



## **Environmental Management and Construction Plan (EM&CP)**

Lake Champlain Marine Segment 18A  
Pre-Lay Mattressing

Case Number 10-T-0139

Village of Rouses Point and Towns of  
Champlain, Chazy, and Plattsburgh, Clinton  
County, NY

Town of Ticonderoga, Essex County, NY

July 2023

## **Champlain Hudson Power Express**

TRC Project Number: 490523.0003

### **Prepared For:**

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## ACRONYM AND ABBREVIATION LIST

2012 BMP	Best Management Practices dated February 10, 2012 Document
AC	Alternating Current
Ag & Mkts	Department of Agriculture and Markets
ANSI	American National Standards Institute
APA	Adirondack Park Agency
APE	Area of Potential Effects
Application	Application for a Certificate of Environmental Compatibility and Public Need
AREMA	American Railway Engineering and Maintenance-of-Way Association
ATRAS	Annual Transmission Reliability Assessment Study
BMPs	Best Management Practices
CAMP	Community Air Monitoring Plan
CC	Certificate Condition
Certificate	Certificate of Environmental Compatibility and Public Need
Certificate Holders	CHPE, LLC and CHPE Properties, Inc.
Certificate Order	Order granting the Certificate of Environmental Compatibility and Public Need
CHPE	Champlain Hudson Power Express or CHPE, LLC and CHPE Properties
CHPE Project	Champlain Hudson Power Express Project
CI	Co-Located Infrastructure
CLB	Cable-Lay Barge
CMI	Caldwell Marine International
CNY	City of New York
COD	Commercial Operations Date
Commission	New York State Public Service Commission
Con Edison	Consolidated Edison Company of New York, Inc.
Council	Advisory Council on Historic Preservation
CRIS	Capacity Resource Interconnection Service
CRMP	Cultural Resources Management Plan
CSX	CSX Transportation
CTB	Cable Transport Barge
DBH	Diameter at Breast Height
DGPS	Differential Geographic Positioning System
DMM	Document Matter Master
DOE	U. S. Department of Energy
DoW	Depth of Water
DPS	NYS Department of Public Service
ECL	Environmental Conservation Law
ECM	Environmental Compliance Manager
EDPL	Eminent Domain Procedure Law
EI	Environmental Inspector
EHS Report	Environment, Health, and Safety Report
EM&CP	Environmental Management and Construction Plan
EM&CP Guidelines	Guidelines for Environmental Management and Construction Plan(s)
EPA	Environmental Protection Agency
EPC	Engineering, Procurement, and Construction
ESA	Endangered Species Act
ESCP	Erosion and Sediment Control Plan



FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FO	Fiber Optic
HDD	Horizontal Directional Drilling
HDPE	High-Density Polyethylene
HQUS	H.Q. Energy Services (U.S.) Inc.
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IEEE	Institute of Electrical and Electronics Engineers
IPaC	Information for Planning and Consultation
kV	kilovolt
LCMM	Lake Champlain Maritime Museum
LNm	Local Notice to Mariners
LOD	Limit of Disturbance
MCB	Mattress Crane Barge
MCL	Maximum Contaminant Level
MFB	Mattress Feeder Barge
MPT	Maintenance and Protection of Traffic
MW	Megawatts
NAERO	Northeast Power Coordinating Council
NAGPRA	Native American Graves Protection and Repatriation Act
NERC	North American Reliability Corporation
NESC	National Electrical Safety Code
NKT	NKT, Inc.
NMFS	National Marine Fisheries Service
NPCC	Northeast Power Coordinating Council
NRA	Navigation Risk Assessment
NRHP	National Register of Historic Places
NYCDOT	New York City Department of Transportation
NYCCC	New York City Construction Codes
NYCEC	New York City Electrical Code
NYCFC	New York City Fire Code
NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYP&A	New York Power Authority
NYSBPS	New York State Bulk Power System
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYS&S	New York State Department of State
NYS&T	New York State Department of Transportation
NYSHPO	New York State Historic Preservation Office.
NYS OGS	New York State Office of General Services
NYSRC	New York State Reliability Council
OATT	Open Access Transmission Tariff
OC	Operating Committee
OGS	Office of General Services
OIS	Optional Interconnection Study
OPA	Oil Pollution Plan
OPRHP	Office of Parks Recreation & Historic Preservation
OSHA	Occupational Safety and Health Administration



OTM	OSHA Technical Manual
PCBs	Polychlorinated Biphenyls
PE	Professional Engineer
PSC	New York State Public Service Commission
PSL	New York Public Service Law
PWS	Public Water Supply
RMT	Response Management Team
ROW	Right of Way
RTE	Rare, Threatened and Endangered
SCFWH	Significant Coastal Fish and Wildlife Habitats
Secretary	Secretary to the Commission
SIS	Systems Impact Study
SOP	Standard Operating Procedures
SOPEP	Shipboard Oil Pollution Emergency Plan
SPDES	State Pollutant Discharge Elimination System
SPS	Special Protection System
SRIS	System Reliability Impact Study
SS	Site Superintendent
SSESC	Standards and Specifications for Erosion and Sediment Control
SSHASP	Site Specific Health and Safety Plan
TO	Transmission Owner
TPAS	Transmission Planning and Advisory Subcommittee
TRA	Transmission Rights Purchase Agreement
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
WQC	Water Quality Certification





## 1.0 Introduction

The Champlain Hudson Power Express (CHPE) Project involves the construction of approximately 339 miles of high voltage direct current (HVDC) underground and underwater transmission cable from Montreal, Quebec, to Queens, New York (the “CHPE Project” or “Project”). It will bring 1,250 megawatts (MW) of renewable energy into New York by spring 2026 to replace the use of fossil fuels and reduce carbon emissions. The proposed Project will provide enough power for more than 1 million homes, along with numerous environmental and economic benefits to millions of residents in New York State communities.

The CHPE Project began the permitting process on March 30, 2010, when Champlain Hudson Power Express, Inc. filed an Application for a Certificate of Environmental Compatibility and Public Need (the Application) with the New York State Public Service Commission (PSC or Commission) pursuant to Article VII of the New York Public Service Law (PSL) to construct and operate the electric transmission facility known as the Champlain Hudson Power Express Project (the CHPE Project) (PSC Case 10-T-0139). The CHPE Project includes two five-inch diameter cables to be installed underwater or underground along the approximately 339-mile-long route, with aboveground facilities to include a voltage source converter station located in Astoria, Queens, New York.

An Order granting the Certificate of Environmental Compatibility and Public Need (Certificate Order) was issued by the Commission on April 18, 2013 (the Certificate). In August 2020, Champlain Hudson Power Express, Inc. converted from a corporation to a limited liability company and received the PSC’s approval to transfer its interest in the Certificate to CHPE, LLC and CHPE Properties, Inc. (collectively CHPE and Certificate Holders). The Certificate was amended eight times (March 20, 2020, August 13, 2020, September 21, 2020, January 26, 2021, May 14, 2021, February 17, 2022, March 16, 2022, and December 15, 2022)<sup>1</sup> to reflect revisions in the alignment and other Certificate Conditions (CC). The Article VII review and certification process included the development of numerous documents which identified natural resources within the CHPE Project area and best management practices (BMPs) to minimize impacts to those natural resources which might otherwise result from the construction or operation of the CHPE Project.

Certificate Condition 6 permits the Certificate Holders to develop the CHPE Project facilities in segments to facilitate construction sequencing and scheduling. Each segment, or grouping of segments, may be the subject of an Environmental Management and Construction Plan (EM&CP) filed with the Commission for review and approval independent of other EM&CP’s. Within the EM&CP for the first segment, the Certificate Holders must identify the anticipated

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<sup>1</sup> A ninth amendment, filed March 30, 2023, was pending as of the time of this submission. To the extent this amendment is granted, the final EM&CP for this segment will be updated to reflect any revised Certificate Conditions resulting from that Amendment 9, though the requested amendment pertains primarily to overland routing.





segments and include a schedule for their construction—those items were provided in the first EM&CP submitted April 15, 2022. Subsequent EM&CP's must include updates to the segment identification and construction schedule provided in the first segment EM&CP. Table 1.1 contains an updated version of the Certificate Holders' current segmentation of the CHPE Project including an anticipated schedule with respect to EM&CP development, EM&CP submission, and construction commencement. On October 13, 2022, the Commission approved the first CHPE EM&CP for Segments 1 and 2 of project construction; subsequent approvals were issued in February, March, April, and May 2023, as outlined in the below table.

This EM&CP covers what is referred to as "Segment 18A" of the CHPE Project, which describes the construction and installation of concrete mattresses to protect co-located submarine infrastructure (such as buried telecommunications, electrical or gas lines placed on or beneath the bed of Lake Champlain) in preparation for future submarine cable installation in Lake Champlain. The Lake Champlain Marine Segment Pre-Lay Mattressing EM&CP (Segment 18A) is the first of five planned submarine EM&CPs (see Table 1.1), that will be submitted to the New York State Public Service Commission (PSC or Commission) related to the preparation for and later the installation of submarine cables required for the submarine segments of the CHPE Facility. These submarine segments will link to the overland Facility segments via the Transitional Horizontal Direction Drill (HDD) Segments approved by the Commission March 16, 2023 (Stony Point Transitional HDD, Segment 16) and April 20, 2023 (Putnam Station, Congers and Cementon Transitional HDDs, Segment 17).

A later EM&CP "Segment 18B" will be submitted that will detail the procedures to be implemented during installation of the submarine cable in Lake Champlain later in 2023. The Lake Champlain Marine Segment is proposed in Lake Champlain and passes through the municipal waters of the Towns of Champlain, Chazy, Beekmantown, Plattsburgh, Peru, and AuSable in Clinton County, NY; the Towns of Chesterfield, Willsboro, Essex, Westport, Moriah, Crown Point, and Ticonderoga in Essex County, NY; and the Town of Putnam in Washington County, NY. The submarine cable route in Lake Champlain will begin at the U.S. border with Canada and end at the transitional land-to-water segment horizontal directional drilling (HDD) at Putnam Station (EM&CP Segment 17) for the overland route. Concrete mattresses will be installed on the lakebed of Lake Champlain and will be used as cable and co-located infrastructure protection for work which will be detailed in the Segment 18B Lake Champlain Cable Installation EM&CP to be filed later this year. Utility location surveys will continue during Spring 2023. Placement of pre-lay mattresses in Lake Champlain will take place in the second half of 2023 after Notice to Proceed is received from DPS.

This EM&CP has been developed in accordance with the conditions adopted in the PSC's Certificate Order. Certificate Conditions approved in the Joint Proposal were attached to the Certificate Order as Appendix C and are presented as currently amended in Section 2.0 below. Certificate Conditions relate to, among other things, the preparation, content, filing, and review of an EM&CP; public health and safety; the handling of complaints; CHPE Project construction, operation, maintenance, and restoration; and environmental supervision.



This EM&CP has also been developed in accordance with the guidance document provided as Appendix E to the Joint Proposal titled Guidelines for Environmental Management and Construction Plan(s) (EM&CP Guidelines) and the document titled Best Management Practices dated February 10, 2012 (2012 BMP Document). Pre-lay Mattress Location Drawings are provided as Appendix A to this EM&CP and have been developed in accordance with Section A of the EM&CP Guidelines. This EM&CP narrative includes the information required in Section B of the EM&CP Guidelines.



**Table 1.1 - Overland and Marine Segments: CHPE Project Construction, Sequencing, and Scheduling**

EM&CP Segment	Design Packages	Location Description	Approximate Segment Length (miles)	Anticipated (Actual) EM&CP Submittal	PSC Approval of EM&CP	Anticipated Construction Commencement
<b>OVERLAND SEGMENTS</b>						
1, 2	Packages 1A & 1B	Putnam to Dresden/Dresden to Whitehall	17.82	4/15/2022	10/13/2022	11/2022
3	Packages 1C & 2	Whitehall to Fort Ann/Fort Ann to Kingsbury	20.8	12/23/2022	5/18/2023	6/2023
8	Package 5A	Rotterdam to Selkirk	16.99	12/21/2022	TBD	7/2023
9	Package 5B	Selkirk Bypass	5.31	12/21/2022	TBD	7/2023
11	Package 7A	Catskill	8.6	3/27/2023	TBD	8/2023
4, 5	Package 3	Kingsbury to Milton	26.5	4/24/2023	TBD	8/2023
10	Package 6	Ravena to Catskill	20.9	6/2023	TBD	9/2023
13, 14, 15	Package 8	Bronx to Queens	2.13	6/5/2023	TBD	9/2023
12	Package 7B	Stony Point to Clarkstown	7.6	4/28/2023	TBD	8/2023
6	Package 4A	Milton to Ballston	10.2	06/2023	TBD	9/2023
7	Package 4B	Ballston to Schenectady/Rotterdam	9.6	06/2023	TBD	9/2023
Laydown Yards	3, 5B, 6	Fort Edward, Bethlehem, Coxsackie	N/A	11/11/2022	2/21/2023	3/2023
<b>MARINE SEGMENTS</b>						
16	Package 9	Transitional HDD (Stony Point)	N/A	9/29/2022	3/16/2023	7/2023
17	Package 10	3 Transitional HDDs (Putnam, Catskill, Clarkstown)	N/A	12/14/2022	4/20/2023	6/2023
18A	Package 11A	Lake Champlain (Pre-Lay Mattressing)	96	4/4/2023	TBD	8/2023
18B	Package 11B	Lake Champlain (Cable Installation)	96	7/2023	TBD	2024
19	Package 12	Hudson River (Pre-Lay Mattressing)	89.1	6/2023	TBD	9/2023
20	Package 13	Hudson River (Cable Installation)	89.1	12/2023	TBD	2024
21	Package 14	Harlem River	~6.3	12/2023	TBD	2025
22	TBD	Converter Station, Astoria Complex (Queens)	N/A	1/31/2023	5/18/2023	6/2023
23	TBD	Astoria Rainey Cable HVAC System (Queens)	~3.5	TBD	TBD	TBD



## **1.1 Distribution and Notification of the Filing of this EM&CP**

Appendix B, EM&CP Filing Notices, includes copies of the notices circulated to various stakeholders via mail, electronically, or through publication in local newspapers serving the areas where the EM&CP segment work areas are located, in accordance with the Certificate. Proofs of service outlining in detail the distribution of this EM&CP in hard copy and/or electronic file formats, in addition to affidavits of service and publication for notices and for EM&CP documents will be provided under separate cover as soon as they become available.



