

North America Transmission, LLC and North America Transmission Corporation (“NAT”)

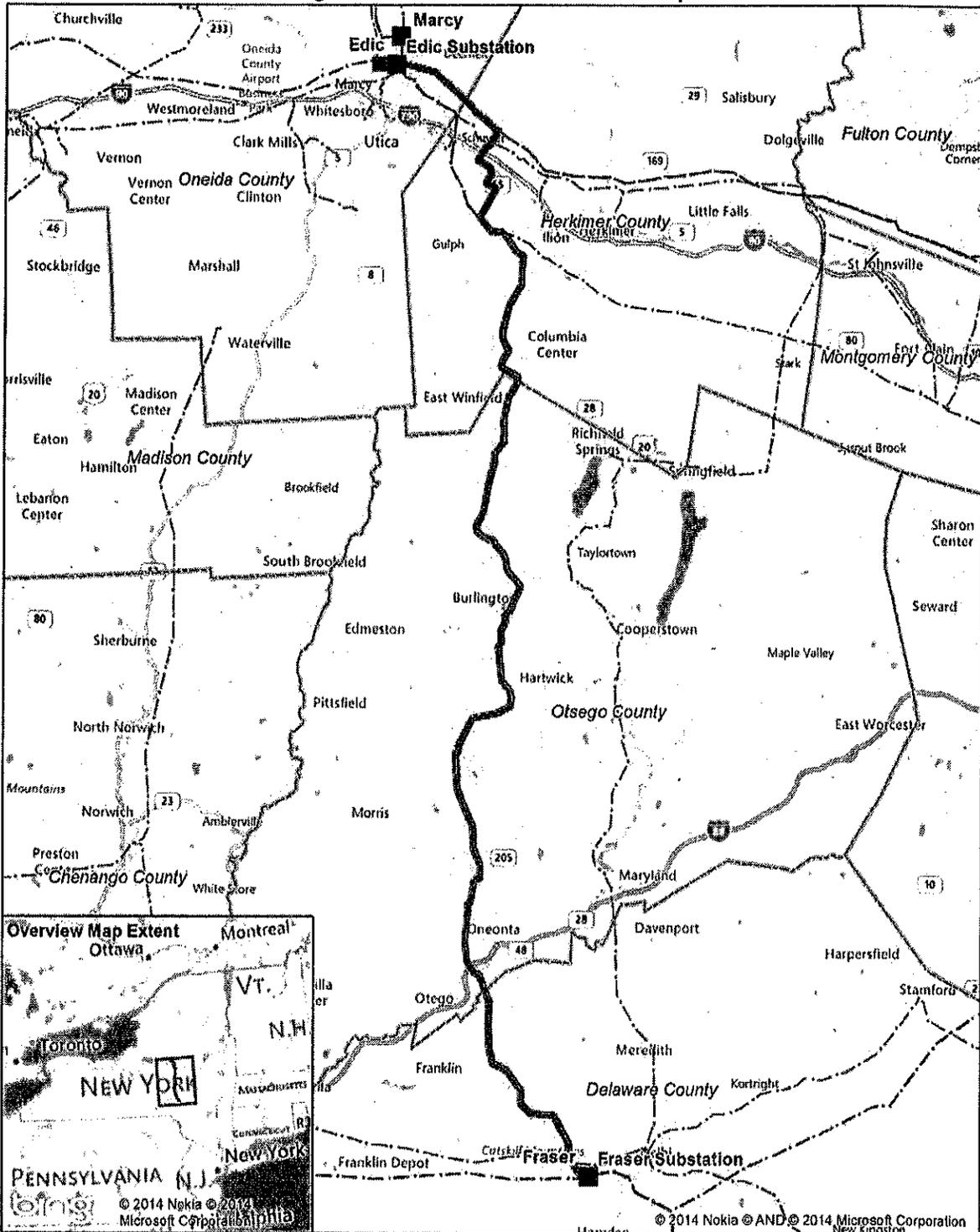
Case 13-T-0454: Amended Initial Application of North America Transmission, LLC and North America Transmission Corporation for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII of the Public Service Law for an Alternating Current Transmission Upgrade Project Consisting of an Edic to Fraser 345 kV Transmission Line and a New Scotland to Leeds to Pleasant Valley 345 kV Transmission Line

