production sites across the country. When oil, gas or coal are taken from the ground, a little methane – the main ingredient in natural gas – often escapes along with it, drifting into the atmosphere, where it contributes to the warming of the Earth.

Methane accounts for about 9 percent of U.S. greenhouse gas emissions, and the biggest single source of it – nearly 30 percent – is the oil and gas industry, government figures show. All told, oil and gas producers lose 8 million metric tons of methane a year, enough to provide power to every household in the District of Columbia, Maryland and Virginia....Because methane is such a powerful greenhouse gas – with up to 80 times as much heat-trapping potency per pound as carbon dioxide over the short term – the leaks must be controlled if the United States is to have any chance of meeting its goals for cutting the emissions responsible for climate change[.]” Joby Warrick, Delaware-size gas plume over West illustrates the cost of leaking methane, *Washington Post*, Dec. 29, 2014, available at [http://www.washingtonpost.com/national/health-science/delaware-sized-gas-plume-over-west-illustrates-the-cost-of-leaking-methane/2014/12/29/d34c3e6e-8d1f-11e4-a085-34e9b9f09a58\\_story.html](http://www.washingtonpost.com/national/health-science/delaware-sized-gas-plume-over-west-illustrates-the-cost-of-leaking-methane/2014/12/29/d34c3e6e-8d1f-11e4-a085-34e9b9f09a58_story.html) (Attachment 11).

	FERC failed to adequately respond to Allegheny’s comments and did not take a hard look at the cumulative impacts of GHG emissions.
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As explained above, FERC has failed to take a hard look at the cumulative impacts of the Constitution Pipeline Project, including the impacts past, present, and reasonably foreseeable future gas drilling in the Marcellus and Utica shale formations. 40 C.F.R. § 1508.7. Therefore, FERC’s decision to rely on the FEIS to authorize the Project is arbitrary and capricious.

**3. FERC violated NEPA by failing to provide an FEIS that contains a full and fair discussion of significant environmental impacts.**

FERC “must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” 40 C.F.R. §1500.1(b). FERC must also provide a “full and fair discussion of significant environmental impacts”. 40 C.F.R. §1502.1. The large number of uncompleted surveys and consultations demonstrates that the FEIS is significantly incomplete. Further, some issues, such as the exposure of the public to radioactive materials in the gas transported by the Projects for delivery to consumers, whether these issues are considered direct, indirect or cumulative effects, were simply dismissed as being “beyond the scope” of the EIS or were ignored altogether. Therefore, the FEIS did not provide a “full and fair discussion of significant environmental impacts” and environmental information was not available to the public before FERC issued the Order.

An enormous amount of information gathering and analysis of environmental impacts from the projects has not been completed and is not documented in the FEIS. Instead of completing this work as required by NEPA, so that a single complete environmental document is available, the Order lists no fewer than 43 environmental conditions that are yet to be satisfied. These conditions require Constitution and FERC staff to conduct additional surveys, develop impact avoidance and mitigation plans, consult with state and federal agencies, and engage in other activities. *See* Order, Appendix. The Order states that execution of the large amount of work and effort associated with these activities is to be completed prior to the onset of construction. At least seven of these conditions requiring significant information gathering, mitigation plan development, and/or consultations with federal and state agencies are:

- To develop a final Migratory Bird and Upland Forest Plan in consultation with FWS, NYSDEC, Pennsylvania Department of Conservation and Natural Resources (“DCNR”) and Pennsylvania Game Commission (“PGC”), which complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Order, App. P 23.
- To develop a tree-clearing plan for the northern long-eared bat to be implemented if clearing occurs between April 1 and September 30, which incorporates identified mitigation measures in section 4.7.2 of the FEIS. Order, App. P 29.
- To protect the endangered dwarf wedgemussel wherever it appears in the Project impact area by developing impact avoidance or mitigation measures in consultation with FWS, PGC, PADCNR, NYSDEC and the Pennsylvania Fish and Boat Commission (“PFBC”) Order, App. P 30.

- To complete surveys for the threatened northern monkshood perennial flower, to consult with FWS and NYSDEC regarding the results, and to develop avoidance/minimization measures it would use in the event that northern monkshood are found. Order, App. P 31.
- To complete bald eagle survey results and a final bald eagle mitigation plan in consultation with FWS, PGC and NYSDEC. Order, App. P 33.
- To minimize impacts on the small-footed bat, silver haired bat and little brown bat by developing impact avoidance, minimization or mitigation measures in coordination with FWS and PGC. Order, App. P 34.
- To complete surveys for 12 rare plant species and additional animal species that are state-listed in either New York or Pennsylvania, and to develop mitigation measures for these species in consultation with state agencies. Order, App. P 35.

