

**STATE OF NEW YORK  
PUBLIC SERVICE COMMISSION**

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Application of Champlain Hudson Power Express, Inc. and  
CHPE Properties, 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

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Case 10-T-0139

**PETITION OF ENTERGY NUCLEAR POWER MARKETING, LLC  
AND ENTERGY NUCLEAR FITZPATRICK, LLC FOR REHEARING OF NYPS  
APRIL 18, 2013 ORDER GRANTING CERTIFICATE OF ENVIRONMENTAL  
COMPATIBILITY AND PUBLIC NEED**

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## INTRODUCTION

Pursuant to Section 3.7(b) of the Commission’s Rules of Practice, Entergy Nuclear Power Marketing, LLC and Entergy Nuclear FitzPatrick, LLC (collectively referred to as “Entergy”),<sup>1</sup> respectfully petition for rehearing from the “Order Granting Certificate of Environmental Compatibility and Public Need” (“Order”) issued by the New York State Public Service Commission (“Commission”) on April 18, 2013 in the above-captioned Article VII proceeding.<sup>2</sup> The Order authorizes the construction, operation and maintenance of an approximately 330-mile HVDC transmission line that will originate near Montreal, Canada, run through, *inter alia*, private property and precious natural resources such as Lake Champlain and the Hudson River to a point of interconnection in Astoria, New York (the “Project”).<sup>3</sup> Stripped to its essentials, the Project is nothing more than \$2.2 billion dollar extension cord, the purpose of which is to inject Canadian hydropower directly into New York City, without any opportunity for New York-based generating units to access the Project to deliver their power to the constrained areas of

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<sup>1</sup> Entergy Nuclear Power Marketing, LLC (“ENPM”) and Entergy Nuclear FitzPatrick, LLC (“ENFP”) are respectively Entergy’s representative in the electric wholesale markets in New York and elsewhere and an upstate New York generator of base load, efficient, virtually emissions free power. Because ENFP is an upstate generator located above the Leeds-Pleasant Valley constraint, it is affected directly by the “existing transmission constraints” that the Project will purportedly help alleviate. *See, e.g.*, Order, p. 28. However, because the Applicants’ advanced the Project (and the Commission approved it) without any intermediary points of interconnection between Montreal, Canada and New York City, the Project actually does nothing to remedy this constraint for Upstate New York generators, including ENFP. Instead, it bypasses that constraint in a manner that benefits only the Project’s investors and, as discussed more fully *infra*, does so based on a business plan that places New York consumers directly at risk of having to subsidize the Project’s costs.

<sup>2</sup> Case 10-T-0139, Application of Champlain Hudson Power Express, Inc. and CHPE Properties, 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, “Order Granting Certificate of Environmental Compatibility and Public Need” (issued April 18, 2013).

<sup>3</sup> Additionally, the Order authorizes construction, operation and maintenance of the Astoria-Rainey Cable. The Astoria-Rainey Cable is a 345 kV HVAC underground cable, with an estimated cost of \$190 million, that the Applicants intend to route along a serpentine route beneath busy Astoria streets and rights-of-way. Importantly, the JP defines this aspect of the TDI Project separate and apart from the remainder of the project (which Applicants refer to as the “HVDC Transmission System,” making a point of emphasizing that the HVDC Transmission System specifically excludes the Astoria-Rainey Cable). The Order authorizes the Applicants to construct and operate the Astoria-Rainey Cable on a non-merchant basis.

southeastern New York. Nonetheless, the Commission deemed that the Project is both needed and in the public interest and otherwise meets the statutory requirements for certification. As detailed below, those findings are in error and rehearing is warranted for further consideration of more stringent certificate conditions that would protect New York consumers and competitive wholesale electricity markets against the looming risk of uneconomic entry the Project poses.

### **SUMMMARY OF THE ARGUMENT**

For the first time, the Commission has certificated an Article VII project without requiring a showing that the project will create a single job or otherwise bestow tangible economic benefits on New York consumers, or society. Rather than weigh and balance the proof showing that the Project could not be operated on a true merchant basis (i.e., without direct or indirect subsidy) against the Project's so-called "non-monetary benefits," the Commission altogether eliminated economics and potential adverse market impacts from the Article VII analysis. That action represents an unprecedented relaxation of the statutory public interest standard, even in merchant cases, and an arbitrary departure from administrative precedent.

Entergy thus petitions for rehearing from a number of the Commission's findings of fact and conclusions of law. First, the Order essentially re-writes Article VII of the New York Public Service Law ("NYPSL") by eliminating any meaningful consideration of whether the Project is needed and/or in the public interest. Under the decisional rule established in the Order, the separate statutory requirements of demonstrating that a project is both needed and in the public interest collapse into a single test. That test is so permissive that any project that can interconnect safely to the New York Bulk Transmission System passes muster, with little regard for actual proof that the Project sponsors can deliver on their promises, and without meaningful consideration of the Project's potentially harmful effect on competitive wholesale electricity

markets. Under the Order, the consideration of such things as competitive harm now qualifies as the erection of an unreasonable barrier to entry, when it previously was a key element of the Commission's public interest analysis.<sup>4</sup>

The Commission has arbitrarily redefined reliability to mean over-building the transmission system merely to provide a potential backup against the occurrence of several, highly speculative contingencies, then declared that over-build to be "needed." Such a generic, non-substantive standard is far from what the Legislature mandated by requiring a showing of actual need, and, separately, that the project serves the "public interest, convenience and necessity."<sup>5</sup> On rehearing, the Commission must scrutinize the Project more closely, and must respond to the real threat of public subsidy it presents by imposing the more stringent certificate conditions that Entergy had offered into the record.<sup>6</sup>

Next, the Order's finding that the Project will deliver certain "non-monetary benefits," including increasing fuel diversity and achieving emissions reductions, lacks a rational basis in the record. Specifically, the Project's emissions reduction and fuel diversity attributes are

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<sup>4</sup> Order, p. 50.

<sup>5</sup> NYPSL § 126.1(g).

<sup>6</sup> Entergy (and others) argued that proposed Certificate Condition 15 fails to proscribe indirect subsidies, which is why Entergy recommended the following additional conditions to complement proposed Certificate Condition 15:

1. Applicants, their affiliates and their successors cannot obtain any direct subsidy or payment to defray the cost of the Project from any utility or State, municipal or other governmental agency, authority or other entity;
2. Applicants, their affiliates and their successors cannot seek to include the costs of the Project through cost-of-service rates for delivery services under FERC or NYPSL jurisdiction;
3. To avoid having the Project's costs funded indirectly through an above-market "bundled" power contract, the Applicants shall require each shipper to certify that the buyers of the shipper's power will not recover the power contract costs (or any portion of them) through a non-bypassable portion of a utility's rates, or in the case of a state power authority through a charge to a customer unless the customer can both legally and practicably avoid the charge by switching suppliers; and
4. To avoid indirect subsidies to the Project through subsidy payments to its shippers, the Applicants, their affiliates and their successors shall require each shipper to certify that it has not received any above-market subsidy or other payment from any utility or State, municipal or other governmental agency, authority or other entity if that subsidy or payment would not have been available but for the shipper's use of the Project to deliver its power.

contingent on the Applicants delivering on their promises as to the nature, source and quantity of electricity to be transmitted over the Project. Yet, unlike in other recent merchant cases, Applicants concede that they do not have any contracts with shippers and have yet to establish the feasibility of the Canada-side interconnection.<sup>7</sup> Absent a contract, and absent any proof that the Project can actually interconnect as proposed, these non-monetary benefits remain illusory. The Commission's finding that they will actually accrue and thus support a finding that the Project serves the public interest, convenience and necessity lacks a rational basis in the record.

