

**Submission of Indicated New York Transmission
Owners
For Authority to Construct and Operate Electric
Transmission Facilities in Multiple Counties in
New York**

Case 13-M-0457

**Exhibit 2
Location of Facilities**

*Edic to New Scotland
345 kV Transmission Line
and
Knickerbocker to Pleasant Valley
345 kV Transmission Line Project
(ED-NS/KB-PV)*

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**EDIC TO NEW SCOTLAND 345 KV TRANSMISSION LINE
AND KNICKERBOCKER TO PLEASANT VALLEY
345 KV TRANSMISSION LINE PROJECT
(ED-NS/KB-PV)**

EXHIBIT 2: LOCATION OF FACILITIES

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EXHIBIT 2: LOCATION OF FACILITIES

2.0 Location of Facilities

The discussion of Exhibit 2, Location of Facilities, describes Part A Article VII components of the Edic to New Scotland 345 kV Transmission Line and Knickerbocker to Pleasant Valley 345 kV Transmission Line Project (“ED-NS/KB-PV Project”, “ED-NS/KB-PV”, or “Project”).

2.1 General Description of Facility Location

The route for the Project is described below and is wholly within existing rights-of-way (ROW) of the Applicant. The description of the route is provided in terms of line segments between substations or switching stations.

The Project is comprised of three ROW segments, Edic to New Scotland (ED-NS), Knickerbocker to Churchtown (KB-CT), and Churchtown to Pleasant Valley (CT-PV). The Project includes the rebuild and expansion of the existing 230 kV Rotterdam Substation to include a 345 kV yard, modifications to the existing 345 kV Edic and New Scotland Substations, the construction of the new Knickerbocker 345 kV Switching Station, rebuild and expansion of the existing Churchtown 115 kV Switching Station, and modifications to the Consolidated Edison Pleasant Valley 345 kV Substation.

The Project’s route and stations are depicted in Figure ED-NS/KB-PV-1. The Project’s route and stations are summarized in Table 2-1. A list of jurisdictions crossed by the Project, and associated line segment lengths, is provided in Table 2-2.

Table 2-1: Proposed Project Route and Stations

Portion of Route	Segment	Total Distance (miles)
Edic Substation to New Scotland Substation 345 kV transmission line (includes 5.0-mile rebuild of two 230 kV transmission lines from Princetown Junction to Rotterdam Substation)	ED-NS	91.4
Knickerbocker Switching Station to Churchtown Switching Station 345 kV transmission line	KB-CT	21.9
Churchtown Switching Station to Pleasant Valley Substation 345 kV transmission line	CT-PV	32.3
Substation or Switching Station	Segments	
Edic Substation	ED-NS	
Rotterdam Substation	ED-NS	
New Scotland Substation	ED-NS	
Knickerbocker Switching Station	KB-CT	
Churchtown Switching Station	KB-CT & CT-PV	
Pleasant Valley Substation	CT-PV	

Table 2-2: Jurisdictions Crossed by the Project

Name	Miles	County	Town	Miles by Jurisdiction	Miles by County
Edic to New Scotland	91.4	Oneida County	Town of Marcy	0.9	4.5
			Town of Deerfield	3.6	
		Herkimer County	Town of Schuyler	1.7	27.6
			Town of Frankfort	8.8	
			Town of German Flatts	9.1	
			Town of Little Falls	1.0	
			Town of Stark	6.0	
			Town of Danube	1.0	
		Montgomery County	Town of Minden	5.7	29.8
			Town of Canajoharie	6.3	
			Town of Root	6.0	
			Town of Glen	2.4	
			Town of Charleston	5.3	
			Town of Florida	4.1	
		Schenectady County	Town of Duanesburg	3.8	17.4
			Town of Princetown	9.9	
			Town of Rotterdam	3.7	
		Albany County	Town of Guilderland	6.7	12.1
Town of New Scotland	5.4				

Table 2-2: Jurisdictions Crossed by the Project, continued

Name	Miles	County	Town	Miles by Jurisdiction	Miles by County
Knickerbocker to Pleasant Valley	54.2	Rensselaer County	Town of Schodack	2.2	2.2
		Columbia County	Town of Stuyvesant	8.0	30.9
			Town of Stockport	4.6	
			Town of Ghent	0.7	
			Town of Claverack	7.4	
			Town of Livingston	8.3	
			Town of Gallatin	1.2	
			Town of Clermont	0.7	
		Dutchess County	Town of Milan	8.0	21.1
			Town of Clinton	8.0	
			Town of Pleasant Valley	5.1	

2.2 Segment Descriptions

The Project consists of the Edic to New Scotland (ED-NS) Segment, the Knickerbocker to Churchtown (KB-CT) segment, and the Churchtown to Pleasant Valley (CT-PV) segment. The total distance of the Project is approximately 145.6 miles.

