



Jennifer M. Klein, Esq.
Associate Director and Fellow
Sabin Center for Climate Change Law
212-854-0106 • jennifer.klein@law.columbia.edu

October 27, 2014

Filed Electronically

Secretary Kimberly D. Bose
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Downeast Liquefaction, LLC; Notice of Intent to Prepare an Environmental Impact Statement for the Planned Downeast LNG Import-Export Project (PF14-19-000)

Secretary Bose:

The Sabin Center for Climate Change Law (“SCCCL”)¹ submits these comments on the scope of the proposed environmental impact statement (“EIS”) for the Downeast LNG Import-Export Project (the “Downeast LNG Project”) as announced by the Federal Energy Regulatory Commission (“FERC”, or the “Commission”).²

For the purposes of these comments, SCCCL takes no position on the export of liquefied natural gas (“LNG”) or on whether the Downeast LNG Project should be approved. Instead, since the scoping process is intended to help agencies identify significant issues for consideration, SCCCL focuses on a critical issue that was not identified in FERC’s Notice of Intent (“NOI”) – the potential impact of climate change on the Downeast LNG Project. Specifically, sea level rise, and an associated increase in flooding and storm surges, may pose a significant risk due to the Project site’s coastal location.

NEPA and Climate Change

Pursuant to its obligations under the National Environmental Policy Act (“NEPA”), the Commission must consider sea level rise and related coastal processes as reasonably foreseeable significant adverse impacts. NEPA’s implementing regulations provide that agencies must consider reasonably foreseeable indirect and cumulative environmental impacts.³ The Council on

¹ The Sabin Center for Climate Change Law is an academic center at Columbia Law School. SCCCL 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. SCCCL works closely with the scientists at Columbia University’s Earth Institute and with governmental, nongovernmental, and academic organizations. SCCCL is directed by Michael B. Gerrard, the Andrew Sabin Professor of Professional Practice at Columbia Law School. See <http://web.law.columbia.edu/climate-change>. Please contact SCCCL for assistance locating any sources.

² 79 F.R. 61630 (October 14, 2014).

³ 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)

Environmental Quality (“CEQ”) has taken the position – and several courts have held – that these regulations require federal agencies to evaluate the climate change impacts of their actions.⁴ The Commission also must consider sea level rise and storm surge as future baseline environmental conditions. As CEQ guidelines clarify, agencies must define an appropriate threshold against which to compare projected environmental impacts, and this threshold should incorporate future environmental conditions.⁵

Moreover, federal and state policy supports consideration of climate change adaption in the proposed EIS. President Obama has issued an executive order regarding adaptation, which directs agencies to prepare for the impacts of climate change by integrating consideration of climate change into agency operations and overall mission objectives.⁶ Notably, the Department of Defense (“DOD”) recently announced its strategy to adapt to the risks of climate change by “integrating climate change considerations into [the DOD’s] plans, operations, and training across the Department....”⁷ At the state level, the Maine Department of Environmental Protection (“Maine DEP”) issued a report in 2010 recommending numerous climate change adaptation strategies and identifying sea level rise and increased storm surge as key risks to Maine’s coastal zone.⁸ Moreover, Maine’s Sand Dune Rules include sea level rise as an explicit factor in the state’s coastal land use control program.⁹

I also note that 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.¹⁰ CEQ has proposed, but not yet finalized, guidance that would call for

[hereinafter “Considering Cumulative Effects Under NEPA”], *available at* http://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-ConsidCumulEffects.pdf.

⁴ Letter from Michael Boots, Acting Chair, Council on Environmental Quality (Aug. 7, 2014), *available at* http://energy.gov/sites/prod/files/2014/08/f18/CEQPetition_InclusionofClimateChangeAnalysisinNEPA_2014.pdf (“2014 CEQ Letter”); *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).

⁵ Considering Cumulative Effects under NEPA, p. 41; 40 C.F.R. 1502.15 (defining “affected environment”).

⁶ Exec. Order No. 13,653, 78 Fed. Reg. 66817 (Nov. 1, 2013).

⁷ Department of Defense, *Climate Change Adaptation Roadmap* (2014), *available at* <http://www.acq.osd.mil/ie/download/CCARprint.pdf>.

⁸ LD 460, 124th Leg. (Me. 2009); Maine DEP, *People and Nature Adapting to Climate Change: Charting Maine’s Course* (2010) [hereinafter “Maine DEP Adaptation Report”], pp.5, n.4, 11, 21, 34-35, 54 (“The anticipated rise in sea level...is the primary concern in planning how Maine’s coast could become more resilient.”), *available at* <http://www.maine.gov/tools/whatsnew/attach.php?id=369026&an=1>; *see also* Maine DEP, *A Climate Action Plan for Maine* (2004), *available at* <http://www.eesi.org/files/MaineClimateActionPlan2004Volume%201.pdf> (announcing Maine’s goal to reduce the state’s greenhouse gas emissions to 10% below 1990 levels by 2020).

⁹ ME. ADMIN. CODE 06-096 ch. 355; J.B. Ruhl, *Climate Adaptation Law*, in *GLOBAL CLIMATE CHANGE AND U.S. LAW* 677, 688 (Michael B. Gerrard & Jody Freeman eds., Second ed. 2014).