On cable burial depth issues, the Order rests on a false premise – that Entergy argued that the United States Army Corps of Engineers (“ACOE”) had rendered its final decision on the Applicants’ dredge and fill activities.<sup>8</sup> However, Entergy has never claimed that the ACOE has issued a final ruling, or that its correspondence was dispositive of Applicants’ federal filings. Instead, Entergy argued that the ACOE correspondence in the evidentiary record indisputably showed that the ACOE, at that time, rejected material aspects of the Applicants’ routing plan in lieu of more stringent measures. Since then, Applicants have made no showing that the ACOE has reversed or altered that position. This absence of contrary proof precludes a Commission finding that the approved route represents the minimum environmental impact, or alternatively compels a rational explanation on the record as to why the ACOE’s recommended measures were infeasible here. In other words, the only evidence in the record establishes that the federal agency with primary jurisdiction over dredge and fill activity along the route objects to the Project as not sufficiently protective of the environment. The Commission’s finding to the contrary – that Applicants have minimized adverse environmental impacts – is arbitrary and

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<sup>7</sup> Order, p. 15.

<sup>8</sup> Order, p. 70.

irrational, regardless of the stage of the federal permitting process, or of the Applicants' obligation to comply with the ACOE permit.<sup>9</sup>

Third, even accepting arguendo the Order's conclusion that concrete matting will cover a lesser quantity of Hudson River bottom than Entergy has estimated, the same ACOE correspondence suggests a complete prohibition against the Applicants' proposed use of concrete matting anywhere along the route. Nevertheless, the Order credits as "evidence" the Applicants' conclusory statements of no impact from the concrete matting, without pointing to any studies or other factual support for those statements. That holding is equally arbitrary, capricious and without a rational basis. Nor does the Order explain how a study of the possible effects of electromagnetic fields ("EMF") on Pacific and Atlantic salmon – all the record contains here – informs the issue of magnetic field impacts on ESA-listed sturgeon. Again, the Order's findings that the Project satisfies Article VII's environmental standards rest mainly on nothing more than speculation, conjecture, and surmise, not substantial evidence in the record. Rehearing is thus warranted on environmental grounds as well.

## ARGUMENT

### **I. THE COMMISSION'S FINDING THAT THE PROJECT QUALIFIES AS A MERCHANT TRANSMISSION ENTERPRISE LACKS A RATIONAL BASIS IN THE RECORD**

Pursuant to Section 3.7(b) of the Commission's Rules of Practice, parties may seek rehearing on the grounds, inter alia, that the Commission committed an error of law or fact.<sup>10</sup>

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<sup>9</sup> That the ACOE has not issued a final permit -- the sole basis cited in the Order for rejecting Entergy's arguments in this regard -- is merely a consequence of the Applicants' orchestration of the permit process, and is thus no reason to ignore a federal agency's clear jurisdiction. See Hearing Exhibit 216, p. 1 ("As we have discussed, the Applicants elected to postpone responding to this request in order to avoid submitting information which either violate the confidentiality requirements of the Commission's settlement process or would have to be updated."). This statement reveals the Applicants' strategy to place the ACOE process on hold pending finalization of the JP.

<sup>10</sup> See 16 N.Y.C.R.R. § 3.7(b).



Both grounds apply here and justify a Commission order in this proceeding granting rehearing. As demonstrated below, through the Order, the Commission has embarked on an unwarranted and impermissible detour from the statute and Commission precedent. If the Commission allows the Order to stand unchanged, it will render Article VII toothless, at the expense of New York consumers. Those consumers will then unnecessarily bear even higher electricity prices, this time driven by the need to subsidize the Project. The Commission must correct the manifest errors of law and fact that underlie the Order. If the Commission finds on rehearing that an Article VII Certificate can issue on this record, it must act now to protect New York consumers by, at a minimum, imposing the certificate conditions Entergy has recommended.

Under Commission precedent, if the Project qualifies as merchant, it escapes the more stringent Commission scrutiny that attends regulated transmission projects.<sup>11</sup> However, the Commission has adopted and applied an unreasonably narrow definition of a merchant project here: “A project is non-merchant if its investors are seeking cost recovery through regulated cost of service rates and merchant when they are seeking to recover their costs through wholesale power transactions.”<sup>12</sup> Applying this low standard, the Order concludes that Certificate Condition 15, which all agree precludes only direct subsidies to the Applicants (and even then excluding the Astoria-Rainey Cable), is “adequate to protect consumers.”<sup>13</sup> In so doing, the Commission ignored clear evidence presented by IPPNY witness Mark Younger that market-based “wholesale power transactions” would not be available to support the project at the price the Project’s investors would need to earn a reasonable return on, and of, their \$2.2 billion investment, and that the Project would therefore require an extra-market subsidy. Put simply, a

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<sup>11</sup> Order, p. 21-22.

<sup>12</sup> Order, p. 83. To be clear, ratepayers may very well be on the hook for the entire \$190 million cost of constructing the Astoria-Rainey Cable. The Order again glosses over this key point; although the Commission has not identified any other such “hybrid” transmission projects that it had deemed a merchant project overall.

<sup>13</sup> Order, p. 81.

Project is non-merchant if its investors are seeking cost recovery through a direct or indirect extra-market subsidy because the effect is the same -- consumers in some capacity ultimately must foot the bill for that subsidy, not the Project's investors. The Order merely glosses over this critical principle, and in so doing, provides insufficient protection to New York consumers against exposure to the Project's costs.

**A. On Rehearing, the Commission Should Reconsider and Give Appropriate Weight to the Proof Demonstrating that the Project is Grossly Uneconomic and Therefore Unable to Proceed on a Merchant Basis.**

Throughout these proceedings, Entergy and others have repeatedly questioned Applicants' claim that the Project should qualify as a merchant transmission proposal. The analyses presented by IPPNY witness Mr. Mark Younger, for example, demonstrated that New York's wholesale electricity market would not support the Project, either now or in the near future under any reasonable set of assumptions. Mr. Younger's analyses further demonstrated that the Project had negative production cost savings (by a wide margin) and that a benefit-cost analysis conducted using the New York Independent System Operator's ("NYISO") CARIS methodologies showed that the Project scored just .29 – far below the NYISO's 1.0 standard for approving CARIS-based transmission projects.<sup>14</sup> The Order irrationally rejects Mr. Younger's cash flow analysis; credits, but fails to give adequate weight to, Mr. Younger's production cost savings analysis; and simply ignores his CARIS analysis.<sup>15</sup> On rehearing, the Commission must reconsider these matters and, more importantly, acknowledge and quantify the risk they impose on New York consumers and impose certificate conditions to mitigate that risk.

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<sup>14</sup> No party seriously contends that the Project could meet the CARIS benefit-cost standard. Mr. Younger conducted the CARIS-type analysis as a further objective measure of the Project's relative economics (or, as in this case, lack of economic viability).

<sup>15</sup> Order, pp. 38-42.

Mr. Younger relied on conservative inputs in his cash flow analysis and concluded that it would cost \$44.52 MWh to \$51.54 MWh to deliver energy across the Project, i.e., Applicants must receive that average amount per MWh from shippers using the Project to cover the Project's carrying cost.<sup>16</sup> For purposes of this analysis, Mr. Younger accepted Applicants' own estimates of Project cost (both original and as revised by the Applicants when it became apparent that the Project cost fairly must include an additional \$346 million in Canadian interconnection costs) and applied the Applicants' suggested 90% capacity factor. Applying a levelized generic carrying charge rate of 16% to those costs, Mr. Younger calculated an annual carrying cost of \$351 million per year for the Project, which increased to \$406 million when the analysis was corrected to incorporate the Canadian interconnection costs.<sup>17</sup> Mr. Younger derived the \$44.52 MWh to \$51.54 MWh range by dividing the Applicants' cost figures (plus the carrying charge) by the 7,884 GWh of electricity the Applicant assumes the Project will deliver on an annual basis, assuming it can achieve the aggressive 90% capacity factor Applicants have promised.

To determine potential Project revenues, Mr. Younger applied publicly available clearing price information to identify the price differential for power at the Canadian border (the point of injection into the New York power system) and New York City (the delivery point).<sup>18</sup> That differential ranged from only approximately \$7.50 to \$8.00 per MWh. After considering all potential savings (congestion costs and the difference in energy net losses), Mr. Younger

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<sup>16</sup> Tr., p. 475.

