UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Dominion Cove Point LNG, LP	)	Docket No. CP13-113-000

REQUEST FOR REHEARING OF
EARTHREPORTS, INC. (dba PATUXENT RIVERKEEPER); POTOMAC RIVERKEEPER, INC.; SIERRA CLUB; AND CHESAPEAKE CLIMATE ACTION NETWORK

Pursuant to Rule 713 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission"), 18 C.F.R. § 385.713, EarthReports, Inc. (dba Patuxent Riverkeeper); Potomac Riverkeeper, Inc.; Sierra Club; Stewards of the Lower Susquehanna, Inc.; and the Chesapeake Climate Action Network ("CCAN") (collectively "Intervenors") hereby request rehearing and rescission of the Commission's September 29, 2014 Order ("Order") granting Dominion Cove Point LNG, LP ("Dominion" or "Applicant") authorization under Section 3 of the Natural Gas Act ("NGA") to construct, modify, and operate liquefied natural gas ("LNG") liquefaction and terminal facilities to export domestically produced natural gas and under Section 7 of the NGA to construct, install, own, operate, and maintain facilities associated with the Cove Point Pipeline to transport natural gas to the LNG terminal facilities ("Project"). Intervenors seek rehearing and rescission of the Commission's Order because the environmental review underlying the conclusions in the Order fails to meet the requirements of the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321 *et seq.*, and its implementing regulations, 40 C.F.R. Pts. 1500-08. The Order also violates the requirements of the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531 *et seq.*

I. STATEMENT OF RELEVANT FACTS

On April 1, 2013, Dominion filed an application with FERC seeking authorization to construct, install, modify, own, operate, and maintain facilities for liquefaction and export of natural gas at Cove Point, Maryland, and for a Certificate of Public Convenience and Necessity. In particular, Dominion sought permission to (1) construct and operate liquefaction facilities capable of processing 5.75 million metric tons per annum of LNG at its existing LNG import terminal in Cove Point, Maryland; (2) install additional compression at the Pleasant Valley Compressor Station, complete piping and measurement upgrades at the Pleasant Valley Metering and Regulating ("M&R") Facility, and install and replace the Pleasant Valley Suction/Discharge Pipelines in Virginia; (3) complete piping and measurement upgrades at the Loudon M&R Facility at the Loudon Compressor Station in Loudon County, Virginia; and (4) use locations in Maryland and Virginia to support construction.

Dominion's proposal would expand substantially its industrial operations in Calvert County, a largely rural county bordered by the Patuxent River and the Chesapeake Bay. If approved, the Project would resuscitate the largely defunct Cove Point LNG import terminal on the shores of the Bay and convert Cove Point into a bustling center for LNG exports. Dominion is seeking a green light to build a new liquefaction facility and a new utility-scale power plant to

power the liquefaction, all within 59.5 acres at its existing site. Dominion's proposed terminal location, unlike most other proposed LNG facilities, will be located across the street from a residential community. The Project raises a host of environmental concerns, including impacts to community safety, the health of the Chesapeake Bay, and the long-term survival of the North Atlantic right whale. It also likely will spur significant amounts of new natural gas development and contribute millions of tons per year to greenhouse gas ("GHG") emissions.

Given the breadth of impacts, the Project has garnered local and national attention. Patuxent Riverkeeper, Potomac Riverkeeper, Inc., Shenandoah Riverkeeper, Sierra Club, and Stewards of the Lower Susquehanna, filed comments on Dominion's application on May 3, 2013,[1] and CCAN submitted comments on October 23, 2013.[2] Intervenors supplemented those comments throughout the proceeding as new information and analyses emerged.[3] Throughout the process, Intervenors have called on FERC to conduct a comprehensive review of the Project in an Environmental Impact Statement ("EIS").

Nevertheless, on May 15, 2014, FERC issued a less rigorous review of the environmental consequences of the Project in an Environmental Assessment ("EA"). Environmental Assessment for the Cove Point Liquefaction Project under CP13-113, dated May 15, 2014, Accession No. 20140515-4002. In the EA, FERC concluded that, with appropriate mitigation, Dominion's Project would not significantly impact the environment, a finding referred to as a mitigated "Finding of No Significant Impact" ("FONSI"). EA at 186.

Intervenors submitted comments on the EA on June 16, 2014 that highlighted the significant deficiencies in FERC's analysis under both NEPA and the ESA. Comment of Sierra Club, et. al. under CP13-113, re. EA, dated June 16, 2014, Accession No. 20140616-5269 ("EA Comments"); *see also* Supplemental Comment of Sierra Club, et al. under CP13-113, on EA, redacted and public versions, dated June. 16, 2014, Accession No. 20140616-5276 (Public), Accession No. 20140616-5275 (CEII); Sources Supporting Comments of EarthReports Inc., et al. under CP13-113, dated June 16, 2014, Accession No. 20140617-5026.

Intervenors explained that FERC had not supported its conclusion that the Project will not have significant impacts because it ignored the context and intensity of the Project. For example, FERC improperly discounted the potentially significant risks to human health and safety from building additional industrial equipment and storing explosive chemicals adjacent to a residential neighborhood. EA Comments at 4-9. FERC also erred in discounting the risk to air quality associated with constructing a large power plant and other industrial facilities and operating that equipment in an area that is not meeting Clean Air Act standards to protect against harm from ozone pollution. *Id.* at 9-14. In addition, Intervenors explained that FERC had not

[1] Comment of Sierra Club et al., dated May 3, 2013, Accession No. 20130503-5215.
[2] Comment of Chesapeake Climate Action Network, dated October 23, 2013, Accession No. 20131023-5087.
[3] *See* Additional Request of Delay of Action/Extension of Time of Chesapeake Climate Action Network, et. al. under CP13-113. in light of new DOE Environmental Studies, dated May 30, 2014, Accession No. 20140530-5435; Comment of EarthReports et al., dated April 24, 2014, Accession No. 20140424-5205; Comment of EarthReports et al., dated April 4, 2014, Accession No. 20140416-5141; Comment of EarthReports et al., dated Feb. 24, 2014, Accession No. 20140224-5140; Comment of EarthReports et al., dated Feb. 19, 2014, 20140219-5145; Comment of EarthReports et al., dated November 8, 2013, Accession No. 20131108-5136; Comment of EarthReports et al., dated Sept. 26, 2013, Accession No. 20130926-5042; and Comment of EarthReports et al., dated July 9, 2013, Accession No. 20130709-5054. These comments are incorporated by reference herein.

adequately considered the risk that increasing shipping to the Chesapeake Bay threatens to introduce invasive species, with potentially significant impacts to water quality and the recreational and commercial interests of those who rely on the Chesapeake Bay. *Id.* at 14-18. Moreover, FERC erred in ignoring the reality that the massive LNG tankers expected to arrive at the terminal will pass through areas frequented by the critically endangered North Atlantic right whale, increasing the potential that the animals could be stuck and killed. *Id.* at 18-25. Intervenors also explained that FERC improperly dismissed the risk that higher levels of storm surge and more intense and frequent storms could threaten the integrity of Dominion's offshore pier or damage the LNG tankers or the industrial complex itself, with serious risk to human health and welfare and the environment. *Id.* at 25-29. In addition, Intervenors illustrated that FERC failed to consider the foreseeable effects of authorizing Dominion to export natural gas to be burned halfway across the world, including the likelihood that the Project will spur natural gas development and contribute to climate change. *Id.* at 29-60. FERC also evaluated the Project against an unreasonably narrow goal—exporting natural gas for Dominion's customers, within the same timeframe as the Project—prejudicing FERC's evaluation of alternatives to the Project. *Id.* at 62-63. Furthermore, FERC failed to take account of the reality that the export Project would reinvigorate a largely dormant import facility, and instead compared the impacts of the Project to the impacts of the import facility that never came to pass. *Id.* at 60-61. Finally, Intervenors noted that FERC did not have before it sufficient information to evaluate the environmental consequences of the Project, and argued that the Project was not in the public interest. *Id.* at 63-66.

In addition to these comments, CCAN submitted supplemental comments highlighting the risk that the project will impact public safety on July 3, 2014. Diana M. Dascalu-Joffe, ESQ Comments on Environmental Assessment for Dominion Cove Point LNG, LP, preliminary Quantitative Risk Assessment conducted by Ricardo-AEA under CP13-113, dated June 30, 2014, Accession No. 20140707-5015. The remaining Intervenors submitted additional comments on safety impacts of the Project. Supplemental Comments of EarthReports, Inc., et. al. under CP13-113, dated Aug. 4, 2014, Accession No. 20140804-5199 (Public), Accession No. 20140804-5200 (Privileged).

Notwithstanding the comments, the Commission issued an Order Granting Section 3 and Section 7 Authorizations on September 29, 2014. The Order agreed with the EA's finding that the Project would not have a significant impact on the quality of the human environment and that an EIS was not required. Order ¶ 275. Dominion accepted the Order on September 30, 2014 and immediately filed an Implementation Plan for Offsite Area B, which purported to comply with the conditions of the Order.[4] Dominion also asked for authorization to begin construction at Offsite Area B and undertake initial site preparation activities by October 3, 2014.[5] Intervenors filed a letter with the Commission opposing Dominion's request and highlighting Dominion's

[4] *See* Acceptance of the Order of Dominion Cove Point LNG, LP under CP13-113, 20140930-5266; Supplemental Information - Implemenation [sic] Plan for Offsite Area B of Dominion Cove Point LNG, LP under CP13-113, 20140930-5346.

[5] Supplemental Information - Implemenation [sic] Plan for Offsite Area B of Dominion Cove Point LNG, LP under CP13-113, 20140930-5346; Request for Approval for Activities at the LNG Terminal of Dominion Cove Point LNG, LP under CP13-113, 20140930-5366.

failure to comply with the plain terms of the Order.[6] The Commission ignored Intervenors and allowed Dominion to proceed with construction at Offsite Area B, and the initial site preparation, on October 3, 2014.[7]

Dominion also filed additional Implementation Plan materials on October 1st and 2nd.[8] Intervenors submitted a letter to FERC outlining the significant deficiencies in the materials Dominion submitted as of October 3, 2014 and requesting that FERC deny Dominion's request to proceed with any site preparation or construction activity.[9] Dominion continues to submit additional volumes of its implementation plan, and recently requested authorization to begin additional work at the tunnel to the offshore pier and on the terminal site by November 7, 2014,[10] as well as foundations, mechanical, and electrical work at the terminal site by November 13, 2014.[11]

For the reasons set forth below, Intervenors now seek a rehearing and rescission of the Commission's decision to grant the Section 3 and Section 7 Authorizations without first preparing an EIS and addressing the deficiencies in the EA.

II. BASIS FOR REHEARING

Intervenors maintain that the Project is not in the public interest and that the Commission failed to meet its obligations under NEPA by authorizing the Project without preparing an EIS that evaluates the Project's potentially significant impacts on human health and the environment. The Commission continues to err in concluding that the Project will not have a significant impact on the quality of the human environment; discounting the indirect consequences of authorizing Dominion to export natural gas from Cove Point; continuing to reject alternatives, including the no action alternative; and in failing to ensure the implementation of necessary mitigation measures to avoid significant adverse impacts from the Project. Intervenors and other members of the public, including technical experts, have raised substantial questions as to whether the Project will have significant impacts on the human environment. *See Greenpeace Action v. Franklin*, 14 F.3d 1324, 1332 (9th Cir. 1992) ("An agency must prepare an EIS if substantial questions are raised as to whether a project . . . *may* cause significant degradation of some human environmental factor." (internal quotation marks omitted; emphasis in original)). The Order's uncritical acceptance of the deficient analysis in the EA demonstrates that the Commission failed to take the requisite "hard look" at the Project's impacts, as required by NEPA. *See Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989).

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[6] Opposition of EarthReports, Inc., et. al. to Dominion Request for Authorization to Begin Construction at Offsite Area B under CP13-113, 20141001-5372.

[7] LLetter [sic] order approving Dominion Cove Point LNG, LP's 9/30/14 request proceed with the activities and use of Offsite Area B and the paved/graveled areas of your existing liquefied natural gas (LNG) terminal in Calvert County, Maryland under CP13-113, 20141003-3002.

[8] Supplemental Information - Implementation Plan of Dominion Cove Point LNG, LP under CP13-113, 20141001-5349; Supplemental Information - IP for Initial Site Prep at Terminal and Offsite Area A of Dominion Cove Point LNG, LP under CP13-113, 20141002-5165.

[9] Opposition to Request to Commence Construction under CP13-113, 20141003-5235.

[10] Supplemental Information - Implementation Plan for LNG Terminal: Volumes 5, 6, and 7 of Dominion Cove Point LNG, LP under CP13-113, 20141008-5173.

[11] Supplemental Information – Implementation Plan for LNG Terminal: Volumes 8 and 9 of Dominion Cove Point LNG, LP under CP13-113, Docket CP13-113, Accession No. 20141014-5369 (Oct. 14, 2014).

A. Concise Statement of the Alleged Errors in the Order

1. *The Commission erred in concluding that the Project would not have a significant impact on the quality of the human environment and that an EIS is not warranted.*

2. *The Commission violated NEPA by conducting an inadequate review of the Project's potential safety effects.*

3. *The Commission violated NEPA by failing to consider the impacts associated with substantially increasing the number and altering the type of vessels that will call at Cove Point under the export Project.* FERC improperly ignores the reality that allowing 85 massive LNG tankers—each of which will be carrying between 16 and 25 million gallons of foreign ballast water to be discharged into the Chesapeake Bay—to transit into and out of the Bay per year could impact water quality and the recreational and commercial interests of those who rely on the Bay.

4. *The Commission violated NEPA and the ESA by failing to consider the impacts of the Project on the critically endangered North Atlantic right whale.* FERC relied on a patently inadequate analysis under the NEPA and the ESA in concluding that substantially increasing the number of massive LNG tankers that will pass through the whales' habitat will cause no significant impacts or effects on the critically endangered North Atlantic right whale.

5. *The Commission erred by failing to consider the impacts of climate change on the proposed facility and the resulting heightened environmental impacts of the Project.*

6. *The Commission erred in concluding that the environmental consequences of induced gas production were not indirect effects of the Project that the Commission must consider in its environmental review.* Additional natural gas production in the Marcellus shale region along with changes in the pipeline transmission system are reasonably foreseeable consequences of Dominion's demand-creating Project. Thus, the Commission erred in failing to consider the environmental consequences of this development.

7. *The Commission erred by failing to account for the full extent and impacts of greenhouse gas emissions that reasonably will result from the Project*. FERC improperly discounted the significance of the Project's direct greenhouse gas emissions, ignored the reasonably foreseeable upstream and downstream greenhouse gas emissions that will result from the Project, and refused to engage in any attempt to evaluate impacts the Project's direct and indirect greenhouse gas emissions will have on the quality of the human environment.

8. *The Commission violated NEPA in failing to adequately consider alternatives to the Project, including the no action alternative.* FERC unlawfully limited the Project's purpose to "exporting gas for Dominion's customers," an objective so narrow that the Project is the only alternative that can meet that purpose.

9. *The Commission erred in issuing the Order because the Project is not in the public interest and not required by the public convenience or necessity.*

B. Statement of Issues

The subsections below correspond to the numbered paragraphs in Part II.A, above, and set forth the Intervenors' position with respect to the identified issues. Intervenors have raised numerous concerns in their comments and other submissions to the Commission throughout this proceeding, and incorporate by this reference all arguments, evidence, and reasoning in their previous comments as grounds for this request for rehearing.[12]

1. The Commission erred in concluding that the Project would not have a significant impact on the quality of the human environment and that an EIS is not warranted.

a. The Commission erred in assessing the Project's context and intensity.

