RE: Pointe LNG Project; Notice of Intent to Prepare an Environmental Impact Statement for the Pointe LNG Planned Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Session (PF18-8-000)

The Sabin Center for Climate Change Law (“Sabin Center”) submits these comments on the scope of the proposed environmental impact statement (“EIS”) for the Pointe LNG Project, announced by the Federal Energy Regulatory Commission (“FERC” or the “Commission”) in February 2019. For the limited purposes of these comments, the Sabin Center takes no position on the export of liquefied natural gas (“LNG”) or on whether FERC should approve the Pointe LNG Planned Project (the “Project”). Rather, consistent with the scoping process’s goal of identifying significant issues for FERC to consider, the Sabin Center’s comments focus on the potential impacts of climate change on the Project—impacts not identified in FERC’s Notice of Intent. The Sabin Center is additionally concerned by the short 30-day window allotted for public comment and recommends that FERC allow additional time for public input.

A. NEPA and Climate Change

Pursuant to its obligations under the National Environmental Policy Act (“NEPA”), the Commission must consider the environmental impacts of sea level rise and associated storm surge, flooding, and erosion risks, as exacerbated by increased frequency and intensity of hurricanes and tropical storms. In addition, it would be consistent with the purposes of NEPA for the agency to also assess the indirect impacts of upstream and downstream Project-related activities and to disclose the greenhouse gas emissions associated with them. These phenomena may additionally affect other issues already identified by FERC as pertinent to environmental review, such as endangered and threatened species; water resources, fisheries, and wetlands; cultural resources, vegetation and wildlife, cumulative impacts, and public safety. The Sabin Center urges FERC to robustly consider the impacts of climate change on the Project and the Project’s greenhouse gas emissions as part of the agency’s environmental review.

1 The Sabin Center for Climate Change Law at Columbia Law School develops legal techniques to fight climate change, trains law students and lawyers in their use, and provides the public with up-to-date resources on key topics in climate law and regulation. The Sabin Center works closely with the scientists at Columbia University’s Earth Institute and with governmental, nongovernmental, and academic organizations. See http://web.law.columbia.edu/climate-change. Please contact the Sabin Center for assistance locating any sources.
NEPA’s implementing regulations provide that agencies must consider significant and reasonably foreseeable indirect and cumulative environmental impacts. Agencies must define an appropriate baseline for considering projected environmental impacts; such a baseline should incorporate anticipated environmental conditions. Accordingly, the Commission must consider sea level rise, the increasing frequency and severity of hurricanes, and their combined effects on storm surge as future baseline environmental conditions. Several federal courts have confirmed that NEPA regulations require federal agencies to evaluate the impacts of a changing climate on their actions. Consideration of climate change impacts has accordingly become an essential part of the NEPA process. Furthermore, the withdrawal of the CEQ guidelines does not affect judicially upheld obligations as was explicitly noted in the withdrawal notice.

FERC itself has already recognized the relevance and importance of climate change impacts to similar and similarly situated facilities in Louisiana and elsewhere. For instance, FERC required consideration of climate change impacts in connection with a proposed LNG export facility in flood-prone coastal Louisiana (the “Mississippi River LNG Project”). After the applicant for the Mississippi River LNG Project submitted draft resource reports to the Commission, FERC directed the applicant to supplement the reports with information regarding potential impacts of sea level rise and storm impacts for the design life of the facility. Similarly, FERC’s Environmental Assessments—not even full Environmental Impact Statements—of the Dominion Cove Point LNG export facility on the Chesapeake Bay and the Cameron LNG facility in coastal Louisiana both consider several implications of climate change for their respective facilities. Nothing about the Pointe LNG Project makes it less susceptible to climate change.

2 See 40 C.F.R. §§ 1508.7 (defining “cumulative impact”), 1508.8 (defining “effects” as including direct and reasonably foreseeable indirect effects), 1508.25(c) (providing that EISs must consider direct, indirect, and cumulative impacts); see also CEQ, Considering Cumulative Effects under the National Environmental Policy Act (1997) [hereinafter “Considering Cumulative Effects Under NEPA”], available at http://1.usa.gov/JLkM2I.

3 See Considering Cumulative Effects under NEPA, supra note 2, at 41; 40 C.F.R. 1502.15 (defining “affected environment”).


5 See e.g., AquaAlliance 2018 WL 903746 at *38-*39 (“Nonetheless, the FEIS/R fails to address or otherwise explain how this information about the potential impacts of climate change can be reconciled with the ultimate conclusion that climate change impacts to the Project will be less than significant: . . . [T]his amounts to a ‘failure to consider an important aspect of the problem’ . . .”) (internal citation omitted).