<sup>17</sup> The 16% rate Mr. Younger used in this part of the analysis is the same rate used by the NYISO when evaluating the costs and benefits of a transmission project. The 16% carrying charge rate reflects generic figures for a return on investment, federal and state income taxes, property taxes, insurance, fixed O&M, and depreciation (assuming a straight-line 30-year method). In stark contrast, DPS Staff's speculation as to HQ's potential motives and business strategies is all that propped up the suggestion that Applicants may obtain more favorable financing terms. Tr., 187-189.

<sup>18</sup> Tr., pp. 474-485. No party disputed that the benefit of the project to a shipper is the ability to sell lower-priced energy generated in Canada to the higher-priced New York City market.

concluded that the differential between the two points is still only \$11.00.<sup>19</sup> Therefore, a shipper must pay, at a minimum, \$44.52 MWh to secure transmission rights on the HVDC line (assuming the shipper pays a price adequate to allow Applicants' investors a reasonable return on, and of, their investment), but could only earn \$11.00 in a market-based sale of the same MWh to an LSE on the other end of the transmission line in New York City. That is a losing proposition that no rational shipper would undertake to secure the rights to transmit its energy over the Project to New York City. For that reason, coupled with the Project's negative production cost savings (discussed, *infra*), Mr. Younger concluded, "the Project is so uneconomic that it is unlikely to be built or operated over the long term unless it secured some kind of substantial subsidy."<sup>20</sup>

The Commission's rationale for rejecting Mr. Younger's cash-flow analysis – that it "is keyed on historical bus prices instead of forecasted bus prices" – does not withstand scrutiny.<sup>21</sup> Implicit in the Commission's holding is a determination that, had Mr. Younger used "forecasted bus prices" instead of "historical bus prices," the Project would be economic, *i.e.*, Mr. Younger's conclusion would have materially changed. There is not a shred of evidence in the record supporting this proposition. Mr. Younger's cash flow analysis showed that the Project was so grossly uneconomic that the price differential between the Canadian border and New York City would have to increase at least five-fold before the Project's shippers could earn any return on their investment in the Project's transmission capacity. No party, including Applicants, who ultimately bear the burden of justifying their Project, advanced evidence establishing that there would be a five-fold swing in Mr. Younger's results had he merely substituted forecasted bus

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<sup>19</sup> Both of these figures were also calculated conservatively (*i.e.*, in the Applicants' favor) because neither was adjusted downward to reflect the reduction in energy prices that will result on the delivery end of the line when 1,000 MW of additional energy is transferred between these two points.

<sup>20</sup> Tr., p. 485.

<sup>21</sup> Order, p. 42.

prices (as the Order suggests he should have) for historical bus prices, because no such evidence can be marshaled. Therefore, the Commission's rejection of Mr. Younger's cash flow analysis for failure to adjust the bus prices input was arbitrary and irrational, and the Commission should grant rehearing to correct that error.

At a minimum, the Commission must expressly acknowledge that the Project's questionable economics serve as important warning signs, and must impose fully protective certificate conditions, exactly as Entergy has advanced, even if those conditions prove unnecessary. The Applicants chose to position their Project before the Commission as a merchant transmission enterprise. The Applicants thus bear the burden of demonstrating to the Commission how their Project is economically feasible, given current and foreseeable future market conditions. They utterly failed to do so. Yet the Order bestows on them the merchant label, and, with it, applies the Commission's more flexible merchant project need and public interest standards. Rehearing should be granted because the Commission has applied the merchant label and review standard without substantial evidence in the record to support a finding that this is a merchant project. The Commission's refusal to consider the Project's economics in a meaningful fashion places New York consumers directly at risk of having to bear the Project's costs in some capacity.

**B. The Commission Should Grant Rehearing for Further Consideration of the Undisputed Proof Showing that the Project Would Require Subsidy to be Feasible.**

The Order candidly concedes that Certificate Condition 15 does not proscribe the indirect subsidy Entergy described at length in its submissions.<sup>22</sup> In other words, Certificate Condition

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<sup>22</sup> Order, p. 81.

15 operates narrowly to preclude only the certificate holders from seeking cost-of-service rates.<sup>23</sup> While such a certificate condition may be useful in some contexts, the record of the proceeding shows that it is virtually meaningless based on Applicants' apparent business plan.

During the course of this proceeding, New York Governor Andrew Cuomo, following up on promises made during his 2012 "State of the State" address, began an "Energy Highway Initiative" ("EHI") and established the "Energy Highway Task Force" to examine changes in New York's bulk power system. The EHI Task Force then solicited and received proposals from interested parties, including from Applicants and HQ.<sup>24</sup> Applicants' and HQ's EHI submissions revealed a plan by which HQ may finance the Project in whole or in part, pre-subscribe up to 75% of the HVDC line's capacity for a term of years, then seek a long-term off take contract with a New York LSE.<sup>25</sup> The record here contains Applicants' witness Donald G. Jessome's testimony stating that Applicants were "working hard towards" a transmission service agreement with HQ, and HQ's assertions that New York State would need to "work creatively" with HQ to recognize the "significant value" of HQ's energy.<sup>26</sup> The Commission cannot ignore the real possibility that Applicants' and Hydro-Quebec Production's ("HQ") respective (but related) responses to Governor Andrew Cuomo's "Energy Highway Initiative" ("EHI") Request for Information ("RFI") reveal a clear path to subsidy, and to New York consumers.<sup>27</sup>

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<sup>23</sup> Id. ("The protections [of Certificate Condition 15] clearly prohibit the Facility from receiving cost-of-service rates, and that protection is sufficient to satisfy us that consumers are adequately protected from overpaying.").

<sup>24</sup> Hearing Exhibit 213.

<sup>25</sup> Order, p. 82.

<sup>26</sup> Tr., p. 89, lines 8-14. See also Hearing Exhibit 213, HQ EHI RFI submissions, p. 7.

<sup>27</sup> The first proposal in HQ's EHI submission is titled "Hydro-Quebec participation in Champlain Hudson Power Express." The accompanying text states, inter alia, "[HQ] proposes to become the 'anchor tenant' for the [P]roject by committing up to a 40-year purchase of 75% of the transmission rights, effectively paying for the construction of the line." Id., p. 3 of 13 (footnote omitted). See also TDI EHI submission, p. 11 of 26 ("TDI will enter into a 35-40 year Transmission Service Agreement with [HQ] or other entity for 750 MW of transmission capacity.").

As the EHI submissions demonstrate, HQ is likely to seek an out-of-market, long-term contract with a New York LSE to recoup the price it pays to the Applicants to secure long-term transmission rights on the HVDC Transmission System. Again, the Order acknowledges this possibility.<sup>28</sup> Assuming HQ agrees to finance the Project's costs, Mr. Younger's analysis shows that HQ would lose money if it thereafter entered into a market-based long-term power purchase agreement ("PPA") with a New York LSE. Accordingly, HQ will likely need to seek an above-market contract with a New York LSE to recoup its investment in the Project, and the LSE will in turn foist the cost of that contract onto consumers in some capacity. If that occurs, the Project will indirectly rely on non-merchant funding sources to generate its needed revenues. By virtue of subsidy in any form, New York consumers in some capacity – and not the Project's investors – will bear responsibility for the above-market compensation, thus disqualifying the Project as a merchant one. Even if the Commission disagrees as to whether the above course of events is inevitable, it is unquestionably possible based on the evidence in the record, and the consequences of its occurrence to New York consumers are dire. The risk and magnitude of those consequences alone justify Commission intervention and the imposition of more stringent certificate conditions, even if those conditions turn out to be unnecessary. There is virtually no set of circumstances under which such additional conditions could be deemed unwise. They would hold the Applicants to their merchant status commitments, and nothing more.

