

DEPARTMENT OF THE ARMY PERMIT

Permittees: Champlain Hudson Power Express, Inc. and
CHPE Properties, Inc.
Pieter Schuyler Building
600 Broadway
Albany, New York 12207-2283
(518) 465-0710

Permit Number: NAN-2009-01089
APR 20 2015

Issuing Office: US Army Corps of Engineers, New York District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittees. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer. The permittees are authorized to perform regulated work in accordance with the conditions and terms specified below.

Project Description:

The discharge of regulated dredged or fill material and construction of permanent power cable structures and temporary cofferdam structures associated with approximately 197 miles of subaqueous submarine power cable installation and approximately 78 acres of regulated vegetated wetland filling for the power cable installation. The installation of the power cable consists of burying a pair of six-inch-diameter, 320 kV, direct current (DC) parallel electric transmission cables between Canada and Astoria, Queens County, New York, including physical surveying, field sampling work, and surveying, locating and marking existing subaqueous utilities (tunnels, bridge foundations, pipelines, cables, etc.)

The subaqueous 320 kV submarine power cable installation route consists of approximately 101.5 miles under Lake Champlain; approximately 88 miles under two sections of the Hudson River; approximately 6.6 miles under the Harlem River; and approximately 0.8 miles under the East River. Installation and required cable burial will generally be by hydraulic jet plow sled dredge, except under southern Lake Champlain, where installation and burial would be by shear plow sled dredge, and under the East River, where horizontal directional drilling shall be used. Installation may also require conventional mechanical bucket dredging and hand jetting in order to meet the required specified cable burial depths, as follows:

- i. Within Lake Champlain, outside of the Congressionally-authorized mapped or marked Narrows of Lake Champlain Federal navigation channel, the required

minimum burial depth is 4-feet below the existing lake bottom, except in waters deeper than 150 feet (North American Vertical Datum 1988) where the cable pair may be placed on the existing lake bottom. Within the Narrows of Lake Champlain, where the navigation channel's authorized depth is -12 feet Lower Lake Datum, the minimum burial depth is 6-feet below the navigation channel's authorized depth in rock and 8-feet elsewhere within the channel.

ii. Within the Hudson River, except for the maintained portions of the Federal navigation channel, the top-of-cable burial depth shall be a minimum of 7-feet below the existing bottom, subject to deeper burial depth requirements based on the results of the Navigation Risk Assessment required in Special Condition B. Within the maintained portions of the Federal navigation channel in the Hudson River, the required minimum top-of-cable burial depth is 9-feet below the authorized channel depth. To the extent the cable pair is installed in or under the Mohawk River, the cable pair shall be installed by horizontal directional drilled tunnel no less than 15-feet below the existing bottom.

iii. Within the Harlem River, the required minimum burial depth in rock is 6 feet below the portions of the Congressionally-authorized mapped or marked navigation channel that require a channel depth of -15 feet Mean Low Water Datum, and 8-feet below the Congressionally-authorized channel depth elsewhere within the mapped or marked navigation channel. In other waters of the Harlem River outside of the mapped or marked navigation channel, the required minimum burial depth is 4 feet below the existing bottom.

iv. Within the Harlem River, where obstructions, such as existing underwater infrastructure (e.g., electric cables, gas pipelines, water and sewer mains, telecommunication cables and conduits, movable bridge control cables, etc.) are encountered, and an obstruction prevents the submarine power cable from being installed to the above-specified burial depths, the cable pair may be installed over the obstacle, provided that sufficient protective armament covering, such as articulated concrete mattress or articulated pipe, is installed at the same time, subject to the specific approval of this office.

v. Within the East River, the cable shall be installed in a horizontally-directional drilled tunnel no less than 15 feet below the Congressionally-authorized mapped or marked navigation channel depth of -35 feet Mean Low Water Datum.

At landfall transition points between the subaqueous cable and the terrestrial cable route, a horizontal directional drill will be used to install the cable, with temporary steel sheet cofferdams used to dewater the work area and facilitate construction. The temporary cofferdams will be approximately 40 feet wide by approximately 30 feet long, and will involve dredging of approximately 100 cubic yards of material from within each cofferdam. All dredged material shall be placed into sealed barges for settling and upland disposal at State-approved upland sites. Following

construction, the areas within the temporary cofferdams shall be returned to pre-construction elevations by the placement of approximately 100 cubic yards of clean sand at each location and removal of all cofferdam sheeting from all waterways.

The 140-mile terrestrial overland power cable route will cross approximately 362 regulated streams and other narrow watercourses. Construction of cable crossings at these locations will be by excavation of a 4-foot-wide by 5-foot-deep open trench, or by installation of cofferdams at crossings with significant stream flows, or by horizontal directional drill under the stream bed. The excavated areas will be backfilled with approximately 1,759 cubic yards of fill material into a total of approximately 0.2 acres of open water for the approximately 362 streams and other narrow watercourses. After cable installation, all crossings will be restored to pre-existing elevation contours and conditions.

The cable route will require excavation and the regulated discharge of dredged or fill material to backfill to pre-construction elevation over approximately 78 acres containing approximately 209 regulated wetlands. Construction of the cable crossings of these wetlands will be by excavation of a 4-foot-wide by 5-foot-deep open trench or by installation of cofferdams at wetlands with significant water flows. Excavated areas will be backfilled with approximately 39,592 cubic yards of fill in the approximately 209 wetlands, resulting in a total of approximately 78 acres of regulated dredged or fill being discharged into regulated wetlands. The impacts to wetlands from the permitted discharge of dredged or fill material filling are:

- i. Permanent conversion of approximately 0.6 acres of palustrine forested wetland to palustrine emergent/scrub-shrub wetlands in the cable right-of-way.
- ii. Temporary impacts to approximately 9.7 acres of palustrine emergent/scrub-shrub wetlands within the cable right-of-way and 51.2 acres of temporary impacts to palustrine emergent/scrub-shrub wetlands within the construction corridor near the cable right-of-way.
- iii. Temporary impacts to approximately 16.2 acres of palustrine forested wetland within the construction corridor during cable pair installation

The permittees shall restore all of the palustrine emergent/scrub-shrub wetland areas and palustrine forested wetland areas that are temporarily impacted to previous contours, using wetland topsoil and shall plant suitable species of wetland vegetation during the first growing season after completion of the installation of each segment of the power cable.

The discharge of fill material is permitted as required to perform compensatory mitigation required by this permit for the loss of palustrine forested wetland within the cable right-of-way by restoration and preservation of wetlands at the

Vly Creek Swamp, owned by The Heldeberg Workshop organization, located in the Town of New Scotland, Albany County, New York. Required wetlands mitigation work includes restoration of a total of 0.75 acres of palustrine forested wetlands and four acres of palustrine emergent/shrub-shrub wetlands. In addition, 55.5 acres of the Heldeberg Workshop Property shall be preserved in perpetuity, through execution and recording of a conservation easement or restrictive covenant which shall be approved in advance by the US Army Corps of Engineers New York District.

All regulated work shall be performed in accordance with dated permit drawings, the attached New York State-issued Section 401 of the Clean Water Act Water Quality Certificate dated 18 January 2013; and Special Conditions (A) through (OO) below which are all hereby made part of this permit.

Project Location:

IN: Lake Champlain, Mohawk River, Hudson River, Harlem River, East River and various unnamed wetlands and streams in the Hudson River Basin

AT: Clinton, Essex, Washington, Saratoga, Schenectady, Albany, Greene, Columbia, Ulster, Dutchess, Orange, Putnam, Rockland, Westchester, Bronx, New York, and Queens Counties within New York State

Permit Conditions:

General Conditions:

A. The time limit for completing the work authorized ends on **30 DEC 2019**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least six (6) months before the above date is reached.