By issuing the Order and Certificates now, FERC has decided that the public interest in the Projects outweighs the environmental harms, even though it lacks the full amount of information it should have in hand to make that decision. According to the FEIS, Constitution wants to start construction in February 2015, just a month away. *See* FEIS, p. 2-29. In a letter to the New York field office of the U.S. Fish & Wildlife Service (“USFWS”) dated December 1, 2014, FERC requests expedited concurrence/biological opinion for four endangered and threatened species in the impact area of the Projects “...in consideration of Constitution Pipeline Company LLC’s construction target date and tree clearing windows”. Docket No. CP13-499-000, Accession No. 20141201-3021 (“Dec. 1 FERC letter”). FERC’s excessive solicitude for Constitution’s financial interests is not consistent with its role as gatekeeper to serve the *public* interest by fully balancing the costs and benefits of the Projects. It also raises grave doubts as to how carefully FERC will evaluate and enforce Constitution’s fulfillment of the 43 environmental conditions.

The NGA requires that any person aggrieved by an order issued by FERC must apply for a rehearing within 30 days after issuance of such order. 15 U.S.C. §717r(a). This is a prerequisite for judicial review. 15 U.S.C. §717r(b). The NGA further specifies that parties requesting rehearing must set forth specifically the ground or grounds on which the application is based. 15 U.S.C. §717r(a). By failing to include a large amount of information in the FEIS, FERC has willfully subverted the process of public review of that specific information. For example, Intervenor and other public organizations and persons do not have the opportunity to review Constitution’s proposed mitigation plans for protection of the endangered dwarf wedgemussel, because these plans have not been completed yet. Order, App. P 30. Therefore, it is not possible to request rehearing based on a grievance associated with a possibly deficient mitigation plan for this endangered species. The same applies to the complete lack of any data or requirement to obtain such data for levels of radioactive substances such as radon in gas wells in Pennsylvania that will supply gas to the pipeline in this Project. The same consideration applies for each environmental condition listed in the Order. For this reason, Intervenor expressly reserve the right to seek rehearing based on any information arising from Constitution’s actions to meet any and all of the Environmental Conditions, or from information arising from any and all consultations with state and federal agencies that have not yet occurred.

The missing information, mitigation plans and consultations are not isolated instances but are extensive, encompassing the entire Project areas. They clearly have substantial capacity to affect the actual construction operations. Despite this, FERC rests the review of Constitution’s

fulfillment of the conditions solely in the person of the Director of FERC's Office of Energy Projects. This grant of authority is not supported by any provision of the NGA or its implementing regulations. The actual fulfillment of the 43 Environmental Conditions will not be subject to any process of public review to ensure either that Constitution adequately performs the activities required in the conditions or that FERC adequately enforces them. The imposition of environmental conditions thus clearly operates as a mechanism by which FERC is attempting to avoid fulfillment of its obligations under NEPA.

FERC cannot claim that issuance of the Order is not final agency action because the environmental conditions function to make these issuances "tentative and interlocutory" and somehow not the "consummation of the agency decision process." *Bennett v. Spear*, 520 U.S. 154, 177-178 (1997). Legal authority to commence operations has been granted to Constitution and Iroquois; thus, "rights and obligations have been determined" and "legal consequences will flow." *Id.* Further, there is no legal mechanism to enforce the actual fulfillment of the environmental conditions. The issuance of the Order thus constitutes final agency action and must be supported by evidence in the record at the time that the decision is made. However, that evidence is incomplete and inadequate by FERC's own admission, which is implicit in the long list of conditions that it is forced to issue given that it has failed to comply with NEPA. FERC's decision to issue an incomplete FEIS delegates excessive authority to FERC's staff withholds a large amount of information from public scrutiny, and denies the public the full measure of its rights to seek rehearing and public review.