## 2.0 Certificate Condition Compliance Matrix

\*Conditions not applicable to this EM&CP are colored with *light-grey text*.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
A. General Conditions of the Order			
1	Subject to the Conditions set forth in this Opinion and Order, CHPE, LLC and CHPE Properties, Inc. ("Certificate Holders"), are granted a Certificate of Environmental Compatibility and Public Need ("Certificate"), pursuant to Article VII of the New York Public Service Law ("PSL"), authorizing the construction and operation of an electric transmission facility comprised of the following components: (i) two high-voltage direct current ("HVDC") cables capable of transmitting 1,250 megawatts ("MW") extending from the United States/Canada border east to the Town of Champlain, New York under the waters of Lake Champlain to the Town of Putnam, New York, extending to the hamlet of Cementon in the Town of Catskill, New York where the cables will exit the water to proceed along existing highways and railroad Right-of-Way (ROW), as well as under state park land through Horizontal Directional Drill ("HDD") borings, to bypass Haverstraw Bay, reentering the Hudson River at Hook Mountain State Park in Clarkstown, New York and continuing in the waters of the Hudson and Harlem Rivers to a point south of the Willis Avenue Bridge and north of the Bronx Hill, following the railroad ROW in the Bronx and then across the East River to terminate at Astoria, Queens ("the HVDC Line"); (ii) a voltage source converter station to convert HVDC to high voltage alternating current ("HVAC") be constructed at Astoria, Queens, that will be connected to the New York Power Authority ("the Authority" or "NYPA") 345 kilovolts (kV) HVAC ("GIS") Substation (the "Converter Station" and, collectively with the HVDC Line, the "HVDC Transmission System"); and (iii) a HVAC cable circuit extending from NYPA's 345 kV GIS Substation at Astoria, Queens to Con Edison's 345 kV Rainey Substation located on the corner of 36th Avenue and Vernon	CHPE will comply.	See Section 3.0 (Facility Location and Description).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Boulevard in Queens, New York (the "Astoria-Rainey Cable" and, collectively with the HVDC Transmission Line System, the "Facility"). [As Amended by Certificate Amendment 2 (Aug. 13, 2020, authorizing use of Preferred Alternatives), Amendment 3 (Jan. 26, 2021, modifying certain routing in the Harlem River Yard in New York City and augmenting Deviation Zone for Rockland County locations), Amendment 4 (May 14, 2021, increasing capacity from 1,000 to 1,250 MW), and Amendment 5 (Feb. 17, 2022, making certain modifications to Facility components in the Astoria complex)].		
2	The Facility route is authorized as depicted on a series of maps included in Appendix B to the Joint Proposal. [As Amended by Certificate Amendment 2 (Aug. 13, 2020, authorizing use of Preferred Alternatives), Amendment 3 (Jan. 26, 2021, modifying certain routing in the Harlem River Yard in New York City and augmenting Deviation Zone for Rockland County locations), and Amendment 5 (Feb. 17, 2022, making certain modifications to Facility components in the Astoria complex)].	CHPE will comply.	See Section 3.0 (Facility Location and Description).
3	The Facility is defined geographically by a deviation zone ("Allowed Deviation Zone") around a nominal centerline (the "Centerline"), as depicted in Appendix B to the Joint Proposal. For the portion of the Facility located on land, the Allowed Deviation Zone is depicted in Appendix B to the Joint Proposal. For the portions of the HVDC Transmission System located in Lake Champlain and the Hudson, Harlem, and East Rivers, the Allowed Deviation Zone is as specified in CC 155.	CHPE will comply.	See Section 3.0 (Facility Location and Description).
4	Those portions of the Allowed Deviation Zone that may be affected by construction of the Facility are included in the Construction Zone ("Construction Zone"), which may also include areas outside the Allowed Deviation Zone that are needed temporarily for site investigation, access, and construction.	CHPE will comply.	See Section 3.0 (Facility Location and Description).
5	The portions of the Allowed Deviation Zone to be occupied by the Facility once construction is complete are referred to herein as the Facility ROW. The Certificate Holders shall also acquire and maintain the continuing right to enter onto and use certain	CHPE will comply.	See Section 3.0 (Facility Location and Description).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	additional lands immediately adjacent to the Facility ROW needed for repair and maintenance purposes, including preclusion of vegetative encroachment, on terms prohibiting the owners of such land from taking any action on that land that would interfere with such repair and maintenance activities.		
6	The Facility may be developed in segments (each, a "Segment") to facilitate construction sequencing and scheduling, including the commencement of construction of overland components thereof, provided that, with the Environmental Management and Construction Plan ("EM&CP") filing regarding the first Segment, the Certificate Holders shall identify the anticipated Segments and include a schedule for their construction, and, provided further that the EM&CP filings regarding subsequent Segments shall include updates to the Segment identification and construction schedule.	CHPE complied in connection with first Segment EM&CP submission on April 15, 2022 (DMM Item 862).	See Section 1.0 (Introduction) and Table 1.1.
7	In the event of any conflict between the express provisions of this Certificate and any of the provisions of the Joint Proposal, including the Best Management Practices document ("BMPs") and the Environmental Management and Construction Plan Guidelines document ("EM&CP Guidelines"), both of which are attached as appendices to the Joint Proposal, the express provisions of this Certificate shall govern.	CHPE will comply.	No further discussion provided.
8	The Certificate Holders shall, within thirty (30) days after Commission approval of this Certificate, file with the Secretary to the Public Service Commission ("Commission") either a petition for rehearing or a verified statement that they accept and will comply with this Certificate. Failure to comply with this condition shall invalidate this Certificate.	CHPE has complied (see Document Matter Master [DMM] Item 727).	No further discussion provided.
9	The Certificate Holders shall not commence site preparation or construction of a particular Segment unless and until all the necessary permits and consents referred to in Certificate Condition 16 that pertain to that Segment are received and unless and until the EM&CP for that Segment (each such EM&CP filing for a particular Segment being referred to as a "Segment EM&CP") is approved by the Commission. Copies of all permits/consents required for or obtained in connection with	CHPE will comply. All permits/consents required for or obtained in connection with site preparation and construction shall be provided to the	No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	site preparation and construction shall be provided to the Secretary to the Commission ("Secretary") before commencement of any such activity. For the purposes of this Certificate, "construction" shall include site preparation, installation, delivery of equipment and supplies, maintenance of construction equipment during construction, clearing, and grading, but shall not include component manufacture, including cable manufacture.	Secretary before commencement of any activity requiring such permits.	
10	The Certificate Holders shall not commence work on any Segment until they shall have obtained all required interests in real estate, including interests in real estate to be used for access roads (whether obtained through a conveyance, consent, permit, or other approval) as are necessary and applicable for such Segment. Evidence of the obtaining of such interests shall be provided to the Secretary prior to commencement of the work.	CHPE will comply. Evidence of the obtaining of such interests shall be provided to the Secretary prior to commencement of the work.	No further discussion provided.
11(a)	The Certificate Holders shall not place transmission cable in any waterway, trench, conduits, or other location intended for permanent installation prior to the issuance of (i) by appropriate Canadian federal and/or provincial authorities of those approvals and permits necessary in order to allow for the construction of transmission facilities interconnecting with the bulk power system operated by TransÉnergie (or a successor to such organization) and extending to the New York border; (ii) by the United States Department of Energy (DOE) of an approval pursuant to Executive Orders 10485 and 12038 (the "Presidential Permit"); and (iii) by the United States Army Corps of Engineers (USACE) of permits pursuant to section 404 of the Federal Clean Water Act and section 10 of the Federal Rivers and Harbors Act (the "Corps Permit"). The Certificate Holders shall provide copies of said permits to the Secretary within fifteen (15) days of receipt. In no event shall a delay or failure to obtain any of the above-referenced approvals serve as occasion or justification for a deferral or alteration of any and all required state clean-up and restoration activities as set forth in the applicable Environmental Management and Construction Plan and relevant sections of this Certificate and the Best	CHPE has complied (see DMM items 755 and 756) and will comply for those approvals not yet obtained.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Management Practices (BMPs), including, without limitation, section 11 of the BMPs [as Amended by Order Approving Amendment Issued Sept. 21, 2020]		
11(b)	Work shall advance generally in accordance with the schedule of gating events as described in Appendix 1 [This Appendix was attached the Order Approving Amendment Issued Sept. 21, 2020];	CHPE will comply.	See Section 1.0 (Introduction) and Table 1.1.
11(c)	The Certificate Holders shall provide reports to the Commission regarding the status of efforts to achieve certifications and approvals of upstream facilities in Canada every six months from the date of this Order until the certifications and approvals are obtained. In the event that Hydro Quebec-TransÉnergie is unable to achieve certification in Canada, the Certificate Holders shall (i) notify the Secretary; and (ii) stop work in New York State and initiate stabilization of disturbed sites, and (iii) undertake restoration of any sites not previously restored, as set forth in the applicable EM&CP and relevant sections of this Certificate and the BMPs, including, without limitation, section 11 of the BMPs. [as amended by Order Approving Amendment Issued Sept. 21, 2020]	CHPE will comply. Reports have been filed periodically to DMM as required since this provision was Ordered on Sept. 21, 2020, most recently on Sept. 30, 2022 (DMM Item 898).	No further discussion provided.
12	The Certificate Holders shall promptly notify the Secretary in writing should they decide not to complete construction of all or any portion of the Facility and shall serve a copy of such notice upon all parties to this proceeding.	CHPE will comply.	No further discussion provided.
13	This Certificate may be vacated on notice to the Certificate Holders if (a) the Certificate Holders have not submitted the EM&CP or the initial Segment EM&CP to the Commission for its review within twelve (12) months of the date upon which Certificate Holders have received all permits and approvals required for the commencement of construction of the Facility from any and all governmental agencies and authorities having jurisdiction with respect thereto, and any finding made or action taken by any such agency or authority that is subjected to administrative and/or judicial review has been conclusively upheld as a result of such review, or the time period for the initiation of any such review has definitively expired, or (b),	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	unless reasonable cause as defined in this Condition is shown, the Certificate Holders have not commenced construction of the Facility on or before the date that is six (6) months following the approval by the Commission of the EM&CP for the initial Segment EM&CP submitted to the Commission, or the date that is eighteen (18) months following the date of the grant of this Certificate, whichever is later. Reasonable cause may include delays in the issuance of permits and approvals required for the Facility by federal agencies and other circumstances beyond the reasonable control of the Certificate Holders.		
14	The Certificate Holders shall integrate and coordinate maintenance of the Facility with that of adjacent facilities, structures, and property in accordance with the EM&CP.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
15(a)	The Certificate is granted and the required determinations of the need for the Facility and that the Facility will serve the public interest, convenience and necessity are explicitly made contingent on Certificate Holders delivering a minimum of 1,550 MW of energy (including 550 MW of energy not flowing through the HVDC Transmission System) out of NYPA's Astoria substation. The Certificate Holders shall file a report documenting how they will achieve this level of deliverability prior to, or at the time they file their EM&CP for the first segment of the Facility. If the Certificate Holders cannot demonstrate compliance with this deliverability requirement, the Certificate Holders shall file with the Secretary a Request for Reconsideration of the need and public interest, convenience and necessity determinations made with respect to the Facility. The request shall be served on all parties to this proceeding and shall clearly state that all parties may submit comments on the filing within thirty (30) days of service. Such request shall explain why Certificate Holders believe that a lesser amount of energy deliverability is consistent with the Commission's findings that the Facility is needed and will serve the public interest, convenience and necessity. Such request shall include a discussion of each option the Certificate Holders considered as a means of achieving the minimum threshold level of deliverability. The Certificate Holders may not commence	CHPE has complied (see DMM items 843 and 881), as affirmed in the Order Approving Segment 1 and 2 EM&CP, Ordering Clause 2 (October 13, 2022) (DMM Item 903).	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	construction of the Facility unless and until the Commission has accepted the report or approved the request filed pursuant to this subpart.		
15(b)	<p>The Certificate is granted and the required determination that the Facility will serve public interest, convenience and necessity is explicitly made contingent on the HVDC Transmission System being developed, financed, constructed, and operated on a merchant basis with no reliance on cost-of-service rates set by either a federal or state regulatory entity, and will not be included in utility rate base, either directly or through a contractual arrangement between Certificate Holders and any agency, authority or other entity of the State of New York, any municipal subdivision of the State of New York, any utility subject to cost-based regulation, or any instrumentality of any of the foregoing, and on the further condition that all costs associated with the use of Astoria-Rainey Cable to deliver electric energy and capacity transmitted over the HVDC Transmission System will also be recovered exclusively on a merchant basis with no reliance on cost-of-service rates set by either a federal or state regulatory entity, and will not be included in utility rate base, either directly or through a contractual agreement between Certificate Holders and any agency, authority or other entity of the State of New York, any municipal subdivision of the State of New York, any utility subject to cost-based regulation, or any instrumentality of any of the foregoing. Prior to, or at the same time they file their EM&amp;CP for the first segment of the Facility, the Certificate Holders shall file a report documenting that they have received building contractual commitments from one or more financially responsible entities for a combined total of no less than 750 MW of Firm Transmission Service over the Facility for a period of no less than twenty-five (25) years. The Certificate Holders may not commence construction of the Facility unless and until the Commission has accepted this report. In the event that Certificate Holders seek to recover any of the costs of the HVDC Transmission System, or any of the costs associated with the use of the Astoria-Rainey Cable to deliver electric</p>	<p>CHPE has complied. CHPE LLC executed a Firm Electric Transmission Rights Purchase Agreement (TRA) with H.Q. Energy Services (U.S.) Inc. (HQUS) on Nov. 29, 2021. Pursuant to the TRA, HQUS is contracted for 100% of the transmission line capacity (1,250MW). Further, a proposed 25-year contract between HQUS and NYSERDA for 1,250 MW to be delivered from Quebec to the City of New York over the CHPE line was approved by Order of the Commission on April 14, 2022, in Case 15-E-0302 (DMM Item 993, <i>Order Approving Contracts for the Purchase of Tier 4 Renewable Energy Certificates</i>).</p>	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	energy and capacity transmitted over the HVDC Transmission System, in cost-based rates set by a Federal or State regulatory authority, the Certificate shall be deemed invalid. In the event that the Certificate Holders recover all of any part of the costs of the HVDC Transmission System, or any of the costs associated with the use of the Astoria-Rainey Cable to deliver electric energy and capacity transmitted over the HVDC Transmission System, under a contract between Certificate Holders and any agency, authority or other entity of the State of New York, any municipal subdivision of the State of New York, any utility subject to cost-based regulation, or any instrumentality of any of the foregoing, the Certificate shall also be deemed invalid. For purposes of this provision, the term "rates" shall include any charges established by NYPA or a utility operating under cost-based regulation, including without limitation base rates, surcharges, adjustments, or any other recovery mechanism.		
15(c)	The Certificate is granted and the required determination that the Facility will serve public interest, convenience and necessity is explicitly made based on the cost estimate for the Astoria-Rainey Cable set out in paragraph 23 of the Joint Proposal in this proceeding. Certificate Holders shall include as part of their EM&CP for the Astoria-Rainey Cable a report providing an updated construction cost estimate for the Astoria-Rainey cable, including supporting documentation. If the updated cost estimate exceeds the cost estimate in the evidentiary record of this proceeding by ten (10) percent or more, the Certificate Holders shall file with the Secretary a Request for Reconsideration of the determination of public interest, convenience and necessity made with respect to the Facility. The request shall be served on all parties to this proceeding and shall clearly state that all parties may submit comments on the filing within thirty (30) days of service. Such request shall explain how such increased cost would be consistent with the Commission's public interest, convenience and necessity determination made in this proceeding.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
15(d)	Upon commencement of construction, the Certificate Holders shall file with the Secretary monthly reports showing the costs	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	for the Astoria-Rainey Cable as they occur, broken out as follows: excavation costs, traffic control costs, cable installation costs, splicing costs, thermal back fill, manhole and vault costs, costs relating to damage to other facilities (gas, electric, telephone, fiber optic cables, sewer, water, etc.), engineering costs, inspector costs, fines, cable costs, and all other costs by category. The reports shall include the names of the individuals responsible for providing the information, along with their contact information, and shall contain all supporting documentation.		
15(e)	Subject to the limitations of 15(b), nothing contained in this Certificate shall be construed as affecting in any way the rights of Certificate Holders to unilaterally make application to the Federal Energy Regulatory Commission ("FERC") for a change in rates, terms and conditions, charges, classification of service, Service Agreement, rule or regulation under section 205 of the Federal Power Act ("FPA") and pursuant to FERC's rules and regulations promulgated thereunder.	CHPE will comply.	No further discussion provided.
<b>B. Laws and Regulations</b>			
16	Each substantive federal, state, and local law, regulation, code, and ordinance applicable to the Facility authorized by this Certificate shall apply except as set forth in Condition 17 below and except and to the extent that the Commission has refused to apply any substantive local ordinances, laws, resolutions, or other actions issued thereunder or local standards or requirements, as being unreasonably restrictive as listed in the Revised and Updated Exhibit 7 to the Application (see Exhibit 115 to the Joint Proposal) [As Amended by Amendment 2 (Aug. 13, 2020) authorizing additional waivers for Preferred Alternative routing]	CHPE will comply.	No further discussion provided.
17	No State or municipal legal provision purporting to require any approval, consent, permit, certificate, or other condition for the construction or operation of the Facility authorized by this Certificate shall apply, except (i) those of the PSL and regulations and orders adopted thereunder, (ii) those provided by otherwise applicable state law for the protection of	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	employees engaged in the construction and operation of the Facility, (iii) those regarding permits issued pursuant to federally approved authority, (iv) those regarding the right to use or occupy state or municipal property (including ROW), and (v) those discussed in Condition 18 below.		
18	Subject to the Commission's ongoing jurisdiction, the Certificate Holders shall apply for certain local regulatory permits and approvals, to wit:	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
18(a)	The following City of New York ("CNY") regulatory permits and approvals that would be applicable to construction and operation of those portions of the Facility located within the boundaries of CNY in the absence of PSL § 130: building permits, street excavation permits, street closure permits, permits for structural welding, permits under the CNY Fire Code, permits under the CNY Construction Codes and Electrical Code, permits for the discharge of wastewater and stormwater to CNY's sewer system, permits for the use and supply of water, and forestry permits.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
18(b)	If the Certificate Holders believe that any action taken, or determination made, in connection with the permits and approvals referenced in subpart (a) of this Certificate Condition is unreasonable or unreasonably delayed, they may petition to Commission, upon reasonable notice to the permitting authority, to seek a resolution of any such unreasonable requirement or unreasonable delay. The permitting authority may respond to the petition, within ten (10) business days, to address the reasonableness of any requirement or delay.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
19	The Certificate Holders shall construct the Facility in a manner that conforms to Good Utility Practice, as herein defined, and all applicable standards of the American National Standards Institute ("ANSI") including, without limitation, the National Electrical Safety Code ("NESC"), Institute of Electrical and Electronics Engineers ("IEEE"), Standard IEEE C2-2002, and any stricter standards adopted by the Certificate Holders. Upon completion thereof, the Certificate Holders shall certify to the	CHPE will comply.	No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Commission that the Facility was constructed in full conformance with the standards specified herein.		
20	For the purposes of this Certificate, "Good Utility Practice" shall include any of the practices, methods or acts engaged in or approved by a significant portion of the electric, gas, steam, water, sewer or telecommunications industries, as applicable, during the relevant time period, including without limitation, the electric, gas, steam, water, sewer or telecommunications utility or utilities whose service territories the work in question is being performed and/or whose facilities are physically impacted by the work in question and, for the electric power industry only, the New York Independent System Operator ("NYISO"), the New York State Reliability Council ("NYSRC"), the Northeast Power Coordinating Council ("NPCC"), the North American Reliability Corporation ("NERC") and the North American Electric Reliability Organization ("NAERO") or any successor organizations. Good Utility Practice shall include any of the practices, methods, or acts in which, in the exercise of reasonable judgement in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to delineate acceptable practices, methods, or acts generally accepted in the region, such as, in the case of the electric power industry only, those practices required by FPA Section 215(a)(4).	CHPE will comply.	No further discussion provided.
<b>C. HVDC-AC Converter Station Design, Interconnection and Construction</b>			
21	The Converter Station shall be located entirely on and within Subdivision Parcel A as shown on Hearing Exhibit 130 along Luyster Creek in the Astoria neighborhood of the borough of Queens ("Subdivision Parcel A"), a copy of which is annexed to these Certificate Conditions. The Certificate Holders shall be responsible for the cost of protecting or relocating any utility infrastructure during or as a result of construction activity by	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	them in Subdivision Parcel A. The Certificate Holders may not use, occupy or take (by condemnation or otherwise) any other real property owned or occupied by Con Edison at Astoria for the Converter Station, a ring bus and related facilities that are required to complete the Facility without Con Edison's prior written consent.		
22(a)	The tallest building serving as part of the Converter Station shall not exceed seventy (70) feet in height above finished grade, as defined below, and the tallest support tower shall not exceed seventy (70) feet above finished grade. The finished grade shall be the grade at the elevation of the 100-year floodplain, and such additional minimal fills as necessary to provide drainage of the site. The height and arrangement of all station facilities shall be indicated in the EM&CP site plan discussed in Section 1(A) of the EM&CP Guidelines.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
22(b)	The Converter Station shall be designed to minimize visibility and visual impacts.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
22(c)	The Converter Station shall use materials that minimize glare and that are neutral in color. The design shall also include appropriate landscaping at the site.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
22(d)	Maintenance and enhancement of the shoreline area vegetative cover between the Converter Station site and the Luyster Creek waterway shall be addressed in the final site plan and station maintenance plans.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
22(e)	Exterior night lighting of the Converter Station shall be designed to provide illumination necessary for worker safety and site security purposes, giving full consideration to energy conservation, glare, and the minimization of light trespass. All such lighting shall be selected and installed to shield the lamp filaments from direct view to the greatest extent possible, which may include the use of full-cutoff fixtures without drop-down optics, use of task lighting for maintenance purposes where feasible, and minimizing upward lighting. Lighting shall comply with worker safety requirements.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
22(f)	If Con Edison moves forward with its recently announced plan to interconnect a PAR to NYPA's 345 kV Astoria GIS Substation,	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	the Converter Station may also include a four breaker 345 kV GIS ring bus, which ring bus, if owned and operated by Applicants, shall be located entirely on Subdivision Parcel A and shall be interconnected at 345 kV to the Astoria-Rainey Cable, NYPA's Astoria GIS Substation and the Converter Station as described in hearing Exhibit 125 to the Joint Proposal.		
23	The EM&CP Site Plan for the Converter Station site shall include the following:	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
23(a)	a site plan of sufficient detail to demonstrate conformance with the requirements of this Certificate, the Noise Mitigation Procedures of the CNY, and the EM&CP guidelines.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
23(b)	construction drawings including architectural, structural, HVAC, mechanical, electrical, plumbing and fire protection plans for all structures, which drawings shall have been prepared by an architect or engineer licensed by the State of New York and in conformance with the code requirements of the CNY.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
23(c)	a review of the sound emissions characteristics of the high-voltage transformers selected for final project design, including typical and maximum noise levels generated at associated operating levels; and a tonal analysis based on one-third octave bands to determine the potential for tonal sound generation, including pure tones.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
23(d)	an exterior lighting plan based on illumination requirements for worker safety, which limits off-site glare.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
24	In developing the site plan for the Converter Station, Certificate Holders shall consult with New York State Department of Public Service ("DPS") Staff and the CNY, and share preliminary drawings of foundations, elevations, renderings, stormwater control, and noise control measures, as they become available. Not later than thirty (30) days prior to the date by which Certificate Holders expect to file the EM&CP segment for the Converter Station, they shall file with the same parties a preliminary site plan of sufficient detail to address relevant requirements of this Certificate and the EM&CP guidelines, for their review and comment.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
25	Prior to commercial operation of the Converter Station, the Certificate Holders shall obtain from CNY a certificate of occupancy covering the Converter Station. A copy shall be provided to the Secretary.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
26	The Converter Station shall have a 345 kV connection to the Astoria Annex GIS Substation [as amended by Amendment 5 dated Feb. 17, 2022].	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>D. Special Conditions Regarding Co-Located Infrastructure and Related Matters</b>			
27	The Certificate Holders shall engineer, construct, and install the Facility so as to make it fully compatible with the continued operation and maintenance of Co-located Infrastructure ("CI"), as herein defined, and affected railroads, railways, highways, roads, streets, or avenues. CI shall consist of electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground, or submerged that:	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
27(a)	are located within the Construction Zone approved in the EM&CP for the Facility or a proposed Construction Zone as provided for in Certificate Condition 28(d); and	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
27(b)	are either owned by a State agency or municipality or a subdivision thereof or owned or operated for public utility purposes by a regulated electric, gas, telecommunication, water, wastewater, sewer, or steam service provider;	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
27(c)	but do not include railroads, railways, highways, roads, streets, or avenues.	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
28	In order to protect CI, Certificate Holders shall:	See below.	See below.
28(a)	within sixty (60) days of Commission issuance of a Certificate, consult with the owners and/or operators of all known electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground or submerged, other than railroads, railways, highways, roads, streets and	CHPE has complied.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	avenues, located either: (i) within the Allowed Deviation Zone, (ii) within three hundred (300) feet of any location outside the Allowed Deviation Zone where Certificate Holders intend to undertake any pre-construction activities; or (iii) sufficiently close to areas of anticipated pre-construction activities such that Good Utility Practice, as defined in Condition 20 of this Certificate, requires discussion of the impacts of such pre-construction activities between Certificate Holders and the owners and/or operators of such facilities ("Potential CI"). Such consultations shall include discussion of the likely routing of the Facility and the measures that will be employed by Certificate Holders to protect CI, including the studies required by the exercise of Good Utility Practice regarding the manner in which the Facility will be designed and installed wherever they are expected to cross CI or are expected to come in such proximity to CI that Good Utility Practice would require a specific design to be developed. All agreements and requirements resulting from this consultation shall be reflected in the proposal prescribed in subsection (d) of this Condition and the notice prescribed in subsection (e) of this Condition; and		
28(b)	within sixty (60) days of Commission issuance of a Certificate, begin the process of consulting with the owners and/or operators of Potential CI to develop a construction schedule for the Facility that, among other things, coordinates system outage requirements, if any, and avoids conflicts with the internal construction programs of each affected owner and/or operator. This consultation shall continue throughout each phase and portion of the construction of the Facility that affects any CI or Potential CI, as applicable. As a part of this consultation, the Certificate Holders will identify to a reasonable degree of certainty the appropriate representative of the party, whether owner or operator, having primary care, custody, and control of a particular segment of Potential CI or CI (each such a representative being a "Designated Representative"). All agreements and requirements resulting from this consultation shall be reflected in the proposal prescribed in subsection (d) of	CHPE has complied.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	this Condition and the notice prescribed in subsection (e) of this Condition and in the Certificate Holders' EM&CP; and		
28(c)	comply with all procedures identified by the Designated Representative(s) of the owners and/or operators of such CI or Potential CI, including, without limitation, application procedures and compliance with requirements for obtaining relevant rights, permission, permits, or authorization, whenever the Certificate Holders seek to undertake any studies, surveys, testing, sampling, preliminary engineering, pre-construction, construction, operation, maintenance, or repair activities that involve CI or Potential CI, except in cases where such actions must be taken on an expedited basis to protect the public or to ensure reliable operation of the Facility, whereupon Certificate Holders shall provide such Designated Representatives with such notice and obtain such approvals as is reasonable under the circumstances, and except where such procedures are subject to the Commission's jurisdiction and the Commission or its designee finds such procedures to be unreasonable or unduly restrictive. Notwithstanding the foregoing, the Certificate Holders shall not be required to comply with the requirements of subsection (c) of this Condition for the transport or travel over or under CI or Potential CI by the Certificate Holders and their agents, employees, and Contractors where such CI or Potential CI is located in, over, or under public waterways, roads, streets, highways, or railroad ROW, unless such transportation would be subject to special approval by state and/or local authorities due to the size or weight of load(s) transported; and	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
28(d)	provide to the owner(s) and operator(s) of Potential CI or CI, at least one hundred-and-eighty (180) days prior to the filing of the relevant Segment EM&CP, a proposal for the location and design of the Facility (including a proposed Construction Zone) and the methods of construction to be employed with respect to all locations involving CI ("Proposal"). The Certificate Holders' Proposal must include all studies, calculations, tests, results, explanations, protocols, drawings, proposed construction schedules, and documents developed through the consultations described in subsections (a) and (b) of this Condition, other	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	documentation identified in Condition 162, and any other information that supports the proposal. To the extent that any such Proposal addresses CI that was not previously identified as Potential CI, the Certificate Holders shall conduct the consultations described in subsections (a) and (b) of this Condition 28 with the Designated Representative(s) of the owner(s) or operator(s) of such CI and shall perform all other activities required by such paragraphs with respect to such CI in as reasonably expeditious a manner as possible and shall provide any resulting studies, calculations, tests, results, explanations, protocols, drawings, proposed construction schedules, and documents to the appropriate Designated Representative in a timely fashion; and		
28(e)	advise owner(s) and operator(s) of CI at least thirty (30) days prior to commencing any planned repair, construction, operation, or maintenance activity relating to the Facility affecting or occurring in the vicinity of such owner's or operator's CI, unless such actions must be taken in less than thirty (30) days to protect the public or to ensure reliable operation of the Facility, whereupon Certificate Holders shall provide such notice as is reasonable under the circumstances; provided that, in any event, "vicinity" with respect to CI used to transmit or distribute natural gas shall mean all areas within two hundred (200) feet thereof and with respect to all other CI shall mean all areas within one hundred (100) feet thereof; and	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
28(f)	immediately upon knowledge or discovery of any damage to or adverse effect on any CI or Potential CI resulting from any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, construction, operation, maintenance, or repair of the Facility, report to the owners and operators of the affected CI or Potential CI the nature and existence of such damage or effect and other known facts relating to the cause thereof; and	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
28(g)	notify the owners or operators of CI or Potential CI as soon as possible in the event of any situation involving imminent risk to health, safety, property, or the environment requiring the Certificate Holders to cross such CI or Potential CI or to use any	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	associated property to address the emergency. Such notice shall not be required for the transport or travel over or under CI or Potential CI by the Certificate Holders or their agents, employees, or Contractors where such CI or Potential CI is located in, over, or under public waterways, roads, streets, highways, or railroad ROW unless such transportation would be subject to special approval by state and/or local authorities due to the size or weight of load(s) transported; and		
28(h)	include within any Project Segment EM&CP filing relating to the Astoria-Rainey Cable a study demonstrating that the proposed installation of the Astoria-Rainey cable will have not have a negative impact on the continued operation of any Parallel CI. A draft of that study will be included in the materials that Certificate Holders are required to provide to the owner or operator of such CI pursuant to CC 28(d) and will be subject to review and comment as provided therein. For purposes of this subsection, Parallel CI means electric transmission facilities that are located in the same public ROW and are generally parallel to the Astoria-Rainey Cable.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
29	Reimbursement of Owners or Operators of CI and/or Potential CI for Certain Expenses:	See below.	See below.
29(a)	<p>Subject to the provisions of subsections (b) and (c) of this Condition, the Certificate Holders shall reimburse owners and/or operators of Potential CI or CI for the reasonable costs they incur in the following activities:</p> <ol style="list-style-type: none"> <li>1. consulting with Certificate Holders as described in CC 28 (a) and (b).</li> <li>2. reviewing pre-construction activities, designs, construction methods, maintenance, and repair protocols, and means of gaining access to Potential CI or CI proposed by Certificate Holders.</li> <li>3. reviewing studies and design proposals described by Condition 28(d) and the EM&amp;CP filings described in CC 162.</li> <li>4. conducting or preparing such additional studies and designs as may be agreed to by Certificate Holders or</li> </ol>	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	<p>approved by the Commission pursuant to Condition 29(a)(3).</p> <p>5. coordinating with, and monitoring the activities of, the Certificate Holders during pre-construction activities, construction, maintenance, and repair of the Facility.</p> <p>6. conducting maintenance and repair work on CI property or facilities, but only to the extent of increases in such costs that result from the presence of the Facility.</p> <p>7. repairing damage to Potential CI or CI or associated property caused by Certificate Holders or their representatives in connection with any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, construction, operation, maintenance, or repair of the Facility.</p> <p>8. scheduling and implementing electric system outages required by any studies, surveys, testing, sampling, preliminary engineering, preconstruction activities, construction, operation, maintenance, or repair of the Facility.</p>		
29(b)	For the purposes of this CC 29, cost shall be deemed to be reasonable if in the case of each separate review of a study or design proposal described in subsection (a)(3) of this Certificate Condition, the total cost to be borne by the Certificate Holders is five thousand dollars (\$5,000) or less.	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
29(c)	Certificate Holders' cost responsibility is limited as follows: a Potential CI or CI owner or operator who intends to incur costs as described in subsection (a) of this Certificate Condition 29 for which reimbursement will be sought for activities other than reviewing a study or design proposal described in subsection (a)(3) of this Certificate Condition 29, or for reviewing such a study or design proposal but in an amount greater than five thousand dollars (\$5,000), must provide Certificate Holders with a written description of the scope of the planned studies or activities and a good faith estimate of the expected costs, except where such studies or activities are undertaken in a situation involving unscheduled electric outages or an imminent risk to health, safety, property, or the environment, in which	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	case Certificate Holders' reimbursement obligations shall be limited to reasonably incurred costs. Within sixty (60) days of the expenditure by the owners and/or operators of affected Potential CI or CI of any funds which are eligible for reimbursement by the Certificate Holders under this Certificate, the Potential CI or CI owner or operator shall present Certificate Holders with a final invoice for the actual costs incurred, but not to exceed twenty-five percent (25%) over the good faith estimate unless approved by Certificate Holders in advance in writing or, in the case of a dispute between the Certificate Holders and the Potential CI or CI owners or operators, by the Commission. Certificate Holders shall pay the authorized invoice amount within thirty (30) days of receipt.		
29(d)	Disputes concerning the Certificate Holders' cost reimbursement responsibility shall be brought to the Commission for resolution. The time required to resolve any dispute arising under this CC 29 shall not be counted for the purpose of any limitation on the time available for commencement or completion of construction of the Facility.	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
<b>E. Public Health and Safety</b>			
30	The Certificate Holders shall design, engineer, and construct the Facility such that, to the extent applicable, their operation shall comply with the interim electrostatic field standard established by the Commission in Opinion No. 78-13 (issued on June 19, 1978 in Cases 26529 and 26559) and the limit for magnetic fields set in the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued on September 11, 1990 in Cases 26529 and 26559) or with any standard that has superseded these standards at the time of consideration by the Commission of the EM&CP or a particular Segment EM&CP.	CHPE will comply. With regard to the EMF calculations for the Facility, see Exhibits B, C and D and Appendix A and B to the Certificate Holders' January 29, 2021 Petition for an Amendment to Certificate of Environmental Compatibility and Public Need (DMM Item 819).	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
31	Construction work occurring inside the boundaries of the CNY and outside the walls of buildings whose exterior walls and roof are substantially complete shall take place between 7:00 a.m. and 6:00 p.m. as required by Section 24-222 of the CNY City Administrative Code. For certain construction phases and activities, additional work hours may be necessary. Nothing herein shall preclude the Certificate Holders from making necessary arrangements for the extension of additional work hours with appropriate authorities of the CNY. Noise mitigation procedures shall follow those set forth in the approved EM&CP and shall not be less stringent than the citywide Construction Noise Mitigation Procedures provided by the CNY. DPS Staff shall be notified at least twenty-four (24) hours in advance if planned weekend, evening, or holiday construction becomes necessary. This condition is not intended to prohibit nighttime construction reasonably necessary to comply with restrictions on daytime construction on or along roadways or public access areas or to require the cessation of construction activities that require a continuous work effort once started. Furthermore, construction vehicles used in CNY will be outfitted with smart back up alarms.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
32	Deliveries occurring inside the boundaries of the CNY and related to construction activities shall take place between 7:00 a.m. and 6:00 p.m., except that, to the extent required to accommodate oversized delivery pursuant to a New York City Department of Transportation ("NYCDOT") permit, the Certificate Holders shall be exempt from restrictions limiting delivery to 7:00 a.m. to 6:00 p.m. This condition is not intended to prohibit nighttime deliveries reasonably necessary to facilitate compliance with restrictions on daytime construction in or along roadways or public access areas or to require the cessation of construction activities that require a continuous work effort once started.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
33	The Certificate Holders shall provide timely information to adjacent property owners and/or their tenants regarding planned construction activities and schedules. The Certificate Holders shall notify these persons of construction work within one	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	hundred (100) feet of their property at least two (2) weeks prior to the commencement of construction in these areas and provide copies of all correspondence to the DPS Staff.		
34	The Certificate Holders shall keep local fire department and emergency management teams apprised of on-site chemicals and waste and shall also advise owners and operators of CI as to on-site chemicals and waste stored within one hundred (100) feet of their CI. In the case of CI located within the CNY, the Certificate Holders shall advise CI owners and operators of on-site chemicals and waste stored within three hundred (300) feet of such facilities. All chemicals shall be secured in a locked and controlled area(s).	CHPE will comply.	No further discussion provided.
35	The Certificate Holders shall notify DPS Staff and the New York State Department of Environmental Conservation ("NYSDEC") immediately of any petroleum product spills. The Certificate Holders shall also notify owners and operators of CI of any petroleum product spills within one hundred (100) feet of their CI, provided however that in the case of CI located within CNY, the Certificate Holders shall advise CI owners and operators of petroleum product spills within three hundred (300) feet of such facilities	CHPE will comply.	See Section 6.0 (Pollution Prevention), Appendix E (CMI Installation Manual), and Appendix J (Spill Prevention Plan/Spill Response Plan).
36	The Certificate Holders shall comply with the requirements for the protection of underground facilities set forth in 16 N.Y.C.R.R. Part 753, entitled "Protection of Underground Facilities."	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure).
37	Parking for construction workers shall be in designated areas that do not interfere with normal traffic, cause a safety hazard, or interfere with existing land uses, including CI.	CHPE will comply.	Parking for workers will be available at marinas used during the matting operation. See Section 3.1.4, Construction Access.
38	Direct disturbance to properties shall be avoided by accessing the overland Construction Zone from existing roadways or approved access roads where feasible. The Certificate Holders, in undertaking the Facility, shall not violate the property rights of individual landowners and shall not commit trespass upon their lands. Before the Certificate Holders attempt to enter private property that they do not have the legal right to enter, they shall	CHPE will comply.	Not applicable to this EM&CP Segment.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	first obtain the permission of the landowner and shall abide by all conditions on such permission that the landowner may impose. If the Certificate Holders rely on a document as evidence of their easement or other right to access land owned in fee by an individual landowner, they shall provide a copy of such document to the landowner upon his or her request.		
39	For each location where the Facility involves construction across or within the ROW limits of a road, street, highway or public thoroughfare, the Certificate Holders shall implement a Maintenance and Protection of Traffic ("MPT") plan that identifies procedures to be used to maintain traffic and provide a safe Construction Zone for those activities within the roadway ROW. The Certificate Holders shall also prepare MPT plans for each location where construction vehicles will access the Construction Zone from a local roadway. The MPT plans shall address temporary signage, lane closures, placement of temporary barriers, and traffic diversion.	CHPE will comply.	Not applicable to this EM&CP Segment.
39(a)	All signage utilized shall comply with the New York State Department of Transportation ("NYSDOT") Manual of Uniform Traffic Control Devices (Manual No. 7155) and, within State highway ROW, a Highway Work Permit issued by NYSDOT. Placement of signs shall be determined in consultation with the jurisdictional agency. At a minimum, signs shall be placed at the following distances: (1) Signs announcing construction at five hundred (500) feet and one thousand (1,000) feet; (2) Signs depicting workers at three hundred (300) feet; and (3) Where blasting is to take place within fifty (50) feet of a road, a blast warning sign at one thousand (1,000) feet.	CHPE will comply.	Not applicable to this EM&CP Segment.
39(b)	Flagmen shall be present at all times when equipment is crossing or entering any road, when equipment is being loaded or unloaded, and when two-lane traffic has been reduced to one lane. All flagging operations shall comply with 17 N.Y.C.R.R. Part 131.	CHPE will comply.	Not applicable to this EM&CP Segment.
40	To the extent required in connection with the delivery of oversized components, the Certificate Holders or their suppliers	CHPE will comply.	Not applicable to this EM&CP Segment.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	shall obtain any necessary permits from applicable state agencies and provide copies of such permits to the Secretary.		
<b>F. Notices and Public Complaints</b>			
41	The Certificate Holders shall make available to the public a toll-free or local phone number of an agent or employee who will receive complaints, if any, during the construction of the Facility. In addition, the phone number of the Secretary and the phone number of the Commission's Environmental Compliance Section shall be provided. A log shall be maintained that lists at least the date of any complaint, identity and contact information for the complaining party, the date of the Certificate Holders' response, and a description of the outcome. Phone logs shall be made available to DPS Staff upon request. The Certificate Holders shall report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so. Any such report shall be made within three (3) business days after receipt of the complaint.	CHPE will comply.	See Appendix F (Public Involvement Plan and Complaint Resolution Plan).
42	No less than two (2) weeks before commencing site preparation, the Certificate Holders shall: (1) provide notice to local officials and emergency personnel in the area where they will be working on the Facility; and (2) provide notice to the owners of property identified in Condition 33 herein; and (3) provide such notice for dissemination to local media and display in public places (such as general stores, post offices, community centers, and conspicuous community bulletin boards); and (4) in the event that the site preparation is delayed after notice is given, additional notice as set forth above shall be provided before site preparation is resumed. The notice shall be written in language reasonably understandable to the average person and shall contain: (1) a map and a description of the Construction Zone in the local area; and (2) the anticipated date for start of construction in the local area; and (3) the name, address, and local or toll-free telephone number of an employee or agent of the Certificate Holders who will receive complaints, if any, during the construction of the Facility; and (4) a statement that the Facility, as applicable, is under the jurisdiction of the	CHPE will comply. A copy of these notices shall be filed with the Secretary.	No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Commission, which is responsible for enforcing compliance with environmental and construction conditions and which may be contacted at an address and telephone number to be provided in the notice. Upon distribution, a copy of such notice shall be filed with the Secretary.		
43	The Certificate Holders shall provide the Engineering, Procurement, and Construction Contractor retained to undertake construction of the Facility and their other Construction Contractors (“Contractors” or “EPC Contractors”) with complete copies of this Certificate and any and all permits, certificates, and approvals required to initiate and/or complete construction of the Facility, including, without limitation, approved Segment EM&CPs and governmental approvals issued pursuant to § 401 and § 404 of the Federal Clean Water Act, and § 10 of the Federal Rivers and Harbors Act. To the extent that the listed documents are available before contracts for construction services are executed, such copies shall be provided to the Contractors prior to the execution of such contracts.	CHPE will comply.	No further discussion provided.
44	The Certificate Holders shall notify all Contractors that the Commission may seek to recover penalties for violation this Certificate and other Orders issued in this proceeding, not only from the Certificate Holders, but also from their Contractors, and that Contractors also may be liable for other fines, penalties, and environmental damage.	CHPE will comply.	No further discussion provided.
45	No later than three (3) days after completion of the transaction(s) pursuant to which the costs of construction of the Facility are funded (“Closing”), the Certificate Holders shall notify the Secretary of the date of such Closing.	CHPE has complied (see DMM Item 905, filed November 3, 2022).	No further discussion provided.
46	The Certificate Holders shall inform the Secretary and NYSDEC at least five (5) days before commencing site preparation for the Facility.	CHPE will comply.	No further discussion provided.
47	The Certificate Holders shall provide DPS Staff, NYSDOT, and NYSDEC with bi-weekly status reports summarizing construction and indicating construction activities and locations scheduled for the next month.	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
48	Within ten (10) days of the completion of final restoration activities, the Certificate Holders shall notify the Secretary that all restoration has been completed in compliance with this Certificate and the Order(s) approving the EM&CP.	CHPE will comply.	No further discussion provided.
49	Within sixty (60) days of completing construction of the HVDC Transmission System, the Certificate Holders shall consult with the New York State Office of General Services (“OGS”) Bureau of Land Management regarding specifications for providing as-built information and mapping of the submerged portions of the HVDC Transmission System in conformance with the requirements of the OGS Bureau and 9 N.Y.C.R.R. Part 271. Within sixty (60) days of that consultation, the Certificate Holders shall provide to the OGS as-built information and mapping complying with its specifications (including shapefile information compatible with ArcView® GIS software) and shall file with the Secretary copies of the as-built information and mapping and proof of filing with the OGS.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
50	No later than three (3) days after the date on which the Facility commences commercial operation (“COD”) of the Facility, the Certificate Holders shall notify NYSDOT, NYSDEC, and the Secretary of the date of such commencement.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
51	The Certificate Holders shall promptly notify DPS Staff and NYSDEC if a New York State listed species of special concern is observed to be present in the Facility area.	CHPE will comply.	See Section 8.2 (Rare, Threatened, and Endangered Species).
52	The Certificate Holders shall promptly notify DPS Staff, NYSDEC and the United States Fish and Wildlife Service (“USFWS”) or National Marine Fisheries Service (“NMFS”) (if applicable) if any threatened or endangered wildlife species under 6 N.Y.C.R.R. Part 182 (“TE species”) or any rare, threatened or endangered plant species under 6 N.Y.C.R.R. Part 193 (“RTE plants”) are observed to be present in the Facility area so as to determine the appropriate measures to be taken to avoid or minimize impacts to such species. If necessary to avoid or minimize impacts to such species or as directed by DPS Staff, the Certificate Holders shall stabilize the area and cease construction or ground disturbing activities in the Facility	CHPE will comply.	See Section 8.2 (Rare, Threatened, and Endangered Species).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	area until DPS Staff have determined that appropriate protective measures have been implemented.		
<b>G. Environmental Supervision</b>			
53(a)	The Certificate Holders shall employ at least six (6) inspectors on the HVDC Transmission System (or at least five (5) inspectors if the Certificate Holders elect to use the same individual as both environmental inspector (“Environmental Inspector”) and agricultural inspector (“Agricultural Inspector”)) as follows: (i) an Environmental Inspector employed full-time on the HVDC Transmission System; (ii) a construction inspector employed full-time on the HVDC Transmission System during construction of overland portions of the HVDC Transmission System, including construction of the Converter Station (“Construction Inspector”); (iii) an aquatic inspector employed full-time on the HVDC Transmission System (“Aquatic Inspector”); (iv) an Agricultural Inspector; (v) a safety inspector employed full-time on the HVDC Transmission System (“Safety Inspector”); and (vi) a part-time quality assurance inspector who will inspect the work site from time to time (“Quality Control and Quality Assurance Inspector”).	CHPE will comply.	See Section 4.7 (Environmental Supervision and Construction Oversight) and Appendix C (Compliance Assurance Plan).
53(b)	The Certificate Holders shall employ the following inspectors in connection with the Astoria-Rainey Cable: (i) an Environmental Inspector; (ii) a Construction Inspector; (iii) a Safety Inspector; and (iv) a Quality Control and Quality Assurance Inspector.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
53(c)	During periods of relative inactivity on the Facility, the number of inspectors and the extent of their presence at the Facility construction site may be temporarily decreased commensurate with the decline in activity levels; likewise, during periods of relatively high activity on the Facility, the number of inspectors	CHPE will comply.	See Section 4.7 (Environmental Supervision and Construction Oversight) and Appendix C (Compliance Assurance Plan).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	and the extent of their presence at the Project site may be temporarily increased commensurate with the increase in activity levels.		
53(d)	The Certificate Holders shall provide DPS Staff a weekly schedule of the Environmental Inspector and the Construction Inspector, and their cell phone numbers.	CHPE will comply.	No further discussion provided.
53(e)	The Environmental Inspector and Construction Inspector shall be equipped with sufficient documentation, transportation, and communication equipment to effectively monitor each Contractors' compliance with the provision of every Order issued in this proceeding and applicable sections of the PSL, New York State Environmental Conservation Law ("ECL"), the Water Quality Certification ("WQC") issued in connection with the Facility pursuant to section 401 of the Federal Clean Water Act and the approved EM&CP.	CHPE will comply.	See Section 4.7 (Environmental Supervision and Construction Oversight) and Appendix C (Compliance Assurance Plan).
53(f)	The Agricultural Inspector shall be available to provide site-specific agricultural information as necessary for development of the proposed EM&CP through field review, as well as to have direct contact with affected farm operators, County Soil and Water Conservation Districts, and the New York State Department of Agriculture and Markets ("Ag & Mkts"). The Agricultural Inspector shall maintain regular contact with the Environmental Inspector and the Construction Inspector throughout the construction phase. The Agricultural Inspector shall also maintain regular contact with the affected farmers and County Soil and Water Conservation Districts concerning farm resources and management matters pertinent to the agricultural operations and the site-specific implementation of the approved EM&CP.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
53(g)	The names and qualifications of the Environmental Inspector and the Construction Inspector shall be submitted to DPS Staff and NYSDEC at least two (2) weeks prior to the start of construction.	CHPE will comply.	No further discussion provided.
53(h)	The Environmental Inspector's qualifications shall satisfy those of "Qualified Inspector" pursuant to the NYSDEC State Pollutant Discharge Elimination System ("SPDES") General Permit for	CHPE will comply.	See Appendix C (Compliance Assurance Plan).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001) ("SPDES General Permit").		
53(i)	The Certificate Holders' employees, Contractors, and subcontractors shall be properly trained in the construction, operation, and maintenance of the Facility.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
54	The authority granted to the Certificate Holders in this Certificate and any subsequent Order(s) in this proceeding is subject to the following conditions necessary to ensure compliance with such Order(s):	See below.	See below.
54(a)	The Certificate Holders shall regard DPS Staff representatives (authorized pursuant to PSL § 8) as the Commission's designated representatives in the field. In the event of any emergency resulting from the specific construction or maintenance activities that violate or may violate the terms of this Condition, the WQC, or any other Order in this proceeding, either the Certificate Holders' Environmental Inspector or DPS Staff may issue a stop work order for that location or activity.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
54(b)	A stop work order issued by DPS Staff shall expire twenty-four (24) hours after issuance unless confirmed by a single Commissioner. If a stop work order is confirmed, the Certificate Holders may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop work order is resolved to the satisfaction of the Commissioner or the Commission, the stop work order will be lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
54(c)	Stop Work Authority will be exercised sparingly and with due regard to potential environmental impact, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is or is claimed to be violated. Before exercising such authority, DPS Staff will consult (wherever practicable) with the Environmental Inspector. Within reasonable time constraints, all attempts will be made to address any issue and resolve any dispute in the field. In the event the dispute cannot be resolved, the matter will be brought immediately to the attention of the Certificate Holders'	CHPE will comply.	See Appendix C (Compliance Assurance Plan).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	construction manager and the Director of the DPS Office of Energy Efficiency and the Environment. In the event that DPS Staff issues a stop work order, neither the Certificate Holders nor the Contractor will be prevented from undertaking any safety-related activities that they deem necessary and appropriate under the circumstances. The issuance of a stop works order, or the implementation of measures as described below may be directed at the sole discretion of the DPS Staff during these discussions.		
54(d)	Exercise of Stop Work Authority: If DPS Staff or the Environmental Inspector discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of this Condition, the WQC, or any other Order in this proceeding, and on-site construction personnel refuse to take appropriate action after being advised of the threat, DPS Staff and/or the Environmental Inspector may direct the field crews to stop the specific potentially harmful activity immediately. If the direction to stop work is issued by DPS Staff and Certificate Holders' responsible personnel are not on site, the DPS Staff will immediately thereafter inform the Construction Inspector and/or the Environmental Inspector of the action taken. The stop work order will be lifted by the DPS Staff when the situation prompting its issuance has been resolved.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
54(e)	DPS Staff's Implementation of Specific Measures to Protect the Public and the Environment: If DPS Staff determines that a significant threat exists such that protection of the public or the environment at a particular location requires the immediate implementation of specific measures, the DPS Staff may, in the absence of the Environmental Inspector and the Construction Inspector, or in the presence of such personnel who, after consultation with the DPS Staff, refuse to take appropriate action, direct the Certificate Holders or their Contractors to implement the corrective measures identified in the approved EM&CP. The field crews shall comply with the DPS Staff's directive immediately. DPS Staff will immediately thereafter	CHPE will comply.	See Appendix C (Compliance Assurance Plan).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	inform the Certificate Holders' Construction Inspector and/or Environmental Inspector of the action taken.		
54(f)	DPS Staff or the Environmental Inspector will promptly notify the appropriate NYSDEC representative of any activity that is a significant environmental threat to a State-regulated wetland or its adjacent area, a protected stream or other waterbody, a TE species, or a State- or Federally- identified hazardous waste site or that may become a violation of this Condition, WQC, or any other Order issued in this proceeding pursuant to subsection (d) of this CC 54.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
55	The Certificate Holders shall organize and conduct site-compliance audit inspections for DPS Staff as needed, but not less frequently than once per month during the site preparation, construction, and restoration phases of the Facility and at least annually for two (2) years after the COD.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
55(a)	The monthly inspections shall include a review of the status of compliance with all conditions contained in this Certificate, the WQC, and any other Order issued in this proceeding, and with other legal requirements and commitments, as well as a field review of the construction site, if necessary. The inspections may also include: (1) review of all complaints received, and their proposed or actual resolutions; and (2) review of any significant comments, concerns, or suggestions made by the public, local governments, or other agencies; and (3) review of the status of the Facility in relation to the overall schedule established prior to the commencement of construction; and (4) other items the Certificate Holders or DPS Staff consider appropriate.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
55(b)	The Certificate Holders shall provide a written record of the results of the inspection, including resolution of issues and additional measures to be taken, to agencies involved in the inspection audit.	CHPE will comply.	See Appendix C (Compliance Assurance Plan).
56	Nothing herein shall be deemed to limit the right of any jurisdictional agency to enter and inspect the Facility to assess compliance with any permit issued by such agency or any applicable substantive statute or regulation under such agency's jurisdiction; provided, however, that such inspection shall, to the	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	extent possible, be coordinated with the DPS Staff (authorized pursuant to PSL § 8).		
57	Nothing in this Certificate shall restrict NYSDOT's authority over Certificate Holders' use of state highways, including without limitation NYSDOT's authority to place inspectors on site to monitor and observe the Certificate Holders' activities on state highways and/or to request the presence of state or local police to assure the safety of freeway travelers at such times and for such periods as NYSDOT deems appropriate.	CHPE will comply.	No further discussion provided.
<b>H. Overland Installation</b>			
58	At least two (2) weeks prior to the start of overland construction, the Certificate Holders shall hold a preconstruction meeting to which they shall invite DPS Staff, NYSDOT, and NYSDEC. The agenda, location, and attendee list for this meeting shall be agreed upon between DPS Staff and the Certificate Holders. The Certificate Holders shall supply draft minutes from this meeting to all attendees. The attendees may offer corrections or comments, and thereafter the Certificate Holders shall issue the finalized meeting minutes to all attendees. If, for any reason, the Contractors retained by the Certificate Holders to construct the Facility cannot finish the construction of such facilities, and one or more new Construction Contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.	CHPE will comply.	Not applicable to this EM&CP Segment.
59	The Certificate Holders shall confine construction to the Construction Zone and approved additional work areas as detailed in the approved EM&CP. A detailed construction schedule and location timeline shall be provided to DPS Staff prior to construction.	CHPE will comply.	Not applicable to this EM&CP Segment.
60	The Certificate Holders shall identify encroachments within the Construction Zone and contact individual property owners or occupants to address and seek to rectify such potential encroachments on a case-by-case basis. The Certificate Holders shall report to DPS Staff the result of efforts to address and rectify encroachments in the Construction Zone periodically, but in no event less than quarterly.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
61	The Facility may not be located beneath existing buildings, footings, or foundations, except as authorized in the EM&CP, and all excavations shall be in accordance with all applicable standards and specifications, including: a. the Building Code of New York State, including Section 1803 and other relevant sections; and b. the Occupational Safety and Health Administration (“OSHA”) Technical Manual (“OTM”), including Section V: Chapter 2 and other relevant sections; and c. OSHA Regulations, including Part Number 1926, Standard Number 1926.651, and other applicable provisions.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
62	Except as authorized in any Segment EM&CP, the Certificate Holders shall not construct or allow their Contractors to construct any new, or improve any existing access roads for the construction, operation, or maintenance of the Facility.	CHPE will comply.	Not applicable to this EM&CP Segment.
63	Before construction begins on any Segment, the boundaries of the Construction Zone shall be delineated in the field. Also, the Certificate Holders shall stake and flag all access roads and extra workroom areas to be used in constructing that Segment.	CHPE will comply.	Not applicable to this EM&CP Segment.
64	The Certificate Holders shall adopt appropriate measures to minimize fugitive dust and airborne debris from construction activity and details of measures to be implemented shall be described in the proposed Segment EM&CP. If contamination in the ground is detected during overland construction and such contamination is of the kind that will lead to volatilization or off-gassing of such contamination or chemical constituents thereof, the Certificate Holders shall contact the New York State Department of Health (“NYSDOH”), NYSDEC, and DPS Staff prior to further disturbance. Additionally, the Certificate Holders shall conform to practices and procedures described in the DER10/Technical Guidance for Site Investigation and Remediation and the NYSDOH Generic Community Air Monitoring Plan (“CAMP”), to the extent applicable. Nothing in this Certificate shall have the effect of diminishing, enlarging, or altering in any way the obligations of any party that may be triggered in the event a spill of petroleum or a release of hazardous substances to the environment (“Reportable Event”) is detected within the Construction Zone by the Certificate	CHPE will comply.	Not applicable to this EM&CP Segment, as it relates to fugitive dust/airborne debris. See Appendix J for Spill Prevention Plan/Spill Response Plan.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Holders and/or their Contractors and other representatives during overland construction of the Facility, including, without limitation, any obligation the Certificate Holders may have to report such Reportable Event to the NYSDEC Oil and Hazardous Materials Spills Hotline (800/518-457-7362).		
65	Disposal of trees and woody material:	See below.	See below.
65(a)	The Certificate Holders shall negotiate in good faith with each landowner the purchase of rights to all logs over six (6) inches in diameter at the small end and eight (8) feet or longer ("merchantable logs") to be cleared from the Construction Zone. Certificate Holders shall not leave any permanent slash piles or log piles along passenger railroad routes or public highways. The Certificate Holders' removal of the merchantable logs resulting from clearing the Construction Zone shall be based on factors such as the attributes of the site, outcome of landowner negotiations, and attributes of the logs, and the Certificate Holders shall explain these factors in detail in the proposed EM&CP.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
65(b)	The Certificate Holders shall comply with the provisions of 6 N.Y.C.R.R. Part 192, Forest Insect and Disease Control.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
65(c)	The Certificate Holders shall prepare a plan for removal, reuse, recycling, and disposal of all woody material. Logs and woody material that cannot be reused or sold shall be either chipped on site, stacked along the edge of the Final Layout Area (as defined below at Condition 139), hauled to a NYSDEC approved landfill or other suitable off-site location, or buried on the Final Layout Area with landowner agreement. The Certificate Holders shall not leave any logs or other woody material in any designated floodway or other flood hazard area.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
66	All trees over two (2) inches in Diameter at Breast Height (DBH) or shrubs over four (4) feet in height damaged or destroyed by activities during construction, operation, or maintenance, regardless of where located, shall be replaced within the following year by the Certificate Holders with the equivalent type of trees or shrubs except if: a. other arrangements are specified in the approved EM&CP; or b. equivalent type replacement	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	trees or shrubs would interfere with the proper clearing, construction, operation, or maintenance of the Facility or would be inconsistent with State-invasive species policy; or c. replacement would be contrary to sound ROW management practices, or to any approved long-range ROW management plan applicable to the Facility or adjoining ROW; or d. the owner of land where the damaged or destroyed trees or shrubs were located (or other recorded easement or license holders with the right to control replacement) declines replacement.		
67	The Certificate Holders shall provide detailed soil erosion and sediment control plans (ESCP) in a Stormwater Pollution Prevention Plan ("SWPPP"), which shall be included with the first Segment EM&CP associated with the overland route of the Facility. Soil and sediment control measures shall be implemented early in the construction process and be installed prior to and maintained in acceptable condition for the duration from any clearing or earthmoving operations through to the permanent stabilization of the soil. Erosion and sediment control devices shall be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control ("SSESC"), the approved EM&CP Plan and Profile drawings, permit conditions, regulatory approvals, and as otherwise necessary or directed by the Environmental Inspector to prevent adverse impacts to environmentally sensitive areas. The SWPPP shall include a schedule for necessary inspections at all control measure locations. The SWPPP shall be available at the construction site and available to the public upon five (5) days written notice.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
68	The Certificate Holders shall coordinate with DPS Staff and NYSDOT regarding all plans and work to be performed in State-owned ROW under NYSDOT's supervision and management. Prior to filing any Segment EM&CP involving any such state-owned ROW, the Certificate Holders shall provide DPS Staff and NYSDOT Staff with a preliminary design marked to avoid conflict with potential transportation projects that NYSDOT Staff may seek to undertake in the future and shall offer to consult with NYSDOT Staff concerning any comments it may offer and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	shall use reasonable efforts to accommodate any NYSDOT concerns.		
69(a)	In preparing the proposed EM&CP, the Certificate Holders shall consult with each transportation department or agency having jurisdiction over any roads, related structures, and components that will be crossed by the Facility or used for direct access to the Construction Zone. If the access road takes direct access from, or lies within the limits of, such roads, the Certificate Holders shall notify each relevant transportation department or agency of the approximate date when work will begin.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
69(b)	Infrastructure subject to the requirements of Condition 69(a) include: movable bridges over the Harlem River and their associated apparatus, including any cables, chains or other apparatus allowing for their operation; and a planned pedestrian and bicycle pathway and associated infrastructure, including landscaping, lighting, rail crossings, fences, railroad gates, and stormwater retention facilities, and associated subsurface components, to be constructed under and in the vicinity of the Hells Gate Bridge in the Bronx, whether constructed or designed at the time of the EM&CP development. The procedures and protections outlined in CCs 27 through 29 shall apply to the movable bridges and other apparatus, and, if they are in place at the time of construction of the Facility, the aforementioned infrastructure associated with the pedestrian and bicycle pathway.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
70	Construction access to the Construction Zone at controlled-access highways shall be provided from off-highway locations.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
71	The Certificate Holders shall minimize the impact of construction of the Facility on traffic circulation. Traffic control personnel and safety signage shall be employed to facilitate safe and adequate traffic flow when secondary roadways are affected by construction.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
72	The Certificate Holders shall consult periodically with state and municipal highway transportation agencies about traffic conditions near the site of the Facility and shall notify each such transportation agency of the approximate date work will begin in	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	its jurisdiction and Construction Zone access points that connect with the highways in that jurisdiction.		
73	The Certificate Holders shall be responsible for checking all culverts and assuring that they are not crushed or blocked during construction and restoration of the Facility and, if a culvert is blocked or crushed, taking immediate steps to replace or repair the culvert in accordance with applicable state or local standards.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
74	Disturbed areas, ruts, and rills shall be restored to original grades and conditions with permanent revegetation and erosion controls appropriate for those locations. Disturbed pavement, curbs, and sidewalks shall be restored to their original preconstruction condition or improved.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>I. Agricultural Lands</b>			
75	The Certificate Holders shall design the Facility to the extent possible to avoid crop fields or other active agricultural land.	CHPE will comply.	Not applicable to this EM&CP Segment; no agricultural lands will be impacted. No further discussion provided.
76	During the acquisition of rights to use lands comprising the Construction Zone, the Certificate Holders shall ask the owners of such lands that appear to be either undeveloped or used as active agricultural land whether such lands are presently being used for agricultural purposes and, if so, whether such lands are being operated, in whole or in part, by third parties. During the preparation of the EM&CP, the Certificate Holders shall use this information, along with any additional information received during consultation with Ag & Mkts, to identify land within the Construction Zone reasonably believed to be active agricultural land. The Certificate Holders shall provide the owners and identified operators of such land with a telephone number to facilitate direct contact with the Certificate Holders and the Agricultural Inspector(s).	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
77	Where construction entrances are required from public roadways to the Construction Zone across agricultural fields, temporary access shall use matting or road installation. The use of topsoil stripping for construction access, as opposed to	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	matting, shall only be allowed with approval from DPS Staff in consultation with Ag & Mkts. For matting, the mats shall be layered where necessary to provide a level access surface. For road installation and topsoil stripping, an underlayment of durable, geotextile fabric shall be placed over the exposed subsoil surface prior to the use of temporary gravel access fill material. Complete removal of the construction entrance upon completion of the Facility and restoration of the affected site is required prior to topsoil replacement. Segments of farm roads utilized for access shall be improved as necessary following consultation with the farm operator and Ag & Mkts prior to use, subject to the Commission's ongoing jurisdiction.		
78	The Certificate Holders shall provide a monitoring and remediation period of two (2) years following completion of Construction Zone restoration in active agricultural areas. The Certificate Holders shall retain the services of the Agricultural Inspector through this period. The monitoring and remediation phase shall be used to identify any remaining agricultural impacts associated with construction of the Facility that are in need of mitigation and to implement the follow-up restoration. During the monitoring and remediation period, on site monitoring shall be conducted at least three times during each growing season and shall include a comparison of growth and yield for crops within and outside the Construction Zone. When subsequent crop productivity within the Construction Zone is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Certificate Holders and in consultation with other appropriate organizations including Ag & Mkts, shall help to determine the appropriate rehabilitation measures for the Certificate Holders to implement (soil decompaction, topsoil replacement, etc.). During the various stages of construction of the Facility, all affected farm operators shall be periodically apprised of the duration of remediation by the Agricultural Inspector. Because conditions that require remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period shall not obviate the	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Certificate Holders' responsibility to fully redress all impacts caused by construction of the Facility. After completion of the specific remediation period, the Certificate Holders shall continue to respond to the requests of the farmland owner/operators to correct adverse impacts to agricultural resources caused by construction of the Facility.		
79	The Agricultural Inspector shall work with farm operators during the planning phase to develop a plan to delay pasturing of livestock in the Construction Zone, work areas, access roads, or staging areas following construction until pasture areas are adequately revegetated. The Certificate Holders shall be responsible for maintaining temporary fencing on the Construction Zone, work areas, access roads, or staging areas until the Agricultural Inspector determines that the vegetation in the Construction Zone is established and able to accommodate grazing. At such time, the Certificate Holders shall be responsible for removal of the fences.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
80	On affected farmland, restoration practices shall be postponed until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration shall not be conducted while soils are in a wet or plastic state. Stockpiled topsoil shall not be re-graded until plasticity, as determined by the Atterberg field test, is significantly reduced. No Facility restoration activities shall occur in agricultural fields in the months of October through May unless DPS Staff has determined after consultation with Ag & Mkts that favorable soil moisture conditions exist. The Certificate Holders shall monitor and advise Ag & Mkts and DPS Staff regarding tentative restoration planning.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>J. Herbicide Use</b>			
81	The application of herbicides shall be made under the direct supervision of a NYSDEC Certified Applicator ("Applicator") who shall own or be employed by a NYSDEC registered business. The supervising certified Applicator shall be familiar with and understand the Conditions of this Certificate, the approved EM&CP, and any other pertinent Orders issued in this proceeding and shall be present in the field to ensure	CHPE will comply. There is no planned herbicide use during construction.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	compliance with provisions in such documents for targeting species and for proper application of authorized herbicides.		
82	All herbicides used shall have valid registrations under applicable state and federal laws and regulations.	CHPE will comply. There is no planned herbicide use during construction.	Not applicable to this EM&CP Segment. No further discussion provided.
83	Application of herbicides shall conform to all label instructions and all applicable federal and state laws and regulations. Herbicides shall not be applied within one hundred (100) feet of any public water supply (PWS) (reservoirs and wellheads), or any private well-head of which Certificate Holders have actual knowledge. Applicators shall reference maps that indicate treatment areas, and wetland and adjacent area boundaries, prior to treating. Applications required in seasonally flooded freshwater wetlands shall be undertaken during a dry season.	CHPE will comply. There is no planned herbicide use during construction.	Not applicable to this EM&CP Segment. No further discussion provided.
84	The Certificate Holders shall notify DPS Staff and the appropriate NYSDEC Regional Natural Resource Supervisor(s) and Pesticide Control Specialist fourteen (14) days prior to the commencement of any herbicide application on the Facility.	CHPE will comply. There is no planned herbicide use during construction.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>K. Building Code and Inspections - Converter Station and Related Buildings</b>			
85	Prior to the commencement of construction of the Converter Station and related buildings, the Certificate Holders shall first obtain review and written certification by the CNY Department of Buildings that the construction plans for the Converter Station are in compliance with the New York City Electrical Code ("NYCEC"), the New York City Fire Code ("NYCFC"), and Title 28 of the New York City Administrative Code, including the New York City Construction Codes ("NYCCC"). Within ten (10) days of receiving any written certification, the Certificate Holders shall file a copy of such certification with the Secretary and shall serve a copy on the Director of the Office of Energy Efficiency and the Environment.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
86	During construction of the Converter Station and related buildings, the Certificate Holders shall obtain periodic inspections of the construction work by the CNY Department of	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Buildings for compliance with the NYCFC, NYCEC and NYCCC.		
87	Prior to the use or occupancy of the Converter Station and related buildings, the Certificate Holders shall first obtain written certification by the CNY Department of Building that the construction was completed in compliance with the NYCFC, NYCEC, and the NYCCC. Within ten (10) days of receiving any written certification, the Certificate Holders shall file a copy of such certification with the Secretary and shall serve a copy on the Director of the Office of Energy Efficiency and the Environment	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>L. Overland Restoration</b>			
88	At the conclusion of all Facility construction, Construction Zone areas, work areas, access roads, and/or staging areas shall be thoroughly cleared of all debris such as wood, nuts, bolts, spikes, wire, pieces of steel, and other assorted items.	CHPE will comply.	See Section 11.0 (Cleanup and Restoration). Cleanup & restoration of staging areas and laydown yards shall be performed in accordance with previously submitted EM&CP segments.
89	The Certificate Holders shall, on completion of construction of the Facility:	See below.	See below.
89(a)	provide an assessment of the need for landscape improvements, including vegetation planting, earthwork, or installed features to screen or landscape with respect to road crossings, residential areas, parks, highways, converter stations, and substations; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
89(b)	prepare plans for any visual mitigation found necessary, considering removal, rearrangement, and supplementation of existing landscape improvements or plantings; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
89(c)	consult with DPS Staff on the content and execution of their landscape improvement assessment, resultant landscaping plan specifications, and materials list; details shall include measures for controlling maintenance and third party or wildlife damage to any landscape or vegetation plantings; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
89(d)	assure the reduction or elimination of net storm water runoff within or immediately adjacent to the Construction Zone and any	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	contribution to sources of non-point pollution resulting from the finished condition; and		
89(e)	present assessments and plans for DPS Staff review within one (1) year of the date the Facility is placed in service.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>M. Overland Habitat Areas</b>			
90	The Certificate Holders shall incorporate the measures described in the Karner blue butterfly ( <i>Lycaeides melissa samuelis</i> ) <i>Impact Avoidance and Minimization Report</i> (Exhibit 109 to the Joint Proposal) into the EM&CP. Prior to the commencement of construction, the Certificate Holders shall arrange a “walk through” of the Construction Zone where lupine habitat has been identified for representatives of the DPS Staff, NYSDEC, the EPC Contractor, and others as deemed appropriate to discuss and review these measures including the location of the flagging of lupine and nectar patches of potential and occupied butterfly habitat. The flagging shall be maintained until construction has been completed and all disturbed areas have been restored to their final grade.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
91	Within six (6) months after the commencement of commercial operations of the Facility, the Certificate Holders shall provide a ROW maintenance plan for the Facility ROW from Route Mile 145, south of Scout Road in the Town of Wilton, New York to Route Mile 180, north of County Line Road in the Town of Rotterdam, New York. This plan shall include but not be limited to methods of maintenance, access routes to the ROW, seasonal construction windows, and the education of all company employees and Contractors regarding all measures to avoid occupied habitat associated with Karner blue butterfly and frosted elfin butterfly. The plan shall also provide requirements for notification of the DPS Staff and NYSDEC of any planned maintenance or repair work within, or in the vicinity of occupied habitat that requires excavation or ground disturbance.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>N. Underwater Cable Installation</b>			
92	All of the terms and conditions of the WQC are incorporated by reference into this Certificate as though fully set out herein. Any	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	changes to the WQC shall be governed by the provisions of Condition 158 of this Certificate.		
93	Construction within navigable waters and pre-installation route clearing activities (pre-lay grapnel run and associated obstruction and debris removal) shall occur within the construction time frames set forth in Table 1 below. After consultation with DPS Staff, the New York State Department of State ("NYS DOS"), and NYSDEC, the Certificate Holders may seek an appropriate modification of the time frames, either in the proposed EM&CP or subject to the provisions of Condition 158 of this Certificate.	CHPE will comply where applicable.	No further discussion provided.
94	Commencement of in-river work within one (1) mile south of the designated Significant Coastal Fish and Wildlife Habitats ("SCFWHs") at Haverstraw Bay shall occur during the high, or flood, tide condition in order to avoid and/or minimize impacts from resuspended sediments to the SCFWH habitat of Haverstraw Bay.	CHPE will comply where applicable.	Not applicable to this EM&CP Segment, which is not within this geographic range. No further discussion provided.
95	The Certificate Holders shall use installation techniques for underwater cable installation activities that are appropriate for the prevailing substrate conditions.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve cable installation. No further discussion provided.
95(a)	Cable installation in the Hudson, Harlem, and East Rivers shall be designed and installed to meet the following criteria: (i) Where the cables shall be located within the limits of the maintained Federal Navigation Channels (a) in the Harlem, Hudson, and East Rivers, the Certificate Holders shall install the cables to a depth of at least fifteen (15) feet below the federally-authorized depth of the Federal Navigation Channel and (b) in the Harlem River, the Certificate Holders shall install the cables to those elevations below the federally-authorized depth of such Channel that have been specified by the USACE in Permit NAN-2009-0189 and by the New York State Department of State in its determination of March 3, 2014 made pursuant to the federal Coastal Zone Management Act; (ii) and where the cables shall be located outside the limits of the maintained Federal Navigation Channels in such rivers, the Certificate Holders shall install the cables to the maximum depth	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve cable installation. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	<p>achievable that would allow each pole of the bi-pole to be buried in a single trench using a jet-plow, which is expected to be at least six (6) feet below the sediment water interface or, if sand waves are present, the trough of said waves, or as authorized by DPS Staff, NYSDEC, and NYSDOS as discussed in condition 95(a) (iii), below the existing riverbed outside maintained Federal Navigation Channels, except where utility lines or other infrastructure are crossed or where geologic or topographic features prevent burial at such depth. (iv) No changes in the installation technology or burial depth shall be allowed without a written statement from NYSDOS stating that the deviation would not result in coastal effects that differ significantly from the coastal effects reviewed by NYSDOS in Certificate Holders' original federal coastal consistency certification ("Coastal Consistency Certification"). In the event that NYSDOS determines that such deviation would result in coastal effects that differ significantly from those reviewed in the Coastal Consistency Certification, the Certificate Holders shall seek a written concurrence from NYSDOS for any such project changes that would require an amendment to the Certificate Holders' Coastal Consistency Certification. Nothing in this Certificate shall be construed to limit or expand any rights Certificate Holders may have to seek administrative or judicial review of any action or inaction by NYSDOS relating to any such deviation. [as Amended by Amendment 1 (March 20, 2020)].</p>		

