

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 10-T-0139 - Application of Champlain Hudson Power Express, Inc. for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII of the PSL for the Construction, Operation and Maintenance of a High Voltage Direct Current Circuit from the Canadian Border to New York City.

ORDER GRANTING CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on April 18, 2013

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman
Patricia L. Acampora
Maureen F. Harris
James L. Larocca
Gregg C. Sayre

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ORDER GRANTING CERTIFICATE OF
ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

(Issued and Effective April 18, 2013)

BY THE COMMISSION:

INTRODUCTION

By this Order, we grant to Champlain Hudson Power Express, Inc. (CHPEI) and CHPE Properties, Inc. (CHPE; collectively, Applicants), pursuant to Article VII of the Public Service Law (PSL), a Certificate of Environmental Compatibility and Public Need to construct and operate a transmission project known as the Champlain Hudson Power Express Project (Project or Facility). The certificate will adopt most of the terms and conditions presented to us in a Joint Proposal (JP) and in stipulations that have the full or partial support of a wide range of parties to this case.

The principal portion of the Project is a High Voltage, Direct Current (HVDC) transmission line extending

approximately 330 miles from the New York/Canada border to a converter station in Astoria, Queens. The HVDC transmission line will be underwater in Lake Champlain and the Hudson River, with underground upland segments. The line consists of two solid dielectric (i.e., no fluids) HVDC electric cables, each approximately six inches in diameter. The cables will be installed either underwater or underground along the entire length of the route, minimizing visual and other potential environmental impacts.

Applicants propose to install the converter station on properties currently owned by Consolidated Edison Company of New York, Inc. (Con Edison) in an industrial zone in Astoria. From there, one High Voltage, Alternating Current (HVAC) circuit will connect, via underground conduit, to the nearby substation of the New York Power Authority (NYPA). From the NYPA substation, another set of HVAC cables will be installed beneath the streets of New York City for approximately three miles to the Rainey Substation.

The Project will have the capacity to transmit 1,000 MWs of electricity into the New York City load pocket. It is anticipated that the electricity transmitted by the Project will be primarily hydroelectric power.

The parties have worked collaboratively for over a year to resolve the many complex technical details that have culminated in the Joint Proposal before us. As described in the Joint Proposal, the route has been constructed to minimize potential adverse environmental impacts. Although extensive portions of the route are located under the waters of Lake Champlain and the Hudson River, the line will transition to upland underground segments in order to avoid portions of the Hudson River designated by the US Environmental Protection Agency (USEPA) as contaminated with polychlorinated biphenyls

(PCBs) and to avoid environmentally sensitive River areas, including Haverstraw Bay, an important breeding and spawning habitat for various species. In addition, the Applicants have agreed to donate \$117.15 million over time to establish and maintain a Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust, to be used to study and to mitigate possible impacts of the underwater cables on water quality or aquatic habitat in the Hudson, Harlem and East Rivers, Lake Champlain, and their tributaries. Other provisions of the JP would limit the times or locations of construction to further protect the Lake and River environments.

With the addition of the Astoria-Rainey Cable portion of the Project, the parties have solved problems of deliverability identified in this case. And, Applicants' commitment to assume the financial risk of this Project has been significantly strengthened in post-JP stipulations.

This proposal was filed over 3 years ago. Over 20 parties participated in lengthy, intensive, detailed settlement negotiations that spanned almost 16 months. These parties reached an accord on a proposal that they believe permits us to make the requisite PSL §126(1) findings and determinations. The fact that so many parties, representing myriad interests and advocating a broad spectrum of concerns, could reach agreement on so many detailed, technical and policy-based issues is a remarkable achievement and is consistent with our settlement rules.

Based on our review of the record, including the JP, we find that this proposal satisfies the requirements of Article VII of the PSL. Construction of the Project would offer significant benefits, among them: creating a new transmission entry into the New York City load pocket and enabling a

substantial increase in the State's utilization of renewable resources. Further, the adverse environmental impacts of construction and operation, relatively modest to begin with, have been further mitigated by route modifications and a commitment to follow best practices during construction. Finally, construction and operation of the line will impose minimal financial risk on ratepayers. As further discussed below, we find that the grant of the certificate here is in the public interest.

PROCEDURAL BACKGROUND

On March 30, 2010, CHPEI filed an application pursuant to Article VII of PSL for a Certificate of Environmental Compatibility and Public Need to construct and operate a transmission line it calls the Champlain Hudson Power Express Project. On April 30, 2010, the Secretary issued a deficiency letter identifying seven deficiencies and containing 83 requests for further information. Four supplements were provided on July 22 and 29, and August 6 and 11, 2010. The cover letter accompanying the July 22nd supplement noted that CHPE had been added as a co-applicant;¹ the proposal had been revised to eliminate the HVDC circuit from Rouses Point, to Bridgeport, Connecticut; and the proposed end point of the New York State HVDC circuit had been changed from a substation in Sherman Creek to a substation in Astoria, Queens.

On August 12, 2010, the Secretary issued a compliance letter informing Applicants that, as of August 11, 2010, their Article VII application, as supplemented, was in compliance with

¹ In order to ensure that one of the certificate holders will be a transportation corporation, CHPEI formed CHPE as a wholly-owned subsidiary pursuant to the Transportation Corporations Law (July 22nd cover letter at 1, note 1).

PSL §122. A prehearing conference was held before the Administrative Law Judges (ALJs or Judges) on Tuesday, September 21, 2010, in Albany,² to discuss, among other things, requests for intervenor funding.³ In accordance with PSL §123(1), a public statement hearing was held on Monday, October 25, 2010, in Yonkers. Additional public statement hearings were held in Kingston on Thursday, October 28; Schenectady on Wednesday, November 3; Whitehall on Thursday, November 4; and Plattsburgh on Tuesday, November 9, 2010.

By letter dated November 2, 2010, Applicants filed a notice of intent to enter into settlement negotiations. They noted that the topics to be addressed as part of the discussions included need, environmental issues, alternatives, best management practices, construction techniques, and ordering clauses.⁴ Settlement discussions ensued and continued for approximately 16 months, culminating in the February 2012 filing of a JP purporting to resolve all issues in this proceeding among the Signatory Parties. The JP has the following signatories: Applicants; Department of Public Service Staff (Staff); Department of Environmental Conservation (DEC); Department of State (DOS); Department of Transportation (DOT); Department of Agriculture and Markets; Office of Parks, Recreation, and Historic Preservation (OPRHP); the Adirondack Park Agency (APA); the Cities of New York (NYC) and Yonkers; the Palisades Interstate Park Commission; Riverkeeper, Inc. (Riverkeeper); Scenic Hudson, Inc. (Scenic Hudson); the N.Y.S.

² A video conference link to the Commission's New York City offices was provided.

³ Pursuant to PSL §122(5), an intervenor fund of \$450,000 was established for this proceeding.

⁴ In accordance with 16 NYCRR 3.9, the notice was reported to the Commission on November 4, 2010.

Council of Trout Unlimited; and Vermont Electric Power Company, Inc. (VELCO). VELCO and DOT support the JP only with respect to Certificate Conditions that address their specific concerns, which are, respectively, the requirements and restrictions governing work activities and infrastructure co-location, and the provisions addressing the use and protection of highways, roads, streets or avenues and other transportation facilities owned or operated by DOT or under DOT's jurisdiction. The Department of Agriculture and Markets in its supporting statement also indicates that it limits its endorsement of the JP to the terms and conditions designed to identify, protect, mitigate, and, if need be, remediate agricultural resources impacted by construction.

The JP addresses, *inter alia*, the findings we must make pursuant to PSL §126(1). It contains proposed Certificate Conditions, Environmental Management and Construction Plan (EM&CP) guidelines, and a proposed Water Quality Certification (WQC). It also contains a list of the testimony and the JP exhibits and JP appendices proffered by the signatories in support of the terms of the JP and Applicants' requested Article VII certificate.

After the JP was filed, there followed another procedural conference; public statement hearings in Washington, Schenectady, Albany, Greene, Rockland, and Queens Counties; and site visits in Rockland and Queens Counties.⁵ Additional stipulations, two signed by Applicants, Staff and Con Edison and one signed by Applicants and Con Edison were filed in June and July 2012. The first two stipulations further addressed

⁵ In total, the ALJs conducted four site visits, three on November 17 and 18 and December 1, 2010, and one on May 1, 2012.

merchant status and Certification Condition 15 (June 4th Stipulation, Hearing Exhibit 150) and deliverability and Certification Condition 133 (June 26th Stipulation, Hearing Exhibit 151). The third stipulation resolved issues surrounding the location of the converter station and use of the Luyster Creek property owned by Con Edison, and proposed changes to Certificate Conditions 21 and 22(f) (July 11th Stipulation, Hearing Exhibits 129 and 130). In addition, Applicants and Con Edison agreed to revise the proposed routing through the Astoria site in order to avoid an existing liquefied natural gas facility (Hearing Exhibit 152).

Evidentiary hearings were held on July 18, 19, and 20, 2012. At the evidentiary hearings, testimony and exhibits were proffered by witnesses for Applicants, Staff, and the Independent Power Producers of New York, Inc. (IPPNY). The evidentiary hearing record consists of 219 hearing exhibits⁶ and over 700 transcript pages. In addition, parties submitted initial and reply statements on March 16 and 30, 2012, and initial and reply briefs on August 22 and September 7, 2012.

Except as noted above, the signatories recommend adoption of all of the terms of the JP, along with the proposed Certificate Conditions as modified by the stipulations filed on June 4 and 26, July 11, and October 19, 2012.⁷ NYPA neither supports nor opposes the Project but it requests approval of several proposed Certificate Conditions that address its concerns. Con Edison originally opposed the Project; however, in July 2012, it reached a resolution of its objections to the

⁶ The hearing exhibits include, *inter alia*, the 125 exhibits that accompanied the JP.

⁷ The October 19th stipulation, filed by Applicants, revised Certificate Condition 165 to extend the time for submission of the Trust Agreement.

Project, and now requests approval of the JP provisions that address its concerns.⁸ Entergy Nuclear Marketing, LLC and Entergy Nuclear Fitzpatrick, LLC (collectively Entergy), IPPNY, Central Hudson Gas & Electric Corporation (Central Hudson), and International Brotherhood of Electrical Workers Local 97 (IBEW) oppose the Project and the JP.

By notice dated December 27, 2012, the Acting Secretary issued the Judges' Recommended Decision (RD) and established January 17 and February 1, 2013, respectively, as the due dates for the filing of briefs on and opposing exceptions. In their RD, the Judges recommended that we (1) adopt most of the terms and conditions of the JP as revised in this proceeding and in their RD; and (2) grant a Certificate of Environmental Compatibility and Public Need. They further recommended that the proposed WQC for the Project be issued by the Director of the Office of Energy Efficiency and the Environment (OEEE) in the Department of Public Service prior to the expiration of the U.S. Army Corps of Engineers (USACE) February 24, 2013 waiver deadline.

The WQC was issued on January 18, 2013. On that day, Applicants submitted a revised, final version of the Proposed Certificate Conditions designed to reflect all changes that were made to the proposed Certificate Conditions in one document (JP Appendix C). Briefs on exceptions were filed by IPPNY, Entergy, IBEW, Central Hudson, the Business Council of New York State (the Business Council), Applicants, Staff, Con Edison, and DEC. IPPNY's brief included a motion requesting official notice or incorporation into the record of a U.S. Dept. of Energy

⁸ As a result of the stipulations, Con Edison and NYPA did not introduce their pre-filed testimony and/or exhibits into the record at the evidentiary hearing.

document; the motion was opposed by Applicants and Staff and was denied by ruling issued on January 30, 2013. On January 18, 2013, Applicants moved to strike the briefs of Entergy and the Business Council on the grounds that they were filed after the 4:00 p.m. deadline; Entergy responded to the motion on January 28, 2013, and the motion was denied by ruling issued January 30, 2013.

Briefs opposing exceptions were filed by VELCO, Con Edison, Riverkeeper/Scenic Hudson, DEC, Applicants, NYC, and Staff.

JOINT PROPOSAL

The JP provides the bases upon which the signatories assert that the Commission may make its required PSL §126 findings regarding need, minimizing environmental impacts, undergrounding, conformance to state and local laws and regulations, and whether the project conforms to a long-range plan and is in the public interest. The JP includes a request that the Commission not apply local laws and regulations identified in Hearing Exhibit 115 because, as applied to the Facility, such local legal provisions are unreasonably restrictive in view of existing technology, cost, and the needs of consumers. Except for such identified local laws, Applicants will comply with, and the location of the Facility as proposed conforms to, all substantive State and local legal provisions applicable thereto.⁹ The JP proposes that all of the proposed line be underwater or underground;¹⁰ these requests are unopposed.

⁹ JP ¶¶128-133.

¹⁰ JP ¶124.

The JP lists the Project's emission benefits, its ability to help mitigate the potential adverse impacts that may be associated with risk factors identified by the New York Independent System Operator (NYISO) in its planning processes and its ability to significantly increase supply capability into and fuel diversity in New York City as factors supporting the required need finding.¹¹

Regarding the Facility's environmental impacts, the JP indicates that the environmental impacts associated with the Facility are expected to be avoided, minimized or mitigated, provided that the Best Management Practices (BMPs) and Guidelines for the preparation of the Environmental Management and Construction Plan agreed to by the signatories are adhered to in the preparation of the Environmental Management and Construction Plan (EM&CP) and are strictly complied with during construction, operation, and maintenance.¹² The JP adds that, as located and configured therein, 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.¹³ In addition, under the JP, Applicants have agreed to fund the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust (Trust). This Trust will be used to study and mitigate any possible impacts of the Facility's underwater cables on habitat in the Hudson River Estuary, the Harlem and East Rivers, Lake Champlain, and their

¹¹ JP ¶¶19-21.

¹² JP ¶¶24, 152; see also sections D and E, and JP appendices E and F.

¹³ Id.

tributaries.¹⁴ The JP also contains terms specifying Applicants' other obligations, including limitations on construction periods in both Lake Champlain and the Hudson River; establishment of "Exclusion Areas" within the Hudson River where construction may occur only as agreed to by DEC or as determined by the Commission.¹⁵

With respect to the Project's conformance with a long-range plan, the JP states that the Facility is consistent with the most recent State Energy Plan and with New York City's goal of providing its residents with increased access to renewable energy supplies, as described in the City's *PlaNYC*.¹⁶

The benefits identified in the JP as bases supporting the required finding that the Project would serve the public interest, convenience and necessity include its ability to increase the reliability of the Bulk Power System in New York City, reduce wholesale market prices and reduce air emissions in New York City, Long Island and the lower Hudson Valley.¹⁷

JP Appendices set forth detailed and comprehensive Certificate Conditions (Appendix C, dated January 18, 2013, revised and updated to reflect changes to conditions as set forth in the stipulations submitted subsequent to the filing of the JP), EM&CP guidelines (Appendix E) and BMPs (Appendix F) that were crafted and agreed to by the signatories.

¹⁴ JP ¶¶144-147.

¹⁵ See, JP Appendix C, Certificate Condition 156(b).

¹⁶ JP ¶¶125-127.

¹⁷ JP ¶¶134-149.

PROPOSED ROUTE

The proposed route of the Facility (the Route) is shown on a series of maps, included as JP Appendix B,¹⁸ depicting a nominal centerline (the Centerline) and an Allowed Deviation Zone. Those portions of the Allowed Deviation Zone ultimately determined to be actually affected by construction of the Facility (a process encompassed in the EM&CP phase of this case), as well as certain areas outside the Allowed Deviation Zone that are needed temporarily for site investigation, access, and construction, are referred to as the Construction Zone.

The HVDC portion of the proposed transmission system would originate underwater at the international border between the United States and Canada in the Town of Champlain, New York and continue south under Lake Champlain. Two cables would extend south through Lake Champlain for approximately 101 miles entirely within the jurisdictional waters of New York State. At the southern end of Lake Champlain, the cables would exit the water in the Town of Dresden, New York.

From Dresden, the cables would be buried along an overland, underground route for approximately 11 miles primarily within the right-of-way (ROW) of NYS Route 22, to the Village of Whitehall. In the Village of Whitehall, the cables would transition from the Route 22 ROW to enter the existing railroad ROW owned by Canadian Pacific Railway (CP) and remain buried for approximately 65 miles in and along the railroad ROW from Whitehall to Schenectady.

In Schenectady, the proposed cable route would enter Erie Boulevard just north of the railroad crossing at Nott Street and continue along Erie Boulevard to a point south of

¹⁸ See also Hearing Exhibit 152.

State Street where it would again enter the railroad ROW.¹⁹ The route would follow the railroad ROW for a short distance, and would then deviate west of the railroad property, pass under Interstate 890, then turn south along the eastern edge of the General Electric property, approximately parallel with the CSX railroad (CSX), re-entering the CP railroad ROW just north of Delaware Avenue. From this point in Schenectady, the line would follow the CP railroad ROW to the Town of Rotterdam. In Rotterdam, the route would transfer from the CP ROW to the CSX ROW and proceed southeast for approximately 24 miles before entering the Town of Selkirk. The cables would then travel south for approximately 29 miles generally in and along the CSX ROW through Ravena, New Baltimore, Coxsackie, the Town of Athens, and the Village and Town of Catskill, before entering the Hudson River in the Town of Catskill (Hamlet of Cementon).²⁰

Upon entering the Hudson River via a tunnel excavated by means of horizontal directional drilling (HDD), the HVDC underwater cables would be located within the Hudson River for approximately 67 miles until reaching a point north of Haverstraw Bay. The cables would leave the water via HDD and enter the CSX ROW in the Town of Stony Point, Rockland County.