¹⁰ 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 processes.... Registrants whose businesses may be vulnerable to severe weather or climate related events should

EISs prepared under NEPA to consider future climate impacts on projects.¹¹ The Draft CEQ Guidance provides several examples of climate change impacts that should be analyzed in EISs, including the potential for climate change to “affect the integrity of a development or structure by exposing it to a greater risk of floods, storm surges, or higher temperatures.”¹²

Sea Level Rise

As oceans absorb heat and as glaciers and ice sheets melt, global sea levels are rising at increasing rates.¹³ In the next several decades, storm surges and high tides will combine with sea level rise and, in some locations, land subsidence to increase flooding in many regions, threatening the communities and industries along our coastlines.¹⁴ Many sources provide current and credible data regarding sea level rise and its potential consequences. As relevant examples, SCCCL points the Commission’s attention to:

- Intergovernmental Panel of Climate Change, Sea Level Change. In *Climate Change 2013: The Physical Science Basis, Fifth Assessment Report, available at* http://www.climatechange2013.org/images/report/WG1AR5_Chapter13_FINAL.pdf¹⁵
- The National Climate Assessment, pp. 44-45, 371-95, *available at* <http://nca2014.globalchange.gov>.
- Climate Central, *Surging Seas: Sea Level Rise Analysis, available at* <http://sealevel.climatecentral.org>.
- Risky Business: The Economic Risks of Climate Change in the United States, *available at* http://riskybusiness.org/uploads/files/RiskyBusiness_Report_WEB_09_08_14.pdf

Using these and other sources, the Commission should assess the projected range of sea level rise and storm surge throughout the life of the Downeast LNG Project and identify ways to prepare for climate change-related risks. To avoid underestimating these risks, the Commission should consider basing its analysis on sea level rise at the high end of the projected range. Notably, the 2014 National Climate Assessment indicates that sea level rise in the Northeast

consider disclosing material risks of, or consequences from, such events in their publically filed disclosure documents.”), *available at* <http://www.sec.gov/rules/interp/2010/33-9106.pdf>.

¹¹ Nancy H. Sutley, Memorandum for Heads of Federal Departments and Agencies, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions (2010) [hereinafter “Draft CEQ Guidance”], pp. 6-8, *available at* http://www.energy.gov/sites/prod/files/CEQ_Draft_Guidance-ClimateChangeandGHGEmissions-2.18.10.pdf.

¹² Draft CEQ Guidance, p. 6.

¹³ Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Eds., 2014: Climate Change Impacts in the United States: The Third National Climate Assessment. U.S. Global Change Research Program, 841 pp. doi:10.7930/J0Z31WJ2 [hereinafter “National Climate Assessment”], p. 44.

¹⁴ National Climate Assessment, p. 45; Gordon, Kate, 2014: Risky Business: The Economic Risks of Climate Change in the United States. The Risky Business Project [hereinafter “Risky Business”], p. 20.

¹⁵ Church, J.A. et al., 2013: Sea Level Change. In: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

United States is expected to exceed the global average of one to four feet by 2100.¹⁶ Moreover, since the Downeast LNG Project will involve sensitive and expensive equipment and bring large ships carrying highly combustible and potentially explosive cargo to the Project site, the Commission should certainly exhibit a low tolerance for risk.

Additionally, to adequately protect the Downeast LNG Project from future climate change impacts, the Commission should consider the risks of more frequent and severe flooding. These risks are not fully reflected by static sea level rise data. Increasingly intense storm surges are a foreseeable risk on the coast of Maine, where the Downeast LNG Project is sited. Particularly relevant is the 2014 National Climate Assessment's observation that a sea level rise of two feet, without any changes in storms, would more than triple the frequency of dangerous coastal flooding throughout most of the Northeast.¹⁷

Finally, the design of the Downeast LNG Project should incorporate an additional margin of safety, known as "freeboard," to account for unanticipated risk factors. The inclusion of freeboard in flood planning is intended to protect against risks that can contribute to flood heights, such as waves and the effect of development on ground water absorption.¹⁸ These risks are separate from and additional to the risks of sea level rise and storm surge, and should be evaluated as such in connection with the Downeast LNG Project.

In sum, sea level rise and increased flooding due to climate change pose a foreseeable risk to the Downeast LNG Project. However, the Downeast LGN Project NOI does not identify climate change or sea level rise as a significant issue for analysis in the proposed EIS. The Commission must consider these impacts to adequately protect the Project from future climate change impacts and to fulfill its obligations under NEPA.

Thank you for the opportunity to submit comments on the scope of the Downeast LNG Project EIS. Please feel free to contact SCCCL with any questions.

Sincerely,

Jennifer Klein

Enclosures:

2014 CEQ Letter
IPCC, Fifth Assessment Report, *Projections of 21st Century Sea Level Extremes and Waves*
National Climate Assessment, *Northeast*
Maine DEP Adaptation Report, *Maine's Communities and People*

¹⁶ National Climate Assessment, p.374

¹⁷ National Climate Assessment, p.374

¹⁸ American Society of Civil Engineers, Highlights of ASCE 24-05 Flood Resistant Design and Construction (2010), available at <http://www.fema.gov/media-library/assets/documents/14983>; FEMA Hurricane Sandy Recovery Advisories RA2: Reducing Flood Effects in Critical Facilities (April 2013) and RA5: Designing For Flood Levels above the BFE After Hurricane Sandy (April 2013), available at <http://www.fema.gov/media-library/assets/documents/30966>.