2.2.1 Edic to New Scotland

The ED-NS segment starts at the existing Edic Substation in the Town of Marcy, Oneida County. From the Edic Substation, the route traverses approximately 2,000 feet to the Porter Substation to join the existing 230 kV ROW (containing two 230 kV lines, referred to here as 230 kV A and 230 kV B), which also includes two existing NYPA 345 kV lines. These facilities are located on adjacent double-circuit structures within this ROW for a total distance of approximately 12 miles.

Heading southeast past Porter Substation, the route crosses State Route 8/12 into the Town of Deerfield and continues past and to the north of the Utica Reservoir. After crossing into Herkimer County, the route turns south and crosses the New York State Thruway (I-90), the Erie Canal and the Mohawk River within a distance of approximately 3,000 feet.

The route continues in a south-southeasterly direction for approximately 8 miles in Herkimer County at which point the 230 kV B line separates from the other three circuits and continues to the east within a separate ROW. The route follows the alignment of the 230 kV A line, which continues to share the ROW with the two NYPA 345 kV lines for approximately 1.8 miles. The two NYPA 345 kV lines diverge south from the 230 kV A line and the 230 kV A line continues within its own ROW in a southeasterly and then easterly direction for approximately 3.0 miles, at which point it rejoins the 230 kV B line. The route continues in a southeasterly-easterly direction within the ROW of the 230 kV A and B lines through Herkimer County.

The route continues to follow the alignment of the 230 kV A and B lines in a southeasterly direction through Montgomery County, crossing Canajoharie Creek in the Town of Canajoharie. In the town of Charleston just west of State Route 30A, the 230 kV A and B lines separate with the 230 kV B line heading northeast before turning to the southeast and rejoining the 230 kV A line just west of Schoharie Creek. The structures and conductor within the approximately 4.2 mile ROW for the 230 kV B line will be removed. The route continues to follow the alignment of the 230 kV A line due east through this area, across Schoharie Creek before continuing into Schenectady County.

The route continues due east within the rights-of-way of the 230 kV A and B lines in Schenectady County to the intersection of the rights-of-way for the 230 kV A and B lines and the rights-of-way two National Grid 345 kV lines (the Applicant refers to this rights-of-way intersection as “Princetown Junction”).

From Princetown Junction, the Princetown to New Scotland portion of the segment route continues to the southeast ROW with two National Grid 345 kV lines. The route crosses Interstate 88 (I-88) about 5 miles south of Princetown Junction, just west of where I-88 ends at the New York State Thruway (I-90). About 1 mile south of the I-88 crossing, an additional National Grid 115 kV line joins the existing ROW and the route turns due south and continues into Albany County. In Albany County the route crosses U.S. Route 20 in the Town of Guilderland, continues due south just to the east of the Orchard Creek Golf Club, then turns southeast and continues within the existing 345 kV corridor, for a distance of approximately 2 miles in the town of Guilderland. The route follows this corridor to the New Scotland Substation in the town of New Scotland.

Also from Princetown Junction, the Princetown to Rotterdam portion of the segment runs easterly for a distance of 2.2 miles, crossing Pattersonville-Rynex Corners Road (County Road 3P) and Upper Gregg Road. The route then turns slightly east for a distance of 2.0 miles, where it meets two National Grid lines. The route then turns southeast and continues for a distance of 0.9 miles, crossing I-90, and terminating at the Rotterdam Substation.

The total distance in Oneida County is approximately 4.5 miles; 0.9 mile in the Town of Marcy and 3.6 miles in the Town of Deerfield.

The total distance in Herkimer County is approximately 27.6 miles; 1.7 miles in the Town of Schuyler, 8.8 miles in the Town of Frankfort, 9.1 miles in the Town of German Flatts, 1.0 mile in the Town of Little Falls, 6.0 miles in the Town of Stark, and 1.0 mile in the Town of Danube.