B. The permittees shall maintain the structures authorized by this permit in good condition and in conformance with the terms and conditions of this permit. The permittees are not relieved of this requirement if they abandon the permitted structures. Should the permittees wish to cease to maintain the authorized structures or desire to abandon them, they must obtain a modification of this permit from this office, which may require restoration of the area.

C. The permittees shall immediately notify this office, ATTN: Regulatory Branch, of any discovery and description of previously unknown historic or archeological remains while accomplishing the activities authorized by this permit. This office will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

D. The permittees shall comply with the conditions specified in the conditioned water quality certification issued by the State of New York, including all current and

future amendments thereto, for the regulated discharges of dredged or fill material.

E. The permittees shall allow representatives from this office to inspect the authorized work activities at any time deemed necessary to ensure that they have been accomplished in accordance with the terms and conditions of this permit.

Special Conditions:

A. The permittees shall include all of the requirements and specifications of this permit, including all future amendments hereto, in each of the permittees' Final New York State Public Service Commission Approved Environmental Management and Construction Plans. Environmental Management and Construction Plans are required by the New York State Public Service Commission "Order Granting Certificate of Environmental Compatibility and Public Need" dated 18 April 2013.

B. The permittees shall, not later than Thursday, 31 March 2016, provide to the US Coast Guard [US Coast Guard First District, 408 Atlantic Avenue, Boston, MA 02110-3350, ATTN: Maritime Energy and Marine Planning Branch, Staff Symbol: dp], the required Navigation Risk Assessment for approval (complete copy to this office ATTN: Regulatory Branch) as described in the US Coast Guard First District letters dated 15 January 2014, 27 May 2014, 15 September 2014, 3 October 2014 and 24 October 2014. The Assessment shall include, but not be limited to:

- i. Records of consultation with the US Coast Guard- Sector New York and maritime industry representatives, including Port of NY/NJ Harbor Operations Committee, Hudson River Pilots, and The American Waterways Operators;
- ii. Records of consultation and coordination with all owners of all existing subaqueous submarine utilities including, but not limited to, bridge foundations, tunnels, pipelines, power and telecommunication cables, conduits, intake and outfall structures, to be located within 300 feet of the submarine power cable;
- iii. Identification of the risk of anchor snags based on data including the largest vessels known to transit along the power cable project route, using current state-of-the-art research (i.e. USDOJ/Minerals Management Service reports, etc.);
- iv. Identification of sediment types and lake/river bottom elevations along the route;
- v. Description of typical weather conditions along the power cable route;
- vi. Records of consultation that informs vessel operators of the power cable route, burial depths and protective armament barriers to prevent anchor fouling;
- vii. Safety analysis of the articulated protective pipes and concrete mattress armament proposed for use by the permittees;

- viii. A plan on how to best inform the regional maritime community on construction progress and where concrete mattress armament has been installed; and
- ix. Description of procedures for power cable pair re-installation in the event of an anchor snag on the cable or concrete mattress armament.

The permittees shall not commence in-water construction of the herein authorized subaqueous cable pair until US Coast Guard First District has concurred with the navigation safety findings of the required Navigation Risk Assessment.

C. The permittees shall, not later than 15 November 2016, submit a pre-construction benthic resources survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch.

D. The permittees shall incorporate the results of the approved Navigation Risk Assessment referenced in Special Condition B, and an Anchor Snag Manual in each Draft and approved Final Environmental Management and Construction Plan.

E. The permittees shall identify in each Draft and approved Final Environmental Management and Construction Plan, any navigation channel marker buoys which must be temporarily or permanently relocated; and the temporary and permanent relocation positions.

F. The permittees shall provide a copy of each Draft Environmental Management and Construction Plan to the US Coast Guard First District [US Coast Guard First District, 408 Atlantic Avenue, Boston, MA 02110-3350, ATTN: Maritime Energy and Marine Planning Branch, Staff Symbol: dp] at the same time each Plan is submitted to New York State Public Service Commission for review and approval; with a copy to both the appropriate US Coast Guard Sector's Captain of the Port and to this office ATTN: Regulatory Branch, for agencies' review and submittal of any comments to the New York State Public Service Commission.

G. The permittees shall provide a copy of each Final Environmental Management and Construction Plan to the US Coast Guard First District [US Coast Guard First District, 408 Atlantic Avenue, Boston, MA 02110-3350, ATTN: Maritime Energy and Marine Planning Branch, Staff Symbol: dp] immediately upon approval by the New York State Public Service Commission; with a copy to both of the appropriate US Coast Guard Sector's Captains of the Port.

H. The permittees shall, ninety (90) days prior to submitting for approval any Environmental Management and Construction Plan affecting Waters of the United States, including wetlands, to the New York State Department of Public Service, file a preliminary draft of that Environmental Management and Construction Plan with this office ATTN: Regulatory Branch for review and comment.

Upon New York State Department of Public Service approval of any such Environmental Management and Construction Plan filing, the permittees will file

with this office ATTN: Regulatory Branch:

- i. A copy of the New York State Public Service Commission approval;
- ii. A copy of the approved specific Environmental Management and Construction Plan (incorporating the elements required under Special Condition "D" of this permit); and
- iii. All relevant drawings describing in detail the activities covered under the specific Environmental Management and Construction Plan.

The permittees shall not initiate any in-water construction within the scope of the specific Environmental Management and Construction plan until this office issues either:

- i. A determination, in writing to the permittees, that the activities detailed in the specific Environmental Management and Construction Plan are consistent with the authorized activities listed in the work description of this permit;

OR

- ii. In those instances where the activities detailed in the specific Environmental Management and Construction Plan are determined by this office not to be consistent with the authorized activities listed in the work description of this permit, a written modification of the terms and conditions of this permit.

I. At least eight (8) weeks prior to any in-water construction activity, the permittees shall submit two (2) finalized sets of construction drawings to the owner of any subaqueous utilities (in tidal waters), with copies to this office, ATTN: Regulatory Branch, where the proposed power cable would come within 20 feet vertically or horizontally of the utilities.

J. The permittees shall, not later than 15 May 2016 and prior to commencing construction authorized by this permit, submit for review and approval by this office an updated freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332.

K. The permittees shall ensure that all proposed mitigation plantings have an eighty-five (85) percent survival rate and all established wetland areas in conjunction with the compensatory mitigation shall have an eighty-five (85) percent coverage rate of hydrophytic plants (those with a regional indicator status of FAC, FAC+, FAC+/-, or OBL in the report entitled "National List of Plant Species that Occur in Wetlands, Northeast [Region 1]", published by the US Fish and Wildlife Service).

L. The permittees shall ensure that the vegetation in the newly established wetland areas does not consist of more than a total of 5% areal coverage of common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), reed canarygrass (*Phalaris arundinacea*), Japanese knotweed (*Fallopia japonica*), Tartarian honeysuckle (*Lonicera tatarica*), Eurasian milfoil (*Myriophyllum spicata*), and/or

other invasive species.

M. The permittees shall prepare their compensatory mitigation plan in consultation with the National Marine Fisheries Service and the New York State Department of Environmental Conservation, for any unavoidable impacts to subtidal aquatic habitats including subtidal shallows and shellfish habitats in accordance with Title 33 of the Code of Federal Regulations, Part 332. The plan shall include baseline information on the mitigation site(s), the goals and objectives of the plan, performance measures and success criteria, monitoring and maintenance plans and provisions for the long-term stewardship of the site. Compensatory mitigation shall be completed prior to or concurrent with the unavoidable impacts to the habitats or as agreed to by the National Marine Fisheries Service.