The Commission erred in concluding that the Project would not have a significant impact on the quality of the human environment. Major federal actions with significant effects on the environment, like the Project, must be subject to rigorous environmental screening under an EIS. To determine whether an EIS is warranted, FERC was required to consider the context in which Dominion plans to construct and operate an LNG export facility, and the intensity, or the degree, to which the Project will affect the environment and human health. 40 C.F.R. § 1508.27. In evaluating the Project's context, FERC highlighted "[t]he small amount of land involved in the project." Order ¶ 276. FERC then concluded that because "[t]he proposed Cove Point

[12] Motion to Intervene of Sierra Club, et. al. under CP13-113, dated May 3, 2014, Accession No. 20130503-5214; Comment of Sierra Club, et. al. under CP13-113, dated May 3, 2013, Accession No. 20130503-5215; Motion to Intervene of Chesapeake Climate Action Network under CP13-113, dated May 6, 2013, Accession No. 20130506-5102; Supplemental Information Submission by Sierra Club, et. al. under CP13-113, dated July 9, 2013, Accession No. 20130709-5054; Comments of EarthReports, Inc., et. al. Regarding the Local Safety Risks and Impacts of the Proposed Liquefied Natural Gas Export Facility under CP13-113, dated Sep. 26, 2013, Accession No. 20130926-5042; Comment of Chesapeake Climate Action Network under CP13-113, dated Oct. 23, 2013, Accession No. 20131023-5087; Letter Regarding Recent Amendment to Calvert County Zoning Ordinance of EarthReports, Inc., et. al. under CP13-113, dated Nov. 8, 2013, Accession No. 20131108-5136; Comment of EarthReports, Inc., et. al. Regarding Source of Gas and Update on Panama Canal under CP13-113, dated Feb. 19, 2014, Accession No. 20140219-5145; Comment of EarthReports, Inc., et. al. under CP13-113. Regarding Endangered Species Act Consultation, dated Feb. 24, 2014, Accession No. 20140224-5140; Letter Containing Questions about Infrastructure under CP13-113, dated Mar. 5, 2014, Accession No. 20140305-5085; Letter Regarding Atlantic Sunrise Project under CP13-113, dated Apr. 16, 2014, Accession No. 20140416-5141; Comment of Sierra Club, et. al. under CP13-113, re. EA, dated June 16, 2014, Accession No. 20140616-5269; Comment of EarthReports, Inc. et al., dated June 16, 2014, Accession No. 20140616-5276 (Public), Accession No. 20140616-5275 (CEII); Sources Supporting Comments of EarthReports Inc., et. al. under CP13-113, dated June 16, 2014, Accession No. 20140617-5026; Diana M. Dascalu-Joffe, ESQ Comments on Environmental Assessment for Dominion Cove Point LNG, LP, Preliminary Quantitative Risk Assessment conducted by Ricardo-AEA under CP13-113, dated June 30, 2014, Accession No. 20140707-5015; Additional Information of Sierra Club, et. al. under CP13-113, dated July 18, 2014, Accession No. 20140721-5006; Supplemental Comments of EarthReports, Inc., et al. under CP13-113, dated Aug. 4, 2014, Accession No. 20140804-5199 (Public), Accession No. 20140804-5200 (Privileged); Supplement to EarthReports, Inc., et al. June 16, 2014 Comments on EA. under CP13-113, dated Aug. 14, 2014, Accession No. 20140814-5064 (Public), Accession No. 20140814-5065 (CEII); Sierra Club's Filing of DOE's LNG Environmental Review Materials and Comments under CP13-113, dated Aug. 14, 2014, Accession No. 20140814-5001; Sierra Club's Filing of DOE LNG Environmental Review Materials and Comments under CP13-113, dated Aug. 14, 2014, Accession No. 20140814-5002.

Liquefaction Project is located on, and adjacent to, the footprint of the previously-approved Cove Point Terminal," "the proposed project's environmental impacts are expected to be relatively small in number and well-defined." *Id.* ¶ 32; *see also id.* ¶¶ 275-77.

Dominion's Project is far from a minor change over the status quo that will have limited, well-defined impacts on the environment. To construct the facility, Dominion will clear-cut nearly 100 acres of forest to make way for a construction staging area and a parking lot for 1,700 cars. EA at 13. The heavy construction equipment will be barged to a newly-built 166 foot pier that juts out into the Patuxent River. *Id.* at 28. The construction materials, which will be up to 150 feet long and weigh up to 330 tons, *id.* at 29, will be offloaded and taken to the laydown area on slow moving Self Propelled Mobile Transporters, massive trucks with many wheels to support the substantial weight of large construction materials. Supplemental Information - Implemenation [sic] Plan for Offsite Area B of Dominion Cove Point LNG, LP under CP13-113, dated Sep. 30, 2014, Accession No. 20140930-5346 at 1-2. At the existing terminal site, Dominion plans to construct a 130 megawatt, utility scale power plant to provide power for a newly constructed liquefaction facility. EA at 8. To operate the liquefaction facilities, Dominion will need to store potentially explosive chemicals, including propane, on site right next to the potentially unstable impurities that are stripped out of the natural gas feedstock before it is liquefied. *Id.* at 3. Dominion plans to place this entire infrastructure within its existing footprint—a 59.5 acre area within a 131-acre industrial site nestled between a state park and a residential area. *Id.* Once operational, Dominion expects to receive 85 LNG tankers at its offshore pier. *Id.* at 20. Each of these nearly 1,000 feet long tankers[13] will be loaded with between 16 million and 25 million gallons of ballast water to be discharged into the Chesapeake Bay. Application Cove Point Liquefaction Project of Dominion Cove Point LNG, LP under CP13-113, dated April 1, 2013, Accession No. 20130401-5045 ("Application"), Resource Report 2 at 2-24.

With all of this development, the Project is poised to have significant impacts. Indeed, the Project could threaten public safety (Section II.B.2, *infra*), introduce invasive species into the Chesapeake Bay (Section II.B.3, *infra*), jeopardize recovery of the critically endangered North Atlantic right whale (Section II.B.4, *infra*), spur significant upstream natural gas development (Section II.B.6, *infra*), and emit millions of tons per year of GHGs (Section II.B.7, *infra*). FERC previously has not considered the environmental consequences described above; these outcomes are unique to the export facility and thus were not considered when evaluating the import facility or expansions thereto. Thus, it is inappropriate to view Dominion's project as a modification with limited environmental impacts beyond what was previously studied. *Cf. Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 937 F. Supp. 2d 1140, 1156-57 (N.D. Cal. 2013) (rejecting agency's attempt to rely on prior environmental review in view of "new and significant environmental impacts" not subject to prior review).

Moreover, there is substantial controversy about the degree to which the Project will impact the environment. As is explained in Section II.B.6.a-b, *infra*, the Project is likely to stimulate additional natural gas production in the Marcellus shale region and pipeline development to ship the gas to Cove Point. Gas companies already have committed to supplying natural gas to Cove Point and are likely to increase development to meet this contract and others.

[13] Clarksons, Services/Broking/LNG, http://www.clarksons.com/services/broking/lng/ (last visited Oct. 14, 2014).

Natural gas pipelines are springing up to transport this gas to Cove Point to export. In addition to these upstream impacts, the impacts of the export Project also will be felt downstream. As is explained in Section II.B.7.b, the natural gas exported from Cove Point by Dominion's Japanese and Indian customers has one logical end; it will be burned halfway across the world. Intervenors consistently have explained that the environmental consequences of producing and transporting the gas are known, and must factor into FERC's review. However FERC has steadfastly refused to consider these effects, claiming they are uncertain and unknowable. Similarly, FERC has underestimated the effects of increasing shipping to the Bay on water quality and commercial and recreational ventures that depend on the health of the Bay. *See* Section II.B.3, *infra*. Letters and comments from government agencies and interested citizens cast doubt on FERC's conclusion that the effect of the induced additional natural gas development and the Project's contribution to climate change is unknown or uncertain.[14] Expert testimony likewise casts doubt on FERC's conclusion that increasing shipping to the Bay will not significantly affect water quality, species, or those who depend on the Bay for recreation and income.[15] Because there is a controversy about the extent of the Project's impacts on the Marcellus region, climate change, and the Bay, an EIS is warranted. *See* 40 C.F.R. § 1508.27(b); *Ctr. for Biological Diversity*, 937 F. Supp. 2d at 1157-58 (explaining that "[a] proposal is highly controversial when substantial questions are raised as to whether a project may cause significant degradation of a resource" and concluding that the controversy, centering around protests from government, environmentalists, and concerned citizens over the nature and extent of impacts, required study in an EIS (quotations omitted)).

Finally, even if Dominion were proposing a mere modification to an existing project, and not a substantial overhaul with significant effects, the small area in which Dominion has to add the infrastructure actually heightens the impacts. As Dominion must construct its facility within its existing footprint, the company plans to store the chemicals used in the liquefaction process and the chemical waste produced by the liquefaction process in storage tanks that are closer to each other than at other LNG export facilities. The chemical storage also is close to the area where trucks plan to load and unload the chemicals, and to a ground flare. The compressed room for storage increases the risk of catastrophic consequences should the containers fail or should an accident occur at the facility. *See* EA Comments at 5, 7-8.

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[14] *See, e.g.*, Waterkeeper Coalition Comment Letter re: DCP's Pre-Filing & Intent to Export LNG under PF12-16, dated Oct. 24, 2012, Accession No. 20121024-5100; Comments and Exhibit 1 of the Sierra Club under PF12-16, dated Oct. 24, 2012, Accession No. 20121024-5102; United States Environmental Protection Agency Submits Comments Re Notice of Intent to prepare an Environmental Assessment for the Planned Cove Point Liquefaction Project under PF12-16, dated Nov. 15, 2012, Accession No. 20121121-0008; Motion to Intervene of Sierra Club, et. al. under CP13-113, dated May 3, 2013, Accession No. 20130503-5214; Comment of Sierra Club, et. al. under CP13-113, dated May 3, 2013, Accession No. 20130503-5215; Comment of EarthReports, Inc., et. al. regarding Source of Gas and Update on Panama Canal under CP13-113, dated Feb. 19, 2014, Accession No. 20140219-5145; Letter Regarding Atlantic Sunrise Project under CP13-113, dated Apr. 16, 2014, Accession No. 20140416-5141; United States Environmental Protection Agency Submits Comments on the Environmental Assessment for the Cove Point Liquefaction Project under CP13-113, dated June 16, 2014, Accession No. 20140617-4003; EA Comments.

[15] Letter from Mario Tamburri, University of Maryland, Center for Environmental Science, Chesapeake Biological Laboratory, to Kimberley Bose, Federal Energy Regulatory Commission (June 2, 2014), Accession No. 20140602-5111; Letter from Mario Tamburri, University of Maryland, Center for Environmental Science, Chesapeake Biological Laboratory, to Kimberley Bose, Federal Energy Regulatory Commission (Nov. 11, 2013), Accession No. 20131112-5030.

Thus, FERC's narrow view of the Project context and its effects leads it to the improper conclusion that the Project will not significantly affect the environment. Dominion has proposed a massive industrial undertaking in largely rural Calvert County that is substantially different than the import projects that preceded it. The Project will not only increase impacts near the terminal site—for example, emitting air pollution including greenhouse gases and risking public safety and the continued recovery of the North Atlantic right whale—it also will affect regions upstream and down where the natural gas will be sourced and burned. The Commission ignored reasonable concerns about the Project's impact on the environment, and instead claimed that the impacts were narrow and well-defined. For this reason, the Commission has not made a convincing case that the potential impacts associated with transforming the import facility into a bustling export facility are insignificant, and thus FERC erred in failing to prepare EIS. *See Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846, 864 (9th Cir. 2005) (explaining that to avoid preparing an EIS, the agency bears the burden of "put[ting] forth a 'convincing statement of reasons' that explains why the project will impact the environment no more than insignificantly"); *cf. Ctr. for Biological Diversity*, 937 F. Supp. 2d at 1154 (explaining that "to prevail on a claim that the agency violated its statutory duty to prepare an EIS, a plaintiff need not show that significant impacts will in fact occur. It is enough for the plaintiff to raise substantial questions whether a project may have a significant effect on the environment").

b. The FONSI is predicated on unproven mitigation.

Throughout the Order and the EA, FERC claimed that many of the environmental consequences listed above will not be significant given Dominion's obligation to comply with environmental regulations. However, the cited regulations do not eliminate the impacts and, in fact, many remaining impacts could be significant. Thus, FERC has not provided a convincing case for its FONSI.

For example, in dismissing the potentially significant impacts on air quality, FERC argued that Dominion's efforts to avoid a violation of the National Ambient Air Quality Standards ("NAAQS") established under the Clean Air Act will negate impacts to air quality. Order ¶ 165; *id.* ¶ 172 (assuming compliance with the Clean Air Act negates potentially significant air impacts from hazardous air pollutants). As Intervenors noted in their EA Comments, FERC cannot assume that a project that does not cause a violation of the primary or secondary NAAQS, or otherwise violate the Clean Air Act, necessarily has insignificant effects on air quality. *See* EA Comments at 10-12. Available evidence indicates, for example, that the Project's nitrogen dioxide ("NO_2") emissions will contribute to NO_2 levels that are harmful to sensitive groups. The Environmental Protection Agency ("EPA") has recognized that pollution at the level of the NAAQS—i.e., one-hour exposures at 100 parts per billion—can adversely affect asthmatics.[16] EPA found in its Integrated Science Assessment[17] for one-hour NO_2

[16] Primary NAAQS for NO_2, 74 Fed. Reg. 34,404, 34,418, 34,422 (proposed July 15, 2009).

[17] Integrated Science Assessments are reports that represent a concise evaluation and synthesis of the most policy-relevant science for reviewing the NAAQS. These Assessments are required under the Clean Air Act and must reflect "the latest scientific knowledge useful in indicating the kind and extent of identifiable effects on public health or welfare which may be expected from the presence of [a] pollutant in ambient air." 42 U.S.C. § 7408(a)(2); *see also* EPA, *Air Quality: EPA's Integrated Science Assessments (ISAs)*, *available at* http://www.epa.gov/ncea/isa/basicinfo.htm.

NAAQS "that NO_2 epidemiologic studies provide 'little evidence of any effect threshold.'"[18] In other words, there is no NO_2 level below which health effects did not occur. Other research studies found negative health impacts from exposure to 1-hour daily maximum NO_2 concentrations at half the current NAAQS.[19] Congress also recognized that an "adverse effect" on public health may occur "*notwithstanding attainment* and maintenance of all national ambient air quality standards." 42 U.S.C. § 7470(1) (emphasis added); *see also Hawaiian Elec. Co. v. U.S. Envtl. Prot. Agency*, 723 F.2d 1440, 1447 (9th Cir. 1984) ("[The NAAQS] do not adequately protect against genetic mutations, birth defects, cancer, or diseases caused by long-term chronic exposures or periodic short-term peak concentrations, and hazards due to derivative pollutants and to cumulative or synergistic impacts of various pollutants."). Moreover, EPA currently is considering whether to revise the one-hour NO_2 NAAQS, and has concluded that studies released since the 2010 standard was adopted further confirm the connection between NO_2 and harmful health effects.[20] FERC therefore has not demonstrated that emissions at or even below the NAAQS levels will not cause a significant impact to air quality and public health.

Similarly, FERC concluded that Dominion's plan to purchase nitrogen oxide ("NOx") emissions offsets will eliminate all impacts. As is noted in the Order, Dominion purchased offsets to mitigate the impact of its NOx emissions on regional ozone formation. Order ¶¶ 168-70. However, nothing in the record demonstrates that the offsets, which represent emissions reductions outside of Calvert County, will ensure that the local emissions will not impair local health and welfare. *See* EA Comments at 10. Thus, FERC cannot rely on these offsets to demonstrate that the Project's NOx emissions will not significantly affect local human health and welfare.

FERC also relied on compliance with federal ballast water and biofouling regulations in concluding that increasing shipping to Dominion's terminal on the already struggling Chesapeake Bay will not have a significant effect on the environment. Order ¶ 129. However, as is noted in Section III.B.3, *infra*, these regulations do not eliminate the very real risk that increasing shipping to Cove Point will introduce invasive species, with potentially significant effects on the environment and human health.