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
95(b)	Cable installation in Lake Champlain shall be designed and installed to meet the following criteria: (i) in locations where the water depth is less than one hundred fifty (150) feet, the target burial depth is three (3) to four (4) feet below the sediment surface, except where the cables cross other utility lines or other infrastructure or where geologic or bathymetric features prevent burial at such depth, and adequate measures for cable and infrastructure protection are provided; (ii) in locations where water depth is one hundred fifty (150) feet or greater, the target burial depth is three (3) to four (4) feet below the sediment surface, however the cables may be buried at shallower depths or laid on the lake bed where Certificate Holders provide a report prepared by a recognized authoritative technical consultant demonstrating and concluding that public health and safety can be appropriately protected without such burial, and the proposed installation method is approved by the Commission in the Segment EM&CP. (iii) Where the cables shall be located in the portion of Lake Champlain south of Crown Point (Route Mile 73), the Certificate Holders will rely on the shear plow installation method or, when reliance on such method is infeasible, an alternative method that avoids environmental impacts to a substantially equivalent degree. Where cables shall be located in the portion of Lake Champlain north of Crown Point, the Certificate Holders shall rely on a jet-plow or shear plow, or, in deeper water, either a self-propelled remotely operated vehicle ("ROV") that shall bury the cables using water jetting after the initial surface lay of the cables from the vessel.	CHPE will comply.	Not applicable to this EM&CP Segment which does not involve cable installation. No further discussion provided.
95(c)	Utility and other infrastructure crossings shall be executed consistent with site-specific design measures for each such crossing as specified in the approved EM&CP.	CHPE will comply.	See Section 4.0 (Construction Procedures) and Section 5.0 (Co-Located Infrastructure).
96	In the event that the target depth of cover (consistent with the requirements of Condition 95) has not been substantially achieved in an area due to geologic or topographic features and not due to limitations associated with a utility crossing, following the post-installation inspection provided for in Condition 161, the Certificate Holders shall report the actual depth of cover, and	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve cable installation. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	propose a plan, with a reasonable schedule, consistent with Good Utility Practice whose definition is provided in Condition 20, for achieving an adequate burial depth or protection level given the location to NYSDEC, NYSDOS and DPS Staff for review and comment.		
97	As long as the Certificate Holders comply with the requirements of Condition 96, failure to achieve the depth of cover consistent with the requirements of Condition 95 shall not be a basis for an order to cease installation of the remaining cable sections, an order not to energize, or an order to cease operation. An order not to energize or to cease operation will be issued only after affording the Certificate Holders an opportunity to show cause why such order should not be issued.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve cable installation. No further discussion provided.
98	The Certificate Holders shall employ HDD and dredging to install the proposed underwater cables from the proposed cable landfall locations to avoid disturbance to near shore sediments. The exit pit of each HDD borehole shall be installed within temporary dredged cofferdams or into a steel casing rise pipe. The walls of each temporary cofferdam shall extend above mean high water during dredging to contain suspended sediments associated with dredging activities and hence limit the dispersion of the suspended sediments to the interior footprint of the temporary cofferdam.	CHPE will comply.	Not applicable to this EM&CP Segment. No HDD is proposed for this Segment. No further discussion provided.
99	As part of the planning process for dredging, consultations with NYSDEC and USACE shall occur, at which time the specific practices to be employed shall be discussed. All cofferdams and any other dredged area shall be backfilled with clean material. The dredging practices and procedures to be utilized by the Certificate Holders shall be specified in the EM&CP and shall include:	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(a)	A closed (i.e., sealed) environmental (clamshell) bucket with sealing gaskets or an overlapping sealed design at the jaws and seals or flaps positioned at locations of vent openings, approved by the Commission, shall be used to minimize sediment suspension at the dredging site for fine grained unconsolidated (silty) sediments and for dredging across or within Federal	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Navigation Channels. Seals or flaps designed or installed at the jaws and locations of vent openings must tightly cover these openings while the bucket is lifted through the water column and into the barge, and the closed environmental (clamshell) bucket dredge shall be equipped with sensors to ensure complete closure of the bucket before lifting through the water.		
99(b)	Dredging Practices: The following practices shall be applied to all activities to ensure that large amounts of sediment are not released into the water column: (1) Hoist speed shall be limited so that the bucket is raised through the water column at a rate of two (2) feet per second or less. The bucket shall be lifted in a continuous motion through the water column and into the barge; (2) The dredge shall be operated to control the rate of the descent and to maximize the depth of penetration without overfilling the bucket; (3) Washing of the gunwales of the dredge scow shall be avoided except to the extent necessary to ensure the safety of workers; and (4) The bucket shall be lowered to the level of the barge gunwales prior to release of the load and the dredged material shall be placed deliberately and in a controlled manner; (5) Operations shall be suspended until all necessary repairs or replacements are made when a significant loss of water and visible sediments from the bucket are observed; and (6) Dredged material shall not be side cast or returned to the water.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(c)	Barge overflow is prohibited.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(d)	Barge/Scow Type: Barges or scows shall be of solid hull construction or be sealed.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(e)	Dredging Monitoring: An on-board Aquatic Inspector(s) shall be present at all times during dredging operations.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(f)	Dredging Windows: Dredging shall occur within the underwater construction windows identified in Table 1 of Condition 93.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
99(g)	Decanting Operations: Decanting of barges shall be approved by DPS Staff in consultation with NYSDEC prior to implementation. Barges may not be decanted before twenty-four (24) hours of settlement within the scow.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(h)	Only barges in good operating condition shall be used. Deck barges shall not be used, unless modified to allow no barge overflow and as approved by the Aquatic Inspector and DPS Staff in Consultation with NYSDEC.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(i)	The Aquatic Inspector shall inspect all dredging equipment prior to use and shall perform periodic inspections of all such equipment no less than once per week. The Contractor shall demonstrate to the Aquatic Inspector that the bucket dredge operator has sufficient control over the bucket depth in the water and bucket closure.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(j)	All sediments excavated during cofferdam construction and transition activities at the landfall location must be disposed of at a State-approved upland disposal site. All contaminated sediments excavated during placement in the navigation channel shall be disposed of in a State-approved upland disposal site.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(k)	During dredging operations, the Certificate Holders shall provide weekly reports on progress to date, document compliance with Certificate requirements, and such other information as determined necessary based on consultation with DPS Staff, NYSDEC, and NYSDOS.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(l)	All cofferdams and any other dredged area shall be backfilled using imported clean material, as needed, to restore the stream, lake, or riverbed to preconstruction contours. This work shall be completed in accordance with the relevant approved Segment EM&CP.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
99(m)	In no instance shall excavated contaminated sediment be placed back into a waterbody.	CHPE will comply.	Not applicable to this EM&CP Segment. No dredging is proposed. No further discussion provided.
100	Underwater activities shall be undertaken in a manner that minimizes the potential for interference with navigation.	CHPE will comply.	See Section 4.0 (Construction Procedures) and Appendix E (CMI Installation Manual).