7 Louisiana LNG Energy, LLC, Proposed Mississippi River LNG Project (PF14-17-000).

8 Letter to Louisiana LNG Energy, LLC providing comments on Draft Resource Reports 2 through 9 re the Mississippi River LNG Project under PF14-17 (Nov. 24, 2014) (enclosed).

9 See FERC, Environmental Assessment for the Cove Point Liquefaction Project, Dominion Cove Point LNG, LP Docket No. CP13-113-000, at 40, 169–171 (May 2014), http://bit.ly/1k5fNM0 (“Climate change in the northeast

2
change than these earlier examples of FERC-licensed LNG infrastructure projects. Accordingly, its EIS must take the effects of climate change into account.

Several federal courts have also confirmed that NEPA regulations require federal agencies to evaluate the climate change-related impacts of their actions—such as the impact of greenhouse gas emissions on climate change. Accordingly, the Commission should consider the downstream greenhouse gas emissions caused by fossil fuel combustion, as well as the other life cycle emissions from the facility’s production and transportation of LNG. Recent decisions from the D.C. Circuit have put the onus on the Department of Energy (DOE) to account for the greenhouse gas emissions resulting from export-induced increases in domestic production associated with new export facilities, but from a policy perspective FERC should estimate these emissions when evaluating these new facilities’ impact on the environment. FERC should act

region could have two effects that may cause increased storm surges: temperature increase of the Chesapeake Bay waters, which would increase storm intensity; and a rising sea level. The final grade elevation of the Liquefaction Facilities Project site would range between 70 and 130 feet above mean sea level. Therefore, even with increased sea levels due to climate change and increased storm surge, the Project facilities would not be vulnerable to even a 100-year climate change-enhanced storm surge because of its significant elevation above sea level.”); FERC, Environmental Assessment for the Cameron LNG Expansion Project, Cameron LNG, LLC Docket No. CP15-560-000, at 115 (Feb. 2016), https://perma.cc/7MA8-DW2W (“Climate change in the region would have two effects that may cause increased storm surges, increased temperatures of Gulf waters, which would increase storm intensity, and a rising sea level. In Louisiana, relative sea level changes have been estimated by the NOAA to be about 14 inches by 2050. This is greater than the global average because of regional ground subsidence. The Cameron LNG Terminal is designed for a 500-year storm surge elevation level of 12.4 feet amsl. Given that the Expansion Project’s process equipment minimum elevation point of support would be 12.5 feet amsl and the LNG storage tank (T-205) would be 14.0 amsl at top of the elevated pile cap, climate change-enhanced sea level rise and subsidence are considered adequately addressed in the Expansion Project design.”).

10 *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1215-1217 (9th Cir. 2008) (finding that “[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct”); *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 548-50 (8th Cir. 2003) (finding that degradation in air quality was a reasonably foreseeable indirect effect of a project that would increase the supply of coal to power plants); *High Country Conservation Advocates v. United States Forest Serv.*, No. 13-CV-01723-RBJ, 2014 WL 2922751, at *8-11, 13-15 (D. Colo. June 27, 2014) (holding that it was arbitrary and capricious for federal agencies to omit analysis of GHG emissions and related costs in EISs for mining exploration projects); FERC, Guidance Manual for Environmental Report Preparation for Applications Filed Under the Natural Gas Act, FN 15, 4-123—4-127 (Feb. 2017), https://perma.cc/7DAW-BX9P (instructing “[y]ou should provide the data needed to support our NEPA analysis (e.g., the project’s contribution to GHG emissions; local or state GHG emissions; and any local, state, or regional goals for GHG emissions or climate change,” and requiring reporting on greenhouse gas emissions from construction and operation of facilities).

11 *Sierra Club v. Fed. Energy Regulatory Comm’n*, 867 F.3d 1357, 1373–74 (D.C. Cir. 2017) (“We conclude that the EIS…should have either given a quantitative estimate of the downstream greenhouse emissions that will result from burning the natural gas that the pipelines will transport or explained more specifically why it could not have done so. As we have noted, greenhouse-gas emissions are an indirect effect of authorizing this project, which FERC could reasonably foresee, and which the agency has legal authority to mitigate.”). See also, *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003) (finding in NEPA review for coal railway, STB must account for greenhouse gas emissions and air quality effects from foreseeable increase in coal consumption and combustion).

12 *Sierra Club v. United States Dep’t of Energy*, 867 F.3d 189, 201–02 (D.C. Cir. 2017)(noting that as part of its review “the Department evaluated the upstream and downstream greenhouse-gas emissions (CO2 and methane) from producing, transporting, and exporting LNG in its Life Cycle Report”).