Finally, in its safety analysis, FERC has continued to argue that Dominion's compliance with Department of Transportation ("DOT") safety regulations will eliminate any potentially significant risks to human health. However, FERC's failure to take a hard look at safety impacts—through a quantitative risk assessment—and failure to examine the limitations of the safety regulations does not ensure that remaining risks are insignificant. Similarly, the Commission's acceptance of Dominion's assertions that the presence of a 60-foot sound wall will mitigate the effects of potential hazards at the facility, including the risk that explosions of the ethane or propane tanks would send vapor clouds and shrapnel over or through the wall, is not supported. In the Order, the Commission required Dominion to provide information on the design of vapor barriers for the sound wall and procedures for maintaining the vapor barriers for

[18] 75 Fed. Reg. 6474, 6480 (Feb. 9, 2010).
[19] J.S. Schildcrout et al., *Ambient Air Pollution and Asthma Exacerbations in Children: An Eight-City Analysis*, 164 Am. J. Epidemiology 505 (2006), *available at* http://aje.oxfordjournals.org/content/164/6/505.full.pdf+html.
[20] *See* EPA, *Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (First External Review Draft), available at* http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=259167#Download).

the life of the facility. Order ¶ 204. In essence, FERC has admitted that it does not know whether constructing a sound wall can mitigate impacts from the vapor cloud or explosions for the life of the Project. In addition, as a condition of the Order, FERC required Dominion to "resize the Trucking Area Sump to adequately contain the maximum content of a condensate truck." Order Condition 30. The requirement to resize the trucking area likely follows from concerns raised by Intervenors regarding the risk of an explosion should any of the hazardous materials escape during loading and unloading. EA Comments at 7-8. However, FERC did not explain the condition, and has not provided guidance about the proper size of the area, nor has FERC disclosed the risk associated with either the resized or prior trucking area. With the current deficiencies in the Commission's safety review, it is not certain that the safety consequences of the Project are "well-defined," or that the mitigation measures will reduce the impacts to an insignificant level.

For all of these reasons, FERC has not supported its conclusion that the Project does not pose a significant risk to the environment and human health. As is noted in the EA Comments, where a FONSI is predicated on mitigation of impacts, the mitigation plan and measures must be "clearly described" and must be "enforceable."[21] EA Comments at 63. The missing analysis described in this section "is precisely the information and understanding that is required *before* a decision that may have a significant adverse impact on the environment is made." *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 733 (9th Cir. 2001) (emphasis in original). Thus, FERC did not have before it proper information on which to base its FONSI.

2. The Commission violated NEPA by conducting an inadequate review of the Project's potential safety effects.

Evaluating the effect that the Project will have on public safety is of paramount importance, especially because the LNG terminal is located in the midst of a residential community. *See Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 773, (1983) ("What is involved [in NEPA] is a declaration that we do not intend as a government or as a people to initiate actions which endanger the continued existence or the health of mankind." (quoting 115 Cong. Rec. 40416 (1969) (Remarks of Sen. Jackson)); *Brady Campaign to Prevent Gun Violence v. Salazar*, 612 F. Supp. 2d 1, 18 (D.D.C. 2009) (explaining that "[p]ublic safety . . . [is] indisputably encompassed within the definition of "environmental impacts" that must be considered pursuant to NEPA" and citing 40 C.F.R. § 1508.8 (defining environmental impacts to include "ecological, ... aesthetic, historic, cultural, economic, social, or health," effects, "whether direct, indirect, or cumulative"); 42 U.S.C. § 4331(b)(2)-(3) (requiring, as a means of fulfilling NEPA's goals, that the federal government use all means practical to ensure "that the Nation may . . . assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings" and "attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences").

[21] CEQ, Memorandum For Heads of Federal Agencies, Appropriate Use of Mitigation and Monitoring and Clarifying the Appropriate Use of Mitigated Findings of No Significant Impact 7 & n.18 (2011), *available at* http://energy.gov/sites/prod/files/NEPA-CEQ_Mitigation_and_Monitoring_Guidance_14Jan2011.pdf ("Mitigation commitments needed to lower the level of impacts so that they are not significant should be clearly described in the mitigated FONSI document and in any other relevant decision documents related to the proposed action. Agencies must provide for appropriate public involvement during the development of the EA and FONSI.").

Dominion's facility is directly across the street from a significant number of homes; some residences are even located fewer than 500 feet from the boundary of the Project. The Project also is immediately adjacent to Cove Point Park, a popular recreational facility with baseball fields and a swimming pool. Despite its residential surroundings, FERC has failed to evaluate important safety impacts in the context of the Project's local setting and did not consider sufficiently the intensity of those potential impacts, as required under Council on Environmental Quality ("CEQ") regulations. *See* 40 C.F.R. § 1508.27(a)-(b). The Project's context and the potential severity of impacts on nearby residents from an accident at the facility alone warrant the preparation of an EIS. *See Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1185 (9th Cir. 2008) ("If there is a substantial question whether an action 'may have a significant effect' on the environment, then the agency must prepare an [EIS]." (citing *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1212 (9th Cir. 1998))); *cf. Ocean Advocates*, 402 F.3d at 865 (explaining that an EIS is warranted when one of the intensity factors is met).

Instead of independently assessing the safety risks of the Project, as required by NEPA, FERC repeatedly relied on the existence of other agency regulations to assume the Project will not significantly impact public health and safety. Stating that Dominion will comply with a safety regulation promulgated by another federal agency is not the same as evaluating the safety impacts of the Project. Nevertheless, FERC assumes that other regulations negate the following legitimate concerns:

- The overall risk of the Project. The Order states that the Commission's review of the public safety risks of the Project is based on "a review of the siting analysis that Dominion must perform in order to comply with the DOT's regulations in 49 C.F.R. Part 193." Order ¶ 186.

- The risk of boiling liquid expanding vapor explosions. The Order summarily concludes that the risks of the largest spills possible of propane and LNG are not significant because the failure scenarios used in siting calculations for LNG facilities are addressed in DOT's regulations at 49 C.F.R. Part 193. *Id.* ¶ 191.

- Trucking hazardous materials to and from the Project. FERC does not address this risk but only points to other agencies' regulations and states that truck operators would have to comply with these rules. *Id.* ¶ 200.

- The risk of continued reliance on Dominion's existing outdated LNG storage tanks. The Order states only that the tanks "are subject to the DOT inspection and review." *Id.* ¶ 205.

- Inadequate security measures used to protect the facility. The Order states that all features needed to prevent unauthorized access will comply with DOT's requirements. *Id.* ¶ 213.

The Commission also refused to require Dominion to perform a quantitative risk assessment to evaluate the combined risks of the potential outcomes above. According to FERC,

it need not conduct a comprehensive review because "there are no quantified acceptance criteria for acceptable or tolerable risks in the U.S. regulatory framework." *Id.* ¶ 186. FERC acknowledged that "the 2013 edition of [National Fire Protection Association] 59A presents individual and societal risk acceptability criteria . . . ," but refused to apply these criteria to determine whether the risk from the Project was acceptable because these standards are not part of the regulations on LNG facility siting. *Id.* n.163. Where tools are available that would shed light on the risk of authorizing the project, NEPA requires that FERC use those tools to assess potential impacts. *Ctr. for Biological Diversity*, 937 F. Supp. 2d at 1159 ("Preparation of an EIS is mandated where uncertainty may be resolved by further collection of data, or where collection of such data may prevent speculation on potential effects." (quoting *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1240 (9th Cir. 2005)). FERC cannot reject these tools, and instead rely on Dominion's assumed compliance with federal regulations to conclude that the Project does not create a risk to public health and safety. NEPA requires FERC to take a hard look at impacts, not list the various regulations that apply to Dominion's proposed activity and assume that those regulations eliminate all impacts. *See, e.g.*, *Calvert Cliffs v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109,1124 (D.C. Cir. 1971) ("obedience to water quality certification [] is not mutually exclusive with the NEPA procedures. It does not preclude performance of the NEPA duties . . . [but] essentially establish a *minimum condition* for the granting of a license." (emphasis in original)).

Moreover, FERC's analysis completely ignores the reality that federal and state safety regulations cannot completely eliminate all potential risk to health and safety. Even with perfect compliance with the regulations, Dominion's project poses some level of risk to human health and safety. That remaining risk must be disclosed and evaluated in FERC's environmental review. To comply with its obligations under NEPA, FERC

> must examine both the probability of a given harm occurring and the consequences of that harm if it does occur. Only if the harm in question is so remote and speculative as *to reduce the effective probability of its occurrence to zero* may the agency dispense with the consequences portion of the analysis.

New York v. Nuclear Regulatory Comm'n, 681 F.3d 471, 482 (D.C. Cir. 2012) (emphasis added) (quotations omitted). FERC's analysis falls far short of this standard.

FERC also attempted to shirk its responsibility to evaluate the likely threats to public safety by arguing that other agencies, not FERC, enforce the regulations. For example, in arguing that it need not consider the risks of explosions from equipment failure, FERC claimed that "the Commission is not responsible for ensuring facility compliance with DOT's regulations." Order ¶ 219. Likewise, FERC dismissed the risk to on-site personnel and contractors, and failed to consider the risk of submerged objects puncturing LNG vessels, because other federal agencies have jurisdiction over personnel and marine safety. *Id.* ¶¶ 217, 201. As lead agency in the NEPA review, FERC is responsible for analyzing the full breadth of the Project's impacts. While FERC may solicit input from other agencies, it may not refuse to evaluate a potentially significant impact of the Project because another agency holds primary enforcement authority when the impact arises. *See Save Our Sonoran, Inc. v. Flowers*, 408 F.3d 1113, 1122 (9th Cir. 2004). Commentators have presented FERC with real concerns about the

Project's safety risks to the community, on-site workers, and the surrounding environment. The Commission may not shirk its duty under NEPA to evaluate the full breadth of all those reasonable foreseeable impacts.

Furthermore, available evidence strongly suggests that the Commission's conclusions in the Order regarding community safety are incorrect. Regarding the sufficiency of the evacuation zone and route, the Order specifically provided that "[a]s noted in Dominion's filing of June 27, 2014, the Calvert County Department of Public Safety has communicated to Dominion that the evacuation route is adequate." *Id.* ¶ 206; *see also* EA at 158. FERC did not undertake any independent review of that conclusion, which now appears to be false. The same week as the Commission authorized the Project, Dominion announced its plan to develop an alternative evacuation road for those living east of the Cove Point facility. *See* Sarah Fleischman, Dominion to Construct Bypass Road for Evacuation Route, Southern Maryland News, Oct. 7, 2014, http://www.somdnews.com/article/20141007/NEWS/141009385/1045&source=RSS&template=gazette; Timothy Wheeler, *Evacuation Route Eyed for Cove Point Gas Plant*, Baltimore Sun, Sept. 30, 2014, http://www.baltimoresun.com/business/bs-bz-cove-point-evacuation-route-20140930-8,0,4230025.story. The only logical conclusion from Dominion's desire to build a new evacuation route is Dominion's realization that the prior evacuation route—which routed residents living east of the facility directly in front of the facility—was insufficient to provide for community safety. Notwithstanding these announcements, on October 10, 2014, Dominion submitted its evacuation plan, with no mention of the new road. Supplemental Information to Environmental Condition 31 of Dominion Cove Point LNG, LP under CP13-113, dated Oct. 10, 2014, Accession No. 20141010-5165 at 5 (Evacuation Plan). FERC must reconsider its evaluation of the safety hazards of the Project in light of Dominion's about-face. The Commission also should not allow Dominion to proceed with any construction activity until the extremely important public safety concerns are resolved.

3. The Commission violated NEPA by failing to consider the impacts associated with substantially increasing the number and altering the type of vessels that will call at Cove Point under the export Project.

FERC violated NEPA by failing to account for the impacts associated with substantially increasing the number and altering the type of vessels that will be calling on Cove Point under the export Project. As Intervenors explained in their comments on the EA, increasing shipping to Cove Point risks the introduction of invasive species through ballast water discharges or by the release of biofouling organisms that attach themselves to the exterior of the ships. EA Comments at 14-18. In the Order, the Commission continues to dismiss the potentially significant impacts from industrialized shipping at Cove Point based on factually incorrect statements that the shipping does not risk impacts from ballast water intrusions. The Commission also improperly dismissed expert concerns about the inability of the ballast water and biofouling regulations to protect against the risk of invasion. For these reasons, FERC violated NEPA by failing to account for the significant impacts from ballast water discharges.

a. The Commission relies on incorrect statements that the export Project will not risk introduction of invasive species from ballast water.

In dismissing the impacts from increasing the industrialized shipping to Cove Point in its Order, the Commission relied on a misstatement from the Maryland Department of Environment Science Services Administration that "because the project does not entail increased shipping traffic over and above prior approvals, there is no anticipated increased risk of ballast water introduction from the project." Order ¶ 127. Putting aside whether the shipping impacts should be compared to prior approvals, the Science Services Administration absolutely is incorrect that the export Project does not increase the risk of pollution from ballast water discharges. Vessels calling on Dominion's import facility did not discharge ballast water into the Chesapeake Bay. The import vessels arrived at the terminal loaded with LNG. As they unloaded the LNG, they took up ballast water to maintain trim and stability. Vessels calling on the export facility will arrive loaded with ballast water to be discharged at the pier. The ballast water is discharged as the ships are loaded with LNG to be exported. Because import vessels did not discharge ballast water, whereas the export vessels will, Dominion's change in operations absolutely does present an increased risk that the ballast water will introduce invasive species or otherwise pollute the Bay.

In addition, the Science Services Administration is wrong to compare the effects of the LNG export facility to the effects expected under prior approvals. As explained in the discussion of the no action alternative, Section II.B.8, the Commission must compare the impacts of the Dominion's export Project not to the theoretical impacts of the import project, but to the current, on the ground conditions. Dominion's import facility is largely dormant and will remain so unless and until Dominion is able to export LNG. In 2011, the last official period reported by the United Stated Maritime Administration, Dominion received just 5 ships at its offshore pier.[22] Thus, receiving 85 ships at the export facility would represent nearly a 20-fold increase in natural gas tanker traffic to Cove Point. Each of these tankers, which can be over 1,000 feet long[23]—the equivalent of 15 average-sized blue whales, almost four football fields, and only slightly smaller than the Empire State Building—will be loaded with 16 to 25 million gallons (60,000 to 94,000 cubic meters) of ballast water, likely drawn from coastal waters of India and Japan, to be discharged into the Chesapeake Bay. *See, e.g.*, Application, Resource Report 2 at 2-24. This ballast water could be laden with invasive species, pathogens, including infectious bacteria such as cholera, and even radioactive material. Invasive species also can be introduced into the Bay as biofouling organisms attached to the exterior of the vessels. *See* Letter from Mario Tamburri, University of Maryland, Center for Environmental Science, Chesapeake Biological Laboratory,

[22] The Maritime Administration had previously maintained a spreadsheet showing vessel calls at vessel ports on its website. On a visit to the website on October 7, 2014, the spreadsheet was no longer available. It was cited in Intervenors comments on the Application and the Environmental Assessment. *See* Comments on the Application at 22 n.54; EA Comments at 15 & n.44. The spreadsheet was included on a DVD containing materials cited in the Comment of EarthReports, Inc. et al. on the Application. The DVD was submitted via First Class Mail to FERC and, to the extent possible, each party and each entity seeking intervention in the proceeding on May 14, 2013. *See* EarthReports, Inc. et al submit a DVD containing comments regarding Dominion Cove Point LNG, LP's application for authorization to construct, install, modify, own, operate, and maintain facilities for liquefaction and export of natural gas under CP13-113, dated May 14, 2013, Accession No. 20130521-0008.

[23] *See* note 13, *supra*.

to Kimberley Bose, Federal Energy Regulatory Commission (June 2, 2014), Accession No. 20140602-5111 ("Tamburri June 2014 Letter"); Letter from Mario Tamburri, University of Maryland, Center for Environmental Science, Chesapeake Biological Laboratory, to Kimberley Bose, Federal Energy Regulatory Commission (Nov. 11, 2013), Accession No. 20131112-5030 ("Tamburri Nov. 2013 Letter"). Together, the ballast discharges and fouling organisms threaten the health of the Chesapeake Bay and commercial and recreational fishing industries centered on the Bay.

b. The Commission improperly dismisses expert concerns that the ballast water regulations will not protect water quality in the Chesapeake Bay.