**C. The Production Cost Savings Analyses in the Record Were Not “Inconclusive” – They Further Establish that the Project is Grossly Uneconomic.**

The Commission should grant rehearing for the further purpose of revisiting the effect of Mr. Younger's and Dr. Paynter's respective production cost savings analyses on the Project's

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<sup>28</sup> Order, p. 82. The LSE goes unidentified in the submission, but, under the terms of certificate condition 15, could include Con Edison or the New York Power Authority ("NYPA").

merchant status. Entergy submits that, on rehearing, the Commission should credit Mr. Younger's unrefuted production cost analysis as further proof that the Project is grossly uneconomic and will thus likely require subsidy, and should respond to that likelihood by imposing certificate conditions to protect New York consumers, exactly as Entergy had proposed. Contrary to the Order's findings, there is nothing "inconclusive" about Mr. Younger's production cost savings analysis, or the risk to New York consumers that it highlights.<sup>29</sup>

First, while the Order correctly observes that the record contains two analyses of production cost savings (one by Mr. Younger and another by DPS Staff witness Dr. Thomas Paynter), only Mr. Younger performed a full production cost savings analyses using G.E.'s MAPS model (the generally accepted standard in the industry, frequently relied on by DPS Staff).<sup>30</sup> Dr. Paynter's analysis, on the other hand, was a "production cost savings analysis" in name alone. In fact, Dr. Paynter's study reported just a single output of a production cost savings analysis, *i.e.*, he compared the "all in" costs of constructing 1,000 MW of Canadian hydroelectric power delivered to New York City via the facility to the cost of constructing and operating 1,000 MW of combined cycle gas-fired turbine (CCGT) generation in New York City.<sup>31</sup>

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<sup>29</sup> Order, p. 41.

<sup>30</sup> Tr., pp. 489-505.

<sup>31</sup> DPS Staff witness Dr. Paynter's analysis of two unneeded projects -- the costs of constructing and operating the Project and the costs of constructing and operating a combined cycle facility in New York City -- is not (nor has it been characterized as) a cost-benefit study. Instead, it was an exercise in cost comparison and merely concludes that if a single developer were faced with the choice between constructing and operating the HVDC transmission line or a combined cycle gas-turbine plant of the same capacity, at some point on the 35-year spectrum, the Project option would prove to be \$400 million cheaper.

That is unquestionably not a ratepayer benefit, as the JP expressly acknowledges:

Because the Project is expected to be financed on a merchant basis, the difference between the estimated costs of these two supply options should not be interpreted as ratepayer benefits. To the extent that prices for electricity are determined by the long run cost of constructing and operating new CCGT capacity, these production cost savings will be captured by the Applicants, their financial backers and/or users of the facility.

JP, ¶ 108.



Using generally accepted standards and methods, Mr. Younger performed his production cost savings analysis over four different amortization periods (10, 20, 30 and 35 year) and under three different natural gas price scenarios (2010 AEO, 2011 AEO and 2012 AEO). He concluded that the Project remained clearly and deeply uneconomic under any of those scenarios.<sup>32</sup> As the Commission acknowledged, Mr. Younger's analysis thus "supports a conclusion that the Facility may not be economic on a forecast basis using low gas price forecasts, which lead, in turn, to forecasts of low wholesale electric prices for New York City."<sup>33</sup> There is no proof in the record establishing any reasonable expectation that gas prices will rise again to approach 2010 levels.

Importantly, Dr. Paynter and Applicants' witness Ms. Julia M. Frayer essentially re-wrote their respective economic testimonies in their pre-filed Reply Testimony in an apparent, but ultimately unsuccessful attempt to address the myriad deficiencies in their prior analyses that Mr. Younger had identified in his pre-filed Direct Testimony. For example, as Mr. Younger demonstrated was necessary, Dr. Paynter incorporated updated natural gas prices in his reply affidavit, and estimated the savings realized by constructing the Project instead of the CCGT alternative over a 35-year period to be as little as \$400 million (in 2015 dollars).<sup>34</sup> Under that "low gas" scenario, the Project's \$2.2 billion cost would far exceed any potential savings that might be realized.<sup>35</sup>

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<sup>32</sup> Tr. p. 450-505.

<sup>33</sup> Order, p. 39.

<sup>34</sup> Dr. Paynter presented his findings as a range, but the upper-bound number (\$2.6 billion) relied on, inter alia, the United States Department of Energy, Energy Information Administration's ("EIA") 2010 Annual Energy Outlook ("AEO") for natural gas prices. Dr. Paynter's lower-bound estimate of \$400 million appropriately relied on the 2011 AEO. Absent proof that natural gas prices are likely to increase to pre-2011 levels, of which there is none in this record, Dr. Paynter's upper-bound estimate is completely meaningless and so should have been eliminated from the analysis.

<sup>35</sup> Even in the unrealistic "high" gas scenario, the Project's savings, \$2.6 billion, barely exceed the cost of construction.

Notwithstanding Dr. Paynter’s last-minute overhaul of his production cost savings analysis, the Commission correctly determined in the Order that his analysis remained fundamentally flawed (again, as Mr. Younger had established):<sup>36</sup> “Staff’s method overstated the net benefit of the Facility by assuming that its in-service date, originally forecasted to be 2016, exactly matched the date that a new CCGT would otherwise be need to be built in New York City.”<sup>37</sup> While, in some cases, a “slight” overstatement may not be fatal to favorable economic findings, where, as here, the margins are so thin, even a “slight” overstatement could drive the Project into negative economic territory. It at least warrants scrutiny to determine what the outcome of Staff’s production cost savings analysis would be if the study were further corrected as Mr. Younger identified. Instead of conducting that kind of rigorous analysis, the Commission arbitrarily chose to jettison the economic analysis from Article VII and erroneously focused instead on highly speculative and yet unproven “non-monetary benefits” in an attempt to satisfy the statutory standard.

The Applicants simply have not carried their burden of proving that the Project can operate on a merchant basis. Instead, they presented the Commission with economic analyses that were so conflicted, incomplete or erroneous that the Commission chose to avoid relying on them altogether (largely for the reasons that Entergy and IPPNY advanced at the evidentiary hearing and otherwise). In short, the Commission’s conclusion that DPS Staff’s production cost savings was “inconclusive” cannot be bootstrapped to justify the dismissal of Mr. Younger’s findings as well – DPS Staff’s study should be rejected and Mr. Younger’s study credited. Given

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<sup>36</sup> As evidenced by the Commission’s near total rejection of Applicants and DPS Staff’s economic proof in the Order, many of Mr. Younger’s remaining criticisms also were confirmed. Yet the Commission still summarily and arbitrarily dismissed Mr. Younger’s opinions.

<sup>37</sup> Order, pp. 40-41. This finding is directly at odds with the Joint Proposal’s suggestion that such savings have been understated. See JP, ¶¶ 119-121.

the absence of any credible proof to rebut Mr. Younger's findings, the Commission must credit his production cost and other analyses.

On rehearing, the Commission should find that Dr. Paynter's production cost savings analysis was unreliable, and should credit Mr. Younger's production cost savings analysis. The Commission must then, as it has historically, weigh and balance the Project's clearly negative economics (and the risk they pose to New York consumers) against its so-called "non-monetary benefits." If that kind of balancing analysis were to occur, Entergy submits that the obvious risk to New York consumers and to competitive wholesale electricity markets would outweigh the Project's speculative non-monetary benefits. Those factors would then compel the Commission to deny certification or, at a minimum, compel the Commission to impose more stringent certificate conditions to protect New York consumers against even the possibility of having to subsidize the Project in any way, at any time. There is no good reason why such conditions should not be imposed in the interest of ensuring that consumer's interests are protected given that, as the ALJs have previously observed in this proceeding, this is the "only opportunity to create and develop a record" concerning the Applicants' proposal.<sup>38</sup> Indeed, if the risk that the harm Entergy's proposed certificate conditions seek to avoid were so low, as Applicants and the Order suggest, the imposition of those additional conditions to eliminate all risk would have no impact on the Project, or its business plan.

