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June 8, 2011

Mr. Donald Jessome, President/CEO  
Champlain Hudson  
Power Express Inc. and  
CHPE Properties, Inc.  
Pieter Schuyler Building  
600 Broadway  
Albany, NY 12207-2283

Re: F-2010-1162  
U.S. Dept. of Energy #: PP-362  
U.S. Army Corps of Engineers Application #: 2009-01089-EHA  
NYS Public Service Commission Application #: 10-T-0139  
Champlain-Hudson Power Express  
1,000 megawatt HVDC electric transmission system  
from Canada to New York City  
**Conditional Concurrence with Consistency  
Certification**

Dear Mr. Jessome:

The Department of State (DOS) has completed its review of the consistency certification and data and information for the above referenced project in accordance with the federal Coastal Zone Management Act (CZMA). Pursuant to 15 CFR 930.4 and 930.62, DOS conditionally concurs with the consistency certification for the project under the enforceable policies of the New York State Coastal Management Program (CMP).

This transmission project promises to deliver a tremendous supply of clean, renewable hydropower from Canada to the New York City Metropolitan Area, one of the nation's largest energy markets. If constructed as proposed and conditioned, the project can provide several important energy benefits. The electricity will serve the New York Independent Systems Operator (NYISO) load center in Zone J and adjacent zones, a high need area. Hydro-power, a renewable energy source, diversifies the State's energy portfolio. Because the electricity is predominantly generated by hydropower, it will improve air quality by displacing less clean generators and will not contribute to greenhouse gas emissions. Importantly, the project improves the State's ability to meet future market demand for low-cost electricity should current power sources go off-line or become obsolete.

The siting of the transmission project in State navigable waters and adjacent areas requires great care to ensure that commercial navigation is not adversely impacted, Significant Coastal Fish and

Wildlife Habitats (SCFWH) are not affected, recreational fishing activities are not substantially altered, migratory patterns of aquatic species are not permanently altered, re-suspension of estuarine sediments and associated contaminants is minimized and all other environmental impacts are minimized. The conditions attached to this concurrence ensure that the project can proceed in a manner that is both consistent with the enforceable policies of the CMP and achievable by the project applicant.

## I. STATUTORY FRAMEWORK FOR CONSISTENCY REVIEW

The Coastal Zone Management Act (CZMA) authorizes a coastal state to review federal agency activities in or outside of the coastal zone affecting any land or water use or natural resource of the coastal zone for their consistency with the enforceable policies of the CMP.<sup>1</sup> Under this regulatory framework, the state coastal agency can concur with, conditionally concur with, or object to the consistency certification for a project. In this matter, DOS has conditionally concurred with the certification. If the conditions are met, the federal agencies can proceed to make decisions on the applications once amended.

Within 30 days of receipt of the conditional concurrence pursuant to 15 CFR 930.4 and 930.62, the applicant must amend its federal applications to include the State's conditions. The Federal agency or the applicant shall immediately notify the DOS if the conditions are not acceptable. If the application is not amended or either the Federal agency or the applicant notifies DOS that the conditions are not accepted, the conditional concurrence automatically becomes an objection.

Pursuant to § 930.63(e), the applicant has the opportunity to appeal the objection to the Secretary of the US Department of Commerce within 30 days after receipt of the conditional concurrence. Also, if either federal agency does not approve the application as amended by the State's conditions, then the applicant will have 30 days after receiving such notice from the federal agency to file an appeal.

In order to grant an override request, the Commerce Secretary must find that the activity is consistent with the objectives or purposes of the Coastal Zone Management Act, or is necessary in the interest of national security. A copy of the request and supporting information must be sent to the New York State DOS Division of Coastal Resources and the federal permitting or licensing agency. The Commerce Secretary may collect fees from you for administering and processing your request.