13 *Id.* (finding the Department of Energy did not need to consider export-induced increases in natural gas production); *Sierra Club v. Fed. Energy Regulatory Comm’n*, 827 F.3d 36 (D.C. Cir. 2016)(finding that FERC did not need to consider emissions that would only occur if the Department of Energy approved the facility for LNG export).
jointly with DOE to conduct these assessments and has the authority to do so under the Natural Gas Act as designated lead agency for NEPA compliance.\(^{14}\)

The Commission should further use the Social Cost of Carbon, Methane, and Nitrous Oxide\(^{15}\) to evaluate the costs of the Project’s greenhouse gas emissions. The utility of these metrics was recognized in a recent dissent from FERC Commissioner Richard Glick, who noted that “[t]he Commission’s refusal to incorporate the Social Cost of Carbon in the environmental review or even to assess the impact GHG emissions from the Project fails to fulfill its responsibilities under the NGA and NEPA.”\(^{16}\)

**B. Complementary Legal Authorities and Policies Supporting Consideration of Climate Impacts**

Complementing NEPA requirements, state law also supports consideration of climate change adaptation in the proposed EIS. In response to hurricanes Katrina and Rita, the Louisiana Legislature passed Act 8 of the First Extraordinary Session of 2005 (Act 8). Act 8 which established the Coastal Protection and Restoration Authority (CPRA). The CPRA is legally required to develop and implement a comprehensive coastal protection plan, consisting of a master plan (revised every five years) and annual plans.\(^{17}\) In June 2017, the Louisiana State Legislature unanimously approved the state’s 2017 Coastal Master Plan.\(^{18}\) Additionally, under Louisiana Executive Order JBE2016-09, signed by the Governor in April 2016, all state agencies, departments, and offices must carry out their regulatory programs, practices, grants, and contracts “in a manner consistent with the Coastal Master Plan and the public interest to the maximum extent possible.”\(^{19}\)

Federal guidance also directs assessment of climate change impacts. The Securities and Exchange Commission (“SEC”) has issued guidance regarding publicly traded companies’ obligation to disclose the impacts that climate change may have on their operations.\(^{20}\) FERC can

---

\(^{14}\) 15 U.S.C. § 717n(b)(1)(designating the Commission to be “the lead agency for the purposes of coordinating all applicable Federal authorizations and for the purposes of complying with the National Environmental Policy Act”); see also 42 U.S.C. § 7172(a)(2)(B).


\(^{17}\) LA. STAT. ANN. § 49:214.5.2-3 (Current through the 2017 Second Extraordinary Session).


\(^{20}\) SEC, Commission Guidance Regarding Disclosure Related to Climate Change (2010) (“Significant physical effects of climate change… have the potential to affect a registrant’s operations and results. For example, severe weather can cause catastrophic harm to physical plants and facilities and can disrupt manufacturing and distribution…”)
facilitate such disclosure by conducting an analysis of climate change impacts on the proposed facility.

C. Primary Climate Impacts Pertinent to Environmental Review of the Project

1. Sea Level Rise

As anthropogenic greenhouse gas emissions warm the planet, causing glaciers and ice sheets to melt and oceans to absorb increasing volumes of heat, global sea levels will continue to rise, and will do so at increasing rates. In the next several decades, storm surges and high tides will combine with sea level rise and, in some locations, erosion to increase flooding, threatening coastal communities and industries. The proposed location for the Project on the Mississippi riverfront leaves it vulnerable to storm surge—especially in light of the rapid subsidence and loss of wetlands along the coast.

Sea level rise is occurring particularly rapidly along the western gulf coast contributing to a particularly high vulnerability for Louisiana’s coasts. The Coastal Protection and Restoration Authority (CPRA) has data specifically examining the flood risk, economic risk, severe coastal erosion effects, and adaptation efforts for the Plaquemines area. The Pointe LNG site is along the east bank of the Mississippi River in Plaquemines Parish, an area that the CPRA projects will experience 16+ or more feet of flooding during 100 year storm events within ten years. Regionally, coastal counties, and parishes in Alabama, Mississippi, Louisiana, and Texas already face significant losses from hurricane winds, land subsidence, and sea level rise that...
annually average $14 billion. The same study estimates that future losses for the 2030 timeframe could reach between $18 billion to $23 billion with approximately 50% of the increase in the estimated losses related to climate change.

Many sources provide current and credible data regarding sea level rise and its potential consequences generally and in Louisiana in particular. As relevant examples, the Sabin Center directs the Commission’s attention to:

- Coastal Protection and Restoration Authority of Louisiana, Louisiana’s Comprehensive Master Plan for a Sustainable Coast, available at https://perma.cc/LC5J-Z7UN

---

29 Id.

2. Increasing Frequency and Severity of Hurricanes and Tropical Storms

Since the early 1980’s, Atlantic hurricane activity has substantially increased by measures including intensity, frequency, and duration as well as the number of strongest (Category 4 and 5) storms. Warming sea surface temperatures in the Atlantic are linked to this increase in hurricane activity. Human-induced emissions of heat-trapping gases and particulate pollution influence these local sea temperatures. As noted above, the combination of sea level rise with more severe and frequent hurricanes will affect storm surge and coastal damages, especially in the Gulf Coast. The previously listed resources describe these impacts and costs.

