## April 1, 2016

## VIA ELECTRONIC FILING

Hon. Kathleen H. Burgess Secretary New York Public Service Commission Empire State Plaza Agency Building 3 Albany, New York 12223-1350

Re: Case 15-E-0302 - Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard

Comments on Draft Supplemental Generic Environmental Impact Statement

**Dear Secretary Burgess:** 

Alliance for a Green Economy and Nuclear Information and Resource Service hereby submit these Comments on the Draft Supplemental Generic Environmental Impact Statement, in accordance with the February 24, 2016 Notice of Completion of Draft Generic Supplemental Environmental Impact Statement.

Respectfully submitted,

Jessica Azulay Chasnoff Program Director Alliance for a Green Economy

Timothy Judson
Executive Director
Nuclear Information and Resource Service

## SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT ADDRESSING DEPARTMENT OF PUBLIC SERVICE STAFF WHITE PAPER ON A PROPOSED CLEAN ENERGY STANDARD PROGRAM

Proceeding on Motion of the Commission to		
Implement a Large-Scale Renewable Program	1	Case 15-E-0302
And a Clean Energy Standard	1	

COMMENTS OF ALLIANCE FOR A GREEN ECONOMY AND NUCLEAR INFORMATION AND RESOURCE SERVICE ON THE DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT ADDRESSING DEPARTMENT OF PUBLIC SERVICE STAFF WHITE PAPER ON A PROPOSED CLEAN ENERGY SSTANDARD PROGRAM

On February 24, 2016, the Department of Public Service submitted a Draft Supplemental Environmental Impact Statement ("DSEIS") in the above referenced proceeding. Alliance for a Green Economy ("AGREE") and Nuclear Information and Resource Service ("NIRS") hereby submit these Comments on the DSEIS, in accordance with the February 24, 2016 Notice of Completion of Draft Generic Supplemental Environmental Impact Statement.

Alliance for a Green Economic is the primary nuclear watchdog organization in Central New York. NIRS is a national nuclear watchdog organization with several thousand members in New York, including the communities near the state's six operating nuclear reactors. Though our interest in this case extends to the development of renewable energy mandate proposed in the Clean Energy Standard, our comments on this DSEIS pertain only to the treatment of nuclear environmental impacts and the impact of the proposed nuclear tier.

We find the treatment of the environmental impacts of nuclear energy contained in the DSEIS to be wholly inadequate in the DSEIS and conflictive with New York State's 2015 Energy Plan<sup>1</sup>, the state's position on the relicensing of Indian Point, and the state's position in the Waste Confidence and Continued Storage cases pertaining to the long-term storage of nuclear waste at nuclear power plant sites.<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> See 2015 State Energy Plan Volume 2, Impacts and Considerations, Pages 33-35; and Volume 2, Sources, Pages 23-25. <a href="http://energyplan.ny.gov/Plans/2015">http://energyplan.ny.gov/Plans/2015</a>

<sup>&</sup>lt;sup>2</sup> See, for instance, "Testimony of New York State Attorney General Eric T. Schneiderman on the Waste Confidence Draft Generic Environmental Impact Statement (DGEIS) and Proposed Rule" October 30, 2015. https://www.ag.ny.gov/pdfs/Janice%20Dean%20Testimony%2010.30.13.5.pdf

An assumption underlying the proposed nuclear tier in the Clean Energy Standard case is that without additional price support, one or more Upstate New York nuclear power plants would cease operation. We agree that if the Public Service Commission ("Commission") does nothing to provide financial support to nuclear owners, it is likely that multiple reactors would close before their licenses expire. The closure of these reactors would have positive environmental impacts, both inside and outside New York. It would mean the avoidance of uranium mining and milling, nuclear fuel enrichment and transportation, radioactive releases (both routine and accidental), thermal water pollution, destruction of aquatic organisms, and the creation of many tons of high level radioactive waste.

Instead of allowing these environmental benefits to come to fruition through the closure of these uneconomic nuclear reactors, the Department of Public Service White Paper proposes to continue nuclear plants' operation and therefore continue their negative environmental impacts, both on uranium extraction and processing communities and on the environment in New York.

From cradle to grave, nuclear reactors pollute the environment and threaten human health. The uranium fuel used in nuclear plants is mined by a largely unregulated industry that poisons indigenous communities and communities of color in the U.S. and around the world. There are over 15,000 abandoned uranium mines throughout the United States<sup>3</sup> which have never been cleaned up, predominantly in indigenous communities. After mining, uranium is processed into uranium dioxide ore at a mill; milling generates vast amounts of radioactive and toxic tailings that are deposited on the ground or in open ponds. The fuel is then enriched in an energy-intensive process. By the time fuel is delivered to a reactor for use, approximately 25,000 pounds of mining waste (rock, mill tailings, and depleted uranium) have been generated for each pound of nuclear fuel. <sup>4</sup> The additional creation of 20 tons of fuel per year for an average nuclear reactor not only becomes a nearly equivalent amount of high-level radioactive waste that must be stored in New York, its production entails the generation of approximately 500,000 tons of radioactive waste products.<sup>5</sup>

During power production, nuclear plants routinely as well as accidentally contaminate the environment through discharges of radioactive waste to the air and water. Nuclear fuel emerges from the reactor approximately one million times more radioactive than when it enters, and must be isolated from humans and the environment for millennia, posing a risk with no storage solution in sight.

