

Champlain Hudson Power Express Project
SUPPLEMENT
Section 404 / 10 Permit
Joint Application for
New York State and U.S. Army Corps of Engineers

QUESTION 8:

Property Tax Map Section / Block / Lot Number

Not Applicable due to the project nature and size.

Project Location

The transmission system is comprised of two solid state (no fluids) high voltage direct current (“HVDC”) electric transmission cables, each approximately 6 inches in diameter, extending entirely within New York State from the international border to a converter station in Astoria, in the borough of Queens, New York City, New York. As proposed the transmission cables will be buried underwater or underground along the entire Project route, except where the cables are installed within conduits attached to existing bridge structures at locations including the Hudson River channel at Fort Edward, the Mohawk River, and Catskill Creek or in limited situations in Lake Champlain where the cables may be laid on the lake bed surface. From the converter station in Astoria, high voltage alternating current cables (“HVAC”) will be connected to a New York Power Authority (“NYPA”) substation located at the same site.

The Project originates at the international border between the United States and Canada and continues south within Lake Champlain for approximately 101.5 miles in waters of the state of New York. The cables are to be located to the east of Rouses Point, Point au Fer, Chazy Landing, Point Au Roche and Cumberland Head, east of Valcour Island and the Four Brothers islands, and then will continue towards the New York – Vermont border near the middle of the lake. From Split Rock Point south the cables would be located closer to the New York shoreline. Proceeding southward from Crown Point, the waters of the lake become shallower, and the cable route will be closer to the New York-Vermont border near the middle of the narrow water body.

At milepost (“MP”) 101.5, in the town of Dresden, Washington County, New York, the transmission cables will transition from the waters of Lake Champlain to the land on the western shore via a horizontal directional drill (“HDD”). The cable route will then transition from under Lake Champlain to land owned by the Delaware and Hudson Railway (D&H)¹ and other property owners and then enters the right-of-way (“ROW”) of New York State Route 22. The cables will continue south within the Route 22 ROW until MP 111.9, except for a crossing of South Bay at MP 109.7. The cable route will continue within the Route 22 ROW into the Village of Whitehall and then will enter the Canadian-Pacific Railway (“CP”) ROW on lands owned by the D&H within the Village of Whitehall. The cables will remain primarily within the CP ROW and lands owned by the D&H for approximately 65.1 miles, crossing the Washington County municipalities of Whitehall, Fort Ann, Hartford, Kingsbury, Fort Edward Town and

¹ The D&H was acquired some years ago by the Canadian Pacific Railway Company, but it still operates for many purposes under the D&H name.

Village; the Saratoga County municipalities of Moreau, Northumberland, Wilton, Greenfield, City of Saratoga Springs, Malta, Milton, Ballston, and Clifton Park; the Schenectady County municipalities of Glenville, Rotterdam and the City of Schenectady. Along this portion of the overland route, the cable route will have relatively minor deviations out of the CP ROW onto private and public lands for various engineering constraints, such as a narrow section of ROW, buildings, railroad developments, and sensitive habitat areas. In Schenectady, the proposed route will leave the CP ROW at MP 173 to be installed within Erie Boulevard so as to bypass a section of railroad bridges. The cables will re-enter the CP ROW around MP 173.6, but will exit again at MP 173.7 to utilize largely vacant land to pass beneath Interstate I-890. The cables re-enter the CP ROW at MP 174.3 and will continue to the Town of Rotterdam.

Around MP 177 in Rotterdam, the cables will transfer from the CP ROW to the CSX Transportation Railroad (“CSX”) ROW. The cables will be located within the CSX ROW southeasterly for approximately 22 miles through the Albany County municipalities of Guilderland, New Scotland, Village of Voorheesville, Bethlehem and Coeymans. From MP 199, the cables will continue along a CSX ROW that runs south parallel to the Hudson River within the Town of Coeymans and the Village of Ravena, and the Greene County municipalities of New Baltimore, Town and Village of Coxsackie, Town of Athens, and the Town and Village of Catskill. There are relatively minor deviations from the CSX ROW due to engineering constraints such as bridges, roadway crossings, and areas where the existing ROW is too narrow to permit cable installation while meeting established railroad clearance criteria.

In the Town of Catskill north of the hamlet of Cementon, the cable route will exit the CSX ROW at MP 227.5 and turn easterly to follow Alpha Road, which terminates at a landing area at MP 228.2. At this point the cables will transition into the Hudson River via an HDD. The cables will be located within the Hudson River south from Cementon for approximately 67 miles. The cable route has been sited to avoid known sensitive habitat, potential cultural resources, contamination zones and navigation hazards to the extent achievable.

