

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Application of Champlain Hudson Power Express, Inc.
for a Certificate of Environmental Compatibility and
Public Need Pursuant to Article VII of the PSL for the
Construction, Operation and Maintenance of a High
Voltage Direct Current Circuit from the Canadian
Border to New York City.

Case 10-T-0139

**JOINT BRIEF OF SCENIC HUDSON, INC. AND RIVERKEEPER, INC.
OPPOSING EXCEPTIONS OF ENTERGY NUCLEAR POWER MARKETING, LLC AND
ENTERGY NUCLEAR FITZPATRICK, LLC**

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Poughkeepsie, New York
Ossining, New York

INTRODUCTION

Pursuant to the Notice for Filing Exceptions issued by the New York State Public Service Commission (“Commission”) on December 27, 2012 in the above-captioned proceeding, Scenic Hudson, Inc. (“Scenic Hudson”) and Riverkeeper, Inc. (“Riverkeeper”) hereby submit their joint Brief Opposing Exceptions of Entergy Nuclear Power Marketing, LLC and Entergy Nuclear FitzPatrick, LLC (“Entergy”) to Administrative Law Judges (“ALJs”) Kevin J. Casutto’s and Michelle L. Phillip’s Recommended Decision issued in this proceeding on December 27, 2012 (“RD”).

Scenic Hudson and Riverkeeper support the RD as issued by the ALJs in this case, and oppose the exceptions raised by Entergy in its Brief on Exceptions relating to the RD’s findings regarding minimization of impact to shortnose and Atlantic sturgeon in the Hudson River.¹ Riverkeeper is a not-for-profit organization whose mission is to protect the ecological integrity of the Hudson River and its tributaries, and to safeguard the drinking water supply of New York City and the lower Hudson Valley. Scenic Hudson is a not-for-profit organization dedicated to preserving the scenic, ecological, recreational, historical, and agricultural treasures of the Hudson River and its valley.

The Hudson River is an invaluable resource in terms of its ecological productivity and its historical and cultural value. Scenic Hudson and Riverkeeper intervened in the above-referenced proceeding with concerns for, and with the purpose of evaluating, the project’s impacts to the Hudson River estuary. Contrary to Entergy’s assertions, there is more than adequate evidence in the record to support a finding by the Commission that the Project “represents the minimum adverse environmental impact,” as required by PSL Section 126.1(c). Through the changes to the Project negotiated in settlement and set forth in the Joint Proposal (“JP”) filed with the Commission on February 24, 2012, (including changes to the project route, the addition of conditions on the installation and operation of the line, requirements for compliance monitoring and a substantial Environmental Trust Fund to mitigate potential impacts), the environmental impacts of the Project, including the impacts to Endangered Species

¹ See Entergy Nuclear Power Marketing’s Brief on Exceptions, at 24 and 27.

Act (ESA) listed Atlantic and shortnose sturgeon, will be minimal and will be avoided, minimized, and mitigated to the greatest possible extent.

I. THE RECORD IS SUFFICIENT TO SUPPORT A FINDING OF MINIMIZATION OF IMPACTS TO ESA-LISTED STURGEON HABITAT.

To avoid potential impacts of the heat emanating from the transmission cables and the magnetic field produced, particularly on sensitive migratory species within the Hudson River estuary, the JP proposes that the cables be buried to the maximum depth achievable that would allow burial using a jet-plow, which is expected to be at least six feet below the sediment-water interface. If the cables occupy any federally maintained navigation channels, they will be buried to at least 15 feet below the authorized depth within those channels.

Further, the bi-pole will be buried in a single trench, with the cables installed vertically on top of one another, which results in the magnetic field from each pole essentially cancelling the other out, minimizing any magnetic field to the greatest possible extent. These conditions will ensure that the magnetic field from the cable will have a negligible impact on migratory species in the River and no impact on human health or navigation.

Underwater cable installation activities would be limited to certain times of the year to avoid life-cycle or migratory impacts to endangered Atlantic and shortnose sturgeon, as well as other fish species including American shad, winter flounder, and striped bass. These construction windows have been established in the proposed Certificate Conditions. By adhering to the construction windows, impacts to important Hudson River species – particularly the endangered Atlantic and shortnose sturgeon populations – will be further minimized during the most vital and sensitive portions of their lifecycle.