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
101	The Certificate Holders shall coordinate with NYSDOT on cable construction and maintenance activities within Lake Champlain that may affect construction, operation, maintenance, and inspection of the Crown Point Bridge in Lake Champlain.	CHPE will comply.	No further discussion provided. This construction project was completed in November 2011 and is no longer relevant (see NYSDOT website: <a href="https://www.dot.ny.gov/lakechamplainbridge">https://www.dot.ny.gov/lakechamplainbridge</a> ).
<b>O. Water Supply Intakes</b>			
102	The Certificate Holders shall review the pre-installation marine sediment survey to determine if the location of any public water supply structure along the HVDC Transmission System route can be identified.	CHPE will comply.	See Section 5.2 (Water Supply Intakes).
103	The Certificate Holders shall provide notice that the EM&CP is available for review to operators of PWS facilities located within one (1) mile of the in-water facility. The notice shall include, in plain language: (i) details about the planned work; (ii) hours and duration of activities; (iii) provisions for protection of facilities, if applicable; (iv) identification of locations where additional information and copies of the EM&CP are available; (v) contact information for Certificate Holders' personnel, including a toll-free number; and (vi) instructions on how comments regarding construction plans and mitigation measures may be filed with the Secretary, indicating appropriate deadlines for commenting and contact information. Proof of notice shall be provided to the Secretary.	CHPE will comply.	See Section 5.2 (Water Supply Intakes).
104	The Certificate Holders shall notify operators of PWS facilities of construction work within one (1) mile of their intake structure(s) at least thirty (30) days prior to the commencement of any underwater work (including but not limited to grapnel, preconstruction, and construction activities) in these areas or within the time period requested by the systems operators during the consultation process detailed in Condition 150. Such notice shall be in the form of a written letter as well as any other method identified during the consultation process detailed in Condition 150. The Certificate Holders shall provide copies of all written correspondence to DPS Staff.	CHPE will comply.	See Section 5.2 (Water Supply Intakes).
105	Operational Control: The schedule of grapnel/debris removal and all phases of construction shall be coordinated in	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	consultation with each PWS facility. Construction and pre-construction operations within one (1) mile of an intake shall be performed at night or another scheduled time when systems are not operating to the extent reasonably possible.		removal activities. No further discussion provided.
106	PWS Sampling during Grapnel/Debris Removal and Construction Operations: The Certificate Holders shall establish a fund that provides for each of the PWS facilities identified by the NYSDOH as being within one (1) mile of the underwater cable facility to enable completion of the following testing, with payment for this work being based on the mechanism established during the consultation provided for by CC 150:	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.
106(a)	One (1) pre-construction raw water sample collected no more than twelve (12) hours prior to in-water operations occurring in proximity to the intake structure. Samples collected shall be analyzed for total metal concentrations with United States Environmental Protection Agency ("EPA") Method 200.8. Raw water samples collected from PWS facilities located along the Hudson River shall also be analyzed for polychlorinated biphenyls ("PCBs") with EPA Method 508A. All pre-construction raw water samples collected from the PWS facilities should be reported using a twenty-four (24) hour turnaround.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.
106(b)	Two (2) sets of post-construction raw water and finished water (post-treatment) samples from the PWS facility. The first set shall be collected immediately following operations occurring in proximity to the intake structure and the second set shall be collected approximately twelve (12) hours after conclusion of operations.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.
106(c)	Post-construction raw water samples from all PWS facilities shall be analyzed for total metal concentrations with EPA Method 200.8. Raw water samples collected from PWS facilities located along the Hudson River shall also be analyzed for PCBs with EPA Method 508A. All post-construction raw water samples collected from the PWS facilities shall be reported using a twenty-four (24) hour turnaround. Finished water samples shall be held at the laboratory.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
106(d)	If raw water sample results suggest any significant water quality impacts associated with any pre-construction or construction operations, the finished water samples shall be analyzed: (a) for total metal concentrations with EPA Method 200.8 and, (b) if collected from PWS facilities located along the Hudson River, for PCBs with EPA Method 508A. All finished water samples submitted for analysis shall be reported using a twenty-four (24) hour turnaround. The decision to analyze the finished water samples shall be made by DPS Staff in consultation with the NYSDOH.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.
106(e)	If analysis of finished water sample results indicates that there has been a maximum contaminant level ("MCL") violation caused by the installation activities, the Certificate Holders shall employ the mitigation measures prescribed in accordance with Condition 14(c) of the WQC in all locations where cable installation operations are within one (1) mile of a water intake structure. If the Certificate Holders propose to employ mitigation measures not otherwise provided for in accordance with Condition 14(c) of the WQC, they must first consult with the DPS Staff, NYSDEC, and the Aquatic Inspector. In the event that DPS Staff determines that the mitigation techniques are unable to mitigate the MCL violation(s), underwater cable installation shall be suspended, and the Certificate Holders shall consult with DPS Staff, NYSDOH, and NYSDEC regarding alternative cable installation techniques and propose such changes to the approved EM&CP in accordance with Condition 158 as may be necessary.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.
106(f)	The Certificate Holders shall provide copies of all laboratory data reports for samples collected from each PWS facility located along the Hudson River to NYSDOH and DPS Staff.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not contemplate grapnel/debris removal activities. No further discussion provided.
<b>P. Cultural Resources</b>			
107	The Certificate Holders shall: a. avoid creating adverse impacts on heritage resource sites, archeological sites, historic structures, and underwater cultural resources in the vicinity of the Facility by implementing location, design, vegetation	CHPE will comply.	See Section 10.0 (Cultural Resources).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	management, resource protection, and construction scheduling measures as shall be specified in the approved EM&CP; and b. provide cultural and heritage resource impact mitigation measures as specified in the approved EM&CP or facility management and restoration plan(s).		
108	The Certificate Holders shall refrain from undertaking construction in areas where archeological surveys have not been completed and until such time as the appropriate authorities, including New York State Office of Parks Recreation & Historic Preservation (“OPRHP”) and DPS Staff, have reviewed the results of any additional historic properties and archeological surveys that are required. These archeological surveys may be segmented in conjunction with the preparation of the EM&CP to permit the review, approval, and commencement of any circuit or converter station improvements prior to review and approval for the remaining portions of the Facility.	CHPE will comply.	See Section 10.0 (Cultural Resources).
109	The Certificate Holders shall develop a Cultural Resources Management Plan (“CRMP”) as described below. The CRMP shall be developed in consultation with the OPRHP Field Services Bureau, Indian tribes, the Advisory Council on Historic Preservation (“Council”), the U.S. National Park Service, DPS Agency Preservation Officer, and other stakeholders (as appropriate). The CRMP shall provide for the identification, evaluation, and management of historic properties within the Area of Potential Effects (“APE”) of the Facility. The CRMP shall also outline the processes for resolving adverse effects on historic properties within the APE and determining the appropriate treatment, avoidance, or mitigation of any effects of the Facility on these resources.	CHPE will comply.	See Section 10.0 (Cultural Resources).
110	Should archeological materials be encountered during construction, the Certificate Holders shall stabilize the area and cease all construction activities in the immediate vicinity of the find and protect the site from further damage. Within twenty-four (24) hours of such discovery, the Certificate Holders shall notify and seek to consult with DPS Staff and OPRHP Field Services Bureau to determine the best course of action. No ground-	CHPE will comply.	See Section 10.0 (Cultural Resources).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	disturbing activities shall be permitted in the vicinity of the archeological materials until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation have been determined.		
111	Should human remains or evidence of human burials be encountered during the conduct of archeological data recovery fieldwork or during construction, all work in the vicinity of the find shall be halted immediately and the site shall be protected from further disturbance. Within twenty-four (24) hours of any such discovery, the Certificate Holders shall notify the DPS Staff and OPRHP Field Services Bureau. Treatment and disposition of any human remains that may be discovered shall be managed in a manner consistent with the Native American Graves Protection and Repatriation Act ("NAGPRA"); the Council's Policy Statement Regarding Treatment of Burial Sites, Human Remains, any Funerary Objects (February 2007); and OPRHP's Human Remains Discovery Protocol. All archaeological or remains-related encounters and their handling shall be further reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections.	CHPE will comply.	See Section 10.0 (Cultural Resources).
112	The Certificate Holders shall have a continuing obligation during the life of the Facility to respond promptly to complaints of negative archeological impacts and to consult with OPRHP, the Council, Indian tribes, and other appropriate parties identified in the CRMP to resolve adverse effects on historic properties and determine the appropriate avoidance, treatment, or mitigation measures.	CHPE will comply.	See Section 10.0 (Cultural Resources).
<b>Q. Waterbodies and Regulated Wetlands</b>			
113	The Certificate Holders shall minimize disruption to regulated wetlands during the construction, operation, and maintenance activities of the Facility.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
113(a)	Regulated wetland locations shall be delineated in the field and indicated on the proposed EM&CP drawings for the Construction Zone and any access roads. Such delineations shall be delivered for review to DPS Staff, NYSDOS, and	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.

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	NYSDEC and, for wetlands within the Adirondack Park, to the Adirondack Park Agency (“APA”), at least thirty (30) days prior to the filing of the proposed EM&CP.		
113(b)	Any activities that may affect regulated wetlands shall be designed and controlled to minimize adverse impacts, giving due consideration to the environmental features and functions of the regulated wetlands and the one hundred (100) foot adjacent area associated with any State-regulated wetlands (“adjacent area”).	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
113(c)	The Certificate Holders shall, to the maximum extent practicable, avoid direct impacts to regulated wetlands and construct access roads outside regulated wetlands and adjacent areas. Any direct impacts that are not avoided shall be minimized and appropriately mitigated.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
113(d)	Construction through regulated wetlands or adjacent areas shall be done with tracked equipment or on temporary mats or geotextile/gravel access roads and shall be restricted to access roads and work areas set forth on the approved EM&CP drawings, provided that the Certificate Holders’ use of geotextile and gravel for access roads shall not contravene the requirements set forth in Condition 77 of this Certificate.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
113(e)	Clearing of existing vegetation in wetlands or in or near waterbodies shall be limited to that material necessary to allow completion of construction activities and to allow for reasonable access for long-term maintenance so as to reduce the amount of activity and disturbance to the wetland and adjacent area.	CHPE will comply.	Not applicable to this EM&CP Segment. No clearing of existing vegetation is proposed within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
113(f)	Equipment or machinery shall not be washed in any regulated wetland or adjacent area, and runoff resulting from washing operations shall not be permitted to directly enter any regulated wetland or protected stream or waterbody.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. For discussion of waterbody impacts, see Section 8.0 (Environmentally Sensitive Areas).
113(g)	Excavated material shall be stockpiled outside regulated wetland areas and all excess material shall be disposed of in approved overland locations.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
114	The Certificate Holders shall minimize disruption to streams and waterbodies during construction, operation, and maintenance of the Facility. Measures to protect such streams and waterbodies from runoff and sedimentation during construction (other than installation of underwater cables in navigable waters) shall include:	CHPE will comply.	See Section 8.0 (Environmentally Sensitive Areas).
114(a)	The development of an inventory that includes for each Segment: (i) a listing of waterbodies within the Construction Zone, including associated stream width, NYSDEC classification, proposed crossing method, and any potential construction schedule window developed during the preparation of the proposed EM&CP; (ii) a spreadsheet that contains the GPS coordinates (latitude and longitude) of each waterbody; (iii) a digital photograph of each waterbody, cross-referenced to its GPS coordinates; and (iv) a wetland delineation shape-file. This inventory shall be delivered for review to DPS Staff, NYSDOS, and NYSDEC and, for waterbodies within the Adirondack Park, to APA, at least thirty (30) days prior to the filing of the proposed EM&CP;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
114(b)	Limitation of construction vehicle access across streams and waterbodies to existing bridges and culverts and to temporary crossings installed in accordance with the provisions set forth in the approved EM&CP;	CHPE will comply. No construction vehicle access across streams and waterbodies is proposed.	Not applicable to this EM&CP Segment. No further discussion provided.
114(c)	Construction of equipment crossings to allow for unrestricted flow and to prevent soil from entering streams and waterbodies. Temporary crossings shall be designed and constructed to withstand the two (2) year flood event at a minimum;	CHPE will comply. No construction vehicle access across streams and waterbodies is proposed.	Not applicable to this EM&CP Segment. No further discussion provided.
114(d)	Except where an access path is necessary, a fifteen (15) foot wide buffer zone shall be maintained at all waterbody crossings along any railroad ROW;	CHPE will comply. No construction vehicle access across streams and	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
		waterbodies is proposed.	
114(e)	Prohibition of vehicular access where alternative access can be provided;	CHPE will comply. No construction vehicle access across streams and waterbodies is proposed.	Not applicable to this EM&CP Segment. No further discussion provided.
114(f)	Restriction of equipment and materials (including fill, construction materials, or debris) from being deposited, placed, or stored in any waterbody;	CHPE will comply.	See Appendix E (CMI Installation Manual).
114(g)	<p>In general, and to the maximum extent practicable, refueling of equipment, storage mixing, or handling of open containers of pesticides, chemicals labeled “toxic,” or petroleum products, shall not be conducted within one hundred (100) feet of a stream or waterbody or wetland. Requirements for refueling within 100 feet of wetlands or streams will be allowed under certain circumstances identified below, subject to the practices set forth in the approved EM&amp;CP:</p> <p>(1) Refueling of hand equipment will be allowed within 100 feet of wetlands or streams when secondary containment is used. Secondary containment will be constructed of an impervious material capable of holding the hand equipment to be refueled and at least 110% of the fuel storage container capacity. Fuel tanks of hand-held equipment will be initially filled in an upland location greater than 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Crews will have sufficient spill containment equipment on hand at the secondary containment location to provide prompt control and cleanup in the event of a release.</p> <p>(2) Refueling of equipment will be allowed within 100 feet of wetlands or streams when necessary to maintain continuous operations and where removing equipment from a sensitive area for refueling would increase adverse impacts to the sensitive area. Fuel tanks of such equipment will be initially filled</p>	CHPE will comply.	See Appendix E (CMI Installation Manual) and Appendix J (Spill Prevention Plan/Spill Response Plan).



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	<p>in an upland location greater than 100 feet from wetlands or streams in order to minimize the amount of refueling within these sensitive areas. Absorbent pads or portable basins will be deployed under the refueling operation. In addition, the fuel nozzle will be wrapped in an absorbent pad and the nozzle will be placed in a secondary containment vessel (e.g., bucket) when moving the nozzle from the fuel truck to the equipment to be refueled. All equipment operating within 100 feet of a wetland or stream will have sufficient spill containment equipment on board to provide prompt control and cleanup in the event of a release.</p> <p>(3) Field personnel and Contractors shall be trained in spill response procedures including the deployment and maintenance of spill response materials;</p>		
114(h)	Employment of precautions, when not feasible to move the affected vehicle or equipment from an environmentally sensitive area to a suitable access area (i.e., pumping equipment), to prevent petroleum products or hazardous materials from being released into the environment. These precautions include (but are not limited to) deployment of portable basins or similar secondary containment devices, use of ground covers (such as plastic tarpaulins), and precautionary placement of floating booms on nearby surface waterbodies;	CHPE will comply.	See Appendix E (CMI Installation Manual).
114(i)	Implementation of EM&CP procedures for erosion and sediment control (in accordance with the SWPPP to be included with the proposed EM&CP) early in the construction process and prior to the start of grading and excavation activities; such procedures shall be maintained throughout the construction period and in accordance with SDESC;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
114(j)	Pumping of water from dewatering operations into a temporary straw bale or silt fence barrier or filter bag to settle suspended silt material prior to discharge. Direct discharge of sediment laden water to state- and/or federally- regulated wetlands and to streams and stormwater systems shall be avoided;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