The total distance in Montgomery County is approximately 29.8 miles; 5.7 miles in the Town of Minden, 6.3 miles in the Town of Canajoharie, 6.0 miles in the Town of Root, 2.4 miles in the Town of Glen, 5.3 miles in the Town of Charleston, and 4.1 miles in the Town of Florida.

The total distance in Schenectady County is approximately 17.4 miles; 3.8 miles in the Town of Duanesburg, 9.9 miles in the Town of Princetown, and 3.7 miles in the Town of Rotterdam.

The total distance in Albany County is approximately 12.1 miles, with 6.7 miles in the Town of Guilderland and 5.4 miles in the Town of New Scotland.

The total distance from the existing Edic Substation to the existing New Scotland Substation, including the distance from Princetown Junction to the existing Rotterdam Substation (i.e. the ED-NS segment) is approximately 91.4 miles.

2.2.2 *Knickerbocker to Churchtown*

The KB-CT segment starts at the proposed Knickerbocker Switching Station in the Town of Schodack, Rensselaer County. The Knickerbocker Switching Station will be located at the intersection of two existing National Grid transmission line corridors, approximately 1.75 miles east of the Hudson River. Within the Knickerbocker to Churchtown segment, the Applicant proposes to remove an existing 115 kV double-circuit structure line and build a new 115/345 kV double-circuit transmission line between the Knickerbocker Switching Station and the Churchtown Switching Station.

The route for the new 345 kV line departs from the proposed Knickerbocker Switching Station and proceeds to the south ROW of the double-circuit 115 kV Schodack to Churchtown and 115 kV Greenbush to Hudson lines. Approximately 2.2 miles south of the proposed Knickerbocker Switching Station, the route passes from Rensselaer County into Columbia County.

The total distance in Rensselaer County is approximately 2.2 miles, all of which is within the Town of Schodack.

The route continues in a nearly straight line due south through the town of Stuyvesant for a distance of approximately 8 miles. After crossing into the Town of Stockport, the route turns to the southeast, crosses U.S. Route 9, and Kinderhook Creek and again turns due south. The route continues in a southerly direction generally parallel to and approximately 1 mile to the east of U.S. Route 9. The route crosses a small portion of the Town of Ghent less than 1 mile west of the Columbia County Airport. The route continues to follow the existing 115 kV ROW through the town of Claverack, passing about 2 miles to the east of the City of Hudson. After crossing Route 9H the double-circuit National Grid 115 kV circuits join the ROW just north of the proposed Churchtown Switching Station. This segment terminates at the rebuilt and expanded Churchtown Switching Station in the Town of Claverack. The new Churchtown Switching Station will require an expansion of the existing fenceline on existing National Grid owned land.

The total distance in Columbia County before reaching Churchtown Switching Station is approximately 19.7 miles; 8.0 miles in the Town of Stuyvesant, 4.6 miles in the Town of Stockport, 0.7 miles in the Town of Ghent, and 6.4 miles in the Town of Claverack.

The total distance from the proposed Knickerbocker Switching Station to the existing Churchtown Switching Station (i.e., the KB-CT segment) is approximately 21.9 miles.

2.2.3 Churchtown to Pleasant Valley

The CT-PV segment begins in the vicinity of the rebuilt and expanded Churchtown Switching Station in the Town of Claverack, Columbia County, and proceeds south. The new Churchtown Switching Station will require an expansion of the existing fenceline on existing National Grid owned land. Within the Churchtown to Pleasant Valley segment, the Applicant proposes to remove an existing 115 kV double-circuit structure line and build a new 115/345 kV double-circuit transmission line.

South of the Churchtown Switching Station, the ROW is currently occupied with parallel double-circuit 115 kV lines. The ROW that constitutes this part of the segment contains this configuration for approximately 12 miles through the Town of Livingston, the Town of Gallatin and the Town of Clermont.

The total distance in Columbia County is approximately 11.2 miles, with 1.0 mile in the Town of Claverack, 8.3 miles in the Town of Livingston, 1.2 miles in the Town of Gallatin, and 0.7 mile in the Town of Clermont.

The route continues south into the Town of Milan in Dutchess County, and about 1 mile south of the county line the ROW is joined from the west by the 345 kV Leeds to Pleasant Valley lines in parallel, single-circuit configuration. The route continues within this ROW for approximately 6.0 miles, at which point the two 345 kV lines leave this shared ROW to the west; the route continues due south within the 115 kV ROW, passing to the east of Silver Lake in the town of Clinton. The route continues south in the Town of Clinton and continues within this ROW in the Town of Pleasant Valley to the Pleasant Valley Substation.

