AV Clearview Phase I Transmission Project – New Alternative Evaluation

ISO Stakeholder Meeting
August 6, 2013

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AV Clearview Phase I Transmission Project

background

- High Desert Power Authority submitted a request to evaluate the AV Clearview Project as an alternative to SCE’s Coolwater-Lugo 230 kV transmission project
- Details of ISO’s evaluation are published in Section 3.4 of 2012-2013 Transmission Plan
- New project alternative was submitted to ISO after the 2012-2013 Transmission Plan was finalized
- This presentation provides a summary of the results of ISO’s evaluation of the new alternative
AV Clearview Phase I Transmission Project overview

• New alternative consists of the following transmission elements:
  – new 500/230/115 kV Yeager Substation (near SCE’s Edwards 115 kV substation)
  – two New 500/230kV Yeager Transformer Banks
  – new double circuit 500 kV from Windhub to Yeager
  – new double circuit 230 kV from Yeager to Kramer
  – new 230/115 kV step-down transformer bank at Yeager
  – new single circuit 115 kV from Yeager to SCE Edwards 115 kV substation (reliability back-up, normally open)
AV Clearview Phase I Transmission Project overview

AV Clearview Phase I Project

Windhub 500kV  
Yeager 500kV  
Yeager 230kV  
Kramer 230kV  
Edwards 115kV
Both Coolwater-Lugo 230 kV and AV Clearview Phase I projects can deliver the Kramer zone renewable generation.

With the AV Clearview Phase I project alternative, the existing Kramer SPS may no longer be required.
Deliverability Assessment Results – Cluster 3 & 4 Phase II starting case

• With either the Coolwater-Lugo 230 kV and AV Clearview Phase I projects the following SPS’s are needed
  – Previously proposed Jasper SPS
  – Previously proposed Pisgah SPS

• With the AV Clearview Phase I project alternative, the existing Kramer SPS may no longer be required
Deliverability Assessment Results – Cluster 3 & 4 Phase II starting case

• With the AV Clearview Phase I project the following additional SPS/upgrades are needed
  – SPS to trip generation at Lockhart following N-1 outages
  – Upgrade Lugo-Jasper 230 kV line to mitigate N-0 overload
• An upgrade of this line is part of the scope of work and cost for the Coolwater-Lugo 230 kV project. The scope and cost of this upgrade also needs to be added to the scope and cost of the AV Clearview Phase I alternative
Conclusion

• New AV Clearview Phase I alternative is not on its own an equivalent substitute for the Coolwater-Lugo 230 kV line in the context of the ISO Generation Interconnection study process
  – An upgrade of Lugo-Jasper 230 kV line would need to be added to the scope and cost estimate for the AV Clearview Phase I alternative in order for the two alternatives to be equivalent
## Conclusion

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<th>Deliverable Capacity with AV Clearview project</th>
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Next Steps

• Stakeholders to provide comments by August 20, 2013
• ISO to continue working with project sponsors on refinements to project scopes and costs