The 2017 hurricane season was particularly catastrophic with 17 named storms, 10 of which became hurricanes, including three category 4 storms that made landfall in the U.S. By early estimates it is the most costly hurricane season on record in the U.S. Global models project further increases in intensity, precipitation rate, and wind speed for tropical cyclones over the 21st Century. The 2018 season produced 15 named storms, including eight hurricanes of which two were “major” (Category 3, 4 or 5). In 2018, Hurricane Florence caused catastrophic flooding in portions of North and South Carolina and Hurricane Michael, became the strongest recorded hurricane to strike the Florida panhandle.

3. Upstream and Downstream Impacts

Pointe LNG proposes to construct and operate a LNG liquefaction facility that would consist of 6.6 miles of 36-inch-diameter natural gas supply laterals; three liquefaction trains, with a nominal LNG production capacity of approximately 2 MTPA each; natural gas pre-treatment systems; a liquefaction facility; a mixed refrigerant system; a boil-off gas recovery system; a propane refrigeration compressor; a nitrogen system; LNG storage; LNG storage tank protection systems; a marine loading terminal; and electric power generation. Extracting natural gas from wells, processing it for transport, cooling it for loading into tankers, transporting it in those tankers, and, of course, combustion by end-users, are all activities that will occur as a result of the Project. Each of these component activities has predictable environmental impacts. Further,
these activities will contribute to the Project’s upstream and downstream greenhouse gas emissions. DOE has analyzed the life cycle impacts of greenhouse gas emissions from U.S. LNG export facilities. In a 2014 addendum analyzing the upstream greenhouse gas emissions of LNG export facilities, DOE estimated that that each incremental increase in natural gas production of 1 trillion standard cubic feet (scf) per year will generate an additional 6.8 million metric tons of CO$_2$e per year. While the exact downstream emissions of combusting natural gas may depend on several uncertain variables, FERC should engage in “reasonable forecasting” and provide a quantitative estimate of the downstream greenhouse emissions, or else a complete explanation for why it cannot provide the estimate. As noted earlier, the Commission should use the Social Cost of Carbon, Methane, and Nitrous Oxide to estimate the costs of the project’s emissions.

* * *

To adequately protect the Pointe LNG Project and its surrounding environment from future climate change impacts, the Commission should consider the risks arising from increasing frequency and severity of hurricanes combined with sea level rise and associated storm surge, flooding, and erosion risks. Consideration of such risks by a federal agency would not be a novel undertaking, and is especially exigent here given that the Project will support the compression and transport of combustible and potentially explosive gas.

Specifically, the Commission should assess the projected range of sea level rise and related potential for storm surge and erosion throughout the planned life of the Pointe Project, and should identify ways to effectively manage the associated risks. Similarly, the Commission should assess projected changes to frequency and severity of hurricanes in the vicinity of the Project and identify engineering solutions capable of managing the host of risks that extreme weather poses to sensitive infrastructure.

In its projections of the future state of coastlines, the Commission should take note of the Gulf Coast’s high rate of sea level rise relative to other regions of the U.S. and the world, coupled with its vulnerability to hurricanes and tropical storms. Louisiana lost approximately


47 NOAA Sea Level Trend Map.
4,833 square kilometers of land along its coast between 1932 and 2016, equal to a loss of 25% of the 1932 land area. 48 High wetland loss rates occurred during the 2005 and 2008 hurricane seasons, which were particularly hard on the Louisiana Coast. 49 The baseline of the Project’s future environmental circumstances should reflect that the area surrounding the project appears to be highly sensitive to storm surge, climate change, subsidence, and the worsening synergistic impacts of these forces.

Thank you for the opportunity to submit comments on the Pointe LNG Project. Please feel free to contact the Sabin Center with any questions.

Sincerely,

Dena Adler
Climate Law Fellow
Sabin Center for Climate Change Law
212-854-0081
dadler3@law.columbia.edu

enclosures:

- FERC’s Letter to Louisiana LNG Energy, LLC providing comments on Draft Resource Reports 2 through 9 re the Mississippi River LNG Project under PF14-17 (Nov. 24, 2014)
- Coastal Protection & Restoration Authority’s Master Plan Data Viewer Flood Risk Map, showing map of future flooding risk in Plaquemines (accessed March 6, 2019)

49 Id.