N. The permittees' marine resources compensatory mitigation plan and updated freshwater wetlands mitigation plan shall include appropriate conservation easement(s) or restrictive covenants on the proposed mitigation sites to guarantee their preservation for wetland and wildlife resources. Draft copies of the instrument(s) effecting such easement(s) or covenant(s) shall be submitted to this office ATTN: Regulatory Branch for review and approval prior to execution. The instrument(s) shall be executed and recorded with the appropriate County Clerk within one year following the initial planting/seeding at the first mitigation site.

O. The permittees shall, at least three (3) months prior to the first discharge of fill material in regulated wetlands, initiate construction of the compensatory mitigation in accordance with the Freshwater Wetland Mitigation Plan current at that time.

P. The permittees shall, at least thirty (30) calendar days prior to the start of survey work and/or construction in a US navigable waterway, provide written notification of this construction or surveys to this office ATTN: Regulatory Branch, to the appropriate US Coast Guard Sector Captain of the Port; and to the Coast Guard at LNLM@uscg.mil for inclusion in the US Coast Guard LOCAL NOTICE TO MARINERS.

Q. The permittees shall include in the written notification required by Special Condition P, above:

- i. Department of the Army permit number;
- ii. Permittees' names;
- iii. Marine construction company's name;
- iv. Onsite marine construction manager's points of contact, name, phone numbers, and email addresses;
- v. A description of the proposed marine work;
- vi. Waterway's Name;
- vii. NOAA Chart Number for the area;

viii. Waterway location of marine work area, including waterway reach name from NOAA nautical chart, River Miles, latitude & longitude of work area (degrees, minutes, thousandths of seconds);

ix. Marine work start & stop dates and hours of operation;

x. Names and types of marine equipment on scene;

xi. Vessel passing arrangements / time to move construction or survey vessels so as to not impede navigation; and

xii. VHF radio channel monitored.

R. The permittees shall not conduct in-water work in the Hudson River from January 15th thru June 30th of any calendar year, so as to minimize impacts upon Essential Fish Habitat (EFH) species under the Magnuson - Stevens Fishery Conservation and Management Act.

S. The permittees shall not conduct in-water work in the Harlem or East Rivers from January 15th thru May 31st of any calendar year, so as to minimize impacts upon Essential Fish Habitat (EFH) species under the Magnuson - Stevens Fishery Conservation and Management Act.

T. The permittees shall not install the submarine cable in any existing Anchorage Area, or in an anchorage area being proposed through the US Coast Guard rulemaking process at the time that this permit is issued.

U. The permittees and their contractors shall use a closed clamshell environmental dredging bucket to dredge all soft, fine-grained materials in Lake Champlain, and the Hudson and Harlem Rivers. The closed clamshell environmental bucket shall be used until refusal, at which time a clamshell digging bucket or dredging excavator may be used for hard material. All dredged materials shall be removed and disposed of at a State-approved upland placement site.

V. The permittees and their contractors shall, during blasting operations and cable installation in the Harlem River, remove all blasting fractured rock for disposal at a State-approved upland site, leaving no mounds in the river; and shall backfill the cable trench with clean sand matching adjacent elevations.

W. The permittees shall use articulated protective concrete mattresses, at least 12-inch-thick, with lifting loops, no more than four inches in length, to protect the cable from anchor snags and vessel strikes where the minimum required burial depths cannot be achieved.

X. The permittees shall contact the appropriate US Coast Guard Sector Captain of the Port, a minimum of thirty (30) calendar days in advance of the date Federal Channel marker buoys are needed to be relocated.

Y. The permittees shall maintain at the offices of all work sites, and aboard the lead work vessel at each work site, a complete copy (including permit drawings and attachments) of this issued permit, including any future modifications.

Z. The permittees shall ensure that construction materials, including debris, do not

enter any waterway to become drift or pollution hazards.

AA. The permittees shall provide, within thirty days of the effective date of this permit and every six (6) months thereafter, a letter providing the status and timing of the development of the first Environmental Management and Construction Plan involving work in Waters of the United States, including wetlands, to this office ATTN: Regulatory Branch. Following the permittees' submittal of the first Environmental Management and Construction Plan involving work in Waters of the United States, including wetlands, to the New York State Department of Public Service, the permittees shall submit a Monthly Progress and Compliance Report to the appropriate US Coast Guard Sector Captain of the Port, copied to this office ATTN: Regulatory Branch is required.

BB. The permittees shall include in the Monthly Progress and Compliance Report at a minimum:

i. A statement of regulated work authorized in the permit which was performed during the reporting period.

ii. A record of any deviation, and the reason for any such deviation, from authorized power cable locations and/or required burial depths reported to the Regulatory agencies during the reporting period.

iii. A record of any discharges of fill in regulated waters or wetlands, and the reason for any such discharge, beyond what is authorized in this permit.

iv. Corrective actions taken, or to be taken and when, to correct deviations and unauthorized discharges of fill material in regulated waters and wetlands, as approved by the Regulatory agencies.

v. Scheduled work authorized in this permit for the next reporting period.

CC. The permittees shall immediately report by fax [(212) 264-4260] to this office ATTN: Regulatory Branch each instance where the subaqueous cable installation cannot be installed in the correct horizontal and vertical location.

DD. The permittees shall within 48 hours after the initial report required by permit Special Condition CC, provide to this office ATTN: Regulatory Branch, statement of the reason for the inability to achieve the required burial depth (geologic or existing infrastructure limitations); the actual burial depth achieved; water depth, a proposed plan and cross section drawing of the installation; a description of how the site will be protected to prevent the cable from obstructing marine navigation; and the method of construction to be used in order to bring the placement of the cable into compliance.

EE. The permittees shall, within three (3) months of completion of each 2-mile segment of the cable pair burial within the approximately 197 miles of subaqueous installation authorized herein, offer the Port of NY/NJ Harbor Operations and Safety Committee, Hudson River Pilots, and the Maritime Association of the Port of New York/New Jersey Tug and Barge Committee; a digital copy of the post-installation survey showing the As-Built cable pair horizontal and vertical location as well as

any herein authorized concrete mattress armament for that 2-mile segment, with all mapped navigation channels and Federal Anchorages, as shown on NOAA nautical charts.

FF. The permittees shall permanently construct and maintain high-visibility warning signs, on weatherproof materials of no less than 6-foot-wide and 4-foot-high, on the shoreline at the six (6) locations where the cable pair enters or exits the rivers.

GG. The permittees shall notify the National Oceanic and Atmospheric Administration of completion of each 15-mile segment of the installation of the herein authorized cables and their as-built depths and location specifications so that National Oceanic and Atmospheric Administration's National Ocean Service may quickly publish the appropriate nautical chart updates. The information may be submitted online at <http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>, faxed to (301)713-4516 or mailed to the following address:

National Oceanic and Atmospheric Administration
National Ocean Service
N/CS261, Marine Chart Division
Nautical Data Branch, Station 7317
1315 East-West Highway
Silver Spring, MD 20910-3282

HH. The permittees shall notify National Oceanic and Atmospheric Administration to initiate nautical chart modifications in areas where protective armaments are installed, and the armaments shall be identified as "obstructions" on the chart. Copies of the notification shall be provided to the US Coast Guard at the addresses cited in Special Conditions F and to this office ATTN: Regulatory Branch.

II. The permittees shall, within three (3) months of completion of each 2-mile segment of the cable pair burial within the approximately 197 miles of subaqueous installation authorized herein, submit to US Army Corps of Engineers - New York District ATTN: Navigation Technical Support Branch Chief and to the appropriate US Coast Guard Sector Captain of the Port a digital copy and three (3) paper prints of a post-installation survey showing the As-Built cable pair location and burial depths and any herein authorized concrete mattress armament for that 2-mile segment, with all mapped navigation channels and Federal Anchorages, as shown on NOAA nautical charts.