**II. REHEARING IS WARRANTED ON THE FURTHER GROUND THAT THE COMMISSION HAS EXCEEDED ITS STATUTORY AUTHORITY BY LOWERING THE STATUTORY BAR FOR OBTAINING AN ARTICLE VII CERTIFICATE**

Section 126 of the PSL requires the Commission to make several findings before it can issue a certificate for the Project. Among these, the Commission must make the somewhat

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<sup>38</sup> Case 10-T-0139, *supra*, "Ruling on Motion" (issued May 25, 2012) (May 25 Ruling).

interrelated findings of the “basis of need for the facility” (NYPSL § 126.1(a)); “that such facility conforms to a long-range plan for expansion of the electric power grid . . . which will serve the interests of electric system economy and reliability” (NYPSL § 126.1(d)(2)); and, “that the facility will serve the public interest, convenience and necessity” (NYPSL § 126.1(g)). The Order states that the “need for the project” is shown in this case because, “as an additional transmission interface into the City of New York, the Project will (1) alleviate existing transmission constraints, (2) protect the security of the transmission network, (3) enhance system reliability, and (4) enhance fuel diversity.”<sup>39</sup> The Commission relied on the same “non-monetary benefits” to support the Order’s finding that the Project will serve the “public interest, convenience and necessity.”<sup>40</sup> Because the Commission’s public interest analysis failed to credit evidence in the record demonstrating that the Project is so uneconomic that it will require subsidy from New York consumers, the Order summarily concludes that these “non-monetary benefits outweigh [the Project’s] environmental harm,” with no apparent concern for economic harm, including harm to competitive markets.<sup>41</sup>

The utter marginalization of the Project’s economics is unprecedented in Article VII jurisprudence, and is arbitrary and capricious. The Commission’s merchant precedent expressly relies on analyses concerning a project’s economics as an important factor to determine whether it meets Article VII’s need and public interest standards. By determining that the Project, which has no shipper contracts, no firm commitments and which proposes to interconnect in another country where the feasibility of interconnection remains unknown,<sup>42</sup> is both needed and serves the public interest based solely on its “non-monetary benefits,” the Commission has essentially

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<sup>39</sup> Order, p. 28.

<sup>40</sup> NYPSL § 126.1(g).

<sup>41</sup> Order, p. 41.

<sup>42</sup> Order, p. 16 n. 27.

neutered Article VII and impermissibly limited its scope to environmental concerns. Indeed, whereas the Commission's orders in the Bayonne and HTP proceedings ushered in a more flexible application of the statutory need and public interest requirements in merchant cases, the Order reduces the standard to a whole new -- and entirely impermissible -- low.

Under the Order, what were once separate statutory tests have collapsed into a single, low standard that can be satisfied through unproven conjecture and speculation. Unlike in Bayonne and HTP, the Project's so-called "non-monetary benefits" rely on several contingencies beyond the Commission's control -- most importantly, Applicants' ability to enter into a long-term contract with a shipper willing to pay a rate to secure capacity that is sufficient to allow recovery on, and of, the investment in the Project. Yet here, unlike in the Bayonne and HTP proceedings, "[a]s of the close of the record. Applicants did not have any contracts with shippers."<sup>43</sup> Because there is no tangible proof in the record establishing that the Applicants can actually deliver even a single one of those "non-monetary benefits," including even a single MW of hydropower, the Order's conclusion that that they are likely to occur and that the Project accordingly serves the public interest lacks a rational basis.

**A. Having Unjustifiably Eliminated Economics from the Analysis, the Commission's Reliance on the Orders in the Bayonne and HTP Proceedings is Misplaced.**

Generally beginning with its Order in the Bayonne proceeding,<sup>44</sup> the Commission has relied on the merchant status of the electric transmission project under consideration (which is typically demonstrated through production cost savings showing that the project is economically

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<sup>43</sup> Order, p. 15.

<sup>44</sup> Case 08-T-1245, Application of Bayonne Energy Center, LLC for a Certificate of Environmental Compatibility and Public Need for the Construction of the New York State Portion (Kings County) of a 6.6 Mile, 345 kV AC, 3 Phase Circuit Submarine Electric Transmission Facility Pursuant to Article VII of the PSL, "Order Adopting the Terms of a Joint Proposal and Granting Certificate of Environmental Compatibility and Public Need, with Conditions, and Clean Water Act § 401 Water Quality Certification" (issued Nov. 12, 2009) ("Bayonne Proceeding").

viable) and the resultant promotion of competition as the factual predicate for one or more of the above-referenced statutory findings, e.g., confirming that the project is needed. The Order takes that approach to an unprecedented level, and does so without requiring any actual proof that the Project can be sustained without subsidy of any kind.

For example, in Bayonne, the Commission observed, “there is no reliability need for additional electric generation facilities through 2019.”<sup>45</sup> The Commission then held that the project “meets the Public Service Law Article VII standard of need” based on its “system reliability benefits, economic benefits for customers and New York State, and achievement of public policy goals including environmental benefits.”<sup>46</sup> Specifically, the Commission ruled:

BEC will provide economic benefits for New York City consumers as a result of the addition of in-city generation. The facility is expected to displace older, less efficient generation, leading to reduced energy prices. If the resource is counted in the installed capacity market, there could be capacity price benefits as well. The addition of the BEC facility promotes competitive wholesale markets and helps reduce the market power of incumbent generators.

The BEC facility is a merchant project. No ratepayer funding is being sought. Therefore, any and all favorable impacts – reliability, economic or environmental – benefit New York without imposing additional risk on electric ratepayers.<sup>47</sup>

As to the “public interest” finding, the Commission ruled that the Bayonne project served the public interest because “it will, with minimum environmental impact, provide needed electricity in New York’s Zone J, enhance fuel diversity, improve system reliability, enhance

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<sup>45</sup> Id. at 12-13.

<sup>46</sup> Id. at 13.

<sup>47</sup> Id. See also Bayonne Order at P 16 (Stating, under the heading, “[T]he basis of need for the facility,” that “[T]he NYISO January 13, 2009 Reliability Needs Assessment, and the NYISO May 19, 2009 Comprehensive Reliability Plan encourage competitive markets for wholesale and retail supply, such as BEC will provide.”). The Bayonne facility commenced commercial operations in the summer of 2012.

opportunities for market-based transactions, and through the opportunity to displace existing older and dirtier generation sources, provide environmental benefits.”<sup>48</sup>

The Commission repeated the Bayonne approach in its Order in the HTP proceeding, stating:

the need for a transmission facility is not simply determined with reference to the NYISO’s most recent [RNA] and its base case assumptions. For our purposes pursuant to PSL Article VII, need is determined by examining numerous factors, including system reliability benefits, economic benefits for customers and the State, and the achievement of public policy goals.”<sup>49</sup>

The Commission also ruled that the HTP project passed the production cost savings test on the ground that “[T]he facility can be expected to provide up to \$900 million, or more, in production cost savings (both for energy and capacity) during the course of its 40-year useful life as compared to its estimated cost of \$716 million.”<sup>50</sup>

Even giving the Project the benefit of all doubts, the production cost savings analyses here produced a far different result than in HTP and Bayonne. Indeed, if one assumes the correctness of DPS Staff’s overstated analysis, under the “low gas” scenario, the Project offers just \$400 million in production cost savings (over a 35-year period).<sup>51</sup> In any event, the Project’s production cost savings are orders of magnitude less than its cost over a 35-year period. At least in HTP, the project’s savings would arguably exceed its costs, albeit over 40-year horizon. To derive even marginally positive production cost savings from Dr. Paynter’s study here, the

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<sup>48</sup> Id. at 21.

<sup>49</sup> Case 08-T-0034, Application of Hudson Transmission Partners, LLC for a Certificate of Environmental Compatibility and Public Need for a 345 kV Submarine/Underground Electric Transmission Link Between Manhattan and New Jersey, “Order Granting Certificate of Environmental Compatibility and Public Need” (issued September 15, 2010) (“HTP proceeding”) P 42.

