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SOUTHERN CALIFORNIA EDISON
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Big Creek Corridor Rating Increase

2016-2017 CAISO TPP Stakeholder Mtg

September 21-22, 2016

Folsom, CA

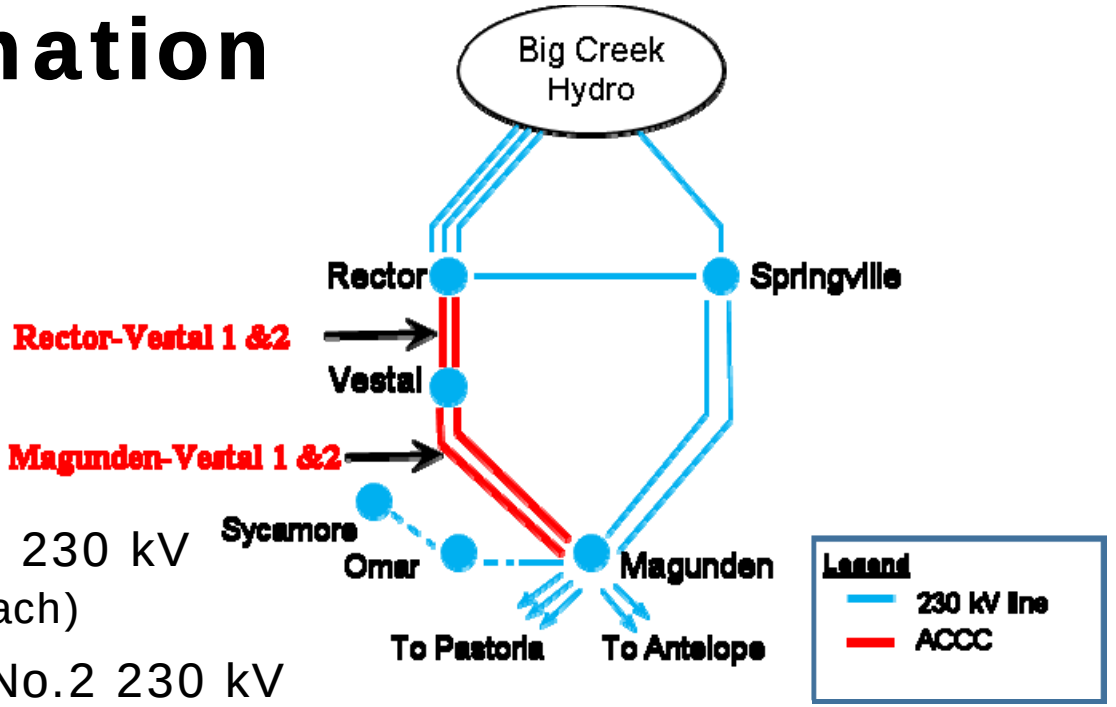
TLRR Background

- In January 2011, SCE provided to NERC locations on its CAISO controlled grid that did not meet clearance requirements per CPUC's General Order (GO) 95.
- By early 2016, SCE proposed to reconductor the following lines in the Big Creek Corridor:
  - **Magunden-Vestal No. 1 and No. 2 230 kV Lines**
  - **Rector-Vestal No. 1 and No. 2 230 kV Lines**
- Aluminum Conductor Composite Core (ACCC) conductor (714 kcmil "Dove") will be used by the CPUC approved Transmission Line Rating Remediation (TLRR) program to address the GO95 clearance issues.
- TLRR program is designed to remove GO95 clearance issues and will not increase the rating of the lines.
- Using ACCC minimizes the need to modify structures limiting the need for licensing/permitting enabling a scheduled completion date of December 31, 2018.

2016 Annual Transmission Assessment

- SCE/CAISO included a scenario in this years assessment with 330 MW of Big Creek area generation to represent peak load hours during low hydro drought conditions.
- SCE study results indicated a P1 (N-1) contingency of either the Magunden-Vestal No. 1 or No. 2 230 kV line would result in an overload requiring up to 170 MW of load shed.
- Big Creek Corridor Rating Increase project will increase the rating of the four TLRR ACCC lines from a 4 hr emergency rating of 936 Amps to 1520 Amps.
- Big Creek Corridor Rating Increase project will eliminate the P1 (N-1) load shed during low-hydro conditions

Project Information



- Rector-Vestal No.1 & No.2 230 kV
  - 66.2 miles (33.1 miles each)
- Magunden-Vestal No.1 & No.2 230 kV
  - 71.0 miles (35.5 miles each)
- The Big Creek Corridor Rating Increase project will be incorporated into the TLRR project and will have the same completion date of December 31, 2018.
- The planning level scope and cost estimate is $6 million and includes the upgrade of four transmission structures and terminal equipment at Magunden and Vestal substations.

Conclusion

- The Big Creek Corridor Rating Increase project will increase the rating of the four TLRR ACCC lines from a 4-hr emergency capacity of 936 amps to 1520 Amps.
- The planning level cost estimate is $6 million.
- The increase in rating will eliminate the P1 (N-1) load shed during low-hydro conditions.
- The scheduled date for completion is December 31, 2018.