JJ. The permittees shall, between 36 and 42 months after the completion of in-water work, submit a post-construction benthic resources survey with bottom elevations to verify that at least 80 percent of pre-construction benthic population has been reestablished. If benthic resources have not re-colonized the impacted areas, then additional post-construction benthic resources surveys shall be conducted every third year thereafter until the 80 percent of benthic population threshold has been achieved.

KK. The permittees shall, at least once every five (5) years after installation,

perform inspections on the subaqueous installation of the herein authorized cable to verify the horizontal and vertical location and perform inspections of all non-burial cable locations; to determine the durability of protective concrete mattresses and articulated protective pipe; and to determine whether maintenance of any kind would be required on the structures. The findings of the inspections shall be reported to the US Coast Guard, First District at the addresses cited in Special Condition F and to this office ATTN: Regulatory Branch. The report shall contain evaluations and supporting documents demonstrating that the cable pair, in its then-existing condition, is still protected by the minimum burial depths required herein and/or the herein authorized concrete mattress armament will continue to prevent anchor strikes from vessel traffic. Additionally, this report shall specify the permittees' permanent contact office which will be responsible for verifying the cable location.

LL. The permittees shall provide to this office ATTN: Regulatory Branch, annual written reports on the status of the wetland compensatory mitigation activities, in each of the following five (5) years after initiation of the mitigation grading and planting activities authorized by this permit. These reports shall be submitted no later than October 15th in each of these years. All data for the reports must be collected between the dates of April 15th and October 15th in the same year it is submitted.

MM. The permittees shall include in their annual wetland mitigation status reports, at least:

- i. A list of dominant plant species, along with their estimated frequency and percent areal cover in each vegetative strata (i.e. tree, shrub and herbaceous) for each cover type within the mitigation site;
- ii. Color photographs showing all representative areas of each cover type within the mitigation site, taken at least once each year during the period between June 1st and August 15th;
- iii. A Corps of Engineers approved wetland delineation data sheet for each cover type within the mitigation site;
- iv. Vegetation cover maps, at a scale of one inch equals 100 feet, or larger scale, outlining the extent (in acres) of each cover type within the mitigation site shall be prepared for each growing season;
- v. Well and gauge data showing water elevations within the mitigation site recorded twice a month during April through September of each year. The location of the monitoring well or gauge shall be shown on the plan view engineering drawing; and
- vi. A remedial plan outlining all practicable steps taken or proposed to be taken to ensure the success criteria outlined in Special Conditions K and L, above are met by the specified due date of the next monitoring report.

NN. The permittees shall provide additional annual monitoring reports, as directed in writing, should this office determine that the wetland mitigation success criteria required in Special Conditions K and L, above have not been met for three consecutive years. This annual monitoring reports submittal period shall extend until this office determines that the required wetland mitigation success criteria have been met for three consecutive years.

OO. The permittees understand and agree that, if future operations by the United States of America require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittees will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States of America on account of any such removal or alteration.

Terms and Further Information:

1. Congressional Authorities: The permittees have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S. Code 403).

(X) Section 404 of the Clean Water Act (33 U.S. Code 1344).

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

- d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information the applicants provided.
5. **Reevaluation of Permit Decision:** This office may reevaluate its decision to issue this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a. The permittees fail to comply with the terms and conditions of this permit.
 - b. The information provided by the applicants in support of their permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.


Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in Title 33 CFR 325.7 or enforcement procedures such as those contained in Title 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of this permit and for the initiation of legal action where appropriate. The permittees will be required to pay for any corrective measures ordered by this office, and if the permittees fail to comply with such directive, this office may in certain situations (such as those specified in Title 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill the permittees for the cost.

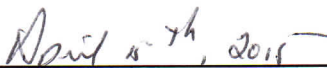
6. **Work Period Extensions:** General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for a reasonable extension of this time limit to complete.

PERMITTEES: Champlain Hudson Power Express Inc. and CHPE Properties, Inc.
PERMIT NUMBER: NAN-2009-01089

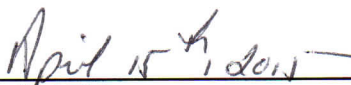
APR 20 2015

Your signatures below, as permittees, indicates that you accept and agree to comply with the terms and conditions of this permit.

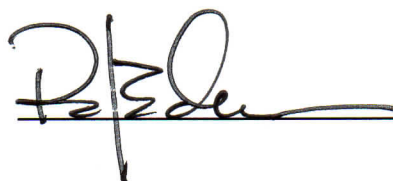

(PERMITTEE)
Champlain Hudson Power Express, Inc.


(DATE)


(PERMITTEE)
CHPE Properties, Inc.

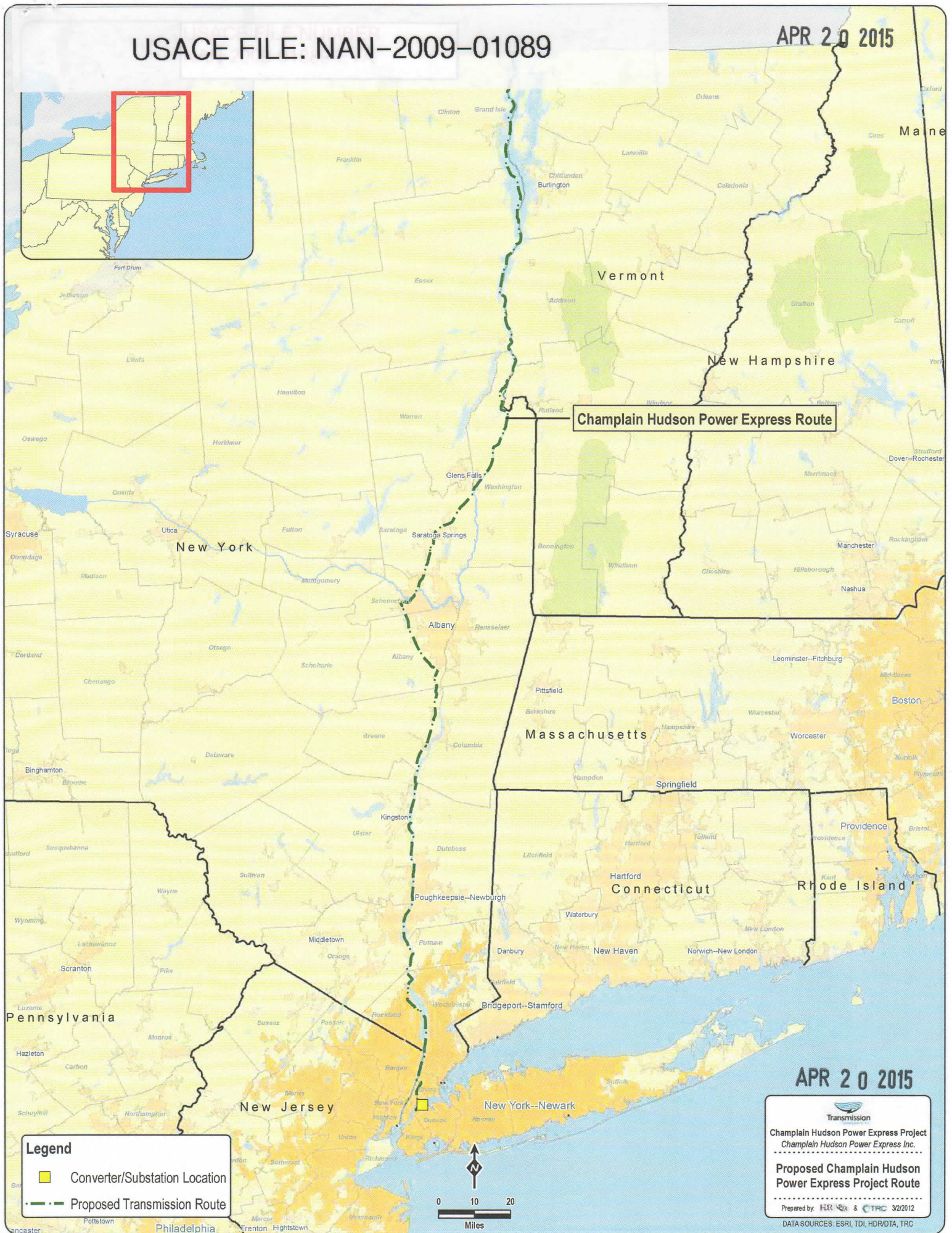
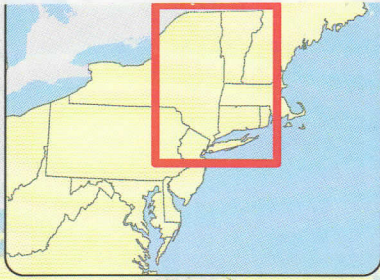

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.