¹⁹ Along this portion of the route there are several alternative routings that include both the railroad ROW and various public ways for transitioning from the railroad to the city streets. The public ways include Nott Street, North Jay Street, Green Street, North Center Street, Pine Street, Union Street, Liberty Street and State Street as well as private property (Parking Lot) at or near 160 Erie Boulevard. (The precise route will be determined in the EM&CP phase.)

²⁰ The overland route from Dresden to Cementown is proposed primarily to avoid installing HVDC cables within the Hudson River polychlorinated biphenyl (PCB) site designated by the U.S. Environmental Protection Agency, which stretches from Hudson Falls, New York, to the Federal Dam at Troy, New York.

The cables would bypass Haverstraw Bay for approximately 7.66 miles, via a combination of trenching and three HDD excavations under the Stony Point State Historic Park Site and Rockland Lake State Park.²¹

The cables would then re-enter the Hudson River via HDD, and be buried in the river for approximately 20.7 miles to the Spuyten Duyvil, which leads to the Harlem River. The cables would extend south-easterly within the Harlem River for approximately 6.6 miles, exiting the water to a location along an existing railway ROW in the Bronx and continuing along that ROW for approximately 1.1 miles. At this point, the line would enter the East River via HDD, cross the East River and make landfall at Astoria.

At Astoria, the cables would terminate at a converter station to be located near Luyster Creek, north of 20th Avenue. From the converter station, a 345 kV underground circuit would connect to the existing 345 kV substation owned by NYPA. The circuits would interconnect with the NYPA substation near the site of the Charles Poletti Power Project in Queens. From NYPA's substation, another set of HVAC cables will be located within the City streets for approximately three miles to the Rainey Substation.

²¹ The JP notes that the parties considered but rejected the alternative of diverting the line along the east side of the Hudson River. JP ¶ 103. They relied on Exhibit 86, which noted that the railroad ROW on the eastern bank is heavily travelled with passenger trains and that, due to its close proximity to the water and existing infrastructure, there would be numerous engineering constraints to the eastern alternative.

PROJECT OPERATION

Under the JP, Applicants would build and operate the HVDC portion of the Facility without relying on cost-of-service rates to recover their costs. Applicants state they will recover the majority of the Project's costs from users of the HVDC Facility.²² The Facility has received authorization from FERC to charge negotiated rates and to enter into negotiated pre-subscription agreements with one or more "anchor" customers for up to 75% of the Facility's throughput, with the remaining 25% of the line's capacity to be available to all bidders in an open season.²³ Under the JP, there would be a Certificate Condition requiring Applicants to have 75% percent of their service under binding contract for a period of at least 25 years before commencing construction in New York State.²⁴

As of the close of the record, Applicants did not have any contracts with shippers. However, Applicants and Hydro-Québec (HQ)²⁵ are exploring the possibility of HQ becoming an "anchor tenant" for the Project.²⁶ If HQ becomes the anchor tenant, it may commit to up to a 40-year purchase of 75% of the

²² Applicants have reserved the right 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 pursuant to cost-based rates set by the Federal Energy Regulatory Commission (FERC). Tr. 65 and 76.

²³ Champlain Hudson Power Express, Inc., 132 FERC ¶61,006 (2010); see also Hearing Exhibits 197 (at 7) and 198 (at 11).

²⁴ Tr. 65, Hearing Exhibit 150.

²⁵ HQ is a Crown corporation wholly owned by the province of Québec. It has been developing and operating Québec's hydropower resources for over 50 years. HQ generates, transmits and distributes electricity. Hearing Exhibit 197 at 1.

²⁶ Hearing Exhibit 197 at 3.

transmission rights and would invest in new transmission in Québec needed to support the Project's 1,000 MW capacity.²⁷

Applicants expect to ship mostly hydroelectric power through the proposed HVDC cables, with the most likely source being the four-station, 1500 MW Romaine hydro complex that is currently under construction by HQ in Canada, and expected to be put in service in 2015.²⁸

POST-RD PUBLIC COMMENT AND PROCEEDINGS

After issuance of the RD on December 27, 2012, seven letters were received from elected officials and citizens of Rockland County who requested a 60-day extension of the exceptions schedule, to allow members of the public additional time to express their concerns.

In addition, by letter dated March 28, 2013, Honorable Congressman Brian Higgins expressed his opposition to the Project, making two points. Congressman Higgins contends that the Facility would cause higher electricity prices in Upstate New York and he also questions whether providing hydroelectric generating capacity from Quebec to New York City would result in greater reliance within Quebec on its nuclear and fossil fuel generating resources, thus having no net environmental benefit on an international level.

²⁷ Id. Applicants have not finalized interconnection plans and details, but studies show that the project can be connected to the New York State Bulk Power System without adversely affecting reliability. JP ¶127. Exploration is underway to determine the feasibility of an interconnection on the Canadian side of the border. See Comments filed on March 30, 2012, by H.Q. Energy Services (U.S.), Inc. (HQUS). HQUS is the U.S. power marketing subsidiary of Hydro-Québec Production, the power generating division of HQ.

²⁸ Hearing Exhibit 197 at 1.

Also on April 9, 2013, Sierra Club, Atlantic Chapter, filed approximately 2,020 identical form letters, on behalf of its members, in opposition to the Project. The letters identify five points in opposition: that the Project contradicts the objectives of the Energy Highway, threatens in-state renewable energy and energy efficiency programs, violates Article XIV of the New York Constitution, adversely impacts Canadian indigenous peoples, and exaggerates claims of job creation. These issues have been identified by various other commenters in opposition to the Project, as described in the RD.

State Assemblyman James Skoufis (99th District) wrote twice in January 2013 to inform us that many constituents have contacted him about this application. He requested a 60-day extension of the exceptions schedule to allow constituents additional time to express their concerns. Assemblyman Skoufis noted that he has observed overwhelming opposition to this Project among Rockland County residents in his District, and he requested that a Commission representative hold a meeting in Stony Point to meet with concerned residents.

Two Rockland County legislators, Ilan S. Schoenberger and Douglas J. Jobson, jointly, sent a letter dated January 16, 2013, in which they requested a 60-day extension of the public comment period to allow the public to respond to the RD. This request was supported by other similar requests from Town of Stony Point Supervisor Geoffrey Finn, Town of Haverstraw Supervisor Howard T. Phillips, Jr., three Rockland citizens identified as the "Just Say No! to the Champlain Hudson Power Express" Committee (Just Say No!), and Susan Wright, a Stony Point resident. Enclosed with Supervisor Finn's letter was a copy of the letter from Just Say No!

Those requesting an extension were advised that the requests to extend the schedule for filing exceptions were

denied, because the schedule for exceptions to the Judges' Recommended Decision applied only to parties in the proceeding, and those requesting the extension were not parties in this proceeding. The Secretary had issued a notice in May 2012 indicating that there was no firm deadline for public comments and that comments would be accepted throughout the pendency of this proceeding.

PARTIES' POSITIONS ON EXCEPTIONS²⁹

IPPNY, Entergy, IBEW, and the Business Council oppose the ALJs' recommendation that we grant Applicants an Article VII certificate. Central Hudson also opposes the ALJs' recommendation, but in the event a certificate is granted, Central Hudson asks that several other recommendations by the ALJs be revised. The opponents generally argue that the Project is not needed; does not minimize adverse environmental impacts nor conform to a long-range plan that will serve the interests of electric system economy and reliability; and will not serve the public interest, convenience and necessity.

IPPNY and Entergy claim that the ALJs erroneously: relied on the 2012 Reliability Needs Assessment (RNA) performed by NYISO; concluded that the Project would not require out-of-

²⁹ Applicants, Staff, Con Edison, and DEC also filed briefs on exceptions, but for limited purposes. Applicants and Staff offered limited factual corrections to the RD. DEC "clarified" its jurisdictional role and urged us to accept the ALJs' conclusion that this proceeding is not the appropriate forum for determining the Office of General Services' authority to grant leases for or other property rights to land under Lake Champlain, but otherwise ignore their "dicta" on the topic; and Con Edison recounted the procedural developments that resolved its concerns and reiterated that it otherwise has no position on the project. In this section, we will limit the summary to briefs on exceptions filed by parties that oppose all or some of the ALJs' recommendations or findings.

market subsidies; credited Staff's "production cost" analysis; and failed to prohibit Project shippers from indirectly recovering "extra-market" subsidies. IPPNY also contends that the ALJs relied on "flawed and inconsistent conclusions" concerning the Project's alleged capacity market benefits, wholesale energy price savings and job-inducing benefits. Entergy argues that the ALJs ignored or marginalized arguments against finding that environmental impacts had been avoided or minimized and accepted standards that are at odds with USACE pronouncements.

IBEW contends, among other things, that "insufficient weight" was given to claims that this Project would reduce wholesale energy prices in upstate New York and harm generators in northern and western New York.

Central Hudson asserts that the ALJs did not correctly resolve its issues with proposed Certificate Conditions 5 and 27-29. Central Hudson also requests that, as a matter of policy, we require transmission corridor developers, including merchants, to propose a project that improves known grid constraints and problems, rather than a point-to-point delivery project.

Finally, the Business Council argues that: the Project does not expand transmission to carry excess power from upstate to downstate; its costs "warrant significant review"; Applicants should be required to accept the incremental costs to Central Hudson that result from placing CHPE facilities on top of Central Hudson's facilities; and the need determination cannot be made in this proceeding until after the Commission concludes several proceedings it instituted last year.

STATUTORY REQUIREMENTS

The PSL provides that we may not grant a certificate for the construction or operation of a major utility transmission facility unless we shall find and determine:

- (a) the basis of the need for the facility;
- (b) the nature of the probable environmental impact;
- (c) 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 including but not limited to, the effect on agricultural lands, wetlands, parklands, and river corridors traversed;
- (d) ... (1) what part, if any, of the line shall be located underground; (2) that such facility conforms to a long-range plan for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems, which will serve the interests of electric system economy and reliability;
- (e) [not applicable]³⁰
- (f) that the location of the facility as proposed conforms to applicable state and local laws and regulations ..., all of which shall be binding upon the commission, except that the commission may refuse to apply any local ordinance, law, resolution or other action or any regulations ... or any local standard or requirement which would be otherwise applicable if it finds that as applied to the proposed facility such is unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of consumers whether located inside or outside of such municipality;

³⁰ PSL §126(e) applies to gas transmission lines.

(g) that the facility will serve the public interest, convenience, and necessity³¹

We generally have used the statute as our guide for the sequence in which we will discuss the contested issues. Therefore, we will start with need, followed by the extent to which adverse environmental impacts have been avoided or minimized, then undergrounding and the Project's conformance to applicable laws and to a long-range plan, and, lastly, public interest, convenience and necessity.

NEED

In recent major Article VII cases we have set forth grounds on which we base our statutory finding of need. Thus, when Bayonne Energy Center (Bayonne) proposed to build a submarine electric cable to provide a dedicated connection between a new natural gas-fired generator in Bayonne, New Jersey and the Con Edison substation in Brooklyn, we found that the facility would provide system reliability benefits and economic benefits for customers and New York State, and would achieve public policy goals.³² With respect to reliability, we found that Bayonne would provide an additional source of supply in the event that other, expected generation and transmission projects were not completed as projected, generation retired or was unavailable as a result of relicensing disapproval, emissions control requirements, or for any other reason. We also found that Bayonne's direct interconnection with Con Edison's system allowed it to be considered in-city generation that would count

³¹ PSL §126(1).

³² Case 08-T-1245, Bayonne Energy Center, LLC, 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 November 12, 2009) (Bayonne Order).

towards the City's Locational Capacity Requirement.³³ From an environmental perspective, we found that the addition of Bayonne would allow the City's electricity needs to be met with a cleaner generation mix and should reduce present annual NOx, SO₂, and CO₂ emissions in New York City.³⁴ We also found that Bayonne's economic benefit's included reducing prices and that all of its favorable impacts would benefit New York without imposing additional costs on electric ratepayers.³⁵ When Hudson Transmission Partners (HTP) proposed to build and operate a 345 kV electric transmission link between midtown Manhattan and the neighboring regional electric system located in Pennsylvania, New Jersey and Maryland (PJM), we grounded our statutory need determination on findings that the facility would provide a useful bulk transmission connection to another region; alleviate existing transmission constraints; be used as an additional in-city capacity reserve; offer network security attributes that would help protect the security of the transmission network; help enhance and maintain system reliability in the event of plant closings or in response to air quality or climate change initiatives; and provide economic benefits by importing lower cost power, providing production cost savings and by not imposing the economic project risks on public utility ratepayers.³⁶ Applying the same reasoning to this case, and, as discussed more fully below, we determine that there is more than ample basis to find that this Project is needed.

Initially, it is important to reiterate the aspects of need that are not contested. They are:

³³ Bayonne Order at 13.

³⁴ Bayonne Order at 13-14.

³⁵ Id.

³⁶ HTP Order at 42-47.

- the Project will offer additional transmission capacity into the New York City load pocket;
- by providing a link to abundant hydropower resources, the Project will significantly reduce harmful emissions and will enhance fuel diversity; and,
- due to these and other characteristics, it will help achieve public policy objectives expressed in the 2009 State Energy Plan and New York City's *PlaNYC*, among other documents expressing State policy.

As did the Judges in the RD, we accept these uncontested propositions as supported by the record and demonstrative of need. These, standing alone, are ample bases for our finding and determination that this Project is needed. However, as noted above, IPPNY, Entergy, IBEW, and the Business Council contest other factors that also could support a finding of need for this Project. We discuss their objections, below.

Reliability

The question of whether this Facility is "needed" for reliability purposes was the subject of extensive litigation. In finding a basis of need for the Facility, the ALJs did not rely on a finding that this Facility was being proposed to remedy a forecast system deficiency as of a certain date. Instead, they noted that the RNA was "not automatically dispositive" of the need issue, and found that this case presented an opportunity to authorize an investment in a merchant electrical infrastructure project not tied tightly to any forecast reliability need.³⁷ The ALJs listed a series of bases for a need finding: (i) the addition of a transmission interface into the New York City Control Area; (ii) likely long-

³⁷ RD at 29-30.

term economic benefits; (iii) short-term reductions in the wholesale price of energy; (iv) enhanced fuel diversity, and (v) consistency with public policy goals of increased use of renewable energy and reduction in emissions of various pollutants.³⁸

The 2012 RNA was issued after post-hearing briefs were submitted in the case. Prior to that time, the parties referred instead to the NYISO's 2010 RNA and its 2010 Comprehensive Reliability Plan (CRP), which found that no new supply resources were needed over the 10-year planning horizon through 2020. Nevertheless, the JP proponents had relied on certain "risk factors" articulated in the RNA that might trigger a supply need, such as higher than expected load growth, environmental initiatives, and the closing of the Indian Point nuclear power plants, to argue that the Project could mitigate adverse impacts that could result if any of those risk factors came to pass.

The 2012 RNA differed from the 2010 version. The 2012 RNA found a potential increased need for installed capacity in New York City beginning in 2020, due to factors such as higher load growth, the recent mothballing or proposed mothballing of generating plants, the possible retirement of the Indian Point nuclear plants, a reduction in the forecast of customers' willingness to positively respond to requests to curtail their electric power demands (Special Case Resources or SCRs), and the possibility of further retirements of plants in the face of stricter air quality requirements. Following the issuance of the 2012 RNA, the parties were afforded an opportunity to submit

³⁸ The RD considers "reliability need" and "fuel diversity" as two separate issues in separate sections. As we discuss below, we consider fuel diversity to be an important reliability benefit and therefore we have collapsed the two issues here.

supplemental briefs to address its implications. The ALJs relied on these supplemental materials as well as the record materials addressing the 2010 RNA in reaching the conclusions in the RD.

IPPNY and Entergy claim that the ALJs erroneously relied on the 2012 RNA. They assert that the need found in the 2012 RNA may not materialize because: mothballed generators may not actually retire; the 2012 RNA's Zones at Risk analysis found that one could eliminate up to 1,000 MW of capacity from various downstate zones before reliability violations would occur; and the prospect that the Indian Point units would retire is highly speculative. Entergy argues that it is irrational to conclude (as did the RD) that the 2010 and 2012 RNAs examined similar scenarios because the 2012 RNA is not the end of the NYISO's planning process.

IPPNY argues that the 2012 RNA's assumption that SCRs might decline over time is not supported. IPPNY also contends that the State's energy efficiency and renewable resources programs are likely to further reduce or eliminate any future reliability needs.

Applicants respond that the ALJs correctly concluded that the 2012 RNA shows that the additional capacity provided by the Facility may be needed by 2020, and perhaps sooner.³⁹ They say that IPPNY and Entergy are in effect, asserting that mothballed facilities should have a guaranteed right to reenter the market before new competitors are allowed to serve consumers in New York City, an assertion they say belies IPPNY's oft-repeated support for a fully competitive electric market in New York.

³⁹ Applicants Brief Opposing Exceptions at 3-8.

They note our Order Instituting Proceeding and Soliciting Indian Point Contingency Plan in Case 12-E-0503, contending that we expressly rejected IPPNY's claim that due to the retirement of Indian Point (IP) nuclear facilities a reliability violation in 2016 is "highly speculative." They also highlight our statement that the potential retirement of such a significant electric generating facility "requires significant advanced planning" and the development of a contingency plan "now."⁴⁰ Applicants contend that the institution of the IP proceeding provides powerful evidence of the need for additional capacity to serve New York City and the lower Hudson Valley.

NYC argues that IPPNY's contention that the State's efficiency and renewables programs may eliminate any potential reliability need is "not persuasive," asserting there are "recognized implementation challenges and other circumstances" that render uncertain the achievement of those policy goals. Further, New York City observes that, as a general proposition, year-to-year need determinations are subject to a wide variety of changing circumstances⁴¹

⁴⁰ Applicants Brief Opposing Exceptions at 6, quoting Order at 4.