## II. SUBJECT OF THE REVIEW

The applicant, Champlain Hudson Power Express, Inc. and CHPE Properties Inc, (hereafter CHPE),<sup>2</sup> proposes to construct, operate and maintain a 1,000 megawatt (MW) underground and submarine high-voltage, direct current (HVDC) electric transmission system. The transmission project will primarily transport hydropower generated electricity from sources in central and eastern Canada to provide a reliable supply of clean, renewable energy to meet future demand for electric power in the New York City Metropolitan Area and the lower Hudson Valley.

The project consists of two (2) approximately 6-inch diameter HVDC transmission cables connected as a single bi-pole originating at a point beneath the Richelieu River in the southern portion of

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<sup>1</sup> 16 U.S.C., Sec. 1456(c)(3)(A).

<sup>2</sup> The Applicant is a joint venture of TDI-USA Holdings Corporation (TUHC), a Delaware corporation, and National Resources Energy, LLC (NRE), a Delaware limited liability company. TUHC, the majority (75%) shareholder in the Applicant, is a subsidiary of Transmission Developers Inc. (TDI), a Canadian Corporation. NRE is a wholly owned subsidiary of National RE/sources Group, a limited liability corporation duly organized under the laws of the State of Connecticut.

the province of Quebec<sup>3</sup> and crossing the international border into New York. The cables will be buried beneath the beds of Lake Champlain and the Hudson River. To bypass the Champlain Canal and a portion of the upper Hudson River, two 6-inch diameter HVDC land cables will be buried underground within a railroad right-of-way from Whitehall, New York to Coeymans, New York. The cables enter the Hudson River at Coeymans and then continue generally south within the Hudson River bed terminating at a new alternating current (AC) converter station at Yonkers, New York.<sup>4</sup> After exiting the converter station, six (6) 345-kV AC cables enter the water and continue south under the Hudson, Harlem and East Rivers to the existing Poletti substation in Astoria, Queens.<sup>5</sup> The project will interconnect with the northeast regional grid in Zone J of the NYISO.

### III. APPLICATIONS FOR REGULATORY APPROVALS

On January 27, 2010, the applicant filed an application with the Office of Electricity Delivery and Energy Reliability of the U.S. Department of Energy (DOE) requesting "Presidential Permit" authorization to construct and operate a two bi-pole, 2000 MW high-voltage direct current (HVDC) transmission system crossing the United States- Canada border to deliver electricity to markets in New York City, New York and Bridgeport, Connecticut.<sup>6</sup> This application was amended on August 5, 2010 by removing the 1000 MW bi-pole that terminated in Bridgeport, CT from the application. On June 18, 2010, DOE issued a public notice announcing its intention to prepare an Environmental Impact Statement to assess potential environmental impacts associated with granting a Presidential Permit for the project. On December 6, 2010, CHPE submitted an application to the U.S. Army Corps of Engineers (Corps) requesting authorization for the project pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

On December 8, 2010, the applicant provided to DOS a CZMA consistency certification for the project as a part of a joint application to New York State and the Corps certifying that "The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program." On January 5, 2011, DOS acknowledged receipt of this certification and notified the applicant that a Final Environmental Impact Statement (FEIS) would be considered as data and information necessary for DOS to complete its review of the consistency certification unless specifically waived. DOS has chosen to waive the FEIS requirement for purposes of commencing and conducting consistency review as the necessary information was obtained in submissions from the applicant, consultations with various New York State agencies and subject matter experts and participation in the New York State Public Service Law's Article VII<sup>7</sup> process in an advisory capacity. DOS has engaged in a constant effort to gather the data and information necessary to adequately consider the applicant's certification.

On March 30, 2010, CHPE filed an application for a Certificate of Environmental Compatibility and Public Need, a 401 Water Quality Certificate and other environmental permits with the New York State Public Service Commission (PSC)<sup>8</sup> in accordance with Article VII of the New York State Public

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<sup>3</sup> Submarine HVDC cables are currently proposed to begin within the Richelieu River, proximate to converter stations in southern Quebec.