Paul E. Owen
Colonel, US Army
Commander

APR 20 2015
(DATE)



USACE FILE: NAN-2009-01089-EYA

NEW YORK STATE PUBLIC SERVICE COMMISSION 401 WATER QUALITY CERTIFICATION

Pursuant to: Section 401 of the Federal Water Pollution Control Act, 33 U.S.C. § 1341, and Article VII of the New York Public Service Law

Certification Issued to: Champlain Hudson Power Express, Inc.
CHPE Properties, Inc.
Pieter Schuyler Bldg.
600 Broadway
Albany, New York 12207

RECEIVED BY REGULATORY

JAN 26 2013

NY DIST. CORPS OF ENGINEERS

Location of Facility

Champlain Hudson Power Express, Inc. and CHPE Properties, Inc. (collectively, "CHPE") proposes to construct, operate, and maintain a new 1,000 megawatt ("MW") high-voltage direct current ("HVDC") underwater/underground electric transmission facility ("HVDC Transmission System"). The HVDC Transmission System will interconnect with the transmission system of Hydro Quebec and will run from the Canadian border east of the Town of Champlain, New York to Astoria, Queens, New York ("Astoria"). The approximately three hundred thirty two (332) mile HVDC Transmission System will connect with an HVDC converter station at Astoria to be owned by CHPE. From the converter station will be connected by an underground 345 kV HVAC circuit to a gas insulated switchgear substation owned or to be owned by the New York Power Authority on property owned by the Consolidated Edison Company of New York, Inc. at Astoria. A 345 kV HVAC circuit will extend from the GIS Substation to Con Edison's 345 kV Rainey Substation located on the corner of 36th Avenue and Vernon Boulevard in Queens, New York (the "Astoria-Rainey Cable"). The HVDC Transmission System and the Astoria-Rainey Cable are referred to collectively herein as the "Facility." The details and justification for the Facility are contained in the administrative record in Case 10-T-0139.

Facility Description

The record in the proceeding on CHPE's application, as supplemented, for a Certificate of Environmental Compatibility and Public Need under Article VII of the New York Public Service Law ("PSL") has fulfilled the requirements necessary to determine whether the Facility will qualify for issuance of a Water Quality Certification ("Certification") pursuant to § 401 of the Clean Water Act (33 U.S.C. §§ 1251-1387). The Facility cables will be located primarily underwater within the lake- and riverbeds of New York waterways, including Lake Champlain and the Hudson, Harlem and East Rivers, with some segments of the Facility route being sited overland. Overland Facility segments will consist primarily of cable installations buried along: (a) existing railroad rights-of-way; and (b) existing roadway rights-of-way. In addition, to cross the Hudson

River at Fort Edward, the Mohawk River at Schenectady and Catskill Creek, the cables will be located in conduits to be attached to existing railroad bridge structures.

For the overland segments of the Facility, the cables will be buried via excavated trenches or Horizontal Directional Drilling ("HDD") methods. For underwater cable installation, the primary methods for installation will be jet plowing and/or shear plowing. Underwater cable installation techniques will vary based on a number of factors, including, but not limited to, sediment type, bathymetry, and existing infrastructure crossings.

Where the overland segments of the Facility route encounter streams and/or wetlands, the following methods may be used to minimize impacts: (a) flume crossing; (b) dam and pump; (c) HDD or Jack and Bore ("J&B"); and (d) open cut. The waterbody crossing methods are further described in the Facility's Best Management Practices documentation, which is used in the preparation of the Environmental Management and Construction Plan ("EM&CP"). Adherence to the EM&CP, required to be filed for approval by the New York State Public Service Commission ("Commission") as a condition of the Public Service Law Article VII Certificate of Environmental Compatibility and Public Need ("Article VII Certificate") in Case 10-T-0139, will serve to protect these resources.

Construction of the Facility will be in accordance with the Article VII Certificate and approved EM&CP.

Certification

The Commission hereby certifies, pursuant to § 401 of the Clean Water Act (33 U.S.C. § 1341(a)(1)) and Article VII of the PSL, that the Facility, as conditioned herein, complies with applicable requirements of §§ 301, 302, 303, 306 and 307 of the Clean Water Act as amended, and applicable New York State water quality standards, limitations, criteria, and other requirements set forth in 6 NYCRR § 608.9(a) and Parts 701 through 704, provided that all of the conditions listed herein are met. This Certification is issued in conjunction with the Article VII Certificate sought by CHPE in, and based on the record of, Case 10-T-0139.

Conditions

1. No in-water work shall commence until all pre-construction conditions related to such work contained in the Article VII Certificate and any Order approving the EM&CP for each affected Segment EM&CP have been met to the satisfaction of the New York State Department of Public Service ("DPS").
2. Construction and operation of the Facility shall at all times be in conformance with: (a) the Application (as amended and supplemented) and Joint Proposal of Settlement filed in Case 10-T-0139 to the degree not superseded by the Article VII Certificate, (b) all conditions of approval contained in the Article VII

Certificate, (c) the EM&CP, and (d) all conditions incorporated in any Order approving the EM&CP in Case 10-T-0139, to the extent such documents referenced in (c) and (d) above pertain to CHPE's compliance with New York State Water Quality Standards necessary and appropriate for issuance of, and compliance with, this Certification.

3. CHPE shall provide a copy of this Certification to the United States Army Corps of Engineers ("USACE"), as well as a copy of the Application, Joint Proposal, Article VII Certificate (when issued) EM&CP and Order(s) approving the EM&CP (when issued) in Case 10-T-0139, so that the USACE will have a complete record of the conditions that apply hereto.
4. CHPE shall provide all construction contractors performing work on the Facility complete copies of this Certification, the Article VII Certificate, the approved EM&CP, and Orders(s) approving the EM&CP for each Facility segment.

Classified Streams and Wetland Crossings Installation

5. For overland installation, no site preparation work shall be undertaken until all required erosion control measures have been installed.
6. During overland cable installation in all waters of the State, including classified streams and wetlands, there shall be no visible increase in turbidity that causes a visible contrast to background conditions forty (40) feet downstream of the installed cable centerline.
7. CHPE shall employ measures sufficient to prevent contamination of the waters of the State by silt, sediment, fuels, drilling fluids, concrete, leachate or any other pollutant associated with the installation of the Facility.
8. All in-stream work, as well as any work that may result in the suspension of sediments, is prohibited in all streams designated as "C(T)" and "C(TS)" streams during the trout spawning and incubation period commencing October 1 and ending May 31st.
9. Any debris or excess materials caused by the construction of the Facility shall be immediately and completely removed from the bed and banks of all water areas and transported to an appropriate upland area for disposal.

Lake and River Installation

10. Underwater construction in Lake Champlain and the Hudson, Harlem and East Rivers (including jet-plow and shear-plow trials) and pre-installation route clearing activities (including pre-lay grapnel run and associated obstruction and debris removal) shall occur within the construction windows set forth in Table 1 in the Article VII Certificate.

