STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

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

Case 10-T-0139

BRIEF ON EXCEPTIONS OF ENTERGY NUCLEAR POWER MARKETING, LLC AND ENTERGY NUCLEAR FITZPATRICK, LLC

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PRELIMINARY STATEMENT

Pursuant to the Notice for Filing Exceptions issued in the above-captioned N.Y. Public Service Law ("NYPSL") Article VII proceeding by the New York State Public Service Commission's ("Commission") Acting Secretary on December 27, 2012, Entergy Nuclear Power Marketing, LLC and Entergy Nuclear FitzPatrick, LLC (collectively referred to as "Entergy") hereby respectfully submit the following Brief on Exceptions to the Recommended Decision ("RD") filed by Administrative Law Judges ("ALJs") Michelle L. Phillips and Kevin J. Casutto. The RD recommends that the Commission: (1) adopt substantially all of the terms and conditions of a Joint Proposal ("JP") and the accompanying Certificate Conditions filed in February, 2012 (as subsequently amended); and (2) issue a Certificate of Environmental Compatibility and Public Need ("Certificate") to Champlain Hudson Power Express, Inc. and CHPE Properties, Inc. (collectively, the "Applicants") for the proposed 1,000 MW project ("Project").[1]

Entergy takes exception to a number of the findings and recommendations in the RD. As detailed below, the RD should be rejected because it erroneously applies the merchant label to this demonstrably uneconomic Project and, in so doing, fails to take the steps necessary to protect New York consumers against the risk of having to subsidize the Project, directly or indirectly. Further, the RD gives undue weight to the findings of inapposite and/or unreliable economic studies while at the same time unreasonably refusing to credit contrary proof, and renders insufficient or toothless findings on environmental issues. In short, the record does not support Project certification on the terms proffered in the JP and proposed Certificate Conditions.

[1] The Project is comprised of a 332-mile long HVDC line running from the Canadian border to Astoria, Queens and an additional cable running from Astoria to Rainey. The latter is referred to herein as the "Astoria-Rainey Cable."

SUMMARY OF THE ARGUMENT

First, the RD touts the Applicants' status as "merchant" transmission developers, although the Applicants have failed to meet their burden of demonstrating that they qualify for that label. The overwhelming record evidence demonstrates that the Project -- at Applicants' identified cost of at least $2.2 billion -- is so grossly uneconomic that it can be built only if it is supported, directly or indirectly, by some form of substantial non-merchant subsidy, the cost of which will ultimately be borne by New York consumers. A transmission project that cannot be built without a subsidized shipper contract is not a merchant project. Notwithstanding the ALJs' appropriate prior acknowledgement that the Applicants' merchant status was a "pivotal and hotly contested issue in this proceeding,"[2] the RD largely skirts the issue. Given the record evidence that the Project will not be a merchant one, and the potential implications of that finding on New York consumers, the issue warranted close scrutiny. Indeed, a proper analysis of the issue would have revealed that the ALJs should have held the Project to a more stringent standard of review. That did not occur.

Applicants submitted no plausible evidence establishing how their shipper(s) could pre-subscribe 75% of the HVDC transmission line's capacity without the shipper(s) in turn relying on an out-of-market contract with New York loads that foists the cost of that pre-subscription contract onto New York consumers. Not only have the Applicants done nothing to ensure that their shippers would not be subsidized, but the only discernible business plan in the record reveals Applicants' intent to pre-subscribe their transmission capacity to a large, possibly (foreign) quasi-governmental supplier. The likely counterparty to that offtake contract already

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[2] 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, "Ruling on Motion" ("May 25 Ruling") (issued May 25, 2012), p. 5.

has inferred that it would seek to recover the cost from New York consumers by some non-bypassable means. Thus, the record evidence reveals that the Project would ultimately require New York consumers, in some capacity, to fund some portion of its $2.2 billion cost, yet the RD does not prevent that harm from occurring.

The Certificate Conditions proposed in this proceeding (specifically, Certificate Condition 15) do not proscribe indirect subsidy of the Project though its shippers -- they only limit the Applicants themselves from securing direct subsidies. This loophole in proposed Certificate Condition 15 renders illusory the protections to New York consumers supposedly afforded by that condition. The ALJs erred in disregarding the record evidence that the Project will not be a merchant project, and thus further erred in applying the more lenient merchant standard of review.

Next, the RD places undue weight on both the NYISO's 2012 Reliability Needs Assessment ("RNA") and on DPS Staff witness Dr. Thomas Paynter's so-called "production cost" analysis. In short, the RD ignores the uncertainties that were explicitly called out in the 2012 RNA, and fails to reconcile other shortcomings of that report with the findings in the RD. The RD also ignores the evidence presented by several parties demonstrating that Dr. Paynter's analysis cannot be relied upon to measure the Project's anticipated benefits to society. The RD then vaguely credits the project for some unspecified quantity of wholesale price savings when no party has actually proven that such benefits are certain to occur, much less that, should they occur, those benefits would persist in a way that has discernible ratepayer impacts.[3]

The RD's treatment of environmental issues merely continues the same theme of ignoring or marginalizing without explanation credible arguments against certification or in support of the

[3] The RD fails to specify which of the markedly different wholesale energy price savings studies it relies on.

need for further Certificate conditions to protect New York's consumers. For example, the RD does not address fundamental issues regarding the impact of cable installation on Endangered Species Act ("ESA")-listed sturgeon raised in Entergy's Briefs. Specifically, the RD fails to quantify or otherwise address the potential impact to sturgeon from the covering of more than six (6) miles of the Hudson River bottom with concrete mats, and does not meaningfully consider the Project's impacts, including electromagnetic field ("EMF")-induced impacts, on sturgeon outside of Significant Coastal Fish and Wildlife Habitats ("SCFWH") and other so-called "Exclusion Areas." In short, to minimize the impacts on ESA-listed sturgeon, conditions must be imposed to avoid an ESA "take." That has not occurred here.