<sup>4</sup> A convertor station is a required component of the project as the HVDC current needs to be converted to an HVAC current prior to entering the Poletti substation.

<sup>5</sup> The project's precise final route would be subject to a number of factors, including resource issues, permitting, land acquisition, and stakeholder agreement. All portions of the project located within the United States would be owned and operated by the applicant.

<sup>6</sup> Since the cable crosses an international border, the applicant is required to obtain a Department of Energy issued Presidential Permit. (See Federal Power Act § 202(e); 10 C.F.R. Part 205).

<sup>7</sup> Public Service Law Article VII governs the siting of major utility transmission facilities within New York State.

<sup>8</sup> New York State Public Service Commission, Rate Case 10-T-0139.

Service Law. Article VII establishes the review process for consideration of any application to construct and operate an electric transmission line with a design capacity of 100 kilovolts or more, extending for at least ten miles, or with a capacity of 125 kilovolts and over, extending for a distance of one mile or more. The applicant will also require authorization from the New York State Department of Environmental Conservation (DEC) under a State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity and from the New York State Office of General Services for easements to use and occupy State-owned underwater lands.

#### IV. OTHER FACTORS RELEVANT TO THE REVIEW

The New York City market for electricity consumes great amounts of energy in terms of kilowatt hours and pays some of the highest prices in the nation. In 2010, the average price of electricity paid by residential customers in New York City was estimated at 22.82 cents per kilowatt hour.<sup>9</sup> New York City is also an under-serviced market and hence an attractive market for major suppliers of electricity. The CHPE project helps to meet the increasing energy demand in this important market.

Governor Cuomo set forth an ambitious agenda for transitioning New York to a more environmentally sustainable energy economy through increased energy efficiency and a commitment to developing renewable energy technologies. In the *Cleaner, Greener NY: The New NY Agenda*,<sup>10</sup> the Governor stated "we can develop synergies between economic development and environmental improvement through the development of clean energy—we will create jobs while simultaneously reducing harmful emissions." The Governor has recognized that the provision of reasonably priced hydropower from Canada to serve New York City markets advances this goal.

During the 21st century, the energy "landscape" in New York changed in direct response to national and State energy objectives. A new generation of energy proposals are now emerging which pioneer newer, cleaner technologies and promote sustainable use and diversification of energy resources. The CPHE project offers the opportunity to meet future energy needs, while balancing reliability, cost, environmental and public health impacts, and economic growth. It would be the first sub-benthic electric transmission system of its scope and scale sited within the Hudson River and would be the first transmission system of this type and scale worldwide to be constructed in a confined, linear estuarine ecosystem.

As a navigable waterway, the Hudson River has served as a vital transportation link in the nation's and the State's commercial network. Since 1834, Hudson River navigational improvements have been a cooperative state/federal effort. Energy transmission facilities serving New York City have historically been routed overland, often parallel to the Hudson River shoreline and have been available to shippers with facilities along the river. Today the Hudson River serves an important group of water-dependant industries which operate at an economic advantage due to their direct access to and reliance on, as an integral part of such industry, the use of the river and nearby energy resources. The cost savings of water transportation (as compared to land and air transport) and access to reasonably priced energy resources are directly responsible for the location of certain industries along the Hudson River.

The Hudson River estuary serves as a spawning and/or nursery ground for important fish and shellfish species, such as striped bass, American shad, Atlantic and shortnose sturgeon, river herring and blue crab. More than 200 species of fish are found in the Hudson and its tributaries. The estuary contains

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<sup>9</sup> "Comparison of Electric Prices in Major North American Cities" (2010) Hydro Quebec.  
[http://www.hydroquebec.com/publications/en/comparison\\_prices/pdf/comp\\_2010\\_en.pdf](http://www.hydroquebec.com/publications/en/comparison_prices/pdf/comp_2010_en.pdf)