#### **4. FERC violated NEPA by failing to prepare a programmatic EIS.**

FERC violated NEPA by failing to prepare a programmatic EIS for natural gas infrastructure projects in the Marcellus and Utica shale formations. ADP commented extensively about the need for a programmatic EIS in its comments on the DEIS. *See* DEIS comments at pp. 2-24. FERC claims that a programmatic EIS is only warranted where "proposed projects [] have demonstrably sufficient feasibility, purpose, and need to stand alone" and cannot be based on "theoretical projects whose certification status is uncertain." FEIS, App. S-393. FERC also claims that it is not "engaged in regional development or planning" with the gas industry. *Id.* at S-397. FERC's interpretation of when a programmatic EIS is inconsistent with CEQ's regulations and guidance. Furthermore, FERC is engaged in regional development and planning with the gas industry, which supports the need for a programmatic EIS.

##### **a. CEQ regulations/guidance and case law support preparation of a programmatic EIS.**

FERC claims that a programmatic EIS is only warranted where "proposed projects [] have demonstrably sufficient feasibility, purpose, and need to stand alone" and cannot be based on "theoretical projects whose certification status is uncertain." FEIS, App. S-393. FERC's position is inconsistent with CEQ's regulations and guidance regarding programmatic EISs. Therefore, FERC should reconsider its refusal to prepare a programmatic EIS.

A programmatic EIS is sometimes required for "broad Federal actions." 40 C.F.R. § 1502.4(b). "Programmatic NEPA reviews address the general environmental issues relating to broad decisions, such as those establishing policies, plans, programs, or suite of projects, and can



effectively frame the scope of subsequent site- and project-specific Federal actions.” CEQ, *Effective Use of Programmatic NEPA Reviews*, p. 10 (2014) (Attachment 12). “A well-crafted programmatic NEPA review provides the basis for decisions to approve such broad or high-level decisions such as identifying geographically bounded areas within which future proposed activities can be taken or identifying broad mitigation and conservation measures that can be applied to subsequently tiered reviews.” *Id.*

FERC’s assertion that a programmatic EIS is only warranted where “proposed projects [] have demonstrably sufficient feasibility, purpose, and need to stand alone” is directly contracted by CEQ’s 2014 Guidance:

Programmatic NEPA reviews may also support policy- and planning-level decisions when there are limitations in available information and uncertainty regarding the timing, location, and environmental impacts of subsequent implementing action(s). For example, in the absence of certainty regarding the environmental consequences of future proposed actions, agencies may be able to make broad program decisions and establish parameters for subsequent analyses based on a programmatic review that adequately examines the reasonably foreseeable consequences of a proposed program, policy, plan, or suite of projects.”

*Id.* at 11. In other words, just because a future pipeline project may be theoretical does not mean that FERC would not be able to “establish parameters for subsequent analyses.” In fact, this may assist FERC (and the public) in understanding the broader reasonably foreseeable consequences of jurisdictional projects and non-jurisdictional gas drilling in the Marcellus and Utica shale formations.

The 2014 Guidance recommends preparing a programmatic EIS when “several energy development programs proposed in the same region of the country [have] similar proposed methods of implementation and similar best practice and mitigation measures that can be analyzed in the same document.” *Id.* at 21. Additionally, CEQ says that “broad Federal actions may be implemented over large geographic areas and/or a long time frame” and “must include connected and cumulative actions, and the responsible official should consider whether it is helpful to include a series or suite of similar actions.” *Id.* at 22.

According to CEQ, the benefit of a programmatic EIS is obvious:

When the public has a chance to see the big picture early it can provide fresh perspectives and new ideas before determinations are made that will shape the programmatic review and how those determinations affect future tiered proposals and NEPA reviews. Early outreach also provides an opportunity to develop trust and good working relationships that may extend throughout the programmatic and subsequent NEPA reviews and continue during the implementation of the proposed action.

*Id.* at p. 25 (citations omitted). Furthermore:

Programmatic NEPA reviews provide an opportunity for agencies to incorporate comprehensive mitigation planning, best management practices, and standard operating

procedures, as well as monitoring strategies into the Federal policymaking process at a broad or strategic level. These analyses can promote sustainability and allow Federal agencies to advance the nation’s environmental policy as articulated in Section 101 of NEPA.

By identifying potential adverse impacts early during the broad programmatic planning, programmatic NEPA reviews provide an opportunity to modify aspects of the proposal and subsequent tiered proposals to avoid or otherwise mitigate those impacts. A thoughtful and broad-based approach to planning for future development can include best management practices, standard operating procedures, adaptive management practices, and comprehensive mitigation measures that address impacts on a broad programmatic scale (e.g., program-, region-, or nation-wide).