At MP 295.7, the cables will transition from the Hudson River via an HDD and enter a CSX ROW in the Rockland County Town of Stony Point. The cables subsequently will follow the CSX route and public road ROW for a 7.7 mile overland bypass of Haverstraw Bay, which has been identified as one of the most sensitive significant coastal habitats within the Hudson River. The cable route then will travel through the Town of Haverstraw, Village of West Haverstraw and Village of Haverstraw primarily within the CSX ROW, although there are deviations to avoid engineering constraints such as bridges and roadway crossings. At MP 300.8, the CSX ROW is bordered on the east and then on both sides by Haverstraw Beach State Park; therefore, starting at MP 301.4, an HDD will be established to install the cables under Rockland Lake State Park and Hook Mountain State Park (comprising portions of Palisades Interstate Park) to enter the ROW of NYS Route 9W in the Town of Clarkstown. From MP 301.8 to 302.4, the cables will be located within the Route 9W ROW. At this point, another HDD will install the cables beneath the two parks and transition the cables into Hudson River.

From MP 302.8 southerly of Haverstraw Bay, the cables will be located within the New York State section of the Hudson River for approximately 20.7 miles. As with the other in-water segments, the routing has been set so as to avoid sensitive resources. At MP 324, the cable will

turn easterly and enter Spuyten Duyvill Creek and the Harlem River within the borough of Manhattan in New York City. The cable route will be located within the Harlem River for 6.58 miles, and then transition to land via an HDD to enter a CSX ROW in the borough of the Bronx. The cable route along CSX ROW will cross lands owned by the New York State Department of Transportation, cross beneath the Robert F. Kennedy Bridge and the Hell Gate railroad bridge and then transition via an HDD to cross beneath and into the East River. From the East River the cable route will transition to land via another HDD in the borough of Queens in New York City, and will continue easterly to the Luyster Creek converter station site in Astoria, north of 20th Avenue on lands of Consolidated Edison Company of New York, Inc. (“Consolidated Edison”).

The converter station will be a “compact type” with a total footprint (i.e., building and associated equipment and related areas) of approximately 5 acres. Gas insulated HVAC cables will connect the converter station to NYPA’s Astoria Annex 345 kilovolt (“kV”) substation. If Consolidated Edison proceeds with its recently announced plans to connect a phase angle regulating transformer (“PAR”) to the Astoria Annex substation, the Applicants may need to construct a four-breaker gas-insulated ring bus in a building to be located on the same parcel as the converter station, unless a preferable location for this ring bus can be found closer to the Astoria Annex.

From the Astoria Annex substation, another set of HVAC cables will be located within the streets of New York City for approximately three miles to Consolidated Edison’s Rainey Substation. The cable will run north parallel along 20th Avenue before crossing 20th Avenue southwesterly onto 29th Street. The cable route will continue within 29th Street for one city block before turning northwest onto 21st Avenue and continuing within 21st Avenue until 23rd Street. The cable route will turn onto 23rd Street and continue southerly, including crossing under the Triborough Bridge, until 30th Drive. The cable route will then turn westerly on to 30th Drive and then southerly within 14th Street. The cable route would turn to the west onto 31st Drive for one city block before turning to the south onto 12th Street. The cable route would turn west onto 35th Avenue and continue to the Rainey Substation.

Town/Village/City

The submarine portion of the Project is located in waters of the State of New York, which are managed by the New York State Office of General Services. The municipalities for the overland portion of the Project are as follows: Dresden, Whitehall, Fort Ann, Hartford, Kingsbury, Fort Edward, Moreau, Northumberland, Wilton, Greenfield, Saratoga Springs, Milton, Ballston, Clifton Park, Glenville, Schenectady, Rotterdam, Guilderland, New Scotland, Voorheesville, Bethlehem, Coeymans, Ravena, New Baltimore, Coxsackie, Athens, Catskill, Stony Point, Haverstraw, West Haverstraw, Clarkstown, Bronx, and Queens.

County

The Project is located in the following counties of New York: Clinton, Essex, Washington, Saratoga, Schenectady, Albany, Rensselaer, Greene, Columbia, Ulster, Dutchess, Orange, Putnam, Rockland, Westchester, Bronx, New York, and Queens.

