

## Boundless Energy NE LLC – “Leeds Path West”

### Case 13-T-0461: Part A Materials – Leeds Path West AC Transmission Project Comparative Evaluation

- Boundless Energy NE LLC, is an independent transmission developer
- The proposal uses no new ROW or structures; it places new, higher capacity conductors on existing towers. Composite conductors provide higher transfer capability than traditional conductors; increase of current carrying capacity by 50% and have lower losses and are thus more efficient
- Project description: the project has several parts:
  - Strengthen/enhance the west side corridor:
    - Reconductor from Leeds Substation (Greene County) to Hurley Avenue Substation (Ulster County) (28.6 miles) on existing poles; this corridor is identified as having aging equipment requiring replacement in the next 10-20 years
    - Installation of 40% series compensation equipment on Leeds to Hurley Avenue and Hurley Avenue to Roseton Substation
  - Tie-in west to east:
    - Construct two new underground lines from Roseton Substation on the west side of the river to the East Fishkill Substation, with expansion of both substations; 1.5 miles under the River installed by HDD; 6.6 miles underground to East Fishkill in existing ROW
    - The underground lines (2 sets of cables) will be installed in the Hudson River using horizontal directional drilling (HDD) technology; the remainder of undergrounding on the east bank of the Hudson River to the East Fishkill Substation will be in NYPA’s cleared ROW and will be conducted by trenching: applicant proposes to dig a single trench 36 to 48 inches deep and 6 feet wide.
  - Install 0.5% series reactor facilities to increase impedance on the two New Scotland to Leeds circuits
  - Reconductor CPV Valley tap (Orange County) to Rock Tavern Substation (Orange County)(14.7 miles) on existing poles
  - Bring the Leeds – PV and Leeds-Athens-PV circuits up to current icing standards:
    - Reconductor Leeds Substation to Pleasant Valley (39.3 miles) and also Athens Generating Stations to Leeds to Pleasant Valley (Dutchess County) (39.8 miles) and upgrade towers to code for icing
- Cost estimate is \$650,000,000
- Purported benefits:
  - “The revised LPW project increases the UPNY-SENY transfer capability by over 1100 MW from the base case, and over 1350 MW from the system including TOTS.”
  - Congestion relief
  - Enhanced system reliability by expanding the existing 345 kV circuit on west side of the River into a major new electric corridor along with existing Hudson Valley and Marcy South corridors, and tying the enhanced western corridor to East Fishkill
  - Increased flexibility from three corridors in the event of outages
  - Increased efficiency from reducing congestion and facilitating new efficient generating facilities
  - Negligible environmental impact from using existing structures, burying deep below the river and using existing ROW for underground section
  - Health benefits from removing a disincentive to building clean generation upstate

- Supply diversification by reducing congestion and allowing connection of wind/clean generating facilities upstate
- Economic benefits by reducing cost of transmission and increasing potential for additional power development

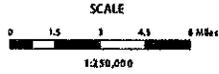
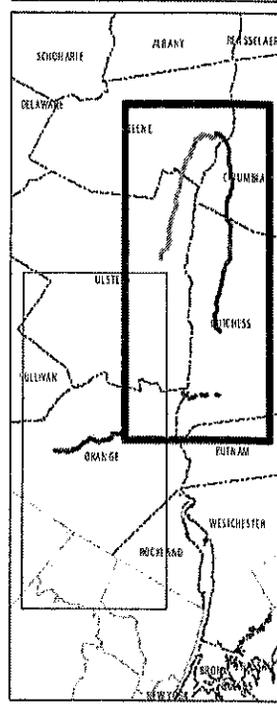


**Major Roads and Pipelines  
In the Region  
Boundless Energy  
Leeds Path West Project  
Version: January 19, 2015**

Map 1 of 2

**Legend**

- Athens Generating Facility
- Substation
- Reference Milepost  
Reference Milepost  
for Leeds to Athens to  
Pleasant Valley
- Reference Milepost  
for Leeds to Pleasant Valley
- CPV Valley Tap to Rock Tavern (Reconducted)
- Leeds to Athens to Pleasant Valley
- Leeds to Pleasant Valley
- Section 1: Leeds to  
Hulley Ave (Reconducted)
- Section 2: Roseton to East  
Bank of Hudson River by  
HDD Underground
- Section 3: East Bank of  
Hudson River to East  
Fishkill Underground
- National Pipelines
- County Boundary



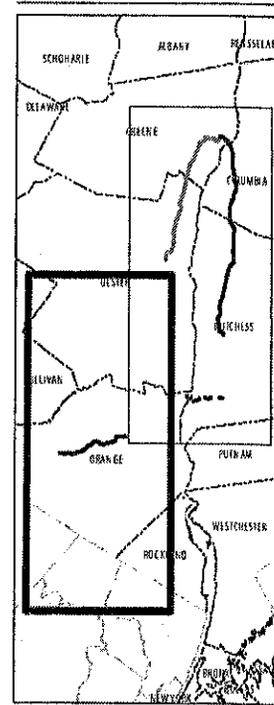


**Major Roads and Pipelines  
in the Region  
Boundless Energy  
LeadsPath West Project  
Written: January 19, 2015**

Map 2 of 2

**Legend**

- Athens Generating Facility
- Substation
- Reference Milepost
- Reference Milepost for Leads to Athens to Pleasant Valley
- Reference Milepost for Leads to Pleasant Valley
- CPV Valley Tap to Rock Tavern (Reconstructed)
- Leads to Athens to Pleasant Valley
- Leads to Pleasant Valley
- Section 1: Leads to Hulley Ave (Reconstructed)
- Section 2: Rotation to East
- Bank of Hudson River by HDD Underground
- Section 3: East Bank of Hudson River to East Ripton Underground
- National Pipelines
- County Boundary



**SCALE**