<sup>10</sup> *Cleaner, Greener NY, The New NY Agenda* Andrew Cuomo, 8<sup>th</sup> in a Series, p. 15, available at  
[http://d2srrmjar534jf.cloudfront.net/6/d4/3/1266/andrew\\_cuomo\\_cleaner\\_greener\\_ny.pdf](http://d2srrmjar534jf.cloudfront.net/6/d4/3/1266/andrew_cuomo_cleaner_greener_ny.pdf).

the only significant acreage of tidal freshwater wetlands within the state. These wetlands, along with the river's brackish tidal wetlands and stands of submerged aquatic vegetation, constitute essential habitat that support the Hudson River's rich and biologically diverse web of life.<sup>11</sup> More than 16,500 acres of river habitat from Troy to the southern Rockland-Westchester County border are within designated SCFWHs.<sup>12</sup>

A rich biodiversity is evident within the Hudson River Estuary and across the Hudson River Valley and constitutes a disproportionate share of New York State's plant and animal species.<sup>13</sup> The Hudson River component of the National Estuarine Research Reserve System (NERRS), which focuses its research and monitoring programs on all of the Hudson River estuarine habitats, encompasses over 5,000 acres of freshwater and brackish tidal wetlands and uplands distributed at four distinct sites that span the middle 100 miles of the Hudson River estuary.<sup>14</sup> The coastal impacts of any proposed federal activity or project subject to federal approval proposed in this estuary must necessarily be reviewed for consistency with the State's CMP to ensure the continued viability of such habitats, while promoting economic growth and development.

## V. COASTAL POLICY ANALYSIS

The CHPE project is likely to cause direct and/or indirect physical and biological impacts to coastal resources and uses in the coastal area throughout the construction phase and through its operation. Several impacts directly applicable to the installation and operation of the transmission system are applicable to several coastal policies.

### Policy Analysis

#### ***State Policy 2 - Facilitate the siting of water-dependent uses and facilities on or adjacent to coastal waters.***

The CHPE project will bury transmission cables within Lake Champlain, the Hudson River, the Harlem River, and the East River. While the project does not itself constitute a "water-dependent" use, several conditions ensure that the transmission cables will be sited and installed in a manner that facilitates water dependent economic uses and avoids interference with other important water dependent uses such as navigation and fishing.

This concurrence is conditioned upon the applicant's installation of the transmission lines in coastal waters at the maximum depth achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet-plow. Separation from the water column is necessary to ensure that the risk of impacting existing water dependant uses, such as commercial and recreational fishing and boating, and potential future navigation channel improvements, will be minimized. These potential impacts are minimized by removing the transmission cables, the source of the impact, as far away as possible from the potential coastal conflict and placing them in close proximity to each other, while considering the effects of such an action on other water-dependant uses. Given the state of the available information, the cables can be expected to be at least six (6) feet below the sediment water interface for the majority of the route. Should the bi-pole occupy any federally maintained navigation channels it will be buried at least 15 feet below the authorized depth in a single trench within those channels. In this matter, the siting

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<sup>11</sup> New York State Coastal Management Program (CMP) Final Environmental Impact Statement (EIS). pp. II-2-8 to II-2-10.

<sup>12</sup> [http://www.nyswaterfronts.com/consistency\\_habitats.asp](http://www.nyswaterfronts.com/consistency_habitats.asp)

<sup>13</sup> Hudson River NERRS, Revised Management Plan. 2009-20014.

<sup>14</sup> From north to south the sites are: Stockport Flats (Columbia County), Tivoli Bays (Dutchess County), Iona Island and Piermont Marsh (Rockland County). See Hudson River NERRS, Revised Management Plan. 2009-20014.

of the cable at these depths will minimize conflicts with water based navigation by substantially avoiding anchor strikes and potential future navigational improvements.

Additionally, as proposed, the submarine cables will make landfall and extend inland to a converter station in Yonkers, NY and a substation in Queens, NY. This concurrence includes a condition that the cable landfall will be buried using horizontal directional drilling and will not affect the current and/or future siting of water dependent uses at the water's edge with the exception of the required narrow utility easement for the buried cable.