South of Churchtown Switching Station the route roughly parallels the Taconic State Parkway, which is located approximately 2 to 3 miles to the east.

The total distance in Dutchess County is approximately 21.1 miles, with 8.0 miles in the Town of Milan, 8.0 miles in the Town of Clinton, and 5.1 miles in the Town of Pleasant Valley.

The total distance from the existing Churchtown Switching Station to the existing Pleasant Valley Substation (i.e. the CT-PV segment) is approximately 32.3 miles.

2.3 Location Maps

The general location of the Project is the Applicant's existing electric transmission corridors described above; this location is shown in Figure ED-NS-1 (Maps 1 through 16), Figure KB-CT-1 (Maps 1 through 4), and Figure CT-PV-1 (Maps 1 through 6). These maps are based on the 1.2013 revision of the USGS 1:24,000 topographic edition maps. Consistent with 16 NYCRR §86.3(a)(1)(iii), the identification of any geologic, historic resource listed on the state or national register of historic places, or scenic area, park or wilderness within three miles on either side of the proposed centerline are depicted on these maps along with the proposed location of the Project route.

Preliminary summaries of these resources, with the exception of the geologic resources, will be provided in the March 2, 2015 filing. All of these resources will be described further in Exhibit 4, to be provided with the Part B Article VII application.

Figure ED-NS-2, Figure KB-CT-2, and Figure CT-PV-2 show the proposed Project and illustrate its relationship to the Applicant's transmission system and the interconnected electric system.

2.4 Aerial Photographs

The aerial photo based exhibit required by NYCRR §86.3(b) will be provided with the Part B Article VII application.

2.5 Supplemental Right-of-Way Information

The Applicant currently owns in fee or holds easements to the existing ROWs. Consistent with the Commission's April 2013 Order, areas "where the construction ... of the proposed facility would necessitate permanent clearing or other changes to the topography, vegetation or man-made structures" will be identified in the Part B Article VII application. The plan and profile drawings to be provided as part of the Environmental Management & Construction Plan ("EM&CP") will show any temporary and/or permanent access requirements required for the Project.

2.6 Roadways, Railroads, Airports, and Right-of-Way Access

Construction and maintenance access for the Project will, to the extent possible, make use of existing access roads along the ROW. Specific locations and specifications of access and maintenance routes will be shown on the plan and profile drawings to be provided as part of the EM&CP. The numerous road crossings along the ROW will be used to provide access to the ROW for construction equipment, personnel, and materials. Stabilized construction entrances from public roadways will be established at specific locations and in accordance with the specifications to be presented in the EM&CP.

An assessment of roadway and railroad corridors crossed by the Project ROW and the proximity of the Project to local airports will be presented in Exhibit E-6.

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EXHIBIT 2: LOCATION OF FACILITIES

FIGURES

*Edic to New Scotland
345 kV Transmission Line
and
Knickerbocker to Pleasant Valley
345 kV Transmission Line Project
(ED-NS/KB-PV)*

Figure ED-NS/KB-PV-1 **Edic to New Scotland and
Knickerbocker to Pleasant Valley Project**

Figure ED-NS-1 **Location of Facilities:
Edic to New Scotland (Maps 1 through 16)**