Both the EA and the Order briefly recognize the risk from ballast water discharges and increased shipping, but dismiss any concerns based on the Commission's view that the ballast water regulations will protect the environment. Order ¶ 129; EA at 53-55. In finalizing its conclusion that the ballast water discharges do not threaten the health of the Chesapeake Bay, the Commission rejected credible expert testimony that the ballast water regulations are not adequate to protect the quality of the environment. *See* Tamburri June 2014 Letter; Tamburri Nov. 2013 Letter.

According to FERC, the current regulations, which require an open ocean ballast water exchange, and the new regulations, which FERC claims will take effect before the Project is operational, provide best management practices. Order ¶¶ 127-29. FERC's dismissal of the potentially significant impacts from ballast water discharges ignores (1) the fact that implementation of the new ballast water regulations likely will be delayed as the Coast Guard has not yet certified any shipboard ballast water treatment equipment as meeting those standards; and (2) the fact that even the new regulations do not remove the threat of invasive species. *See* EA Comments at 15-18.

Ballast water discharge is governed by overlapping frameworks of U.S. Coast Guard ("USCG") regulations and EPA's General Permit for vessel discharges. In 2012, the Coast Guard promulgated the most recent regulations. Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters, 77 Fed. Reg. 17,254 (Mar. 23, 2012). In 2013, EPA issued the Vessel General Permit under the National Pollution Discharge Elimination System. *See* Vessel General Permit for Discharges Incidental to the Normal Operation of Vessels (effective Dec. 19, 2013), *available at* http://www.epa.gov/npdes/pubs/vgp_permit2013.pdf ("VGP"). The permit applies to all non-military and non-recreational vessels over 79 feet long (a category that includes all LNG tankers), and it regulates 27 categories of discharge from such vessels, including ballast water. *See* VGP §§ 1.1-1.2.

The USCG regulations and the VGP ballast water provisions create a complementary scheme regulating ballast water discharges. Both regulatory mechanisms set limits on the number of particular types of organisms that may be present per volume in ballast water intended for discharge into United States waters, 33 C.F.R. § 151.2030; VPG § 2.2.3.5, and both give ship owners and operators a choice of procedures that they may undertake to meet those standards. Owners and operators can choose between any of the following options to reduce the risk that ballast water discharges will introduce invasive species:

- Install and operate on-ship a USCG-approved Ballast Water Management System ("BWMS");
- Fill ballast tanks only with water drawn from a U.S. municipal water system;
- Discharge ballast water to an on-shore facility or another vessel for treatment; or
- Retain ballast water within ballast tanks while in U.S. waters.

See 33 C.F.R. § 151.2025(a); VGP § 2.2.3.5.1.1-2.2.3.5.1.4.

As FERC notes, in theory, the USCG regulations should be fully phased in before the facility is operational; the regulations require that vessels constructed after December 1, 2013 have the BWMS installed on delivery, and other large vessels must employ a BWMS by their first scheduled dry-docking after January 1, 2016. *Id.* § 151.2035(b). However, USGC has yet to approve *any* BWMS for use on ships, and thus has been forced to extend the deadlines.[24] Indeed, although the Independent Laboratory process for certification testing of BWMSs has been in place since June 2012, no system has been approved. The approval and certification process takes well over two years to complete, and installation process can extend up to another five years. Tamburri June 2014 Letter at 2. Thus it is unclear when, if ever, BWMSs will be available for use on LNG carriers.

Until the BWMSs are approved and installed, ships have the additional option of engaging in ballast water exchange at least 200 nautical miles from shore.[25] As explained in expert testimony submitted to the agency, "the ballast water exchange is limited in its ability to reduce the risk of ballast water invasive species." *Id.* at 2; *see also* 77 Fed. Reg. 17,254 (Mar. 23, 2012) (replacing regulations allowing for ballast water exchange because of practical constraints that prevent vessels from engaging in the exchange as well as evidence that the exchanges were not effective at preventing the unintentional introduction and dispersal of nonindigenous species into the waters of the United States). Thus, while the USGC and EPA have promulgated rules requiring better practices to reduce the risk of introducing invasive than the current open water ballast exchange, the new regulations are not currently in effect and are not necessarily likely to apply when the facility is operational. In the meantime, the old system, which is inadequate, remains in place.

Moreover, even when the new regulations apply, there is still a risk of invasion, Tamburri June 2014 Letter at 3, a risk that FERC ignores in authorizing the Project without requiring

[24] *Enforcement Response Policy for EPA's 2013 Vessel General Permit: Ballast Water Discharges and U.S. Coast Guard Extensions under 33 C.F.R. Part 151* (December 27, 2013), *available at* http://www2.epa.gov/sites/production/files/2013-12/documents/vesselgeneralpermit-erp.pdf.

[25] The interim ballast water management regime is outlined in a joint USCG and EPA enforcement response policy outlined in a December 2013 letter. *Id.* The USCG has granted extensions to vessels not compliant with the current ballast water discharge standards conditional upon their use of ballast water exchange in the interim, and the EPA has made violations of the VGP discharge standards by ships that have been granted such extensions a "low enforcement priority." *Id.*; *see also* Extension of Implementation Schedule for Vessels Subject to Ballast Water Management (BWM) Discharge Standards (Sept. 25 2013), *available at* http://www1.veristar.com/veristar/Dps_Info.nsf/1cc36b1a9995d368c1256f81002d8740/02cb86a73ef38a04c1257c0c002dae5b/$FILE/CG-OESPolicyLetter13-01.pdf.

mitigation beyond the current regulations. Order ¶ 128. FERC has not addressed the fact that National Research Council considers the USCG's 2012 regulations a mere "first step" that would reduce but not eliminate this risk. Tamburri June 2014 Letter at 2. The discharge limitations in the regulations are based on limited science. It is difficult to assess how many live organisms can be released safely in ballast water, and thus the limitations do not necessarily protect against the risk of invasion. The regulations therefore should be a starting point of the evaluation under NEPA of whether ballast water discharges will release invasives. *Id.* Moreover, the cyst or resting stage of bloom-forming toxic algae species are not only extremely difficult to identify and evaluate when testing ballast water management systems, they also are difficult to treat and remove even when known. *Id.* The ballast water treatment systems installed to meet the discharge limitations in the regulations therefore might not detect all potentially harmful species in the water, and might not effectively treat the water for those species. Given the deficiencies in the regulations, an expert warned that the regular influx of LNG tankers from India and Japan will create the "perfect scenario" for the introduction of invasive species. *Id.*

Despite the risk of invasion, the Commission found that there is no significant impact from increased shipping, and refused to require mitigation measures, such as the recommended use of an on-shore treatment system for ballast water. Tamburri Nov. 2013 Letter at 3. The Commission rejected on-shore measures because they would require the ships to install pumps to move the ballast water to shore, and because Dominion does not have the land available to construct the treatment plant. Order ¶ 130.

The impacts from ballast water discharges resulting from the approval of the Project are potentially significant. FERC has claimed that mitigation measures are not feasible. Thus the Project creates a substantial risk of introducing invasive species, with potentially significant effects on water quality and the human environment. These risks must be considered in an EIS, not an EA. Moreover, if the impacts cannot be avoided—for example, because of the facility's footprint—the Commission must consider whether it is appropriate to approve the Project. The compressed footprint cannot be an excuse to allow significant impacts. If Dominion cannot build the proper facilities to treat the ballast water and reduce the significant threat of invasion, FERC should strongly consider whether Dominion should be able to construct and operate the facility.

c. FERC improperly disregarded the potentially significant impacts from fouling organisms.

In both the EA and the Order, the Commission notes that fouling organisms, or organisms that attach themselves to the hulls of ships, could impact water quality and aquatic populations, yet the Commission dismisses these concerns in view of pertinent regulations. Order ¶ 128. Here too, the Commission has ignored credible expert testimony that the regulations are not sufficient to reduce the potentially significant impacts from invasive species.

The USCG practices for reducing fouling organisms require vessels to "[r]inse anchors and anchor chains when the anchor is retrieved" and "[r]emove fouling organisms from the vessel's hull, piping, and tanks on a regular basis." 33 C.F.R. § 151.2050(e)-(f). These regulations provide the ship owner or operator with substantial discretion as to how and when to rinse off the exterior of the ship, and do little to reduce the threat of invasion from fouling

organisms. Tamburri June 2014 Letter at 3. The regulations do not include enforceable standards to protect against the rapid spread of invasives from the exterior of ships. *Id.* FERC, however, has assumed that minimal requirements to rinse and clean the exterior will be met, and that these practices will reduce the risk of invasion, over expert testimony that the regulations fall far short of what is necessary to eliminate the substantial risk of introducing invasive species into the Chesapeake Bay. Tamburri Nov. 2013 Letter; Tamburri June 2014 Letter.

Fouling organisms already are a concern for the Chesapeake Bay. As explained in an expert submission to FERC, the Calvert Cliffs Nuclear Power Plant is spending millions of dollars in prevention and removal of an invasive species that likely was introduced on the outer surfaces of foreign vessels. Tamburri Nov. 2013 Letter at 2. According to the submission to FERC, the species is colonizing the intake pipes in the nuclear power plant's cooling water system, where it can reduce the flow of cooling waters. *Id.* The organisms attach to the pipes, but can periodically break loose, clogging filter screens and pump performance. *Id.* The clogging can lead to the need for unplanned maintenance, affecting plant operation and even resulting in increased generation of radioactive waste. *Id.* Because fouling organisms can spread rapidly and unpredictably from ships, and are an equal or greater source of invasive species than ballast water, the risk to the Bay and Bay-dependent activities is significant.

Despite the clear and significant risk of invasion, the Commission again found that there is no significant impact from increased shipping, and refused to require mitigation measures, such as the recommended use of periodic in water surveys and cleaning of vessels while in LNG receiving ports. Tamburri Nov. 2013 Letter at 3. In fact, the Commission does not appear to have considered this straightforward approach to reduce the risk of invasive species introduction through vessel biofouling, which would not require any physical modification to LNG carriers or any additional land, facilities, or resources at Cove Point. FERC erred in failing to acknowledge that significant risk in an EIS, or mitigate this significant risk.

4. The Commission violated NEPA and the ESA by failing to consider the impacts of the Project on the critically endangered North Atlantic right whale.

It is undisputed that the North Atlantic right whale is "the world's most critically endangered large whale species and one of the world's most endangered mammals." 78 Fed. Reg. 73,726 (Dec. 9, 2013). Only about 440 individuals remain, a population that is "precariously small for any large whale or large mammal population, particularly given that this population is frequently exposed to anthropogenic threats that result primarily from entanglement in commercial fishing gear and collisions with vessels." *Id.* Although the North Atlantic right whale population has exhibited some signs of recovery, the population's recovery rate is low compared to other large whales. 78 Fed. Reg. 73,726 (Dec. 9, 2013). Because of its small population, the loss of even one North Atlantic right whale would be devastating to the species.[26] Indeed, as the National Oceanic and Atmospheric Administration ("NOAA") recognizes, "even low levels of human-caused mortality can pose a significant obstacle for North Atlantic right whale recovery." 78 Fed. Reg. 73,726.

[26] NOAA, *Three vessels charged with violating Right Whale ship strike reduction rule pay penalties* (Jan. 10, 2012), available at http://www.noaanews.noaa.gov/stories2012/20120110_rightwhalepenalties.html.

Ship strikes are among the primary threats to the continued survival of the North Atlantic right whale. *Id.* at 73,727. The species' range includes nearly all the coastal waters of eastern Canada and the United States. *Id.* The whales are believed to winter and calve in the coastal waters off the southeastern United States and summer in the waters off of New England and Eastern Canada.[27] Because the species frequents the area around mouth of the Chesapeake Bay while migrating from winter to summer grounds, NOAA has established a Seasonal Management Area at the entrance of the Bay in an attempt to lessen the likelihood that ships transiting through this area will hit a whale. *See* 78 Fed. Reg. 73726 (Dec. 9, 2013). During specific times of year, vessels are required to reduce their speed when navigating through the Seasonable Management Area. *Id.* Since the adoption of these measures, however, NOAA's own scientists have found that compliance with NOAA's speed limits is extremely low.[28] Moreover, recent studies have shown that approximately 64% of whale ship strike deaths occurred outside protected zones, including in unregulated migration routes.[29] There studies raise serious questions regarding the future ability of NOAA's speed regulations to ensure the survival of the North Atlantic right whale.

Threats to the species also may increase due to a significant rise in current and future ship traffic at the mouth of the Chesapeake Bay. EA Comments at 21. For example, increased shipping to the Port of Baltimore, a major port on the Chesapeake Bay, will increase the size and frequency of ship traffic to the area. In the three-year period between 2008 and 2011 alone, there was a 15% increase in ship calls at the Port of Baltimore.[30] Recent and ongoing expansion projects at the Port of Baltimore will cause an increase in ship traffic through the mouth of the Bay over the life of the Project, in addition to allowing larger ships to use the Port's facilities.[31] Ship traffic along the East Coast also is likely to increase in the coming years due to major work on the Panama Canal.[32] In addition, developments in climate change science strongly suggest that the rising global temperatures will have substantial impacts on ocean habitats, including potentially causing shifts in the prey of the North Atlantic right whale and affecting female

[27] NOAA Fisheries, *North Atlantic Right Whales (Eubalaena glacialis)*, available at http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/rightwhale_northatlantic.htm.

[28] Gregory Silber, et al., *Compliance with Vessel Speed Restrictions to Protect North Atlantic Right Whales*, National Marine Fisheries Services, NOAA (June 3, 2014), *available at* http://www.noaanews.noaa.gov/stories2014/images/Silber%20et%20al.%20Regulatory%20Compliance.pdf (finding compliance at approximately 20% four and five years after the restrictions were put in place)

[29] Julie van der Hopp, et al., *Vessel strikes to large whales before and after the 2008 Ship Strike Rule*, Conservation Letters (May 2014), Accession No. 20140617-5026 at 10.

[30] *See* note 22, *supra*.

[31] *See, e.g.*, The Baltimore Sun, *$10 million grant to expand port of Baltimore* (Sept. 01, 2013), *available at* http://articles.baltimoresun.com/2013-09-01/news/bs-md-port-of-baltimore-expansion-20130831_1_masonville-marine-terminal-ships-state-grant.

[32] *See* Katie Johnson, *Panama Canal expansion to have major impact on Boston*, The Boston Globe (Mar. 16, 2014) ("The stakes are high for both the Panama Canal, which is rapidly losing shipping traffic to the larger Suez Canal in Egypt, and the eastern ports of the United States, which, along with Asia, have the most ships using the passage connecting the Atlantic and Pacific through the Isthmus of Panama…On the East Coast, Baltimore and Norfolk, Va., are ready for the bigger 'post-Panamax' ships; Miami and New York/New Jersey are making billions of dollars worth of improvements."), *available at* http://www.bostonglobe.com/business/2014/03/15/panama-canal-expansion-have-major-impact-boston-worldwide-shipping/lqz3iihcfpHWdTMS9ePDKO/story.html.

whales' ability to prepare for calving, carry a pregnancy to term, or produce enough milk for the calf.[33]

It is within this context that Dominion proposes to increase ship traffic to and from its facility from virtually nothing to approximately 170 ship transits per year. The additional transits to and from the facility say nothing of the 42 barges that will call on the temporary pier at Offsite Area B during construction of the liquefaction train. EA at 89. If the export facility is not permitted to move forward, it is likely that the Cove Point facility would cease operations. It therefore cannot be disputed that the Project will result in an increase in shipping traffic compared to actual current levels. Dominion's facility currently sits virtually idle, with only five ship calls in 2011.[34] LNG vessels range in size, and if Dominion's customers use smaller ships (although still very large vessels), the number of tanker calls may increase. Not only will the huge and unwieldy LNG tankers be crossing through the Seasonal Management Area at the opening of the Chesapeake Bay twice, once on the way to the facility and once on the way out, but they also likely will be navigating down the East Coast en route to the Panama Canal and therefore cross the North Atlantic right whale's habitat outside of the Seasonal Management Area. By adding 170 vessel trips through the North Atlantic right whales' migratory path, the Project certainly is likely to increase the risk of ship strike. Given the precarious nature of the North Atlantic right whale, any project that will increase shipping traffic in the whale's habitat must be evaluated carefully.