⁴¹ NYC Brief Opposing Exceptions at 13. NYC notes recent developments (i.e., the December 7, 2012, decision of the New York State Reliability Council's Executive Committee increasing the current 16% Installed Reserve Margin for the New York Control Area to 17%, effective May 1, 2013, and a January 17, 2013, NYISO's Operating Committee vote that increased the City's Locational Capacity Requirement (which establishes the percentage of capacity to meet the needs of customers within the New York City capacity market that must be purchased from supply resources located within the New York City market) from 83% to 86%) that it says demonstrate that the need determination is fluid and the ALJs properly accounted for that fluidity by analyzing all of the factors identified in the RD. NYC at 11-12.

Staff asserts that because Applicants are not requesting rate-based treatment to recover the cost of the Project, there is no need to address whether the Project satisfies a "reliability need" pursuant to the RNA.⁴² Instead, says Staff, this proposal represents a merchant investment, which would help to avoid the need for potential regulated investments -- exactly as the RD concludes.⁴³

The Business Council argues that we should await the outcome of a number of recently instituted cases⁴⁴ before deciding to advance this Project now. Applicants oppose the Business Council's suggestion, arguing that outcome "would cast a pall on all siting applications in the State."⁴⁵

Discussion

We do not approach a need determination under Article VII as a narrowly-defined exercise, exclusively based on elective supply/demand forecasting -- forecasts that as New York City notes can change significantly from year-to-year based on a myriad of factors. In that regard, contrary to the arguments of Project opponents, the most recent RNA is not dispositive on the issue of need. In both the HTP and Bayonne cases, the then-current RNA found no reliability need during the next 10-year

⁴² Staff Brief Opposing Exceptions at 11-12.

⁴³ Staff Brief Opposing Exceptions at 12, citing RD at 30.

⁴⁴ Case 12-T-0502, Proceeding on Motion of the Commission to Examine Alternating Current Transmission Upgrades; Case 12-E-0503, Proceeding on Motion of the Commission to Review Generation Retirement Contingency Plans; Case 12-G-0297, Proceeding on Motion of the Commission To Examine Policies Regarding the Expansion of Natural Gas Service; and Case 12-E-0577, Proceeding on Motion of the Commission to Examine Repowering Alternatives to Utility Transmission Reinforcements.

⁴⁵ Applicants Brief Opposing Exceptions at 60.

planning period, yet we found those projects were needed for reliability. Specifically in the case of HTP, we found that the facility would provide a useful bulk transmission connection to another region; alleviate existing transmission constraints; be used as an additional in-city capacity reserve; offer network security attributes that would help protect the security of the transmission network; and help enhance and maintain system reliability in the event of plant closings or in response to air quality or climate change initiatives.⁴⁶ With Bayonne, we found that the facility would provide additional in-city generation; reduce transmission constraints for New York City; and contribute to ensuring system reliability in the event a range of possible regulatory and legal changes or events might transpire and reduce available generation.⁴⁷

In this case, we find and determine need, in part, 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,⁴⁸ and (4) enhance fuel diversity. The Project opponents have failed on exceptions to undercut the ALJs' findings regarding the system reliability benefits that would flow therefrom.

The claims that too much reliance has been placed on the 2012 RNA and its underlying assumptions are misplaced, since other uncontested bases properly support a finding of need pursuant to PSL §126(1)(a). In any event, it is indisputable that if load increases, or Indian Point retires, or SCRs decrease, or, in short, if any adverse reliability events

⁴⁶ HTP Order at 42-47.

⁴⁷ Bayonne Order at 12-16.

⁴⁸ Id.

materialize in the next 10 years, then a Project like this one would be beneficial as a means to help alleviate such adverse impacts.

Arguments about the various risk factors and events that have and may yet affect "need" and the information highlighted on exceptions by parties on both sides of the dispute merely serve to confirm that the State's generation and capacity markets are fluid, and often change in ways that are unexpected - the Danskammer retirement being a prime example.⁴⁹ In fact, the NYISO's 2012 CRP, approved and published subsequent to its 2012 RNA, advanced the year of need to 2019, based mainly on the Danskammer retirement announcement.⁵⁰ Finally, we reject the requests of the Business Council to consider transmission and generation proposals sequentially and to delay addressing this Project. By issuing this Article VII Certificate, we are merely allowing the Applicant to evaluate other generation and transmission projects in deciding whether to move ahead to construction. Delaying this decision will only add to market uncertainty, and that would be inconsistent with allowing market actors to do their own sorting of possible futures.

Installed Capacity

The RD states that the Project will provide installed capacity benefits. IPPNY excepts.⁵¹

⁴⁹ On January 3, 2013, Dynegy Danskammer, L.L.C. (Danskammer) filed a written notice of intention to permanently retire (and then demolish) its 495 MW Danskammer Generating Station in Newburg, New York. See Case 13-E-0012, Petition of Dynegy Danskammer, LLC For Waiver of the Generation Facility Retirement Notice Period and Requesting Other Related Relief.

⁵⁰ See 2012 CRP at 8.

⁵¹ IPPNY Brief on Exceptions at 18-19.

IPPNY cites Mr. Younger's testimony that the NYISO's buyer-side mitigation rules will prohibit the Project from selling its installed capacity into the markets for many years. IPPNY states that the ALJs seemingly acknowledged this prohibition but then appeared to confuse "additional transmission capacity on the one hand, and increased installed capacity on the other."⁵² To the extent that the ALJs confused these two, IPPNY says we must reject any reliance on installed capacity benefits.

Applicants observe that IPPNY does not deny that the Facility will add an additional 1,000 MW of transmission capacity into the New York City load pocket, or that 1,000 MW of generating capacity in Québec will be able to serve load in the New York City load pocket over the proposed transmission line.⁵³ Applicants contend that, in the unlikely event that any of the installed capacity provided by the Facility is excluded from participating in the NYISO's capacity markets under the NYISO rules, that capacity would remain physically available to NYISO in its operation of the State Transmission System and would benefit consumers by enhancing the reliability of electricity supply.⁵⁴

Discussion

Regardless of whether the ALJs relied on the Project's "installed capacity" benefits, we do not rely upon the Project's

⁵² IPPNY Brief on Exceptions at 19. IPPNY explains that transmission capacity refers to the ability of a transmission system to import and export energy, whereas installed capacity refers to a reliability product purchased by load serving entities to ensure they have sufficient supply, plus a reserve, to meet their load obligations. Id.

⁵³ Applicants Brief Opposing Exceptions at 27-28.

⁵⁴ Id.

potential ability to provide additional installed capacity as support for our decision. Our conclusion, however, does not mean that we find the potential for the Project to provide installed capacity benefits in the future to be non-existent. It simply means that our need finding is supported on other grounds.

Economics

The ALJs reviewed a number of economic analyses advanced by the parties in support of and opposition to the Project. They rejected two separate analyses proffered by Mr. Younger, one a cash-flow analysis and one a production cost savings analysis, in favor of Staff's long-term production cost savings analysis.⁵⁵ They determined that "the most meaningful economic analysis of this project is one that focuses on the long-term and gauges whether the proposal will provide net benefits to society as a whole." They then concluded that "Staff's long-term analysis is the one that is best suited to determining whether the proposed Facility will provide overall net societal benefits" because it "was performed in such a way that it reasonably balanced the competing assumptions and views advocated by the Project's opponents, on the one hand, and Applicants, on the other."⁵⁶

In the analysis credited by the ALJs, Staff compared the cost of 1,000 MW of Canadian hydropower delivered to New York City via the Project to the cost of a combined cycle gas-fired turbine (CCGT) of similar capacity located in New York

⁵⁵ Applicants' witness Frayer estimated annual average "production cost savings" of \$606 million, or \$6.1 billion in total over the 10-year period from 2018 to 2027. The RD did not credit her analysis and no party excepts, so we will not discuss it further.

⁵⁶ RD at 47.

City. Staff reasoned that because the Project would alleviate the need to construct the CCGT, the CCGT costs represented the savings attributable to the Project. Staff estimated the net present value of production cost savings over a 35-year period in a range from \$0.4 billion to \$2.6 billion (in 2015 dollars).⁵⁷ In other words, Staff found that the Project was economically beneficial and that the economic benefit constituted a basis for a need finding.

IPPNY's witness Younger testified that the Project would be uneconomic. Employing the same General Electric Multi-Area Production Simulation (GE MAPS) model J database that Staff used for its economic analysis of wholesale market benefits in the JP, Mr. Younger used Staff's representation of the physical and economic characteristics of the Project to model the first ten years of the Project's expected operation. Mr. Younger then made limited updates to Staff's MAPS database to account for the most recent available data on gas prices, generator retirements and full deliveries of 1,550 MW out of the Astoria Annex. Using the methodology the NYISO employs to conduct its Congestion Assessment and Resource Integration Study (CARIS) to determine whether a transmission project is economic, Mr. Younger compared the first ten years of the annualized cost of the Project to its production cost savings over the same period. He concluded that, over the first ten years of Project operation, it would cost a total of over \$2 billion but create only \$590 million in benefits, thus producing a benefit/cost ratio of only 0.29, substantially below the minimum threshold used by the NYISO to determine whether a proposed transmission project is economic.

⁵⁷ Tr. 198-199; see also Hearing Exhibit 202. Staff initially estimated these benefits as ranging between \$1.2 billion and \$3.2 billion dollars over a 35-year period (net present value in 2015 dollars). Tr. 165.

A second production cost analysis produced by Mr. Younger consisted of proposed corrections to the Staff analysis and also came to the conclusion that the Project was uneconomic.

In rejecting IPPNY's position, the ALJs found, *inter alia*, that IPPNY's overarching views on economic need were informed by the outdated 2010 RNA and by the incorrect assumption that the generation would not be needed for reliability purposes until 2026.

Production Cost Analyses

On exceptions, IPPNY asserts that Staff's analysis did not calculate the production cost savings that would result from the Project. According to IPPNY, by comparing the cost of the Project to the cost of a CCGT in New York City, Staff did not actually measure the long-term net benefits to society as a whole, but instead measured the amount of savings that, if realized, inure to the benefit of only the Project developer. Entergy argues that the RD claims Dr. Paynter's rebuttal savings estimate as a "societal" benefit even though such a finding is at odds with the JP's statement that such savings "should not be interpreted as ratepayer benefits" as they will be "captured by the Applicants, their financial backers and/or users of the Facility."⁵⁸

In response, Staff argues that by comparing total economic costs, while ignoring transfer payments (due to price impacts), it has, in fact, measured economic benefits to society, rather than ratepayer benefits or profits to one party, as claimed by IPPNY.⁵⁹

⁵⁸ Entergy Brief on Exceptions at 19-20.

⁵⁹ Staff at 4.

Applicants argue that documented savings to a developer are indeed a benefit to "society." They cite an IPPNY statement in support of this view:

[C]ompetitive market structures motivate power producers to undertake investments and improvements that lead to productivity gains, and many of the nation's generating facilities now are operated much more efficiently than in the past. Just as in any competitive market, market signals embedded in the competitive wholesale markets in New York have created incentives for producers to undertake needed investments and creative improvements in operating practices to achieve such cost savings.⁶⁰

Applicants observe that the Commission has recognized in other contexts that, over time, competition will force producers to share cost reductions with consumers as other suppliers achieve similar cost reductions.

IPPNY reiterates its arguments that Staff significantly understated the combined costs of the Project and the HQ hydro facility while at the same time substantially overstating the CCGT costs that would otherwise be avoided. According to IPPNY, Staff understated Project costs by using the costs of a hydro facility with unique permitting and operating circumstances, failing to include all the costs of the new hydro facility in the calculation, understating the losses associated with delivering power from the hydro facility to the injection point for the Project and using an "abnormally long, 35-year amortization period" for the Project, which, according to the IPPNY witness, proved that any benefits are not likely to occur for decades, long after substantial, required expenditures.

⁶⁰ Applicants at 9, citing Hearing Exhibit 165 (IPPNY White Paper "The Policies of Power: Energy Planning for New York's Future Recommendations from the IPPNY," November 2008, at 15).

IPPNY adds that Staff overstated the CCGT costs by calculating them as if they would be incurred in 2016, the year that Staff expected CHPE to bring the Project into service, instead of using 2026 (IPPNY's asserted need date). IPPNY reiterates its conclusion that the Project's costs are more than \$5 billion more expensive than waiting to build CCGTs in New York City when they are needed.

Both Applicants and Staff urge us to affirm the ALJs' adoption of Dr. Paynter's analysis⁶¹ because (1) Dr. Paynter properly dismissed Mr. Younger's concerns with respect to his use of Canadian hydro facilities and addressed Younger's concerns with respect to the facilities needed to transmit electricity from the Canadian hydro facilities to interconnect with the Facility;⁶² (2) Dr. Paynter explained that transmission from hydroelectric facilities in Québec to the Facility will occur on lines with a documented history of line losses that vary from "4.5% to 8%, depending on operating conditions and temperatures";⁶³ and (3) IPPNY's reliance on 2026 as the date on which the proposed combined cycle plant would commence operations, instead of 2016, the date used by Dr. Paynter, relied on the outdated 2010 RNA and improperly introduces short-term market conditions into a long-term economic analysis.⁶⁴

⁶¹ Applicants at 10; Staff at 5.

⁶² Applicants at 10-12.

⁶³ Applicants at 12, citing Paynter rebuttal at 178; Staff at 5.

⁶⁴ Applicants at 13; Tr. 179-180. Applicants add that Dr. Paynter also explained that if he corrected his analysis to recognize short-term market conditions affecting the Facility in Canada, the total costs of the Facility would be reduced to less than one-third of the costs of Mr. Younger's CCGT facility. Applicants at 14, with recitation of testimony at Tr. 180-181 omitted.

Opponents argue that the RD misconstrues Mr. Younger's purpose in conducting a CARIS-type cost-benefit analysis, asserting that the CARIS model was appropriately applied because: (1) the Project failed the cash flow test by such a wide margin that it further supports the conclusion that a subsidy will be required; and (2) there is no other generally accepted benefit-cost methodology.⁶⁵

With respect to IPPNY's CARIS analysis, Staff argues that the RD correctly dismissed it because it applies to regulated projects rather than merchant projects, and it fails to account for HQ's legitimate financial interests in the Project, including, *inter alia*, meeting the needs of HQ's financial backers; consideration of HQ's actual financing costs, which may be very different than CARIS' 16% rate; finding a market for HQ's new hydroelectric supplies; and considering the potential impacts of HQ's new hydro electric supplies on market prices and congestion. Staff notes that witness Paynter listed these "valid considerations," noting that they "are all outside the narrow scope of the CARIS analysis."⁶⁶

Applicants argue that Mr. Younger's analysis also was properly rejected on the basis that it improperly assumed that the full output of the hydroelectric generating facilities now under development in Québec could simply be sold into New York State across existing, already constrained transmission lines.⁶⁷ Applicants argue that Ms. Frayer pointed out in rebuttal testimony that Mr. Younger's "production cost" analysis was flawed by this assumption, and that, in reality, differences in market design between control areas, sometimes referred to as

⁶⁵ Entergy at 12-13.

⁶⁶ Staff at 7, citing Tr. 192-193 and referring to Tr. 190-193.

⁶⁷ Applicants at 20-21.

"seams," limit the extent to which energy can flow between control areas in response to differences in market prices, as FERC recognized in a recent Order.⁶⁸ Applicants state that Ms. Frayer explained that the effect of this erroneous assumption is that Mr. Younger's GE MAPS model substantially overstates actual trading opportunities⁶⁹ and his production cost analysis understates the Facility's true impacts on total production costs.

Revenue/Cash Flow Analysis

The ALJs also rejected a revenue/cash flow analysis proffered by IPPNY witness Younger. In that analysis, Mr. Younger calculated an annual cost, based on the Applicants' estimated construction costs and 90% capacity factor and the costs to connect with the transmission system in Québec. He then estimated annual revenues based on the historic price differential between the New York-Canada border and New York City. He concluded that it would cost a shipper, per MWh, over \$50 to receive an \$8 benefit and that therefore the Project was not economic pursuant to this analysis. On exceptions, IPPNY asserts that the Commission should credit this analysis.

IPPNY states that Applicants improperly refused to introduce affirmative evidence of their business plan or potential income stream. IPPNY reiterates its claim that no rational investor, including HQ, would risk its assets by participating in this Project absent some assurance of extra-market funding. It argues that this "undeniable need" for such funding means that subsidization by ratepayers in regulated

⁶⁸ Applicants at 21, citing *Blumenthal v. ISO New England, Inc.*, 135 FERC ¶ 61,117 at P 44 (2011).

⁶⁹ Applicants at 21-22.

rates will be necessary to enable the Applicants to recoup their costs.

Applicants point to the rebuttal testimonies of Dr. Paynter and Ms. Frayer, saying both made clear that Mr. Younger "stacked the deck against the Facility in several important ways," including using today's historically low energy prices, and failing to demonstrate that existing interconnections between New York and Québec would be sufficient to accept the full output of the massive hydroelectric generating facilities now under development in Québec. Applicants and Staff note that the record shows that those existing interconnections are already constrained during periods of peak demand, leaving little opportunity for HQ to sell additional hydroelectric power into New York over those existing interties. For this reason, among others, Staff asserts that IPPNY's "Cash Flow" analysis is fundamentally flawed, and the RD was correct to dismiss it.

Discussion

First, it must be emphasized that no one can make any definitive statements about the future economics of the Facility. One can only talk about the future in terms of forecasts that are made at this point in time and the likelihood that the economics of the Facility may actually turn out to be better than forecasted or worse than forecasted. We must therefore recognize the role that uncertainty plays in the investment decisions of potential developers.