The JP proposes that the transmission line will enter the Hudson River miles approximately 25 miles south of Coeymans, in or around Cementon, New York, bypassing the Inbocht Bay and Duck Cove Significant Coastal Fish and Wildlife Habitats (SCFWH). The line will exit the Hudson River north of Haverstraw Bay, around Stony Point, New York, in order to avoid the highly valued Haverstraw Bay

SCFWH. The proposed settlement route in Appendix B of the JP therefore avoids directly transiting twelve of the seventeen SCFWH and reduces the distance of the transmission line in the Hudson River to approximately 87 miles.

In the areas where the line will be transiting through the Hudson River, the New York State Department of Environmental Conservation (NYSDEC) has identified “Exclusion Zones” (delineated in Appendix B to the JP) of particularly sensitive areas where cable installation will be avoided. These “Exclusion Zones” as well as the increased burial depths and construction windows (as described below) will avoid or minimize impacts to the five SCFWH’s that the line intersects.

While there will be limited areas where the cable cannot be buried and will instead be covered with concrete mats due to substrate or utility crossings, it is not expected that the very limited and generally sporadic nature of these areas will not appreciably impact sturgeon foraging or migration. It is important to note that even in areas where armoring may extend some distance, the width of the armoring will only extend over a small right-of-way in the vicinity of the cable, leaving ample undisturbed foraging habitat available on either side of the armoring.

II. EMANATION OF ELECTRO-MAGNETIC FIELDS FROM THE CABLES WILL HAVE MINIMAL IMPACT ON ESA-LISTED STURGEON.

Given the proposed configuration and burial depth of the cables, there is no evidence in the record that there will be any impact on sturgeon from the electro-magnetic field emitted by the cable.

The submarine cables will be shielded and buried, which will block any electric fields emitted by the cable. The cable will emit magnetic fields and a weak induced electric field generated from that magnetic field can be detected by certain aquatic organisms, but the only potential impacts to species would be avoidance, and given the relatively narrow right-of-way within which the field would be detected, no impact would be the likely outcome.² Given that the cables will be buried underground,

² Exhibit 89, at 67.

the electric field levels will be reduced to minute levels due to the earth cover over the buried cables.³ Electric fields are therefore not expected to impact any aquatic species.

It is true that the magnetic field resulting from the cable's operation may exceed the Earth's magnetic field; however, these magnetic fields diminish exponentially with distance from the cable.⁴ The configuration of the cable will inherently influence the magnetic field generated and the distance at which it could be detected.⁵ The proposed Certificate Conditions require that the cables be buried in a single trench, with the cables installed vertically on top of one another, which will result in the magnetic field from each pole nearly cancelling the other out, minimizing any magnetic field to the greatest possible extent.

The Commission's magnetic fields standards are set forth in the Commission's Interim Policy Statement on Magnetic Fields, issued, September 11, 1990. The interim policy establishes a magnetic field strength standard of 200 milligauss (mG) at one meter above grade on the edge of the right-of-way. The Applicant calculated that the projected magnetic field levels within 50 feet east or west of the cable configuration in the edge of the right-of-way are less than the 200 mG standard. All magnetic field levels calculated were also less than the Earth's magnetic field over North America. Further, these calculations assumed a burial depth of three feet and a horizontal separation of the cables ranging from three to six feet.⁶ The configuration of the cables in a single trench directly on top of one another will minimize the magnetic field to an even greater extent.

There is ample evidence in the record to conclude that aquatic migratory species will not be affected by the minimal magnetic field generated by the cable. The magnetic field emitted by the cable will affect the Earth's magnetic field in a constant fashion along a narrow band of river bottom along the length of the cable.⁷ Also, migratory species utilize multiple stimuli for migration, not

³ Exhibit 22, at 4.

⁴ Exhibit 89, at 67-68.

⁵ Id.

⁶ Exhibit 22, at 5.

⁷ Exhibit 89, at 67.

magnetic detection alone, and species are also exposed to other natural alterations in the Earth's geomagnetic field such as magnetic anomalies in sediments.⁸

CONCLUSION

For the foregoing reasons, Scenic Hudson and Riverkeeper respectfully request that the Commission reject the exceptions raised by Entergy. There is sufficient evidence on the record in this proceeding to support a finding that environmental impacts, including impacts to ESA-listed sturgeon, will be minimized.

Respectfully submitted,

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⁸ See Case 10-T-0139 Recommended Decision at 98.