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114(k)	Runoff resulting from equipment or machinery washing operations shall be prevented from directly entering any State-regulated wetland or protected stream or waterbody;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
114(l)	Development and implementation of spill response and cleanup procedures to minimize and respond to any accidental spills of petroleum producing chemicals or hazardous liquids that occur during construction;	CHPE will comply.	See Appendix J (Spill Prevention Plan/Spill Response Plan).
114(m)	A requirement that, during the performance of any HDD waterbody crossing, Contractors monitor the use of inert biodegradable drilling solution and, in the event of a detected release of fluid, implement the procedures specified in the approved EM&CP. For any release occurring in a waterbody, the Certificate Holders shall immediately notify DPS Staff and NYSDEC of details of the release and the course of action they recommend taking;	CHPE will comply.	Not applicable to this EM&CP Segment. No HDD operations are proposed. No further discussion provided.
114(n)	Monitoring of the status of each HDD waterbody crossing while construction activities are underway until the crossing has been completed and the stream and stream banks have been restored. In the event of any potential or actual failure of the crossing, the Certificate Holders shall have adequate staff and equipment available to take necessary steps to prevent or avoid adverse environmental impacts;	CHPE will comply.	Not applicable to this EM&CP Segment. No HDD operations are proposed. No further discussion provided.
114(o)	Completion of backfilling operations and of cleanup and restoration of the stream crossing, banks, and bank approaches (at least fifty (50) feet adjacent to each bank) within twenty-four (24) hours. If needed, stream banks shall be reestablished to original grade immediately after stream bank work is completed. The banks shall then be permanently stabilized by seeding with native grasses, mulching, and, if needed, planting native shrub seedlings	CHPE will comply.	Not applicable to this EM&CP Segment. No stream crossing, banks, or bank approaches will be impacted. No further discussion provided.
115	The Certificate Holders shall notify DPS Staff and NYSDEC at least five (5) days prior to construction involving protected stream crossings.	CHPE will comply.	Not applicable to this EM&CP Segment. No protected stream crossings will be impacted. No further discussion provided.
116	NYSDEC field representatives will notify the DPS Staff representative and the Certificate Holders' appropriate representative and, for wetlands within the Adirondack Park,	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	APA of any activities that violate or may violate either the terms of this Certificate or the ECL. DPS Staff, NYSDEC field representatives, and, for wetlands within the Adirondack Park, the APA will consult in assessing site conditions and determining whether a recommendation should be made to DPS Staff to exercise its stop work authority or, alternatively, whether the Certificate Holders should be directed to take action to minimize further impacts to streams and regulated wetlands as appropriate.		
117	The Certificate Holders shall establish and implement a program to monitor the success of wetland and stream restoration upon completion of construction and restoration activities. The success of wetland revegetation shall be monitored and recorded annually for the first two (2) years (or as required by any applicable permit) after construction, or longer, until wetland re-vegetation is successful. Wetland re-vegetation will be considered successful when the vegetative cover is at least eighty (80) percent of the type, density, and distribution of the vegetation in adjacent wetland areas that were not disturbed by construction. If re-vegetation is not successful at the end of two (2) years, the Certificate Holders shall develop and implement (in consultation with a professional wetland ecologist) a plan to actively revegetate the wetland with native wetland herbaceous plant species.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
118	If DPS Staff, in consultation with NYSDEC, determines that restoration of damage to wetlands caused by use of temporary road mats has not been adequate, the Certificate Holders shall prepare a mitigation plan for impacts arising from the use of temporary road mats. Such plan shall provide for compensatory mitigation in the form of a proposed project to address the loss of wetland functions, such as vegetation plantings or a project to address invasive species in wetlands.	CHPE will comply.	Not applicable to this EM&CP Segment. No regulated wetlands are located within, or surrounding, construction areas discussed in this EM&CP. No further discussion provided.
<b>R. Transmission System Reliability</b>			
119	This section of this Certificate deals with the interconnection of the Facility to the New York State Bulk Power System ("NYSBPS") and with certain aspects of the operation of the	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Facility while interconnected with the NYSBPS. Some of these matters may also be subject to regulation by the FERC under the FPA. Nothing contained in this section shall be construed as limiting or waiving Certificate Holders rights under the FPA in any way. In the event that Certificate Holders petition a tribunal of competent jurisdiction to determine whether any of the conditions and/or requirements established within this Transmission System Reliability section are regulated within the scope of FERC's exclusive jurisdiction under the FPA, Certificate Holders will provide a copy of such petition to DPS Staff within three days of filing. If determined by such tribunal to be within FERC's exclusive jurisdiction, Certificate Holders' compliance with FERC's requirements applicable to such matters (including without limitation any requirements established in any tariff or service agreement accepted for filing by FERC) shall be regarded as full and complete compliance with any such conditions and/or requirements established in this section.		
120	The Certificate Holders are authorized to construct and agree to design, engineer, and construct the HVDC Transmission Facility's Attachment Facilities (as defined in the Open Access Transmission Tariff ("OATT") of the NYISO, as provided in the Optional Interconnection Study ("OIS") and System Reliability Impact Study ("SRIS") approved by NYISO, NYISO's Transmission Planning and Advisory Subcommittee ("TPAS"), and NYISO's Operating Committee ("OC"), the applicable NYISO Class Year Annual Transmission Reliability Assessment Study ("ATRAS"), and the Facility's Interconnection Agreement with the applicable parties, which may include the NYPA, the Consolidated Edison Company of New York, Inc. ("Con Edison") and NYISO (the "IA"). The Certificate Holders shall utilize Good Utility Practice as described in Condition 20, in the design, engineering, and construction of the HVDC Transmission System's Attachment Facilities.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
121	The Certificate Holders shall connect the HVDC Transmission System to the 345 kV Astoria bus owned by NYPA at 345 kV, as shown in Appendix B. Certificate Holders shall connect the	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	Astoria-Rainey Cable to the 345 kV Astoria bus owned by NYPA and to the 345 kV Rainey bus owned by Con Edison as shown in Appendix B.		
122	The Certificate Holders shall work with NYPA and Con Edison, and any successor Transmission Owner(s) ("TOs") (as defined in the NYISO Agreement) to ensure that the Facility has a power system relay protection and appropriate communication capabilities to ensure that operation of the electric transmission system is adequate under NPCC Bulk Power Protection Criteria, and meets the protection requirements at all times of the NERC, NPCC, NYSRC, NYISO, Con Edison, and NYPA and any successor organizations. The Certificate Holders shall ensure that their power system relay protection and communication capabilities comply with applicable NPCC criteria and shall be responsible for the costs to verify that their relay protection system is in compliance with applicable NERC, NPCC, NYISO, NYSRC, Con Edison and NYPA criteria.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
123	The following requirements apply: a. The Certificate Holders shall be responsible for the Facility's share of the cost of System Upgrade Facilities (as that term is defined in the OATT) as determined by NYISO in accordance with its FERC approved tariffs, rules, and procedures. b. The Certificate Holders shall be responsible for the cost of interconnection facilities as they are defined in Attachment S of the OATT, and to the extent set forth in the IA. c. Payments from the Certificate Holders to NYPA and/or Con Edison of the amounts contemplated in this Certificate Condition shall be made in accordance with the terms of the IA. d. The Certificate Holders shall maintain the Facility in accordance with the approved tariffs and applicable rules and protocols of NYPA, Con Edison, NYISO, NYSRC, NPCC, NERC, and NAERO, and successor organizations. e. The Certificate Holders shall obey operational orders and dispatch instructions issued by NYISO or its agent or successor pursuant to applicable tariffs, manuals, rules, protocols, and other relevant documents applicable to the Facility. In the event that the NYISO System Operator encounters communication difficulties, the Certificate Holders shall obey dispatch	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	instructions issued by the Con Edison Energy Control Center, or its successor(s), pursuant to applicable tariffs, manuals, rules, protocols, and other relevant documents applicable to the Facility in order to maintain reliability of the transmission system.		
124	The Certificate Holders shall fully comply with the applicable reliability criteria of NYPA, the Commission, Con Edison, NYISO, NPCC, NYSRC, NERC, NAERO and their successors. If the Facility fails to meet such reliability criteria at any time, the Certificate Holders shall notify NYISO immediately, in accordance with NYISO requirements, and shall simultaneously provide the Commission, NYPA and Con Edison with a copy of the NYISO notice.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125	The Certificate Holders shall file a copy of the following documents with the Secretary and provide any updates to the documents throughout the life of the Facility:	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125(a)	all facilities agreements with Con Edison, NYPA, and successor Transmission Owners (as defined in the NYISO agreement);	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125(b)	any documents submitted to the NYSRC, including but not limited to, any updates issued by the NYSRC;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125(c)	the SRIS or any OIS or the Systems Impact Study ("SIS") approved by the NYISO OC, and the Final Class Year Facilities Study. Should the Certificate Holders apply in the future to NYISO for additional Capacity Resource Interconnection Service ("CRIS") rights for the Facility, they shall file with the Commission copies of all documents submitted to NYISO, provided however that in the case of documents containing confidential information of the NYISO, Certificate Holders shall not be obligated to file any materials that NYISO refuses to authorize Certificate Holders to file. Certificate Holders shall file such documents with the Commission, even if they choose not to fund construction of the System Deliverability Upgrades (as that term is defined in the OATT) required to obtain such additional CRIS rights;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125(d)	the Relay Coordination Study (which shall be filed not later than six (6) months prior to the projected date for circuit energization	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	or testing and commissioning activities of the Facility, and shall be performed in concert with Con Edison and NYPA, and the results of which shall be provided to Con Edison and NYPA);		
125(e)	a copy of the IA(s) and all updates thereto throughout the life of the Facility	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125(f)	a copy of the facilities design studies, including all associated drawings and support documentation and a copy of the manufacturer's "terminal facilities design characteristics" of the equipment installed (including test and design data); updates thereto throughout the life of the Facility; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
125(g)	if any equipment or control system with different characteristics is to be installed, the Certificate Holders shall provide that information to the Commission, NYPA and Con Edison before any such change is made at least three (3) months in advance so that it can be reviewed prior to installation (throughout the life of the Facility).	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
126	Within five (5) business days of any failure of equipment causing a reduction of more than ten (10) percent in the capability of the Facility to transmit electric power, the Certificate Holders shall promptly provide to DPS Staff, NYPA, and Con Edison copies of all notices, filings, and other substantive written communications with NYISO as to such reduction, any plans for making repairs to remedy the reduction, and a proposed schedule for any such repairs. The Certificate Holders shall provide monthly reports to DPS Staff, Con Edison, and NYPA on the progress of any repairs until completed. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident, and a discussion of how future occurrences will be avoided. The Certificate Holders shall work cooperatively with NYPA, Con Edison, and NYISO to avoid any future occurrences. If such equipment failure is not completely repaired within nine (9) months of its occurrence, the Certificate Holders shall provide a detailed report to the Secretary within nine (9) months and two (2) weeks after the equipment failure, setting forth the progress on the repairs and indicating whether	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	the repairs will be completed within three (3) months. If the repairs will not be completed within three (3) months, the Certificate Holders shall explain the circumstances contributing to the delay and demonstrate why the repairs should continue to proceed.		
127	The Certificate Holders shall include in the Facilities Study for the HVDC Transmission System prepared by NYISO, and request that NYISO identify, the additional facilities required for the Certificate Holders to provide Black Start service, as well as the cost of those facilities. If the Certificate Holders subsequently decide to participate in the NYISO's Black Start program, they shall demonstrate annually that the Facility can be black started. The Certificate Holders shall schedule with the NYISO, Con Edison, and NYPA the black start test and demonstrate black start procedures. If the Black Start Test fails, the Certificate Holders shall produce a report describing the test, detailing the cause (including copies of diagrams, photos, details of the test, and illustrations of the fail test) and what actions or changes are being made to the black start procedures. A copy of the report shall be submitted to Con Edison, NYPA, the Commission, and the NYISO. The Certificate Holders will provide the opportunity for DPS Staff to observe the black start testing and to attend all meetings related to Black Start. The Certificate Holders shall effectuate a successful black start annually to qualify for the Black Start program.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
128	The Certificate Holders shall coordinate with NYPA and Con Edison system planning and system protection engineers to evaluate the characteristics of the transmission system before purchasing any system protection and control equipment related to the electrical interconnection of the Facility to NYPA's and Con Edison's transmission facilities. This discussion is designed to ensure that the equipment purchased will be able to withstand most system abnormalities.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
129	The technical considerations of interconnecting the Facility to NYPA's and Con Edison's transmission facilities shall be documented by the Certificate Holders and provided to Staff of the Bulk Power Systems Section of DPS, Con Edison, and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	NYPA prior to the installation of transmission equipment. Updates to the technical information shall be furnished as available throughout the life of the Facility.		
130	The Certificate Holders shall work with NYPA and Con Edison engineers and safety personnel on testing and energizing equipment and develop a start-up testing protocol providing a detailed description of the steps that they will take to limit system impacts prior to and during testing of the Facility. Such protocol shall be provided to NYISO, Con Edison, and NYPA for review and comment and, following the review and comment phase, a copy of such protocol shall be provided to Staff of the Bulk Electric System Section of the DPS. The Certificate Holders shall comply with this protocol once established, unless NYISO provides written authorization to Certificate Holders to deviate from that protocol. The Certificate Holders shall make a good faith effort to notify DPS Staff of meetings related to the electrical interconnection of the Facility to NYPA's or Con Edison's transmission system, as applicable, and provide the opportunity for Staff to attend those meetings. The Certificate Holders shall provide a copy of the testing protocol to Staff of the Bulk Electric Systems Section of DPS.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
131	The Certificate Holders shall make modifications to the Facility if it is found by the NYISO or the Commission to cause reliability problems to the New York State Transmission System. If NYPA, Con Edison, or the NYISO bring concerns to the Commission, the Certificate Holders shall be obligated to respond to those concerns. The Certificate Holders shall prepare a report within forty-five (45) days of notification by DPS Staff that DPS Staff has determined that a reliability problem exists.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
132	No less than sixty (60) days prior to the Facility's anticipated COD, the Certificate Holders shall file with the Secretary, Operation and Maintenance Plan(s) for the Facility's Interconnection Facilities. The plan(s) shall be updated yearly, and a copy of the updated plan(s) shall be filed with the Secretary; the plan(s) and updates shall be provided to Con Edison and NYPA.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
133	<p>The Certificate Holders shall file with the Secretary, no less than sixty (60) days prior to delivery of test energy from the Facility to the Astoria Annex Substation and the Rainey Substation, a report regarding the measures taken to achieve the 1,550 MW deliverability commitment established in Condition 15(a) hereof, as well as copies of all studies, drawings, and backup documentation that support all such measures. The Certificate Holders shall provide a draft of such report to Con Edison for its review and comment at least thirty days prior to the filing of such report. The measures for achieving the 1,550 MW deliverability commitment specified by the Certificate Holders in that report shall not include a Special Protection System (“SPS”) or other operational measures subject to individual approval by NYISO, the New York State Reliability Council or other applicable reliability authorities, unless Con Edison informs the Certificate Holders, no more than twenty five days after receiving Certificate Holders’ draft report, that as a result of changed circumstances since the execution of the Stipulation in Commission Case 10-T-0139 on June 26, 2012, it disputes Certificate Holders’ conclusion that they can achieve 1,550 MW of energy deliverability out of the Astoria Annex Substation and into Con Edison’s transmission system. In the event that Con Edison takes the position that Certificate Holders cannot meet the 1,550 MW energy deliverability commitment using such facilities, nothing in this Certificate shall limit Certificate Holders’ right to propose to meet this deliverability commitment by using an SPS, other operational measures or any other measures, or the right of any party, including Con Edison, to object to the use of such measures. In such circumstances, the Certificate Holders shall include with their report all documentation for the design of any such SPS, other operational measures or other measures, with a complete description of all components and logic diagrams. Prior to delivery of test energy to the Astoria Annex Substation, the Certificate Holders shall provide documentation to DPS Staff that any such measures to be used by the Facility have received all required approvals from all applicable authorities, including without limitation NYISO and NPCC.</p>	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
134	In the event the HVDC Transmission System trips offline (other than as a result of any Operational Measures), the Certificate Holders shall notify DPS Staff, within one (1) hour of the incident. Following the incident, the Certificate Holders shall notify DPS Staff, NYPA, and Con Edison of the cause of the trip, and what actions, if any, the Certificate Holders are taking to rectify the cause. The Certificate Holders shall call and report to the Staff of the Bulk Electric Systems Section of the DPS within six (6) hours of any transmission related incident that affects the operation of the Facility. The Certificate Holders shall submit a report on any such incident within seven (7) days to the Bulk Electric System Staff, Con Edison, and NYPA. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident and a discussion of how future occurrences will be prevented. The Certificate Holders shall work cooperatively with Con Edison, NYPA, NYISO, NPCC, NYSRC, NERC, and DPS Staff to prevent any future occurrences.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
135	If there is a failure of one of the Facility's cables, the Certificate Holders shall report, within one (1) day of determining the location of the fault, to Bulk Electric System Section of DPS Staff, Con Edison, and NYPA as well as the likely location of and schedule for repairs. Any changes in the schedule shall be reported to DPS Staff, Con Edison, and NYPA.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
136	The Certificate Holders shall provide the Bulk Electric System Section of DPS with a copy of their emergency procedures and contacts, and an updated copy shall be provided with documentation of any modifications	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
137	The Certificate Holders shall report any theft of materials related to the Facility with a value in excess of ten thousand dollars (\$10,000) to the DPS Representative within one (1) business day of the time when the theft comes to the attention of the Certificate Holders. The Certificate Holders shall provide the DPS Representative with a list of the stolen items to the extent known and a copy of any police report.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
<b>S. Mapping, Land Acquisition, and As-built Drawings for the Facility</b>			
138	Each Segment EM&CP shall include a detailed map or maps showing (a) the boundaries of the Construction Zone associated with the work to be performed in connection with such Segment, including access routes, laydown and storage areas, sampling locations, and other relevant places, and (b) the anticipated ultimate location and the anticipated boundary of the Facility ROW and, (c) in the case of overland ROW, areas associated therewith, as follows: (i) areas within which periodic vegetative management may be necessary in order to prevent significant intrusion of tree roots into the Facility ROW, (ii) areas within which future ground alteration, structural construction, or other permanent installations by others generally should be precluded in order to protect the Facility and ensure appropriate access thereto for the purposes of repair and maintenance, and, (iii) areas offering (a) continuous longitudinal access along and (b) intermittent linking access from public roads and highways or established railroad access routes to the Facility ROW.	CHPE will comply.	See Appendix A (Pre-lay Mattress Location Drawings).
139	Following final completion of construction of a particular Segment, the Certificate Holders shall prepare and provide to the DPS the as-built design drawings, which shall include a detailed map or maps showing: (a) the boundary of the permanent Facility ROW and areas that will be subject to periodic vegetation management ("Final Layout Area"), (b) the location of the Facility as installed ("As-built Design Drawings"). All As-built Design Drawings provided to DPS pursuant to this condition shall include shapefile information compatible with ArcView® GIS Software, and (c) With respect to As-built Design Drawings that relate to installation of the Project on lands owned or controlled by the Canadian Pacific Railway, such As-built Design Drawings shall be provided to DPS staff within ninety (90) days of the completion of construction and shall conform with Section 5.5.5 of the American Railway Engineering and Maintenance-of-Way Association ("AREMA") Manual for Railway Engineering, taking into account the fact that such standard is specifically addressed to fiber optic infrastructure. With respect to As-built Design Drawings that relate to	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	installation of the HVDC Transmission System on lands owned or controlled by the CSX Transportation (CSX), such As-built Design Drawings shall be provided to DPS staff within ninety (90) days of the completion of construction and shall conform to an appropriate standard that is substantially equivalent in terms of detail to the AREMA standard referenced, and (d) With respect to As-built Design Drawings that relate to submerged portions of the HVDC Transmission System, such As-built Design Drawings shall indicate areas in which the cables are laid in deep waters without cover and areas in which the cables are laid on the bottom but covered, in which case(s) the type of cover (i.e., natural bed material, rip-rap or concrete mattress cover) shall also be described.		
140	Except as may be detailed, justified, and approved by DPS pursuant to the EM&CP process, each edge of the permanent overland Facility ROW shall be no closer than (a) when located entirely within lands owned or controlled by a railroad company or a public highway, six (6) feet to the outer surface of the nearest installed cable and (b), in all other areas, eight (8) feet to the outer surface of the nearest installed cable. [as amended in Amendment 1 (March 20, 2020)].	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
141	The Certificate Holders shall acquire control of all lands within the overland Final Layout Area by fee, easement, or other appropriate interest and shall perfect, in accordance with New York State law relating to the official recordation of instruments related to land and other possessory interests, their rights to use and occupy such lands for the life of the Facility, as appropriate.	CHPE will comply.	No further discussion provided.
142	For each Segment EM&CP that involves municipal lands with respect to which the Certificate Holders cannot acquire control by fee or easement, the Certificate Holders shall provide to the Commission an instrument or instruments confirming that the affected municipality has consented to the use of such lands and shall in any and all events comply with PSL § 68 with respect to exercise of rights conferred pursuant to such consents.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
143	For all rights concerning property comprising the Facility ROW, the Construction Zone, off-rights-of-way access, storage or staging areas, or the like, to be acquired, the Certificate Holders shall cause an examination of title (title search) to be conducted in the same manner as would be conducted by a reputable title insurance company to identify all of-record owners, mortgagees, lienholders, leaseholders, or others with an interest in such property rights to be acquired. The Certificate Holders shall serve written notice(s) of the EM&CP filing on each such person identified, and on any person owning the land underlying an affected easement or leasehold interest of record. Such notice would include, at a minimum, the procedures and deadlines for submitting comments.	CHPE will comply.	See Appendix B (EM&CP Filing Notices) for copies of notices required by this condition, if any such interests are identified. Proofs of service will be provided once available.
144	The Certificate Holders shall not commence any proceedings under the New York State Eminent Domain Procedure Law ("EDPL") to acquire any part of the Facility ROW areas temporarily-needed areas within the Construction Zone, or off-ROW access until the Commission has approved the relevant Segment EM&CP. To calculate the three-year period for acquisition of property pursuant to the EDPL, the date of Commission approval of a Segment EM&CP covering the affected parcel shall be regarded as the date on which this Article VII proceeding was completed. The Certificate Holders retain all rights afforded them by the New York Transportation Corporations Law and the EDPL.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
<b>T. Environmental Management and Construction Plan</b>			
145	Except where the provisions of this Certificate require otherwise, the environmental protection measures contained in the Joint Proposal and the Certificate Holders' Article VII Application, the WQC, the approved EM&CP Guidelines, and the approved BMPs shall be incorporated into the proposed EM&CP and applied during construction, operation, and maintenance of the Facility. Applicable Conditions of this Certificate, approved EM&CP, and orders approving the EM&CP and any Segment EM&CP shall be included in any design, construction, ownership, or maintenance contracts associated with the Facility.	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
146	The Certificate Holders shall provide, as a part of the proposed EM&CP, a final design plan that conforms with the design of the Facility set forth in this Certificate, applicable federal, state, and local requirements (including, but not limited to, applicable regulations administered by or in connection with the OSHA, NYSDEC, OPRHP, Ag & Mkts, the APA, the Commission, NYSDOT, the Bureau of Alcohol, Tobacco and Firearms, the New York State Department of Labor, and hazardous materials, chemical and waste-storage use and handling regulations).	CHPE has complied.	See Appendix A (Pre-lay Mattress Location Drawings).
147	The proposed EM&CP shall identify details of nearby electric, gas, telecommunication, water, wastewater, steam, sewer, and related facilities (whether underground, aboveground or underwater) and Measures to protect the integrity, operation, and maintenance of those facilities shall be presented in the EM&CP for each Segment, which shall explain the safety procedures that will be implemented during construction of the Facility	CHPE has complied.	See Appendix A (Pre-lay Mattress Location Drawings) for identification of relevant CI facilities and Section 5.0 (Co-located Infrastructure) for discussion of co-located infrastructure and proposed protection measures.
148	With respect to each Segment EM&CP filed with the Commission and prior to the filing of the same, the Certificate Holders shall: a. conduct a pre-installation survey that will document the location and condition of CI within the Construction Zone that is the subject of the Segment EM&CP and identify the parties owning and operating such CI and the agencies exercising regulatory jurisdiction over the same; b. include the results of such survey as a part of such filing; c. provide a detailed plan setting forth the measures that will be taken by the Certificate Holders to avoid damage to CI documented in connection with the filing and explaining how any reasonably foreseeable contingency will be met.	CHPE has complied.	See Section 5.0 (Co-located Infrastructure) and Appendix D (Documentation of Co-Located Infrastructure Consultations).
149	The Certificate Holders shall identify black cherry trees located in the Construction Zone near active livestock use areas during the development of each proposed Segment EM&CP. During the clearing phase, such vegetation shall be disposed of in a manner that prevents access by livestock.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
150	In preparing the proposed EM&CP, the Certificate Holders shall consult with the NYSDOH to identify all PWS systems within	CHPE will comply.	See Section 5.2 (Water Supply Intakes).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	one mile of the HVDC Transmission System facilities. The Certificate Holders shall consult with the operators or other representatives of each system to obtain information on the location of intake structures(s), plant operations, raw water quality parameters of concern including turbidity, and appropriate notification procedures. The results of that consultation shall be reported in the proposed EM&CP. The Certificate Holders shall include in their proposed EM&CP justification for any cable installation proposed to occur within five hundred (500) feet of a PWS intake and a description of alternative cable installation methods or modified methods (i.e., reduced speed and pressure) of trenching for cable installation in such areas as determined necessary based on information obtained from the PWS.		
151	The Certificate Holders shall file copies of the proposed EM&CP as directed by the Secretary, and serve five (5) hard copies and two (2) copies on CD-ROMS on DPS Staff, two (2) copies on the Staff of the NYSDEC in the Central Office in Albany, one (1) copy on each Regional Office of NYSDEC where the Facility is located, one (1) copy on the Commissioner of OPRHP, one (1) copy on staff of the Palisades Interstate Park Commission (if the Segment EM&CP relates to construction that may take place in Rockland County), one (1) copy on the Staff of Ag & Mkts., one (1) copy on NYSDOT in the Central Office in Albany and one (1) copy on each municipality and Regional Office of NYSDOT where the relevant portion of the Facility is located (if requested by such municipality or NYSDOT), one (1) copy on NYSDOS, one (1) copy on any other New York State agency (and its relevant regional offices) that requests the document, and one (1) copy on active parties on the service list who request the document (in the case of a municipality, such service shall be directed to the Chief Executive Officer thereof). Service upon state agencies shall be in the same manner and at the same time as filing with the Secretary. The Certificate Holders also shall place electronic or hard copies for inspection by the public on an internet website and in at least one (1) public library or other convenient location in each municipality in which the	CHPE will comply.	No further discussion provided. Proofs of service will be submitted to the Secretary following the submission of this EM&CP.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	construction authorized in that portion of the EM&CP will take place. Contemporaneously with the filing and service of the proposed EM&CP, the Certificate Holders shall provide notice, in the manner specified below, that the proposed EM&CP has been filed.		
152	The Certificate Holders shall serve written notice(s) of the filing of the proposed EM&CP or Segment EM&CP on all parties to this proceeding, as well as the relevant railroads and CI owners whose facilities, properties, and/or structures within the geographic scope of that portion of the EM&CP that may be impacted, including but not limited to tracks and devices, and shall attach a copy of the notice so served to each copy of the proposed EM&CP or Segment EM&CP. Further, the Certificate Holders shall publish the notice(s) in a newspaper or newspapers of general circulation in the vicinity of the Segment(s) to which the EM&CP relates.	CHPE will comply.	See Appendix B (EM&CP Filing Notices) for copies of notices required by this condition. Proofs of service and publication will be provided once available.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
153	<p>The Certificate Holders shall provide notice that the EM&amp;CP is available for review to the chief executive officer of each affected municipality and to residents, businesses, and building, structure, and facility owners and, to the extent known, operators of the same when such land uses are located within one hundred (100) feet of the HDD staging areas, off-ROW construction access roads, and the overland components of the Facility. The notice shall include, in plain language: (i) details about the planned work locations; (ii) hours and duration of activities; (iii) provisions for protection of properties, if applicable; (iv) provisions for maintenance and protection of pedestrian and vehicle access to buildings and properties; (v) identification of locations where additional information and copies of the EM&amp;CP are available; (vi) contact information for Certificate Holders personnel, including a toll-free number; and (vii) instructions on how comments regarding construction plans and mitigation measures may be filed with the Secretary, indicating appropriate deadlines for commenting and contact information. The Certificate Holders shall also provide a hard copy synopsis of any approved Segment EM&amp;CP for residents owning property located within one hundred (100) feet of the Construction Zone as delineated therein. Such synopsis shall include a hard copy page(s) from the approved Segment EM&amp;CP that may have relevance to the resident's property. Proof of notice to residents, businesses, and building and structure owners shall be provided to the Secretary.</p>	CHPE will comply.	See Appendix B (EM&CP Filing Notices) for copies of notices required by this condition. Proofs of service will be provided once available.
154(a)	<p>The Certificate Holders shall provide notice to residents, businesses, and building, structure, and facility (including underground, aboveground and underwater facilities) owners and operators within one hundred (100) feet of any HDD staging area or trenching activity with an offer to inspect foundations before, during, and after construction. The notice provided shall include the following provisions: (i) an offer to inspect building, facility, and structure foundations before, during, and after construction; (ii) an explanation of the benefits of such inspections and what documentation will be provided to building or facility or structure owners and operators; and (iii) proof of</p>	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve HDD or trenching. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	notice to residents, businesses, and building, facility, and structure owners and operators shall be provided to the Secretary. Proof of notice shall accompany filing of the proposed EM&CP.		
154(b)	Inspections of building foundations conducted for residents, businesses, and building, facility, or structure owners or operators, or for which Certificate Holders reimburse such costs expended by any such individuals for this purpose, shall (i) provide each building, facility, or structure owner or, to the extent known, operator with documented conditions at each significant stage of construction; (ii) include photographs of any existing and post-construction damage and document measurements of foundation crack lengths during each inspection phase; (iii) provide each building, facility, and structure owner/operator a report detailing foundation condition findings; and (iv) provide a copy of each prepared report to DPS Staff within thirty (30) days of completion.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve HDD or trenching. No further discussion provided.
154(c)	HDD site preparation or trench excavation work shall not commence until all building, facility, and structure owners and operators provided with notice under sub-part (b) above have accepted or declined inspection offers, or a response has not been received within two (2) weeks from service.	CHPE will comply.	Not applicable to this EM&CP Segment, which does not involve HDD or trenching. No further discussion provided.
155(a)	The written notice(s) and the newspaper notice(s) of filing the proposed EM&CP or Segment EM&CP shall contain, at a minimum, the following: (1) a statement that the proposed EM&CP has been filed; (2) a general description of the Facility and the proposed EM&CP; (3) with respect to the written notice(s) for identified persons with a record interest in property to be acquired or significantly disturbed by construction, a specific description of the ROW of the Facility, as applicable, temporarily needed areas within the Construction Zone, or off ROW access to be acquired; (4) a listing of the locations where the proposed EM&CP is available for public inspection; (5) a statement that any person desiring additional information about a specific geographical location or specific subject may request it from the Certificate Holders; (6) the name, address, and telephone numbers of an appropriate Certificate Holders	CHPE will comply.	See Appendix B (EM&CP Filing Notices) for copies of notices required by this condition. Proofs of service and publication will be provided once available.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	representative; (7) the address of the Secretary; and (8) a statement that any person may be heard by the Commission on any matter or objection regarding the proposed EM&CP by filing written comments with the Secretary and the Certificate Holders within thirty (30) days of the date the proposed EM&CP was filed with the Commission (or within thirty (30) days of the date of the newspaper notice, whichever is later).		
155(b)	A certificate of service indicating upon whom all EM&CP notices and documents were served and a copy of the written notice shall be filed with the Secretary at the time the proposed EM&CP is filed, and shall be a condition precedent to approval of the EM&CP.	CHPE will comply.	See Appendix B (EM&CP Filing Notices) for copies of notices required by this condition. Proofs of service will be provided once available.
156(a)	For the overland portions of the Facility, construction outside the Allowed Deviation Zone, to the minimum extent necessary, as detailed and justified in an EM&CP submittal, shall be allowed for appropriate environmental or engineering reasons, except where a conflict with a specific provision of this Certificate would be created.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
156(b)(1)	For the HVDC Transmission System installed in Lake Champlain and the Hudson River, the Allowed Deviation Zone shall be anywhere within those bodies of water where the water depth exceeds twenty (20) feet at mean low water, and were installed in the Harlem and East Rivers the Allowed Deviation Zone for the HVDC Transmission System shall be anywhere where the water depth exceeds ten (10) feet at mean low water, provided however that: (1) Where the HVDC Transmission System Centerline enters any of the Exclusion Zones identified on the maps contained in Appendix B to the Joint Proposal, the Allowed Deviation Zone shall be limited to one hundred and fifty (150) feet on either side of the Facility Centerline. The Certificate Holders' rights to enter into such Exclusion Zones are as follows: Prior to installation in these areas, the Certificate Holders shall provide in the EM&CP an analysis as to whether there are any reasonable and feasible underwater alternatives outside of the Exclusion Zones that would allow for burial at the target depth of six (6) feet. No deviation in the Centerline may cause the HVDC Transmission	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	System to enter into any of the Exclusion Zones identified in that Appendix B without (a) the Certificate Holders providing in the EM&CP an analysis that there are no other reasonable and feasible alternatives that would allow for achieving the target burial depth of six (6) feet and (b) the written consent of NYSDEC. In the event the Certificate Holders are unable to agree on a change to the Centerline governed by this subpart, the Certificate Holders shall be free to file an application for an amendment to this Certificate setting out their proposed new Centerline and the environmental and engineering considerations underlying that proposal;		
156(b) (2,3,&4)	(2) No deviation of over one hundred fifty (150) feet in the Centerline may cause the HVDC Transmission System to come within one hundred sixty (160) feet of any instance of "Lake Champlain Maritime Museum ("LCMM")/CHPE Marine Route Survey Cultural Resources" identified in Appendix B to the Joint Proposal without (a) the Certificate Holders providing in the EM&CP an analysis that there are no other reasonable and feasible alternatives; and (b) the written consent of the New York State Historic Preservation Office ("NYSHPO"). In the event that the Certificate Holders and NYSHPO are unable to agree on a change to the Centerline governed by this subpart, the Certificate Holders shall be free to file an application for an amendment to this Certificate setting out their proposed new Centerline and the environmental and engineering considerations underlying that proposal; and (3) No deviation of more than one hundred and fifty (150) feet in the Centerline may cause the Facility to be located or re-located within any Significant Coastal Fish & Wildlife Habitat identified in the NYS Coastal Management Program without: a. the Certificate Holders providing in the EM&CP an analysis that there are no other reasonable and feasible alternatives that would allow for achieving the target depth of cover of six (6) feet; b. the written consent of NYSDEC. In the event that the Certificate Holders and NYSDEC are unable to agree to a change in the Centerline governed by this subpart, the Certificate Holders shall be free to file an application for an amendment to this Certificate setting	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	out their proposed new Centerline and the environmental and engineering considerations underlying that proposal; c. a written statement from NYSDOS stating that the deviation would not result in coastal effects that differ significantly from the coastal effects reviewed by NYSDOS in Certificate Holders' original federal Coastal Consistency Certification. In the event that NYSDOS determines that such deviation would result in coastal effects that differ significantly from those reviewed in the Coastal Consistency Certification, the Certificate Holders shall seek a written concurrence from NYSDOS for any such project changes that would require an amendment to the Certificate Holders' Coastal Consistency Certification. Nothing in this Certificate shall be construed to limit or expand any rights Certificate Holders may have to seek administrative or judicial review of any action or inaction by NYSDOS relating to any such deviation; and (4) No significant increase in adverse effects to CI or other infrastructure results from proposed facility re-location.		
157	All deviations from the design depth, height, and location of facilities or structures shall be presented in the proposed EM&CP for approval. An explanation for the proposed deviations shall be provided, with supporting documentation. Deviations shall be allowed for appropriate environmental or engineering reasons without modification to this Certificate, except where a conflict with a specific provision of this Certificate would be created. If a deviation is proposed after approval of the EM&CP, the procedures contained in Condition 158 of this Certificate shall apply.	CHPE will comply.	No further discussion provided.
158	The EM&CP approved by the Commission may incorporate modifications from the EM&CP proposed by the Certificate Holders. No change to the approved EM&CP may thereafter be made except in accordance with the following procedures:	CHPE will comply.	No further discussion provided.
158(a)	For a proposed change that: (i) would involve a site listed or eligible for listing on the New York State or National Register of Historic Places, the Certificate Holders shall give at least two (2) weeks prior notice to the Field Service Bureau of OPRHP. (ii) would involve any State-regulated wetland or protected stream	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	or water body, the Certificate Holders shall give at least two weeks prior notice to NYSDEC, and, if within the Adirondack Park, to APA. (iii) would affect the occupied habitat of a TE species, the Certificate Holders shall give at least two weeks prior notice to NYSDEC and to the USFWS or NMFS (where applicable) prior to providing notice to DPS staff of the proposed change. (iv) would affect the individual or habitat supporting Rare, Threatened and Endangered (RTE) plants, the Certificate Holders shall give at least two (2) weeks prior notice to NYSDEC and DPS. (v) would involve agricultural land, the Certificate Holders shall give at least two (2) weeks prior notice to Ag & Mkts. (vi) would involve the herbicides planned for use (including mixed proportions, additives or method of application), the Certificate Holders shall give at least thirty (30) days prior notice to NYSDEC. (vii) would affect land or water owned or controlled by CNY, the Certificate Holders shall give at least two (2) weeks prior notice to CNY.		
158(b)	The Certificate Holders shall report any proposed changes to the EM&CP to DPS Staff. DPS Staff will refer to the Commission for approval any proposed changes that cause a substantial increase in environmental impact, after consultation with NYSDEC, any proposed changes that relate to contested issues decided during the proceeding, and any proposed changes affecting State highways (but need not do so if the report indicates NYSDOT's agreement to such proposed changes). DPS Staff is authorized to approve all other proposed changes, in accordance with the procedure outlined herein, and will submit reports of such changes to the Secretary or the Secretary's designee, which reports will be posted on the Commission's website under this case number.	CHPE will comply.	No further discussion provided.
158(c)	Upon being advised that DPS Staff will refer a proposed change to the Commission, the Certificate Holders shall notify all active parties that have requested to be so notified, as well as property owners or lessees whose property is affected by the proposed change. The notice shall: (i) describe the original conditions and the requested change; (ii) provide documents supporting the request; and (iii) state that persons may comment by writing to	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	the Commission within twenty-one (21) days of the notification date.		
158(d)	The Certificate Holders shall not execute any proposed change until they receive written approval from the Commission (if Commission approval is required pursuant to subparagraph (a) of this paragraph) or oral or written approval from DPS Staff (in the case of a change that Staff has authority to approve) except in emergency situations threatening personal injury, property damage, or severe adverse environmental impact, or as specified in the EM&CP. When the Certificate Holders have obtained oral approval from DPS Staff for a change, DPS Staff will confirm such approval in writing within ten (10) business days.	CHPE will comply.	No further discussion provided.
159	The EM&CP and, as and when appropriate, a Segment EM&CP and any proposal to modify the EM&CP or a Segment EM&CP shall address, but not be limited to, the following information:	CHPE has complied.	No further discussion provided.
159(a)	details of work site dimensions; construction ROW and off-ROW access needs and locations; locations and descriptions of work scheduled or planned by others in the vicinity of the construction identified after consulting relevant federal, state, and city agencies; and measures to protect adjacent facilities, structures and vegetation;	CHPE has complied.	See discussion in Section 4.0 (Construction Procedures), Section 5.0 (Co-located Infrastructure), Appendix A (Pre-lay Mattress Location Drawings), and Appendix E (CMI Installation Manual) that provides the information required by this condition.
159(b)	documentation of methods to meet the requirements of this Certificate and incorporation of appropriate engineering standards, regarding existing road, bridge, and culvert conditions;	CHPE has complied.	Not Applicable to this Segment, as no road, bridge, or culverts to be crossed within site. No further discussion provided.
159(c)	location of the utility, water, steam, sewer, and wastewater crossings and other nearby utility facilities, including CI facilities, and methods for protecting the cable and other facilities, including CI facilities, at those crossings and nearby locations; the plan shall include detailed construction techniques, methods, and equipment descriptions for the protection of existing utilities including, but not limited to, how damage to existing utilities will be avoided and how any contingency will be met in case damage does occur, and for coordination with utilities and public service providers;	CHPE has complied.	See Section 5.0 (Co-located Infrastructure) and Appendix D (Documentation of CI Consultations) for discussion of co-located infrastructure and proposed protection measures.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
159(d)	detailed construction schedule and coordination plans, including those in connection with other utility owners and operators with respect to any work on the Facility for which coordination is required by this Certificate or other related agreement(s), including construction calendar;	CHPE has complied.	See Section 5.0 (Co-located Infrastructure) for discussion of co-located infrastructure and proposed protection measures. See Appendix E (CMI Installation Manual) for construction schedule.
159(e)	each construction activity as discussed in Condition 58;	CHPE has complied.	See Section 4.0 (Construction Procedures).
159(f)	a comprehensive plan to identify encroachments within the Construction Zone as discussed in Condition 60;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(g)	an HDD work packet providing planning, installation controls, and site measures that will be taken in accordance with good engineering practices; including relevant information and deliverables described in Section 8.1 of the BMPs;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(h)	jet plow and shear plow techniques and adjustments, including details related to crossing existing underwater facilities and infrastructure;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(i)	a work plan for dredging activities including specific practices to be used during dredging, dredged materials management plans, and proof of the ability to provide proper disposal;	CHPE has complied.	Does not apply to this Segment. No further discussion provided.
159(j)	drawings and specifications of any closed environmental bucket or other dredging equipment, including specifications demonstrating that appropriate design considerations are incorporated in equipment selected for deployment;	CHPE has complied.	Does not apply to this Segment. No further discussion provided.
159(k)	a pre-installation and post-energizing sediment sampling and monitoring plan, which plan will be subject to review and comment by NYSDEC and NYSDOS and will adhere to the following specifications: the plan will correspond to Attachment 2 of this Certificate, Benthic and Sediment Monitoring Scope of Study. The plan submitted to DPS Staff for approval shall include the results of the consultation with NYSDEC and NYSDOS;	CHPE has complied.	Does not apply to this Segment. No further discussion provided.
159(l)	details of cable pulling and splicing plans that include locations of any spare conduits that will be installed;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided. Additional detail to be provided in EM&CP Segment 18B as appropriate.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
159(m)	night-time construction provisions, including lighting and noise control, and mitigation measures, including conditions when night-time construction will be undertaken;	CHPE has complied.	Not applicable to this EM&CP Segment. No nighttime activities are proposed for Lake Champlain mattressing construction or installation. See Section 9.0 (Noise and Visual Impact Mitigation) for other visual and auditory impacts and mitigation.
159(n)	public road traffic control and public safety and the MPT plans as discussed in Condition 39;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(o)	details regarding street work, including provisions for minimizing the duration and extent of open excavation, traffic disruptions, and work within and adjoining public streets and public street ROW;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(p)	public safety control provisions including practices for work near residential and publicly accessible sites; fencing around open work areas, and provisions for through traffic, and alternative access;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(q)	designated parking areas and equipment storage and staging locations;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(r)	details for drainage line repair procedure and drawings in the event of a crushed or severed drain lines;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(s)	provision for submission of a certification by a professional engineer licensed by the State of New York stating that, if constructed in accordance with the final design plans, the Facility shall, to the extent applicable, comply with the interim electrostatic field standard established by the Commission in Opinion No. 78-13 (issued on June 19, 1978 in Cases 26529 and 26559) and the limit for magnetic fields set in the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued on September 11, 1990 in Cases 26529 and 26559) or with any standard test that has superseded these standards at the time of consideration by the Commission of the EM&CP or a particular Segment EM&CP;	CHPE has complied. See DMM Item 819.	Not applicable to this EM&CP Segment. No further discussion provided.
159(t)	a work plan for reducing magnetic fields, which will include documentation of the calculation of anticipated average	CHPE has complied. See DMM Item 819.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	magnetic field levels, overland and underwater with the Facility in operation;		
159(u)	impact avoidance and/or minimization measures for regulated wetlands, streams, and other environmental resources including any maps and plan drawings of streams, regulated wetlands, and sensitive habitat crossing locations, site-specific stream-crossing techniques for the construction of the Facility and for the construction of any access roads to be used for such construction, and selective vegetation-clearing techniques in areas near streams or regulated wetlands;	CHPE has complied.	See Section 8.0 (Environmentally Sensitive Areas).
159(v)	measures consistent with this Certificate, the Joint Proposal, the BMPs, and the EM&CP Guidelines to avoid and/or minimize impacts to TE species and RTE plants and their occupied habitat;	CHPE has complied.	See Section 8.0 (Environmentally Sensitive Areas).
159(w)	work plan for measures to be taken for protection of vegetation and visual resources of the Lakes to Locks Passage Scenic Byway (State Highway 22);	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(x)	a notice of intent to exercise authority under the SPDES General Permit for construction activities;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(y)	details of erosion control plans, including grading and filling at the overland Construction Zone, Converter Station, and substation, so as to provide for the control of discharges incidental to the construction of the Facility, including to stormwater, groundwater, and surface waters, and meet applicable water quality standards;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(z)	methods to avoid the effects of sediment on nearby facilities and infrastructure, including avoidance techniques with respect to the clogging of outfalls and diffusers;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(aa)	spoil control plans for excavations, including for any materials proposed for use as backfill in the underwater or overland route, identification of its source and the evaluation of its suitability;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(bb)	a blasting plan that includes the information described in the BMPs;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
159(cc)	work plan for storage of all petroleum products and hazardous chemicals which may be used during, or in connection with, the construction, operation, or maintenance of the Facility, fuel and fluids spill prevention and control plans;	CHPE has complied.	See Section 6.0 (Pollution Prevention), Appendix E (CMI Installation Manual), and Appendix J (Spill Prevention Plan/Spill Response Plan).
159(dd)	work plans for responding to and remediating the effects of any spill of petroleum products or hazardous substances that occurs during construction of the Facility on land or in the water in accordance with applicable federal and state laws, regulations, and guidance, which shall include proposed methods of handling spills of petroleum products and any chemicals that may be stored or utilized during the construction, operation, or maintenance of the Facility;	CHPE has complied.	See 6.0 (Pollution Prevention), Appendix E (CMI Installation Manual), and Appendix J (Spill Prevention Plan/Spill Response Plan).
159(ee)	plans for pre- and post-installation bathymetry, sediment, benthic invertebrate, fish, temperature, and magnetic field surveys as described in Condition 163, and mitigation;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(ff)	a plan for suspended sediment and water quality monitoring consistent with Attachment 1 of this Certificate, Suspended Sediment and Water Quality Plan Scope of Study, for jet and shear plow activities, as well as removal of large debris with an area greater than nine hundred (900) square feet or longer than thirty (30) feet in any direction;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(gg)	invasive species control measures during construction;	CHPE has complied.	See Section 7.0 (Invasive Species Management) and Appendix G (Invasive Species Control Plan).
159(hh)	appropriate measures as proposed in Karner blue butterfly ( <i>Lycaeides melissa samuelis</i> ) Impact Avoidance and Minimization Report attached to the Joint Proposal as Exhibit 109;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(ii)	United States Coast Guard Notice(s) to Mariners during the occupation of any surface waters of the State of New York which may present a hazard or obstacle to safe navigation;	CHPE will comply.	See Section 4.0 (Construction Procedures) and Appendix E (CMI Installation manual).
159(jj)	other mitigation measures as appropriate to demonstrate compliance with other permits and approvals;	CHPE has complied.	No further discussion provided.
159(kk)	plans and specifications for site and pavement restoration, including pre-existing drainage systems;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
159(ll)	noise mitigation plan for noise sensitive sites showing the locations of residential areas and other noise-sensitive areas along the proposed ROW of the Facility and the specific procedures to be followed to minimize noise impacts related to ROW clearing, facility construction, and operation for the Facility;	CHPE has complied.	See Section 9.1 (Noise Impacts).
159(mm)	mitigation measures that will be employed should significant concentrations of waterfowl be encountered during fall migration when construction is proposed near the following SCFWH: Germantown-Clermont Flats, The Flats, Roundout Creek, Esopus Meadows, Vanderburgh Cove and Shallows, Constitution March, and Iona Island Marsh;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
159(nn)	plans for use of roadways for the delivery of oversized loads in the event that transportation of oversize loads by road is required. The Certificate Holders shall obtain any necessary governmental permits associated with transport of such oversized loads and provide copies of such permits to the Secretary;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
159(oo)	a plan for responding to and remediating the effects of any spill of petroleum or any hazardous substances that occurs during the construction of the Facility, in accordance with applicable state and federal law and regulations. Such plan shall be developed in accordance with such applicable laws and regulations and relevant official guidance and shall include proposed methods of handling spills of petroleum products and any hazardous substances which may be stored or utilized during construction, operation, or maintenance of the Facility;	CHPE has complied.	See Section 6.0 (Pollution Prevention), Appendix E (CMI Installation Manual), and Appendix J (Spill Prevention Plan/Spill Response Plan).
159(pp)	For excavations in close proximity to buildings, walls, or other structures: i. a description of the support system method for each such location where support is determined to be necessary; ii. the rationale for each such location where it is determined that support systems are unnecessary; and iii. support system designs for each location where it is determined that support is necessary; designs shall demonstrate approval by a registered professional engineer licensed in New York State.	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
159(qq)	For excavations that will be below the level of the base or footing of any foundation or retaining wall: i. a list of all locations where excavation below the base or footing of any structure is considered necessary; ii. a description of the support system method for each such location where support is determined to be necessary; iii. the rationale for each such location where it is determined that support systems are unnecessary per OSHA Requirements 1926.651(i)(2)(ii), 1926.651(i)(2)(iii), and 1926.651(i)(2)(iv); and iv. support system designs for each location where it is determined that support is necessary; designs shall demonstrate approval by a registered professional engineer licensed in New York State.	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
160	The Certificate Holders shall also include in the proposed EM&CP a compliance assurance plan that includes but is not limited to: a. The name(s) of the inspector(s) selected under Condition 53 and a statement of qualifications for each inspector demonstrating sufficient knowledge and experience in environmental and construction matters to complete the inspections and audits; b. Provision for deployment of more than one of a particular type of inspector (or types of inspectors, when appropriate) in the event that two or more major construction operations are undertaken simultaneously in areas separated by ordinary highway driving of more than three (3) hours, such that at least one inspector of a particular type shall be assigned to each such separated construction area; c. A proposed checklist of matters to inspect for compliance, including the specific items or locations to be inspected, the inspection to be employed such as visual, auditory, testing by instrument, and acceptability criteria to be applied by the inspector(s); d. A procedure setting forth how the Certificate Holders shall respond to and correct problems found by the inspector(s); e. A procedure setting forth how the Certificate Holders shall respond to and correct problems identified by any utility owners or operators whose property has been damaged in any material way as a result of the construction, operation, or maintenance of the Facility; f. A schedule for monthly environmental audits during construction and submission of	CHPE has complied.	See Appendix C (Compliance Assurance Plan).

