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SABIN CENTER FOR CLIMATE CHANGE LAW

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November 11, 2014

Filed Electronically
The Honorable Kathleen H. Burgess
Secretary, Department of Public Service
Three Empire State Plaza
Albany, New York 12233

RE: Matter Number 14-01299 – PSEG Long Island's Utility 2.0 Plan

Secretary Burgess:

The Sabin Center for Climate Change Law ("SCCCL")[1] submits these comments to the New York State Department of Public Service (the "Department") on PSEG Long Island's Utility 2.0 Plan, specifically PSEG's storm hardening and resiliency initiatives. For the purposes of these comments, SCCCL focuses on a critical issue that was not identified in PSEG's plan – the need to prepare our utility systems for future climate change impacts. Specifically, sea level rise, and an associated increase in flooding and storm surges, may pose significant risks to PSEG's operations.

As oceans absorb heat and as glaciers and ice sheets melt, global sea levels are rising at increasing rates.[2] 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.[3] PSEG indicates that it is attempting to prepare for major storms and flooding by considering flood surge zones when designing new substations and modifying existing infrastructure; for example, PSEG intends to elevate 12 substations damaged during Sandy.[4] However, PSEG fails to specify whether its actions are designed to withstand future as well as past storms. PSEG's plan should account for

[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] 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.
[3] National Climate Assessment, p. 45; Gordon, Kate, 2014: Risky Business: The Economic Risks of Climate Change in the United States [hereinafter "Risky Business"], p. 20, *available at* http://riskybusiness.org/uploads/files/RiskyBusiness_Report_WEB_09_08_14.pdf.
[4] PSEG Long Island's Utility 2.0 Plan, pp. 2-11 – 2-12, *available at* http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={EC2ADDD2-5FE1-44A0-A6F2-36AC02B1F29A}

projected climate change impacts to adequately prepare for storms and flooding of increasing magnitude and severity.

State policy supports consideration of future climate change related impacts in the Department's review of PSEG's plan. Notably, Governor Cuomo recently signed the "Community Risk Reduction and Resiliency Act" ("CRRA"), a landmark adaptation bill that amends certain state statutes to reflect greater awareness of and preparedness for climate change-associated risks.[5] The CRRA requires state agencies to consider future physical climate risks caused by storm surges, sea level rise, or flooding in certain permitting, funding, and regulatory decisions.[6] Notably, the CRRA amends the Smart Growth Public Infrastructure Policy Act ("Smart Growth Act") to require state agencies to ensure that public infrastructure projects are consistent with the goal of "mitigat[ing] future physical climate risk due to sea level rise, and/or storm surges and/or flooding, based on available data predicting the likelihood of future extreme weather events, including hazard risk analysis data if applicable."[7] PSEG's facilities are arguably public infrastructure projects falling within the purview of the Smart Growth Act; if so, PSEG should be required to assess climate change-related impacts when developing storm hardening and resiliency initiatives.

CRRA requires the New York State Department of Environmental Conservation to adopt official sea level rise projections by January 1, 2016.[8] Meanwhile, many sources provide current and credible data regarding sea level rise and its potential consequences.[9] Using these and other sources, PSEG should assess the projected range of sea level rise and storm surge throughout the life of PSEG infrastructure and determine whether its storm hardening and resiliency initiatives adequately address climate change-related risks. To avoid underestimating these risks, PSEG should base its determination on the high end of the projected sea level rise range. Notably, the 2014 National Climate Assessment indicates that sea level rise in the Northeast United States is expected to exceed the global average of one to four feet by 2100.[10] Moreover, PSEG should exhibit a low tolerance for risk in light of the high concentration of population and infrastructure near the coast in this region and the incident potential for severe storms to cause vast amounts of damage.[11]

Further, to adequately protect utilities from future climate change impacts, PSEG 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 New York, and should be considered in connection with the Department's review of PSEG Long Island's Utilities 2.0 Plan. Particularly relevant is the 2014 National Climate Assessment's

[5] 2014 Sess. Law News of N.Y. Ch. 355 (S. 6617-B).
[6] *Id.*
[7] *Id.*; N.Y. Envtl. Conserv. Law § 6-0107.
[8] *Id.*; N.Y. Envtl. Conserv. Law § 3-0319.
[9] *See e.g.*, Intergovernmental Panel on Climate Change ("IPCC"), Chapter 2.2.3 Ocean, cryosphere and sea level. In Climate Change 2014 Synthesis Report, Fifth Assessment Report, pp. SYR-22 – SYR-23, *available at* http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_LONGERREPORT.pdf; 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.
[10] National Climate Assessment, p. 374.
[11] Risky Business, p. 21-22 (noting the potential for sea level rise and changes in hurricane activity to cause billions of dollars of damage in this region over the course of this century).

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.[12]

Finally, PSEG's storm hardening and resiliency initiatives 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.[13] 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 PSEG's plan.

In sum, sea level rise and increased flooding due to climate change pose a foreseeable risk to PSEG's operations. The Department should consider these impacts when reviewing PSEG's storm hardening and resiliency initiatives to adequately protect the state's utilities infrastructure from future climate change impacts.

Thank you for the opportunity to submit comments on PSEG Long Island's Utility 2.0 Plan. SCCCL is available to meet with the Department of Public Service to discuss these issues in greater detail.

Sincerely,

Jennifer Klein

Enclosures:
IPCC, Climate Change 2014 Synthesis Report, *Ocean, cryosphere and sea level*
National Climate Assessment, *Northeast*

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[12] National Climate Assessment, p. 374.
[13] *See* New York City, N.Y., Rules, Tit. 1, § 3606-04 (citing FEMA's definition of freeboard, 44 C.F.R. § 59.1); 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.