***State Policy 3 – Further develop the State's major ports of Albany, Buffalo, New York, Ogdensburg and Oswego as centers of commerce and industry, and encourage the siting in these port areas, including those under the jurisdiction of state public authorities, of land use and development which is essential to, or in support of, the waterborne transportation of cargo and people.***

The installation and operation of the transmission cables may affect navigation or future dredging activities which may, in turn, affect the operation of port facilities in New York City and Albany. However, the applicant has consulted with appropriate port facility operators and agreed to site the project in a manner that would not hamper or interfere with port activities.

This concurrence includes the previously stated condition regarding burial depth. Another condition requires that the applicant verify the transmission cables' burial depth on a periodic basis so that they do not become a hazard to navigation or marine resources.

***State Policy 7 - Significant Coastal Fish and Wildlife Habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.***

The applications pending before the federal agencies describe the transmission lines as being constructed within several SCFWHs, which are special management areas designated by DOS on the recommendation of the DEC. These habitats are provided important protections under State Policy 7 of the CMP.<sup>15</sup> Each SCFWH has been inventoried and a general assessment of potential impacts has been developed. As the project is currently designed, SCFWH areas will be affected through: a) disturbance-related impacts associated with the installation of the cables including increased turbidity, re-suspension of pollutants, direct physical disturbance to bottom substrates, and b) operational impacts associated with ongoing use and maintenance of the transmission system including magnetic fields surrounding the cables.

The direct effects on habitats resulting from the installation of project structures can be readily estimated based on the surface area disturbed and the densities and composition of the benthic community in that area. Operational effects are more difficult to predict and any predicted effects should be verified by monitoring. Installation of the project could also permanently alter benthic habitats over the longer term if the trenches containing electrical cables are backfilled with sediments of different size or composition than the previous substrate. The most certain way to minimize the impact on benthic habitats is by siting the cable route to avoid particularly sensitive habitats.

A substantial number of designated SCFWHs are located north of the Inbocht Bay and Duck Cove SCFWH (7.5' Quadrangle: Cementon, New York). These upper Hudson River habitats would be vulnerable to impacts from this type of project and therefore must be avoided. Additionally, by avoiding

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<sup>15</sup> The SCFWH assessments are available at [www.nyswaterfronts.com](http://www.nyswaterfronts.com) and are fully incorporated into the CMP.

these portions of the Hudson River, potential conflict with water related commercial navigation using the federally maintained navigation channel can be avoided.

Several conditions are imposed to ensure consistency with State Policy 7. The applicant must amend its pending federal applications to display a new route which avoids these northern Hudson River habitats. The transmission cable must not occupy any segment within the Hudson River north of the southerly boundary of the Inbocht Bay and Duck Cove Significant Coastal Fish and Wildlife Habitats. Additionally, all transitions from upland to submarine configurations within the coastal area must be accomplished by horizontal directional drilling. Thus, where the transmission cables transition from land to water south of this habitat, the applicant must utilize horizontal directional drilling methods to install the cable to minimize disturbance to shoreline and nearshore coastal fish and wildlife habitats. The horizontal directional drilling entry/exit point will be designed to enter/exit the water at a depth sufficient to avoid impacts to shoreline, intertidal and nearshore areas.

The transmission cable must entirely avoid entering Haverstraw Bay. As proposed, the transmission cable would traverse the State designated Haverstraw Bay SCFWH. The habitat documentation for Haverstraw Bay states that "...the Bay possesses a combination of physical and biological characteristics that make it one of the most important fish and wildlife habitat in the Hudson River estuary. The regular occurrence of brackish water over extensive shallow bottom creates highly favorable conditions for biological productivity within the estuary, including submerged vegetation, phytoplankton and zooplankton, aquatic invertebrates, and many fish species." (Emphasis added).<sup>16</sup>