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	audit checklists, together with a written explanation of problem(s), signed by the independent inspectors and an authorized representative of the Certificate Holders, to DPS Staff and NYSDEC; and g. A schedule for submission of annual environmental audits during the first two (2) years of operation of the Facility to DPS Staff, NYSDEC, and specified state and municipal agencies.		
161	The Certificate Holders shall also include in the EM&CP: a. An immediate post-installation inspection plan that shall include at a minimum: (i) the method for determining the actual cable location and actual burial depth of the cable upon completion of installation; (ii) standards to be used to determine what remedial actions are warranted consistent with Good Utility Practices (e.g., additional burial and/or protection efforts) in all locations where the cable burial depth is less than the applicable target burial depth; (iii) standards to be used to determine if any damage has been or will be caused to any pre-existing facility and/or infrastructure as a result of cable installation, operation, or maintenance, and remedial measures therefore; and (iv) the method and timing for undertaking such efforts; and b. A maintenance and emergency action plan that shall include, at a minimum, (i) a schedule for periodic verifications, not to exceed three (3) years for overland locations and five (5) years for underwater locations, of the depth of burial of the cable and the standard to be used to determine, based upon inspection results, whether, and if so, what relocation, reburial, and/or added protection measures for the cable or pre-existing facilities or infrastructure are required; (ii) ROW vegetation maintenance plan; (iii) provisions for stabilizing erosion and resolving drainage problems; and (iv) control of access to the ROW and facility components.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162	In order to protect CI described in Condition 27, the Certificate Holders shall include in the EM&CP:	CHPE will comply.	See below.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
162(a)	an interference study, conforming to industry standards and performed by an individual or individuals with suitable qualifications to conduct such study, with respect to each location at which the Facility crosses CI or comes into such proximity to CI that an interference study is warranted by Good Utility Practices, and specifying any proposed mitigation measures;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162(b)	a study to determine whether the Facility may have corrosive effects on any CI, conforming to industry standards and performed by individual(s) with suitable qualifications to conduct such study, and specifying any proposed mitigation measures;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162(c)	detailed cable ampacity and thermal calculations and documentation demonstrating that CI will not be adversely affected by the construction, operation, or maintenance of the Facility; such documentation shall include study results, calculations, and underlying assumptions used in the analysis and also to include, but not be limited to, cable specification, installation cross sections, thermal resistivity (tested or assumed) and, in the case of alternating current ("AC") lines only, magnetic field studies;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162(d)	detailed calculations and documentation demonstrating that CI will not be adversely affected by the weight and installation methodology of the Facility's cables; such calculations and documentation shall respond to and address study results and shall set forth the underlying assumptions used in the analysis and shall also include, but not be limited to, cable specification, installation cross sections, geotechnical data (tested or assumed), and proposed mechanical protection;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.



Certificate Condition		Compliance Status	EM&CP Section/ Appendix
162(e)	in the event that a Segment EM&CP proposes that the HVDC Transmission System is to cross CI located on or below the beds of the Hudson, Harlem, or East Rivers or Lake Champlain ("Submerged CI"), any such Segment EM&CP shall include: i. a technical and economic analysis and documentation (including supporting information) comparing the installation of the Facility both over and beneath such Submerged CI; ii. a detailed explanation of Certificate Holders' plans for maintaining the existing mechanical protection of any Submerged CI during and after installation of the HVDC Transmission System's cables, including a discussion of the type and replacement of thermal sands; iii. a demonstration based on the final design of the HVDC Transmission System of the manner in which the owners or operators of such Submerged CI would have access to repair and/or maintain its Submerged CI; iv. where requested by the Designated Representative of the owner(s) or operator(s) of such Submerged CI, Certificate Holders shall make reasonable efforts to ensure that the route of the HVDC Transmission System is designed to cross such Submerged CI at an angle which is as close to a right angle on the horizontal as is practicable having due regard to other route requirements; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162(f)	documentation showing that there will be no material interference with the ability of the owners and/or operators of any CI crossed by, or in proximity to, the Facility, to repair, operate, or maintain such CI as a result of the construction, operation, or maintenance of the Facility;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162(g)	a full description of all measures that will be employed by Certificate Holders to protect all CI that may be affected by the construction, operation, or maintenance of the Facility, including, but not limited to, detailed construction techniques and methods, equipment descriptions, an explanation of how any contingency will be met in case damage does occur, and procedures for coordination with utilities and public service providers;	CHPE will comply.	See Section 4.0 (Construction Procedures), Section 5.0 (Co-Located Infrastructure), and Appendix A (Pre-lay Mattress Location Drawings).
162(h)	protocols for performing repair and maintenance work on the Facility in proximity to CI;	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure), Appendix C (Compliance Assurance Plan),

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
			and Appendix D (Documentation of CI Consultations).
162(i)	documentation showing agreement by the owners and/or operators of affected CI with both Certificate Holders' construction schedule for operations in the vicinity of such CI and the measures described in the EM&CP documents relating to such CI or a description of those aspects of the proposal that are disputed, and a discussion of the positions taken by the Certificate Holders and the owners and/or operators of the CI;	CHPE will comply.	See Section 5.0 (Co-Located Infrastructure) and Appendix D (Documentation of CI Consultations).
162(j)	documentation showing agreement by CNY that CI owned or operated by CNY, whether located within the boundaries of CNY or elsewhere, has been adequately identified and protected or a description of those aspects of Certificate Holders' proposal that are disputed and a discussion of the positions taken by the Certificate Holders and CNY; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
162(k)	A decommissioning plan setting forth steps to be taken in the event that the Facility is permanently de-energized.	CHPE will comply.	See Section 12.0 (Decommissioning Plan).
163	Within six (6) months after issuance of this Certificate, the Certificate Holders shall submit to the DPS Staff for review, comment, and approval in consultation with NYSDEC and the NYSDOS, detailed Standard Operating Procedures ("SOP") for compliance monitoring studies to be conducted in the Hudson River. The SOPs shall be consistent with the Scopes of Study attached to this Certificate: § Benthic and Sediment Monitoring Scope of Study (Attachment 2 to this Certificate) § Bathymetry, Sediment Temperature and Magnetic Field Scope of Study (Attachment 3 this Certificate) § Atlantic Sturgeon Pre-Installation and Post-Energizing Hydrophone Scope of Study (Attachment 4 to this Certificate)	CHPE has complied. See DMM Items 751 and 752.	No further discussion provided.
164	The approved SOPs required by Condition 163 shall be incorporated into the EM&CP or first Segment EM&CP that proposes to perform cable installation in the Hudson River and completion of the studies as defined by the approved SOPs shall be a requirement of this Certificate.	CHPE will comply.	No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
<b>U. Environmental Trust</b>			
165	The Certificate Holders shall establish the Hudson River and Lake Champlain Habitat Enhancement, Restoration, and Research/Habitat Improvement Project Trust (“the Trust”) solely for the purposes of protecting, restoring, and improving aquatic habitats and fisheries resources in the Hudson River Estuary, the Harlem and East Rivers, Lake Champlain, and their tributaries, in order to minimize, mitigate, study, and/or compensate for the short-term adverse aquatic impacts and potential long-term aquatic impacts and risks to these water bodies from Facility construction and operation and for the administration of the Trust to the extent expressly authorized in these Certificate Condition.	CHPE has complied. See DMM Items 746, 750, 753, 848, 879.	Not applicable to this EM&CP Segment. No further discussion provided.
165(a)	Certificate Holders shall file an agreement providing for the establishment of the Trust (the “Trust Agreement”) within one hundred twenty (120) days after issuance of this Certificate. The trustee selected by Certificate Holders to oversee the Trust (the “Trustee”) shall be, or shall be associated with, a bank accredited by and doing business in the State of New York. Both the Trust Agreement and the selection of the Trustee shall be subject to review and approval by the Commission (in consultation with NYSDEC) and, if required, the New York State Comptroller, and Attorney General.	CHPE has complied. See DMM Item 879.	Not applicable to this EM&CP Segment. No further discussion provided.
165(b)	Within thirty (30) days of the Closing, the Certificate Holders shall endow the Trust with an interest-bearing account established at the Trustee bank, with a first payment of \$2.5 million. [Trust payment schedule revised by Amendment 6 (March 16, 2022), creating a new Table 2 for payments during Construction and Operations]	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
165(c)	Within thirty (30) days of the Closing, Certificate Holders shall prepare and file with the Commission for its approval a written agreement to govern the administration and operation of the Trust (the “Governance Agreement”). The Governance Agreement shall: (i) provide that the funding commitments of the Certificate Holders will be fixed in accordance with Table 2 attached hereto and the terms stated in this condition, and that	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition	Compliance Status	EM&CP Section/ Appendix
<p>they will not be increased for any reason or decreased except as provided for in subsections (d)(vii) and (d)(ix) of this Certificate Condition; (ii) establish a Governance Committee consisting of: Certificate Holders; DPS Staff; NYSDEC; NYSDOS; CNY; APA; the New York State Council of Trout Unlimited; Riverkeeper, Inc.; and Scenic Hudson, Inc.; (iii) authorize the Governance Committee to meet prior to COD to perform the preliminary work required to implement the Trust, including consideration of whether to use a third-party administrator (the “Administrator”) to assist in the conduct of its business and for the administration of the Trust for tasks including but not limited to developing: (A) cash flow schedules for the Trust expenditures; (B) measures to track administrative costs; and (C) associated auditing and reporting tasks; (iv) permit the Governance Committee to retain an Administrator, if desired by the Governance Committee, and to compensate the Administrator (if any) from monies available in the Trust; (v) provide that members of the Governance Committee other than Certificate Holders will not be obligated to pay into the Trust and that no member of the Governance Committee, including Certificate Holders, shall be obligated to directly fund or perform any of the responsibilities of the Trustee, including compensation of the Trustee or the Administrator; (vi) obligate the Trust to indemnify and hold harmless all members of the Governance Committee, including Certificate Holders, from liability for any and all actions and/or inactions of the Trustee, the Administrator (if any), or any representative(s) of any of them; (vii) provide that the studies, projects and activities listed in Attachment 5 hereto totaling approximately \$ 32.4 Million (the “Priority Projects”) satisfy the requirements of this Certificate Condition and shall be implemented by the Administrator (or by the Trustee if no Administrator has been selected) pursuant to a schedule to be developed by the Governance Committee in order to meet the primary objectives of the Trust during its initial implementation phase. The Governance Committee, by a three quarters vote, may determine, on the basis of changed circumstances, that a Priority Project should not be implemented; and (viii) provide that the Governance Committee</p>		

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	shall be empowered to approve all expenditures of the monies of the Trust, provided however that no more than 75% of the monies to be provided by Certificate Holders to the Trust in any year may be designated for such Priority Projects during the first fifteen (15) years of the Trust's existence or until the Priority Projects have been completed; and (ix) require the Administrator (or the Trustee if no Administrator has been selected) to maintain a clear written record identifying any criteria and justification for the decisions of the Governance Committee and for all expenditures by the Trust itself.		
165(d)(i)	The Governance Agreement shall further require that: the Governance Committee shall manage the Trust so that, over the life of the Facility, the monies of the Trust will be able to support additional studies, projects, or activities that may result from (A) the Priority Projects, (B) studies to be agreed to at a later time by the Governance Committee, or (C) information produced by the Governance Committee, consistent with the criteria set forth in this Condition 165 below;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d)(ii)	the Governance Committee shall manage the Trust so that money remains available for future projects that were not identified in this Certificate and, from time to time, project ideas shall be solicited from the Governance Committee's members, other Federal and State Agencies or municipalities, individuals, and organizations located along the route of the Facility, provided these ideas are consistent with the purposes of the Trust and approved by the Governance Committee;	CHPE has complied.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d)(iii)	projects and activities approved by the Governance Committee for funding shall not replace natural resource management programs funded by the General Fund of the State of New York or NYSDEC Environmental Programs, meet an obligation of the State of New York or any other party to this proceeding, or replace funding for the operation and maintenance of any project not previously funded by the Trust. The Governance Committee may, however, authorize the Administrator (or the Trustee if no Administrator has been selected) to use the monies of the Trust to carry out additional or new activities that	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
	are part of or are consistent with applicable State and Federal resource management and land use plans;		
165(d) (iv)	studies, projects or activities to be financed by the Trust shall have a nexus to the Facility and shall include, but not be limited to: (A) habitat restoration, enhancement, or protection; (B) habitat research; (C) fish and wildlife species restoration, enhancement, or protection; (D) stewardship activities including additional or new activities, formally adopted by the Governance Committee, that are part of or are consistent with applicable State and Federal resource management and land use plans; (E) water quality improvement (excluding projects eligible for funding under the Clean Water State Revolving Fund); and (F) scientific or administrative support to ensure coordination of Trust projects with each other and externally funded research, restoration, and stewardship projects; delivery of final products; review of reports, data sets, and metadata; and placement of project results and data to insure public access in appropriate digital and hard copy media;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d)(v)	prior to funding any studies, projects or activities, the Governance Committee must find that such studies, projects or activities have been proven: (A) to make a contribution to the long-term protection and enhancement of fish and wildlife species and habitats in the Hudson River Estuary, the Harlem and East Rivers, and/or Lake Champlain and their tributaries; (B) to have a strong scientific foundation; (C) to achieve identified environmental goals; (D) to be consistent with applicable State and Federal natural resource management plans; (E) to address impacts associated with the construction, operation, maintenance or security of the Facility; and, (F) to be feasible from an engineering perspective;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d) (vi)	the Governance Committee shall give preference to projects that: (A) achieve multiple environmental goals; (B) involve multi-stakeholder collaboration; (C) feature matching funds; and/or, (D) are cost effective;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.

Certificate Condition		Compliance Status	EM&CP Section/ Appendix
165(d) (vii)	the Administrator (or the Trustee if no Administrator has been selected) shall pay any administrative costs associated with the establishment and maintenance of the Trust from any accrued interest on monies of the Trust or, if adequate interest is not accrued, such administrative costs shall be borne by the Trust, provided however that the monies of the Trust shall not be used to compensate any party, including Certificate Holders, for participation in the Governance Committee or to reimburse any such party for any expenses incurred in such participation;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d) (viii)	Certificate Holders' obligation to make the payments into the Trust set out above and in Table 2 attached hereto shall terminate upon receipt by the Administrator (or the Trustee if no Administrator has been selected) of documentation from the NYISO or DPS stating that the Facility has ceased commercial operation. Should the Facility resume operations, the Certificate Holders shall resume the payments to the Trust on January 1st of the following year;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d) (ix)	if the Facility ceases permanent operation for any reason, payments owed to the Trust as of the date of the final termination and the balance of unused monies in the Trust, plus any accrued interest and minus any administrative cost, shall be retained in the Trust and administered by the Governance Committee until completely expended;	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d)(x)	the Trustee, Administrator (if any) and the Governance Committee shall all be prohibited from directly or indirectly bonding or pledging any funds to be provided by the Certificate Holders at any future date; and	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.
165(d) (xi)	in the event that any department, agency, authority, office or other instrumentality or subdivision of the State of New York shall claim ownership or control of the Trust or any of the funds paid into the Trust by Certificate Holders or any interest thereon, the Trustee shall immediately return all monies held in the name of the Trust to Certificate Holders.	CHPE will comply.	Not applicable to this EM&CP Segment. No further discussion provided.



## 3.0 Facility Location and Description

The Lake Champlain Marine Segment pre-lay mattress locations are depicted in Figure 1. A description of specific mattress installation methods, marine installation materials, permanent facilities, and construction equipment staging, and storage are provided below.

This EM&CP describes planned placement of pre-lay mattresses based on available information presently known to the Certificate Holders about co-located infrastructure crossings. The Certificate Holders have committed to providing additional information to New York State Department of Public Service (DPS) prior to receiving Notice to Proceed for installation of pre-lay mattresses at co-located infrastructure crossings.

### 3.1 Lake Champlain

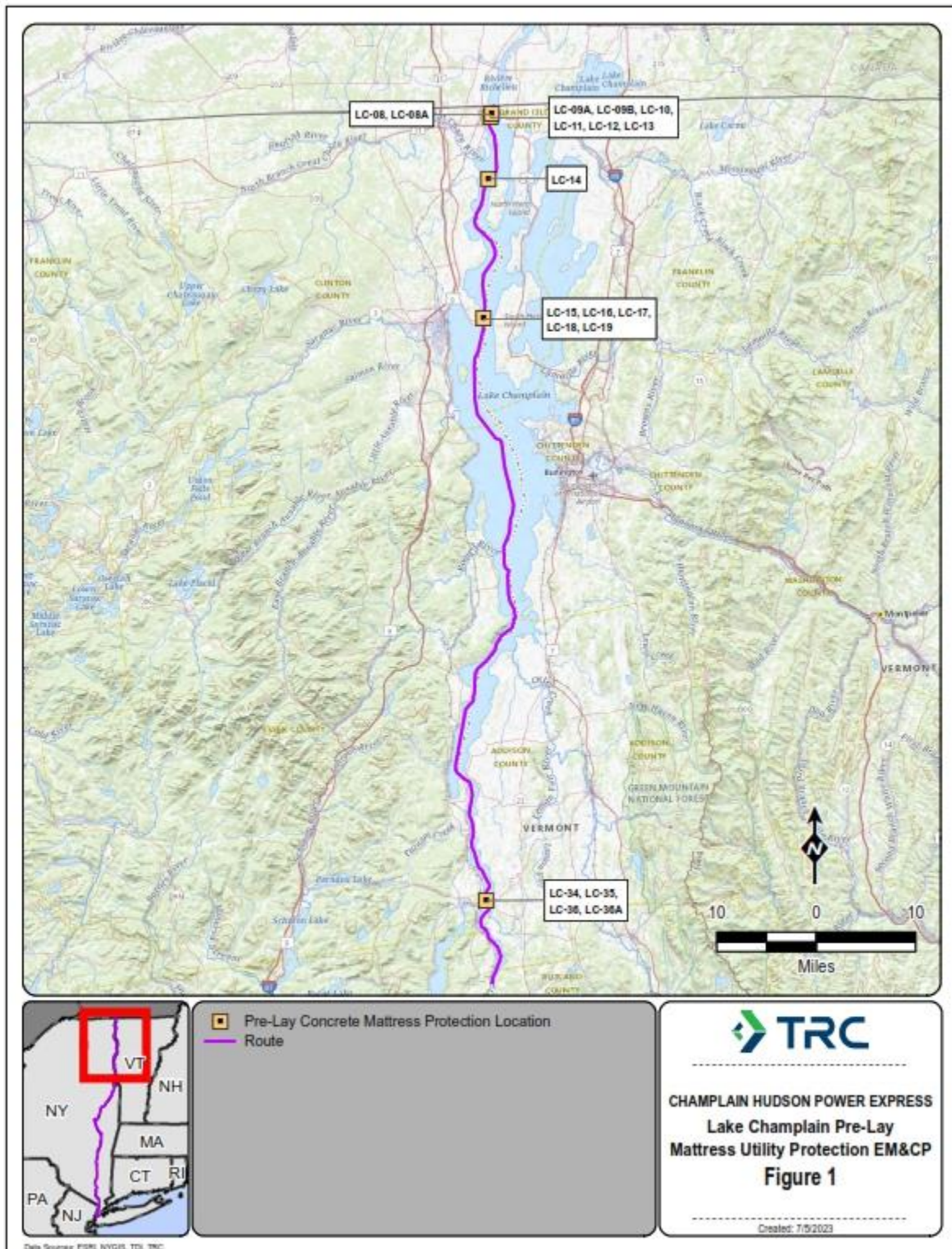
#### 3.1.1 Co-Located Infrastructure

The Certificate Holders identified 47 potential co-located infrastructure assets along the 96-mile-long Lake Champlain submarine cable route. These assets do not include bridges that will be passed under by the route (installation beneath bridges will be described in the Segment 18B EM&CP) or other submerged non-CI resources, such as water intakes. The 47 potential co-located infrastructure assets are primarily utility cables or pipes, and also include cables related to operation of ferries (which are not CI as defined by the Certificate). A list of the identified potential co-located infrastructure assets, which have been designated as LC-01 through LC-40, is provided in Appendix D.

The Certificate Holders have been investigating the 47 potential CI locations over several years to determine which locations would present an asset requiring a crossing by the CHPE submarine cables. These investigations have included desktop research, remote sensing marine surveys, diver investigations, and discussions with identified asset owners. This research indicates that 13 assets will not be crossed by the submarine cable route. These include storm drain outfalls located near shore, industrial plant intake/discharge infrastructure, or abandoned bridge abutments/moorings. Six assets are confirmed not found. Two of the assets identified are active ferry cables and three assets are debris locations not requiring pre-lay protection. Five assets are proposed to be protected with uraguard/uraduct (which will be discussed in the Segment 18B EM&CP), with no pre-lay concrete mattress protection proposed. Three additional assets are part of a single 9-cable bundle which will require pre-lay concrete mattress protection at a single location. This yields 18 assets that will require pre-lay concrete mattress protection, for a total of 16 pre-lay concrete mattress installation locations. This EM&CP identifies pre-lay mattress placement locations as shown on the Drawings provided in Appendix A. The detailed pre-lay mattress crossing designs are not finalized at this time, but the Certificate Holders will provide this information on a continual basis as it is finalized over the next several months and prior to receiving Notice to Proceed for pre-lay mattressing at a certain location.



**Figure 1. Site Location – Lake Champlain Marine Segment Pre-Lay Mattress Locations**





Refer to Section 5.0 for a detailed description of pre-installation survey, ongoing consultations between the Certificate Holder and CI Owners, and status of agreement between Certificate Holder and Owners of utilities being crossed. See Appendix D for supporting documentation representing CI Owner Consultation. Protection of CI crossings beyond pre-lay concrete mattress installation, such as installation of uraduct/uraguard, will be discussed in EM&CP Segment 18B.

### **3.1.2 Permanent Facilities**

Permanent facilities associated with Segment 18A consist of concrete mattresses placed on the lakebed at locations where the submarine cables will cross co-located infrastructure. To facilitate cable installation while protecting existing underwater utilities, concrete mattresses will be pre-laid along the bottom of Lake Champlain at locations where the proposed cable crosses existing utilities located on or in the lakebed. These concrete mattresses will be used for cable protection and will each be 8 feet wide by 20 feet long and are 12 inches thick. Based on the typical design, it is expected that over each crossing, three pre-lay mattresses will be placed together forming a 24-foot by 20-foot mattress area.

Details regarding the submarine cable installation will be provided in EM&CP Segment 18B. Drawings showing the locations of the cable route and pre-lay concrete mattresses are provided in Appendix A.

### **3.1.3 Properties Affected and Additional Property Rights**

Pre-lay mattresses will be placed at crossings of co-located infrastructure in Lake Champlain. The Certificate Holders have obtained a construction permit from the New York State Office of General Services (NYS OGS) which enables it to complete this work in Lake Champlain. The Certificate Holders are working to secure crossing agreements with each owner of co-located infrastructure that will be crossed by the Project, where such agreements are required. The Certificate Holders have secured from the NYS OGS property rights, licenses, or permits necessary to place the pre-lay mattresses on the lake bed of Lake Champlain.

### **3.1.4 Construction Access**

Pre-lay mattress installation will be a barge-based operation in Lake Champlain. Workers will access one or more crew transfer locations on land from Wilcox Dock in Plattsburgh, NY. From there, they will take a crew vessel out to the mattress installation barge. Parking for construction personnel will be available at marinas to be used throughout construction. The following marinas may be utilized to facilitate personnel transportation:

- Safe Harbor Gaines Marina, 141 Lake St, Rouses Point, NY 12979
- Wilcox Dock, 90 Cumberland Ave, Plattsburgh, NY 12901
- Essex Marina, 2272 Lake Shore Rd, Essex, NY 12936
- Bridgeview Harbor Marina, 54 Harbour Ln, Port Henry, NY 12974
- Monitor Bay Marina, 17 Monitor Bay Rd #1, Crown Point, NY 12928



- Chipman Point Marina, 68 Chipman Point Rd, Orwell, VT 05760

### **3.1.5 Material and Equipment Staging**

CMI's waterfront yard at Staten Island, New York will serve as the primary location for mobilization of marine assets for Lake Champlain mattress installation tasks; further information regarding the waterfront yard at Staten Island can be found in Appendix E of this EM&CP. Wilcox Dock in Plattsburgh, NY will also be utilized as an operational base for vessels, as described in Appendix E. The Tomkins Cove contractor laydown yard will be utilized for production and distribution of mattresses for installation in Lake Champlain.<sup>2</sup>

Materials and equipment shall be properly stored and maintained. Equipment shall be properly maintained and monitored for spills. Pollution prevention plans are discussed in Section 6.0 of this EM&CP.