Further, the RD acknowledges that the United States Army Corps of Engineers ("ACOE") has exclusive jurisdiction over dredge and fill activities in the waters of the United States and over construction activities in the Federally-maintained navigation channel, yet accepts standards that are at odds with the ACOE's only pronouncement to date on the Applicants' ACOE application. The doctrine of federal supremacy compels the imposition of a Certificate Condition expressly stating that the standards adopted by the ACOE shall be applied to the Project. The Applicants cannot carry their burden of proving, and the Commission certainly cannot find on the instant record that the Application minimizes the adverse environmental impacts of cable burial when the ACOE is poised to impose standards that are far more stringent. That the ACOE has not issued a final permit -- the sole basis in the RD 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.[4]

[4] 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

Where, as here, the record evidence demonstrates that the Project is so grossly uneconomic that it inevitably must rely on non-merchant funding, the Commission must review it under NYPSL Article VII using a more stringent need and public interest standard. That has not occurred in this proceeding, even though, by any reasonable standard of review, the Project's scant benefits are far outweighed by the adverse impact on New York consumers should they come to bear some or all of the Project's $2.2 billion cost. The Applicants have also failed to establish the "nature of the probable environmental impact,"[5] and that their Project "represents the minimum adverse environmental impact."[6] Consequently, the Commission should not grant an Article VII certificate to the Project as it is currently proposed.

ARGUMENT

I. THE RD ASSUMES A MERCHANT TRANSMISSION PROJECT, WHEN THE PROOF SHOWS THAT THE PROJECT IS UNECONOMIC AND ITS COSTS WILL INEVITABLY BE FOISTED ON NEW YORK CONSUMERS IN SOME CAPACITY.

Throughout this proceeding the Project proponents have fastened on the "merchant" developer label, which the RD interprets narrowly to mean, "*Applicants* will not rely on cost-of-service rates to recover the majority of the project costs identified in this proceeding but will instead recover the majority of the project's costs from users of the facilities."[7] However, as

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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.

5 NYPSL § 126.1(b).

6 Id.§ 126.1(c).

7 RD, at 10 (footnote omitted; emphasis supplied). The accompanying footnote further explains Applicants' intent to "recover the costs associated with the use of the Astoria-Rainey cable to deliver energy and capacity not transmitted over the HVDC Transmission system on a non-merchant basis; that is, pursuant to cost-of-service rates set by the [FERC]." Id. Specifically, the Applicants initially proposed in their Application to construct, own and operate a transmission line that, if approved, would extend from the Canadian border directly to Astoria, Queens. Applicants proposed to do so entirely on what they characterized as a "merchant" basis. When it became apparent that Applicants' original plan would "bottle" the output from the new, clean AEII generating facility at the same point of interconnection (the output of which is contracted to NYPA), the Applicants, without ever amending their Article VII Application, merely added the Astoria-Rainey Cable segment, but expressly on a non-merchant basis, to help to ensure full deliverability from the Astoria

Entergy argued in its Initial Briefs, compelling evidence in the form of a number of different analyses presented in this proceeding by the Independent Power Producers of New York, Inc. ("IPPNY") demonstrates that the Project almost certainly could not be financially viable as a true merchant transmission project because the competitive market revenues that shippers could charge for power delivered over the Project is out of proportion to the high cost of securing transmission rights. In particular, the differential in the market price of power between Quebec and New York City -- which, in an arms-length, unsubsidized transaction effectively puts a ceiling on how much merchant shippers would be willing to pay for the use of the Project, is nowhere near large enough to support amortization of the Project's costs. Put another way, if a Project shipper signs a long-term contract for transmission service at a shipping charge that is actually sufficient to allow Applicants to recoup the $2.2 billion Project cost, even amortized over decades, the shipper would not be able to earn sufficient revenue on the spread between prevailing market prices at the northern terminus of the Project in Quebec and prevailing market prices for power in New York City to cover the cost of that contract. Accordingly, the record evidences demonstrates that the Project will need a direct subsidy, or the shippers on the Project will need a subsidy, such as an out-of-market contract that pays them an above-market price for power delivered to New York City using the Project.

Such subsidy can take several forms. For example, during the course of this proceeding Applicants (through their affiliate Transmission Developers, Inc. ("TDI")) and Hydro-Quebec Production ("HQ") submitted their respective responses to Governor Andrew Cuomo's "Energy

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interconnection site. Accordingly, this so-called merchant project is actually bifurcated into two distinct parts: The first portion of the Project is comprised of the transmission line sourcing at the Canadian border and sinking at the Astoria 345 kV substation. The Applicants refer to this portion of the Project as the "HVDC Transmission System." The second portion of the Project is an approximately 5-mile long, underground AC transmission line running from the New York Power Authority's ("NYPA") Astoria 345 kV substation through the streets of New York City to the Consolidated Edison of New York, Inc.'s ("Con Edison") Rainey 345 kV substation. The Applicants refer to this portion of the Project as the "Astoria-Rainey Cable."

Highway Initiative" ("EHI") Request for Information ("RFI").[8] These complementary submissions reveal a business model under which HQ may finance the Project, in whole or in part, in return for the right to 75% of the Project's transmission capacity for a term of years.[9] Based on the EHI RFI submissions in Hearing Exhibit 213, HQ would likely only be willing to undertake such an obligation if it were offset by entering into an out-of-market, long term contract to recoup the price it paid to the Applicants to secure long term transmission rights on the HVDC Transmission System. Under this likely scenario, the Project will indirectly rely on non-merchant funding sources to generate its needed revenues -- an outcome that the proposed Certificate Conditions simply do not prohibit. Critically, by virtue of such subsidy in any form, responsibility for the above-market compensation will be placed on New York consumers in some capacity.

The evidence described above and in Entergy's Briefs should have compelled a finding that the Project, were it to proceed on those terms, would not be "merchant" as that term is applied in competitive electricity markets. That did not occur. Instead, the RD unhesitatingly adopts the Applicants' narrow definition of "merchant," and applies the broader standard of need and benefit as established by the Commission in the Bayonne Proceeding (a purely merchant project posing no apparent risk to ratepayers or consumers), which includes additional

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8 Hearing Exhibit 213.