<sup>50</sup> Id. at 45. See also, P 45 (“Given these economic study results, we find that we can grant certification for the facility because the business and financial risks associated with this merchant-developer project will be borne by HTP in association with its arrangements with NYPA. Before any public utility company in New York can enter into an agreement or arrangement with HTP to participate in this project it must seek and obtain out authorization.”).

<sup>51</sup> Order, p. 41.

Commission would have to indulge the fiction of high gas prices without any proof in the record to support that proposition, and look out 35 years.

The Commission cannot altogether jettison the need for a positive economic showing from the Article VII analysis yet still apply the merchant label to the Project and conclude that “consumers are adequately protected from overpaying” because there is no proof supporting that legal conclusion.<sup>52</sup> Taken together, the Commission’s merchant cases establish clear precedent to examine, at least at some level, a project’s economic outlook before bestowing the merchant label and conducting the more flexible regulatory analysis that attends that label. The reason for this economic review is clear; the Commission is bound by the statutory public interest standard to guard against projects that will weaken New York’s competitive markets and/or that threaten to impose their costs on New York consumers whenever such costs outweigh a project’s benefits. Departing from that statutory mandate now masks obvious flaws and deficiencies in the Project, and impermissibly attempts to re-write the statute. That approach marks an abrupt departure from administrative precedent and represents ultra vires and arbitrary agency conduct. Only the Legislature can decide whether Article VII’s standards should be relaxed – that is not the Commission’s prerogative.<sup>53</sup> The Commission must grant rehearing and reconsider the Project under a standard that complies with the legislative mandate in Article VII and as previously reflected in Commission precedent.

### **III. REHEARING IS WARRANTED TO CONSIDER FURTHER THE EFFECT ON COMPETITIVE MARKETS OF CERTIFICATING A GROSSLY UNECONOMIC PROJECT**

The Order gives unreasonably short shrift to Entergy and IPPNY’s concerns over the effect that certificating this grossly uneconomic project will have on New York’s competitive

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<sup>52</sup> Order, p. 81.

<sup>53</sup> Order, p. 50.



markets. The Commission’s authority to conduct “prudence” review of Con Edison’s long-term contracts and/or the presence of the NYISO’s buyer-side mitigation rules – all the Commission relies on to dismiss Entergy’s market impact concerns – do not adequately protect New York consumers, or the market, against the adverse effects of uneconomic entry.<sup>54</sup>

**A. On Rehearing, the Commission Must Balance the Risk of Uneconomic Entry Against the Project’s Anticipated Non-Monetary Benefits.**

The Order fails to give meaningful consideration to the risks to competitive wholesale markets posed by certification of the Project. Indeed, after deeming the economic analyses in the record “inconclusive,” the Order merely retreats from the issue:

If the economics are positive and the Project is built, then society will be better off for it, because of the important non-monetary benefits. If the economics become worse and the Project never gets underway, then no harm will come of our decision to grant the Facility a certificate.<sup>55</sup>

This oversimplification of the issue omits a critical third possibility: that the Project is uneconomic – as this Project has been shown to be – but its investors (i.e., HQ) nevertheless proceed forward and attempt to secure an extra-market subsidy to support their investment. The Commission cannot continue to ignore the fact that granting siting approval to a grossly uneconomic new entrant (or to a new entrant when the economics are unknown or “inconclusive”) harms the market by chilling new investment. If true merchant investors determine that the Commission has lowered the statutory bar for this large uneconomic new entrant and eliminated economics from the Article VII analysis, they will be reluctant to invest in new facilities in New York. True merchant investment cannot compete with projects that are ultimately financed through extra-market subsidies. By imposing certificate conditions now that prohibit such subsidies (as Entergy recommended), the Commission would protect the integrity

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<sup>54</sup> Order, pp. 50-51.

<sup>55</sup> Order, p. 41.

of New York's competitive markets, as envisioned by Opinion 96-12, the Commission's seminal order on competition.<sup>56</sup>

The Commission's observation that "the payment of a reasonable premium above the market price for renewable power, or other desirable attributes, is common and could be prudent" is virtually meaningless.<sup>57</sup> The record clearly establishes that the hydropower to be delivered over the Project, should it materialize, would not qualify under New York's Renewable Portfolio Standard ("RPS") program. The benefits of a New York LSE purchasing large quantities (the Order estimates as much as 10% of New York City's overall load requirements) of non-RPS qualifying hydropower are unclear. That is particularly the case in view of the other Commission proceedings that have been initiated to examine means of relieving existing system constraints, in part to allow low cost -- including RPS-eligible renewable -- upstate power to reach the New York City market. The Commission has failed to consider that the Project, which serve only its investor's interests, may be a hindrance to those broader efforts, which are intended to benefit in-State generation overall.

Further, the Order fails to account for the Project's potential negative price impacts on Upstate New York consumers. Dr. Paynter testified on cross-examination, applying the assumptions that underlie DPS Staff's production cost savings and DPS Staff and LEI's respective wholesale energy savings analysis in the "No Build" scenario that "we should expect to see a reduction at the border of prices."<sup>58</sup> On the other hand, if the Project is built, "[T]hen the

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<sup>56</sup> Cases 94-E-0952, et al., In the Matter of Competitive Opportunities Regarding Electric Service, Opinion and Order Regarding Competitive Opportunities for Electric Service, "Opinion 96-12" (May 20, 1996).

<sup>57</sup> Order, p. 51 n. 87.

<sup>58</sup> Tr., p. 213, lines 7-11.

prices at the border would end up being higher than they would have had [the Project] not been built.”<sup>59</sup> Dr. Paynter explained:

In general, the impact of [the Project] would be to redirect flows from Quebec directly into New York City as opposed to going into the existing New York transmission system. And, so, you would [get] a different pattern of price impacts. So, basically with [the Project] you would have prices lower in New York City but higher in upstate regions at the border compared to the case where HQ simply delivered all of that power at the border.<sup>60</sup>

Entergy noted that, in the hypothetical, those prices would be borne by retail customers (i.e., ratepayers) as well as municipal entities and other wholesale customers. Accordingly, Entergy argued that this Project, which would increase Upstate power prices without providing any other tangible benefits, is clearly not in the “public” interest.

The Order rejects Dr. Paynter’s testimony on the ground that the hypothetical presented to him on cross-examination was premised on the assumption that all things would remain equal.<sup>61</sup> DPS Staff’s wholesale energy price savings analyses (although ultimately rejected) were also “premiered on the assumption that all other circumstances would remain constant” – it is a common analytical convention used to compare different scenarios. Indeed, the JP states exactly the same thing.<sup>62</sup> The Commission cannot simply ignore the Project’s potentially negative impacts on upstate electricity prices merely because Dr. Paynter’s answer was based on a hypothetical set of assumptions. The bottom line is that there is a scenario under which the Project would cause an increase in wholesale electricity prices at the Canadian border.

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<sup>59</sup> Tr., p. 213, lines 12-22.

<sup>60</sup> Tr., p. 214, line 19 through p. 215, line 2.

<sup>61</sup> Order, pp. 45-46.

<sup>62</sup> JP, ¶ 135.

#### **IV. THE RECORD LACKS A RATIONAL BASIS TO SUPPORT THE COMMISSION'S FINDING THAT THE PROJECT MINIMIZES IMPACTS TO ESA-LISTED STURGEON HABITAT**

In its Brief on Exceptions, Entergy asserted that the record did not support a finding that environmental impacts have been minimized as required by PSL § 126.1(c) for three principal reasons. First, Entergy argued that because the potential adverse environmental impacts of converting several miles of Hudson River bottom (be it stony or deep sediment) with concrete matting had not been adequately vetted, the Commission lacked a rational basis in the record to support a finding that environmental impacts were minimized. Second, Entergy asserted that the record was incomplete concerning the Project's impact on ESA-listed sturgeon outside of the Exclusion Zones and Significant Habitats. Third, Entergy demonstrated that the record only contained studies of magnetic field impacts on Atlantic and Pacific salmon and furnished no basis on which to compare those findings to sturgeon.