The habitat documentation indicates that in terms of ecosystem rarity, "[the bay is] the most extensive area of shallow estuarine habitat in the lower Hudson River."<sup>17</sup> The documentation also indicates that: Shortnose sturgeon, an endangered species, regularly occur in the bay; the habitat contributes to recreational and commercial fisheries throughout the northeastern United States; the bay is a major spawning, nursery, and wintering area for various estuarine fish species (e.g. striped bass, American shad, white perch, Atlantic sturgeon, blue claw crab) and that their population levels are unusual in the northeastern United States; and the habitat is irreplaceable. Haverstraw Bay also serves as a foraging area for the threatened bald eagle. The documentation further indicates that "Haverstraw Bay is a critical habitat for most estuarine-dependent fisheries originating from the Hudson River and contributes directly to the production of in-river and ocean populations of food, game, and forage fish species. Consequently, commercial and recreational fisheries throughout the North Atlantic, therefore, depend on or benefit from these biological inputs from the [bay]."<sup>18</sup>

The narrative describing the Haverstraw Bay SCFWH specifically states "[A]ny physical modification of the habitat or adjacent wetlands, through dredging, filling, or bulkheading, would result in a direct loss of valuable habitat area."<sup>19</sup> Hence, in the past, DOS has carefully guarded the resources of the Bay from all projects that would cause impacts. The physical presence of the transmission system within Haverstraw Bay and the proposed installation methodology would result in a direct loss of habitat within the SCFWH. There are no conditions that can be developed that would avoid habitat loss within Haverstraw Bay except for avoidance of the habitat. For that reason, the bi-pole will be in an upland, buried configuration around the Haverstraw Bay SCFWH. This concurrence is conditioned on a requirement that work within identified SCFWHs will be conducted during the timeframes provided in the narrative describing the SCFWH.

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<sup>16</sup> [http://www.nyswaterfronts.com/downloads/pdfs/sig\\_hab/hudsonriver/Haverstraw\\_Bay.pdf](http://www.nyswaterfronts.com/downloads/pdfs/sig_hab/hudsonriver/Haverstraw_Bay.pdf)

<sup>17</sup> Id.

<sup>18</sup> Id.

<sup>19</sup> Id.

***State Policy 8 – Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sub lethal effects on those resources.***

The project installation will mechanically disturb over 95 linear miles of estuarine sediments and benthic habitat and will result in the temporary re-suspension of these sediments and any adsorbed contaminants into the water column. Potentially, contaminants may then be released to the surrounding water body, causing direct harm to resident species and/ or bio-accumulating in the food chain.

The installation and operation of the transmission cables can directly displace benthic (i.e., bottom-dwelling) plants and animals or change their habitats by altering water flows, sediment wave structures, or substrate composition. During installation, bottom disturbances will result from the temporary anchoring of construction vessels; trenching using water jetting techniques and dredging for cable installation; and installation of concrete mattresses in certain locations where bedrock and utility infrastructure crossings preclude the burial of the cable at the optimal depth. The jet-plow technology to be used is anticipated to be relatively efficient in minimizing disturbance. In any case, motile organisms will be displaced and sessile organisms will be destroyed in limited areas affected by these activities. Displaced organisms may be able to relocate assuming the availability of suitable habitat nearby. Species with benthic-associated spawning or whose offspring settle into and inhabit benthic habitats are likely to be most vulnerable to disruption during project installation. When construction is completed, disturbed areas are likely to be re-colonized by these same organisms, because the substrate will, in most places, be restored to a similar state.<sup>20</sup> It should be noted that juvenile sturgeon may be particularly impacted by disturbance of benthic communities if similar foraging habitat is not immediately available to them in the vicinity.

Water jetting and cable installation activities in the Hudson, Harlem and East Rivers and Lake Champlain will disturb and suspend bottom sediments and may release any contaminants attached to such sediments. As this occurs, there is also a risk of bioaccumulation in the tissues of animal species up the food chain. Avoidance of known areas of contamination is the most effective method to minimize re-suspension of contaminants and known contaminant areas should be avoided in routing the project. In addition, an assessment of contaminated soils in the lower Hudson River estuary will likely be conducted during subsequent regulatory approval phases of this project (such as the PSC's Environmental Management and Construction Plan) and compared to the precise cable route.