9 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 of the close of the evidentiary record (and presumably continuing to date), Applicants had identified no "other entity."

considerations such as system reliability benefits in the absence of actual system need, economic benefits for ratepayers and the achievement of environmental and/or other public policy goals.[10]

Fatal to the RD, however, is its utter failure to consider the threshold question of whether the Applicants have carried their burden of proving that this project would actually be merchant in practice, not just name. As Entergy demonstrated in its Briefs in this proceeding, and as reiterated below, the record evidence requires rejection of the RD's unsupported assumption that the Project will be constructed and operated over the long term as a merchant facility. Thus, if certificated at all, the Commission must impose additional Certificate Conditions that expressly proscribe indirect subsidization -- an action that is necessary to ensure adequate protection of New York consumers.

A. The RD Fails to Acknowledge the Project's Need to Rely on Non-Merchant Funding.

Having highlighted it at an early stage of this proceeding, the ALJs then give unreasonably short shrift in the RD to the "pivotal and most hotly contested issue[] in this proceeding" -- "whether the proposed Facility's costs will be recovered solely on a merchant basis (i.e., exclusively through rates set by the competitive market) or whether, as a result of a change in business model requested by Applicants at some future date, or due to future

[10] 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" (Nov. 12, 2009) ("Bayonne Order"), at 13. ("The [Bayonne] 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."). While the Bayonne Order specifically referenced the risks to New York consumers in their limited capacity as electric ratepayers, the Bayonne facility was built without being subsidized by any above-market contracts funded by New York consumers in any capacity.

contractual arrangements that Applicants may yet finalize, the costs of the Facility, in whole or in part, will be recovered in rates that are cost-based."[11]

(1) The Project is Unquestionably Non-Merchant as to the Astoria-Rainey Cable.

What was in May 2012 merely a "possibility" of ratepayer funding of the Project in whole or in part, is now an undisputed option available to the Applicants with respect to the Astoria-Rainey Cable -- an integral part of the Project with an estimated $214 million cost.[12] The JP signatories, including the Staff of the New York Department of Public Service ("DPS Staff"), and now the RD expressly authorize the Applicants to recover these costs on a non-merchant basis. Neither Bayonne nor HTP, nor, for that matter, any other non-utility project that has proceeded forward in New York has been entitled to such a significant, express non-merchant component, while at the same time retaining the merchant label. As a starting point, therefore, the RD errs in assuming this is a merchant project -- it is, in reality, some form of unprecedented hybrid. On this ground alone, the RD forges new ground by extending the less stringent Bayonne standard to this hybrid Project.[13]

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[11] See May 25 Ruling, p. 5. Again, to align with the public interest standard set forth in NYPSL Article VII, this question must more accurately be framed to consider recovery from New York consumers in any capacity.

[12] Id., pp. 7-8 (footnote omitted). As Entergy demonstrated in its Initial Post-Hearing Brief, the merchant standard was appropriately applied in the Bayonne Proceeding because the project at issue in that proceeding went forward without securing any above-market mechanisms to support it. In contrast, the contract awarded to support the construction and operation of the HTP Project was not issued on a non-discriminatory basis, and therefore was above-market. While regulated utility ratepayers may not have been affected, NYPA's customers will bear those costs, and thus, New York consumers -- not HTP Project investors -- now face some of these costs. In the name of meeting the Commission's mandate to ensure that the public interest is served, the Commission cannot ignore the fact that New York consumers are now responsible for costs of the HTP Project in some capacity. Care must be taken in this proceeding to avoid repeating that outcome.

[13] Further, there is no indication that the RD has subtracted the cost of the Astoria-Rainey Cable ($214 million) from whatever economic benefits it has identified in this proceeding. For example, if that $214 million costs were netted out against Dr. Paynter's $400 million "production cost" benefit, that figure would drop to a mere $186 million.

(2) The Record Demonstrates That The Project Is Not Economically Sustainable on a Pure Merchant Basis.

The RD makes assumptions concerning the Project's economic sustainability on a merchant basis that are not supported by the record.[14] Importantly, the Applicants failed to put on any witnesses, or to furnish any documents or other proof, establishing the Project's ability to earn sufficient revenue to secure a return on, and of, its investment without subsidy. Notably absent from the record are any market analyses sponsored by the Applicants demonstrating that the Project's revenues will exceed its costs. Accordingly, Applicants have done nothing to meet their burden of establishing, on the record, that the Project can be constructed and operated over the long term on a purely merchant basis. The RD's findings to the contrary thus lack any evidentiary basis.[15]

In fact, the only analyses of the project's economics were performed by IPPNY witness Mr. Mark D. Younger, who conducted both a simple cash flow analysis (to determine the amount of income the project requires to break-even) and, for comparison purposes, a benefit-cost analysis using the New York Independent System Operator ("NYISO")'s CARIS methodologies.

The inputs into Mr. Younger's cash flow analysis were designed to be conservative and favor the Applicants. For example, he relied on the Applicants' own estimates of Project cost (both original and as properly revised by the Applicants to include an additional $346 million in Canadian interconnection costs) and applied the Applicants' suggested 90% capacity factor. Taking into account all costs and applying a levelized generic carrying charge rate of 16% (the same rate used by the NYISO when evaluating the costs and benefits of a transmission project),[16]

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[14] The RD finds, erroneously, that "there is persuasive record evidence rebutting the claims that the project will be an uneconomic entrant." RD, at 67.

[15] Id.

[16] 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).

Mr. Younger calculated an annual carrying cost of $351 million per year for the Project, which he later increased to $406 million to take into account the additional Canadian interconnection costs. By dividing those cost figures by the 7,884 GWh of electricity the Applicant assumes the Project will deliver using its aggressive 90% capacity factor on an annual basis, Mr. Younger concluded that it would cost $44.52 to $51.54 to deliver one MWh of energy across the line, i.e., Applicants must receive that average amount per MWh from shippers using the line to cover the Project's carrying cost.[17]

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 point of extraction).[18] That differential ranged from only approximately $7.50 to $8.00 per MWh. Taking all savings into account (congestion costs and the difference in energy net losses), the differential between the two points is still only $11.00. Both of these figures were also calculated conservatively (i.e., in the Applicants' favor) because neither was adjusted downward to reflect the reduction in this differential that will result when 1,000 MW of additional energy is transferred between these two points.