USGS Quadrangle Maps

See “Revised Attachment A: USACE Location Maps” in Attachment B of this Supplement.

Stream/Water Body Name

Water bodies crossed by the Project route are listed in Table 4-2 of the Wetland Delineation Report included as Attachment F to this Supplemental Application.

Location Coordinates

The latitudes and longitudes at each mile and submile marker of the proposed route are provided with this Supplement as an Excel spreadsheet under the file name: Coordinates of Mileposts_013112. The coordinates for each mile are provided in Table 1 below.

Table 1: Coordinates for Mile Markers (Projection: New York State Plane NAD 1983 U.S. Feet)

Mile-post	Latitude	Longitude	Mile-post	Latitude	Longitude	Mile-post	Latitude	Longitude	Mile-post	Latitude	Longitude
0	45.01071	-73.344811	42	44.451907	-73.32399	84	43.893689	-73.386845	126	43.372999	-73.489389
1	44.997023	-73.351135	43	44.437999	-73.318274	85	43.880799	-73.377588	127	43.359288	-73.494635
2	44.982917	-73.354443	44	44.423843	-73.316308	86	43.867392	-73.38129	128	43.346016	-73.502376
3	44.969108	-73.348118	45	44.409935	-73.321377	87	43.853025	-73.381657	129	43.333401	-73.511997
4	44.955	-73.343394	46	44.396419	-73.328762	88	43.84124	-73.376638	130	43.322102	-73.524165
5	44.940536	-73.341843	47	44.382446	-73.333813	89	43.830808	-73.390406	131	43.311039	-73.536859
6	44.926055	-73.342732	48	44.368015	-73.335554	90	43.816863	-73.393568	132	43.299803	-73.549146
7	44.912131	-73.348086	49	44.353509	-73.336141	91	43.807545	-73.380116	133	43.288182	-73.560819
8	44.901437	-73.361704	50	44.340055	-73.33098	92	43.79475	-73.371852	134	43.276793	-73.57289
9	44.88757	-73.367639	51	44.326228	-73.329005	93	43.783174	-73.360851	135	43.265989	-73.585412
10	44.873253	-73.370747	52	44.311719	-73.328623	94	43.770368	-73.354087	136	43.254075	-73.59578
11	44.859699	-73.37792	53	44.2973	-73.326708	95	43.756798	-73.361111	137	43.240095	-73.600557
12	44.846438	-73.385651	54	44.283791	-73.320091	96	43.743715	-73.369696	138	43.228081	-73.611041
13	44.833109	-73.380323	55	44.26988	-73.316733	97	43.729379	-73.370364	139	43.217436	-73.624502
14	44.822631	-73.366259	56	44.255557	-73.3195	98	43.717128	-73.379855	140	43.207003	-73.637693
15	44.812411	-73.352053	57	44.244312	-73.330405	99	43.705079	-73.390843	141	43.19641	-73.651072
16	44.798738	-73.345679	58	44.235831	-73.346451	100	43.69349	-73.401528	142	43.187551	-73.666648
17	44.785165	-73.351216	59	44.223167	-73.355527	101	43.680404	-73.404568	143	43.175737	-73.678119
18	44.773185	-73.36269	60	44.210867	-73.366216	102	43.670556	-73.416071	144	43.163739	-73.689199
19	44.761146	-73.373966	61	44.200959	-73.380826	103	43.660944	-73.429645	145	43.150995	-73.698297
20	44.747806	-73.378681	62	44.190861	-73.394949	104	43.648818	-73.440235	146	43.138273	-73.707618
21	44.734458	-73.370951	63	44.1768	-73.399161	105	43.635713	-73.445995	147	43.1266	-73.718992
22	44.72022	-73.36833	64	44.162288	-73.399204	106	43.622313	-73.442663	148	43.12014	-73.736388
23	44.705794	-73.370347	65	44.14824	-73.403769	107	43.610233	-73.433066	149	43.115662	-73.754892
24	44.691349	-73.371556	66	44.136214	-73.414454	108	43.59629	-73.434253	150	43.111277	-73.773189
25	44.677159	-73.375724	67	44.12248	-73.420585	109	43.582555	-73.439363	151	43.102432	-73.789183
26	44.6631	-73.38069	68	44.10821	-73.424252	110	43.57247	-73.429434	152	43.092451	-73.803026
27	44.64949	-73.386684	69	44.093939	-73.427917	111	43.567833	-73.410854	153	43.079908	-73.811097
28	44.636563	-73.394882	70	44.079679	-73.431736	112	43.555559	-73.40337	154	43.06659	-73.81731
29	44.622193	-73.397559	71	44.06553	-73.436142	113	43.54126	-73.40555	155	43.052368	-73.818104
30	44.607828	-73.397539	72	44.051287	-73.439863	114	43.527128	-73.409196	156	43.038391	-73.820875
31	44.593509	-73.394595	73	44.039079	-73.432546	115	43.513041	-73.413385	157	43.027148	-73.833152
32	44.579036	-73.394616	74	44.029818	-73.417446	116	43.499404	-73.419364	158	43.014082	-73.839112
33	44.564584	-73.396454	75	44.017441	-73.408904	117	43.486078	-73.426472	159	42.99963	-73.839133
34	44.550907	-73.390341	76	44.003214	-73.409623	118	43.472322	-73.43243	160	42.985716	-73.844289
35	44.537633	-73.382079	77	43.989053	-73.413434	119	43.459939	-73.442295	161	42.971822	-73.8492
36	44.524334	-73.373998	78	43.974945	-73.414082	120	43.446696	-73.449196	162	42.958092	-73.855194
37	44.513125	-73.362738	79	43.961655	-73.408222	121	43.433843	-73.457573	163	42.944803	-73.862758
38	44.505406	-73.345591	80	43.947448	-73.408073	122	43.426271	-73.474335	164	42.930705	-73.866815
39	44.494693	-73.334522	81	43.9331	-73.410209	123	43.415864	-73.485251	165	42.916705	-73.871444
40	44.48032	-73.331856	82	43.919256	-73.404326	124	43.401581	-73.486727	166	42.903484	-73.879221
41	44.465966	-73.328922	83	43.905529	-73.397816	125	43.387399	-73.489827	167	42.89138	-73.889623