- NAT are subsidiaries of LS Power, an independent power company
- NAT has modified its original proposal in an “effort to minimize the acquisition of additional lands for ROWs and construction of major electrical transmission facilities out of scale or character with existing facilities already in the landscape”
- The proposed lines are located alongside and mostly parallel to the existing ROW
- The proposal has two main components:
 - New 345 kV overhead transmission line from Edic to Fraser with series compensation
 - New 345 kV overhead transmission line originating at the existing Edic Substation in Oneida County, proceeding generally south, and terminating at the existing Fraser Substation in Delaware County.
 - The proposed alignment from Edic to Fraser is approximately 80 miles long, mostly parallel to existing line, for 90% of the path; the proposed ROW is 80’ wide where parallel, and where not parallel, ROW is 100’ wide (compared to typical 150’); “North America will evaluate during the Part B application phase whether electromagnetic field (“EMF”) easements would be needed that are wider than the 80 and 100-foot transmission ROWs.”
 - Proposes a monopole structure, but if the Commission wants a double circuit tower with only one circuit initially installed, it will do so if directed
 - Also now includes several components on existing facilities in the vicinity of Edic to Fraser to improve transfer capability without any new land or ROW using series compensation and looping (has not made an interconnection request for this yet; seeks waiver for SRIS)
 - Binding cost estimates:
 - Edic-Fraser line: \$260M
 - Total for Series Compensation/looping: \$42.4M
 - New 345 kV overhead transmission line from New Scotland to Leeds to Pleasant Valley
 - Originating at the existing New Scotland Substation in Albany County, approximately five (5) miles southwest of the City of Albany, and proceeding generally south, connecting to the existing Leeds Substation in Greene County, approximately one (1) mile west of the town of Athens. From Leeds Substation, the line *crosses the River* (just south of Athens and Hudson) and proceeds generally south and connects to the existing Pleasant Valley Substation, located just southwest of the Town of Pleasant Valley in Dutchess County. Will require improvements at New Scotland, Leeds and Pleasant Valley substations; also a vertical monopole configuration, unless PSC requires a double circuit capable tower
 - The proposed alignment from New Scotland to Leeds is approximately 25 miles long; the proposed alignment from Leeds to Pleasant Valley is approximately 40 miles; it parallels existing transmission lines for 85% of its length.

- This is the same route proposed by NAT in its initial Part A application, but it has revised the design and proposal to only require an additional 80' wide easement where parallel to an existing transmission line and where not parallel, the required ROW will be 100' (as opposed to typical 150' requirement); the claimed reduction in required new ROW is 47%. "North America will evaluate during the Part B application phase whether electromagnetic field ("EMF") easements would be needed that are wider than the 80 and 100-foot transmission ROWs."
- Can also originate at Knickerbocker, in the form of either a switchyard or substation, instead of at New Scotland. If so, it will proceed west out of Knickerbocker for 2 miles primarily within the CSX RR ROW, *cross the Hudson River*, and proceed southwest to connect with the proposed route into Leeds substation
- Proposes two alternatives, either of which can also originate at Knickerbocker at either a new switchyard or substation, and could be constructed with or without a new transmission line between NS and Knickerbocker:
 - Alternative 1: I-87 ROW: begins at New Scotland Substation, parallels the CSX ROW for 8 miles through the Town of Bethlehem and then turns down the I-87 corridor for 55 miles through Coeymans, New Baltimore, Coxsackie, Athens (connecting through Leeds substation), Catskill, Saugerties, Ulster, Kingston, Rosendale, Esopus and New Paltz and then east 14 miles along Route 299 west through Towns of Lloyd and *across the River* to Hyde Park (just south of the FDR site) to the Pleasant Valley substation; within existing RR or I-87 ROW for 76% of its length; and new 80' wide ROW (typically) for the remainder where it follows other roads and existing features where possible; total route is 83 miles. NAT says it has confirmed that the existing highway ROW would be sufficient for location of a new 345 kV transmission line.
 - Alternative 2: 115KV ROW: begins at New Scotland Substation, parallels CSX ROW through Bethlehem and Coeymans and *crosses the River* (at Castleton Island SP) to the Greenbush to Churchtown 115kV corridor in Town of Schodack, and follows that to Churchtown and then to Pleasant Valley for 54 miles, through Stuyvesant, Stockport, Ghent, Claverack, Livingston, Gallatin, Clermont, Milan, Clinton and Pleasant Valley. This will require removing the 115kV transmission structures and installing new multiple circuit structures for two new 115 kV lines and a new 345 kV line (horizontal H frame towers), requiring no expansion of the ROW in width or height; the proposed line is within existing RR and existing 115 kV transmission ROW for 99% of its length; total route is 66 miles.
 - No interconnection request has been made for these alternatives because they are in response to the December 16 order; need a waiver for SRIS completion
- Blinding cost estimates:
 - NS-L-PV Base proposal: \$201M
 - NS-L-PV Alt 1 I-87 ROW: \$397M
 - K switchyard-L-PV Alt 1 I-87 ROW: \$413M
 - K substation-L\PV Alt 1 I-87 ROW: \$438M

- NS-PV Alt 2 115kV ROW: \$518
- K Substation-PV Alt 2 115kV ROW: \$559
- K switchyard-PV Alt 2 115kV ROW: \$534
- NAT says it is willing to construct, own and operate any combination selected by PSC; also willing to construct the proposed lines as a double circuit to allow future expansion to reduce future permitting and ROW, but this would require additional ROW now
- Cited benefits: incremental energy transfer; congestion relief eliminate congestion across the NS-PV transmission path); access to more efficient generation upstate; reliability benefits; economic benefits (reduced production cost; Demand\$ congestion) reduced air emissions; increase imports of more efficient energy; flexibility (entry and exit of generation and transmission, easier interconnection of renewable and conventional generation; better address future retirements; flexibility for reconditioning/reconditioning to address aging infrastructure; better grid management during contingency conditions); efficiency; increased diversity in supply; long term benefits (job growth, mitigation of reliability problems)