Consequently, the Project offers, at best, a $44.52 MWh solution to an $11.00 problem. Mr. Younger's analysis thus demonstrates that, all things being equal, a shipper would lose substantial amounts of revenue if it paid Applicants the market price to secure the rights to transmit its energy over the Project to New York City. Therefore, Mr. Younger concludes, "the

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[17] Tr., p. 475.

[18] 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.

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."[19]

On this point, the RD cites with favor to the 75% pre-subscription requirement before Project construction may commence, but then summarily states that the ALJs "do not agree that this record conclusively establishes that the project will need subsidies or will exact above-market costs."[20] The RD, however, fails to identify anything in the record that actually disproves Mr. Younger's extensive findings. The only two factors that the RD cites as grounds to challenge Mr. Younger's findings were the amount of carrying costs Mr. Younger applied and the reference gas prices he used.[21] Yet Mr. Younger's analysis shows the Project to be grossly uneconomic by such a wide margin that neither of these two factors -- or both taken together -- if revised in the manner advanced by the Project proponents, would change the ultimate conclusion that the Project is uneconomic. Nor is there any other revenue analysis in the record sponsored by the Applicants or any other JP signatory, including DPS Staff. In short, there is no evidence, much less "persuasive" evidence supporting the Project's economics, which is likely why the RD's conclusions in this regard rest on conclusory statements offered without citation to any supporting facts in the record.

Further, the RD misconstrues Mr. Younger's purpose in conducting a CARIS-type cost-benefit analysis. Neither Entergy, IPPNY nor any other party has advocated for a rule requiring all merchant projects to meet the CARIS benefit-cost test.[22] Instead, the CARIS model was appropriately applied to the Project to furnish an additional data point in the analysis because: (1) the Project failed the cash flow test by such a wide margin that it further supports the

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19 Tr., p. 485.

20 Id. at 70.

21 RD, at 48.

22 Id.

conclusion that a subsidy will be required; and (2) there is no other generally accepted benefit-cost methodology.[23] Mr. Younger found that, even excluding the additional $346 million in Canadian side interconnection costs, the project scores just .29 under the CARIS test. The RD's complaints concerning the CARIS test's "high bar" are thus misplaced -- this Project, even when viewed most favorably to the Applicants, barely registers at one-quarter of the 1.0 benefit-cost standard used for projects that are funded with regulated dollars. It is, by any measure, a grossly uneconomic project that cannot be built without subsidy to the Applicants and/or their shippers.

In reaching the contrary conclusion, the RD understates the significance of Mr. Younger's findings that the Project would require something on the order of $44.52 MWh to $51.54 MWh to cover its costs, but would offer only (at best) an $11.00 benefit to a shipper. What these conclusions mean, and what the RD fails to acknowledge, is that no rational shipper, if it indeed were forced to rely solely on market forces, would agree to pay the Applicants the market rate for pre-subscribing 75% of the HVDC transmission line's capacity. Instead, the more likely scenario is that the Applicants' shipper will pay full value in their contract with the Applicants only if the shipper is ultimately assured that it can recoup those above-market costs through a long-term, out-of-market contract with New York loads.

The basis for this outcome was manifested on the record by Donald G. Jessome's testimony 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

[23] As detailed more fully below, 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. It was instead 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.

recognize the "significant value" of HQ's energy.[24] Faced with that evidence, the RD erroneously fails to acknowledge that the price of that above-market contract would be passed along to New York consumers, including, potentially, by way of a non-bypassable charge on their electric utility bills. Instead, the RD's only conclusions concerning HQ do not address the issue of indirect subsidy at all.[25]

Entergy has never disputed that the now substantially revised proposed Certificate Condition 15 precludes the Certificate Holders themselves from seeking a direct subsidy. Therefore, the discussion of Certificate Condition 15 set forth at pages 66-69 of the RD is largely irrelevant to the issue Entergy raised during the evidentiary phase of this proceeding. Instead, 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 NYPSC 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

[24] Tr., p. 89, lines 8-14. See also Hearing Exhibit 213, HQ EHI RFI submissions, p. 7.

[25] RD, p. 70.

> 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.[26]

Yet, because the RD improperly rejected Mr. Younger's cash flow analysis and failed to credit the implications thereof, the RD concludes, "the potential for the type of contractual commitments complained of here does not provide justification for the additional certificate conditions proposed by the opponents."[27] In other words, the RD concludes, notwithstanding TDI's and HQ's complementary EHI submissions and absent any meaningful denial of this possible outcome by Applicants or DPS Staff, that the additional conditions recommended by Entergy to preclude indirect subsidy are unneeded. If one assumes that to be the case, however, then simple inclusion of the additional Certificate Conditions Entergy has advanced would have no impact on the Project, or its business plan. In short, they would be, at worst, superfluous. There is thus no good reason why they should not be imposed in the interest of achieving the utmost in consumer protection since, as the ALJs have previously observed, this is the "only opportunity to create and develop a record"[28] concerning the Applicants' proposal.

Put simply, the Commission cannot, on the one hand, point to HQ's lurking presence and proposed Certificate Condition 15's obligation to pre-subscribe 75% of the HVDC transmission line's capacity as a benefit, without fully protecting New York consumers from the possible adverse consequences that may be caused by indirect subsidies potentially arising out of a future HQ-Certificate Holder relationship. Indeed, the issue is not, as the RD suggests, whether the resulting contract between HQ and New York loads would be "mutually agreeable and

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[26] Entergy Initial Brief, pp.58-59.

[27] RD, at 71. Implicit in this statement appears to be the conclusion that if Entergy showed a greater "potential for the type of contractual commitment," that showing would warrant the additional Certificate Conditions Entergy recommends. In view of the complementary Energy Highway Initiative ("EHI") submissions in the record from both Transmission Developers, Inc. and HQ, however, it is hard to imagine greater evidence of such potential, particularly since the Applicants presently have no other contracts in place. See Hearing Exhibit 213.