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Mile-post	Latitude	Longitude	Mile-post	Latitude	Longitude	Mile-post	Latitude	Longitude	Mile-post	Latitude	Longitude
168	42.878827	-73.898555	210	42.380837	-73.81809	252	41.822291	-73.950147	294	41.268185	-73.972705
169	42.865145	-73.903904	211	42.366483	-73.816485	253	41.808302	-73.951582	295	41.253928	-73.97616
170	42.852105	-73.911305	212	42.352128	-73.816395	254	41.79421	-73.953476	296	41.2401	-73.976918
171	42.842252	-73.925698	213	42.33857	-73.822923	255	41.780248	-73.952998	297	41.22591	-73.976566
172	42.829467	-73.92677	214	42.325045	-73.829593	256	41.767593	-73.947259	298	41.211893	-73.978884
173	42.818239	-73.938654	215	42.311069	-73.834264	257	41.753564	-73.937858	299	41.19868	-73.975108
174	42.808488	-73.95007	216	42.297037	-73.838694	258	41.739144	-73.939385	300	41.189132	-73.961002
175	42.802383	-73.965574	217	42.283049	-73.843207	259	41.724801	-73.940008	301	41.179336	-73.947523
176	42.805426	-73.984429	218	42.269197	-73.848533	260	41.71079	-73.943763	302	41.166854	-73.934758
177	42.800841	-74.000023	219	42.255454	-73.854359	261	41.695988	-73.942714	303	41.161845	-73.917776
178	42.787688	-73.994647	220	42.241782	-73.860467	262	41.681946	-73.942175	304	41.151767	-73.904348
179	42.774496	-73.987341	221	42.22804	-73.866285	263	41.66788	-73.946046	305	41.139552	-73.894185
180	42.76165	-73.979823	222	42.2173	-73.878785	264	41.65377	-73.945035	306	41.126738	-73.885345
181	42.748323	-73.972482	223	42.206536	-73.891207	265	41.639452	-73.947023	307	41.11204	-73.883954
182	42.735333	-73.965308	224	42.194301	-73.90139	266	41.625161	-73.949433	308	41.09738	-73.883946
183	42.721931	-73.960288	225	42.181343	-73.909704	267	41.611257	-73.947597	309	41.08298	-73.884189
184	42.70777	-73.959561	226	42.167734	-73.91595	268	41.597824	-73.948255	310	41.068711	-73.881092
185	42.694257	-73.955259	227	42.153713	-73.920293	269	41.583997	-73.952509	311	41.054172	-73.883566
186	42.681271	-73.948068	228	42.145307	-73.911828	270	41.569672	-73.960717	312	41.039789	-73.884048
187	42.669254	-73.937726	229	42.136214	-73.911248	271	41.55811	-73.971978	313	41.025436	-73.885713
188	42.656192	-73.929616	230	42.124912	-73.916847	272	41.546946	-73.983901	314	41.011269	-73.889134
189	42.643118	-73.921718	231	42.111681	-73.921772	273	41.533461	-73.990425	315	40.997956	-73.890411
190	42.629891	-73.914093	232	42.097915	-73.927508	274	41.520102	-73.996184	316	40.984015	-73.889824
191	42.617251	-73.905305	233	42.08378	-73.928579	275	41.505669	-73.996856	317	40.969991	-73.89312
192	42.604657	-73.895851	234	42.072057	-73.924583	276	41.491262	-73.996762	318	40.957014	-73.901257
193	42.592987	-73.884775	235	42.05714	-73.929415	277	41.476866	-73.996619	319	40.943733	-73.908384
194	42.581114	-73.873819	236	42.042263	-73.93181	278	41.46273	-73.996012	320	40.929703	-73.912505
195	42.570735	-73.860795	237	42.028001	-73.93421	279	41.450902	-73.990666	321	40.916043	-73.917903
196	42.56043	-73.847218	238	42.013818	-73.935925	280	41.439173	-73.980878	322	40.902389	-73.923843
197	42.549246	-73.835813	239	42.000257	-73.94157	281	41.425548	-73.974367	323	40.88868	-73.929665
198	42.542674	-73.818562	240	41.986486	-73.946976	282	41.413079	-73.964414	324	40.879272	-73.927037
199	42.532907	-73.805195	241	41.972616	-73.951939	283	41.400197	-73.957693	325	40.873108	-73.910452
200	42.51951	-73.809388	242	41.958591	-73.95638	284	41.390952	-73.949232	326	40.860543	-73.917208
201	42.50614	-73.816588	243	41.944456	-73.959528	285	41.377228	-73.957356	327	40.848165	-73.926884
202	42.49208	-73.817601	244	41.931087	-73.956336	286	41.362636	-73.960631	328	40.834895	-73.934116
203	42.478331	-73.811791	245	41.918624	-73.95504	287	41.348344	-73.962107	329	40.820616	-73.932948
204	42.464324	-73.808329	246	41.908144	-73.965646	288	41.337735	-73.97347	330	40.806753	-73.931534
205	42.450368	-73.813197	247	41.89248	-73.960891	289	41.325228	-73.983131	331	40.798923	-73.917826
206	42.436985	-73.808875	248	41.879425	-73.948564	290	41.312251	-73.981202	332	40.791998	-73.901228
207	42.423254	-73.812341	249	41.865141	-73.939359	291	41.301722	-73.968107			
208	42.40953	-73.818069	250	41.852469	-73.950156	292	41.291003	-73.955457			
209	42.395191	-73.81972	251	41.836267	-73.948454	293	41.279416	-73.961046			