### **3.1.6 Mattress Locations and Schedule**

Locations where pre-lay mattresses will be placed are illustrated on Figure 1 and in the Drawings provided as Appendix A. This EM&CP describes locations and means and methods for planned placement of pre-lay mattresses only.

Utility location surveys to more precisely locate the specific locations of the co-located infrastructure will continue during Spring 2023. Placement of pre-lay mattresses in Lake Champlain is expected to take place in the second half of 2023 after this EM&CP is approved and Notice to Proceed is received from DPS.

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<sup>2</sup> The Tomkins Cove Laydown Yard was approved by the New York PSC on March 16, 2023. It is mentioned in this EM&CP because it will be used to support the Lake Champlain Pre-Lay Mattress Installation activities.

## **4.0 Construction Procedures**

This section describes the process and methods that will be used to install pre-lay concrete mattresses at crossings of co-located infrastructure along submarine cable route in Lake Champlain.

Typical mattress installation methods that will be followed for the construction of this Project are described below. For additional details, please refer to CMI's Installation Manual provided as Appendix E.

### **4.1 Pre-Mattress Placement Activities**

#### ***4.1.1 Pre-Installation***

Caldwell Marine International (CMI) will establish a temporary operational support base at the riverside area on the Hudson River at Tomkins Cove, NY. The dock site will be used for the production and distribution of mattresses to Lake Champlain, as well as mobilization of supporting equipment.

#### ***4.1.2 Pre-Survey***

Additional marine geophysical surveys of the planned submarine cable route were performed during 2022. These surveys built on years of in-water surveys completed by the Certificate Holder during permitting and pre-construction activities. The 2022 surveys collected multi-beam hydrographic data to confirm water depths, side-scan sonar data to identify lakebed surficial obstacles, magnetometer data to detect ferrous objects, and sub-bottom profiler data to classify subsurface features. The results of the surveys were used to confirm utility crossing locations and set the submarine cable's Route Position List for installation activities. Further surveys were completed in early 2023 and all survey data is being collated and compiled for inclusion in the construction plan.

#### ***4.1.3 Regulatory and Agency Requirements***

All permits for the placement of the pre-lay concrete mattresses have been or will be obtained by the Certificate Holders prior to construction. This includes local notice to mariners, approved utility crossing agreements, and notice to US Army Corps of Engineers in accordance with existing project permits. CMI is responsible for compliance with the conditions of project permits where applicable. Certification and registration of work vessels will be a responsibility of CMI.

CMI will secure Commercial Vessel Passes for all CMI Tugs and Barges, while ensuring that all subcontracted tow vessels have the required Passes from the Canal Corporation.

With notice to NKT and the Contractor, regulators can be provided access to barges and vessels subject to Personnel Transfer Procedure, signed Visitor Boarding Agreement, and proof of insurance.





#### **4.1.4 Insurance Requirements**

CMI will be responsible to secure insurance levels to the subcontractor contract requirements as well as special location operating insurance where/if required.

#### **4.1.5 Notice to Mariners**

CMI will send out the appropriate Notice to Mariners prior to the start of the mattress installation.

#### **4.1.6 Pre-Mattress Meetings**

The Certificate Holders, NKT, and CMI shall conduct pre-mattress meetings to monitor progress and identify any changes in mattress status, location, and quantity.

#### **4.1.7 Utility Crossing Agreements**

The Certificate Holders will execute Utility Crossing Agreements at planned utility crossings, where required by the CI owner and in accordance with the Certificate. The methods for implementing each crossing will meet the technical requirements contained in each respective crossing agreement.

### **4.2 Mattress Placement Equipment and Personnel**

#### **4.2.1 Mattress Crane Barge Support Tug**

A support tug will be dedicated to the operational support of the mattress crane barge (MCB). The vessel will have an adequate bollard pull and horsepower rating to competently maneuver the MCB and be capable of deploying and recovering MCB anchors. MCB Support Tug dimensions will be New York State Canal Compliant. Tug crew will be properly licensed in accordance with USCG requirements. The MCB will also be supported by a USCG inspected crew boat. The crew boat will have adequate certified capacity to carry all MCB operations personnel and the boat captain will be licensed per USCG requirements.

#### **4.2.2 Mattress Feeder Barge**

A mattress feeder barge (MFB) will be delivered to Lake Champlain by a chartered tug. The MFB will be used to carry and restock adequate mattress stock. The MFB will be a mono-hull deck barge with dimensions that are New York State Canal Compliant.

#### **4.2.3 Dive Equipment**

Dive equipment will consist of a 20' Dive container with Hard Hat Surfaced Supplied air dive system. All dive operations will be conducted in accordance with the Association of Diving Contractors Inc. (ADCI) Consensus Standards – cited by OSHA, the U.S. Coast Guard, and U.S. Army Corps of Engineers as the authoritative for best practices. A dive chamber will be



mobilized. Onshore emergency hyperbaric chamber location(s) will be listed in the Mattress Placement Site Specific Health and Safety Plan (SSHASP). A site-specific dive plan will be provided prior to the commencement of the project.

#### **4.2.4 Assist Tug**

Two locally sourced assist tugs will be used on the project. The Mattress Crane Barge (MCB) support tug will be utilized to maneuver the MCB and support anchor deployment/recovery. The Mattress Feeder Barge support tug will be utilized to transit the barge from Tomkins Cove to the MCB location.

#### **4.2.5 Navigation / Survey Equipment**

Survey equipment aboard the installation barge will provide detailed routing overlaid onto a current navigation chart for the area with reference points of the mattress lay locations in Northings and Eastings on the Geographical Cartesian coordinates for each mattress segment. As-built locations for mattresses will be obtained as installation progresses and reported to the required agencies in accordance with permit conditions. Agencies to be notified include the US Army Corps of Engineers (USACE), National Oceanic and Atmospheric Association (NOAA), Port of NY/NJ Harbor Operations and Safety Committee, Hudson River Pilots, the Maritime Association of the Port of New York/New Jersey Tug and Barge Committee, and US Coast Guard (USCG). Co-Located Infrastructure will also be notified as appropriate.

#### **4.2.6 Load-Out Facility Shore Crane**

A 120 ton or larger crawler crane will be utilized as required to load the feeder barge at an appropriate load-out docking facility. Specifications may change as the site is developed and feeder barge size is confirmed based on availability.

#### **4.2.7 Personnel**

The following construction related personnel on site during operations:

- 1 Barge Superintendent (Mattress Crane Barge)
- 1 Deck Foreman
- 4 Deckhands
- 2 Equipment Engineers
- 1 Surveyor
- Dive Supervisor
- 4 or 6 Divers Dictated by Water Depth



### **4.3 Pre-Mattress Activities**

#### **4.3.1 Equipment Mobilization**

CMI's waterfront yard at Staten Island, New York will serve as the primary location for mobilization of marine assets for Lake Champlain mattress installation tasks. The Tomkins Cove contractor laydown yard will be utilized for production and distribution of mattresses for installation in Lake Champlain.

#### **4.3.2 Equipment Testing**

Equipment utilized on the mattress placement shall be tested per manufacturers' recommendations. Testing prior to transit to mattress locations shall be conducted at the marine facility in Staten Island with corresponding certificates of inspection/test issued. An equipment testing checklist will be provided. A copy of the equipment testing checklist is included in the CMI Installation Manual (Appendix E).

#### **4.3.3 Mattress Locations & Schedule**

Prior to mobilizing to site, the pre-lay mattress installation locations will have been vetted by the Certificate Holders and provided to NKT and CMI. Each location has been selected to satisfy the permit requirements while also addressing the safety of existing utility crossings, intakes, crew & equipment.

### **4.4 Anchor Plan – Mattress Placement Anchor Barge**

The MCB will establish a 4-point mooring system as described below:

- Bow anchor(s) size: 2,500 lb
- Bow anchor winch(s): Amcon 270
- Bow anchor(s) wire length: 2,000'
- Stern anchor(s) size: 2,500 lb
- Stern anchor winch(s): Amcon 270
- Stern anchor(s) wire length: 2,000'

The anchor design/plan is industry standard design with adequate scope so that the Barge should be able to accomplish all planned tasks. The need to recover or reset anchors will exist.

Pertinent information from anchor plans will be inputted into the MCB's navigation computer, enabling the MCB Survey Team to effectively direct anchoring operations and to monitor operational progress real-time. Repeater screens and communications will be established at selected operator stations to enable proper coordination between personnel.



#### **4.4.1 Anchoring**

The anchor crane barge will be moored over the planned deployment locations (agreed mattress locations) utilizing the four anchors.

#### **4.4.2 Definition of an Anchor Set**

For purposes of this methodology statement, an “anchor set” is defined as any combination of anchors set within predetermined locations to provide barge movements within a defined work area (Mattress segment). Number of anchors, wire scope, and spread is determined on a location-by-location basis depending on channel widths, navigation buoys, local marine traffic, and weather / current conditions.

#### **4.4.3 Identification of Contractor Barge and Buoys**

The anchor barge and buoys will be marked in accordance with the United States Code of Federal Regulations, Title 33, Chapter 34, Subchapter I, Part C and the publication titled Private Aids to Navigation.

#### **4.4.4 Surface Navigation and Pre-Plots**

The marine surveyor will provide navigation to allow the positioning of the anchors at their predetermined locations. The marine surveyor will use differential geographic positioning system (DGPS) equipment with sub-meter accuracy to accurately locate the required positions. A DGPS system will be installed in the wheelhouse of the support tug.

#### **4.4.5 Anchor Deployment and Recovery**

The MCB and support tug will be responsible for accurate placement of anchors and logging operational events. At no time will the anchors be dragged across the lakebed and disturbance will be kept to a minimum. There will be four anchors deployed. To deploy the anchor into the lakebed, an anchor winch operator will release the brake that was securing the anchor onto the vessel. Anchors #1 and #2 will be deployed first. Once deployed the winch operator is to tension anchors #1 and #2 to set both anchors. Once properly set, the winch operator will engage winch dogs and brakes on anchor wire #1 and #2. Anchors #3 and #4 will then be deployed.

When the anchors are ready for recovery, the winch operator will disengage the winch dog and slack down tension to enable tug recovery and to prepare for recovery of anchor wire. The pendant buoy and anchor will be brought onto the deck. Once the anchors are recovered a notification will be sent updating Local Notice to Mariners (LNM) with USCG.

The crew will verify the operational readiness of essential equipment and a Toolbox Talk will be conducted prior to commencement of anchoring to ensure all parties are fully conversant with site conditions, procedural steps, operational risks, planned mitigations and their respective roles.



## **4.5 Utility Crossing Protection**

At each individual site, CHPE Utility Crossing designs are subject to the Certificate Holder's requirements, CHPE permit requirements pertaining to depth of water (DoW) at the crossing location, and compliance with the site-specific Crossing Agreements between the Certificate Holders and the respective utility owners, where required. The Project's permits require concrete mattresses to be 12-inches in thickness.

### **4.5.1 Concrete Mattresses**

Articulated concrete mattresses that are 8 feet wide by 20 feet long and 12 inches thick will be used to provide site-specific utility crossing protection. The mattresses are prefabricated at a remote location and transported by barge to each utility crossing location. The configuration of the concrete mattresses will be dependent on DoW at the crossing location and agreements with CI owners. Generally, in areas where the DoW is less than 150 feet, both pre-lay bottom and post-lay top mattresses will be installed. When the DoW is greater than 150 feet, no mattresses will be installed unless otherwise agreed with CI owners.

- Segment 18A EM&CP: The "pre-lay" bottom mattresses will be installed at utility crossing locations approximately one year prior to submarine cable installation to create a mattress layer over the crossed utility at an orientation that will support future cable installation.
- Segment 18B EM&CP: When installing the submarine cable, the jet plow stinger will be raised before the utility crossing location and the submarine cable laid on the lakebed for a length that is to be determined at each location before cable burial resumes. Shortly after the cable is laid, "post-lay" top mattresses will be installed. The "post-lay" top mattresses will be installed with their long axis parallel to the Project cable to create a mattress layer to protect the Project cable.

A Crane Barge will be transited to and set up on the site. Agreed exclusion zones for adjacent utilities will be respected when deploying anchors/spuds.

Barge set-up positions will be carefully selected to enable the maximum number of mattresses to be installed without the need to reposition the barge. The mattresses will be placed into position with coarse guidance provided by the GPS sensor at the boom tip. Final positioning will be performed by divers.

## **4.6 Mattress Fabrication Plant**

A laydown yard at Tomkins Cove, NY has been leased and will be dedicated to mattress production and distribution needed for the CHPE Project (refer to the Segment 17 EM&CP). The mobilized site will also feature a crawler type crane that will be utilized for loading mats onto the MFB and moving mats and equipment within the mobilized site.



## **4.7 Environmental Supervision and Construction Oversight**

During construction of the Project, the Certificate Holders will employ construction oversight staff as required by the Certificate and to ensure that all regulatory requirements, plans, and specifications are appropriately met. The construction oversight staff will perform a variety of functions. The duties of each are described below.

Inspector(s) and monitor(s) may perform multiple inspection roles if each is qualified to serve in them.

The Certificate Holders will submit the name and qualifications of the Construction Inspectors(s) and/or Environmental Inspector(s) to DPS Staff at least two weeks before construction starts.

### **4.7.1 On-board Representatives**

For all offshore operations executed by a subcontractor, two NKT representatives will be present onboard to supervise the works. These personnel will usually be Site Managers or Project Engineers but may be other positions with suitable offshore experience.

The NKT representatives will, on board the vessels:

- Supervise the operation;
- Give instructions to subcontractor;
- Work as the main contact for communication with the subcontractor's on-board personnel;
- Communicate with the on-board Employer representatives;
- Ensure that the works is carried out in a safe manner;
- Write daily progress reports and communicate with the land-based project organization;
- Ensure that all HSE standards and regulations are followed on the vessel; and
- Report incidents to land base organization and on-board Employer representatives.

### **4.7.2 Site Manager**

There will be a full-time Site Manager during construction. The Site Manager will be responsible for managing the construction contractor's performance for the successful completion of all construction activities. The Site Manager will provide proactive leadership and direction to the contractors for safety, security, schedule, and environmental compliance; confirm that assigned personnel are properly directed, trained, licensed, and evaluated within the Certificate Holders' guidelines and procedures; and maintain a thorough understanding of emergency response procedures to help arrange and provide resource support as needed.



#### **4.7.3 Construction Manager(s)**

There will be a full-time Construction Manager(s), who will report to the Site Manager, during construction of the Project. The Construction Manager(s) will support the Site Manager by overseeing the contractors' performance of construction work; reinforcing that contractors must maintain safety, security, schedule, and environmental compliance at all times; verifying that construction field work complies with the criteria per the Certificate Holder's construction specifications; writing and publishing reports detailing results of field construction audits; issuing and tracking non-conformances for items found not meeting the required specification; and requiring submission of corrective and preventive action for non-conformances found.

#### **4.7.4 Environmental Compliance Manager**

The full-time Environmental Compliance Manager (ECM) will serve as the Certificate Holder's point of contact for information related to the environmental compliance status of the work. The ECM will be responsible for coordinating with the Site Manager, Construction Manager(s), the Certificate Holder's environmental staff, and the environmental inspection team regarding compliance matters. This position will coordinate monitoring and staffing needs to ensure appropriate monitors are present during construction. The ECM, with assistance from Environmental Inspector(s), will be responsible for environmental oversight throughout the construction, and restoration phases, and for enforcing compliance with environmental protection provisions of the Certificate and the EM&CP. Additionally, the ECM will be responsible for performing quality assurance/quality control of the daily reports and compiling a weekly summary report for the Certificate Holders. The ECM will provide guidance to the Environmental Inspector(s) on interpretation of requirements of the Certificate, EM&CP, and other permits and approvals.

#### **4.7.5 Environmental Inspector(s)**

The number of full-time Environmental Inspector(s) will be commensurate with the level of project activity at any given time. The Environmental Inspector(s) will oversee environmental compliance with all requirements of the Project during construction activities by working directly with the construction crews daily to reinforce and encourage a team approach, and to develop a compliance culture that is understood and executed by all contractor staff and personnel. Environmental Inspector(s) will meet the requirements of a "Qualified Inspector" as defined by GP-0-20-001. In addition, the Environmental Inspector will be responsible for understanding the requirements of the Certificate, EM&CP, and other permits and approvals. They will assist and report to the ECM, complete daily site inspection reports, participate in pre-job briefings and tailboards as part of the construction team to help develop and maintain the project-wide culture of environmental compliance and to help contractors understand compliance requirements, and address potential areas of non-compliant conditions. Any items identified to be non-compliant or with the potential to be non-compliant if not addressed immediately will be communicated to the site superintendent or foreman prior to leaving the site. The Environmental Inspector(s) shall



have stop work authority over aspects of the Project that could create an adverse impact on the environment.

#### **4.7.5.1 Aquatic Inspector**

At least one Aquatic Inspector will be on the mattress installation barge for underwater installation procedures. It is the Aquatic Inspectors' job to monitor compliance with regulatory and permit requirements for the underwater portions of the pre-lay mattress installation. They will monitor construction activities on, above, or below the State's waters. If construction and installation appear to be in violation of the Certificate of Environmental Compatibility and Public Need, the Aquatic Inspector may direct the field crews to stop the specific potentially harmful activity immediately and attempt to assist in preventive or remedial action.

#### **4.7.6 Safety Inspector**

At least one full-time Safety Inspector will be responsible for providing professional safety and health oversight, conducting work area inspections, and confirming compliance with the Certificate Holder's safety requirements. The Safety Inspector will be on site when any higher-risk activities are being conducted and will inspect construction activities for hazards that could be eliminated. Any incidents that may occur will be reported to and analyzed by the Safety Inspector. The Safety Inspector will conduct project specific on-site safety training.

#### **4.7.7 Quality Assurance Inspector**

At least one part-time Quality Assurance Inspector will perform quality audits on the project facilities and components purchased for the Project to make sure the material is consistent with the specifications described in the EM&CP and Pre-lay Mattress Location Drawings (Appendix A). If materials fail to meet the criteria outlined in the Quality Control Plan, the Quality Assurance Inspector is responsible for issuing and tracking non-conformances for the project facilities and components as well as requiring submission of corrective and preventive action for the identified non-conformances. The Quality Assurance Inspector will work closely with the Construction Manager(s) to verify project personnel are adhering to the quality control procedures.

### **4.8 Worksite Health and Safety**

Measures will be taken by the Certificate Holder's and project personnel to protect the health and safety of all parties throughout the duration of the Project. Detailed worksite health and safety procedures are described in the sections below. A part-time Safety Inspector will be on site to provide safety and health oversight and confirm compliance with the Certificate Holder's safety requirements (see Section 4.7.6).



#### **4.8.1 Safety Training & Education**

Training, instruction, and periodic briefings will be provided by the Certificate Holders and their contractors to all project related personnel, as appropriate, to verify that environmental, health, and safety precautions and measures are followed during construction. Training will be provided before employees or subcontractors are assigned to new or different work activities and periodically to re-enforce their awareness. Where required, annual refresher training will also be provided. Management is responsible for ensuring safety training is made available to all employees or subcontractors as required by their specific work activities. The Site Superintendent (SS) will be responsible in assuring that employees or subcontractors have the required training to perform their work safely. This training will include specific information on how work is conducted as well as the hazards the workers may be exposed to in relation to their own specific craft and work procedures. Daily tailboard meetings will be held at the start of each construction day to refresh awareness of general safety topics.

#### **4.8.2 Stop Work Procedures**

All project personnel have stop work authority by notifying the Project Superintendent or Captain of the Vessel. All project personnel will be encouraged to notify any of these individuals if they observe conditions that could potentially be in non-compliance so appropriate corrective action(s) can be taken.

Any project personnel can stop work for health and safety reasons. Any stop work notice will be reported to the Site Manager who will report it to the Certificate Holders management in a timely manner noting the incident specific information, such as time, date, location, details of the incident, person observing the incident, and response taken. DPS representatives may issue a stop-work order for any construction or maintenance activities that violate or may violate the terms of the Certificate or any other valid order.

### **4.9 Reporting Requirements**

The Certificate Holders will conduct the compliance inspections and reporting detailed below for the Project. In addition, the Certificate Holders will organize and conduct site-compliance audit inspections and reporting for DPS as needed, but not less frequently than once per month during the site preparation, construction, and restoration phases. Additionally, the Environmental Inspector(s) is responsible for completing daily inspections and submitting weekly status reports.

#### **4.9.1 Monthly Status Reports**

A monthly EHS Report will be completed for each month the Project is in the field. The report will include a review of project performance, safety performance, incident rate, lost time incident rate, safety inspections and action items completed, and safety training and meetings completed. The Certificate Holders will provide a written record of the results of the monthly review, including resolution of issues and additional measures to be taken, to all agencies



involved in the inspection audit and as part of its scheduled construction update reports. Scheduled construction activities and locations for the following month will be included in the status report.

#### ***4.9.2 Environmental Inspection Reports***

Following each environmental inspection, an environmental inspection report will be completed by the Environmental Inspector(s) performing the inspection, detailing compliance of the inspection location with all applicable environmental requirements. Deficiencies will be noted and reported to the Construction Manager(s) responsible for the noted project location. Deficiencies should be corrected prior to the inspector leaving the site if feasible. Any deficiency not immediately corrected will be listed in an “Open Items” log and its status will be confirmed during the next site inspection. This process will be repeated until the deficiency is appropriately addressed. The Construction Manager(s) will be notified of deficiencies prior to the environmental compliance personnel leaving the site. The contractor must initiate correction of the deficiency within one business day and the correction must be completed in a reasonable and expeditious timeframe. The Environmental Inspector(s) will submit their reports to the ECM daily. The ECM will be responsible for reviewing and archiving the inspection reports.

## 5.0 Co-Located Infrastructure

Certificate Condition 27 defines Co-located Infrastructure (CI) as “electric, gas, telecommunication, water, wastewater, sewer, and steam infrastructure and appurtenant facilities and associated equipment, whether above ground, below ground, or submerged.”

The Certificate Holders’ construction contractor will coordinate the underwater utility locating prior to any construction work. The Certificate Holders will comply with procedures identified by the CI owners and representatives including but not limited to obtaining relevant rights and permissions where applicable.

Utility and other infrastructure crossings will be completed consistent with site-specific design measures for each crossing. These site-specific design measures are indicated on the Pre-lay Mattress Location Drawings in Appendix A.

Appendix D contains a summary table of all identified and potential infrastructure along Lake Champlain that may interact with the CHPE alignment, including the status of each location and crossing. The Certificate Holders have been, and will continue to, resolve cases where the owner or utility type involved in a crossing or potential interaction is unknown. These details regarding Co-located Infrastructure for the Segment 18A site are currently being progressed and updated information will be submitted to the State via the EM&CP process.

### 5.1 Pre-Installation Survey of Co-Located Infrastructure

The marine CI locations and characteristics described in this EM&CP were obtained by the Certificate Holders from nautical charts, as-built records provided by utility owners, and from multiple marine surveys conducted over the course of the project’s development. A marine route survey was performed by Ocean Surveys, Inc. in the Fall of 2012 along all submerged segments of the CHPE alignment, including Lake Champlain. The purpose of this study was to evaluate lake and river bottom conditions along the CHPE alignment and locate existing submarine utilities. Survey equipment used to locate utilities included multibeam and side scan sonar and magnetometer scans. Further surveys were performed by Caldwell Marine International, LLC in October 2020 and May 2023 using diver crews in an attempt to physically and visually locate existing utilities along the CHPE alignment. The findings of these and other surveys comprise the basis for consultations with CI owners.

As mentioned previously, CHPE is continuing geophysical utility identification surveys to increase the number and accuracy of found utilities. These surveys include the use of modern equipment capable of higher resolution measurements of the bottom conditions including items buried below the surface. The additional resolution is possible due to advancements in sensor capabilities and technology when compared to industry standard hardware available at the time of the original surveys. Increased resolution in sub-bottom data allows for the identification of previously disturbed bottom soils which assist to indicate a history of installation activities in that area. The increased resolution also allows for the opportunity for co-located infrastructure below the surface to be identified by the acoustic returns from the hardware. This return results in the creation of shadow below the target which can signify an existing utility. A towed dual





magnetometer system is also deployed as part of the ongoing surveys consisting of two high-resolution Cesium Vapor magnetometers. Data collection with this hardware allows mapping of the analytic signal of the total magnetic intensity. This approach allows for the data to be displayed in a fashion that clearly identifies linear features within the survey corridor based on magnetic signature. A survey employing these methods and technology is currently ongoing in Lake Champlain and providing updated data as sections of the survey route are completed.

## **5.2 Consultations with Co-Located Infrastructure Owners**

The Certificate Holders have maintained ongoing engagement with the owners of co-located infrastructure either crossing or possibly interacting with the CHPE alignment since 2017. Correspondence included initial notification of the project, coordination and permitting for marine surveys, and recent follow-up notifying owners of progressed crossing design and potential crossing locations (consistent with CC 28(d)). Records of recent correspondence with Lake Champlain CI owners can be found in Appendix D.

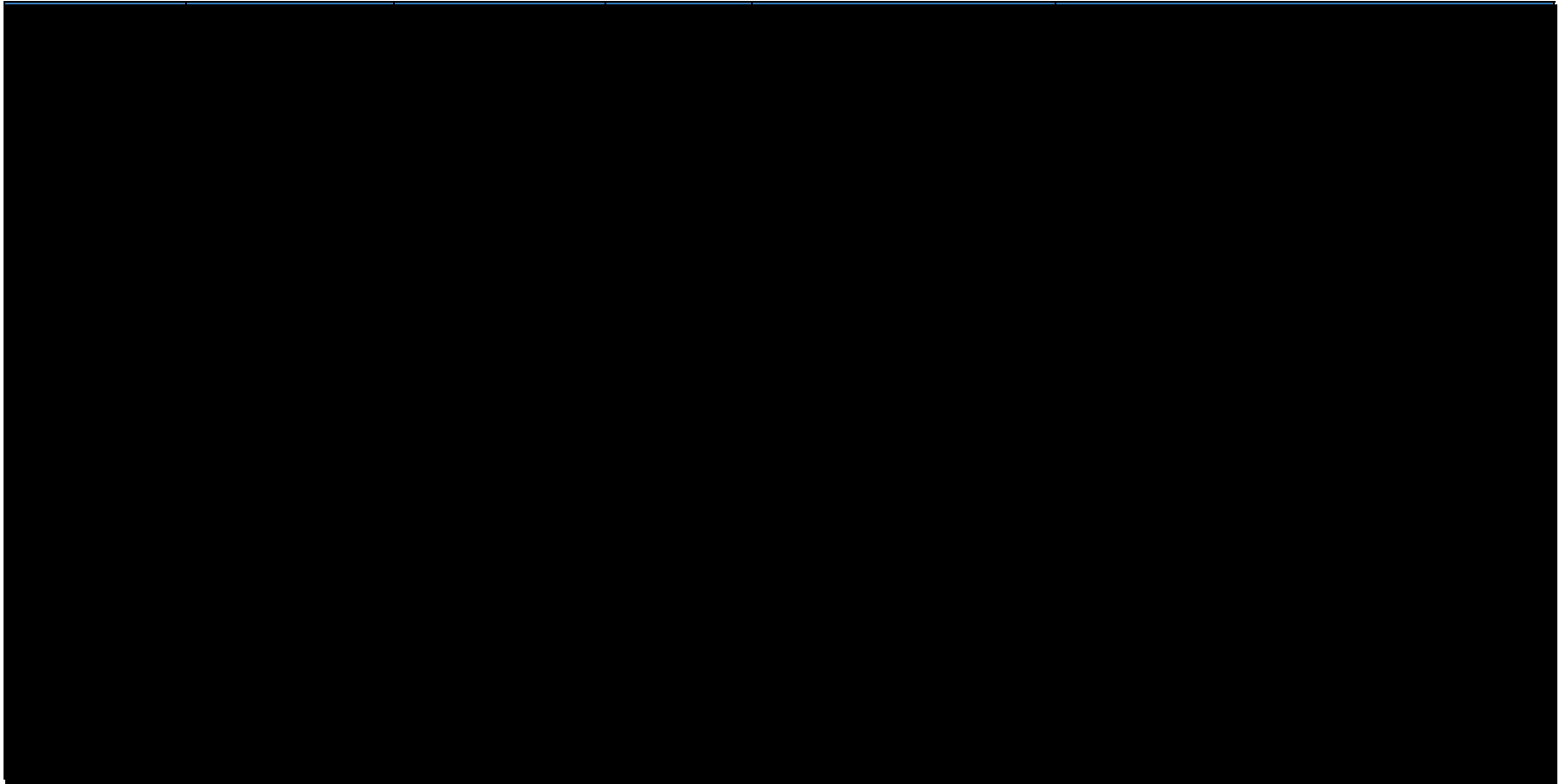
Table 5.1 below summarizes the current status of crossing outreach, discussions and, where required, agreements with CI owners along the CHPE Lake Champlain alignment. Only locations requiring or potentially requiring pre-lay concrete mattress crossing protection are listed. Locations designated as Clear of Route or Confirmed Not Found per Appendix D Table 1 are not included. Discussion of Water Intakes is included in Section 5.4.

For utilities whose owner or utility type is unknown, the Certificate Holders have sent FOIL/FOIA requests to NOAA, USACE, New York State Office of General Services (NYSOGS), and USNGA (USDOD). The Certificate Holders are anticipating that these requests are returned with easement ownership information at the unknown locations; however, if that does not occur, Certificate Holders have submitted a Petition to Amend the Certificate on March 30, 2023 (DMM Item 1055) requesting the addition of a Condition which outlines a process for resolving CI issues where an owner cannot be located or where disputes arise with the CI Owner. Once owners are identified, the Certificate Holders will pursue a crossing agreement, where required, with confirmed owners. If no owner is found and the utilities are still present, the Certificate Holders will seek to apply standard mattress protection to the crossing as needed, as is outlined in the Petition to Amend.