Staff, IPPNY, and Entergy agree that the primary economic analysis is the comparison of the overall societal benefits and costs of the Facility, which is sometimes called a production cost savings analysis. While undoubtedly important, the results of a production cost savings analysis are but one factor we consider.

Analyses of production cost savings were performed by IPPNY witness, Mr. Younger and Staff witness, Dr. Paynter. Mr. Younger's production cost savings analysis, using G.E.'s MAPS model, while subject to several weaknesses that were identified by the parties, must be given some weight. The analysis 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. At low New York City electric prices, the Facility may not produce enough production cost savings to cover its costs.

We also give weight to Staff's long-run production cost savings analysis. Contrary to IPPNY's allegation, Staff's long-run production cost savings analysis is proper: it properly compares the cost of the added project to the cost savings that will result from it, in the form of an alternative project (a combined cycle gas facility located in New York City) that will be avoided. This analysis should be given the most weight. Its results are highly instructive because they show how sensitive the economics of the Facility are to gas price forecasts. Using its "low" and "high" gas price forecasts,

Staff estimated a net benefit of \$0.4 billion and \$2.6 billion, respectively.⁷⁰

We acknowledge IPPNY's criticism that 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 need to be built in New York City. According to IPPNY, excess supply in New York City means that a new CCGT would not be needed until substantially later than 2016. This criticism is valid. We recognize, however, that more recent analyses of supply and demand suggest that the need for new supply will likely occur much earlier than 2026. This recognition, combined with delays in the Facility's schedule that puts its in-service date out beyond 2016 by one or two years, brings the expected in-service dates of the Facility and the CCGT much closer into alignment with each other. Nevertheless, there would remain a slight

⁷⁰ In its Brief on Exceptions, IPPNY attempted to introduce into the record, the U.S. Energy Information Administration's Annual Energy Outlook (2013 AEO) Early Release Overview, for the purpose of bringing to our attention gas forecasts lower than those previously used by the parties in their production costs analyses. By Ruling Denying Motion to Incorporate or Take Official Notice (issued January 30, 2013) and Errata Notice (issued February 1, 2013), the Acting Secretary determined that the draft document would not be introduced into the record because the forecasts were preliminary in nature (subject to future revision). We agree that the ruling was proper at the time made. On April 15, the EIA issued the final 2013 AEO, which retains the gas price forecasts contained in the Early Release Overview. We recognize that incorporating these gas forecasts at issue into Staff's analysis (holding all other inputs constant), Staff's estimate of production cost savings would turn negative. Such a result, however, would only change one element in our overall analysis and would not change our conclusion that there is more than ample basis to conclude that the granting the Certificate is warranted.

mismatch in the two dates and therefore a slight overstatement by Staff of the Facility's production cost savings.

Based on the information available to us, we find the production cost savings estimates to be inconclusive, as the results of such an analysis depend very heavily on, among other things, the trajectory of actual gas prices. As was clear from the record and is well understood within this Commission's experience, gas price forecasts can change dramatically in a very short time. However, by granting the Facility a certificate, we are providing its investors with the option to move forward with construction of the Facility if circumstances such as a revised gas price forecast lead its investors to believe that it will be an economic project. As we explain below, the Project is in the public interest because its non-monetary benefits outweigh its environmental harm. This weighing of the Project's non-monetary aspects holds irrespective of any conclusion we make on the economics of the Project. 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.⁷¹

As an alternative to a production cost savings analysis, IPPNY's witness, Mr. Younger, performed a revenue/cash flow analysis. The analysis looked at the economics of the project from the perspective of the project owner: is the project likely to be reasonably profitable? We find that

⁷¹ We note that, pursuant to Certificate Condition 13, the Applicants do not have unlimited time in which to go forward with the Project. Rather, Condition 13 allows us to vacate the Certificate if Applicants have not filed their EM&CP or commenced construction by certain specified deadlines.

IPPNY's revenue/cash flow analysis cannot be relied upon because it keyed on historical bus prices instead of forecasted bus prices. Historical bus prices fail to capture key future factors such as gas price forecasts, and, as Staff points out, the historical bus prices used by IPPNY were artificially depressed by the recent recession.

Wholesale Price Impacts

The ALJs observed that "[n]o party disagrees that this facility will (or is likely to) reduce wholesale electricity prices; parties disagree on whether these reductions should be viewed as a benefit, whether the estimates are accurate, and whether the metric should be relied on by the Commission in this proceeding."⁷² The RD summarizes the various estimates put forward by the parties, noting Applicants' figure of \$503 million for 2018 and \$3.4 billion for the ten years starting with 2017, and Staff's estimate of \$492 million in 2018.⁷³ According to the RD, IPPNY witness Younger argued that the 2018 numbers were overstated by \$211 million.⁷⁴ The ALJs found that, "even after accounting for opponents' criticisms and proposed offsets, the proponents have successfully demonstrated that the Project will have sizable benefits in the form of reductions in the wholesale price of electricity" and that these particular benefits, though likely short-term, should be considered as evidence supporting both the required need and public interest findings.⁷⁵ IPPNY, Entergy, IBEW and the Business Council take exception to this recommendation, arguing that the wholesale price reductions should not be viewed as benefits nor be

⁷² RD at 48.

⁷³ Id.

⁷⁴ RD at 49.

⁷⁵ RD at 54, 72-73.

considered as evidence supporting the need or public interest findings.

IPPNY and Entergy say any claimed benefits from wholesale energy price reductions produced by this Project must be disregarded entirely because they are temporary transfer payments between generators and consumers, rather than sustainable benefits to society as a whole. They also assert that any wholesale price reductions caused by this Project's "uneconomic entry" would be the result of anti-competitive price suppression and thus cannot be considered a benefit. IPPNY adds that the RD's conclusion that wholesale energy price savings will "nonetheless be realized" is erroneous and it is "pure speculation" whether such savings would have a perceptible impact on consumers. Entergy reiterates, and cites Dr. Paynter's testimony as support, that "[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." Entergy argues that the RD's finding that such transfer payments somehow support both need and public interest is misplaced.

IBEW also disagrees with viewing wholesale price impacts as a benefit, especially in Upstate New York, while the Business Council states that if the projected wholesale energy market savings cannot be delivered, the Project simply cannot be in the public interest.

Applicants and Staff contest IPPNY's claim that wholesale price savings are "inherently unreliable because, *inter alia*, they do not account for market responses."⁷⁶ Applicants contend that it is unsupported by any citation to the

⁷⁶ Applicants at 25, citing Brief on Exceptions at 20.

record and cannot be reconciled with the testimony of DPS Staff witnesses Gjonaj and Wheat that "the Commission should be aware of these [wholesale price] benefits when considering whether this project is in the public interest."⁷⁷

Applicants argue that the ALJs clearly considered and rejected IPPNY and Entergy's claim that the lower wholesale electricity prices resulting from the Facility should be ignored simply because they are likely to be transitory.⁷⁸ Applicants argue that IPPNY and Entergy have provided no explanation why this "obviously correct conclusion" should be rejected by the Commission.

Discussion

The Project will create significant benefits to consumers in the form of lowered wholesale prices. Even allowing for adjustments proposed by IPPNY, the wholesale price reductions for 2018 alone are forecast to be \$281 million. We do not rely on these consumer benefits to find need. Instead, as discussed elsewhere in this Order, we find other bases for granting the certificate.

Price Impacts at U.S.-Canada Border

In response to claims that the Project could raise wholesale electricity prices at the U.S.-Canada border, the ALJs stated that:

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

⁷⁷ Applicants at 25, citing Tr. 245.

⁷⁸ Applicants at 25-26, citing RD at 53.

respond to such price differentials, eventually offsetting them over time.⁷⁹

IPPNY and Entergy contest this conclusion, arguing that the RD's rationale for rejecting the border price information is inconsistent with the RD's rationale for crediting wholesale energy price savings. They argue that either all price impacts are relevant regardless of certainty and expected duration, or none of them are. Entergy argues that it demonstrated that we must take into account the higher energy prices that the Project will cause in the already struggling regions of Upstate New York, claiming this Project would increase Upstate power prices without providing any other tangible benefits. Entergy asserts that this scenario was suggested by Dr. Paynter.

Applicants assert that the ALJs correctly rejected IPPNY and Entergy's contention that the Facility will harm consumers in Upstate New York by increasing prices at the Canadian border because that contention was unsupported by record evidence.⁸⁰ Staff asserts that the contention is simply false.

Specifically, Applicants note that Entergy quotes from Dr. Paynter's testimony on cross-examination, but fails to include the very narrow question to which he was responding or the last fifteen words of Dr. Paynter's answer, both of which, Applicants state, make clear that Dr. Paynter is answering a purely hypothetical question posed by Entergy's counsel. Applicants argue that when the complete question and answer is viewed in context, the quotation presented by Entergy provides it no support.

⁷⁹ RD at 65, citing as an example Tr. 172.

⁸⁰ Applicants at 34.

Staff says that Dr. Paynter, in fact, determined that the Project would reduce prices across New York State, including Upstate. Staff adds that IPPNY's claim is based, not on Staff's testimony, but on a hypothetical, presented on cross-examination, which assumes that HQ would invest in 1,000 MW of additional hydroelectric supply and sell this at the New York border, without any transmission upgrades in New York. Referring to its Reply Brief (p. 11), Staff states that the "increase" in border prices is only in comparison to the depressed prices in the hypothetical and that compared to current market prices, the impact of the additional hydroelectric resources delivered by the Facility is to reduce prices statewide, including at the Canadian border. Applicant makes a similar argument.

Applicants state that the only record evidence directly addressing the impact of the Facility on power prices in upstate New York is the testimony of Ms. Frayer, whose testimony included a chart clearly showing that the Facility will have no significant impacts on the price of electricity in upstate markets (Tr. 279, lines 1-7).

Discussion

Staff witness Paynter testified that when large supplies enter a market, they naturally tend to depress prices.⁸¹ Based on this testimony, and on the arguments provided by Staff on exceptions, we reject claims that the Project will increase wholesale electric prices at the U.S.-Canada border.

Competitive Markets and Existing Generation

The ALJs rejected arguments that this Facility will harm competitive markets if it is granted a certificate, instead concluding that its addition should improve the competitiveness

⁸¹ Tr. 171.

of the market in New York City and is consistent with State, Commission, and City policies encouraging competitive markets. Their reasons were: (1) short-term price decreases should not harm existing generators who are able to adapt to an evolving competitive market; (2) the entry of additional energy and capacity supply could help consumers, particularly in the City load pocket, since it could reduce the potential for market manipulation; (3) the "persuasive" record evidence rebutting the claims that the Project will be an uneconomic entrant; and (4) if some of the Project's costs prove uneconomic, Certificate Conditions should protect captive ratepayers from a significant portion of any such costs and the buyer-side mitigation rules should protect incumbent generators.⁸²

The ALJs rejected claims that the Project would hasten the exodus of fossil or renewable generation because they found "far too many variables at play that could influence or explain a generator's decision to exit the competitive market, including changes in environmental regulations or tax laws" and "no credible basis for concluding that any generator's decision to exit the market can be definitively and exclusively linked to the entry of this Project."⁸³ IPPNY, Entergy and IBEW except to the ALJs' conclusion and renew arguments that certification of this Project will harm competitive markets and cause existing generators to exit the market.

IBEW contends that existing fossil or renewable generators' lack of usable transmission facilities denies them the opportunity to compete. IBEW also argues that, with 1,000 MW being delivered from Canada to downstate, (1) there would be no immediate need for renewable or fossil power generated in-

⁸² RD at 66-67.

⁸³ RD at 66.

State to be transmitted downstate and (2) the upstate renewable and fossil generators' financing ability would be curtailed.⁸⁴

IPPNY reiterates its claims that the "fact" that this Project is uneconomic and "likely to be financed by above-market, subsidized contracts," would turn the bases underlying the Commission's determination to implement competitive markets on their head and significantly harm the very competitive market the Commission sought to produce. These same arguments form the bases for IPPNY's claims this Project would hasten the exodus of existing generators.

IPPNY asserts that the policy implications of building uneconomic capacity are clear and were recognized long ago by FERC in its Order approving the NYISO's proposed measures to mitigate the impact of market power. IPPNY claims that our issuance of a certificate to the Applicants will allow the Project to satisfy a significant milestone and will encourage uneconomic entry and the suppression of energy prices, which will chill market-based entry and ultimately cause New York's consumers to pay higher electricity prices.

IPPNY concedes that it is not always possible to identify or isolate the one factor that led to a generator's retirement but contends that simple economics demonstrates that existing economic generators are dependent on market revenues and cannot survive long-term when those revenues are "artificially depressed in a significant manner by uneconomic entry." IPPNY claims that this Project's costs are higher than the costs of new entrants that legitimately lower costs, and those higher costs will be foisted on consumers through indirect subsidies for this "anticompetitive" Project.

⁸⁴ IBEW Exceptions at 3.

Applicants respond that IPPNY and Entergy ignored the portion of the RD expressly rejecting their claims. They say that when addressing claims that the Facility will harm competitive wholesale power markets, the ALJs make clear that rejection was due, in part, to rejecting IPPNY and Entergy's views of the Facility's economics and, in part, on their finding that the buyer-side mitigation provisions of the NYISO Services Tariff will protect competitive wholesale power markets in the unlikely event that IPPNY and Entergy's economic arguments prove correct.

Applicants assert that FERC has made clear its intention and obligation to adopt measures designed to prevent any such competitive harm, reflected by its decision to protect New York's markets from competitive injury due to uneconomic entry by directing NYISO to impose "net buyer mitigation."⁸⁵ As a result, Applicants assert that FERC has taken the regulatory actions required to ensure that uneconomic entry will not pose a threat to New York's wholesale power markets.

Applicants urge rejection of IBEW's exceptions because (1) generators in upstate New York are already free to compete to serve customers in New York City using transmission capacity between upstate New York and downstate New York on existing facilities; (2) the record reveals that the Facility will actually reduce congestion on New York's constrained Total-East Interface, making more transmission capacity available to generators in New York State; and (3) IBEW has failed to identify any concrete transmission expansion projects that will not go forward if the Facility is approved.

⁸⁵ Applicants at 30-31, citing FERC's March 7, 2008 Order in Docket No. EL07-39-000, New York Independent System Operator, Inc., 122 FERC ¶61,211 at P 105 (2008).

Staff argues that IPPNY's claim of harm to competitive markets is unsupported because it is based on IPPNY's "discredited" assertion that the Project is uneconomic and would be financed by contracts subsidized by New York consumers. Staff further asserts that IPPNY's "professed concern about 'chilling new investment' is not credible; indeed, it is difficult to imagine a more serious threat to competitive markets than to deny siting, thereby preventing a developer from even attempting to enter the market."⁸⁶

Discussion

The single most important characteristic of a competitive market is ease of entry by new suppliers. One potential entry barrier is the siting process itself and the requirement that a potential new entrant, such as the Facility, obtain a certificate. One way to truly harm competitive markets is to deny potential suppliers the certificates they need without having a strong basis for doing so.

Opponents in this case ask us to deny the Facility a certificate because of the alleged possibility that the Facility will become part of a buyer market power scheme to artificially drive down New York City wholesale electric prices. Buyer market power problems tend to be rare and therefore do not need entry-blocking actions that cause more harm than good. Moreover, even if we were concerned about buyer market power in this case, we need not act now, at the siting stage of the process, to prevent hypothetical exercise of future buyer market power, since we can act later. Specifically, the single largest buyer of market-based electricity in New York City, Con Edison, would have to pass muster with us in the form of a prudence review, were it to later enter into a contract with a shipper

⁸⁶ Staff Brief Opposing Exceptions at 10.

such as HQ. Were Con Edison to pay above-market prices in such a contract, we have the authority to find the overpayments to be imprudent.⁸⁷ This regulatory power enables us to protect the market from buyer overpayments by Con Edison.

Furthermore, as the Applicants have noted, the NYISO has buyer market power mitigation measures in place, approved by FERC, and fully tested, whose sole purpose is to protect markets from buyer market power. Therefore, if the future entry of the Facility were to occur in the form of an alleged instance of buyer market power, the FERC-approved mitigation measures will be available to prevent damage to the market.⁸⁸

An additional important factor that weighs in favor of a better functioning New York City competitive market is the benefit of the addition of a new supplier to New York City's existing mix. The reduced concentration of ownership of supply in New York City that occurs when a new supplier enters the market helps make for a more competitive market.

As for any impact of the Facility on incumbent generators, be they New York City generators or upstate generators, we acknowledge that the Facility will result in lower wholesale market prices, albeit for only a temporary

⁸⁷ Of course, the payment of a reasonable premium above the regular market price for renewable power, or other desirable attributes, is common and could be prudent. We will carefully examine any future power purchase agreement entered into by a New York utility for power transmitted over this line, and we will not hesitate to disallow any amounts that are in any way imprudent.

⁸⁸ NYPA, for example, is a buying entity in New York City which we do not regulate, and therefore we cannot ourselves prevent it from exercising buyer market power. While we believe it is unlikely that the NYPA will overpay as part of a buyer market power scheme, the FERC-approved mitigation measures will be available to mitigate any such attempt to exercise buyer market power.

period. Therefore, as in any well functioning market, the entry of a new supplier will likely impact incumbent suppliers. This is an effect that is more than tolerable as a consequence of the proper workings of a competitive market.

In summary, the goal to have markets in New York that are more competitive rather than less competitive is well served by granting the Facility a certificate that is a prerequisite to entering the market. It would be folly to raise entry barriers by barring the entry of this new competitor, especially at the siting stage, out of a concern that doing so is needed to prevent the speculative potential for future buyer market power.