Although the ships traveling to and from the Project clearly have the potential to collide with North Atlantic right whales—and collisions, as NMFS recognizes, would gravely affect the overall health of the species—FERC and NMFS failed to examine critically the Project's potential impact on the North Atlantic right whale. Without any analysis or modeling, the agencies relied on a six-year-old review of the impacts associated with 2007 Dominion's import facility project to conclude that there was no threat to the species or significant environmental impact from an export project slated to begin operations in 2017 and remain active for at least 20 years.[35] The record is devoid of support for these conclusions, and yet NMFS refused to conduct a meaningful consultation process with FERC. In failing to ensure that a real consultation process took place, FERC shirked its responsibility to take a hard look at the consequences of increasing shipping through areas frequented by the critically endangered North Atlantic right whale and ensure the Project will not jeopardize the species' survival.

By incorporating NMFS' arbitrary conclusions into its own analysis, the Commission violated both NEPA and the ESA. FERC did not take a hard look at the potential impacts of the Project's increased shipping on the North Atlantic right whale and failed to ensure that the Project is not likely to jeopardize the continued existence of the species. The Commission's reliance on the 2007 analysis of Dominion's import facility was unreasonable because it ignored

[33] *See, e.g.*, New England Aquarium, *Climate change effects on ocean animals, available at* http://www.neaq.org/conservation_and_research/climate_change/effects_on_ocean_animals.php#rightwhales.
[34] *See* note 22, *supra*.
[35] Previously, NMFS and FERC engaged in informal consultation on the impact of Dominion's import facility, culminating in 2007 with NMFS requiring the development of a Vessel Strike Avoidance Measures and Injured or Dead Protected Species Reporting Plan (the "Plan"), concluding that no likely adverse effect was anticipated, and determining that no further consultation was required. Letter from Patricia Kurkul, NOAA to Alisa Lykens, FERC (Nov. 19, 2007) Accession No. 20091002-0097.

the changed conditions the critically endangered species is experiencing and will experience through the life of the Project, including increased shipping traffic and impacts from climate change. FERC also ignored evidence questioning the effectiveness of the speed restrictions NMFS relied on in 2007 to conclude that the species would not be jeopardized. In addition, FERC adopted unenforceable and insufficient mitigation measures, especially compared to other measures that have been adopted to protect the North Atlantic right whales from ship strikes from similar facilities.

a. FERC failed to take a hard look under NEPA at the Project's potential impacts to the North Atlantic right whale.

NEPA does not permit FERC to rely on an outdated analysis of potential impacts on endangered species, such as NMFS's 2007 assessment of Dominion's import facility operations.[36] To the contrary, NEPA specifically requires that a significance determination take into consideration the context, or "the setting in which the agency's action takes place." *Barnes v. U.S. Dep't of Transp.*, 655 F.3d 1124, 1139 (9th Cir. 2011) (citing *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 731 (9th Cir. 2001)); *see also* 40 C.F.R. § 1508.27; *Burkholder v. Wykle*, 268 F. Supp. 2d 835, 848 (N.D. Ohio 2002) ("[I]n preparing and/or reviewing the EA, the agency took a 'hard look' at all the relevant foreseeable consequences of a proposed action, in light of their *context* and intensity, and determined that no 'significant impact' to the environment would result." (emphasis added)). The passage of seven years, additional shipping, and potential impacts of climate change materially change the context in which the Project will operate, compared to prior projects. In the current context, the Project could significantly affect the North Atlantic right whale and the consideration NMFS and FERC gave to these potential impacts fell far short of the "hard look" standard under NEPA.

The requirement to take a "hard look" at the Project's impacts should have led FERC to ask for more in-depth consultation with NMFS about the consequences for the critically endangered North Atlantic right whale. *See Native Ecosystems Council v. U.S. Forest Serv.*, 418 F.3d 953, 964 (9th Cir. 2005) ("[t]o take the required 'hard look' at the proposed project's effects, an agency may not rely on incorrect assumptions or data"). Although NMFS is supposed to possess the expertise to assess these potential impacts, FERC should have known that NMFS's review did not seriously consider how the Project would effect the North Atlantic right whale. *See Nat'l Wildlife Fed. v. Norton*, 332 F. Supp. 2d 170, 176 (D.D.C. 2004) (citing *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87,88 (1983) and finding that "the presumption of agency expertise may be rebutted if the agency fails to articulate a 'a rational connection between the facts found and the choice made'").

The ESA "consultation" for the Project was completely muddled and did not provide FERC with a rational basis to conclude that Dominion's Project would not significantly affect the North Atlantic right whale. There is no mention of the North Atlantic right whale in the correspondence from NMFS relating to the Project until April 2014, which provided the post hoc rationalization that a September 2013 conclusion finding that the Project would not effect any species of concern—and made no mention of the North Atlantic right whale—actually was a

[36] NOAA, Supplemental Environmental Assessment for the Dominion Cove Point Liquefied Natural Gas (LNG) Terminal Expansion Project: LNG Ship Transit in United States Waters (May 2008), Docket USCG-2008-0035.

finding that reinitiation of consultation was not required as to the North Atlantic right whale.[37] Neither the September 2013 nor the April 2014 or any other correspondence provided by NMFS contained an analysis of why the Project would not effect the North Atlantic right whale.[38] When considering the fate of "the world's most critically endangered large whale species," it is incomprehensible how the passage of seven largely LNG-tanker free years since the last analysis would not alter conclusions about the potential for increased shipping to impact the species.

NMFS never explained and the Commission never questioned how increased ship traffic to the Chesapeake Bay and Baltimore Harbor since 2007 and stronger evidence about the impacts of climate change on a critically endangered species, as well as other threats,[39] did not constitute new information that mandated additional consideration under the ESA. Intervenors submitted a letter to the Commission in February 2014—long before the publication of the EA—that highlighted the deficiencies in the consultation process.[40] Intervenors repeated the same concerns in comments on the EA. EA Comments at 18-25. The Commission has had ample time to go back to NMFS and insist on a better review. Given that the death of even one North Atlantic right whale could spell disaster for the species, FERC's failure to request additional consultations with NMFS to revisit the six-year-old study hardly constitutes a "hard look." *See Nat'l Wildlife Fed. v. Norton*, 332 F. Supp. 2d 170, 172 (D.D.C. 2004) (invalidating findings in an EA that relied heavily on an invalid opinion from Fish and Wildlife Service).

Moreover, new information has emerged that undermines NMFS' 2007 conclusion that federal speed regulations in the Mid-Atlantic Seasonal Management Area will vitiate the threat of ship strikes from increased ship traffic caused by Dominion's operations. As Intervenors noted, NOAA's own 2014 studies found that in the four to five years after the regulations were put into effect the regulations are followed only 20% of the time.[41] Other recent studies raise serious questions about the risk of ship strike outside of the Management Areas.[42] This

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[37] NMFS initially stated in September 2013 that the Project, "specifically the construction/removal of a temporary offloading pier in the Patixent River and the discharge of ballast water…" would have no effect on listed species and that consultation under Section 7 of the ESA was not required. Letter from Mary Colligan, NMFS to Pamela Faggert, Dominion (Sept. 11, 2013) Accession No. 20131016-5164 at 10. But NMFS later "clarified" in April 2014 that its review of the Project actually had occurred under the standards for reinitiating consultation and that its conclusion in September 2013 actually was that the standards for reinitiating consultation had not been met. Letter from John Bullard, NOAA to Kimberley Bose, FERC dated Apr. 8, 2014, Accession No. 20140609-0036.

[38] *See also* The National Marine Fisheries Service submits comments on the 2014 Environmental Assessment for the Cove Point Liquefaction Project under CP13-113, dated Jun.3, 2014, Accession No. 20140609-0036, Enclosure 1 (dated Apr. 8, 2014).

[39] For example, after the publication of the EA, but before the issuance of the Order, the Bureau of Ocean Management issued a Record of Decision finalizing its decision on permitting seismic testing for offshore drilling in the Mid and South Atlantic. Bureau of Ocean Energy Management, Record of Decision, Atlantic OCS Proposed Geological and Geophysical Activities Mid-Atlantic and South Atlantic Planning Areas, Final Programmatic Environmental Impact Statement (PEIS) (July 23, 2014). The Record of Decision incorporated the analysis done by NMFS in a Biological Opinion with an Incidental Take Statement indicating that the seismic testing could negatively impact the North Atlantic right whale. *See* NMFS, Programmatic Geological and Geophysical Activities in the Mid- and South Atlantic Planning Areas from 2013 to 2020, Supplemental Seismic Take Tables (Mar. 7 , 2014)

[40] Comment of EarthReports, Inc., et. al. under CP13-113. regarding Endangered Species Act Consultation, dated Feb. 24, 2014, Accession No. 20140224-5140.

[41] *See* note 28, *supra*.

[42] *See* note 29, *supra*.

information was not available during the 2007 review and should have been considered by NMFS and FERC in determining the extent of the Project's impacts on the North Atlantic right whale.

In addition, the mitigation measures proposed in the EA and noted in the Order also do not adequately address the impacts of the Project. *See* Order ¶ 142; EA at 71. In particular, the Vessel Strike Avoidance Measures and Injured and Dead Protected Species Reporting Plan ("Plan") that was adopted pursuant to the 2007 informal consultation for the import facility contains significantly weaker protections for North Atlantic right whales than those contained in strike avoidance plans for similar facilities. Intervenors noted these deficiencies in detail in their EA Comments. EA Comments at 24-25. Intervenors also provided an example of a strike avoidance plan adopted by another LNG terminal that contains significantly more protective measures. *Id.* Of greatest concern is the fact that nothing in the Plan requires the ships calling on Dominion's terminal to comply with the Plan's conditions. Instead, the Plan merely "requests" compliance from the ships transiting through North Atlantic right whale's habitat and contains no method to enforce the Plan's provisions or penalize ships for noncompliance. This type of mitigation measure is an insufficient basis for determining a lack of significance. *Pres. Coal., Inc. v. Pierce*, 667 F.2d 851, 860 (9th Cir. 1982) ("When the compensatory action is to be undertaken by third parties, their commitments . . . must be more than mere vague statements of good intentions.").

b. FERC failed to comply with the ESA and ensure that the Project will not likely jeopardize the continued existence of the North Atlantic right whale.

Under section 7(a) of the ESA, FERC has an ongoing duty to ensure that each action it takes "is not likely to jeopardize the continued existence of any endangered species or threatened species." 16 U.S.C. § 1536(a)(2). An action will cause jeopardy if it "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. To fulfill its obligation under the ESA, FERC must initially determine whether the Project "may affect" a listed species, such as the North Atlantic right whale. 50 C.F.R. § 402.14(a). In making this determination, FERC is required to " use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2); *see also Pub. Emps. for Envtl. Responsibility v. Beaudreu*, 2014 WL 985394, * 3 (D.D.C. Mar. 14, 2014); *Conserv. Law Found. v. Watt*, 560 F. Supp. 561, 571-72 (D. Mass. 1983) ("Compliance with this requirement requires a 'first class effort' on the part of the agency . . . .). If there is any risk of harm—even one that is minimal or "highly unlikely"—FERC must engage in either formal or informal consultations with NMFS. *See Colo. Envtl. Coal. v. Office of Legacy Mgmt.*, 819 F. Supp. 2d 1193, 1221-22 (D. Colo. 2011); *see also Pac. Shores Subdiv. Cal. Water Dist. v. U.S. Army Corps of Eng'rs*, 538 F. Supp. 2d 242, 261 (D.D.C. 2008) (term "may" is "broadly interpreted" under ESA regulations).

As noted above, the number of LNG tankers trips occurring in the right whales' migration route at the mouth of the Chesapeake Bay each year will increase to approximately 170. It is reasonable to expect that the increased traffic of massive and unwieldy LNG tankers will increase the risk of ship strikes from current levels. Because vessel strikes are among the

gravest threats to survival of the species, permitting additional traffic clearly has the potential to reduce appreciably the likelihood of the survival of the species.

Nevertheless, the consultation process between NMFS and FERC failed to establish a sufficient record to justify either NMFS' conclusions that the Project would have no effect on any listed species and/or that reinitiation of consultation was not required[43] or FERC's conclusion that "the [P]roject is not likely to adversely affect the North Atlantic right whale." *See* EA at 72; Order ¶ 142. Neither agency used the best available scientific data in concluding that the Project will not likely adversely affect the North Atlantic right whale. Instead, they relied on a dated analysis that failed to consider current and future baseline shipping traffic in the area or the potential for climate change to threaten an already critically endangered species; and relied on speed regulations whose effectiveness has been questioned by recent studies and mitigation measures that pale in comparison to steps taken in similar cases where the same species was threatened. The agencies also should have considered how current and future development of area ports and other infrastructure, such as offshore drilling and seismic activities, as well as climate change might affect on the North Atlantic right whale and compound the effects of the Project. *See Wilderness Soc'y., Ctr. for Native Ecosystems v. Wisely*, 524 F. Supp. 2d 1285, 1305 (D. Colo. 2007) (setting aside an informal consultation that did not consider how development in land outside the project area might have impacts on an endangered cactus). The ESA requires FERC to ensure, using the most up-to-date information, that approving the Project will not jeopardize a species. Here, the Project may indeed affect a species whose existence may be threatened by the death of even one individual whale. The Commission's analysis of the Project falls far short of the "first class effort" required by the ESA.

5. The Commission erred by failing to consider the impacts of climate change on the proposed facility and the resulting heightened environmental impacts of the Project.

The Commission erred by failing to consider the impacts of climate change on the proposed facility and the resulting heightened environmental impacts of the Project. NEPA requires the Commission to consider the context of the Project and evaluate the significance of the Project's impacts in light of its location and lifespan. 40 C.F.R. § 1508.27(a)-(b). FERC's analysis of the Project however fails to consider the extent to which the impacts of climate change in the Chesapeake Bay area could heighten the impacts of the Project and cause significant environmental effects. Intervenors provided extensive comments on this issue in the EA Comments. EA Comments at 25-29. In particular, Intervenors' EA Comments noted the following climate change impacts that could significantly impact the Project:

> (1) the impacts of storm surge on the pier and associated infrastructure;
> (2) the impacts of more significant storms and hurricanes on the LNG facility; and
> (3) the impacts of more significant storms and hurricanes on the ships traveling up and down the Chesapeake Bay to Dominion's facility.

[43] *See* note 37.

Id. at 25. The Commission however ignored these comments in the Order, noting only that:

> EPA and Earthjustice request that the EA address the measures in place to protect the proposed facilities from future climate change impacts. The EA identifies the potential climate change impacts most likely to affect the facilities would be from increased sea level risk and storm surge. Further, the EA states that the project facilities would be constructed at sufficient elevation to avoid conflict with future projected sea level rise and storm surge.

Order ¶ 247.

The Commission therefore still has not analyzed or even addressed the potential impacts raised in Intervenors' EA Comments. Although FERC mentions in the Order that the facility will comply with regulatory requirements for establishing design wind speeds, this is not the same as analyzing the risks posed to the Project from more intense winds and storms. *See* Order ¶ 211. There is clear scientific consensus that increased anthropogenic concentrations of GHGs in the atmosphere are causing global temperatures to rise and that the Atlantic Coast of North America will experience effects of climate change such as more intense hurricanes and storm events. *See* EA Comments at 26-27. FERC's failure to consider how these potentially significant climate change effects could heighten the impacts of the operation of the Project therefore constitutes a failure to take the hard look at Project impacts required under NEPA.