With respect to the question of whether the cables' installation would cause potential habitat displacement of Endangered Species Act ("ESA")-listed sturgeon, the Order states, "by largely avoiding Significant Habitats and Exclusion Areas, including the river areas where state ESA sturgeon are believed more likely to occur, Applicants will avoid or minimize any potential impacts to sturgeon habitat."<sup>63</sup> The Order further rests this finding on the requirements that Applicants observe seasonal construction within these Exclusion Areas and SCFWHs and develop a final facility design that minimizes impacts to the five nearby SCFWHs.<sup>64</sup> As discussed below, the Order's findings are insufficient to support the requisite statutory findings

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<sup>63</sup> Order, p. 64.

<sup>64</sup> Id.

concerning the “nature of the probable environmental impact” and/or that the “facility represents the minimum adverse environmental impact.”<sup>65</sup>

First, the Order does not address the fundamental issue regarding the installation of the cables raised in Entergy’s Brief on Exceptions: The Applicants’ failure to adequately quantify or address the potential impact to ESA-listed sturgeon caused by placing concrete mats over significant reaches of the Hudson River bottom. Preliminarily, based on the only ACOE correspondence in the record that touches on this issue, the ACOE altogether prohibits the use of concrete matting.<sup>66</sup> The analysis of this issue should thus begin with the proposition that the ACOE has initially rejected Applicants’ proposal to use concrete matting. That fact alone should have driven the Commission to require closer scrutiny of the potential impacts of doing so.

Instead of adequately crediting the ACOE’s only opinion in the record on this topic, the Order quibbles over meaningless factual distinctions. In short, whether the concrete matting would cover 6.41 miles of river bottom or, as the Order concludes, 4.45 miles, the fact remains -- the cables will not be buried in these areas at the required minimum depth.<sup>67</sup> In these sections, the cables would instead be covered with concrete mats or other hard materials (e.g., grout filled bags or rip rap) that would extend laterally up to 50 feet and vertically several feet off the river bottom into the water column. Thus, installation of the cables would unquestionably result in several miles of Hudson River primary sturgeon habitat being permanently covered with concrete mats, the potential impacts of which to sturgeon remain unaddressed in the record.

The Order’s first conclusion, i.e., that the cables will be located so as to reduce impacts to Exclusion Areas and SCFWHs, does not address the fundamental question of whether the

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<sup>65</sup> PSL §§ 126.1(b), (c).

<sup>66</sup> Hearing Exhibit 215 (“Laying the cables on lake/river bed in limited areas with protective coverings would not be acceptable.”).

<sup>67</sup> Order, p. 56.

extensive installation of concrete mats in the sturgeon’s primary habitat will have an adverse effect on these ESA-listed species. Nothing in the ESA establishes that “largely avoid[ing]” Exclusion Areas or SCFWHs satisfies the ESA.<sup>68</sup> Even wholesale avoidance of such areas may be insufficient, because the potential impact to sturgeon of the loss of benthic habitat due to the installation of the concrete mats *outside* of these defined habitats has not been addressed. Consequently, a finding that potential impacts have been “minimized” does not ensure the protection of the sturgeon because the absolute magnitude of the impact, even if “minimized” by “largely avoid[ing]” Exclusion Areas and SCFWHs, may still be sufficient to violate the ESA, e.g., by representing a prohibited “take” under Section 9 of the ESA.<sup>69</sup> Thus, the Order’s focus on the cables’ avoidance of certain defined habitats, rather than the potential impacts to sturgeon of the Project, including outside of those defined habitats, as required by the ESA, is misplaced.

The Order’s attempt to rely on the post-certification requirement to develop a final facility design that minimizes impacts to the five nearby SCFWHs, is doubly off the mark. It relegates the obligation to address impacts to ESA-listed species to a future time, assuming the very conclusion the Commission must reach. Next, the record is devoid of any quantitative estimate of impacts to ESA-listed sturgeon outside the Exclusion Areas or SCFWHs. Any final

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<sup>68</sup> The Order’s repeated statements that the Project would “avoid” such areas lack a rational basis in the record. Based on a review of maps identifying the extent of the Exclusion Areas (see Hearing Exhibit 121) and Hudson River SCFWHs existing at the time the Project was proposed, the cables would pass through approximately 1.5 miles of Exclusion Area, and approximately 15 miles of SCFWH.

<sup>69</sup> See 16 U.S.C. § 1538(a)(1)(B), 16 U.S.C. § 1532(19) (defining “take” to include “harm” of endangered species); and 50 C.F.R. § 17(3) (U.S. Fish and Wildlife Service regulations defining “harm” to include “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.”). See also Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 697 (1995) (upholding 50 C.F.R. § 17(3) definition of “harm” to endangered species as including injury to wildlife due to “significant habitat modification” that results in “significant impair[ment] of essential behavioral patterns. . . .”); Sierra Club v. Lyng, 694 F. Supp. 1260 (E.D. Tex. 1988), aff’d in part and vacated in part sub nom. Sierra Club v. Yeutter, 926 F.3d 429 (5th Cir. 1991) (definition of “harm” includes “injury” to populations); Palila v. Hawaii Dept. of Land and Natural Resources, 649 F.Supp. 1070, 1075 (D. Hawaii, 1986) (A finding of “harm” does not require death to individual members of the species; nor does it require a finding that habitat degradation is presently driving the species further toward extinction.”)

facility design that “minimizes impacts” only to particular defined areas cannot ensure that impacts to sturgeon habitat outside those defined areas will not adversely affect sturgeon. Thus, as noted above with respect to the Order’s first conclusion, the Commission has failed to establish that the ESA is satisfied.

To find that the Project “represents the minimum adverse environmental impact,” as required by PSL Section 126.1(c), the record must contain substantial evidence supporting a Commission finding that impacts to ESA-listed species were, in fact, minimized. The Order’s findings do not do so. Therefore, the Order’s finding that the Project “represents the minimum adverse environmental impact,” as required by PSL Section 126.1(c), is irrational and lacks substantial evidence in the record.

**V. THE RECORD LACKS A RATIONAL BASIS TO SUPPORT THE COMMISSION’S FINDING THAT EMANATION OF MAGNETIC FIELDS FROM THE CABLES WILL HAVE MINIMAL IMPACT ON ESA-LISTED STURGEON**

Rehearing is warranted on the further ground that the Order fails to address Entergy’s arguments regarding potential effects of magnetic fields on Hudson River sturgeon, *i.e.*, that studies in the record concerning the effects of magnetic fields on Atlantic and Pacific salmon simply are not probative of magnetic field impacts on ESA-listed sturgeon. Neither the Commission, nor any party, has established or opined that the analogy among the different species is apt.<sup>70</sup> Therefore, to the extent the Order finds those studies to be probative of the HVDC line’s effects on sturgeon, that finding lacks a rational basis in the record.

The record clearly supports a finding that magnetic fields will exist at levels above background. As explained in Entergy’s Initial Brief, the evidence in the record demonstrates

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<sup>70</sup> Order, pp. 68-69 (“the analyses underlying the EIA considered the impact of magnetic fields on the migration, spawning, feeding, and development of aquatic species” – ESA-listed sturgeon never called out.).

that, even with the sheathing, and even buried on top of one another, the energized cables are expected to generate magnetic fields on the order of 526.5 milligauss (“mG”) in magnitude.<sup>71</sup> According to the Applicants’ Environmental Impact Assessment (“EIA”), the cables would create a deviation from the background magnetic field of up to 26.2 mG at 10 feet from the centerline at one foot above the riverbed.<sup>72</sup> Thus, the design and installation of the cables will not “eliminate” all magnetic fields emanating from them, nor does the burial system “essentially cancel[] out” magnetic fields.<sup>73</sup> To the contrary and indisputably, magnetic fields will exist. Yet the Commission has no basis on which to determine the impact of the magnetic field on ESA-listed sturgeon because the Applicants failed to provide any sturgeon-specific studies. In other words, the Commission conclusions concerning sturgeon protection lack a rational basis in the administrative record.