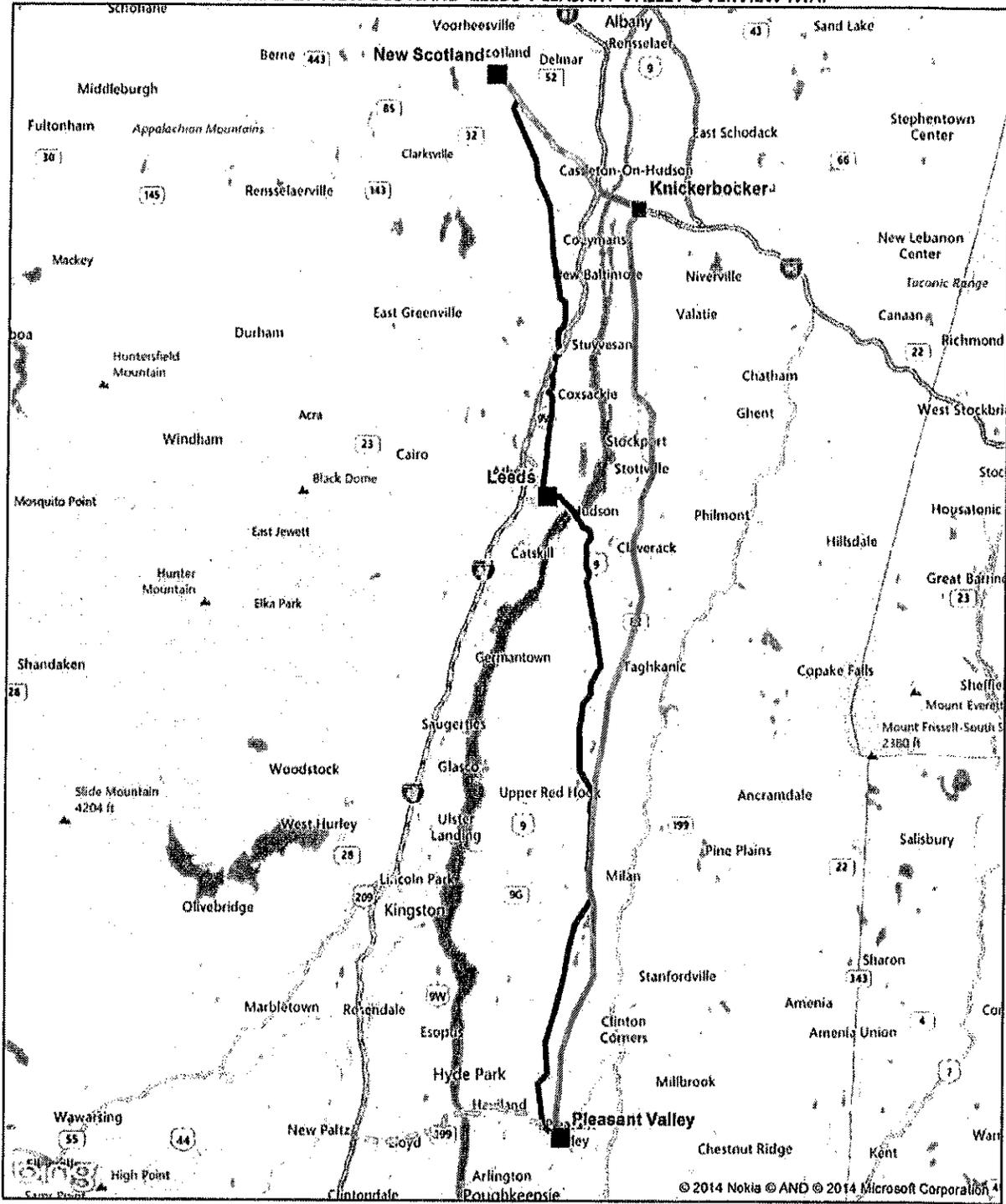
Figure 2-1. Edic-Fraser Overview Map



Legend

- Proposed Route
- 345 kV
- 115 kV
- 230
- County Boundaries
- Substations
- N 0 2 4 Miles

FIGURE 2-1. NEW SCOTLAND-LEEDS-PLEASANT VALLEY OVERVIEW MAP



Legend

- New Scotland to Pleasant Valley
- New Scotland to Pleasant Valley Alternative 1 (I-87 ROW)
- New Scotland to Pleasant Valley Alternative 2 (115 KV ROW)
- Existing Substation
- Proposed Substation