*Id.* at 35. All of this supports the need for FERC to prepare a programmatic EIS for natural gas infrastructure and gas development in the Marcellus and Utica shale formations so that the public has a chance to see the big picture. For example, Table 2 reveals the jurisdictional pipeline projects (other than the underlying projects) identified in the FEIS as either planned, proposed, or recently put into service:

**Table 2: Jurisdictional natural gas pipeline projects in FEIS.**

<b>Project</b>	<b>Miles</b>	<b>Compression</b>	<b>Status</b>
Tennessee Gas Pipeline’s 300 Line Project	127	2 new CS and modifications at others	In service (2011)
Tennessee Gas Pipeline’s Northeast Supply Diversification Project	7	CS modifications and upgrades	In service (2012)
Tennessee Gas Pipeline’s Northeast Upgrade Project	40.9	Modifications at 4 existing CS	In service (2013)
Dominion Transmission’s New Market Project	-	2 new CS and modifications at others	Proposed
Williams’ Leidy Southeast Expansion Project*	30 miles	Modifications at existing CS	Proposed
Williams’ Atlantic Sunrise Project**	178.6 miles new pipeline; 14.5 miles pipeline loop	2 new CS and modifications at 3 existing CS	Pre-filing
Spectra Energy’s TEAM 2014 Project	33.6 miles	4 new CS and other modifications	Under construction
Williams’ Transco Northeast Supply Link Project	12 miles	Modifications at 2 CS	In service (2013)
Millenium’s Minisink CS Project		1 new CS	In service (2013)
Tennessee Gas Pipeline’s NED	312 miles new	Modifications to	Pre-filing

Project	pipeline; 105 miles of pipeline lateral/loop	existing CS and other modifications	
Iroquois's SoNo Project			Planned

See FEIS 4-236 – 4-239. \*See Docket No. CP13-551. \*\*See Docket No. PF14-8.

These are just some of the projects that have been recently approved or are planned/proposed. See ADP DEIS comments at 17; 19.

According to the Energy Information Administration (“EIA”), there at least 57 natural gas infrastructure projects that have either recently been put into service or are either in the planning stage or under environmental review in the Northeast, Midwest, and Southeast. EIA, Today in Energy, *Some Appalachian natural gas spot prices are well below the Henry Hub national benchmark*, Oct. 15, 2014, available at <http://www.eia.gov/todayinenergy/detail.cfm?id=18391> (Attachment 13) (Note: scroll to bottom of page and click on the link titled “Several pipeline projects are underway” for a spreadsheet listing the 57 pipeline projects. The spreadsheet is included as a PDF in Attachment 14). Of these 57 pipeline projects, 56 are dedicated to transporting Marcellus and/or Utica shale gas away from states like Pennsylvania. See Attachment 14. This is an enormous expansion of the natural gas pipeline system and much of it is due to gas drilling in the Marcellus and Utica shale formations.

For example, in 2013, EIA stated that although natural gas pipeline capacity investment had slowed in 2012:

Limited capacity additions were concentrated in the northeast United States, mainly focused on removing bottlenecks for *fast-growing Marcellus shale gas production*. *More than half of new pipeline projects that entered commercial service in 2012 were in the Northeast.*

EIA, Today in Energy, *Over half of U.S. natural gas pipeline projects in 2012 were in the Northeast*, Mar. 25, 2013, (emphasis added) available at <http://www.eia.gov/todayinenergy/detail.cfm?id=10511> (Attachment 15). In December 2014, EIA stated:

Spurred by growing natural gas production in Pennsylvania, West Virginia, and Ohio, the natural gas pipeline industry is planning to modify its system to allow bidirectional flow to move up to 8.3 billion cubic feet per day (Bcf/d) out of the Northeast....In addition to these bidirectional projects in the Northeast, the industry plans to expand existing systems and build new systems to transport natural gas produced in the Northeast to consuming markets outside the region.

EIA, Today in Energy, *32% of natural gas pipeline capacity into the Northeast could be bidirectional by 2017*, Dec. 2, 2014, available at <http://www.eia.gov/todayinenergy/detail.cfm?id=19011> (Attachment 16). It is clear that this is a broad Federal action being implemented over a large geographic area and that natural gas

infrastructure projects have similar proposed methods of implementation and similar best practice and mitigation measures. Therefore, must prepare a programmatic EIS.