11. The following in-water activities may be undertaken at any time: physical, biological, geotechnical and cultural resource sampling, surveying and testing; marine surveys, mobilization and demobilization of vessels and equipment used for cable installation and cofferdam construction; cofferdam and steel casing rise pipe construction; dredging of cofferdams provided that the walls of the cofferdam extend above mean high water during dredging; HDD associated with either of the two foregoing items; post-installation surveys and sampling; locating and marking utility crossings and work to effect utility crossings; and, with prior notice to the DPS, the New York State Department of Environmental Conservation ("NYSDEC"), and the New York State Department of Health ("NYSDOH") emergency maintenance work.
12. During the jet plow and shear plow trials and underwater cable installation, CHPE shall implement the Suspended Sediment/Water Quality Monitoring Plan (hereinafter the "Water Quality Monitoring Plan"), to be developed pursuant to the approved Suspended Sediment / Water Quality Monitoring Plan Scope of Study included as Attachment 1 to the Article VII Certificate. CHPE shall operate the jet plow and shear plow in accordance with the operating conditions determined through the jet plow and shear plow trials described in the Water Quality Monitoring Plan to minimize suspension of *in situ* sediment, subject to the limitation of Condition 14(c), below.
13. If the jet plow trials demonstrate that the preferred operating conditions result in real-time, total suspended solids ("TSS") concentrations, measured five hundred (500) feet down-current of the jet plow, exceeding the TSS concentrations at an up-current background station by more than two hundred (200) milligrams per liter ("mg/L"), CHPE shall report such conditions to the Aquatic Inspector and work with DPS and NYSDEC to evaluate and implement modifications to the plow operating conditions to further reduce *in-situ* sediment suspension associated with the single pass installation procedure. If the shear plow trials demonstrate that the preferred operating conditions result in real-time TSS concentrations, measured five hundred (500) feet down-current of the shear-plow in the southern portion of Lake Champlain (south of Crown Point), exceeding the TSS concentrations at an up-current background station by more than one hundred (100) mg/L, CHPE shall report such conditions to the Aquatic Inspector and work with DPS and NYSDEC to evaluate and implement modifications to the plow operating conditions to further reduce *in-situ* sediment suspension associated with the single pass installation procedure. CHPE shall not utilize the jet plow or shear plow until they have demonstrated to the satisfaction of DPS staff their ability to achieve the TSS standards established herein through test trials.
14. Water Quality
 - a. During jet plow and shear plow cable installation, CHPE shall sample and

measure turbidity (in units of Nephelometric Turbidity Units ("NTU")), TSS, hardness, and the concentrations of the chemical constituents identified in the table provided in Condition 14(d) below, within the water column of Lake Champlain and the Hudson, Harlem and East Rivers outside the effects of the installation event (the up-current background station) and down-current of the operating jet plow and shear plow described in the Water Quality Monitoring Plan. Up-current samples shall be collected at a location five hundred (500) feet up-current of the cable installation outside the effect of the jet plowing and shear plowing. Down-current samples shall be collected five hundred (500) feet down-current of the jet plow and shear plow. Samples shall be collected at near-surface, mid-depth, and near-bottom at each sampling location. Measured levels of metals shall be reported both as totals and as dissolved fractions, except mercury, which shall be reported as total mercury.

- b. Suspended sediment plume monitoring and water quality monitoring shall be conducted at the locations and frequency set forth in the Water Quality Monitoring Plan.
- c. If, during underwater cable installation, TSS concentrations monitored or measured at five hundred (500) feet down-current of the installation exceed TSS concentrations at an up-current background station by more than two hundred (200) mg/L or more than one hundred (100) mg/L in the southern portion of Lake Champlain (south of Crown Point), the Aquatic Inspector shall be immediately notified. CHPE also must attempt to notify the NYSDEC and DPS within twenty four (24) hours of any such TSS exceedance. CHPE shall immediately employ one or more of the following environmental protection measures: changing the rate of advancement of the jet plow or shear plow, modifying hydraulic pressures, or implementing other reasonable operational controls that may reduce suspension of *in-situ sediments*. If CHPE proposes to employ mitigation measures not otherwise provided for in this paragraph, they must first consult with the DPS, NYSDEC, and the Aquatic Inspector. In the event that DPS determines that the mitigation techniques are unable to reduce TSS concentrations below the maximum allowable threshold, underwater cable installation shall be suspended and CHPE shall consult with DPS and NYSDEC regarding alternative cable installation techniques. Nothing in this subsection is intended to require that cable installation methods be modified to prevent burial of the cables in a single trench to the depths specified in the Article VII Certificate through a single installation pass.
- d. During underwater cable installation, the concentrations of the chemical constituents listed below (Table 1), as measured in the samples collected five hundred (500) feet down-current of the cable installation activities, shall not exceed the greater of: (A) the levels set forth below or (B) 1.3 times the highest ambient background level measured during the prior twenty four

(24) -hour sampling period up-current of the installation at the same depth as the down-current sample.

Table 1. Underwater Cable Installation Water Quality Standards

Route Mile	Water Body Class	Contaminant	Standard	Unit	Method	Reporting Limit
0-73.5	AA	Dissolved Arsenic	340	ug/l	EPA 200.7	10
		Dissolved Copper	calculate using measured hardness and (0.96) $\exp(0.9422 [\ln(\text{ppm hardness})] - 1.7)$	ug/l	EPA 200.7	2
		Dissolved Zinc	calculate using measured hardness and 0.978 $\exp(0.8473 [\ln(\text{ppm hardness})] + 0.884)$	ug/l	EPA 200.7	2
73.5-101.7	B	Dissolved Arsenic	340	ug/l	EPA 200.7	10
		Dissolved Copper	calculate using measured hardness and (0.96) $\exp(0.9422 [\ln(\text{ppm hardness})] - 1.7)$	ug/l	EPA 200.7	0.1*
		Dissolved Zinc	calculate using measured hardness and 0.978 $\exp(0.8473 [\ln(\text{ppm hardness})] + 0.884)$	ug/l	EPA 200.7	2
228.5-272.3	A	Phenanthrene*	45	ug/l	EPA 8270C	0.02
		Dissolved Cadmium	5	ug/l	EPA 200.7	0.02*
		Dissolved Copper	200	ug/l	EPA 200.7	0.1*
		Dissolved Lead	50	ug/l	EPA 200.7	0.02*
		Total Mercury	0.7	ug/l	EPA 1669	0.001
		Total PCBs	0.09	ug/l	EPA 8082	0.005*
272.3-290.3	B	Dissolved Arsenic	340	ug/l	EPA 0.7	10
		Dissolved Cadmium	calculate using measured hardness and (0.85) $\exp(1.128 [\ln(\text{ppm hardness})] - 3.6867)$	ug/l	EPA 200.7	0.02*
		Dissolved Copper	calculate based on measured hardness using (0.96) $\exp(0.9422 [\ln(\text{ppm hardness})] - 1.7)$	ug/l	EPA 200.7	0.1*