Public Policy

Emission Reductions

For the period 2017 to 2026, the Applicants' estimated reductions in total New York State emissions of SO₂, NO_x, and CO₂ are 1,329 tons, 5,612 tons and 35,434,166 tons, respectively.⁸⁹ The comparable estimates for 2018 are reductions in SO₂, NO_x and CO₂, of 243 tons, 1,026 tons and 3,801,502 tons, respectively. Staff estimates for annual (2018) New York City air emission reductions were 40 tons of SO₂, 320 tons of NO_x, and 1,037,062 tons of CO₂.⁹⁰ For the State as a whole, the Staff estimate of expected annual (2018) air pollutant emission reductions of SO₂, NO_x, and CO₂ were 751, 641, and about 1,500,000 tons per year, respectively.⁹¹ By any of these measures, the Facility's expected emission reductions are a substantial environmental benefit, a benefit that is expected to be enduring.

⁸⁹ Tr. 304.

⁹⁰ Tr. 248.

⁹¹ Tr. 246-247; Hearing Exhibit 204. In the first full paragraph on page 31 of the RD, the word "million" should be inserted after the number "1.5" and before the word "tons."

Fuel Diversity

The Facility will increase fuel diversity, consistent with Commission and State policies encouraging diversification of the generation resource mix of energy sold in the State and increased reliance on renewable energy sources. The Project is also consistent with our policies of reducing dependence on natural gas as a fuel for electric generation.⁹² These fuel diversity benefits are unique, having no recent precedent in terms of the source of supply -- mostly hydroelectric -- and the extent to which such supplies can enhance the diversity of generation sources and reduce dependence on natural gas as a fuel for electric generation.

Policies of the State, the PSC, and NYC

As noted above, the Judges found need for the Project based on its demonstrated ability to achieve public policy objectives expressed the 2009 State Energy Plan and New York City's *PlaNYC*, among other State policy documents,⁹³ and we adopt these uncontested findings. The 2009 State Energy Plan expresses support for the development of investments in energy infrastructure, especially infrastructure investments that support the State's transition to a clean energy economy, reduce greenhouse gas emissions, and "allow the State to fully exploit the potential benefits of ... additional Canadian imports."⁹⁴ Various Commission policies encourage diversifying the generation resource mix of energy sold in New York State as a means to improve energy security, while ensuring protection of system reliability and promoting and encouraging the development

⁹² Tr. 307-308.

⁹³ RD at 30-34, 64-65, and 72-73.

⁹⁴ 2009 State Energy Plan, Executive Summary at xv.

of competitive markets. We find that this Project advances these goals, thus further demonstrating need for this Facility.

Conclusion

The Project satisfies a need by providing additional transmission capacity into the New York City load pocket and an additional source of supply - hydroelectric power -- that is both renewable and relatively stable in price, enhancing the fuel diversity in the City. Moreover, by allowing a new entrant into the New York City market, approval of the Project would advance our policy favoring competition. Finally, the Project advances State policies by enabling access to a source of clean energy supply.

THE NATURE OF THE PROBABLE ENVIRONMENTAL IMPACT AND
MINIMIZATION OF ADVERSE ENVIRONMENTAL IMPACT

The RD found that the facility route is preferred because it would avoid or minimize the disturbance of natural habitat, and would use some existing and previously disturbed ROW (e.g., railroad ROW). The Judges recommend finding that the nature of probable environmental impacts have been identified, and that the facility, located and configured as conditioned by the JP's terms and conditions, and related stipulations, 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.

In its Brief on Exceptions, Entergy reiterates the arguments made in its initial post-hearing brief, that Applicants have not adequately characterized and minimized potential environmental impacts, including potential impacts on shortnose and Atlantic sturgeon, species listed under the

federal Endangered Species Act (federal ESA)⁹⁵ and the New York Environmental Conservation Law (state ESA).⁹⁶ Entergy argues that the RD's conclusions regarding nature and minimization of impacts are in error. Entergy also objects to the RD's conclusions regarding the JP's Hudson River Navigation Channel Cable Burial Provisions.

The ALJs concluded that the USACE has not made a determination to grant, modify, or deny Applicants' federal application for a USACE permit, including a determination on minimization regarding this facility. Certificate Condition 11 requires that Applicants obtain the necessary USACE permit. The Judges recommended that the Commission should allow USACE to complete its permit review and render its determination. The Judges found that that the JP's Certificate conditions regarding cable placement and burial depth are consistent with Commission practice in previous cases, and will minimize potential adverse impacts related to cable burial depth and the location of cables in federal navigation channels.

Sturgeon Habitat

Entergy raises four issues regarding potential impacts on ESA sturgeon: potential loss of habitat due to proposed installation of concrete mats or rip-rap (concrete mats) in limited areas of the Hudson River subaquatic route, lack of characterization of impacts outside sensitive habitat areas, improper deferral of minimization of impacts to the EM&CP phase of the project, and nature and potential magnetic field impacts.

Use of Concrete Mats

In Hudson River areas where it is necessary to protect utility crossings or where the river bottom is solid rock,

⁹⁵ 16 U.S.C. §1531.

⁹⁶ Environmental Conservation Law (ECL) §11-0535.

preventing burial of the cable, Applicants propose to cover the cables with concrete mats. Entergy contends that concrete mats will be installed for approximately 6.41 miles of river bottom, and that the record does not address the potential loss of those areas as sturgeon habitat.

Applicants respond that Entergy has overstated the use and effect of concrete matting, relying upon information that was developed using the Applicants' original routing⁹⁷ and is no longer accurate. Applicants contend that the revised routing described in the JP proposes the use of concrete matting for only 4.45 miles, approximately 25% less than Entergy contends.

In addition, it is uncontroverted that approximately 17% of this concrete matting would be installed over existing hard substrate. Applicants assert that Entergy offers no explanation as to how use of concrete matting over hard substrate, or any other proposed use of the concrete mat surface, would function differently from the existing substrate in terms of habitat. To the contrary, Applicants cite evidence in the record that, "[i]n areas of hard bottom, the mats will create similar habitat, and in soft bottom areas the mats will, in essence, create small artificial patch reefs. The surface of the mats may develop an epibenthic community over time as well as provide structure that is important for some benthic species and fish."⁹⁸

⁹⁷ Hearing Exhibit 2 at 4 (Location of Facilities (Exhibit 2 to the Application)) (describing the original routing); Hearing Exhibit 92 at 3 (Letter to New York State Department of State dated February 18, 2011).

⁹⁸ See Hearing Exhibit 121 at 193 ("The mats will have an insignificant effect on near bottom hydrodynamics, which may be similar to the conditions found in rocky bottom areas.").

Further, Applicants state that the February 18, 2011, letter from Applicants' consultant to DOS states that the final design will "optimize the placement of protection to minimize the area of the bottom covered by concrete mattresses or other protective devices" so that "[t]he actual area of additional protection is likely to be substantially less than the total width of the cable/pipeline area as depicted on the NOAA charts."⁹⁹

Lastly, Applicants contend that Entergy's arguments ignore the beneficial effects of the \$117.15 million trust for the enhancement of water quality in the Hudson River and Lake Champlain. The Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust (the "Trust") resulted from collaborative discussions among the Signatory Parties and provides exclusively for in-water mitigation studies and projects that have a direct nexus to the construction and operation of the Facility. These studies and projects will minimize, mitigate, study or compensate for the short-term adverse aquatic impacts and potential long-term aquatic impacts and risks to these water bodies from construction and operation of the Facility.¹⁰⁰

Applicants conclude that Entergy has failed to demonstrate any factual basis for its argument that the proposed limited use of concrete mats will have a negative effect upon state ESA sturgeon habitat.

Discussion

With respect to the Project's potential impacts to state ESA sturgeon, we observe that the relevant portions of the JP ensure benthic habitat is not lost and that environmental

⁹⁹ Hearing Exhibit 92 at 3.

¹⁰⁰ JP ¶144.

impacts are minimized. The record includes an extensive analysis of river bottom bathymetry, fisheries data, acoustic fish tracking, annual Hudson River surveys of fish distribution, adult and juvenile sturgeon monitoring, submerged aquatic vegetation maps, tidal wetland maps, and existing Significant Habitats.¹⁰¹

The record shows that Entergy has overstated the extent of concrete matting by at least 25%. Moreover, Entergy has failed to present any evidence or legal authority to support its claim that the Applicants' installation of concrete mats will result in the adverse modification of sturgeon habitat amounting to a state ESA "take."

A "take" under the state ESA includes the killing of an endangered species and lesser acts including "disturbing, harrying or worrying" of the species.¹⁰² A "take" also includes an interference with or impairment of an "essential behavior" of an endangered species.¹⁰³ Essential behavior means any of the behaviors exhibited by a species listed under the state ESA as endangered or threatened that are a part of its normal or traditional life cycle and that are essential to its survival and perpetuation. Essential behavior includes behaviors associated with breeding, hibernation, reproduction, feeding, sheltering, migration and overwintering.¹⁰⁴

The Facility has been routed to avoid, to the maximum extent practicable, environmentally sensitive DOS Significant

¹⁰¹ Hearing Exhibit 102 (Description of Protected Areas within Hudson River); JP, Appendix C, Final Revised Proposed Certificate Conditions (January 18, 2013), ¶156(b)(1).

¹⁰² See, 6 NYCRR 182.2(x).

¹⁰³ 6 NYCRR 182.2(f).

¹⁰⁴ Id.

Habitats and DEC Exclusion Areas. The Significant Habitats and Exclusion Areas were designated specifically because they contain sensitive habitat, including sensitive state ESA sturgeon habitat, relative to other areas of the Hudson River. By avoiding areas recognized as sensitive aquatic habitat areas, including sensitive habitat areas for sturgeon, Applicants will avoid potential adverse impacts to sturgeon.

The Environmental Impact Assessment (EIA) provides Applicant's comprehensive assessment of the nature of potential environmental impacts of the proposed facility and proposals for minimization of potential impacts. The EIA addressed the habitat impacts of use of concrete mats specifically, concluding that:

The mats will alter local hydraulic conditions such that some sediment deposition or scouring may occur around the irregularity in the bottom formed by the mats. However, the overall change in bottom topography will be insignificant because the mats will extend only a short height above the bottom and functional benthic habitat will develop. The volume of the cable is extremely small relative to the sediment layer and bottom hydrography of the water bodies involved, and the effect of the cable on bathymetry will be insignificant relative to natural levels of fluctuation due to currents, storms, navigational traffic, and other pre-existing factors.¹⁰⁵

The EIA further states that "[a]fter the cable is energized, the benthic community is expected to be similar to that from adjacent benthic [areas]."¹⁰⁶ Therefore, for the small

¹⁰⁵ Hearing Exhibit 121, p. 168. The benthic zone is the ecological region at the riverbed or lakebed; bathymetry describes the contours of a riverbed or lakebed.

¹⁰⁶ Id., p. 206.

sections of the riverbed where concrete mats will be installed, the benthic community is anticipated to redevelop on or around the concrete mats, so that the benthic zone will include the concrete matted areas. Entergy provided no evidence to the contrary.

In the RD, the Judges correctly identified the nature of the potential habitat impact and found that the Facility conforms with the substantive requirements of the state ESA. The Judges reasonably concluded, based upon the record, that the proposed limited installation of concrete mats would not degrade state ESA sturgeon habitat or harm sturgeon. The record supports the RD finding, that the Project satisfies the applicable standards of the PSL concerning nature and minimization of potential habitat impacts of the limited use of concrete mats. In considering the RD and EIA sections discussed above, we reject Entergy's contention that the RD does not consider potential habitat impacts attributable to the permanent installation of concrete mats that could displace sturgeon habitat after the construction phase is completed.

DEC Exclusion Areas and DOS Coastal Zone Program
Significant Coastal Fish and Wildlife Habitats

The RD concludes that the JP provides seasonal construction windows to prohibit construction during times when the Exclusion Areas and Significant Habitats are likely to be occupied by sensitive species. Entergy takes exception to this conclusion as facially insufficient because it addresses only the period of construction.

In addition, Entergy asserts that any final Facility design that minimizes impacts only to particular defined areas -- Exclusion Areas and Significant Habitats -- cannot ensure that impacts to sturgeon habitat outside those defined areas will not adversely affect sturgeon.

Applicants respond that Entergy has not identified any specific potential adverse impact to state ESA sturgeon habitat. Instead, Applicants contend, Entergy argues that omissions exist in the record regarding the nature of potential impacts to state ESA sturgeon.

Applicants and Staff respond, as discussed above, that the JP reflects lengthy, detailed consultation with DEC and other environmental parties concerning nature and minimization of environmental impacts. They state that the record shows that Applicants are largely avoiding routing the Facility within sensitive habitat areas identified by the Signatory Parties, the DEC Exclusion Areas and DOS Significant Habitats. In addition, the JP provides for designated seasonal construction windows for construction within Exclusion Areas and Significant Habitats, to the limited extent that these areas cannot be avoided. Further, in the EM&CP phase, the JP provides that Applicants will develop a final Facility design that minimizes potential impacts.

Discussion

The record shows that the installation of the cable is designed to avoid or minimize environmental impacts. As explained in the previous discussion section, for the limited areas of the river bed where concrete mats will be installed, the benthic community is anticipated to redevelop. Therefore, we conclude that permanent habitat loss is not anticipated to occur and that any permanent habitat loss that may occur due to the limited use of concrete mats on the Hudson River segment of the facility has been minimized.

In its Conditional Concurrence with Consistency Certification, the DOS noted: "The most certain way to minimize the impact on benthic habitats is by siting the cable route to

avoid particularly sensitive habitats.”¹⁰⁷ Applicants, in collaboration with the JP’s Signatory Parties, including the DEC, DOS, DPS Staff, Riverkeeper, Scenic Hudson and Trout Unlimited, have developed a Facility route based upon existing habitat information, including state ESA habitat, that avoids to the maximum extent possible, areas recognized as sensitive habitat for aquatic species.¹⁰⁸

The DOS Significant Habitats and DEC Exclusion Areas were designated specifically because they contain sensitive habitat relative to other areas of the river, including sensitive state ESA sturgeon habitat. The record shows that Applicants’ negotiations with the Signatory Parties resulted in the designation of fifteen Exclusion Areas, to be avoided to the maximum extent possible. DEC Staff developed the Exclusion Areas based on an extensive analysis of river bottom bathymetry, fisheries data, acoustic fish tracking, annual Hudson River surveys of fish distribution, adult and juvenile sturgeon monitoring, submerged aquatic vegetation maps, tidal wetland maps, and existing Significant Habitats.¹⁰⁹

The Exclusion Areas go above and beyond identifying legally protected habitats to include other areas considered to be high quality habitat, including state ESA sturgeon habitat. The record shows that DEC identified the state ESA as its authority for development of the Exclusion Areas and stated that

¹⁰⁷ Letter from the New York State Department of State to Applicants regarding Conditional Concurrence with Consistency Certification (June 8, 2011) at 6, available at http://docs.dos.ny.gov/coastal/cd/F-2010-1162%20CondCCR_web.pdf.

¹⁰⁸ See, JP Paragraphs 51 and 54.

¹⁰⁹ Hearing Exhibit 102 (Description of Protected Areas within Hudson River); JP, Appendix C, Final Revised Proposed Certificate Conditions (January 18, 2013), ¶156(b)(1).

"[r]outing of the Project outside of the Exclusion Areas, to the maximum extent possible, will help avoid a taking of endangered or threatened species."¹¹⁰

The Facility will also avoid Significant Habitats to the maximum extent possible. The Significant Habitats are designated by the DOS under its Coastal Zone program because the designated habitat areas are essential to the survival of a large portion of a particular fish or wildlife population, support populations of rare and endangered species, are found in low frequency, support fish and wildlife that have significant commercial or recreational value, or would be difficult or impossible to replace.¹¹¹

In addition, to the extent that the Facility is located within a Significant Habitat or Exclusion Area, construction windows will be used to avoid times when these areas are more likely to contain sensitive species, including state ESA sturgeon.¹¹² Furthermore, in the EM&CP project phase, Applicants will develop a final Facility design for five nearby Significant Habitats to minimize adverse environmental impacts to those areas.¹¹³

Next, Entergy argues that segments of state ESA sturgeon habitat outside Exclusion Areas and Significant Habitats have gone unstudied and unprotected. However, this argument ignores the substantial record in this proceeding

¹¹⁰ Id.

¹¹¹ Id.

¹¹² Revised, Final JP Appendix C, ¶156(b)(1); Hearing Exhibit 121 at 250-52 (Revised Environmental Impacts Assessment).

¹¹³ Applicants state that all of these efforts were premised on the existing information from the other agencies primarily responsible for protecting these endangered species.

evaluating potential Hudson River impacts.¹¹⁴ We conclude that the JP's provisions regarding the avoidance of Exclusion Areas and Significant Habitats were specifically designed to minimize potential adverse impacts and avoid the possibility of a state ESA sturgeon "take". Therefore, we reject Entergy's contention that additional assessment of potential impacts to state ESA sturgeon outside the Exclusion Areas and Significant Habitats is required.

In sum, 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, in accordance with the PSL §126(1) and the state ESA.

Minimizing Impacts in EM&CP Phase

As noted in the RD, during the EM&CP phase, the JP "provides that Applicants must develop a final Facility design that minimizes impacts to the five nearby DOS Significant Coastal Fish and Wildlife Habitats (SCFWH)."¹¹⁵ Entergy argues that this provision improperly relegates the obligation to address impacts to state ESA sturgeon to a future time, and fails to establish that the state ESA is satisfied.