Finally, case law supports the preparation of a programmatic EIS in appropriate circumstances. In *Kleppe v. Sierra Club*, the Supreme Court recognized that NEPA may mandate a comprehensive EIS “in certain situations where several proposed actions are pending at the same time.” 427 U.S. 390, 409 (1976). Further, the Court noted that:

when several proposals...that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental impacts must be considered together. Only through comprehensive consideration of pending proposals can the agency evaluate different courses of action.

*Id.* at 410.

Appellate courts have also defined a two-pronged inquiry to establish whether a programmatic EIS is appropriate: (a) Could the programmatic EIS be sufficiently forward looking to contribute to the decisionmakers’ basic planning of the overall program? and, (b) Does the decisionmaker purport to ‘segment’ the overall program, thereby unreasonably constricting the scope of primordial environmental evaluation?” *Churchill County v. Norton*, 276 F.3d 1060, 1076 (9th Cir. 2001) (citing *Nat’l Wildlife Fed’n v. Appalachian Reg’l Comm’n*, 677 F.2d 883, 889 (D.C. Cir. 1981)). See also *Foundation on Economic Trends v. Heckler*, 756 F.2d 143, 159 (D.C. Cir. 1985). With respect to the second prong, an agency cannot escape the existence of a comprehensive program with cumulative environmental effects by “disingenuously describing it as only an amalgamation of unrelated smaller projects.” *Churchill County*, 276 F.3d at 1076 (citing *Nat’l Wildlife Fed’n*, 677 F.2d at 890). Appellate courts have also held that where there are large-scale plans for regional development, NEPA requires *both* a programmatic and a site-specific EIS. *City of Tenakee Springs v. Clough*, 915 F. 2d 1308, 1312 (9th Cir.1990). When the projects in a particular geographical region are *foreseeable and similar*, NEPA calls for an examination of their impact in a single EIS. *Id.*

**b. FERC is engaged in regional development and planning with the gas industry.**

FERC claims that it is not “engaged in regional development or planning” with the natural gas industry. FEIS, App. S-397. There is substantial evidence to the contrary. As stated above, FERC participated in the development of the National Petroleum Council’s Prudent Development report, which stresses the need to increase natural gas infrastructure. Moreover, FERC’s Strategic Plan identifies the approval of natural gas infrastructure, including pipelines, as a specific goal over the next several years.

FERC also initiated a docket proceeding for “Coordination Between Natural Gas and Electricity Markets.” See Docket No. AD12-12-000. FERC’s explained that “since natural gas is expected to be relied on much more heavily in electricity generation, the interdependence of these industries merits careful attention.” *Id.* at Accession No. 20120215-3066. In ordering further conferences and reports, FERC highlighted the “growing concern regarding natural gas-electric interdependencies and in particular whether the natural gas and electric industries are

prepared to work together seamlessly in an environment of increasing reliance on the use of natural gas as a fuel for electric generation.” *Coordination Between Natural Gas and Electricity Markets*, 141 FERC ¶ 61,125 P 1 (Nov. 15, 2012). One of the issues that “spurred significant discussion and concern” was “whether electric market incentives are adequate to ensure gas-fired generator performance or otherwise signal the need for pipeline infrastructure to meet growing needs.” *Id.* at P 3, n. 2.

Since FERC’s order in Docket No. AD12-12, FERC staff has produced several quarterly reports providing updates on “national and regional Gas-Electric Coordination Activities.” *See e.g.*, Gas-Electric Coordination, Quarterly Report to the Commission, p. 1 Sept. 18, 2014 (Attachment 17). According to this report:

The Eastern Interconnection Planning Collaborative (EIPC) is now working on the Target 2 study, which will evaluate the adequacy of the natural gas infrastructure in 2018 and 2023 to meet the expected core load and non-core gas-fired generation requirements on a Winter Peak Day and a Summer Peak Day. Work is focused on finalizing the second set of natural gas and electricity market assumptions on core and non-core demand levels such as *infrastructure expansions*, load growth, LDC expansion, and oil-to-gas conversion for Target 2 model inputs....