6. The Commission erred in concluding that the environmental consequences of induced gas production were not indirect effects of the Project that the Commission must consider in its environmental review.

The Commission's EA and Order unlawfully conclude that the environmental consequences of producing and shipping natural gas to Cove Point are not indirect effects of the Project that must be evaluated under NEPA. Throughout the EA and the Order, the Commission wrongly concludes that the anticipated future natural gas drilling in the Marcellus region, above and beyond current production levels, as well as changes in the pipeline systems to ship the gas to Cove Point, are not sufficiently connected to Dominion's Project to warrant consideration. Order ¶¶ 226, 249; EA at 163. The Commission offers three equally faulty reasons for dismissing these impacts. First, the Commission would have Intervenors show that *all* Marcellus shale drilling is "an essential predicate" to the Project moving forward, rather than accepting that *additional* natural gas production on the Marcellus shale is a reasonably foreseeable consequence of the additional demand created by the Project. Order ¶ 228. Second, the Commission demands near certainty about the number, size, and location of the newly drilled wells and pipelines before it will consider the impacts associated with the induced natural gas production. *Id.* ¶¶ 231-33; EA at 163. NEPA, however, requires the Commission to undertake reasonable forecasting and take account of likely impacts. Moreover, in arguing that there are too many unknowns associated with the additional natural gas production, the Commission fails to take account of statements by natural gas producers and pipeline companies about their plans to produce and pipe gas to Cove Point. Finally, the Commission wrongly concludes that it cannot consider the environmental consequences of natural gas production because it does not have the

authority to regulate production. EA at 25. NEPA is concerned with ensuring that certain actions requiring federal approval do not go forward without a robust environmental review of all of the environmental consequences, not just those consequences that the agency can regulate directly.

a. The Commission misapplied the causation test.

In its Order, FERC refuses to consider the environmental consequences of the likely increases in natural gas production in the Marcellus shale to meet Dominion's export customers' needs. Before FERC will consider the effects of additional production, it demands proof that the newly produced gas is an "essential predicate" for the export Project. Order ¶¶ 227-28. Moreover, according to FERC, because the natural gas industry is alive and well in the Marcellus shale, and likely will continue with or without the export Project, production in the Marcellus shale is not causally connected to the Project. Order ¶¶ 228-29. The Commission's approach misinterprets NEPA's requirement to consider reasonably foreseeable indirect effects of a Project. Certainly, as the Commission recognizes, Dominion's proposal to export natural gas from Cove Point is dependent on having natural gas to export. *Id.* ¶ 231 ("it is axiomatic that natural gas exports require natural gas supplies"). In this way, natural gas production is an "essential predicate" to the Project moving forward. Nevertheless, while the Commission accepts that it is self-evident that Dominion's export Project requires natural gas inputs, it unlawfully fails to account for the likely increase in natural gas production in the Marcellus shale region to meet Dominion's customers' needs, or the likely pipeline development to ship the gas to Cove Point.

The indirect effects of a project that must factor into the NEPA review 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). Under this standard, agencies routinely are required to consider the environmental consequences associated that follow from approval of an infrastructure project. For example, in approving a railway line that would carry coal, agencies have been required to consider the environmental consequences of producing and burning the coal to be carried on the rails. *See N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1081-82 (9th Cir. 2011) (finding that NEPA review must consider induced coal production at mines, which was a reasonably foreseeable effect of a project to connect two rail lines that would carry coal, especially where the company proposing the railway line anticipated induced coal production in justifying its proposal); *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549-50 (8th Cir. 2003) (environmental effects of increased coal consumption due to construction of a new rail line to reach coal mines was reasonably foreseeable and required evaluation under NEPA). Likewise, in authorizing an electric transmission line, an agency has been required to consider the environmental consequences of generating the additional electricity that will be carried on those lines. *Border Power Plant Working Group v. Dept. of Energy*, 260 F. Supp. 2d 997, 1028-29 (S.D. Cal. 2003). Similarly, when authorizing a highway, agencies have been required to consider the foreseeable growth and development around the highway. *City of Davis v. Coleman*, 521 F.2d 661, 674-77 (9th Cir. 1975) (environmental review for highway project needed to analyze impact of induced development despite uncertainty about pace and direction of development). Based on these cases, the EA must account for the fact that the export Project will induce natural gas production in the Marcellus shale, the nearest shale

formation that is connected to Cove Point, and cause reasonably foreseeable changes to pipeline infrastructure to transport the gas to Cove Point

Nothing in NEPA, its regulations, or applicable case law limits the requirement to evaluate the effects of the development following from a project to those situations where the project is responsible for causing all, as opposed to some, of the development in the area. Intervenors are not asking FERC to attribute the impacts of the entirety of Marcellus production or the entirety of the pipeline development to Dominion's Project, just the impacts associated with the reasonably foreseeable increased production and pipeline development.

FERC is allowing Dominion to construct and operate a facility that can process up to 1 billion cubic feet of natural gas per day for export. The U.S. Energy Information Administration ("EIA") estimates that 60 to 70 percent of the demand created by export projects will be met by new natural gas development.[44] Moreover, Dominion itself has candidly stated that the Project will "support ongoing supply development" (that is, stimulate production in gas fields),[45] and "presumes that the Project customers selected [its] facility as their location for export due to its proximity to natural gas supplies in the northeastern United States." EA at 176. It therefore is very likely that natural gas production companies will enter into contracts with Dominion's customers, and will increase their supply through additional natural gas production to meet this new demand.[46] Where pipelines do not exist to ship the newly produced gas to Cove Point, it is reasonably foreseeable that new pipelines will be built.

Indeed, a natural gas production company, Cabot Oil & Gas Corporation ("Cabot"), has entered into a 20-year supply commitment to ship gas to Cove Point, and is likely to ship that gas to Cove Point via a newly proposed pipeline. *See* EA Comments at 32-40; *id.* at 51-53. Contrary to FERC's unsupported conclusions in the EA and the Order, the Project's proximity to the Marcellus shale therefore makes it reasonably foreseeable that the additional development induced by the Project will take place in the Marcellus region. *See* Order ¶ 226; EA at 25. Demand might not induce production immediately, however, it will affect the regional natural gas market and it makes induced development eminently foreseeable. *See Mid States*, 345 F.3d at 549 (rejecting the argument that an environmental impact statement for new rail project that would make available 100 million tons of low-cost coal need not take account of an increase

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[44] EIA, *Effect of Increased Natural Gas Exports on Domestic Energy Markets* 6, 10 (2012), *available at* http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf.

[45] Dominion Cove Point LNG, LP, Application for Long-Term Authorization to Export LNG to Non-Free Trade Agreement Countries, FE Docket No. 11-128-LNG at 15 (Oct. 3, 2011); *id.* at 9 ("LNG exports will increase the opportunities for more robust development of energy resources, not only natural gas but also natural gas liquids (NGL) and oil resources that are also found in the shale formations.").

[46] *See, e.g.*, *id.*; *see also* Dep't of Energy, Off. of Fossil Energy, Order Conditionally Granting Long-Term Multi-Contract Authorization to Export LNG, DOE/FE Order No. 3331, FE Docket No. 11-128-LNG at 141 (Sept. 11, 2013) ("DOE Conditional Approval") (noting data finding that the natural gas industry would increase natural gas supply in response to increasing exports); EA Comments at 32-40 (noting analyses that suggest that some of the demand for exports will be met with increased natural gas production); *Accord* DOE, Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the US, at 1 (2014), *available at* http://energy.gov/sites/prod/files/2014/08/f18/Addendum.pdf (expressing the position that "LNG export volumes would be offset by some combination of increased domestic production of natural gas (principally from unconventional sources), decreased domestic consumption of natural gas, and an adjustment to the U.S. net trade balance in natural gas with Canada and Mexico."); *see also id.* at 5.

power plant emissions; as the court observed, even if the project would not affect the short term supply of coal, the rail project would "most assuredly affect the nation's long-term demand for coal," with consequences for the environment).

FERC cannot ignore the above predictions, and must consider the environmental impacts associated with this reasonably foreseeable increase in natural gas production and infrastructure development—including the increased air, water, and climate pollution, and habitat fragmentation—in its environmental review.

b. The Commission's EA and Order wrongly demand certainty, down to the very wellhead, about the location of the addition wells before accounting for induced natural gas production.

The Order unlawfully ratifies the Commission's failure to consider the effects of additional natural gas production and pipeline development based on the alleged uncertainty of these actions. In the Order, FERC repeated its concern that "assessing where the gas processed by the project will originate, much less where the wells, gathering line locations and the potential associated environmental impacts will occur, would require significant speculation." Order ¶ 231; *see also* EA at 25. However, the Commission need not know the exact location of each and every additionally drilled well before it is required to consider the environmental consequences of increasing the supply of natural gas to meet the demand created by Dominion's Project.

"[T]he basic thrust of NEPA is to require that agencies consider the range of possible environmental effects before resources are committed and the effects are fully known." *Ctr. for Biological Diversity*, 937 F. Supp. 2d at 1157 (quotations omitted). To meet NEPA's goal of ensuring that decisionmaking goes forward in full view of the environmental consequences, agencies are required to engage in "[r]easonable forecasting and speculation." *City of Davis*, 521 F.2d at 676. FERC, thus, has an obligation to forecast the consequences of additional natural gas production in the Marcellus shale region generally, and the consequences of the foreseeable pipeline development, even if it cannot know the exact consequences at each and every wellhead. Indeed, "[t]he government's inability to fully ascertain the precise extent of the effects of [the activity] is not . . . a justification for failing to estimate what those effects might be before irrevocably committing to the activity." *Ctr. for Biological Diversity*, 937 F. Supp. 2d at 1158 (quoting *Conner v. Burford*, 848 F.2d 1441, 1450 (9th Cir. 1988)).

Here, as EPA explained in its comments on the EA, FERC could follow the Department of Energy's lead and undertake a conceptual analysis of the impacts of natural gas production like that included the Department's "Draft Addendum To Environmental Review Documents Concerning Exports of Natural Gas from the United States." *See* EPA, Detailed Comments on the Federal Energy Regulatory Commission's Environmental Assessment, Cove Point Liquefaction Project, Docket No. Cp13-113-000, dated June 16, 2014, Accession No. 20140623-0072, at 1-2. Intervenors also summarized research on the likely impacts of additional natural gas production and pipeline development, from the increased air, groundwater, and surface water pollution, and habitat fragmentation from drilling additional wells and putting in additional gathering and transmission lines, in their comments on the EA. *See* EA Comments at 40-50, 53 (summarizing the environmental consequences of induced natural gas and pipeline development). FERC should include a similar assessment of the risks of the reasonably

foreseeable natural gas production and pipeline transmission systems that will undoubtedly spring up to meet the demand created associated with exporting natural gas from Cove Point in its environmental review. *Ctr. for Biological Diversity,* 937 F. Supp. 2d at 1158 (concluding that "it was unreasonable for [the agency] not to at least consider reasonable projections of drilling in the area that include fracking operations [under NEPA] . . . until more specific information becomes available" given the agency's obligation to engage in reasonable forecasting about likely outcomes of the decision to sell oil and gas leases).

Moreover, to the extent that FERC demands certainty about exactly where the effects of natural gas production will be felt, it has an obligation to use the available tools and market announcements to estimate the impacts. FERC however has dismissed using tools such as the National Energy Modeling System ("NEMS") developed by the EIA to evaluate the natural gas markets and begin to predict where additional natural gas development will occur in response to the Project. Order ¶¶ 234-35; *see also* EA Comments at 32-34 (offering NEMS and other industry models as a starting point for FERC's analysis of where natural gas production will occur in response to the Project). According to FERC, it would not be useful to use NEMS to evaluate market conditions now given the complexity of estimated future events. *Id.* ¶ 235. Likewise, FERC notes that the EIA report "makes no findings with regard to induced production caused by the specific project before us." *Id.* FERC's conclusory critique of NEMS and the EIA report misses the point: tools exist that the Commission can and should use to evaluate and understand how the natural gas market will respond to export projects.

In addition to these general tools, Intervenors provided the Commission with evidence that Cabot had entered into a contract with one of Dominion's customers to supply natural gas to Cove Point for export. EA Comments at 34-40. Further announcements suggest that Cabot will be able to ship this gas to Cove Point via a newly proposed natural gas pipeline that will plug into the Pleasant Valley Interconnect, one of the three connections to the Cove Point line. *Id.* at 51-53. Thus, FERC is wrong to claim that "the source of the gas to be exported via any individual project is speculative and would likely change throughout the operation of the project." Order ¶ 231. Cabot has committed to supply gas to one of Dominion's customers for the entire 20-year period for which FERC is authorizing the Project. EA Comments at 34-40. Cabot also has entered into an agreement to ship gas on a new pipeline that will connect to Cove Point. *Id.* at 51-53. These announcements provide FERC with the information it needs to evaluate the location of half of the additional development, as well as location of pipelines that are springing up to support Cove Point.

FERC however has not used available tools or market announcements to consider the effects of reasonably foreseeable development. Instead, FERC complains that the "purchase and sale agreement with Cabot has not been submitted as part of the record in [this] proceeding." Order ¶ 233. Intervenors would have submitted the sale and purchase agreement if it were publicly available. Intervenors provided FERC with information about how the natural gas industry was responding to the export Project's demand for natural gas. FERC, not Intervenors, had an obligation to investigate these announcements and understand the environmental consequences of the market response. If FERC demanded the sale and purchase agreement, it was in a position to seek it out. Instead, FERC chose to bury its head in the sand, and argue that it does not have sufficient facts about the market response. FERC cannot demand certainty about the location of additional well pads, gathering lines, and transmission systems, and refuse to

investigate announcements that would provide additional clarity. In fact, to the contrary, that additional study could resolve uncertainty about impacts means that FERC should have undertaken that study in an EIS, not stopped with its deficient EA. *Ctr. for Biological Diversity,* 937 F. Supp. 2d at 1159 ("Preparation [of an EIS] is mandated where uncertainty may be resolved by further collection of data, or where collection of such data may prevent speculation on potential effects." (quoting *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1240 (9th Cir. 2005)). Given the evidence before it, the Commission was wrong to refuse to consider the environmental consequences of additional natural gas production in the Marcellus shale and the infrastructure to transport the gas to Cove Point. Instead, FERC should have used that evidence to evaluate the range of potential consequences in an EIS.

c. The Commission erred in refusing to consider the environmental consequence of natural gas production activities that extend beyond its regulatory authority.

Finally, the Commission erred in failing to account for the indirect effects of natural gas production and pipeline development based on the Commission's concern that it cannot directly regulate all elements of natural gas production. EA at 25 (claiming that the Commission not consider the indirect impacts of natural gas development because "[its] authority under the NGA and NEPA review requirements relate only to natural gas facilities that are involved in interstate commerce"). As stated in the comments on the EA, the fact that FERC does not regulate gas production wells, or other links in the natural gas supply chain, does not mean that FERC does not have to consider the environmental effects of this development under NEPA. Under NEPA, FERC is tasked with evaluating the direct, indirect, and cumulative impacts of exporting LNG from Cove Point. While FERC might not have the authority to regulate all of the impacts associated with the Project, FERC's substantive decision as to whether to authorize the Project depends on its assessment of these impacts. If environmental consequences of an action are too great and cannot be offset, the Commission can refuse to authorize the Project. In this way, FERC has a responsibility and ability to account for the Project's indirect effects, and those indirect effects are within its jurisdiction.