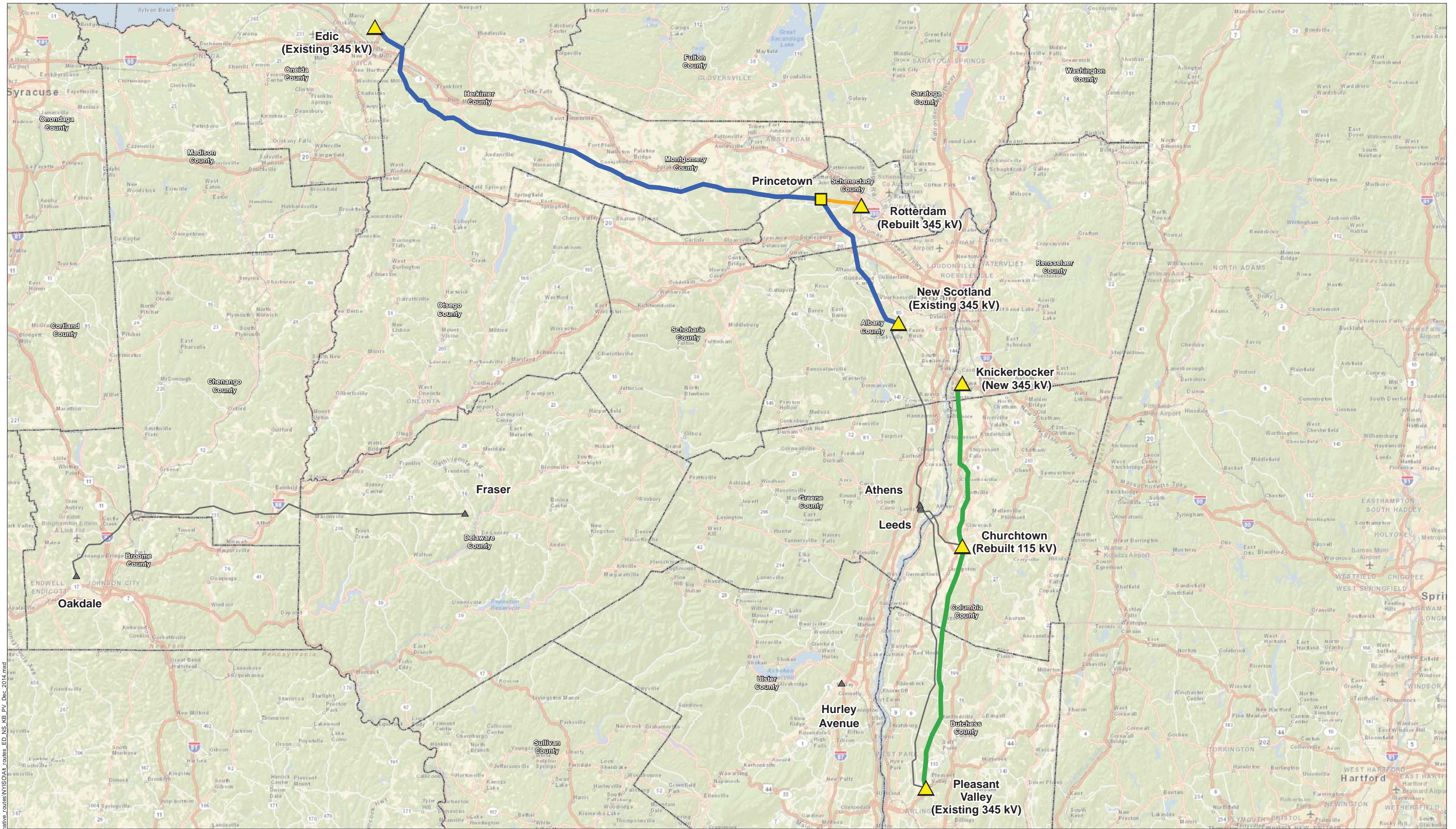
Figure ED-NS-2 **Location of Other Facilities:
Edic to New Scotland**

Figure KB-CT-1 **Location of Facilities:
Knickerbocker to Churchtown (Maps 1 through 4)**

Figure KB-CT-2 **Location of Other Facilities:
Knickerbocker to Churchtown**

**Figure CT-PV-1 Location of Facilities:
Churchtown to Pleasant Valley (Maps 1 through 6)**

**Figure CT-PV-2 Location of Other Facilities:
Churchtown to Pleasant Valley**



Legend

- New 345 kV Transmission Line (UPNY/SENY)
- New 345 kV Transmission Line (Central East)
- 345 kV Transmission Rebuild (Central East)
- Other Project Segment
- ▲ Project Station
- Project Junction
- ▲ Other Project Station
- County Boundary








Figure ED-NS/KB-PV-1

Edic to New Scotland and Knickerbocker to Pleasant Valley

January 2015

Sources: BMcD Engineering, ESRI

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Figure ED-NS-1
Location of Facilities:
Edic to New Scotland
(Maps 1 through 16)

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Exhibit 2

Figure ED-NS-2

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because it contains critical infrastructure information.]*

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Figure KB-CT-1
Location of Facilities:
Knickerbocker to Churchtown
(Maps 1 through 4)

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Exhibit 2

Figure KB-CT-2

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Figure CT-PV-1
Location of Facilities:
Churchtown to Pleasant Valley
(Maps 1 through 6)

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Exhibit 2

Figure CT-PV-2

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