....The ICF-led study on Long-term Electric and Natural Gas Infrastructure Requirements in the Eastern Interconnection, prepared for NARUC and the Eastern Interconnection States Planning Council (EISPC), examines the potential build-out of natural gas infrastructure required to supply power and gas customers to 2030 under three demand and policy scenarios for the power sector in the Eastern Interconnect region. *The preliminary study results presented in September find that the overwhelming factor driving natural gas infrastructure development is the demand for electricity.*

*Id.* at pp. 5-6 (emphasis added). FERC staff then highlights “relevant natural gas filings” (pp. 15-17) and “relevant electric filings” (pp. 18-19). Thus, it is clear that the backbone of FERC’s “Coordination Between Natural Gas and Electricity Markets” is ensuring there is sufficient infrastructure in place to meet future demand for electricity. In other words, FERC is deeply “engaged in regional development or planning” with the natural gas industry.

It is clear that FERC has acted arbitrarily and capriciously in failing to prepare a programmatic EIS that encompasses natural gas infrastructure projects targeting the Marcellus and Utica shale formations. The network of recently constructed, planned and proposed projects cries out for a forward-looking comprehensive EIS that thoroughly evaluates all environmental impacts together in a single document. By repeatedly asserting that it only reviews individual proposals, FERC avoids meaningfully analyzing the direct, indirect and cumulative effects on this region as a whole.

For example, FERC claims it does not have to prepare a programmatic EIS because it is an independent regulatory agency “...with a specific jurisdiction defined by law that does not permit the Commission to *direct the development* of interstate natural gas proposals on a regional or nationwide scale.” FEIS, App. S-336 (emphasis added). Nothing in the CEQ regulations, guidance, or any of the case law supports the notion that a permitting agency, such as FERC,

must itself formulate a regional plan of development to trigger requirements for a programmatic EIS. Rather, it suffices that such a regional plan exists and that the agency is aware of it.

The fact that FERC does not specifically “direct the development” of natural gas infrastructure proposals is irrelevant to its obligation to consider their environmental impacts in a programmatic EIS. 40 C.F.R. § 1502.4(b). FERC is thoroughly aware of the regional nature of natural gas extraction, interstate transportation and export in the northeastern United States. Indeed, as explained above, it is clear from FERC’s own statements and actions that it is playing a major role in *facilitating* this development.

FERC also claims that because it “has no authority to direct [Marcellus Shale extraction] or impose mitigation measures...on the proponents of these types of projects,” the preparation of a programmatic EIS “would be for naught.” FEIS, App. S-393. The fact that gas drilling activities are not regulated by FERC is irrelevant since FERC must consider these cumulative impacts “regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” 40 C.F.R. § 1508.7. Indeed, CEQ emphasizes that “all NEPA reviews,” regardless of whether it is a site-specific review or a programmatic review, are concerned with reasonably foreseeable cumulative impacts (as well as direct and indirect effects). CEQ, *Effective Use of Programmatic NEPA Reviews*, p. 23 (2014). CEQ further says that one of the benefits of a programmatic review is that “impacts can often be discussed in a broad geographic and temporal context with particular emphasis on cumulative impacts.” *Id.* at p. 33. Thus, the fact that gas-drilling activities are not regulated by FERC does not support FERC’s position that it need not prepare a programmatic EIS.

##### **5. The FEIS improperly segments the Constitution Pipeline Project from other connected, cumulative, and similar actions.**

FERC is required to consider three types of actions in its environmental analysis: connected, cumulative, and similar. 40 C.F.R. § 1508.25(a). Actions are connected if they are closely related and automatically trigger other actions which may require an EIS, cannot or will not proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for their justification. *Id.* at § 1508.25(a)(1). Cumulative actions are those actions that, when viewed with other proposed actions, have cumulatively significant impacts and should therefore be discussed in the same EIS. *Id.* at § 1508.25(a)(2). Similar actions are those actions that, 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. *Id.* at § 1508.25(a)(3). An agency should analyze similar actions in the same EIS when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single EIS. *Id.* Importantly, “significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.” 40 C.F.R. § 1508.27(b)(7).

Table 2 above and the list of projects in Attachment 14 reveal a long list of actions that are either connected, cumulative, and/or similar actions. As explained above, the sheer number of pipeline projects targeting the Marcellus and Utica shale formations indicates the need for a programmatic EIS. Even in the absence of such an EIS, however, FERC cannot treat the

Projects at issue here in isolation. Indeed, the fact that the FEIS only listed the 10 projects identified in Table 2 when there are approximately 46 other projects targeting the same shale formations only demonstrates that it is avoiding any meaningful analysis of cumulative impacts. Many of these projects share similar timing and should be analyzed together to assess adequately the combined impacts and to better evaluate alternatives that reduce overall environmental impacts. The FEIS, therefore, runs afoul of 40 C.F.R. § 1508.25(a).