***State Policy 9 – Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources.***

***State Policy 10 – Further Develop commercial finfish, shellfish, and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing on-shore commercial fishing facilities, increasing marketing of the state's seafood products, maintain adequate stocks, and expanding aquaculture facilities.***

The project installation, operation and maintenance has the potential to affect recreational and commercial fish and wildlife resources by exposing said resources to magnetic fields in excess of the normal range, disturbing habitat, increasing turbidity and allowing temporary re-suspension of hazardous wastes, pollutants, or materials, hence increasing the risk to resources and uses of the Hudson River.

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<sup>20</sup> U.S. Department of Energy, Report to Congress on the Potential Environmental Effects of Marine and Hydrokinetic Energy Technologies. December 2009.



Electric current traveling through HVDC cables induce magnetic fields in the immediate vicinity. Certain aquatic species may be particularly sensitive to magnetic fields generated by the transmission cables including cartilaginous fishes (elasmobranches) and sturgeons. Electro-magnetic fields may change animals' foraging and feeding behaviors, alter migration patterns or cues, reproduction, and may increase susceptibility to predation. Impacts on other species, if any, are unknown at this time due to a lack of published research.

Modeling has indicated that when both poles of the HVDC cables are located within close proximity of each other, the opposing magnetic fields substantially cancel each other out, resulting in a diminished magnetic deviation from the ambient magnetic field. This deviation's potential effects on marine resources can be further minimized by providing as much physical distance as possible between the cables and the coastal resources that may be affected by it.

Given the existing state of marine cable burial technology, the specific configuration of HVDC cable currently available and the underlying geology of the Hudson, Harlem and East Rivers, a full six (6) feet or more of separation can be maintained for the majority of the sub aquatic route within the coastal area. The six (6) feet of separation and co-location of each cable within the same trench, will result in diminished magnetic field deviations within the water columns of these water bodies, thus minimizing the potential effects of magnetic fields on marine resources. Additional monitoring and reporting is expected to occur following cable installation which will supplement the existing knowledge base and guide future siting decisions for similar projects that may be proposed in the future.

The commercial and recreation fishery resources within the Hudson, Harlem and East Rivers are extremely valuable to the State and the nation. Various fish species, during various life stages, may be significantly present or absent from various locations within these water bodies. The SCFWH narratives provide time frames when habitat disturbance would be less detrimental to the SCFWH and subsequently, less injurious to the commercial and recreational fish populations that utilize them. Additionally, the ongoing PSC Article VII process may develop work windows and siting provisions describing when and where in-water work would be least detrimental to commercial and recreational fisheries outside of SCFWHs. These work windows and siting provisions, when combined with the work windows discussed in the applicable SCFWH narratives, will minimize habitat disturbance in the SCFWHs and minimize risks to commercial and recreational fisheries.

This concurrence is therefore conditioned on a requirement that when work is conducted in identified SCFWHs, it will be conducted during the timeframes provided in the narrative describing the SCFWH. Outside of SCFWHs all in-water work will be conducted in accordance with the provisions developed during the Article VII proceedings.

***State Policy 19 - Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.***

The project will utilize resources held in the public trust, which are traditionally used by the public for water related recreation activities including recreational fishing and boating. Substantial use of public resources will be required for the project to be installed as proposed; the use of said resources must serve a public need and alienate the least amount of public resources as possible. Generally, the project should minimize alienating public trust resources by utilizing a buried cable configuration and by sharing waterways with existing user groups during installation.

The cables will be buried at a depth within the Hudson, Harlem, and East Rivers that is not anticipated to affect current or future recreational navigation. The proposed project's impacts on

recreational fisheries are anticipated to be minimal and temporary given the analysis of policy 9 and 10 above. Temporary impacts to the public's use of existing water resources will be limited to short-term exclusion from areas temporarily occupied by installation equipment. As conditioned, the project would be consistent with this policy.