Proponents of nuclear energy like to call nuclear reactors "emissions free" because they do not emit carbon dioxide at the point of power generation. Yet, the nuclear fuel chain is responsible for carbon emissions during mining, milling, enriching, construction, transportation, and decommissioning. Reactors also routinely emit radiation, and the federal government allows them to do so as long as they stay under the government's "legal limit." However, "legal" does not mean "safe." There is no safe level of radiation exposure. The Nuclear Regulatory Commission legal limit for radiation exposure to the

<sup>&</sup>lt;sup>3</sup> U.S. Environmental Protection Agency. Abandoned Mine Lands Portal. http://www.abandonedmines.gov/wbd\_um.html

<sup>&</sup>lt;sup>4</sup> World Information Service on Energy Uranium Project. Nuclear Fuel Material Balance Calculator. Using values for 1 tonne of UO2 and 4.0% enrichment. http://www.wise-uranium.org/nfcm.html

<sup>&</sup>lt;sup>5</sup> http://www.wise-uranium.org/nfcm.html

public from the routine operation of a reactor is 100 millirem per year<sup>6</sup>, a dose rate the agency believes to result in 1 additional cancer fatality per 286 people exposed. <sup>7</sup>

Nuclear reactors also experience radioactive leaks and spills, which can contaminate ground water and surface water. Radioactive leaks are <u>not</u> an exception. In 2011, an investigation by the Associated Press found that almost 75% of nuclear plants in the U.S. had experienced a radioactive tritium leak at some point. 8

Every year, the US nuclear fleet generates approximately 2,000 metric tons of high-level radioactive waste. The federal government and the nuclear industry have spent decades looking for a permanent solution to dispose of this waste safely, and they have come up empty handed. The current plan is to leave radioactive waste on-site indefinitely. New York State will be dealing with the legacy of this waste for generations.

Three of four nuclear reactors in Upstate New York use once-through cooling systems, and each consumes roughly 800 million gallons of water daily. The water is used to cool the reactors and is then dumped back into Lake Ontario, causing thermal and radioactive pollution and killing aquatic life. The Indian Point reactors on the Hudson River in Westchester County consume about the same total amount of water (2-2.5 billion gallons per day), killing a billion fish and other organisms each year. Every two hours, Indian Point's cooling system dumps as much heat as the Hiroshima bomb explosion into the Hudson River. Its water consumption is more than double that of New York City.

The negative environmental impacts of nuclear power are well documented, including by New York State agencies. In fact, multiple state agencies are involved in efforts to prevent the relicensing of the Indian Point nuclear reactors, in part, due to these environmental impacts. Additionally, the New York Attorney General's office has been involved in heavily critiquing and opposing the Nuclear Regulatory Commission's treatment of the environmental impacts of generating and storing nuclear waste at nuclear reactors.

Nonetheless, the DSEIS hardly discusses any of these negative environmental impacts that would result from a policy to extend the life of nuclear power plants in New York through artificial price supports and subsidies. Instead, it adopts Nuclear Regulatory Commission and industry positions, which the state in other venues has argued with.

The DSEIS highlights the perceived environmental and economic benefits of avoiding their replacement with fossil fuel generation. However, no comparison of environmental costs and benefits is attempted, nor are any alternatives explored. For instance, the DSEIS does not contemplate alternative scenarios, such as mandating higher levels of renewable energy generation and/or mandating certain increases in energy efficiency as a replacement for retiring nuclear reactors. Thus, the DSEIS violates a key requirement of the New York State Environmental Quality Review Act (SEQRA), which requires an evaluation of "all reasonable alternatives."

<sup>&</sup>lt;sup>6</sup>10 CFR § 20.1301 Dose limits for individual members of the public. http://www.nrc.gov/reading-rm/doc-collections/cfr/part020/full-text.html#part020-1301

<sup>&</sup>lt;sup>7</sup> U.S. Nuclear Regulatory Commission. Expanded Policy Statement on Below Regulatory Concern. Federal Register. 1990.

<sup>&</sup>lt;sup>8</sup> Associated Press. "Radioactive leaks found at 75% of US nuke sites." June 21, 2011 http://www.cbsnews.com/news/radioactive-leaks-found-at-75-of-us-nuke-sites/

For all the reasons stated above, we believe the DSEIS to be inadequate when it comes to the evaluation of the nuclear tier proposed by Department of Public Service Staff in the Clean Energy Standard White Paper. We urge that this oversight be remedied in the final version of the Environmental Impact Statement.

Respectfully submitted,

/s/
Jessica Azulay
Program Director
Alliance for a Green Economy

/s/
Timothy Judson
Executive Director
Nuclear Information and Resource Service