

**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 to Pleasant Valley 345 kV
Transmission Line Reconductoring Project
(ED-NS/NS-LD-PV(R))*

This page intentionally left blank.

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

EXHIBIT E-1: DESCRIPTION OF PROPOSED TRANSMISSION FACILITIES

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
E-1.1 Description of Proposed Transmission Facilities	53
<i>E-1.1.1 Edic to Princetown Junction</i>	53
<i>E-1.1.2 Princetown Junction to New Scotland</i>	53
<i>E-1.1.3 Princetown Junction to Rotterdam</i>	53
<i>E-1.1.4 New Scotland to Leeds</i>	54
<i>E-1.1.5 Leeds to Pleasant Valley</i>	54
E-1.2 Design Voltage, Conductor, and Insulators	54

LIST OF TABLES

Description

Table E-1-1 Design Voltage and Conductor

This page intentionally left blank.

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

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 Pleasant Valley

The Leeds to Pleasant Valley 345 kV Transmission Line Reconductoring Project (LD-PV(R)) is comprised of one right-of-way (ROW) segment, Leeds to Pleasant Valley (LD-PV). The scope of work consists of the reconductoring of the two existing 345 kV lattice structure lines and replacement of certain structures for approximately 39.8 miles within an existing ROW. This segment includes an existing aerial crossing of the Hudson River and terminates at the Pleasant Valley Substation. This segment also includes reconductoring of the two existing 345 kV lines within the 0.5 mile section from the Athens Junction to the Athens Substation. The LD-PV segment passes through the Town of Athens and the Village of Athens in Greene County, the Towns of Greenport, Livingston and Clermont in Columbia County and the Towns of Milan, Clinton, Hyde Park 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 this Project.

Table E-1-1: Design Voltage and Conductor

Project / Line	Design Voltage (kV)	Operating Voltage (kV)	Proposed Conductor
Edic-New Scotland			
#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
New Scotland-Leeds Reconductor			
#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
Leeds-Pleasant Valley Reconductor			
#91 Athens-Pleasant Valley	345	345	2 - 795 kcmil 26/7 "Drake" ACSS
#92 Leeds-Pleasant Valley	345	345	2 - 795 kcmil 26/7 "Drake" ACSS
#95 Athens-Leeds	345	345	2 - 795 kcmil 26/7 "Drake" 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.

This page intentionally left blank.