¹¹⁴ For example, Hearing Exhibit 121, EIA, at 149, §6, Physical and Chemical Characteristics of Major Aquatic Systems, assesses Hudson River water quality; water quality monitoring; bathymetry; sediment physical and chemical characteristics; marine disposal areas, dumping grounds, disposal sites, and spoil areas; use of concrete mat and rip-rap protection; and avoidance or minimization of adverse impacts. EIA §7, Fisheries, assesses Hudson River existing shellfish and benthic resources; existing finfish; existing essential fish habitat. EIA §9 addresses Hudson River existing conditions of threatened and endangered species; and avoidance or minimization of potential impact to these Hudson River resources.

¹¹⁵ RD at 94.

Discussion

As noted above, we find that the Project has avoided or minimized potential environmental impacts in satisfaction of PSL §126, without reference to any further avoidance or minimization that may be achieved from the EM&CP Plan. In acknowledging that the Facility design would be finalized during the EM&CP project phase, when all final construction details are determined, the Judges merely recognized that there would be a further opportunity, after issuance of a Certificate, for Applicants to ensure that any potential risk to state ESA sturgeon habitat, or other potential adverse environmental impacts, are minimized to the greatest extent practicable. In sum, Entergy's argument regarding minimization during the EM&CP phase is inapposite.

Magnetic Field and Electromagnetic Field Impacts

The RD concludes that the magnetic field generated by the operation of the facility's HVDC cables will be localized and insignificant.¹¹⁶ Entergy asserts that the HVDC cables may emit a magnetic field that may affect state ESA sturgeon.

In rejecting Entergy's arguments regarding potential magnetic field impacts on State ESA sturgeon, the Judges noted that modern DC cables are designed with sheathing to substantially reduce or eliminate direct electric field. It is

¹¹⁶ In the RD, the Judges used the term electromagnetic field (EMF) generally, to apply to potential EMF and magnetic field impacts. On exceptions, Applicants clarify the distinction between EMF and magnetic field. We accept Applicants' clarification distinguishing the EMF and magnetic fields and agree that these terms were somewhat confused in the RD.

undisputed that magnetic field impacts diminish exponentially with distance from the cables.

Entergy asserts that the record demonstrates that the energized cables are expected to generate a magnetic field of 526.5 milligauss (mG). Entergy further asserts that Applicants, in the Environmental Impact Assessment (EIA), filed with their Application concede that the energized 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. Consequently, Entergy concludes that the design and installation of the cables will not eliminate the magnetic field emanating from the Facility, nor does burial of the cables cancel out the magnetic field. Entergy contends that some fish species can detect and use the background magnetic field for navigation.

Entergy also contends that Applicants have not characterized the nature of magnetic field impacts for areas where concrete mats would be installed. For these areas, Entergy states that potential navigation impacts to ESA sturgeon may result in a "take" of ESA sturgeon. However, Entergy does not argue that the potential magnetic field will result in a violation of the state ESA, but only that potential magnetic field impacts could possibly adversely affect navigation of state ESA sturgeon, to an extent resulting in such a violation. Entergy asserts that, absent analysis comparing the magnitude and extent of the magnetic field generated by the cables to the sensory threshold and behavioral responses of state ESA sturgeon, it cannot be concluded that the magnetic field generated by the Facility will minimize impacts on state ESA sturgeon.

Applicants respond that the record includes uncontroverted expert testimony that "research studies on a variety of fish and other marine species have not reported

adverse effects of exposure to magnetic fields."¹¹⁷ Regarding potential magnetic field impact on migratory behavior, the research shows that no single environmental stimulus such as current flow, light, smell, taste, magnetic field, temperature, or salinity dominates migratory behavior; instead, marine organisms have the means to coordinate and make use of multiple cues and resolve discrepancies.¹¹⁸ In addition, Applicants note that the expert made these statements regarding the proposed Facility with the knowledge that certain limited portions of the cables would be installed under protective concrete mats.

Further, regarding the potential magnetic field impact on eggs and larvae, the data suggest "that much greater magnetic fields are required than the proposed cable will produce, in order to create deleterious effects on eggs and larvae" and that "as a percentage of the overall spawning numbers, the area of potential effect is small and extremely weak."¹¹⁹

Applicants also state that the Facility's cables will be buried in the ground or installed in a trench at the bottom of the waterways, and when installed in this manner, electric field levels are reduced to inconsequential levels because of the earth cover over the cables. Applicants state that the record shows that the Facility will not actually produce an EMF, but only a magnetic field.

Discussion

Entergy's principal argument, that state ESA sturgeon will respond to the magnetic field that the Facility is anticipated to induce, is contradicted and rebutted by expert record evidence.

¹¹⁷ Hearing Exhibit 64 at 57.

¹¹⁸ Id. at 57.

¹¹⁹ ID. at 59.

The magnetic field induced by operation of the Facility would be *de minimis* or non-existent throughout most of the Hudson River. The cables will be buried in a single trench, vertically on top of one another. This configuration also should result in the EMF and magnetic field from each cable essentially cancelling out the other, thereby further minimizing magnetic field impacts. Very little change in total geomagnetic field would be expected, if the cables were to be buried at a depth of six feet.

Moreover, the record shows that cables will be buried to a depth of at least 15 feet, for portions of the cable located in the Hudson River's federal navigation channel, and at least six feet below the sediment floor, for portions of the cable located in the Hudson River outside the federal navigation channel. The zone of influence in which the magnetic field may be detectable above background levels will be focused directly above the facility centerline. Any magnetic field emanations will be reduced further, in proportion to the cable burial depth.

Indeed, migrating fish could potentially travel the full length of the Hudson without encountering the zone of influence. Moreover, because the magnetic field weakens rapidly with increasing distance from its source, the induced magnetic field would be strongest only within a small portion of the zone of influence. The record shows that burial of the cable as proposed would yield the least change in the background geomagnetic field.¹²⁰

Furthermore, the analyses underlying the EIA considered the impact of the magnetic field on the migration, spawning, feeding, and development of aquatic species, including

¹²⁰ Hearing Exhibit 92, p. 8.

limited areas covering the cables with concrete mats.¹²¹ The record supports the conclusion that no single environmental stimulus, such as magnetic field, dominates migratory behavior. To the extent that the magnetic field may affect navigation abilities of State ESA sturgeon, any such impact would be minimal, including avoidance of the waters nearest the cables. State ESA sturgeon and other marine organisms have the means to coordinate and make use of multiple cues and resolve discrepancies. In all instances, both expert testimony and the EIA conclude that the Facility's magnetic field would have no significant impact.¹²² Nonetheless, as an additional protective measure, the JP provides that Applicants will be obligated to conduct a study of sturgeon movement patterns before and after the Facility is energized.¹²³

We find no basis for Entergy's argument that low level magnetic field created by the Facility cables, including in areas where concrete mats will be installed, will adversely impact essential behaviors of ESA sturgeon. We find that the record supports a finding that the magnetic field induced by the Facility will have minimal impact, if any, on migratory species, including state ESA sturgeon, in the Hudson River. The Facility represents the minimum adverse environmental impact

¹²¹ Hearing Exhibit 24 at 10-16, 36-37 (Appendix B: Requests for Additional Information (Appendix B to the Supplement)), Hearing Exhibit 64 (NYSDEC-1 through NYSDEC-6), Hearing Exhibit 87 (Applicants' Letter to New York State Department of State regarding Updated Alternatives Analysis (January 18, 2011)), Hearing Exhibit 92, Hearing Exhibit 100 (Applicants' Letter to New York State Department of State, dated March 18, 2011).

¹²² Hearing Exhibit 121 at 203 - 207.

¹²³ Revised, Final JP Appendix C, ¶163, and Attachment 4 (Atlantic Sturgeon Pre-Installation and Post-Energizing Hydrophone Scope of Study).

regarding magnetic field and EMF impacts, and further, the Facility conforms with the state ESA.

Hudson River Navigation Channel

The USACE has jurisdiction over dredge and fill activities in the waters of the United States and construction activities in federally-maintained navigation channels, including the federally-maintained navigation channel in the Hudson River.

Entergy cites a July 5, 2011 USACE letter to Applicants that states:

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) ... Laying the cables on lake/river bed in limited areas with protective coverings would not be acceptable ...

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.¹²⁴

Entergy interprets the USACE letter to be an absolute prohibition on locating permanent structures within the length of the right of way of a Federal navigation channel. Further, Entergy asserts that the letter precludes making a finding that the Facility represents the minimum adverse environmental impact.

However, as described in the RD, Applicants and Staff assert that USACE has not yet established parameters for this project or made a determination upon Applicants' USACE permit application. They contend that USACE establishes individual

¹²⁴ Hearing Exhibit 215.

permit conditions regarding the longitudinal installation or burial depth of submarine cables within federally maintained navigation channels on a case-by-case basis. Applicants and Staff cite the Bayonne Energy Center project as an example where the USACE issued a permit authorizing Bayonne to install its cables across and along several federal navigation channels.

Applicants, Staff, Scenic Hudson, and Riverkeeper emphasize that pursuant to revised Certificate Condition 95(a)(i), Applicants will bury the cable proposed in this proceeding at a depth of at least 15 feet below the authorized depth of the federally maintained navigation channel. Lastly, the Signatory Parties contend, and the Judges recommend, that we should not substitute our judgment for that of the USACE.

Discussion

The USACE's review of Applicant's project is ongoing, Entergy relies upon Hearing Exhibit 215 as if it were USACE's final determination on the USACE permit, and argues that we should not issue a Certificate which includes conditions conflicts with USACE policy, as set forth in Hearing Exhibit 215.

It is simply premature to guess the outcome of USACE's review. We decline to adopt Entergy's view that the USACE's July 5, 2011 letter is dispositive, particularly in light of the USACE permitting of Bayonne. Proposed Certificate Condition 9 provides Applicants cannot commence site preparation or construction until all the necessary permits and consents are received. In the event USACE imposes conditions conflicting with the Article VII Certificate, such conflicting conditions must be reconciled either with USACE or this Commission.¹²⁵

¹²⁵ In the event USACE denies Applicants' federal application, the project could not go forward.

UNDERGROUNDING

The ALJs found ample support for the proposal that the transmission line should be underground (or underwater) given that:

Undergrounding provides beneficial visual and land use impacts that would not be achieved if the transmission lines were above ground. In addition, undergrounding is the proposed method, supported by the signatories.¹²⁶

The Judges' finding on this uncontested issue is well-supported on the record and reasonable, and we adopt it.

LONG-RANGE PLAN

The ALJs stated that the main challenges to our ability to find that the Facility "conforms to a long-range plan for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems, which will serve the interests of electric system economy and reliability" are claims by Entergy, IBEW and Central Hudson that the Facility would in effect be an "extension cord" with no NYS "on-ramps" providing access to existing in-State generation sources and would not address existing transmission constraints, especially in western and upstate portions of New York State.

The ALJs rejected such arguments for two reasons. First, they found that the challengers failed to point to any policy, rule, law or precedent that prohibits approval of a direct current transmission line. Second, they found that the 2009 State Energy Plan encourages facilities that, like this one, would provide infrastructure investments that support the State's transition to a clean energy economy, reduce greenhouse gas emissions, and allow the State to fully exploit the

¹²⁶ RD at 106.

potential benefits of additional Canadian imports. The ALJs further observed that the Facility would advance NYC's *PlaNYC* long-range goal of increasing NYC's clean energy supply by increasing the amount of clean energy that can be imported into the City.

The ALJs credited Staff's argument that the Facility would expand the State's electrical grid by providing an additional tie to Québec and to Québec's hydroelectric power, thus indirectly help relieve congestion on the existing HVAC electric transmission system.¹²⁷

IPPNY claims that the Commission cannot find that the Project "conforms to a long-range plan for expansion of the electric power grid ... which will serve the interests of the electric system economy and reliability" because the Project is uneconomic.¹²⁸ The ALJs rejected IPPNY's claim because the record did not demonstrate the Project was uneconomic.

Central Hudson, IBEW, the Business Council and IPPNY challenge the RD's conclusion that we have sufficient record bases to find that the Project conforms to a long-range plan for the State's electric grid. Central Hudson claims that the RD applied "policies developed in the context of short electric lines near New York City to the very different case of a long 'extension cord' electric line running virtually the length of the State from North to South." Central Hudson, IBEW and the Business Council assert that the need for grid improvements "to

¹²⁷ RD at 106-108. The ALJs also noted that a System Reliability Impact Study for the interconnection of the HVDC Transmission System at NYPA's 345 kV bus located at Astoria has been completed by the NYISO, showing that the HVDC Transmission System can be connected to the New York State Bulk Power System without adversely affecting reliability.

¹²⁸ RD at 106-108. IPPNY renews this argument on exceptions.

the deliverability of bottled renewable and other upstate generation was simply not relevant to those earlier, near-NYC lines, but is very germane" in this proceeding. Opponents argue that the provision of some electric system benefits is insufficient and does no more than meet the "most narrow" of definitions of "expanding" the grid. Central Hudson asserts that we should establish, as a matter of policy in applying Article VII, that transmission corridor developers, including merchants, must propose a project that improves known grid constraints and problems, rather than a point to point delivery project.

IBEW also argues that approval of the Facility would provide foreign electric energy to a significant but relatively small congested area of the State with high demand and allow for the use of New York State land and waterways with no contribution to the economic well-being of the vast majority of communities and the power needs of constituents in Upstate and Western New York. IBEW asserts that, given the economic condition of northern and western New York, these vast areas with substantial populations should have been accorded greater consideration.¹²⁹

Applicants argue that adoption of Central Hudson's argument would prevent the development of any future merchant transmission line. According to Applicants, merchant transmission lines can only be successful when the developer is able to exclude nonpaying customers, as is possible on HVDC lines and on radial generator leads, but not on the networked HVAC lines that would be required to meet Central Hudson's proposal. They add that Central Hudson and IBEW failed to identify any concrete transmission alternative to the Facility

¹²⁹ IBEW Brief on Exceptions at 2.

that would be frustrated if the Facility is approved. Applicants therefore conclude that, in the absence of any such competent evidence, Central Hudson's and IBEW's speculative concerns about the impacts the Facility might have on unidentified future projects at some unknown future date provide no basis for overturning the ALJs' finding that the Facility is consistent with long-range plans for the expansion of New York's electric power grid.

Staff argues that the Facility is consistent with long-range plans identified in the most recent State Energy Plan, which establishes as a policy objective, supporting the increased use of renewable energy and energy systems that enable the State to significantly reduce greenhouse gas emissions. Staff observes that the State Energy Plan recognizes that an increase in renewable energy will require additional transmission in-State.

Staff contends that the Facility provides the State with greater access to Québec's hydroelectric power without consuming capacity on New York's existing HVAC transmission system. Moreover, by increasing supply downstream of the congested interfaces, the Facility would reduce congestion on New York's HVAC transmission interfaces. Staff adds that the Facility is also consistent with long-range plans established in *PlaNYC*, which recognizes that providing New York City residents with increased access to renewable energy supplies will simultaneously reduce electricity prices, local air pollution, and greenhouse gas emissions in the City of New York.

Staff states that the ability of the Facility to advance these important public policy objectives of the State and New York City should be explicitly recognized by the

Commission in issuing a certificate, and provide the rationale for rejecting Central Hudson's arguments.¹³⁰

Discussion

The exceptions on this issue merely repeat allegations that were raised and rejected by the ALJs below. As the RD states, the Project is consistent with express provisions of the 2009 State Energy Plan and New York City's *PlaNYC*, among other documents setting forth State planning goals. We therefore adopt the ALJs' recommendation, consistent with the arguments of Staff and Applicants in opposing exceptions, to find that this Facility "conforms to a long-range plan for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems, which will serve the interests of electric system economy and reliability." We rely, in particular, on the policy and planning objectives of the 2009 State Energy Plan that support projects, such as this Facility, which will enable increased State reliance on renewable energy and which will enhance transmission capacity into the New York City load pocket. In making this finding, however, we are not closing our eyes to the need to strengthen the State's AC transmission backbone. We have already initiated a major proceeding to do so.¹³¹

LOCAL LAWS AND REGULATIONS

The ALJs found *prima facie* justifications for the request made by Applicants and reflected in the JP that we waive the substantive requirements of the local laws and regulations listed in Hearing Exhibit 115. The Judges' finding on this uncontested issue is supported on the record and reasonable, and

¹³⁰ Staff at 16-17.

¹³¹ Case 12-T-0502.

we adopt it. We further find that the Facility conforms to all applicable State and all other applicable local laws not set forth in Hearing Exhibit 115. We further find that the Project conforms to all applicable State laws and all other local laws not set forth on Hearing Exhibit 115.

PUBLIC INTEREST, CONVENIENCE AND NECESSITY

Emission Reductions and Fuel Diversity

The Facility's expected emission reduction and fuel diversity benefits and its ability to provide additional transmission capacity into New York City - features of the Facility that are uncontested - more than amply support our finding that the Facility will serve the public interest.¹³²

Adequacy of Ratepayer Protection (Condition 15)

The ALJs noted that Applicants had proposed to build and operate the HVDC portion of the Facility without relying on cost-of-service rates¹³³ to recover the majority of the Project's costs.¹³⁴ The ALJs declined to focus on whether the Project would be merchant,¹³⁵ and instead focused on determining if there were sufficient bases to conclude that the majority of the Project's costs would not be funded by captive ratepayers. They found, *inter alia*, that proposed Certificate Condition 15

¹³² RD at 30-34, 64-65, and 72-73.

¹³³ RD at 69. The ALJs observed that, here, "cost-of-service rates" include any charges established by NYPA or a utility operating under cost-based regulation, including without limitation base rates, surcharges, adjustments, or any other recovery mechanism.