		Dissolved Lead	calculate using measured hardness and $\{1.46203 - [\ln(\text{hardness}) (0.145712)]\} \exp(1.273 [\ln(\text{hardness})] - 1.052)$	ug/l		0.02*
		Phenanthrene*	45	ug/l	EPA 8270C	0.02
		Dissolved Mercury	1.4	ug/l	EPA 1669	0.001
		Total PCBs	0.2 per aroclor	ug/l	EPA 8082	0.005*
290.3-324.0	SB	Dissolved Arsenic	63	ug/l	EPA 200.7	10
		Dissolved Cadmium	7.7	ug/l	EPA 200.7	0.02*
		Dissolved Copper	7.9	ug/l	EPA 200.7	0.1*
		Dissolved Lead	204	ug/l	EPA 200.7	0.02*
		Phenanthrene*	14	ug/l	EPA 8270C	0.02
		Total Mercury	0.05***	ug/l	EPA 1669	0.001
		Total PCBs	0.2 per aroclor	ug/l	EPA 8082	0.005*
324.1-332.5	I	Dissolved Arsenic	36	ug/l	EPA 200.7	10
		Dissolved Cadmium	7.7	ug/l	EPA 200.7	0.02*
		Dissolved Copper	7.9	ug/l	EPA 200.7	0.1*
		Dissolved Lead	204	ug/l	EPA 200.7	0.02*
		Phenanthrene*	14	ug/l	EPA 8270C	0.02
		Total Mercury	0.05***	ug/l	EPA 1669	0.001
		Total PCBs	0.2 per aroclor	ug/l	EPA 8082	0.005*

* Assumes low level analysis, compared to standard level

** Phenanthrene will be used as an indicator for the total concentration of Polycyclic Aromatic Hydrocarbons (PAHs).

*** Standard based on General Level Currently Achievable described in TOGS 1.3.10.

- e. All water quality laboratory analyses required in this Certification must be conducted by a laboratory certified by the NYSDOH.
- f. If the compliance criteria described in clause 14(d) above are exceeded at any time during the installation, additional water quality sampling shall take place at the location of the exceedance as described in the Water Quality Monitoring Plan.



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NY 10278-0090

TO MASTER
FILE

Regulatory Branch

OCT 17 2016

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

PERMITTEES:

Champlain Hudson Power Express, Inc.

and

CHPE Properties, Inc.

C/o Transmission Developers, Inc.

ATTN: William S. Helmer, Esq.

600 Broadway

Albany, New York 12207-2283

(518) 465-0710

1. Reference is made to

- a. Subject Department of the Army (DA) permit NAN-2009-01089 issued on April 20, 2015; and**
- b. The subject permittees' request dated October 12, 2016, to authorize changes to submission dates in conditions associated with the subject permit.**

2. In accordance with the provisions of Section 10 of the River & Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344), the New York District of the U.S. Army Corps of Engineers issued Department of the Army permit NAN-2009-01089 [Reference 1(a)] on April 20, 2015 to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc.

3. The request for modification under General Condition A includes modification of the permit expiration date from 30 June 2019 to 30 September 2021; under Special Condition C, modification of the pre-construction benthic resources survey filing date from 15 November 2016 to 15 November 2017; and under Special Condition J, modification of the "updated freshwater wetlands resources compensatory mitigation plan" filing date from 15 May 2016 to 15 November 2017.

4. Based upon an evaluation of the administrative record supporting the issuance of the subject permit, and a review of the permittee's submitted materials in support of their permit modification request [Reference 1(a)], the subject permit is hereby modified as follows:

Regulatory Branch

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 2 -

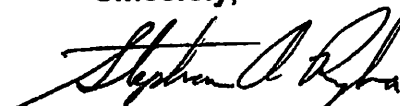
- a) Under General Condition A, the time limit for completing work authorized ends on 30 September 2021;**
- b) Under Special Condition C, the permittees shall no later than 15 November 2017, submit a pre-construction benthic resources survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch; and**
- c) Under Special Condition J, the permittees shall, not later than 15 November 2017 and prior to commencing construction authorized by this permit, submit for review and approval by this office an updated freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332.**

5. All work shall be accomplished in accordance with the attached drawings and table, which are incorporated into this permit modification. All other terms, General Conditions, and Special Conditions of the issued Department of the Army permit shall remain in effect.

6. This modified permit shall be known as Permit Number NAN-2009-01089-M1.

7. This modified subject DA permit shall be available at project offices and regulated work sites.

Sincerely,



For and in behalf of

**David A. Caldwell
Colonel, US Army
Commander**

Regulatory Branch

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 3 -

Enclosure:

DA Permit Modification Request dated October 12, 2016

CF (w/enclosure):

US Coast Guard, First District by email

US Coast Guard, Sector New York by email



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278-0090

REGULATORY BRANCH

NOV 15 2017

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

PERMITTEES:

**Champlain Hudson Power Express, Inc.
and
CHPE Properties, Inc.
C/o Transmission Developers, Inc.
ATTN: William S. Helmer, Esq.
600 Broadway
Albany, New York 12207-2283
(518) 465-0710**

1. Reference is made to

- a. Subject Department of the Army (DA) permit NAN-2009-01089 issued on April 20, 2015;**
- b. DA permit modification NAN-2009-01089-M1 issued on October 17, 2016; and**
- c. The subject permittees' request dated October 19, 2017, to authorize changes to submission dates in conditions associated with the subject permit and the expiration date of the permit authorization.**

2. In accordance with the provisions of Section 10 of the River & Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344), the New York District of the U.S. Army Corps of Engineers issued Department of the Army permit NAN-2009-01089 [Reference 1(a)] on 20 April 2015 to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc.

3. On 17 October 2016, the permittees were issued a permit modification [Reference 1(b)] which authorized:

- a) Under General Condition A, a permit authorization extension until 30 September 2021 to complete the regulated work;**
- b) Under Special Condition C, an extension for the permittees to submit no later than 15 November 2017, a pre-construction benthic resources**

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 2 -

survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch; and

- c) Under Special Condition J, an extension for the permittees to submit no later than 15 November 2017 and prior to commencing construction authorized by this permit, an updated freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332 for review and approval by this office.
- 4. On 19 October 2017, the permittees submitted a request for modification under General Condition A which includes modification of the permit expiration date from 30 September 2021 to 31 December 2022; under Special Condition C, modification of the pre-construction benthic resources survey filing date from 15 November 2017 to 15 November 2019; and under Special Condition J, modification of the "updated freshwater wetlands resources compensatory mitigation plan" filing date from 15 November 2017 to 15 November 2019.
- 5. Based upon an evaluation of the administrative record supporting the issuance of the subject permit, and a review of the permittee's submitted materials in support of their permit modification request [Reference 1(b)], the subject permit is hereby modified as follows:
 - d) Under General Condition A, the time limit for completing work authorized ends on 31 December 2022;
 - e) Under Special Condition C, the permittees shall no later than 15 November 2019, submit a pre-construction benthic resources survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch; and
 - f) Under Special Condition J, the permittees shall, not later than 15 November 2019 and prior to commencing construction authorized by this permit, submit for review and approval by this office an updated

NOV 15 2017

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 3 -

freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332.

6. All other terms, General Conditions, and Special Conditions of the issued Department of the Army permit shall remain in effect.

7. This modified permit shall be known as Permit Number NAN-2009-01089-M2.

8. This modified subject DA permit shall be available at project offices and regulated work sites.

Sincerely,



For and in behalf of

**Thomas D. Asbery
Colonel, US Army
District Engineer**

Enclosure:

DA Permit Modification Request dated 19 October 2017

CF (w/enclosure):

US Coast Guard, First District by email

US Coast Guard, Sector New York by email



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NEW YORK 10278-0090

REGULATORY BRANCH

NOV 25 2019

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

PERMITTEES:

**Champlain Hudson Power Express, Inc.
and
CHPE Properties, Inc.
C/o Transmission Developers, Inc.
ATTN: William S. Helmer, Esq.
600 Broadway
Albany, New York 12207-2283
(518) 465-0710**

1. Reference is made to

- a. Subject Department of the Army (DA) permit NAN-2009-01089 issued on April 20, 2015;
- b. DA permit modification NAN-2009-01089-M1 issued on 17 October 2016;
- c. DA permit modification NAN-2009-01089-M2 issued on 15 November 2017;
and
- d. The subject permittees' request dated 17 September 2019, to authorize changes to submission dates in conditions associated with the subject permit and the expiration date of the permit authorization.