**B. FERC violated the ESA by issuing the Order before completing consultations with the FWS, and without obtaining FWS concurrence with FERC's Biological Assessment stating that several listed and proposed federally endangered species are not likely to be affected by the Projects.**

Section 7(a)(2) of the ESA requires FERC to consult with the FWS for any actions that it determines are likely to affect listed species. 16 U.S.C. §1536(a)(2). The purpose of this section of the ESA is to ensure that FERC is provided with sufficient information so that it does not jeopardize a listed species or adversely affect its critical habitat. Section 7 consultation applies whenever an agency has discretion in its actions, as is the case here. 50 C.F.R. §402.03.

In the FEIS, FERC documented the presence of four federally listed, threatened or endangered species in the Project areas: the Indiana bat, dwarf wedgemussel, bog turtle and northern monkshood. In its analysis, FERC determined that the project would have no impact on the bog turtle, and that it was not likely to adversely impact the Indiana bat, dwarf wedgemussel or northern monkshood. On February 14, 2014, FERC requested the FWS concur with its determination, made in the DEIS, that the Constitution Pipeline Project is not likely to affect these three species. FERC requested that its DEIS (and later, its FEIS) should function as the required Biological Assessment (BA), to assess whether its actions will likely affect the listed species. DEIS Executive Summary, p. 6; FEIS Executive Summary, p. 7.

On April 7, 2014, FWS responded to FERC's request by concurring that the project may affect, but is unlikely to affect, the Indiana bat. Docket No. CP13-499-000, Accession No. 20140408-5036 ("April 7 FWS Letter"). FWS, however, did not concur with FERC's determination that the northern monkshood is not likely to be adversely affected, because all surveys of the project areas were not completed. FWS indicated that if any individuals of the species are likely to be adversely impacted, formal consultation is required. *Id.* at p. 10. FWS also did not concur with FERC's assessment that the dwarf wedgemussel is not likely to be adversely affected, because it had not received copies of the dwarf wedgemussel survey report. *Id.* FWS further stated that it looked forward to receiving final survey results, plans for avoidance of impacts, and a more robust assessment of the potential for impacts to both the Northern Monkshood and dwarf wedgemussel. *Id.* at p. 11. As of the October 2014 issuance of the FEIS, Constitution had not yet completed the surveys requested by FWS for either of these species. FEIS, pp. 4-103 – 4-105. Several Environmental Conditions in the Order require that Constitution complete these surveys and provide mitigation plans prior to construction. Order, App. PP 30-31.

In the time between issuance of the DEIS and FEIS, FERC determined that the project would be within the range of and is likely to adversely impact a fifth species, the northern long-eared bat. The northern long-eared bat has been proposed for federal listing as endangered.

FEIS, 4-100. *See also* 78 Fed. Reg. 61,046 (Oct. 2, 2013). In its December 1, 2014 letter to FWS, FERC requested a conference opinion for this proposed species as required under the ESA. *See* Dec. 1 FERC Letter. FERC also identified measures to mitigate the impact to this species, including recommending that a project and site-specific tree-clearing plan be developed if clearing occurs between April 1 and September 30. As with the dwarf wedgemussel and northern monkshood, FERC also conditioned the start of construction of the pipeline on completion of the conferral process with respect to the northern long-eared bat. Order, App. P 29.

On October 2, 2013, FWS published a proposed rule to list northern long-eared bat as a federal endangered species. 78 Fed. Reg. 61046. On June 30, 2014, FWS announced a six-month extension of the final determination. 79 Fed. Reg. 36698. On November 17, 2014, FWS stated that a listing determination will be published on or before April 2, 2015. 50 CFR Part 17; Docket No. FWS–R5–ES–2011–0024; 4500030113. If the proposed listing becomes final, it will be well within the project period for construction. Since FERC has determined that the Projects are likely to have adverse impact on the northern long-eared bat, this would trigger a need for formal consultation.

In addition to specific environmental conditions associated with impacts to each individual proposed or listed species, FERC has also included a more general condition:

Constitution shall not begin construction of the proposed facilities until...the FERC staff completes any necessary section 7 consultation with the FWS (including a conference opinion regarding the northern myotis).