Despite a wealth of publicly available, scientifically credited information demonstrating the potential effects of magnetic fields on fish, including sturgeon, nowhere does the record specifically assess possible effects of magnetic fields on *sturgeon* navigation and migration.<sup>74</sup> Absent analysis comparing the magnitude and extent of the magnetic fields generated by the cables to the sensory threshold and behavioral responses of sturgeon to magnetic fields, it cannot be concluded that the magnetic fields generated by the cables, which will likely be on the order of a 50-foot wide, 10-foot high corridor running along the 87.75 mile length of cable burial in the deeper channels of the Hudson River where sturgeon typically migrate,<sup>75</sup> will minimize impact on those sturgeon. Put simply, the Applicants failed to carry their burden of proof on this issue.

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<sup>71</sup> Entergy Initial Brief at 44

<sup>72</sup> Entergy Initial Brief at 42.

<sup>73</sup> Order, p. 68.

<sup>74</sup> Id.

<sup>75</sup> Id. at 43-44.



It is therefore impossible for the Commission to render the necessary environmental findings under Article VII because there is no evidence to support such findings.

Where ESA-listed species are involved, the burden is on the Applicants to demonstrate that the proposed laying of cable in the Hudson River will not result in an ESA “take” of those listed species. Absent such a demonstration, the Applicants have failed to describe adequately the “nature of the environmental impact” of the proposed Project in the record. For these reasons, the Commission’s finding that the Project “represents the minimum adverse environmental impact,” as required by PSL Section 126.1(c), lacks a rational basis in the record.

#### **VI. THE COMMISSION MUST DEFER TO THE ACOE ON CABLE BURIAL ISSUES AS A MATTER OF LAW**

Before the Commission may issue an Article VII Certificate, it must find and determine, inter alia, “that the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations . . .”<sup>76</sup> The ACOE is the agency that unquestionably has exclusive jurisdiction over dredge and fill activities in the waters of the United States and construction activities in the Federally-maintained navigation channel. Entergy has presented correspondence from the ACOE that is part of the record in this proceeding that reveals that agency’s objections to the Applicants’ plan to occupy linear portions of the Federally-maintained navigation channel.<sup>77</sup> Whether the ACOE has issued a final permit or not, Hearing Exhibit 215 is the sole evidence in the record that actually states the agency’s position.<sup>78</sup> Yet the Order summarily

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<sup>76</sup> NYPSL § 126.1(c).

<sup>77</sup> Entergy Initial Brief, pp. 28.

<sup>78</sup> See, e.g., Order, p. 70. The Order misconstrues the probative value of Hearing Exhibit 215. It was not offered into evidence to prove any “absolute prohibition” (Order, p. 70). To the contrary, Entergy introduced Hearing Exhibit 215 into the record because it represents the only proof of the ACOE’s position, and shows that less environmentally harmful alternatives are available and achievable. Nor can the Commission find comfort in the ACOE’s actions in other HVDC proceedings: the instant Project is one of unprecedented scale and the overall

sweeps it aside, apparently based on a Commission finding that the ACOE is likely to reverse course and issue a final permit that is compliant with the Commission’s Order – a process that turns federal supremacy principles upside down.

By way of background, proposed Certificate Condition 95(a)(ii) states, in pertinent part: “where the cables shall be located outside the limits of the maintained Federal Navigation Channels in such rivers, the Certificate Holders shall install the cables to the maximum depth achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet plow, which is expected to be at least six (6) feet below the sediment water interface or, if sand waves are present, the trough of said waves. . .” Additionally, proposed Certificate Condition 95(b)(i), which pertains to Lake Champlain, states, in pertinent part, “in locations where the water depth is less than one hundred fifty (150) feet, the target burial depth is three (3) to four (4) feet below the sediment surface, except where the cables cross other utility Projects or other infrastructure or where geologic or bathymetric features prevent burial at such depth, and adequate measures for cable and infrastructure protection are provided.” Thus, there is no question that the Project intends to linearly occupy approximately nine (9) miles of the Federally-maintained navigation channel.<sup>79</sup>

However, by correspondence dated July 5, 2011, the ACOE stated, in pertinent part, as follows:

**The Corps of Engineers does not permit permanent structures within the length of the right of way, including side slopes, of a Federal navigation channel** (perpendicular crossings are permitted). Installation may be accomplished by direction drilling

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magnitude of impact that might flow from a deviation from ACOE standards is far greater than any that might have been experienced in Bayonne or HTP. In other words, that the ACOE may have authorized minor deviations from the rules described in Hearing Exhibit 215 as applied to much smaller transmission projects with significantly more limited impacts, even if true, does not justify any Commission finding that the ACOE is likely to do that again here. The identified projects are completely dissimilar in scope and magnitude.

<sup>79</sup> Hearing Exhibit 216, Attachment D.

from parts of state tracts that are outside the Federal right of way. For this project to be deemed acceptable from a navigation perspective, the cable alignment must remain outside the Federal channel right of way.

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For those cases where utility crossings in a Federal channel are necessary, the following guidance applies:

With the implementation of burial depths of four (4) feet below water body bed in areas outside of the Federal navigation channels and fifteen (15) feet below authorized depths when crossing a federally maintained navigation channel, the proposed project would have minimal impact to navigation and further dredging of the Federal Channels.

\* \* \*

**Laying the cables on lake/river bed in limited areas with protective coverings would not be acceptable.** All cables must be buried. Outside of channel areas, the burial depth requirement is four feet. Where existing utilities are crossed, other depths will be considered. All crossings must be identified.

Narrows of Lake Champlain (NLC) Federal Navigation Channel: **As the Corps of Engineers does not permit permanent structures within the length of the right of way of a Federal navigation channel (crossings are permitted), the cables must be moved outside the NLC Federal navigation channel limits.** A minimal number of cable crossings may be considered provided they meet the burial requirements.<sup>80</sup>

The Order ascribes two claims to Entergy related to cable burial – that “Entergy interprets the USACE letter to be an absolute prohibition” (which Entergy has never asserted), and that “the letter precludes making a finding that the Facility represents the minimum adverse environmental impact.”<sup>81</sup> First, whether the ACOE has issued a final permit or not, the Commission cannot ignore the evidence in the record before it, as it has done in the Order. The ACOE is not a party to this Article VII proceeding. The record shows that the Applicants

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<sup>80</sup> Hearing Exhibit 215.

<sup>81</sup> Order, p. 70.

affirmatively requested that the ACOE not act on their application until after this proceeding was complete. Thus, assuming arguendo that finality of the ACOE's decision is even pertinent, the record shows that the Applicants engineered that non-finality. Under those circumstances, the Commission cannot rationally rely on the non-finality of the permit as a reason for rejecting the only evidence in the record showing the ACOE's position.

More significantly, the Order completely omits any discussion of the second point above – i.e., that the ACOE correspondence in the record, which clearly indicates less environmentally harmful alternatives precludes the Commission from finding that the Project minimizes environmental impacts. The ACOE correspondence is unquestionably what it purports to be – an initial rejection by the federal agency with jurisdiction over the matter of Applicants' proposal in favor of more environmentally beneficial measures, coupled with a request for additional information. It is also the only proof in the record showing that agency's position. Until the ACOE options have been vetted on the record and compared to the dredging plans in the JP, the Commission's conclusion that the Project minimizes adverse environmental impacts lacks a rational basis in the record.

## **CONCLUSION**

For all of the foregoing reasons, as supported by the record evidence in this proceeding, Entergy Nuclear Power Marketing, LLC and Entergy Nuclear FitzPatrick, LLC respectfully request that the Commission grant rehearing, and, on rehearing, reverse the Order Granting a Certificate of Environmental Compatibility and Public Need, or, in the event that the Commission nonetheless finds that an Article VII Certificate may be issued, directing Applicants to amend the Project's Certificate Conditions in the following material respects: (1) expressly proscribing the indirect subsidization of the Project; (ii) significantly augmenting the protections

afforded to ESA-listed sturgeon; and, (iii) directing that the Project must comply with the ACOE's final determination with respect to cable burial requirements.

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Albany, New York

Respectfully submitted,

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