<BEGIN CONFIDENTIAL INFORMATION/>



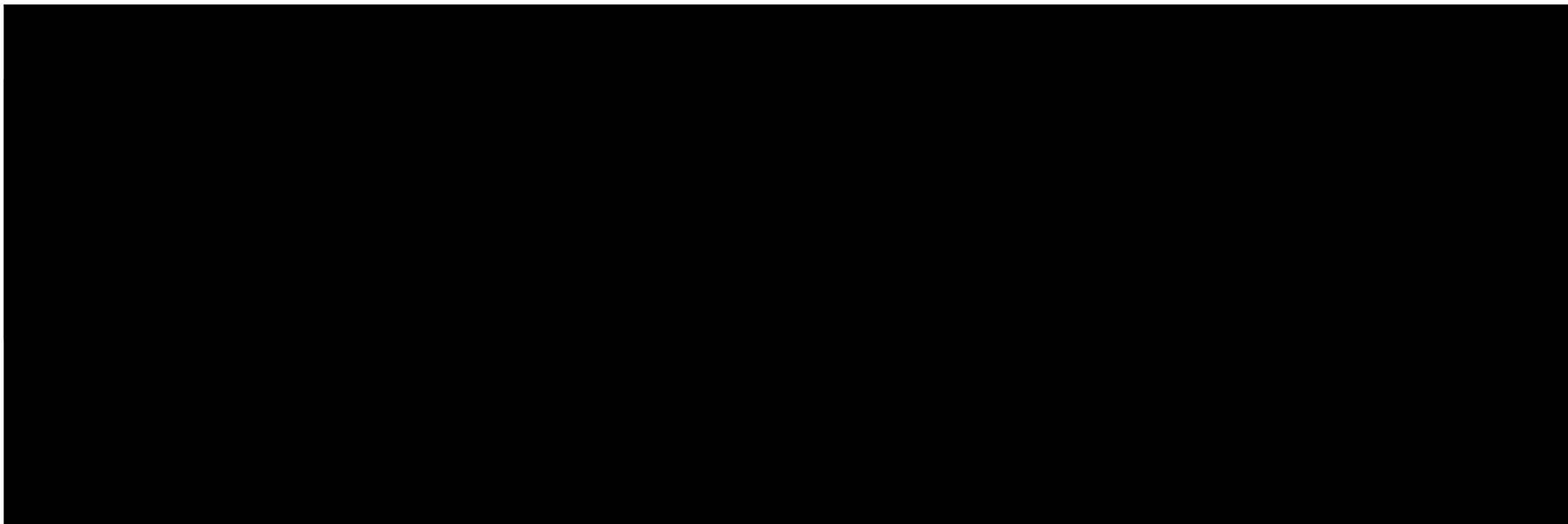
**Table 5.1 – Co-Located Infrastructure<sup>3</sup>**

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<sup>3</sup> Certificate Holders have identified crossings of ferry cables at LC-30, LC-31 (Fort Ticonderoga Ferry, MP 86.9) and LC-39 and LC-40 (defunct Wright's Ferry, MP 91.5). Ferry cables are not CI under Certificate Holders' permits, but crossing and protection of these resources will be addressed as part of the Segment 18B Lake Champlain Cable Installation EM&CP.

**Table 5.1 – Co-Located Infrastructure<sup>3</sup>**

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### 5.3 Protection of Co-Located Infrastructure

The Certificate Holders will employ all measures necessary to protect and allow for the continued operation of CI locations being crossed or interacting closely with the CHPE alignment. Documentation describing installation methodology of CI crossing protection and long-term maintenance of these practices has been and will continue to be provided to the CI owners during the consultation process as requested. Weight calculation will also be provided to CI owners as requested to reach agreement on the crossing plan.

### 5.4 Water Supply Intakes

In accordance with CC 102 and 150, the NYSDOH was contacted to identify public water supplies (PWS) within the vicinity of the Lake Champlain Marine Segment. A copy of this correspondence is provided in Appendix I, Agency Correspondence. Table 5.2 below shows the five water intakes identified within Lake Champlain by NYSDOH. Two PWS (Village of Rouses Point and Town of Essex) have been identified within one mile of the CHPE alignment in Lake Champlain. No construction activities are proposed within 500 feet of either PWS. In accordance with CC 103, appropriate notification of the PWS operators has been made by the Certificate Holders per the table below. In accordance with CC 104, further notification of the PWS operators will be conducted by the Certificate Holders at least thirty days prior to commencement of underwater construction, as appropriate. As pre-lay mattresses activities do not include grapnel/debris removal or cable installation, CCs 105-106 do not apply to this EM&CP; further information on these conditions will be included in the Segment 20 EM&CP.

**Table 5.2 – Water Supply Intakes**

Water Department		Distance to CHPE Alignment	Notification Required	Date of Contact
Rouses Point		0.42 mi	Yes	2/28/23
Port Kent		1.21 mi	No	-
Willsboro		separate bay	No	-
Essex		0.99	Yes	3/9/23
Crater Club		1.18	No	-

### 5.5 Reimbursement of Costs to Co-Located Infrastructure

Subject to the provisions of Certificate Conditions 29(b) and 29(c), the Certificate Holders will reimburse owners and/or operators of Potential CI or CI for the reasonable costs they incur in the following activities:

1. Consulting with Certificate Holders as described in Certificate Conditions 28(a) and 28(b).
2. Reviewing pre-construction activities, designs, construction methods, maintenance, and repair protocols, and means of gaining access to Potential CI or CI proposed by the Certificate Holders.



3. Reviewing studies and design proposals described by Certificate Condition 28(d) and the EM&CP filings described in Certificate Condition 162.
4. Conducting or preparing such additional studies and designs as may be agreed to by the Certificate Holders or approved by the Commission pursuant to Certificate Condition 29(a)(3).
5. Coordinating with, and monitoring the activities of, the Certificate Holders during pre-construction activities, construction, maintenance, and repair of the CHPE Project.
6. Conducting maintenance and repair work on CI property or facilities, but only to the extent of increases in such costs that result from the presence of the CHPE Project.
7. Repairing damage to Potential CI or associated property caused by the Certificate Holders or their representatives in connection with any studies, surveys, testing, sampling, preliminary engineering, pre-construction activities, construction, operation, maintenance, or repair of the CHPE Project.
8. Scheduling and implementing electric system outages required by any studies, surveys, testing, sampling, preliminary engineering, preconstruction activities, construction, operation, maintenance, or repair of the CHPE Project.

Disputes concerning the Certificate Holders' cost reimbursement responsibility will be brought to the PSC for resolution. The time required to resolve any dispute arising will not be counted in the calculation of any limitation on the time available for commencement or completion of construction of the CHPE Project.



## **6.0 Pollution Prevention**

### **6.1 Potential Pollutant Sources**

At the construction and installation sites for the Lake Champlain Marine Segment, potential hazardous materials can be generated by worksite activities. Some of the common types include carbon monoxide from vehicle and generator exhaust, different types of fuels and lubricants, miscellaneous hazardous materials, and silica from concrete cutting and demolition operations.

### **6.2 Material Handling, Storage, Use and Waste Disposal**

The following procedures provide a process for waste management planning and promote the development of more coherent and appropriate waste management. It is the responsibility of each individual on site to follow CMI policies and procedures for managing waste<sup>4</sup>.

- CMI will estimate the waste that will be generated prior to work being performed so that the need for containers and waste removal can be properly determined.
- Any waste materials will be properly stored and handled to minimize the potential for a spill or impact to the environment.
- CMI will properly segregate waste materials to ensure opportunities for reuse or recycling.
- All site personnel will be instructed on the proper disposal method for waste. This training will be conducted during the site orientation and conducted by the Site Superintendent or their designee.
- Waste management planning will be continuously reviewed and revised to ensure site safety and to meet regulatory requirements.

Further information on the proper methods for handling, storing, and using waste can be found in Appendix 3 of CMI's Installation Manual, included as Appendix E of this EM&CP, and in the Spill Prevention Plan/Spill Response Plan, included as Appendix J of this EM&CP.

### **6.3 Waste Disposal**

#### **6.3.1 Sanitary Waste**

Portable sanitary facilities will be present on the cable lay barge. Sanitary waste from portable sanitary facilities will be collected by a licensed sanitary waste management Contractor, as required by NYSDEC regulations.

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<sup>4</sup> CMI is the primary contractor for this scope of work, so their Pollution Prevention plan will be followed.



## **6.4 Hazardous Vapors Releases**

Marine vessels that will be used to facilitate installation of the submarine mattresses have the potential to release hazardous vapors. In the event of a hazardous vapor release, the appropriate emergency procedures should be followed in accordance with the Spill Prevention Plan/Spill Response Plan, included as Appendix J of this EM&CP. If the vapors released do not pose an immediate risk to crew members, the vessel should be safely moved to a suitable shore location or anchorage location prior to further action.

## **6.5 Oil Pollution Plan**

The Oil Pollution Act (OPA) top priority is to prevent, prepare for, and respond to oil spills that occur in and around inland waters of the United States. EPA is the leading federal response agency for oil spills occurring in inland waters. The U.S. Coast Guard (USCG) is the lead response agency for spills in coastal waters and Deepwater ports. The intent of the Shipboard Oil Pollution Emergency Plan (SOPEP) is to ensure that proper authorities are informed of any incident giving rise to pollution, or threat of pollution, of the marine environment, as well as the need for assistance and salvage measures, so that the appropriate action may be taken. CMI's SOPEP will be adhered to during construction.

## **6.6 Operational Spills**

Immediately following an operational spill, the site manager and crew members will initiate action to protect the crew, secure the vessel, stop the flow, control, or contain the spill, and notify as per contact instructions. The CMI Marine Incident Commander and Response Management Team (RMT) will provide practical support required to assist the vessel team in dealing effectively with the incident.

## **6.7 Spill Response and Cleanup Procedures**

The spill response and cleanup procedures are outlined and described in the Spill Prevention Plan/Spill Response Plan included as Appendix J to this EM&CP. In the event of a spill, the following general procedures shall be followed:

- Ensure safety;
- Stop the flow;
- Secure the area;
- Contain the spill;
- Notify and report;
- Clean-up.

The NYSDEC Spill Hotline (1-800-457-7362) will be called as soon as possible following identification of a spill. For additional details regarding spill response and clean-up procedures during pre-lay mattresses activities, please see the CMI Installation Manual in Appendix E of this EM&CP and the Spill Prevention Plan/Spill Response Plan in Appendix J of this EM&CP.



## **6.8 Notification and Reporting**

In the event of a spill, the appropriate project contacts and regulatory agencies must be notified. The Spill Prevention Plan/Spill Response Plan in Appendix J describes the notification and reporting requirements that are necessary after a spill has occurred. Reporting obligations are also addressed. As described in the Spill Prevention Plan/Spill Response Plan, the NYSDEC Spill Hotline (1-800-457-7362) will be called in the event of a reportable spill, among additional agencies and stakeholders. For additional details regarding notification and reporting procedures during construction, please see Appendix J (Spill Prevention Plan/Spill Response Plan).

## 7.0 Invasive Species Management

Invasive aquatic plant and animal species have been observed within or in the vicinity of the Lake Champlain site. Invasive species that may be present within or surrounding the Lake Champlain Marine Segment Project sites are listed below:

Lake Champlain Invasive Species:

- Aquatic plant: Water chestnut (*Trapa natans*) and Eurasian water-milfoil (*Myriophyllum spicatum*).
- Animal: Zebra mussel (*Dreissena polymorpha*), Spiny Water Flea (*Bythotrephes cederstroemi*) and Rusty Crawfish (*Faxonius rusticus*).

Numerous invasive aquatic plant and animal species may occur at pre-lay mattress installation locations within Lake Champlain, including species not listed above. The Certificate Holders have developed an Aquatic Invasive Species Control Plan (Appendix G) that identifies invasive species monitoring and control measures to be implemented along marine portions of the CHPE Project.

Per Article VII BMP Section 21.4 in Appendix G, the Certificate Holders will ensure careful inspection and wash-down of construction equipment and vessels to prevent or control the transport of Zebra Mussels and Spiny Water Fleas. The Certificate Holders will also adhere to Article VII BMP Section 21.4 in Appendix G by avoiding submerged plant beds, performing construction in infested areas only during non-germination periods, as well as careful inspection and cleaning of vessels and submerged construction equipment to prevent or control the transport of water chestnut and Eurasian water-milfoil.

Additional details regarding proposed invasive species management during pre-lay mattress installation in Lake Champlain are provided in Appendix G.



## 8.0 Environmentally Sensitive Areas

Environmentally sensitive areas include waterbodies and habitats for rare, threatened, and endangered species as discussed below.

### 8.1 Waterbodies

The only waterbody that will be impacted by the Lake Champlain pre-lay mattress installation is Lake Champlain. Compliance with waterbody permits and regulations are detailed in these sections below and throughout this EM&CP. The Certificate Holders will continue to coordinate with Federal and State agencies to ensure that all CHPE Project construction will minimize waterbody impacts and will be compliant with the requirements of these permits and applicable regulations.

Condition 10 of the Section 401 WQC states that measures to effectuate utility crossings may occur any time of year, from the State's perspective, irrespective of construction windows set forth in the Article VII Certificate. The scope of this Segment 18A EM&CP – the pre-lay mattressing at the bottom of Lake Champlain – is contemplated by the WQC as an in-water activity that can occur outside of the windows identified in CC 92, such as the summer months. The anticipated construction time frame for Segment 18A is June 2023 through August 2023, though permits allow this activity to take place anytime as pre-lay mattressing is “work to effect utility crossings” expressly authorized without seasonal restrictions by Condition 11 of the WQC.<sup>5</sup>

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<sup>5</sup> Condition 11 of the Section 401 WQC states that the following in-water activities may be undertaken at any time of year to facilitate lake and river installation: “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, NYSDEC, and NYSDOH, emergency maintenance work.” Given that the Article VII Certificate incorporates all provisions of the WQC (see CC 92), the Certificate Holders understand this condition of the WQC—by providing a specific exemption from seasonal restrictions for certain limited and specified in-water activities—supersedes the general CC 93 Table 1 seasonal restrictions as applied to the Lake Champlain Pre-Lay Mattressing, based upon the general legal principle that in a conflict between a specific condition and a general condition in a permit, the specific condition shall govern. As such, Certificate Holders understand the CC 93 Table 1 seasonal restrictions to apply to (1) cable installation in navigable waters and (2) pre-installation route clearing activities (such as prelay grapnel run and associated obstruction and debris removal), but not to that narrow class of activities called out specifically in WQC Condition 11 as permitted in-water activities allowed in other times of year. Taken together, the Certificate Holders interpret these federal and state seasonal requirements to impose no specific seasonal requirements on the Lake Champlain Pre-Lay Mattressing work.

### 8.1.1 Lake Champlain

Lake Champlain is one of the largest freshwater lakes in the United States. It is an ecologically diverse system that serves as a major recreational hub and a drinking water source. The average depth of Lake Champlain is 64 feet, though the greatest depth is over 400 feet.

The native fish flora and fauna of Lake Champlain is similar to that of the Great Lakes, although there are fewer species found in Lake Champlain. Currently there are 70 species of fish identified. Historically, there have been numerous species of aquatic vegetation present in Lake Champlain along shoreline areas and in shallow embayments, including native milfoils (*Myriophyllum* spp.), pondweeds (*Potamogeton* spp.), and water celery (*Vallisneria americana*). Lake Champlain's benthic invertebrate community, which includes native mussels, aquatic snail, crustaceans, oligochaetes, and insects, supports a diverse ecosystem. Benthic survey results will be included in the Segment 18B EM&CP submittal for the Lake Champlain marine segment. Invasive aquatic species present in Lake Champlain are discussed in Section 7.0 and Appendix G of this EM&CP. BMPs will be implemented to avoid and minimize impacts to native species and the spread of invasive aquatic species.

Lake sturgeon (*Acipenser fulvescens*), mooneye (*Hiodon tergisus*), and eastern sand darter (*Ammocrypta pellucidum*) are the three threatened fish species under New York law identified in Lake Champlain; however, impacts to these species are not anticipated as a result of the placement of concrete mattresses. Concrete mattresses will be lowered through the water column in a controlled manner and paused briefly before contacting the lakebed to provide time for species that may be below the equipment to move. Discussion of Rare, Threatened, and Endangered Species is included in Section 8.2 of this EM&CP.

CHPE submitted a Navigation Risk Assessment (NRA) to the USACE and USCG dated June 2016 as required by USACE Permit Special Condition B. The NRA focused on the operational aspects of the submarine cable within Lake Champlain, the Hudson River, and the Harlem River. The NRA's recommended minimum burial depth within Lake Champlain was four feet below the existing lake bottom. In a June 2017 letter, the USCG First District's Chief of the Prevention Unit concurred with the NRA's navigation safety findings and concluded that "the installed CHPE cable must not impede the ability of current or future operators to anchor in routine or emergency situations, to the greatest extent possible." The Lake Champlain cable burial will be designed to allow the cable to meet the four-foot burial depth within Lake Champlain as described in the NRA. Mattressing installation will comply with these depth requirements.

Disturbance to the lakebed is expected to be minimal at the locations where mattressing is proposed. Further description of the methods used for installation is provided in Appendix E of this EM&CP (CMI Installation Manual).

## 8.2 Rare, Threatened, and Endangered Species

On April 3<sup>rd</sup>, 2023, and updated on July 6<sup>th</sup>, 2023, the Certificate Holders conducted an Information for Planning and Consultation (IPaC) review to determine if threatened or endangered species under the jurisdiction of the USFWS occur in the vicinity of the proposed pre-lay mattresses locations within Lake Champlain (Appendix I). The following listed species were identified by the most recent IPaC review completed in July 2023:

- Indiana Bat, *Myotis sodalis*, Endangered
- Northern Long-eared Bat, *Myotis septentrionalis*, Endangered
- Monarch Butterfly, *Danaus plexippus*, Candidate

Based on the nature of Lake Champlain pre-lay mattresses activities, impacts to these listed species are not anticipated. Installation activities will take place within Lake Champlain, with little to no disturbance occurring above the water surface. Should any concerns arise during project construction, appropriate avoidance and mitigation actions will be taken to protect these identified species as recommended by the USFWS.

Previous consultations between the DOE and NMFS conducted in 2014 and updated in 2021 concluded that the effects of the proposed Project will be insignificant or discountable and that the CHPE Project is not likely to adversely affect any Endangered Species Act (ESA)-listed species or critical habitat.

The potential presence of aquatic threatened or endangered species along the cable route was identified as part of the Article VII Application. For Lake Champlain, the aquatic species identified as threatened by the State of New York are Lake Sturgeon (*Acipenser fulvescens*), Mooneye (*Hiodon tergisus*), and Eastern Sand Darter (*Ammocrypta pellucidum*). All appropriate avoidance and mitigation actions recommended by NYSDEC will be undertaken by the Certificate Holders to protect the identified species. Concrete mattresses will be lowered through the water column in a controlled manner and paused briefly before contacting the lakebed to provide time for species that may be below the equipment to move. Further information on avoidance and mitigation actions can be found in the Article VII Application.

On March 30<sup>th</sup>, 2023, and updated with revised mattresses locations on April 3<sup>rd</sup>, 2023, the Certificate Holders submitted a project screening request to the New York Natural Heritage Program (NYNHP) for information on State-listed rare, threatened, or endangered species that may occur near the Lake Champlain pre-lay concrete mattress installation locations. The NYNHP provided a response on May 24<sup>th</sup>, 2023, included in Appendix I. An additional project screening request with revised mattresses locations was submitted to the NYNHP on July 7<sup>th</sup>, 2023. A response to the July 2023 request has not yet been received from the NYNHP. Relevant information from the May 24<sup>th</sup>, 2023, NYNHP response letter is summarized in Table 8.1 below; this information will be revised once an updated letter is received in response to the July 2023 project screening request.

**Table 8.1 – State-Listed and Rare Species and Significant Natural Communities**

Common Name	Scientific Name	NYS Listing	Federal Listing	Location/Notes
<i>Bats</i>				
Northern long-eared bat	<i>Myotis septentrionalis</i>	Endangered	Endangered	Documented hibernating within two miles of LC-34, LC-35, LC-36. Individual animals may regularly travel five miles from documented hibernacula. The main impact of concern for listed bats is the removal of potential roost trees.
<i>Fish</i>				
Bridle Shiner	<i>Notropis bifrenatus</i>	Unlisted	Unlisted	Documented at the shore and nearshore areas in the vicinity of LC-10, LC-11, LC-12, LC-13. Lake Champlain Rouses Point, 1998-07-31: Near shore in vicinity of Rouses Point Bridge.
Blackchin Shiner	<i>Notropis heterodon</i>	Unlisted	Unlisted	Documented at the shore and nearshore areas in the vicinity of LC-10, LC-11, LC-12, LC-13. Lake Champlain Rouses Point, 1998-07-31: Near shore about .5 mile south of Rouses Point Bridge.
<i>Plants</i>				
Lowland Loosestrife	<i>Lysimachia hybrida</i>	Endangered	Unlisted	Documented at the shore and nearshore areas in the vicinity of LC-10, LC-11, LC-12, LC-13. Shallow emergent marsh along shore of Lake Champlain just north of Rouses Point Bridge, 2001.
<i>Significant Natural Communities</i>				
Cobble Shore Wet Meadow	N/A	N/A	N/A	Documented at the shore and nearshore areas in the vicinity of LC-10, LC-11, LC-12, LC-13. Cobble shoreline of Lake Champlain extending north from Rouse Point Bridge for about 2000 feet. This is a large area, well-buffered by natural communities, with engineered structures at the north and south borders creating a more protected embayment.
Silver Maple-Ash Swamp	N/A	N/A	N/A	Documented at the shore areas in the vicinity of LC-34, LC-35, and LC-36. Two patches of this community type are located along shore of Lake Champlain.



Based on the nature of Lake Champlain pre-lay mattresses activities, impacts to these Significant Natural Communities, rare species, and State-listed endangered species are not anticipated. Installation activities will take place within Lake Champlain, during daylight hours, with little to no disturbance occurring above the water surface. Mattresses will be installed away from the lake shore at significant depths. Should any concerns arise during project construction, appropriate avoidance and mitigation actions will be taken to protect these identified species as recommended by the NYSDEC.

Consistent with CC 52, the Certificate Holders will promptly notify DPS Staff, NYSDEC, and the USFWS or National Marine Fisheries Service (NMFS), if applicable, if any threatened or endangered wildlife species under 6 N.Y.C.R.R. Part 182 or any rare, threatened or endangered plant species under 6 N.Y.C.R.R. Part 193 are observed to be present in the Facility. The agencies notified will determine the appropriate measures to be taken to avoid or minimize impacts to such species. If necessary to avoid or minimize impacts to such species, or as directed by DPS Staff, the Certificate Holders shall cease installation activities in the area until DPS Staff have determined that appropriate protective measures have been implemented.

Further, the Certificate Holders will promptly notify DPS Staff and NYSDEC if a New York State listed species of special concern is observed to be present in the Facility area, in accordance with CC 51.

### **8.3 Mitigation Measures**

Protection measures, as generally described below, will be implemented to ensure minimization and mitigation of impacts to environmentally sensitive aquatic species and their habitats. These measures were taken from the 2013 BMP Document and Certificate Conditions.

- The Certificate Holders will work closely with federal and state agencies to establish measures prior to construction to minimize impacts to aquatic species at each mattresses location.
- All in-water work will be conducted within the applicable time window recommended by NYSDEC, NYNHP, USFWS, and/or USACE, where applicable and weather permitting.
- Environmental training for contractors and construction crews will be required.
- Spill response and mitigation procedures will be implemented in the case of any accidental spills of chemical, fuel, or other toxic materials, as specified in Appendix J.
- The Environmental Inspector will have the authority to modify or suspend construction if any threatened or endangered species are impacted in any way by construction activities.
- Construction machinery and equipment will be well maintained and checked daily for leaks.

## 9.0 Noise and Visual Impact Mitigation

### 9.1 Noise Impacts

Sensitive noise receptors typically include, but are not limited to, residences, schools, hospitals, and libraries. Noise sensitive receptors that may be impacted by Lake Champlain pre-lay mattressing installation activities are limited to those in occupied areas along the shoreline of Lake Champlain. Noise sensitive receptors present within the vicinity (0.5 miles) of confirmed pre-lay mattress installation locations include the following:

- LC-08, LC-08A: Recreational facilities (marinas), nearby residences.
- LC-09A, LC-09B, LC-10, LC-11, LC-12, LC-13: Recreational facilities (marinas, Veterans Park), nearby residences.
- LC-14: None.
- LC-15, LC-16, LC-17, LC-18, LC-19: Nearby residences.
- LC-34, LC-35, LC-36, LC-36A: Museum (Fort Ticonderoga – entrance and auxiliary buildings only), recreational facilities (Ticonderoga Boat Launch), nearby residences.

During construction, there will be a temporary increase in noise levels at nearby sensitive noise receptors; however, there will be no permanent increase to noise levels once construction is complete. Noise due to construction and installation of the marine mattressing will be temporary in nature and primarily will occur on Lake Champlain. Temporary noise impacts will vary due to the type of equipment in use at any given time, and due to the existing ambient noise at any given working hour and location. Table 9.1 summarizes the types of equipment to be used during construction and their standard noise level. Residents and businesses may be temporarily affected by noise from construction activities, but no residence will be exposed to significant noise levels for an extended period.

**Table 9.1 – Noise Impact Summary**

Type of Equipment	Equipment Noise Level at 50 feet, dBA
Crane	81
Compressor	67
Generator	78
Winch	78

No blasting is required to facilitate mattress construction or installation. All noise generated by the construction of the Project will be temporary and, therefore, impacts on any noise receptors will also be temporary.



The following noise control measures are proposed during construction to minimize noise related impacts to nearby noise sensitive receptors:

- Installing improved mufflers on heavy construction equipment when used in close proximity to noise sensitive areas; and
- Utilizing low-noise technologies as appropriate.

CMI will be responsible for ensuring that all construction tools and equipment have been maintained such that they operate at normal manufacturer's operating specifications, including at peak loading. CMI will also be responsible for identifying the schedule of activities that will take place during Project construction.

Construction operations for marine mattress installation are expected to be completed during daytime hours only (after 7 am and before 7 pm). No nighttime operations are currently proposed or anticipated for mattressing activities. Should nighttime operations be required due to scheduling, safety, and/or operational purposes, the Certificate Holders and/or Contractor will inform the DPS and local municipalities 48 hours in advance of the nighttime operations. DPS shall be notified in advance if construction is planned on Sundays, evenings, or holidays. Appropriate mitigation and noise suppression measures, as outlined above, will be employed to minimize impacts to nearby sensitive receptors.

During review and approval of the CHPE Project, the PSC and the parties to the Joint Proposal acknowledged that construction of the Facility will result in temporary noise impacts, and that reasonable noise mitigation measures will be employed to minimize these impacts to the maximum extent practicable, such as by limiting noise-producing activities to daytime hours. Those minimization measures are reflected in this section of the EM&CP and are consistent with the BMPs developed for the project during the Article VII process (see BMPS Section 25 and Joint Proposal Paragraph 89). Certificate Condition 159(II)'s requirement of a noise mitigation plan refers to developing such a plan to address noise sensitive sites along the Facility ROW to address noise impacts during clearing, construction, and operation. The Certificate Holders submit that the scope of this EM&CP—installation of utility protections at discrete crossings in Lake Champlain, work which is temporary and proposed during daytime hours—does not warrant further development of a noise mitigation plan beyond the measures already identified within the EM&CP (installing improved mufflers on equipment, utilizing low-noise technologies as appropriate, providing advance notice to municipalities should nighttime work become necessary, etc.), and that the measures proposed are consistent with the Certificate, Joint Proposal, and BMPs as written.

## **9.2 Visual Impacts**

Visual impacts during construction of the Project are anticipated to be minor and temporary in nature. Residents and individuals proximal to the Project Areas may observe general construction activities, such as work vessels, barges, and equipment.





Construction operations are expected to be completed during daytime hours only. No nighttime operations are currently proposed or anticipated for mattresses activities. Should nighttime operations be required due to scheduling, safety, and/or operational purposes, the Certificate Holders and/or Contractor will inform the DPS and local municipalities 48 hours in advance of the nighttime operations. In limited circumstances, lighting may be utilized on work vessels to ensure the safety and security of Project employees and for navigational purposes. Lighting will be positioned and oriented to avoid and minimize impacts to nearby sensitive receptors to the greatest extent feasible. Given the foregoing, no nighttime lighting plan is provided in this EM&CP.

Visual impacts during the operation of the Project are anticipated to be minor. No permanent aboveground features are proposed. Installation of the mattresses on the lakebed surface of Lake Champlain will not affect any existing visual and aesthetic resources. No additional visual impact mitigation is proposed by the Certificate Holders.



## 10.0 Cultural Resources

Cultural resources include archaeological and historic architectural resources that are listed on, eligible, or potentially eligible for listing on the National Register of Historic Places (NRHP).

Due to the nature of pre-lay mattressing activities, unanticipated cultural resource discoveries are not anticipated during mattress installation, as submerged land has been previously disturbed to facilitate the construction of existing utilities. As such, an unanticipated discovery plan has not been included with this Lake Champlain Pre-Lay Mattressing EM&CP. In the event that archaeological materials are discovered during construction, the Certificate Holders will cease all construction in proximity to the find and shall stabilize the surrounding area. Construction will not resume until such time as the cultural resource has been evaluated and the mitigation measures determined. In the event that any human remains are discovered during construction, the Certificate Holders will proceed with the appropriate protocols, including NYSHPO's Human Remains Discovery Protocol (January 2021).

More broadly, the Certificate Holders have developed a CRMP approved by NYSHPO and other stakeholders, which will be implemented to address cultural resource impacts from other portions of the facility. The most recent version of the CRMP was filed on September 21, 2022 and can be viewed on the DMM (DMM Item 893). The CRMP is included in Appendix H of this EM&CP. A Supplemental CRMP is currently being drafted for Lake Champlain Pre-Lay Mattressing and will be submitted to the DPS as soon as available, in a future submission. Potential impacts and avoidance measures to known archaeological sites will be discussed in this Supplemental CRMP.

A Phase IA Review and Analysis of potential underwater cultural resources along Segment 18A was completed by the Lake Champlain Maritime Museum (LCMM) (Sabick and Gates 2023). LCMM reviewed data sets provided by TRC for each of the pre-lay mattress locations as well as 500 feet to the north and south of each location. These include the following Reference Numbers:

- Utility Crossing LC-10, LC-11, LC-12, LC-13;
- Utility Crossing LC-14; and
- Utility Crossing LC-34, LC-35, LC-36.

LCMM concluded that no significant underwater cultural resources are present at the following locations: LC-14, LC-34, LC-35, and LC-36. Significant cultural resources were identified within proximity of locations: LC-10, LC-11, LC-12, and LC13. TRC and LCMM will consult with NYSHPO to determine the appropriate mitigation measures and to review other crossing locations not listed above. These measures will be incorporated into the Supplemental CRMP as noted above. Phase IA Review and Analysis of potential underwater cultural resources at the following pre-lay mattress locations along Segment 18A will be completed by the LCMM and the results of that analysis will be incorporated into the Supplemental CRMP:



- Utility Crossing LC-08, LC-08A, LC-09A, LC-09B, LC-15, LC-16, LC-17, LC-18, LC-19, and LC-36A.



## **11.0 Cleanup and Restoration**

There will not be any cleanup or restoration required on the lakebed for Segment 18A. Cleanup and restoration of staging areas and laydown yards will be performed in accordance with previously submitted EM&CP Segments 16 and 17.

## 12.0 Decommissioning Plan

The permanent Project components involved in the Segment 18A EM&CP are all below-water infrastructure, installed to protect existing co-located infrastructure from adverse impacts. As such, the Certificate Holders will not remove these below-water concrete mattress components in the event that the Project is deenergized at some future date (CC 162k), particularly given that removal of the concrete mattresses may have a greater adverse impact on the environment than leaving these components in place. Given the size and scale of the proposed Lake Champlain Marine Segment HVDC facility, the continued presence of below-water infrastructure is not anticipated to pose a concern to the environment, future land use, and/or future utility uses following de-energizing of the Project. Therefore, the decommissioning plan for the Lake Champlain Marine Segment HVDC facility will be to leave concrete mattress components in place (CC 162k).