Courts have recognized that NEPA brings the environmental consequences of an action within the reviewing agency's authority. For example, a court recently rejected the argument by the Bureau of Land Management ("BLM") that it need not consider the consequences of fracking on leased lands before issuing an oil an gas lease because the consequences of fracking were "are not under the authority or within the jurisdiction of the BLM." *Ctr. for Biological Diversity*, 937 F. Supp. 2d at 1156 (citations omitted). As the Court explained, "[i]f nothing else, it is unclear exactly how the issue of the environmental impact of fracking could lie outside BLM's 'jurisdiction' when NEPA plainly assigns all studying all environmental impacts of its own decision to BLM. Put another way, if not within BLM's jurisdiction, then whose?" *Id.*

Likewise, the Ninth Circuit has rejected the Army Corps' attempts to narrow the scope of the NEPA review to consequences to waters within its jurisdiction. As the Court explained, "while it is the development's impact on jurisdictional waters that determines the scope of the [Army Corps of Engineers'] *permitting authority*, it is the impact of the permit on the environment at large that determines the Corps' *NEPA responsibility*." *Save Our Sonoran*, 408 F.3d at 1122 (emphasis added). Similarly, courts have required the Surface Transportation

Board to consider impacts railroad construction would have on coal combustion and coal mining without regard for the Board's lack of authority to regulate these issues. *Mid States*, 345 F.3d at 545-51; *see also N. Plains Res. Council*, 668 F.3d at 1081-82. Thus, FERC's lack of authority to regulate gas production under the NGA does not excuse it from its obligation under NEPA to evaluate the impacts of Project-induced production. To the contrary, FERC's failure to consider these indirect effects is a violation of NEPA.

7. The Commission erred by failing to account for the full extent and impacts of greenhouse gas emissions that reasonably will result from the Project.

The Commission erred by failing to account for the full extent and impacts of GHG emissions associated with the Project. FERC recognized some of the Project's direct GHG emissions, but in general its analysis of the climate consequences of approving the Project is flawed for three separate reasons. First, FERC understated the Project's direct GHG emissions by failing to convert methane emissions to their carbon dioxide equivalent using readily accepted scientific figures, and erred in concluding that the direct emissions were themselves significant. Second, FERC ignored the Project's potentially significant indirect GHG emissions by failing to account for the emissions associated with sourcing the gas for export and transporting and burning that gas overseas. Finally, FERC improperly refused to account for the climate change impacts that likely will result from these emissions, ignoring tools that translate greenhouse gas emissions to impacts, such as the social cost of carbon.

a. The Commission improperly discounted the extent and significance of the Project's direct greenhouse gas emissions.

FERC mischaracterized the significance of the Project's direct emissions. The Project will emit GHG pollution with a potential to significantly affect the environment. The EA concludes that the Project will directly emit more than two million tons per year of CO_2e.[47] These emissions are nearly two orders of magnitude greater than the threshold the CEQ has set, in draft guidance, beyond which NEPA discussion of GHG emissions is recommended.[48] Using the current federal estimate of the social cost of carbon,[49] each year of the Project's GHG emissions will cause monetized damages in excess of $95 million, or nearly $2 billion over the

[47] Commenters assume that the tonnage of "GHGs" included in Tables 2.7.1-6 and 2.7.1-7, EA at 112, are in CO_2e, given that Table 2.7.1-5 specifies that emission totals are given in CO_2e. Thus, operation of the liquefaction project and Pleasant Valley Compressor Station will increase CO_2e emissions by 2,033,309 tons per year.

[48] Memorandum from Nancy H. Sutley, Chair, CEQ, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions(Feb. 18, 2010), *available at* http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf.

[49] Interagency Working Grp. on Soc. Cost of Carbon, United States Government, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact*, 3 (rev. Nov. 2013), *available at* http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/technical-update-social-cost-of-carbon-for-regulator-impact-analysis.pdf. This figure is carbon dioxide specific, whereas the EA describes the Project's greenhouse gas emissions in terms of CO_2e, aggregating CO_2 with other greenhouse gases. Although EPA has cautioned that there are limits to the ability to apply the social cost of carbon dioxide to other greenhouse gases on the basis of their global warming potentials (see following paragraph), this comparison provides a best available estimate of the social cost of the project's aggregate greenhouse gas emissions.

20-year life of the Project.[50] Accordingly, there is no basis for concluding that the direct GHG emissions of the Project are insignificant.

Moreover, the Commission understates the Project's direct GHG emissions by understating the impact of methane emissions. Natural gas is primarily composed of methane and methane is a potent GHG. The EA does not identify the Project's methane emissions. Instead, it reports GHG emissions in terms of carbon dioxide equivalents, or CO_2e. As Intervenors noted in the EA Comments, converting methane emissions into CO_2e requires multiplying the amount of emissions by methane's "global warming potential" ("GWP"). This conversion accounts for the amount of warming one ton of methane causes compared to the amount of warming that would be caused by one ton of CO_2.[51] While methane is a much more potent GHG than carbon dioxide, methane is much shorter-lived in the atmosphere.[52] Thus, in converting methane to CO_2e, different values must be used for different timescales.

The most recent report from the Intergovernmental Panel on Climate Change ("IPCC"), represents the global consensus and the best available science on climate change. The Commission however refused to use the GWPs recommended by the latest IPCC report for particular timescales. Order ¶¶ 244-45. It instead converted methane to CO_2e using a 100-year global warming potential of 25 rather than 36. The Commission's sole justification for using this GWP is that "[w]hen the EA was issued, the EPA-accepted GWP value for methane was 25 over a 100-year period…[and] this is the value EPA established on November 29, 2013." *Id.* at ¶ 245. But the GWP of 25 does not reflect the current scientific consensus on methane's global warming impacts. Intervenors note that DOE's National Energy Technology Laboratory, in its discussion of the lifecycle GHG effects of LNG exports, has recognized the latest IPCC report as providing the best science regarding methane's global warming potential. NEPA requires agencies to insure the "scientific integrity [] of the discussions and analyses in environmental impact statements," and using science that is widely acknowledged to be outdated is inconsistent with this mandate. 40 C.F.R. § 1502.24. As Intervenors explained in the EA Comments, the use of a 100-year long assessment period also is inappropriate given the need—recognized by EPA and the Obama Administration—to act on climate change immediately.[53]

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[50] 2,033,309 short tons = 1,844,587 metric tons. The estimate for the social cost of a metric ton of carbon in 2030, roughly the middle of the proposed operational span of the export project, is $52, using the middle 3% discount rate. 1,844,587 metric tons * $52/metric ton = $95,918,524.

[51] *See* EPA, *Glossary of Climate Change Terms - Carbon Dioxide Equivalent*, http://www.epa.gov/climatechange/glossary.html#C (last updated Sept. 9, 2013).

[52] IPCC, Climate Change 2013: The Physical Science Basis, Carbon and Other Biogeochemical Cycles 473 (2013), *available at* http://www.climatechange2013.org/images/report/WG1AR5_Chapter06_FINAL.pdf.

[53] IPCC, Climate Change 2013: The Physical Science Basis, Long-term Climate Change: Projections, Commitments, and Irreversibility 1029-1119 (2013), *available at* http://www.climatechange2013.org/images/report/WG1AR5_Chapter12_FINAL.pdf (discussing irreversible effects of climate change and tipping points); *see also* EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,829, 34,838 (proposed June 18, 2014) ("[r]ecognizing the urgent need for actions to reduce GHG emissions"); *see also* U.S. Global Change Research Program, Climate Change Impacts in the United States: The Third National Climate Assessment 657 (Jerry M. Melillo et al. eds 2014) ("delay by any of the major emitters makes meeting any such target even more difficult and may rule out some of the more ambitious goals"); *see also id.* at 5, 28, 592 (discussing tipping points and thresholds in climate system).

b. The Commission erred by failing to consider the Project's indirect greenhouse gas emissions.

The Commission erred by failing to consider the entirety of the greenhouse gas emissions associated with the Project. NEPA requires an evaluation of reasonably foreseeable indirect impacts of the Project, including the Project's reasonably foreseeable indirect air pollution emissions. *See, e.g., Border Power Plant Working Grp*, 260 F. Supp. 2d at 1013-17 (requiring consideration of GHG emissions from a power plant in Mexico that were caused indirectly by the grant of a permit by the Department of Energy); *see also WildEarth Guardians v. U.S. Forest Serv.*, 828 F. Supp. 2d 1223, 1231 (D. Colo. 2011) (discussing a final EIS by Forest Service that included an evaluation of GHG emissions from mining a coal seam and from combustion of the recovered coal). The Commission however refused to consider GHG emissions that reasonably will result from drilling the natural gas, transporting it to Cove Point, shipping it to Dominion's customers, and ultimately burning it overseas. According to FERC, it need not evaluate the greenhouse gas pollution associated with each of these steps because (1) the consumption of the gas exported from the Project "is not part of the project before [FERC]," Order ¶ 246, and (2) the scope of upstream production is not reasonably foreseeable. *Id.* ¶ 242; EA at 25, 163. The Commission also refused to consider the GHG emissions from the transportation of the LNG from the Cove Point facility to Japan and India without explanation. FERC's failure to consider both upstream and downstream GHG emissions is unsupported by law or fact.

For reasons discussed in Section II.B.6, the Commission's refusal to evaluate upstream indirect effects of the Project, including the climate effects of drilling for additional natural gas, violates NEPA. Likewise, the failure to evaluate the downstream GHG emissions from shipping the LNG to overseas markets and ultimately consuming the exported gas is contrary to well-established law. The indirect effects of the Project by definition extend beyond the direct impacts of the proposed Project. Under the regulations, indirect effects are effects that are "caused by the action" but occur "later in time or father removed in distance [than direct effect], but are still reasonably foreseeable." 40 C.F.R. § 1508.8(b). Here, the reasonably foreseeable consequences of constructing and operating an LNG export terminal include the GHG emissions associated with actually exporting the gas and consuming it abroad. There is no other way for Dominion's customers to get the LNG produced at the Cove Point terminal to their markets, except to transport it in ships that will travel thousands of miles to Japan and India. In addition, there is little else that could conceivably happen to the natural gas being exported from the Cove Point terminal, except that it be burned. Transporting and burning the gas are incidental and foreseeable consequences of authorizing Dominion to construct and operate an export terminal. Thus, FERC must account for the GHG emissions associated with each of these steps. *See, e.g., S. Fork Band Council of W. Shoshone of Nev. v. U.S. Dep't of the Interior*, 588 F.3d 718, 725 (9th Cir. 2011) (holding unlawful the failure to evaluate the environmental impacts of transporting and processing ore in approving a mining permit); *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 550 (8th Cir. 2003) (invalidating an authorization to construct a new rail line that would access 100 million tons of low-cost coal because the agency failed to consider the increased power plant emissions that would result from the availability of the greater supply of coal); *Border Power Plant Working Group*, 260 F. Supp. 2d at 1017 (holding that NEPA review must include an evaluation of certain GHG emissions from a power plant in Mexico that would transmit electricity to the U.S. via the transmission line being considered by the DOE). FERC's review of the indirect effects of the Project also does not stop

at the U.S. border, thus FERC cannot lawfully narrow its environmental review to the effects right in front of it. *Gov't of the Province of Manitoba v. Salazar*, 691 F. Supp. 2d 37, 51 (D.D.C. 2010); Executive Order No. 12114 (1979); CEQ Guidance on NEPA Analyses for Transboundary Impacts (July 1, 1997) (case law has "reinforced the need to analyze impacts regardless of geographic boundaries of the United States).

Moreover, the Commission cannot avoid its obligation to evaluate the indirect effects of the Project by arguing that it is not possible to calculate the total foreseeable GHG emissions that will result from FERC's approval of the Project. Order ¶ 246, EA at 171. Intervenors provided the Commission with detailed calculations, using conservative assumptions, that illustrated that the total lifecycle GHG emissions of the Project are significantly higher than the 168,258 tons from construction and 3,386,847 million tons from operations noted in the EA. *See* EA at 109, 112. As Intervenors explain in the EA Comments, producing and transporting 281 billion cubic feet per year of natural gas to Dominion's export terminal will, according to DOE's too-low estimate of methane leakage, emit more than 81,800 tons per year of methane. EA Comments at 59-60.[54] Factoring in the methane emissions associated with transporting and producing the natural gas the EIA assumes will be consumed by the liquefaction process, likely increases the estimated methane emissions by nearly 90,000 tons per year.[55] Under DOE's under estimated 100-year GWP for methane, this amounts to 2,700,000 tons of CO_2e per year *solely* from upstream methane emissions. Even if this figure is reduced to reflect the proportion of production that EIA estimates would have occurred even in the absence of exports, the total is still significant. And this is only a small slice of the total indirect effects—as Intervenors explained in the EA Comments, the foreseeable GHG emissions that reasonably will result from the Project are in excess of 26,100,000 tons of CO_2e per year. EA Comments at 56-59.

The DOE also has engaged in the type of lifecycle assessment of GHG emissions from LNG exports that the Commission refuses to undertake for the Project. While DOE's study of lifecycle GHG emissions from LNG contains is not perfect—for example, it incorrectly concludes that LNG is better from a climate perspective than other alternatives,[56] it nevertheless demonstrates the feasibility of calculating lifecycle GHG emissions from LNG export facilities. *See* DOE, Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States (May 29, 2014). FERC ignored Intervenors and DOE's calculations and the foreseeable reality that its approval of the Cove Point facility will result in indirect GHG emissions rivaling Maryland's most climate-polluting coal-fired power plants. Particularly in light of the global problem presented by climate change and the GHG reduction targets President

[54] This figure accounts for methane emissions from production and transportation of the 0.77 bcf/d of gas actually exported by the project, multiplied by DOE's estimated 1.4% lifecycle leak rate and EPA's estimate of that one mcf of natural gas is equivalent to 0.0.208 short tons. EPA, Oil and Natural Gas Sector: Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution, Background Technical Support Document for the Proposed Rules, at 2-4 (July 2011).

[55] "Any additional natural gas consumed during the liquefaction process is counted within the total additional export volumes specified in the DOE/FE scenarios. Therefore the net volumes of LNG produced for export are roughly 10 percent below the gross volumes considered in each export scenario." EIA, *Effect of Increased Natural Gas Exports on Domestic Energy Markets* 2 (2012), *available at* http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf .

[56] Sierra Club's Filing of DOE's LNG Environmental Review Materials and Comments under CP13-113, dated Aug. 14, 2014.

Obama has established,[57] FERC cannot disregard the significant indirect GHG emissions that will result from its approval of the Project. Lifecycle GHG emissions are reasonably foreseeable indirect effects of the Commission's Order that must be considered in the NEPA review and weighed by FERC as part of its substantive NGA decision.

c. The Commission violated NEPA by failing to consider the environmental impacts of the greenhouse gases that will result from the Project.

In addition to underestimating the amount of GHG emissions the Project will cause, FERC also failed to evaluate the impact of the Project's GHG emissions because, according to FERC, "there is no standard methodology to determine how a project's incremental contribution to GHG emissions would result in physical effects on the environment, either locally or globally." Order ¶ 243. This rationale has been addressed directly and struck down by a federal court in a case that Intervenors called to the Commission's attention shortly after it was decided.[58]

In *High Country Conservation Advocates et al. v. U.S. Forest Service et al.*, the District Court ordered the BLM to evaluate the impacts of a project's GHG emissions using the social cost of carbon. --- F. Supp. 2d ---, 2014 WL 2922751, at * 11 (D. Colo. June 27, 2014). The court held that "a 'hard look' has to include a 'hard look' at whether [the use of the social cost of carbon], however imprecise it might be, would contribute to a more informed assessment of the impacts than if it were simply ignored." It is not reasonable "to ignore a tool in which an interagency group of experts invested time and expertise." *Id.*

FERC did precisely what the court in *High Country Conservation Advocates* found impermissible under NEPA: it ignored the impacts of the Project's GHG emissions and made no attempt to use a tool such as the social cost of carbon to facilitate consideration of those impacts. With no analysis or explanation, FERC misinterpreted the holding in *High Country Conservation Advocates* as applying to only NEPA analyses that quantify anticipated benefits of a project, Order at n.214, and summarily concluded "that an assessment of the social cost of carbon would not be useful for our analysis" *Id.* at ¶ 246. The *High Country Conservation Advocates* court did not suggest that a tool like the social cost of carbon should be used only if the benefits of a project are quantified explicitly. *See* 2014 WL 2922751 at * 9. Rather, the Court rejected the agency's "categorical explanation that [an analysis of the impacts of GHG emissions] is impossible" because "a tool is and was available: the social cost of carbon" and emphasized the need for an agency to assess the impacts of GHG emissions, especially when its approval relies on anticipated economic benefits of the project. *See id.*

Moreover, even the Commission's interpretation of *High Country* does not support FERC's failure to look at the climate consequences here. The Commission's decision approving the Project is both explicitly and implicitly based on the purported economic benefits of the

[57] Relative to 2005, a reduction of at least 17% by 2020, 42% by 2030, and 83% by 2050. Executive Office of the President, *The President's Climate Action Plan* (June 2013).
[58] *See* Additional Information of Sierra Club, et. al. under CP13-113, dated July 18, 2014, Accession No. 20140721-5006.