¹³⁴ RD at 10. Thus, they recognized that Applicants had reserved the right 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 not as a merchant but rather pursuant to cost-based rates set by the FERC. RD at 10, footnote 15, citing Tr. 65, 76.

¹³⁵ RD at 67-72.

assigns the majority of the risk associated with the financing and recovery of Project costs to private investors and that a "demonstration that at least 75% of the [P]roject's output is under contract prior to commencing construction is consistent with Commission precedent in the HTP case (where the fact that approximately 76% of HTP's anticipated 660 MW output was already committed was sufficient for the Commission to find that it was merchant) and the Bayonne case (where the fact that 50% of its output was subject to identified and firm commitments was a sufficient basis for the Commission to find that it was a merchant project)."¹³⁶

IPPNY and Entergy contend that the RD applies a far too narrow definition of a merchant project, asserting that such projects cannot rely on government or ratepayer dollars, directly (which they concede is not the issue here) or indirectly. They argue that indirect subsidization by the government will, of necessity, occur because the Project is uneconomic. Based on their shared view of the Project's economics, they renew claims that proposed Condition 15(b) must also prohibit any indirect subsidy, including, for example, prohibiting one or more of the Project's shippers from entering into an agreement with a New York State agency or authority to provide electricity to New York City at above-market prices. Indirect subsidies are the reason Entergy says it recommended additional conditions.¹³⁷

Entergy and IPPNY also argue that we cannot rely on the 75% pre-subscription requirement because it does not prevent

¹³⁶ RD at 71, citing HTP Order at 4 and Bayonne Order at 3.

¹³⁷ In the interest of brevity the proposed conditions are not recited here; see Entergy's Brief on Exceptions at 14-15 and/or the RD at 64 to review the additional conditions proposed by Entergy.

indirect subsidies and thus will not protect New York consumers against the adverse consequences that they opine are likely to be caused by indirect subsidies. IPPNY adds that, if existing resources are not able to meaningfully participate in the procurement process, perhaps due to its "discriminatory nature," the resulting contract will yield above-market prices. Entergy says that there will be significant adverse impacts if consumers are forced to fund the Project's costs, and therefore we cannot make the requisite public interest finding unless we expressly proscribe indirect subsidization. Entergy also asserts that the ALJs give "unreasonably short shrift" to whether a future change in business model by Applicants or future contractual arrangements by Applicants might result in costs of the Facility, in whole or in part, being recovered in cost-based rates.¹³⁸ Finally, Entergy asserts that the Project is "unquestionably non-merchant as to the Astoria-Rainey Cable" and, on that basis alone, is distinguishable from HTP and Bayonne and unworthy of review as a merchant.

IPPNY and Entergy concede that Condition 15(b) prohibits a direct subsidy."¹³⁹ For this reason, and because the commitments made by Applicants in Certificate Condition 15(b) go far beyond the commitments made by other merchant transmission

¹³⁸ Entergy Brief on Exceptions at 8-9. Entergy also contends the RD applies the broader standard of need and benefit as established by the Commission in the Bayonne proceeding but did not consider (1) whether Applicants have carried their burden of proving that this project would actually be merchant or (2) whether the Facility's costs will be recovered exclusively through rates set by the competitive market. Because these contentions are belied by the RD's discussion at 67-72, we reject these claims.

¹³⁹ Briefs Opposing Exceptions by Applicants (at 32) and NYC (at 17), citing Briefs on Exceptions by IPPNY (at 28) and Entergy (at 14).

facilities approved by the Commission, Applicants argue that the ALJs correctly concluded that Condition 15(b) adequately protects captive ratepayers from being forced to bear the costs of the Facility in cost-based rates.

NYC asserts that IPPNY and Entergy presented no rationale to explain why a State agency or authority would elect to enter into a 25-year contract for 750 MW of transmission capacity at an above-market rate. Con Edison also argues that IPPNY and Entergy hypothesize a "speculative and highly unlikely scenario" and then fail to explain why someone would volunteer to pay above-market energy prices."¹⁴⁰

NYC argues that the record supporting the ALJs' conclusions that "the risks associated with the financing and recovery of project costs will be borne, in large part, by private investors and that project revenues will be recovered from wholesale power transactions" is extensive and compelling.¹⁴¹ NYC asserts that the ALJs properly evaluated whether the JP sufficiently ensures that the costs and risks of Facility development and operation would be borne by investors and also properly concluded that the "cost risk" associated with the Astoria-Rainey Cable is limited.

NYC contends that the record similarly supports the ALJs' decision to reject the argument that the pre-subscription requirement would compel, not prevent, indirect subsidies to the Facility. NYC notes that, under Condition 15(b), the Commission

¹⁴⁰ Con Edison at 2.

¹⁴¹ NYC Brief Opposing Exceptions at 14-16.

retains the authority to review the subject contract before accepting Applicants' report if it so elects.¹⁴²

Con Edison reiterates that one of its major concerns was the potential for the Project's risks and costs to be shifted from investors to utility ratepayers; and, to address this concern, it spent months negotiating with Applicants, ultimately obtaining changes that provide the strongest possible protections to customers from any subsidization of this Project.

Con Edison asserts that the 75% pre-subscription requirement will ensure that the Project does not go forward without a substantial portion of the capacity under contract. It adds that, if a willing buyer of that capacity establishes a price that is acceptable to the developer, that result is consistent with a competitive market.

Staff responds that those seeking conditions against indirect subsidization have not explained why consumers are at risk and how proposed Condition 15 fails to minimize that risk. Staff contends that allegations of "a phantom subsidy (the origin and form of which are never fully explained)" must be rejected as "baseless" and recognized as "fear of additional market competition."¹⁴³

Discussion

The protections embodied in Condition 15 are adequate to protect consumers. The protections 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.

¹⁴² NYC states that it "assumes that the Commission may desire to review the contract underlying the report before it decides whether to 'accept' the report." NYC Brief Opposing Exceptions at 19.

¹⁴³ Staff Brief Opposing Exceptions at 20-21.

IPPNY and Entergy have focused much attention on the related question of whether the certificate should include a condition that prohibits the Facility from being financed indirectly via an agreement between a shipper, presumably HQ, and a utility we regulate, such as Con Edison, or a New York agency or authority. IPPNY and Entergy believe that such a condition is needed to protect consumers from a buyer that might in the future overpay for the electricity delivered by the Facility to New York City. As we noted above, through our regulation of the rates of Con Edison, we already have the authority to protect consumers from such an event, so we need not use the siting process to provide such protection. As for New York State authorities, we can presume that they can protect their own interests.

Moreover, we consider it important to maintain the possibility of a future power purchase agreement between a New York City buyer and a shipper. It is quite possible that the price offered by the shipper for Canadian hydroelectric power delivered to New York City could prove to be a good one, given the valuable characteristics of such power, and it may also be true that the whole enterprise could depend on a shipper obtaining a long-term power purchase agreement from a buyer. Therefore, the fact that the Certificate Conditions don't prohibit such an agreement is seen by us to be a positive element.

We presume that an important force behind IPPNY's and Entergy's views on this subject is their desire to prevent a possible future exercise of buyer market power. We have discussed above why it would be unwise to use the denial of a Certificate in a siting case for that purpose.

As for the issue of the definition of a merchant project, we reject IPPNY and Entergy's contention that the RD

applies a far too narrow definition of what it means to be a merchant project. The ALJs properly relied on our precedent to find that 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.

We furthermore reject Entergy's claims that any recovery of any portion of the costs associated with the HVAC cable should alter our conclusion that ratepayers are adequately protected from the majority of the Project's costs. The record establishes that the costs of the HVAC cable constitute about 10% of the overall Project cost, and not all of that small portion would be subject to recovery through cost-based FERC rates. Entergy makes no attempt to explain how provisions that prevent free ridership on the HVAC Astoria-Rainey Cable by virtue of cost-based FERC rates and that avoid constraining the existing capacity of Astoria Energy II can have any possible adverse consequences for the public interest; nor does it explain how ratepayer subsidy of the Astoria-Rainey cable is possible, given that the costs of the cable will be subject to regulatory scrutiny by us (via the filing provision of Condition 15) and also by FERC.

Job Creation

In the RD, the ALJs noted that "the evidence regarding the number of direct construction jobs that would be created if the Project is constructed is unopposed."¹⁴⁴ They therefore found that "Applicants' evidence regarding the number of direct construction jobs that would be created if the Project is

¹⁴⁴ RD at 120-121.

constructed provides support for the public interest finding that is required by PSL §126(1)(g)."¹⁴⁵

The ALJs questioned the accuracy of Applicants' estimates of the indirect and induced jobs resulting from the construction and operation of the Facility. They noted opponents' assertion that jobs created by the Project must be offset by the loss of jobs it will cause but they found a lack of evidence substantiating this assertion. They ultimately recommended that the Project's potential for creating indirect and induced jobs, though imprecise and not a decisive decisional factor, should be viewed as additional support for the public interest finding required by PSL §126(1)(g).¹⁴⁶

IPPNY asserts that the RD's conclusions about the Project's job-inducing effects rest on "flawed and internally-inconsistent conclusions concerning the Project's alleged capacity market benefits and wholesale energy savings."

Discussion

The Applicants' evidence on job creation was incomplete in a fundamental way. While evidence was proffered on the number of direct jobs created by the 1,000 MW Facility, the record is void on the critical question of whether those jobs would be offset, or more than offset, by the jobs displaced at the conventional generation facilities that would not be built as a consequence. IPPNY cited this important shortcoming and no party rectified it.

As was demonstrated in our discussion of the economics of the Facility, a reasonable way to analyze the Applicants' proposal to build the Facility is to compare the Facility to the resource that would otherwise have been built in the absence of

¹⁴⁵ Id.

¹⁴⁶ RD at 121-122.

the Facility. Staff's economic analysis followed this approach when it used a 1,000 MW combined cycle gas turbine located in New York City as the resource for which the Facility substitutes in New York's resource mix. Accordingly, for us to give any credit to an assertion of job creation, we need, at a minimum, a comparison of the Facility's job creation to the job creation of a combined cycle gas turbine. No such comparison was performed by any party.

IPPNY asserts that the Facility will be accompanied by a massive subsidy, and that the subsidy will cause lost jobs by taking money out of the hands of the source of the subsidy, presumably consumers. We find elsewhere that no such subsidy should be assumed to occur. Therefore, we reject IPPNY's assertion about subsidy-induced job losses.

Applicants cite wholesale price reductions caused by the Facility and estimates that substantial jobs will be created by the improved financial position of the retail buyers of electricity as a result of lowered electricity prices. As was found by the Judges, the number of jobs created by the wholesale price effect was heavily contested. We agree with the validity of this component of the overall accounting for job impacts.¹⁴⁷ Nevertheless, as just one component of an overall analysis, it cannot overcome the important failure of the Applicants to quantify the number of displaced jobs.

In conclusion, we will not give any weight, positive or negative, to the impact on jobs in our determination in this case.

¹⁴⁷ A proper analysis would also account for the reduced profits of New York's existing generation owners and the resultant effect on New York jobs of reduced spending by the owners of New York generators.

NON-STATUTORY FINDINGS

CONTESTED

Co-Located Infrastructure

Proposed Certificate Conditions 27 through 29

Central Hudson objects to proposed Certificate Conditions 27 through 29, regarding co-located infrastructure.¹⁴⁸ Certificate Condition 27 sets a basic standard governing the Applicants' work in connection with co-located infrastructure: Applicants have committed to ensure that their project will be fully compatible with existing co-located infrastructure. Proposed Certificate Condition 28 imposes specific obligations on Applicants to consult with infrastructure owners or operators prior to finalizing designs and beginning construction. Proposed Certificate Condition 29 imposes upon Applicants certain cost reimbursement and indemnification obligations, and establishes a process by which any other infrastructure owners or operators (not limited to JP Signatory Parties) may secure cost reimbursement from the Applicants. Analyzing this issue below, the Judges found that there is no basis to conclude that Proposed Certificate Conditions 27 through 29 are designed to affect or displace laws governing existing rights and obligations of owners or operators of co-located infrastructure. The RD, at page 128, states:

[i]n Article VII proceedings, the exact location of proposed facilities often is determined in the EM&CP process because that is when a certificate holder will have conducted the in-field inspections that will permit it and the staff of relevant agencies to ascertain whether there are any conditions that warrant a deviation that is

¹⁴⁸ JP, Appendix C, Final Revised Proposed Certificate Conditions (January 18, 2013), Proposed Certificate Conditions ¶¶27 through 29).

still within the approved ROW but that may vary from the proposed centerline ... It is not yet clear where the proposed transmission line would be placed relative to existing infrastructure, but it is clear that the JP provisions at issue are designed to protect existing CI [Co-located Infrastructure] to the maximum extent practicable and to provide for reimbursement on reasonable terms. Finally, there is no basis for concluding that the provisions are designed to affect or displace laws governing parties' existing rights and obligations. Accordingly, we recommend that Central Hudson's opposition to the CI provisions be rejected [footnote omitted].

It is Central Hudson's view that in the event its co-located infrastructure is damaged by Applicants, Proposed Certificate Conditions 27 through 29 improperly would require Central Hudson to exhaust administrative remedies as a condition precedent to pursuing judicial remedies, by requiring Central Hudson to submit any disagreement to the Commission. Central Hudson contends that these Certificate Conditions may bind the JP Signatory Parties, but should not limit the rights of non-signatories, including Central Hudson, from pursuing judicial remedies.

Applicants respond that they accepted Conditions 27 through 29 in negotiations, in order to obtain an agreement by certain parties to the JP not to contest the grant of the Article VII Certificate. Applicants contend that although these Proposed Certificate Conditions address matters that are also governed by other laws -- both statutory and common law -- the conditions do not limit, restrict, replace, or modify such other laws. Applicants conclude that, to the extent that Proposed Certificate Conditions 27 through 29 create rights and impose liabilities, they can only be interpreted as creating rights and liabilities that are in addition to those created by such other laws.

VELCO states that Central Hudson asserts these arguments notwithstanding its acknowledgement that the Commission lacks the authority to restrict Central Hudson's access to the courts. VELCO further disputes Central Hudson's suggestion that the JP Signatory Parties have waived their rights to pursue other remedies and have agreed that the requirements of Condition 29 are prerequisites to pursuing other avenues available for seeking cost reimbursement. VELCO contends that none of Central Hudson's arguments regarding Proposed Certificate Conditions 27 through 29 have merit.

Staff emphasizes that the RD clearly states that "there is no basis for concluding that the provisions [Certificate Conditions 27 through 29] are designed to affect or displace laws governing parties' existing rights and obligations."¹⁴⁹ In addition, both Staff and Applicants have made affirmative statements that the proposed Certificate Conditions are not intended to, nor can they, impair Central Hudson's legal rights.

Discussion

A Certificate granted pursuant to PSL Article VII only places obligations and limitations upon the Certificate Holder. The provisions of the JP, including Proposed Certificate Conditions 27 through 29, do not purport to limit owners or operators of co-located infrastructure from seeking cost reimbursement through other available avenues, or to require such owners or operators seeking indemnification to employ the Condition 29 procedures.

To the extent that Central Hudson, or another owner or operator of co-located infrastructure, wishes to benefit from the cost reimbursement process created by Proposed Certificate

¹⁴⁹ RD at 128.

Condition 29, it must follow the procedures laid out in subparagraph (c). However, there is no basis for concluding that Proposed Certificate Conditions 27 through 29 are designed to affect or displace laws governing parties' existing rights and obligations regarding co-located infrastructure (except in the case of local municipal laws that the Commission explicitly overrides for being unreasonably restrictive).

We conclude that Central Hudson's exceptions regarding Proposed Certificate Conditions 27 through 29 are without merit.

Proposed Certificate Condition 5

Proposed Certificate Condition 5 provides:

The portions of the Allowed Deviation Zone to be occupied by the Facility once construction is complete are referred to herein as the Facility ROW. The Certificate Holders shall also acquire and maintain the continuing right to enter onto and use certain additional lands immediately adjacent to the Facility ROW needed for repair and maintenance purposes, including preclusion of vegetative encroachment, on terms prohibiting the owners of such land from taking any action on that land that would interfere with such repair and maintenance activities.

Central Hudson objects to Proposed Certificate Condition 5. Central Hudson claims that Condition 5 is overbroad, mandating greater acquisitions of property rights by Applicants than actually may be required. Central Hudson also claims that Condition 5 provides Applicants with paramount authority over property rights of utility owners or operators of pre-existing co-located infrastructure. The RD rejected both arguments.

Central Hudson excepts, asserting that Proposed Certificate Condition 5 should be revised to authorize the Certificate Holders to acquire such lands and/or land rights to the extent consistent with all applicable requirements of law

and necessary for project construction, but should not mandate that the Certificate Holders make such acquisitions. Condition 5 should be further revised, Central Hudson contends, by striking the following phrase: "terms prohibiting the owners of such land from taking any action on that land that would interfere with such repair and maintenance activities." Central Hudson argues that this phrase would improperly establish superior property rights in the Applicants over Central Hudson's pre-existing facilities (or property of other owners or operators of co-located infrastructure), and concludes that Article VII provides no authority for such a Certificate Condition.

Staff asserts that Proposed Certificate Condition 5, considered in its entirety, is appropriate and will not interfere with Central Hudson's ability to maintain its existing infrastructure. Staff states that the requirement to obtain the right to enter and use certain lands is limited by Condition 5 to "certain additional lands immediately adjacent to the Facility ROW needed for repair and maintenance purposes." These provisions of Conditions, Staff asserts, are not universal as Central Hudson posits; rather, these provisions are limited to the property rights that the Certificate Holders will need in order to maintain and repair their Facility in the future.