***State Policy 27 - Decisions on the siting and construction of major energy facilities in the coastal area will be based on public energy needs, compatibility of such facilities with the environment, and the facility's need for a shorefront location.***

The CHPE project has the potential to be incompatible with the environment and will utilize shorefront locations. The need for the electricity that the project would transmit will be evaluated and considered by the PSC. The PSC's decision regarding public energy need should be entirely consistent with this policy and will be further analyzed pursuant to a complete state coastal consistency review of the state action. The potential impacts on coastal uses and resources have already been discussed in connection with other policy assessments. All of the conditions imposed with this determination are necessary to allow the project to be consistent with this policy.

***State Policy 37 - Best Management Practices will be utilized to minimize the non-point discharge of excess nutrients, organics, and eroded soils into coastal waters.***

The CHPE project will require excavation of soils within the coastal area as well as the re-suspension of marine sediments which may affect coastal resources. The applicant has developed a substantial best management practices (BMP) in conjunction with its Article VII process and the document outlines various BMPs that will be utilized during the installation of the proposed cable including the development of a stormwater pollution prevention plan as per the terms of the general permit for construction stormwater discharges. When finalized through the Article VII process, consistent implementation of proposed BMPs can be expected to minimize non-point discharge of nutrients, organics, and soils by first controlling erosion in disturbed areas and then containing sediment on site.

***State Policy 44 - Preserve and protect tidal and freshwater wetland and preserve the benefits derived from these areas.***

As originally proposed, the project will occupy existing wetlands. However, the upland portions of the proposed route have been sited within previously disturbed railroad and highway corridors and will largely avoid adjacent wetlands. For those portions of the proposed route that would traverse tidal or freshwater wetlands, the impacts will be temporary in nature and will be minimized by the use of best management practices that have been developed in support of the project.

## **VI. Summary of Conditions**

As described in the applicant's U.S. Department of Energy Delegated Presidential permit application and the Corps CWA § 404/Rivers and Harbors § 10 Permit application, the project would not be consistent with the enforceable policies contained within the CMP. DOS has developed conditions, that if adopted by the applicant, pursuant to 15 CFR Part 930.4, that would allow the project to be found consistent if adopted. These conditions are summarized below.

- 1.) The transmission cables will be buried at the maximum depth achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet-plow. Given the state of the available information, this is expected to be at least six (6) feet below the sediment water interface. Should the bi-pole occupy any federally maintained navigation channels it will be

buried at least 15 feet below the authorized depth in a single trench within those channels. The cable will be maintained at these depths and depth of burial will be verified on a periodic basis so as to not become a hazard to navigation or marine resources.

- 2.) All transitions from upland to submarine configurations within the coastal area will be accomplished by horizontal directional drilling and will be at a depth sufficient so as to not interfere with any current or future water dependant uses.
- 3.) The transmission cable will not occupy any area within the Hudson River north of the southerly boundary of the Inbocht Bay and Duck Cove SCFWH.
- 4.) The transmission cable will be in an upland, buried configuration around the Haverstraw Bay SCFWH.
- 5.) When work will be conducted in identified SCFWHs, it will be conducted during the timeframes provided in the narrative describing the SCFWH. Outside of SCFWHs all in water work will be conducted in accordance with the recommendations developed during the Article VII proceedings.

## CONCLUSION

The project is found consistent with the enforceable policies contained within the New York State Coastal Management Plan subject to the five conditions presented in this document. Should the presented conditions not be acceptable, this conditional concurrence shall be treated as an objection as the proposed activity would not be consistent with State Policies 2, 3, 7, 9, 10, 19, 27, 37 and 44 of the New York State Coastal Management Program.

Sincerely



Daniel E. Shapiro  
First Deputy Secretary of State

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