

Windsor Estates Homeowners Association Meeting

Nov. 17, 2003

SnoKing Tap Project



SnoKing Tap Project

PROJECT OVERVIEW

- The SnoKing Tap to Monroe-Echo Lake 500-kV Transmission Line is one of several projects to improve transmission system reliability in northwest Washington, known as the Puget Sound Area Additions.
- The Puget Sound Area Additions include:
 - Kangley-Echo Lake 500-kV Transmission Line Project (will be completed December 2003)
 - Echo Lake Substation Expansion (will be completed December 2003)
 - Substation additions/replacements at Schultz, Raver, Snohomish and Bothell substations



PROJECT NEED

- Maintain reliability in north Puget Sound.
- Increase the interconnections from BPA's 500-kV grid to the local 230-kV and 115-kV grid to deliver power from eastern Washington to local utilities like Seattle City Light, Puget Sound Energy and Snohomish PUD.
- Decrease the risk of mandatory curtailments or blackouts, especially in high-load winter months.
- For the past several years mandatory curtailment plans have been in place for Seattle City Light, Puget Sound Energy and Snohomish PUD. (Invoked summer of 2003)
- A curtailment plan will shut off power to specific customers if the lines delivering power to north Puget Sound exceed safe loading levels.



PROJECT DESCRIPTION

- The decision to construct the 13-mile line was made in the late 1960s with line construction in the early 1970s.
- The line was built at 500-kV in anticipation of population and load growth in the Puget Sound area but operated at 230-kV until Sept. 29, 2003.
- It is BPA's policy to utilize existing lines/corridors before constructing new facilities.
- BPA moved the SnoKing Tap from the 230-kV Monroe to Sammamish Line to the 500-kV Monroe-Echo Lake Line.
- The line design meets Washington State noise regulations.



TRANSMISSION LINE LANDOWNER CONCERNS

- Starting on Sept. 29, BPA received many phone calls and emails from area residents about the line noise.
- While some increase in the noise level was expected, the level of landowner concern was not.
- Noise levels will be higher on 500-kV lines than 230-kV lines.
- Noise levels will likely be higher in wet, foggy weather than dry weather.
- Landowners have also expressed concerns about property values and electric magnetic fields.
- Some landowners have experienced nuisance shocks.



SNOKING SUBSTATION LANDOWNER CONCERNS

- BPA received several phone calls about the substation noise from residents within the vicinity of the SnoKing Substation located in Bothell, Wash.
- BPA has preformed very preliminary measurements near the substation.
 - Noise levels range from 45 dBA - 57 dBA
- These preliminary noise measurements warrant further investigation.
- Additional SnoKing Substation measurements have been scheduled and the results will be released as soon as possible.



BPA PLAN

- Complete thorough inspections to identify potential hardware problems.
 - Inspections should be complete by the end of November
 - BPA will share inspection results with area residents
- Determine what can be done, if anything, to reduce noise levels.
 - Lab tests
 - Research cleaning the conductor/wire
 - BPA will share the progress of the tests and research by the end of December
- In the interim, BPA will address concerns and answer questions thru our toll-free line.



BPA INSPECTIONS

(Conductor)

- BPA began line inspections from the ground immediately to see if equipment was functioning properly: insulators and conductor/wire.
- BPA maintenance crews climbed towers from Oct. 8-10 to closely inspect equipment.
- No obvious problems were found that would contribute to noise.
- BPA helicopters started flying the line on Oct. 17 and will continue over the next several weeks as part of the ongoing inspection efforts with emphasis on the transmission line conductors/wires.



BPA INSPECTIONS

(Conductor)

- Wet weather noise measurements were taken at 16 locations on Oct. 2. Noise levels ranged from 44-48 dBA.
- Dry weather noise measurements were taken at five locations on Oct. 10. Noise levels ranged from 40-45 dBA.
- Noise level measurements are within Washington state and Snohomish County standards.
- BPA is still investigating the dry weather levels, because they were higher than expected, as was the corona activity on the conductor/wires.
- Potential sources of dry weather noise
 - Damaged or worn insulators
 - Damaged or worn spacers-damper
 - Dirty conductor
 - Damaged conductor
 - More inspections are necessary



NEXT STEPS

- BPA will evaluate all of the inspection information.
 - If BPA finds defective equipment, we will take appropriate actions.
 - BPA will provide the “Living and Working Safely Around Power Lines” brochure to help answer landowner questions.
 - Assist citizens to reduce nuisance shocks through grounding. If you have experienced nuisance shocks, please report those incidents to BPA through the 800 number below.
- BPA will continue to inform the public on any new developments.
- If you have questions please call toll free 1-888-276-7790. Project information is also available on line at:

http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/