[28] May 25 Ruling, at 6-7.

presumably mutually beneficial."[29] Instead and as clearly framed by Entergy's pleadings, the Project is (1) admittedly non-merchant, at least to the extent of $214 million in Astoria-Rainey costs; (2) grossly uneconomic on its face; and (3) will require indirect subsidy through non market contracts for its shipper(s). Under those circumstances, the Project simply fails to qualify as a "merchant" project under Commission precedent. The 75% pre-subscription requirement, which the RD views as a benefit, virtually assures that the Certificate Holders will shift the Project's operational risks to its shippers, which then are completely unconstrained by proposed Certificate Condition 15 and can, in turn, foist that risk onto New York consumers in some capacity.

Before the Commission may issue an Article VII certificate, the project proponent must demonstrate that the project is in the public interest. As the ALJs correctly stated, "the goal should be to adopt certificate conditions that will provide reasonable assurances that the statutory obligations will be satisfied, expected benefits of the facility will be realized, conditions precedent will be met and commitments will be honored."[30] Given the significant adverse impacts if consumers were forced to fund the Project's costs, the Commission cannot make the requisite public interest finding in this proceeding unless it substantially augments Certificate Condition 15 to proscribe indirect subsidization in express terms.

II. THE PROJECT IS NOT NEEDED AND ITS PURPORTED BENEFITS REMAIN UNPROVEN.

A. The Project Would Not Serve Any Reliability Need.

The RD engages in a fundamentally flawed analysis of the NYISO's 2012 RNA, and its relationship to the 2010 RNA. The NYISO performs a Reliability Needs Assessment ("RNA")

[29] RD, at 70.

[30] RD, pp. 67-68.

every two years as the initial step in its determination of potential reliability needs over a 10-year planning horizon. At the outset of this proceeding, and continuing through the evidentiary hearing and post-hearing briefing phase, the NYISO's 2010 RNA was unquestionably the operative document for purposes of the NYISO's identification of resource adequacy needs in New York. The 2010 RNA found that no new supply resources were required over its 10-year planning horizon (through 2020) to meet reliability needs.[31] Because the 2010 RNA did not identify any reliability needs in the planning horizon, the NYISO's Comprehensive System Planning Process ("CSPP") did not advance to the next phase, the Comprehensive Reliability Plan ("CRP"). The CRP is the first point at which the RNA findings are reviewed to determine if they require any action.

As noted in the RD, the 2012 RNA identified reliability needs related to resource adequacy during its planning horizon. The reasons for the divergence in findings between 2010 and 2012 are stated in the 2012 RNA as follows:

1. Generation Capacity: Generation modeled in the 2012 RNA for the year 2020 is about 1,000 MW less than as modeled in the 2010 RNA;
2. Load Forecast:The baseline load forecast for the year 2020 in the 2012 RNA is slightly (200 MW) higher than forecasted in the 2010 RNA;
3. Special Case Resources ("SCRs"): projections for the year 2020 in the 2012 RNA are approximately 100 MW less than in the 2010 RNA.[32]

In terms of generation capacity, the 2012 RNA, unlike the 2010 RNA, assumed that all units that had filed with the Commission a notice of an *intention* to be mothballed were instead

[31] Tr. pp. 436-37.

[32] 2012 RNA, p. 24.

permanently retired, thus excluding their MWs from the 2012 RNA base case analysis.[33] This assumption is perhaps understandable in the context of the RNA -- a document that is intended to review a conservative, worst-case scenario -- but the 2012 RNA's findings based on that assumption cannot by any measure be adopted as a matter of reliable fact. As IPPNY witness Mr. Younger explained in his testimony, many of the mothball intention notices that have been submitted to the Commission explicitly referenced their intent to return to the market as conditions warrant, and some have actually rescinded their mothball notices altogether.[34] Further, the 2012 RNA states that the NYISO will monitor and evaluate any change to system conditions -- including, specifically, any change in the status of units that have submitted notices of intent to mothball. The NYISO has deemed these adjustments "key to the determinations that will be made in the CRP."[35]

Notwithstanding the preliminary nature of the 2012 RNA, and its express caveats, the RD concludes that the "2012 RNA buttresses proponents' arguments for granting a certificate for this facility,"[36] stating:

> Even though relevant precedent establishes that the most recent RNA is not automatically dispositive, we note that both the 2010 and 2012 RNAs examined similar scenarios when determining whether there will be a need for additional installed capacity in New York City and surrounding areas. Based on assumptions regarding these same scenarios and consideration thereof, the NYISO most recently concluded that there could be a potential need for additional installed capacity in New York City and surrounding

[33] 2012 RNA, p. 6 ("[s]everal existing generation resources, totaling 1,792 MW, did submit a notice prior to April 15, 2012 of their intent to retire or mothball and these units were removed from the RNA Base Case").

[34] Indeed, the 2012 RNA expressly recognizes that the Gowanus 1 & 4 Units had rescinded their notice of intent to mothball after the 2012 RNA Base Case assumptions were established and makes clear that the base case for the CRP to follow will reflect the fact that those units have been operating, and will continue to operate. 2012 RNA, p. 24.

[35] Id., at 8-9.

[36] RD, at 30.

> areas as early as 2020, in order to offset generation retirements and reductions in SCRs and to meet expected additional load growth.[37]

Put simply, the Commission cannot rationally conclude based on this record that the "2010 and 2012 RNAs examined similar scenarios," as the RD finds. To the contrary, the 2012 RNA treated existing facilities as if they were retired, an assumption that must now be adjusted during the CRP phase because mothball notices have been rescinded. Unlike the 2010 RNA, moreover, the 2012 RNA is not the end of the reliability aspects of the CSPP for this cycle, and thus, cannot form the basis for the Commission's decision-making. The RD's recommendation to the contrary should be rejected.