2. In accordance with the provisions of Section 10 of the River & Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344), the New York District of the U.S. Army Corps of Engineers issued Department of the Army permit NAN-2009-01089 [Reference 1(a)] on 20 April 2015 to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc.

3. On 17 October 2016, the permittees were issued a permit modification [Reference 1(b)] which authorized:

- a) Under General Condition A, a permit authorization extension until 30

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 2 -

September 2021 to complete the regulated work;

- b) Under Special Condition C, an extension for the permittees to submit no later than 15 November 2017, a pre-construction benthic resources survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch; and
 - c) Under Special Condition J, an extension for the permittees to submit no later than 15 November 2017 and prior to commencing construction authorized by this permit, an updated freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332 for review and approval by this office.
4. On 15 November 2017, the permittees were issued a permit modification [Reference 1(c)] which authorized:
- d) Under General Condition A, a permit authorization extension until 31 December 2022 to complete the regulated work;
 - e) Under Special Condition C, an extension for the permittees to submit no later than 15 November 2019, a pre-construction benthic resources survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch; and
 - f) Under Special Condition J, an extension for the permittees to submit no later than 15 November 2019 and prior to commencing construction authorized by this permit, an updated freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332 for review and approval by this office.
5. On 17 September 2019, the permittees submitted a request for modification under

NOV 25 2019

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 3 -

General Condition A which includes modification of the permit expiration date from 31 December 2022 to 31 December 2025; under Special Condition C, modification of the pre-construction benthic resources survey filing date from 15 November 2019 to 15 November 2022; under Special Condition J, modification of the "updated freshwater wetlands resources compensatory mitigation plan" filing date from 15 November 2019 to 15 November 2021; and under Special Condition AA, modification of the language regarding "status updates" of the EM&CP.

6. Based upon an evaluation of the administrative record supporting the issuance of the subject permit, and a review of the permittee's submitted materials in support of their permit modification request [Reference 1(d)], the subject permit is hereby modified as follows:

- g) Under General Condition A, the time limit for completing work authorized ends on 31 December 2025;
- h) Under Special Condition C, the permittees shall no later than 15 November 2022, submit a pre-construction benthic resources survey, including bottom elevations, of the approximately 197-miles of subaqueous cable pair route to the National Marine Fisheries Service - Northeast Region, 55 Great Republic Drive, Gloucester, MA 01930 ATTN: Habitat Conservation Division; with copies to the New York State Public Service Commission and to this office ATTN: Regulatory Branch; and
- i) Under Special Condition J, the permittees shall, not later than 15 November 2021 and prior to commencing construction authorized by this permit, submit for review and approval by this office an updated freshwater wetlands resources compensatory mitigation plan in accordance with Title 33 of the Code of Federal Regulations, Part 332.
- j) Under Special Condition AA, prior to submittal of the first EM&CP, the permittee shall provide the status and timing of the development of the first EM&CP in either letter format or via email correspondence.

7. All other terms, General Conditions, and Special Conditions of the issued Department of the Army permit shall remain in effect.

NOV 25 2019

SUBJECT: Modification to Department of the Army Permit Number NAN-2009-01089 Issued to Champlain Hudson Power Express, Inc. and by CHPE Properties, Inc. on 20 April 2015 for Construction Activities Associated with Installation of Buried Subaqueous 325kV Submarine Power Cable in Lake Champlain, Mohawk River, Hudson River, Harlem River, East River, and unnamed Wetlands within New York State

- 4 -

8. This modified permit shall be known as Permit Number NAN-2009-01089-M3.

9. This modified subject DA permit shall be available at project offices and regulated work sites.

Sincerely,



For and in behalf of
Thomas D. Asbery
Colonel, US Army
District Engineer

Enclosure:

DA Permit Modification Request dated 17 September 2019

CF (w/enclosure):

US Coast Guard, First District by email

US Coast Guard, Sector New York by email



A **Blackstone** Portfolio Company

September 17, 2019

Mr. Stephan A. Ryba
Chief, Regulatory Branch
New York District
U.S. Army Corps of Engineers
Jacob K. Javits Federal Building
26 Federal Plaza, Room 1937
New York, NY 10278-0090

Re: Champlain Hudson Power Express Permit NAN-2009-01089-M2 (April 20, 2015, as modified October 17, 2016 and November 15, 2017)

Dear Mr. Ryba:

Champlain Hudson Power Express, Inc. ("CHPE") and its subsidiary CHPE Properties Inc. (together, the "Permittees") request that the U.S. Army Corps of Engineers ("Army Corps") grant extensions of the milestone dates currently set forth in the above-referenced permit for the Champlain Hudson Power Express transmission project ("Project") for construction completion; submitting the benthic resources survey; and submitting the updated freshwater wetlands resources compensatory mitigation plan. The Permittees also request a change to a certain permit condition related to biannual reporting regarding the progress in the development of the Project's Environmental Management & Construction Plan ("EM&CP"). The requested milestone adjustments are described more fully below:

- General Condition A of the permit requires the Permittees to complete the authorized work by December 31, 2022. The Permittees request that the Army Corps extend this date to December 31, 2025.
- Special Condition C requires the Permittees to submit a pre-construction benthic resources survey to the National Marine Fisheries Service (with copies to the Army Corps and the New York Public Service Commission) by no later than November 15, 2019. The Permittees request that the Army Corps extend this date to November 15, 2022.
- Special Condition J requires the Permittees to submit an updated freshwater wetlands resources compensatory mitigation plan by no later than November 15, 2019. The Permittees request that the Army Corps extend this date to November 15, 2021.

The General Condition A request for an extension is based upon two primary considerations. First, the Permittees are considering route improvements for the Project that could reduce community and environmental impacts. These improvements take into account development that has taken place along the route in recent years as well as improvements in engineering and field construction means and methods identified by the Permittees. Evaluating these improvements and obtaining applicable

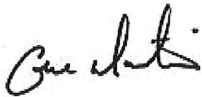
state and potential federal approvals will take additional time, necessitating an extension of the milestone dates. Second, the schedule for the Project is now driven by its participation in the 2019 Class Year Facilities Study initiated by the New York Independent System Operator last month. Since the Permittees must await the results of the that study before it will be able to complete a multi-billion-dollar construction financing and those results will not be known until late next year, the Project's construction schedule now presents a projected date for commencement of in-water cable installation in 2022 and a projected date for project completion in late 2024 or early 2025.

For Special Condition C, the pre-construction Benthic Survey is intended to establish a baseline against which construction impacts may be measured which requires that the data be gathered as close to construction as possible. We suggest during the year immediately preceding the commencement of construction. Thus, the Benthic Survey ought to be conducted in 2022 based on anticipated cable laying in the Hudson and Harlem rivers in 2023. Less time sensitive is the update to the freshwater wetlands resources compensatory mitigation plan. We believe that our route modifications will be approved by the New York State Public Service Commission (the "PSC") at the end of 2020 or in early 2021, so that update could be completed during 2021. The situation with Special Condition J is similar in that it would be most efficient to deliver the updated wetland compensatory mitigation plan after the route has been finalized.

With respect to Special Condition AA, we note that Permittees have briefed the staff of the Army Corps regularly since the issuance of the permit. This has taken place in person at numerous public and private meetings, through filings and correspondence, and by telephone and email. In light of the extensions requested above, the Permittees believe that the reporting requirements of Special Condition AA should be triggered by the first EM&CP which is anticipated in 2022. We request that the language be modified accordingly.

The Permittees appreciate the Army Corps' consideration of these requests. Please do not hesitate to contact us if you require further information or have any questions regarding these requests.

Sincerely,

A handwritten signature in black ink, appearing to read "Gene Martin", with a stylized flourish at the end.

Gene Martin
President and Chief Operating Officer