Staff explains that the requirement that the property rights be sufficient to avoid interference with the Certificate Holders' ability to maintain and repair their Facility will ensure that Certificate Holders will not be prevented from performing necessary maintenance and repair of the Facility by adjacent or underlying landowners. Further, Staff contends that Condition 5 is limited by Conditions 27 through 29. Staff asserts that Condition 27 requires that the Facility must be fully compatible with co-located infrastructure. Therefore,

reading Conditions 27 and 5 together, Staff reasons that these Conditions preclude Certificate Holders from interfering with Central Hudson's existing co-located infrastructure (or the existing co-located infrastructure of any other owner or operator).

Discussion

Central Hudson's exceptions to Proposed Certificate Condition 5 are rejected. Condition 5 would not prevent Central Hudson (or any other owner or operator of co-located infrastructure) from repairing or maintaining its own infrastructure. We adopt Staff's view that Conditions 27 and 5, read together, preclude Certificate Holders from interfering with Central Hudson's co-located infrastructure (or the co-located infrastructure of any other owner or operator).

UNCONTESTED

Litigation of Rights to State-Owned Land

The ALJs stated that this proceeding is not the appropriate venue for litigating land rights given that, even with an Article VII certificate, Applicants will have to acquire any necessary land rights through other applicable means.¹⁵⁰ With the exception of DEC urging us to accept the conclusion that this proceeding is not the appropriate forum for determining the Office of General Services' authority to grant leases for or other property rights to land under Lake Champlain, but otherwise ignore the ALJs "dicta" on this issue, no party addressed this topic in their briefs on exceptions.

EM&CP Guidelines

The ALJs noted that the proposed BMPs and EM&CP Guidelines (JP ¶¶24, 152; Appendices E & F) were unopposed and are consistent with similar practices and guidelines adopted in

¹⁵⁰ RD at 113.

other Article VII proceedings.¹⁵¹ No party takes exception to their resulting recommendation to adopt and apply the proposed practices and guidelines to the Facility.

Water Quality Certification

The ALJs recommended that the proposed WQC be issued by the Director of OEEE prior to the expiration of the USACE's February 24, 2013 waiver deadline.¹⁵² As noted above, the WQC was issued by OEEE's Director on January 18, 2013. No party took exception.

Other Issues

JP ¶5 - deletion of "directly"

JP ¶5 begins by stating:

Nothing in this Joint Proposal or any appendix thereto is intended: (a) to directly impose any obligations on or limit any pre-existing rights of any party other than Applicants;

In response to concerns expressed by Central Hudson, the ALJs recommended that the word "directly" be deleted from JP ¶5(a).¹⁵³ No party excepted.

Certificate Condition 15(a)

Certificate Condition 15(a) states in relevant part that the Certificate is granted and the required determinations of need and public interest are explicitly contingent on Certificate Holders delivering a minimum of 1,550 MW of energy out of NYPA's Astoria substation. Central Hudson opposed Certificate Condition 15(a), claiming it is unknown whether the deliverability criterion can be met. The ALJs observed that Central Hudson's position in this regard had been refuted by (1)

¹⁵¹ RD at 136-137.

¹⁵² RD at 139.

¹⁵³ RD at 129.

Hearing Exhibit 151, a stipulation between Applicants and Con Edison, in which Con Edison agreed that the deliverability target had been met, and (2) Applicants' Deliverability Panel testimony¹⁵⁴ that the Astoria Annex Phase Angle Regulator, together with NYPA's two existing lines and the Astoria-Rainey Cable, would be able to deliver more than 1,550 MW of electric energy out of the Astoria substation.¹⁵⁵ Central Hudson did not reiterate its position on exceptions.

Certificate Conditions, Section S, ¶¶138-144¹⁵⁶

Central Hudson asserted that Certificate Conditions in Section S, entitled "Mapping, Land Acquisition, and as-built Drawings for the Facility," should be modified to assure that Central Hudson is provided with as-built drawings for any new facility or acquisition of any interest in land within 50 feet of existing Central Hudson property and for the full length of the route in the Hudson River within Central Hudson's service territory. Applicants responded that proposed certificate Condition 139 requires them to provide DPS Staff with as-built design drawings for each Facility segment following final completion of construction of that segment and that they would also provide copies of such drawings to Central Hudson for portions of the Facility in Central Hudson's service territory, so long as Central Hudson agrees to maintain the confidentiality of any Critical Infrastructure Information contained in those drawings. The ALJs found that there was no obvious dispute on this issue and opined that Applicants and Central Hudson should

¹⁵⁴ Tr. 577-578.

¹⁵⁵ RD at 132.

¹⁵⁶ Provisions concerning mapping, land acquisition and "as-built" drawings for the facility. See JP Appendix C, dated January 18, 2013.

be able to agree to a process for sharing such information.¹⁵⁷
Neither party excepted.

Non-adoption of Specified JP Paragraphs

The ALJs recommended that the general terms governing the behavior and rights of the JP signatories, including paragraphs 1, 2, 3, 4, 6, 7, 8 and 9, not be adopted as terms of the Commission Order if a certificate is granted. They observed that if and to the extent the Commission adopts the terms of the JP, Central Hudson will have the same rights as any other party with respect to filing a petition with the Commission regarding the correct interpretation of one or more of the Order's terms or requesting dispute resolution assistance or services.¹⁵⁸
There were no exceptions.

¹⁵⁷ RD at 134.

¹⁵⁸ RD at 134-135.

Other Central Hudson Concerns

Non-specific Claims

Central Hudson expressed confusion about JP paragraphs 11, (and maybe 12), 107-119, 122, 132, 136-138 and 140 and opposed all or portions of JP ¶¶11, 20, 107-119, 122, 132, 136-138, and 140, and proposed Certificate Condition 5. The ALJs found there was insufficient explanation of the bases for confusion or opposition to these provisions to provide a response and therefore recommended that Central Hudson's opposition to these provisions be rejected.¹⁵⁹ Central Hudson did not pursue these issues on exceptions.

Discrimination Claims

Section §28-105.1 of the New York Administrative Code (N.Y. Adm. Code) makes it unlawful to construct a building in New York City without first obtaining a written permit. This permit, in turn, implicates N.Y. Adm. Code §28-105.12.7.1, a section that requires Applicants to procure insurance to, *inter alia*, insure adjacent property owners from loss, property damage and personal injury. Central Hudson claimed that the JP was discriminatory because "[t]he City Administrative Code requires essentially the indemnification protections to property affected by the proposed facilities in New York City that Central Hudson requested Applicants provide to Central Hudson's pre-existing property and operations that would be similarly affected by the proposed facility." The ALJs rejected Central Hudson's claim for being untimely (i.e., it was raised for the first time in reply brief).¹⁶⁰ They also rejected the claim because Central Hudson asserted that it was "similarly situated" to NYC when, in fact, it was not; the ALJs reasoned that the Administrative Code

¹⁵⁹ RD at 135.

¹⁶⁰ RD at 136.

section cited by Central Hudson applies because Applicants plan to build the converter station in New York City, not because they plan to lay cable there.¹⁶¹ In addition, the ALJ noted that, with regard to plans to lay cable, Central Hudson has the same protections as any other owner or operator of co-located infrastructure.¹⁶²

Central Hudson also claimed that discrimination was evidenced by the presence of the proposed environmental Trust because it will be pre-funded while the CI provisions do not provide for pre-funding. The ALJs recommended rejection of Central Hudson's assertion.¹⁶³ Central Hudson no longer pursues these issues on exceptions.

Conclusion Regarding Uncontested Matters

We find the Judges' conclusions on the foregoing, uncontested issues to be well-supported on the record and reasonable, and we adopt them.

CONCLUSION

PSL §126 requires that we find and determine need for a proposed facility; whether a facility will achieve the minimum imposition of adverse environmental impacts, considering the state of available technology and the nature and economics of various alternatives; what portion of the line should be underground; that the facility conforms to a long-range plan for expanding the State grid; and that the location of the facility conforms to applicable State and local laws and regulations, except for those local laws we refuse to apply because they are

¹⁶¹ Id.

¹⁶² Id.

¹⁶³ Id.

unreasonably restrictive in view of the existing technology, factors of cost or economics, or the needs of consumers; and that the facility will serve the public interest, convenience, and necessity. After considering all of the relevant factors, we find and determine that the record in this proceeding enables us to make the findings that are set forth in PSL §126(1)(a), (b), (c), (d)(1) and(2), (f) and (g).

This 1,000 MW Facility would allow imports of energy, nearly year round, into one of the most congested load pockets in the State. The energy imported could amount to over 10% of the energy consumption in New York City. This is a significant amount of additional capability that would enhance energy security to the City by providing another source of power into the City.

New York City relies significantly on gas- and oil-fired generation, thus raising fuel diversity concerns and electric reliability concerns. The addition of this Facility would allow renewable energy imports, thus increasing diversity of the City electricity supply sources and improving electric reliability. Providing this magnitude of renewable energy from local resources would be extremely difficult and would take a long time, even if possible.

Demand for natural gas use is increasing in New York City due to increased use of gas for electric generation and the gas conversion needs resulting from NYC rules to phase out use of #4 and #6 oils for home and business heating purposes. The increase in gas demand is putting a strain on the gas transportation system into and within the City. This Facility would help reduce the strain by allowing imports of electricity from outside the City.

The City is a load pocket with in which pivotal suppliers have the ability to exercise market power through

restrained by market rules enforced by FERC. Addition of a major new supplier into the pocket would help reduce the ability of various players to exercise market power.

We are recognizing the price stability benefits that flow from using energy generated by hydro resources and according weight to such a benefit as additional support for finding economic need for this Project.

Lastly, the need for this Project has been demonstrated by the Project's ability to advance important public policies set forth in the State Energy Plan and *PlaNYC*, among other documents expressing State policy.

Based on the foregoing, we conclude that there are sufficient bases in the record to find and determine need for this Project.

In addressing the nature and minimization of potential environmental impacts, it is significant that, because the Facility is subaquatic and underground, potential adverse visual impacts have been largely avoided. At the same time, the detailed provisions of the JP protect the State's valuable natural resources by ensuring that Lake Champlain and riverine benthic habitat is not lost and that environmental impacts are minimized. The subaquatic Facility segments have been routed to avoid, to the maximum extent practicable, areas deemed environmentally sensitive by DOS and DEC. Where the Facility would be located within a significant habitat or exclusion area, construction will be restricted to avoid times when these areas are more likely to contain sensitive species, thereby avoiding impacts during important life cycle periods. We find that any magnetic field induced by the Facility will have de minimus impact, if any, on migratory species, in the Hudson River.

The upland Facility segments primarily are located in existing railroad or State highway rights-of-way. Selective use

of horizontal directional drilling for upland segments and for land to water transitions, as proposed, will serve to avoid or minimize potential adverse environmental impacts.

We find that the nature of the probable environmental impacts have been identified, and further, 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, including but not limited to, the effect on agricultural lands, wetlands, parklands, and river corridors.

We find that the Facility's transmission lines should be underground or underwater, as proposed.

We find that the Facility conforms to a long-range plan for expansion of the electric power grid serving this state and interconnected utility systems, which will serve the interests of electric system economy and reliability, in particular the planning objectives contained in the State's 2009 Energy Plan. The Champlain Hudson Power Express Facility can be constructed and operated consistent with the achievement of the State's long-range energy planning objectives. In allowing development of this New York interconnection with the regional transmission system of Quebec, Canada, we continue the State's efforts to increase use of renewable energy resources and to bring such resources to the State's major urban areas. As we have observed in other recent Article VII proceedings, there is a continuing need in the downstate area to establish better interconnections with our neighboring regional transmission systems, to provide citizens better access to diverse, renewable generation resources and stronger transmission ties than those currently existing.

We grant Applicants' request that we waive the substantive requirements of the local laws and regulations

listed in Hearing Exhibit 115 and find that the Project otherwise conforms to applicable State and local laws.

Finally, we conclude that the Project will serve the public interest, convenience and necessity. That this Project will serve New York City load while displacing more-polluting generation sources, advance major energy and policy goals as set forth in the City's *PlaNYC 2030: A Greener, Greater New York* and in Commission and State documents, and rely almost entirely on private investment are significant Project benefits, which can be realized without substantial negative environmental impacts. A decision not to permit the Project the opportunity to proceed will, in all likelihood, mean that these unique and substantial benefits will not be realized. Ratepayers are not assuming the risks associated with the investment in the project. The Certificate Conditions and stipulations effectively shield ratepayers from the project's construction and operation risks. This is precisely what the competitive markets envisioned: project developers taking calculated risks and investing in resources that ultimately provide benefits to consumers.

RD CORRECTIONS:

We adopt the following corrections to the RD:

1. On page 3, the second full sentence, reads, in relevant part as follows: "The JP, attached as Appendix 2, has the following signatories:" The JP was not attached to the RD so the sentence should read "The JP has the following signatories:"
2. On page 7, the second sentence of the second full paragraph lacks the words "converter station" after "HVDC." The sentence should read: "The HVDC converter station would be a "compact type" with a total footprint (i.e., building and

associated areas and equipment) of approximately 4.5 acres."

3. On page 31, in the last sentence of the first full paragraph the word "million" should be inserted between "1.5" and "tons" so that the sentence reads: "For the State as a whole, Staff witnesses Gjonaj and Wheat calculated expected annual air pollutant emissions reductions of SO₂, NO_x, and CO₂ to be 751, 641, and about 1.5 million tons per year, respectively, in 2018 (footnote omitted)."
4. On page 80, in discussing Certificate Condition 99, the second full paragraph states "The dredged material will be placed in scows and either replaced in the trench or pits (if determined by the appropriate permitting authority to be suitable for replacement), or removed for disposition at an authorized location...Placement of imported backfill when dredge spoil is not used would create some additional increases in suspended sediment." In fact, Certificate Condition 99 prohibits the use of dredge materials for backfill.
5. On page 105, the RD recites Staff's statement that the Facility's underground configuration "requires a 35-foot ROW to protect the cables." We note that Certificate Condition 140, however, states that "[e]ach edge of the permanent overland Facility ROW shall be no closer than (a) when located entirely within lands owned or controlled by a railroad company or a public highway, six (6) feet to the outer surface of the nearest installed cable and (b), in all other areas, eight (8) feet to the outer surface of the nearest installed cable."

The Commission orders:

1. Except as here modified, the Recommended Decision of Administrative Law Judges Michelle L. Phillips and Kevin J. Casutto is adopted as part of this Order. Except as here granted, all exceptions to the Recommended Decision are denied.

2. Except as modified in the RD and to the extent consistent with the discussion in this Order, the terms and provisions of the February 24, 2012 Joint Proposal submitted by Champlain Hudson Power Express, Inc., and CHPE Properties, Inc. on behalf of the Signatory Parties to the Joint Proposal, and stipulations dated July 11, 2012 (Luyster Creek), June 4, 2012 (Certificate Condition 15), June 26, 2012 (Deliverability), and October 19, 2012 (Trust), and attached to this Order, are adopted and made a part of this Order.

3. Subject to the conditions adopted in this Order, Champlain Hudson Power Express, Inc., and CHPE Properties, Inc. (Certificate Holders) are granted a Certificate of Environmental Compatibility and Public Need (Certificate) authorizing construction and operation of a 1,000 MW, High Voltage Direct Current (HVDC) sub-aquatic and underground electric transmission line, approximately 332 miles, from the Canadian border to a Converter Station to be located in the Astoria Annex of Con Edison, and a 345 kV AC transmission line, approximately 3 miles, from Con Edison's Astoria Annex to Con Edison's Rainey Substation in Astoria, within New York State along the project route depicted as Joint Proposal Appendix B, and Hearing Exhibit 152 attached hereto (Certified Route), and associated equipment comprising the Facility. The Facility is the New York State portion of a sub-aquatic high voltage direct current transmission line linking the Facility with the Province of Quebec, Canada, HVDC Interconnection.

4. The terms of the Certificate Conditions included as Joint Proposal, Appendix C, attached to this Order are hereby approved and incorporated into this Order, including the requirement that the Certificate Holder shall, within 30 days after the issuance of the Certificate, submit to the Public Service Commission either a petition for rehearing or a verified statement that it accepts and shall comply with the Certificate and the conditions placed upon the Certificate.

5. A Water Quality Certification pursuant to §401 of the Clean Water Act (33 U.S.C. §1341(a)(1)) and PSL Article VII having previously been issued, it is hereby certified that, if the Certificate Holders submit an acceptable Environmental Management and Construction Plan (EM&CP) and comply with all conditions contained in this Order, construction of the facility will comply with the applicable requirements of §§301, 302, 306 and 307 of the Clean Water Act, as amended, and will not violate New York State Water Quality standards and requirements.

6. The Certificate Holders shall file one or more Environmental Management and Construction Plans for the Project, either as a single filing or as a sequence of filings each pertaining to a segment of the Project, as provided in the Certificate Conditions. Certificate Holders shall not commence construction on any segment of the Project until the Commission has, by written Order, approved an EM&CP pertaining to that segment. Consistent with the Proposed Certificate Conditions, Certificate Holders shall provide notice to all landowners adjoining the Project or adjoining the Project segment, as may be appropriate, for each EM&CP filing.

7. Prior to the commencement of construction, the Certificate Holders shall comply with those requirements of Public Service Law §68 that do not relate to the construction

and operation of the facility by obtaining Commission permission and approval as an electric corporation.

8. This Certificate may be vacated if the Certificate Holders fail to file an EM&CP or to commence construction consistent with the milestones set forth in Certificate Condition 13.

9. This proceeding is continued.

By the Commission,

(SIGNED)

JEFFREY C. COHEN
Acting Secretary

Case No.: 10-T-0139

CHAMPLAIN HUDSON POWER EXPRESS, INC.

JOINT PROPOSAL

February 24, 2012