Project. The Order and the EA conclude "that the project would provide socioeconomic benefits locally and nationwide." Order ¶ 152, EA at 87-88, 92. FERC's Order also "recognize[s] DOE's public interest findings in issuing [its] order." Order ¶ 31. The DOE's public interest findings in turn are grounded on an explicit, although deeply flawed, economic analysis of the costs and benefits of exporting natural gas from Dominion's Cove Point facility. The DOE's conditional approval of export of LNG from Cove Point to non-free trade countries accepted Dominion's assessment that the Project would contribute between $355 million and $443 million in Calvert County and an additional $130 million to $163 million to the rest of Maryland. DOE Conditional Approval at 27. Although these figures are incorrect and extremely misleading,[59] they nevertheless form the basis of DOE's public interest determination that is explicitly incorporated into FERC's Order. *See* Order ¶ 152. The Commission therefore cannot contend that its decision to approve the Project did not incorporate a quantification of the Project's alleged benefits.

As discussed above, the social cost of carbon of the *direct* GHG emissions from the Project is likely to exceed $2 billion. The social cost of the *indirect* emissions is significantly greater. A truly conservative estimate of the social cost of the upstream methane emissions is $1.6 billion. This estimate uses a peer-reviewed analysis by EPA economists that estimated the social cost of a short ton of methane emitted in 2015 at $880.[60] The $880/ton estimate almost is certainly too low.[61] Nonetheless, combining this estimate with the 90,000 tons per year of upstream methane emissions estimated above (based on DOE inputs) indicates an additional social cost of $79,200,000 per year, or $1.6 billion over the Project's lifetime. This estimate again is conservative because it uses a low estimate of methane leakage, a social cost of methane estimate that drastically understates methane's global warming potential, and a superseded social cost of carbon estimate. Considering the full lifecycle of greenhouse gas emissions associated with gas exported by the Project (upstream emissions of pollutants other than methane, all downstream emissions) would reveal a much higher social cost. In addition, EIA has predicted that LNG exports will increase domestic greenhouse gas emissions by causing electricity

[59] *See* EA Comments at 66 (explaining that to achieve the tax revenue Dominion claims to be able to contribute to Calvert County, "Dominion would have to assume that 'thousands of construction jobs will be filled by Calvert County workers who do not exist' and that Dominion 'will be purchasing literally billions of dollars' worth of construction materials and services in Calvert County that have never been produced and will never be produced in Calvert County.'" (quoting Letter from Dennis M. King, University of Maryland, to Kimberley Bose, FERC, dated June 13, 2014, at 2-3, Accession No. 20140613-5157)).

[60] *See* Marten, A.L., and Newbold, S.C., *Estimating the social cost of non-CO_2 GHG emissions: Methane and nitrous oxide*, 51 Energy Policy 957, 18 (2012), *available at* http://yosemite.epa.gov/ee/epa/eed.nsf/ec2c5e0aaed27ec385256b330056025c/f7c9fc6133698cc38525782b00556de1/$FILE/2011-01v2.pdf (noting a social cost of methane in 2015 at a 3% discount rate of $970/metric tonne; which when divded by 1.1023 converts to $880/short ton). This $880/ton estimate, like the $52/ton estimate provided above for the social cost of carbon, uses the middle of the range of discount rates provided in these papers, *i.e.*, 3%.

[61] This 2012 assessment used an outdated estimate of methane's global warming potential, and was built on top of an earlier, 2010 estimate of the social cost of carbon. That 2010 estimate was revised significantly upward in the 2013 estimate.

producers to shift from gas to coal, and these additional emissions must be included in the Commission's analysis.[62]

Even if the analysis is (wrongly) limited to the conservative estimates of the cost of only the direct emissions, however, the result is that there are serious economic costs of the GHG emissions from the Project that may significantly outweigh the economic benefits touted by Dominion. NEPA requires that the significant impacts of the greenhouse gas emissions from the Project be evaluated and inform the Commission's decision on whether to approve the Project.

8. The Commission violated NEPA in failing to adequately consider alternatives to the Project, including the no action alternative.

a. The Commission violated NEPA by failing to adequately consider the no action alternative.

The no action alternative analysis contained in the EA and incorporated in the Order fails to weigh appropriately the environmental benefits of the status quo against the adverse environmental impacts of the Project. Although FERC admits that, under the no action alternative, "the environmental impacts identified in this EA would not occur," EA at 173, the EA does not adequately address the full range and extent of the adverse environmental impacts from the Project and thereby grossly underestimates the environmental benefits that would result from the no action alternative. Even in an EA, FERC must fully and meaningfully consider the alternative of maintaining the status quo and refusing to allow the Project to move forward. *See, e.g., N. Idaho Cmty. Action Network*, 545 F.3d at 1153.

The status quo that must be analyzed as part of the no action alternative includes the fact that only five ships called at Dominion's facility in 2011 and that there is no prospect of increased shipping without the Project.[63] Continuing the minimal annual activity at Cove Point would have an array of environmental benefits—significantly reducing the threat of ship strike deaths of the endangered North Atlantic right whale, the potential for accidents from LNG ships and the associated environmental impacts, the air emissions (including GHGs) from these vessels, and the discharge of ballast water into the Chesapeake Bay. Because none of these very substantial environmental benefits is mentioned in FERC's consideration of the no action alternative, the EA does not allow "policymakers and the public to compare the environmental consequences of the status quo to the consequences of the proposed action." *See Pac. Coast Fed'n of Fishermen's Ass'ns.*, 929 F. Supp. 2d at 1048. The Order adds nothing to FERC's analysis, relying solely on the EA for the Commission's consideration of the no action alternative. *See* Order ¶ 264.

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[62] EIA, *Effect of Increased Natural Gas Exports on Domestic Energy Markets* (Jan. 2012). EIA modeled the effect of this shift and concluded that U.S. LNG exports would increase U.S. electric sector carbon dioxide emissions by hundreds of millions of metric tons annually. *Id.* at 19. Indeed, the magnitude of this impact may be inversely correlated with the amount of new production induced. At a minimum, to the extent that the Commission concludes that production of gas consumed by the Project would have occurred anyway, the Commission must consider the effect of prior consumers of that gas switching to other fuel sources.

[63] *See* note 22, *supra*.

The EA also grossly inflates the purported benefits of the Project by engaging in rampant and wholly unsupported speculation about the claimed benefits of exporting natural gas. In the "No Action Alternative" section, FERC claimed that "[i]t is speculative and beyond the scope of this analysis to predict what action might be taken by policy makers or end users in response to the No Action Alternative." EA at 173. FERC also characterized potentially significant induced upstream development in the Marcellus shale as too speculative for consideration in the EA, "because *the exact location, scale, and timing of future facilities are unknown*." *Id.* at 163 (emphasis added); *see also* Order ¶¶ 226, 242. Nevertheless, in the section of the EA entitled "Alternative Energy," FERC overtly speculates, without any evidentiary support, that the failure to export natural gas to from the Project could lead to increased use of coal abroad. EA at 173-75.[64] FERC cannot have it both ways. It cannot characterize foreseeably *adverse* impacts as too speculative for consideration and then blithely speculate about ostensibly beneficial effects of the Project. Despite Intervenors' comments on this issue, the Order does nothing to correct the EA's deficiencies.

FERC's speculation that LNG exports will offset the use of coal or other higher GHG-emitting fuels in importing countries also is not supported by available evidence. Within the electricity sector, use of renewables in Asia is rising, with wind and solar at or approaching price parity with fossil fuel generated electricity, and installations of wind and solar expected to boom in coming years.[65] Thus, it is likely that U.S. LNG exports will compete against clean renewable energy in addition to, or instead of, competing against other fossil fuels. Recognizing that increased gas use would displace renewables as well as other fossil fuels, the International Energy Agency has concluded that global scenarios of increased gas use are unlikely to decrease global GHG emissions.[66]

In addition, FERC's assessment of the purported climate and air quality benefits of the Project in its no action alternative analysis in the EA ignores important adverse environmental impacts of exporting natural gas, including GHG emissions. FERC also neglected to factor in the EIA's clear findings that exporting natural gas likely will result in increased use of coal domestically to generate energy.[67] FERC's analysis in the EA, as incorporated in the Order, therefore is insufficient for failing to include a full and meaningful consideration of the costs and benefits of the no action alternative.

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[64] FERC cites a study by the IEA, reporting that coal exports from the U.S. are increasing and discussing why other forms of energy generation face hurdles. EA at 173-75. Nothing in that study shows that an increase in domestic natural gas exports will offset the use of coal overseas or result in net environmental benefits. FERC cites nothing else in support of its claim.

[65] Sophie Vorrath, *Wind at Parity with New Coal in India, Solar To Join by 2018: HSBC*, RenewEconomy (Jul. 11, 2013), *available at* http://reneweconomy.com.au/2013/wind-at-parity-with-new-coal-in-india-solar-to-join-by-2018-hsbc-14836; KPMG, The Rising Sun: Grid Parity Gets Closer (Sept. 2012), *available at* https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/the-rising-sun-grid.pdf.

[66] Int'l Energy Agency, Golden Rules for a Golden Age of Gas: World Energy Outlook Special Report on Unconventional Gas 91 (Nov. 12, 2012), *available at* http://www.worldenergyoutlook.org/media/weowebsite/2012/goldenrules/weo2012_goldenrulesreport.pdf.

[67] EIA, Effect of Increased Natural Gas Exports on Domestic Energy Markets 6-10, 12 (Jan. 2012), *available at* http://www.eia.gov/analysis/requests/fe/pdf/fe_lng.pdf.

b. The Commission violated NEPA and the NGA by narrowly defining the Project's purpose in order to reject all other alternatives.

The Commission failed to meet its obligation to evaluate all reasonable alternatives to the Project, including the no action alternative. While the Commission purported to consider alternatives to the Project, it compared those alternatives to an extremely narrow statement of the Project's purpose and need that in essence foreclosed the Agency from accepting any alterative except the Project. According to FERC, the Project existed for the purpose of "export[ing] gas for Dominion's customers." Order ¶ 264. With this narrow purpose in mind, FERC rejected all available alternatives to the Project because no proposal except the Project would suffice.

In the EA, the Commission used an impermissibly narrowed statement of purposed and need. Although FERC stated that the purpose and need of the Project was "to liquefy for export domestically produced natural gas," as Intervenors explained, FERC's analysis demonstrated that it was evaluating alternatives to the Project based on whether they allow for export of natural gas to Dominion's customers on the same timeframe as Dominion's Project. *See* EA at18, 173, 176; *see also* EA Comments at 62-63. Rather than returning to a broader statement of purpose and need in the Order, the Commission explained that it was in fact viewing the purpose of the Project as "export[ing] gas for Dominion's customers." Order ¶ 264. FERC cannot interpret the Project's purpose and need so narrowly that every conceivable alternative is ruled out by definition. *See Simmons v. U.S. Army Corps of Eng's*, 120 F.3d 664 (7th Cir. 1997) (cautioning agencies not to put forward a purpose and need statement that is so narrow as to "define competing 'reasonable alternatives' out of consideration (and even out of existence)"); *Nat'l Parks & Cons. Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1072 (9th Cir. 2009) (finding a purpose and need statement that included the agency's goal to address long-term landfill demand, and the applicant's three private goals was too narrowly drawn and constrained the possible range of alternatives in violation of NEPA). Only Dominion's Project offers a means for exporting natural gas on behalf of Dominion's customers, and thus all alternatives are bound to fail in comparison. Such narrow statements of purpose and need undermine the NEPA process and will not be upheld. *Envtl. Prot. Info. Ctr. v. U.S. Forest Serv.*, 234 F. App'x 440, 443 (9th Cir. 2007) (agencies cannot "define[] the objectives of the project so narrowly that the project [is] the only alternative that would serve those objectives").

Similarly, defining the Project purpose as exporting gas for Dominion's two customers contravenes the NGA's overriding purpose "to protect consumers against exploitation at the hands of natural gas companies." *United Distrib. Co. v. FERC*, 88 F.3d 1105, 1122 (D.C. Cir. 1996) (citation omitted). Nothing in the EA or Order's statement of purpose and need or the Commission's alternatives analysis gives any consideration to the interests of domestic natural gas customers. Neither NEPA nor the NGA allows FERC to reject all alternatives except the Project in order to promote the pecuniary interests of three private corporations.

9. The Commission erred in issuing the Order because the Project is not in the public interest and not required by the public convenience or necessity.

The NGA, and subsequent DOE delegation orders and regulations, charge FERC with determining whether or not the construction and operation of a particular gas export facility is in the public interest. *See, e.g.,* 15 U.S.C. § 717b(a). Likewise, FERC must decide whether the Section 7 facilities Dominion wishes to build are required by the public convenience and necessity. *See id.* § 717f(c). In assessing whether the Project will be in the public convenience and necessity, FERC must balance the stated public benefits from the Project against its adverse impacts. *See Certificate Policy*, 88 FERC ¶ 61,227, 61,748 (Sept. 15, 1999). The stated interests must outweigh the adverse effects caused by the Project for FERC to approve a project. *See id.* at 61,748, 61,750; *see also Millennium Pipeline Co.*, 141 FERC ¶ 61,198, 2012 WL 6067320, at *4 (Dec. 7, 2012).

As discussed above, the Project is likely to have significant adverse environmental impacts on human health and safety, air quality (including GHG emissions), the Chesapeake Bay, and the endangered North Atlantic right whale. The Project also is likely to induce additional drilling for natural gas in the nearby Marcellus shale, with foreseeable negative consequences for air, water, land, and communities. The Project, both directly and indirectly, will contribute to climate change. In addition, construction of the Project—which will last three years—will require clear-cutting of nearly of 100 acres of forest at Offsite Area A, to transform a forested tract of land into a parking lot for 1,700 vehicles and a storage ground for the heavy materials needed to construct the power plant. EA at 13. Project construction also will involve the construction of a large pier out into the Patuxent River, near a popular boat ramp, potentially obstructing recreational use. *Id.* Dominion will barge in heavy construction materials and equipment to the Patuxent pier, truck those materials from historic Solomons, past the bustling Thomas Johnson Bridge (the only bridge connecting Calvert County to St. Mary's County) to Offsite Area A and then on to the proposed export facility. The traffic and associated noise—both from workers travelling to Calvert County, and from the trucks moving the heavy construction materials—will disturb quiet Calvert County and threatens to undermine tourism in the tranquil town of Solomons. The impacts from construction, then also raise significant questions about whether the Project's benefits outweigh its negative impacts.

FERC has not taken a hard look at the Project's many impacts, and has failed to justify its conclusion that the impacts will be insignificant. Significant doubts also have been raised as to the Project's purported benefits to Calvert County.[68] The Commission failed to address these concerns, citing only that the DOE has concluded that Dominion's exports "are likely to yield economic benefits to the United States" as a basis for the conclusion that the Project would benefit the local community. This scant analysis cannot support a conclusion that the Project's negative impacts are outweighed by its benefits.

[68] *See* Letter from Dennis M. King, University of Maryland, to Kimberley Bose, FERC, dated June 13, 2014, at 2-3, Accession No. 20140613-5157.

III. COMMUNICATIONS

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IV. CONCLUSION

Based on the foregoing, Intervenors respectfully request that the Commission grant this request for rehearing and rescission of the Order.

Respectfully submitted on this 15th day of October, 2014,

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