

**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 E-1**

**Description of Proposed Transmission Facilities**

*Edic to New Scotland 345 kV Transmission Line  
and  
New Scotland to Leeds 345 kV Transmission Line  
Reconductoring  
and  
Leeds to Pleasant Valley 345 kV Transmission Line  
Project  
(ED-NS/NS-LD(R)/LD-PV)*

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**EDIC TO NEW SCOTLAND 345 KV TRANSMISSION LINE AND NEW SCOTLAND TO  
LEEDS 345 KV TRANSMISSION LINE RECONDUCTORING AND LEEDS TO  
PLEASANT VALLEY 345 KV TRANSMISSION LINE PROJECT  
(ED-NS/NS-LD(R)/LD-PV)**

**EXHIBIT E-1: DESCRIPTION OF PROPOSED TRANSMISSION FACILITIES**

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## **EXHIBIT E-1: DESCRIPTION OF PROPOSED TRANSMISSION FACILITIES**

### **E-1.1 Description of Proposed Transmission Facilities**

#### ***E-1.1.1 Edic to Princetown Junction***

The ED-PT Junction portion of the segment starts at the existing 345 kV Edic Substation in the Town of Marcy, Oneida County. The scope of work consists of the removal of two existing 230 kV lines and the construction of a new 345 kV line within approximately 66.8 miles of existing ROW. For approximately 12.6 miles out of Edic Substation, this will involve the removal of one set of 230 kV wires and insulators from each of the two existing 230/345 kV double-circuit monopole structures and the installation of one set of 345 kV wires and insulators to one of them. For the remaining approximately 54.2 miles, the two existing 230 kV H-frame structure lines will be removed and replaced with one new 345 kV line consisting predominately of H-frame structures. New 345 kV tubular steel monopole structures will be used intermittently through this segment for approximately 5.4 miles in total. This segment terminates at Princetown Junction in the Town of Princetown, Schenectady County. The ED-PT segment passes through the Towns of Marcy and Deerfield in Oneida County, the Towns of Schuyler, Frankfort, German Flatts, Little Falls, Stark, and Danube in Herkimer County, the Towns of Minden, Canajoharie, Root, Glen, Charleston, and Florida, in Montgomery County, and the Towns of Duanesburg and Princetown in Schenectady County.

#### ***E-1.1.2 Princetown Junction to New Scotland***

The PT-NS segment starts at Princetown Junction. The scope of work consists of the construction of a new 345 kV line within approximately 19.7 miles of the existing ROW. This segment will utilize approximately 11.5 miles of H-frame structures, 6.3 miles of monopole structures and 1.9 miles of 115/345 kV double-circuit monopole structures. This segment terminates at the existing 345 kV New Scotland Substation in the Town of New Scotland, Albany County. The PT-NS segment passes through the Town of Princetown in Schenectady County, and the Towns of Guilderland and New Scotland, in Albany County.

#### ***E-1.1.3 Princetown Junction to Rotterdam***

The PT-RD portion of the segment also starts at the Princetown Junction. The scope of work consists of the removal of two existing 230 kV H-frame structure lines and the construction of two new 345 kV compact monopole structure lines within approximately 5.0 miles of existing ROW. This segment terminates at the rebuilt and expanded 345 kV Rotterdam Substation in the Town of Rotterdam,

Schenectady County.

***E-1.1.4 New Scotland to Leeds Reconductoring***

The New Scotland to Leeds reconductoring segment starts at the existing New Scotland Substation in the Town of New Scotland, Albany County. The scope of work consists of the reconductoring of two existing 345 kV lattice structure lines and replacement of certain structures for approximately 25.9 miles within an existing ROW. This segment terminates at the 345 kV Leeds Switching Station in the Town of Athens, Greene County. This segment passes through the Towns of New Scotland and Coeymans in Albany County, and the Towns of New Baltimore, Coxsackie and Athens in Greene County.

***E-1.1.5 Leeds to Churchtown***

The Leeds to Churchtown segment starts at the Leeds Switching Station in the Town of Athens, Greene County. The scope of work consists of the removal of the existing 115 kV double-circuit lattice structure lines and the construction of a new monopole double-circuit 115/345 kV line. This segment includes an existing aerial crossing of the Hudson River and terminates at the rebuilt and expanded 115 kV Churchtown Switching Station in the Town of Claverack, Columbia County. This segment passes through the Town of Athens and the Village of Athens in Greene County and the Towns of Greenport and Claverack in Columbia County.

***E-1.1.6 Churchtown to Pleasant Valley***

The CT-PV segment starts at the rebuilt and expanded Churchtown Switching Station. The scope of work consists of the removal of two existing 115 kV double-circuit lattice structures, and the construction of a new 115/345 kV double-circuit monopole structure line within approximately 32.3 miles of existing ROW. This segment terminates at the existing Consolidated Edison 345 kV Pleasant Valley Substation in the Town of Pleasant Valley, Dutchess County. All work at the Pleasant Valley Substation will be within the existing fenceline. The CT-PV segment passes through the Towns of Claverack, Livingston, Gallatin, and Clermont in Columbia County, and the Towns of Milan, Clinton, and Pleasant Valley in Dutchess County.

**E-1.2 Design Voltage, Conductor, and Insulators**

Table E-1-1 below summarizes the design voltages, operating voltages, and conductor types for each segment.

**Table E-1-1: Design Voltage and Conductor**

Project / Line	Design Voltage (kV)	Operating Voltage (kV)	Proposed Conductor
<b>Edic-New Scotland</b>			
#53 Edic-New Scotland	345	345	2 - 954 kcmil 54/7 "Cardinal" ACSS
#14A Edic-Rotterdam	345	345	2 - 954 kcmil 54/7 "Cardinal" ACSS
#14B Rotterdam-New Scotland	345	345	2 - 954 kcmil 54/7 "Cardinal" ACSS
#13 Rotterdam-New Scotland	115	115	954 kcmil 54/7 "Cardinal" ACSS
<b>New Scotland-Leeds Reconductor</b>			
#93 New Scotland-Leeds	345	345	2 - 795 kcmil 26/7 "Drake" ACSS
#94 New Scotland-Leeds	345	345	2 - 795 kcmil 26/7 "Drake" ACSS
<b>Leeds-Pleasant Valley</b>			
#96 Leeds-Pleasant Valley	345	345	2 - 954 kcmil 54/7 "Cardinal" ACSS
#5 North Catskill-Churchtown	115	115	954 kcmil 54/7 "Cardinal" ACSS
#4 Churchtown-Blue Stores	115	115	954 kcmil 54/7 "Cardinal" ACSS
#T7 Blue Stores-Milan	115	115	954 kcmil 54/7 "Cardinal" ACSS /
#10 Milan-Pleasant Valley	115	115	954 kcmil 54/7 "Cardinal" ACSS

Insulators for all the new transmission lines will typically be suspension-type ball-and-socket ceramic insulators in “I” or “V” configuration. Insulator color will match the finish of the new structures to the greatest extent possible. Grey insulators will be used with galvanized steel structures and brown insulators will be used with weathered steel or wood structures.

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