B. The Project's Purported Economic Benefits Remain Uncertain and Unproven.

The RD emphasizes DPS Staff witness Dr. Paynter's so-called "production cost" comparison as the principle measure of the Project's purported economic benefits.[38] As the RD acknowledges, however, Dr. Paynter's exercise was little more than a comparison "of the cost of 1,000 MW of Canadian hydroelectric power delivered to New York City via the facility to the cost of building and operating 1,000 MW of combined cycle gas-fired turbine (CCGT) generation of similar capacity located in New York City."[39] Utilizing updated natural gas prices, Dr. Paynter estimated the savings realized by constructing the Project instead of the CCGT alternative over a 35-year period to be just $400 million (in 2015 dollars).[40] The RD adopts this

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37 Id.

38 RD, at 38-39.

39 RD, at 38. Indeed, "Mr. Paynter estimated the long-term production cost savings of the facility as the cost of the facility plus the cost of the hydropower (dams), less the cost of the CCGT and the present value of the other plant's fuel and other operating and maintenance costs." Id. at 39.

40 RD, at 39. 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 be rejected.

figure as a "societal" benefit of the project[41] -- a finding that is at odds with the following caveat in the JP:

> 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.[42]

Thus, before the Commission may adopt the RD's recommendation that Dr. Paynter's findings be considered a societal benefit, it must first conclude that "prices for electricity are determined by the long run cost of constructing and operating new CCGT capacity." The Commission cannot make this threshold finding. Equally important, even were the Commission able to do so, it then must also somehow translate savings to the "Applicants, their financial backers and/or users of the facility," which the JP states "should not be interpreted as ratepayer benefits," into benefits to society as a whole. Entergy respectfully submits that such a leap in logic is irrational, arbitrary and completely unsupported by the record evidence.[43]

(1) The RD's Recommendation Concerning Alleged Wholesale Energy Price Savings Should be Rejected.

a. Wholesale Energy Price Savings Are, At Best, Transitory And, In Any Event, Do Not Constitute Societal Benefits.

The JP suggests, and the Project proponents' argued, that the Project will result in a reduction in wholesale energy prices, and that such reduction should be deemed one of the Project's economic benefits. The Project proponents, however, could not even agree amongst

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41 RD, at 47.

42 JP, ¶ 108.

43 The Applicants apparently agree with Entergy on this point. See JP, ¶ 121 ("Applicants do not believe that this analysis can be regarded as a measure of the actual benefits of the Facility, to society as a whole . . ."). That Applicants believe the benefits to be greater is of no moment; the point is that the study is incomplete and/or unreliable. See also JP, ¶¶ 119-120.

themselves as to how those reductions should be measured. Consequently, the JP, and now the hearing record, contains separate (and different) estimates of wholesale energy price savings -- one range of estimates by DPS Staff, and another set of estimates by Applicants' consultant London Economics International ("LEI"), presented through the Applicants' witness Ms. Julia M. Frayer. In any event, the JP states, "[t]hese forecasts [of alleged wholesale energy price savings] . . . do not address how long these savings could be expected to last, since they neglect potential supply and demand responses to lower prices resulting from the Facility."[44] IPPNY witness Mr. Younger explained:

> [A]s the JP acknowledges, the level of Wholesale Energy Price Savings has assumed no supply or demand response to lower prices. Response on either the demand or supply side could wipe out most of the Wholesale Energy Price Savings, and therefore, consumers would see essentially no savings. As a result, it is likely that most, if not all, of the wholesale energy price savings would be eliminated over the long run as a result of market responses. Construction of the project would take years and it is likely that the market would begin preparing to respond before the Project even begins operating.[45]

Nonetheless the RD strains to find "that the project will have sizable benefits in the form of reductions in the wholesale price of electricity," recognizing that "[t]hese particular benefits will not be enduring" and yet still stating "they nonetheless will be realized and thus should be considered as evidence supporting both the required need and public interest findings."[46] Tellingly, the RD does not (because it cannot) specify the quantity of such savings, when they will arise, how long they may last or whether New York consumers will ever feel their effect.[47]

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[44] JP, ¶ 135. As the RD itself acknowledges, "Staff recognizes its analyses do not address how long these savings could be expected to persist since they do not consider potential supply and demand responses to lower prices resulting from Applicants' proposed project." See RD, p. 53.

[45] TR., p. 470.

[46] RD, p. 54.

[47] In fact, the TD fails even to identify which wholesale energy price savings study it was crediting.

The Project opponents did not argue that the ALJs should disregard wholesale energy price impacts only because they were uncertain and fleeting (which they unquestionably are), as the RD suggests. Entergy and others further argued that, as with Dr. Paynter's so-called "production cost" findings, a reduction in wholesale energy prices does not represent a benefit to society and so has no bearing on the public interest analysis to be undertaken here. As Entergy had argued and as Dr. Paynter testified, "[t]hese [wholesale energy] price reductions benefit consumers at the expense of the suppliers; but the reduction in prices does not represent an economic (or societal) benefit, just a transfer payment from suppliers to consumers."[48] Consequently, the RD's finding that such transfer payments somehow bear upon both need and public interest is entirely misplaced -- even according to the testimony of DPS Staff's witnesses, such savings bear on neither.

b. The Project Will Have Adverse Impacts On The Wholesale Markets.

The RD fails even to mention, much less analyze, the interrelationship between Entergy's arguments as to why the Project is not "merchant," and any findings concerning wholesale energy price savings. In short, to the extent that wholesale energy price reductions are caused by artificial price suppression (as occurs, for example, when an uneconomic entrant to the market has out-of-market funding sources to cover its costs and so can bid into the relevant market at a much lower cost), they should be altogether disregarded because they will actually harm the market over the long run.

Further, it is impossible to square the ALJs' decisions to credit wholesale energy price savings as a Project benefit while refusing to account for the Project's potential negative price impacts on Upstate New York consumers. Citing in large measure to Dr. Paynter's testimony,

[48] Tr., p. 172.

