Operating Committee meeting

March 17, 2011 meeting

ISO-NE VT/NH 10-YR STUDY

Study Update

- ISO-NE presented the proposed T&D solutions and the preliminary NTA solutions at the April 13th PAC meeting
  - No cost information was discussed at the PAC meeting
    - VELCO provided -25/50% cost estimates prior to the meeting, but NU did not provide cost estimates
- Additional NTA results will be presented at the PAC meeting in May
- Final T&D solutions will be presented at the PAC meeting in July

Leading Candidates for Preferred Transmission Solutions

- Southeast VT/Southwest NH
  - 115 kV line upgrades in southwest NH with 50 MVAr capacitor bank at Amherst 345 kV
    - Evaluating the Deerfield-Webster-Coolidge 345 kV line as an option
- Connecticut River & Central Vermont
  - Essentially the same cost for competing options
  - K-31 (Coolidge-Ascutney) line upgrade with capacitors at Ascutney, Breakers at Chelsea and second auto at Coolidge
    - K-31 may be a second line as opposed to a line rebuild
  - Second 115 kV line between Coolidge and West Rutland
    - Alternative to second 350 line or rebuild of parallel 115 kV lines

Leading Candidates for Preferred Transmission Solutions

- Northwest VT
  - 115 kV line rebuild from West Rutland to Williston
  - Being able to bring in 100 MW across PV-20 will be evaluated as an alternative to avoid these upgrades
- Northern VT
  - 115 kV capacitor banks at Jay
    - Or connect the Highgate converter to the Highgate ring

Next Steps

- Will evaluate longevity of alternatives
  - VELCO met with ISO-NE to discuss which options to select
- ISO-NE will meet with the VSPC in June
  - To better understand what appears to be ISO-NE's conservative interpretation of the NERC standards
- ISO-NE will test the preferred solutions all at once
  - Confirm no additional needs with peak load, light load and short circuit testing
- Vermont stakeholders need to be involved in the regional process to influence outcomes
  - Discussing concerns at the VSPC is ineffective and untimely

Summary of VY Operation Study

- System is slightly below limits with optimistic generation assumption
- System is significantly over limits with Highgate off and AES Granite Ridge out
  - 115 kV facilities near Sandy Pond overload
  - About 150 MW of load shedding would be required after the 1st contingency and before the 2nd contingency
  - Low hanging fruit upgrades will minimize exposure to load shedding
  - Upgrade relays, disconnects, buses
- ISO-NE will study other scenarios to better understand system impacts and develop operating procedures
  - Load levels, transfers, and effects of PV-20, Highgate, AES separately