QUESTION 9:Will project occupy Federal, state, municipal land?

Yes, the Project will occupy State-owned lands.

The majority of the project will be located within state-owned lands. The Applicants are currently negotiating a utility easement with the New York State Office of General Services.

Project Description and Purpose

See Supplemental Document.

QUESTION 10:Other permits?

Yes

Federal Permits:

The Applicants have submitted an application for a Presidential Permit to the US Department of Energy (PP-362).

The Applicants previously submitted a Coastal Zone Consistency Assessment pursuant to the Federal Coastal Zone Management Act and the New York State Waterfront Revitalization of Coastal Areas and Inland Waterways Act. The New York State Department of State issued a Conditional Concurrence with this consistency certification on June 8, 2011 (F-2010-1162 [S-2010-0025]).

New York State:

The Applicants have submitted an application for a Certificate of Environmental Compatibility and Public Need (CECPN) under Article VII of the Public Service Law (Case 10-T-0139).

In accordance with New York Public Service Law, Article 7 §130, the Applicants expect that all state permits will be issued by the New York Public Service Commission in conjunction with the approval/issue of the CECPN, with the exception of the Stormwater Management Permit (which will be issued by the New York State Department of Environmental Conservation) and Use and Occupation of Lands Underwater Easement (which will be issued by the New York State Office of General Services).

Local Permits:

The Applicant expects to apply to the local governments for a building permit and certificate of occupancy for the converter station.