Entergy demonstrated in its Briefs that the Commission must also take into account the higher energy prices that the Project will cause in the already struggling regions of Upstate New York. Indeed, Dr. Paynter testified, 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."[49] On the other hand, if the Project is built, "[T]hen the prices at the border would end up being higher than they would have had [the Project] not been built."[50] 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.[51]

Entergy noted that those prices would be borne by both 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 ALJs disagreed, and refused to credit the scenario Dr. Paynter suggested, stating:

> [W]e note that some project opponents claim that the project could raise wholesale electricity prices at the U.S.-Canadian border. This potential scenario, however, is premised on the assumption that all other circumstances would remain constant. In fact, no basis for that assumption is substantiated on this record, where we have credible testimony that markets tend to respond to such price differentials, eventually offsetting them over time.[52]

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[49] Tr., p. 213, lines 7-11.

[50] Tr., p. 213, lines 12-22.

[51] Tr., p. 214, line 19 through p. 215, line 2.

[52] RD, at 65.

First, the RD clearly errs by ascribing this concern to the "project opponents" -- Dr. Paynter was the witness who raised the issue in the first instance. Second, the notion that markets respond to wholesale price reductions is beyond dispute. Indeed, the fact that the costs will increase for Upstate New York consumers is the market's first response to the Project. Finally, DPS Staff's wholesale energy price savings analyses were also "premised on the assumption that all other circumstances would remain constant." Indeed, the JP states exactly the same thing.[53] The RD cannot, on the one hand, acknowledge those shortcomings in DPS Staff's wholesale energy price savings analyses and yet adopt those results and then, on the other hand, acknowledge those same shortcomings but then reject DPS Staff's testimony concerning negative price impacts at the Canadian border. If the Commission elects to consider the wholesale energy price savings analyses at all -- which the record evidence demonstrates it must not, it also must account for the negative impacts at the Canadian border.

III. THE COMMISSION SHOULD REJECT THE RD'S ERRONEOUS FINDING THAT THE RECORD IS SUFFICIENT TO SUPPORT A FINDING OF MINIMIZATION OF IMPACTS TO ESA-LISTED STURGEON HABITAT

The ALJs found that, with respect to whether the cables' installation would cause potential habitat displacement of Endangered Species Act ("ESA")-listed sturgeon, "the record is sufficient to support a finding of minimization of ESA sturgeon habitat impacts."[54] This finding is based on the ALJs' conclusions that: (1) the "Applicants have largely avoided routing the facility within Exclusion Areas and [Significant Coastal Fish and Wildlife Habitats]" ("SCFWHs"); (2) the JP "provides seasonal construction windows to prohibit construction during times when these Exclusion Areas and [Significant Coastal Fish and Wildlife Habitats]" ("SCFWHs"); and (3) "the JP provides that Applicants must develop a final facility design that

[53] JP, ¶ 135.

[54] RD at 94.

minimizes impacts to the five nearby SCFWHs."[55] As discussed below, the RD's findings are insufficient to support the requisite statutory findings concerning the "nature of the probable environmental impact" and/or that the "facility represents the minimum adverse environmental impact."[56]

First, the RD's conclusions do not address the fundamental issue regarding the installation of the cables raised in Entergy's Initial Brief: The potential impact to ESA-listed sturgeon from the covering of significant portions of the Hudson River bottom with concrete mats has not been quantified or otherwise addressed. Specifically, as explained in Entergy's Initial Brief, Hearing Exhibit 92 identifies 21 sections totaling approximately 6.41 miles of river bottom -- the primary habitat of two ESA-listed sturgeon species -- where the cables may not be buried at the required minimum depth.[57] 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 bottom into the water column.[58] The majority of this expanse of river bottom will be covered with concrete mats (4.78 miles, or 75%) due to infrastructure requirements, with the remainder (1.63 miles) of the area consisting of hard substrate.[59] Thus, installation of the cables would result in up to 6.41 miles of Hudson River primary sturgeon habitat being permanently covered with concrete mats, 4.78 miles of which would be "new" hard substrate, the potential impacts to sturgeon of which remain unaddressed in the record.[60]

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55 Id.

56 PSL §§ 126.1(b), (c).

57 Entergy Initial Brief, pp. 33, 35.

58 Id. at 33.

59 Id. at 34-35.

60 Id. at 35.

The RD'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 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.[61] 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.[62] Thus, the ALJ'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 RD's second conclusion, i.e., that the JP "provides seasonal construction windows to prohibit construction during times when these Exclusion Areas and SCFWHs are likely to be occupied by sensitive species," is facially insufficient because it addresses only the period of

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[61] Indeed, the ALJ's characterization of "largely avoid[ing]" such areas is questionable. 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. Moreover, the RD also notes that the proposed route is located "close to five such areas."

[62] 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.")

construction. It does not take into account the fact that the mats will be permanent installations that could displace sturgeon habitat well beyond the construction phase. Thus, the RD's second conclusion fails to address the main habitat displacement issue (i.e., potential permanent habitat loss) raised by Entergy in its Initial Briefs, which could constitute a prohibited "take" under the ESA.

The RD's third conclusion, i.e., that the JP "provides that Applicants must 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 ALJ's were required to reach. As with the first conclusion, the RD's third conclusion also ignores the fact that the Applicants have provided no quantitative estimate of impacts to ESA-listed sturgeon outside the Exclusion Areas or SCFWHs. Any final 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 ALJ's first conclusion, it fails 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 ALJs were required to conclude that impacts to ESA-listed species were in fact minimized. The RD's findings do not do so. Therefore, it is not possible for the Commission to find that the Project "represents the minimum adverse environmental impact," as required by PSL Section 126.1(c).

IV. THE COMMISSION SHOULD REJECT THE RD'S ERRONEOUS RECOMMENDATION THAT EMANATION OF EMFS FROM THE CABLES WILL HAVE MINIMAL IMPACT ON ESA-LISTED STURGEON

The RD "recommend[s] a finding that emanation of [electromagnetic fields] EMFs from the cables will have minimal impact, if any, on migratory species, including ESA sturgeon, in the

Hudson River."[63] This recommendation is based on the ALJs' conclusions that: (1) "modern DC cables are designed with sheathing to substantially reduce or eliminate direct electric fields"; (2) "the JP provides that the cables will be buried to a depth [that] should minimize environmental impact from EMFs . . . except in very limited areas where burial is not possible due to infrastructure crossing or geological features"; and (3) "the JP's proposed Certificate Conditions provide that the cables will be buried in a single trench, vertically on top of one another . . . [which] should result in the EMFs from each cable essentially cancelling out the other. . . ."[64] The ALJs' conclusions regarding potential effects of EMF on Hudson River sturgeon are either irrelevant or not supported by the record evidence.