Order, App. P 32(b). FERC's issuance of the Order conditioned upon the completion of consultations with FWS is in clear violation of the ESA. First, FWS has not provided concurrence for FERC's findings that the dwarf wedgemussel and northern monkshood are not likely to be adversely affected by the Projects, and has set forth conditions under which formal consultation may be necessary. *See* April 7 FWS letter. Second, FERC only requested consultation for the northern long-eared bat on December 1, 2014, and the consequences of this request will result in a requirement for formal consultation in the event that the proposed listing becomes final before the agency action is completed. *See* Dec. 1 FERC letter.

In either case, section 1536(b)(3)(A) of the ESA provides that, after completion of consultation under section 7(a)(2), FWS must provide to FERC and Constitution a written statement setting forth its opinion, give a summary of information found, and, if jeopardy or adverse modification is found, suggest reasonable and prudent alternatives which may avoid a violation under section 7(a)(2). This material would constitute the Biological Opinion ("BO") from the FWS to FERC. Clearly such reasonable and prudent alternatives would have to be incorporated into Constitution's project plans. In the BO, the FWS might also approve the incidental take of species, but only subject to conditions set forth in the BO. By issuing the Order without completion of consultations, FWS recommendations to mitigate jeopardy or adverse mitigation cannot be included in the FEIS, the public's right to engage in environmental review is curtailed, and there is no mechanism to enforce Constitution's compliance with such recommendations. This violates the ESA.



Further, the ESA makes clear that, after consultation is initiated under 7(a)(2) for listed species, the Federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources that have the effect of foreclosing reasonable and prudent alternative measures. 16 U.S.C. §1536(d). The Order, however, clearly authorizes that just such commitments may now be made as Constitution prepares for construction. Constitution cannot know which actions it may or may not take in the endangered species' habitats without the results of the consultation with FWS.

**C. FERC violated the NGA because it did not consider all factors required to determine whether the Projects unnecessarily disrupt the environment.**

When deciding whether or not to issue a certificate of public convenience and necessity ("Certificate"), FERC examines the environmental impact, other alternatives, technical competence, financing, rates, market demand, gas supply, long-term feasibility, and other issues concerning a proposed project that are relevant to the public interest. Certification of New Interstate Natural Gas Pipeline Facilities, Statement of Policy, 88 FERC ¶ 61,227, Docket No. PL99-3-00 (Sept. 15, 1999) at 22-23, 27, *clarified*, 90 FERC ¶ 61,128, *further clarified*, 92 FERC ¶ 61,094 (2000) (Certificate Policy Statement); *see generally Permian Basin Area Rate Cases*, 390 U.S. 747, 791 (1967). One of the goals of the Certificate Policy Statement is "the avoidance of unnecessary disruption of the environment." *Id.* at 2. In determining whether a project unnecessarily disrupts the environment, FERC must take into account the reasonably foreseeable upstream impacts caused by Marcellus and Utica Shale gas extraction activities.

As discussed at length above, FERC failed to consider the indirect and cumulative effects of Marcellus and Utica Shale gas extraction in the EIS. This failure not only violated NEPA but also the Natural Gas Act, as implemented through the Certificate Policy Statement. Therefore, it was arbitrary and capricious for FERC to determine that the Constitution Pipeline Project is in the public convenience and necessity without considering the indirect and cumulative effects of Marcellus and Utica Shale gas extraction activities.

### **III. Conclusion**

For the reasons stated above, FERC should grant Intervenors' request for rehearing, rescind its December 2, 2014 Order. FERC must, at a minimum, revise the EIS for the Constitution Pipeline and Wright Interconnect Projects to remedy the failures described above, including the failure to adequately analyze indirect and cumulative effects, failure to prepare a complete FEIS, and failure to comply with the ESA and NGA. Additionally, FERC must prepare a programmatic EIS to consider on natural gas infrastructure projects that are targeting the Marcellus and Utica shale formations. The analysis on the underlying Projects can be incorporated into that analysis. FERC should not authorize these or other projects until that programmatic analysis is complete.

Dated: January 2, 2014

Respectfully submitted,

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## CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of FERC's Rules of Practice and Procedure, 18 C.F.R. § 385.2010, I, Ryan Talbott, hereby certify that I have this day served the foregoing document upon each person designated on this official list compiled by the Secretary in this proceeding.

Dated: January 2, 2014

Respectfully submitted,

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