The ALJs' first and third conclusions, that "modern DC cables are designed with sheathing to substantially reduce or eliminate direct electric fields" and that the cables being "buried in a single trench, vertically on top of one another . . . should result in the EMFs from each cable essentially cancelling out the other," whether or not factually correct, are immaterial to the issue of whether the cables may emit EMF that affect ESA-listed sturgeon. As explained in Entergy's Initial Brief, the evidence in the record demonstrates that, even with the sheathing, and even buried on top of one another, the energized cables are expected to generate an EMF on the order of 526.5 milligauss ("mG") in magnitude[65] which, according to the Applicants' Environmental Impact Assessment ("EIA"), 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.[66] Thus, and contrary to the ALJs' finding, the design and installation of the cables will not

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63 RD at 99.

64 Id. at 98-99.

65 Entergy Initial Brief at 44

66 Entergy Initial Brief at 42.

"eliminate" all EMF emanating from them, nor does the burial system "essentially cancel[] out" EMF. To the contrary and indisputably, EMF will exist.

The RD's second enumerated conclusion, "that the cables will be buried to a depth [that] should minimize environmental impact from EMFs . . . except in very limited areas where burial is not possible due to infrastructure crossing or geological features" is likewise not supported by the record evidence. As explained in Entergy's Initial Brief, the Applicants' EIA acknowledges, "some fish species can detect and use magnetic fields for navigation," but mentions only Pacific and Atlantic salmon.[67] Despite a wealth of publicly available, scientifically credited information demonstrating the potential effects of EMF on fish, including sturgeon, nowhere does the record specifically assess possible effects of EMF on *sturgeon* navigation and migration.[68] Absent analysis comparing the magnitude and extent of the EMF generated by the cables to the sensory threshold and behavioral responses of sturgeon to EMF, it cannot be concluded that the EMF 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,[69] will "minimize … impact" on those sturgeon.

Moreover, the ALJs' conclusion that the EMF generated by the cables will have minimal impact "except in very limited areas where burial is not possible due to infrastructure crossing or geological features" ignores the potential extent and importance of those areas. As discussed above, Entergy's Initial Brief noted that, even if burial would attenuate potential EMF impacts on Hudson River sturgeon, the installation of the cables would include up to 6.41 miles of non-

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67 Entergy Initial Brief at 40.

68 Id.

69 Id. at 43-44.

buried cable covered with concrete mats.[70] The record, however, is devoid of any study or analysis of the magnitude of EMF that would emanate from beneath these mats, or of the potential impacts to sturgeon of those areas. In response to the absence in the record of any species-specific assessment of potential impacts of EMF on ESA-listed sturgeon, the ALJs merely concluded, "[a]n applicant is not required to conduct every conceivable study to support required findings on nature and minimization of impacts."[71] Whether or not this is the case, 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 should not accept the ALJs' recommendation and cannot find that the Project "represents the minimum adverse environmental impact," as required by PSL Section 126.1(c).

V. THE COMMISSION MUST DEFER TO THE ACOE ON CABLE BURIAL ISSUES.

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 . . ."[72] 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's Briefs presented the ALJs with correspondence from the ACOE that is part of the record in this proceeding -- revealing that agency's objections to, and refusal to approve, the Applicants' plan to occupy linear portions of

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70 Id. at 35.

71 RD at 99.

72 NYPSL § 126.1(c).

the Federally-maintained navigation channel.[73] The RD casually dismissed the federal agency's and Entergy's concerns, somehow finding them to be "misplaced and premature."[74] That was clear error.

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 tough 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 lines 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.[75]

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 from parts of state tracts that are outside the Federal right of way. For this project to be deemed

[73] Entergy Initial Brief, pp. 28.

[74] RD, at 88.

[75] Hearing Exhibit 216, Attachment D.

> 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:
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> 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.
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> * * *
>
> **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.[76]

On February 29, 2011, the Applicants finally purported to supplement their ACOE application.[77] As to each of the areas described above, Applicants merely directed the ACOE's attention to the JP and proposed certificate conditions and "request[ed] a meeting with USACE engineering staff."[78] The Applicants have never presented any evidence in this proceeding that those major routing issues have been resolved.

The RD's analysis begins with the obvious -- "the USACE has not made a determination to grant, modify, or deny Applicants' federal application for a USACE permit, including a

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[76] Hearing Exhibit 215.

[77] Hearing Exhibit 216.

[78] Id., pp. 3-5.

determination on minimization regarding this facility."[79] That was exactly Entergy's point -- until the federal agency with jurisdiction issues a final determination that alters its preliminary findings, this Commission cannot adopt standards that are less stringent than the ACOE's stated position and still claim to have minimized adverse environmental impacts. Put simply, there is an obvious, feasible, less harmful alternative set forth on the record. The RD unreasonably ignores that fact.

The RD also states that the ALJs "decline to recommend that the Commission anticipate or substitute its judgment for that of USACE regarding the federal USACE permit."[80] However, by accepting the proposed Certificate Conditions that have standards that are at odds with the ACOE's likely resolution of the permit, the RD has indeed "substitute[d] its judgment for that of USACE." Consistent with prevailing federal supremacy principles, this Commission cannot take action within a sphere fully occupied by ACOE. In short, the RD's confusing resolution of this issue will only serve to promote the kind of disjointed, uncoordinated and highly inefficient review undertaken here. Thus, the Commission must direct the Applicants to revise the Certificate Conditions to specify that the Commission takes no position on cable burial issues and that the Project shall comply with cable burial requirements as set forth in the ACOE's final determination.

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 enter an order denying the issuance of an Article VII Certificate, or, in the event that the Commission nonetheless finds that an Article VII Certificate may be issued,

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[79] RD, at 87.

[80] RD, at 87.

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.

Dated: January 17, 2013
Albany, New York

Respectfully submitted,

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