

Status of Implementation of the STEP Short-term Upgrades

Progress Report to STEP

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Allocation and Contractual Issues

- Short-term upgrade participants
 - APS, IID, SCE, SDG&E
- Purpose of MOU
 - Specify plan of service
 - Specify how facilities are paid for
 - Specify how capability increase will be allocated
- Two conference calls on MOU development
- Two revisions to draft of MOU
- Allocation agreed upon
- One outstanding cost issue

MOU Plan of Service

- SWPL upgrades
 - Series capacitors at North Gila and Imperial Valley
 - Resolve clearance issues on Hassayampa-North Gila line
- Palo Verde-Devers series capacitor upgrade
- Second Devers 500/230kV transformer
- Southern California area voltage support
- Power flow altering device to control flow on the Imperial Valley-El Centro 230kV line

Facility Upgrade Cost Responsibility

- SWPL upgrades paid for by APS, IID, and SDG&E per ownership shares
- Palo Verde-Devers series capacitor upgrade paid for by SCE
- Second Devers 500/230kV transformer paid for by SCE
- Southern California area voltage support paid for by California PTO owning station(s) where voltage support added
- Power flow altering device in IID system tbd

Allocation of the Increased Capability

- Equal allocation to each 500kV line
 - Palo Verde-Devers 50%
 - Hassayampa-North Gila 50%
- Participants:

– APS	5.50%
– IID	6.39%
– SCE	50.00%
– SDG&E	38.11%

Next Steps

- Resolve cost of power flow altering device
 - Determine cost responsibility
 - Structure MOU so determination comes later
- Hand over MOU to legal team to finalize
- Form project team
 - Develop project schedule

Hassayampa-North Gila Line

- Sag mitigation
- Pipeline induction problem
- North Gila series capacitor bank

Sag Mitigation

- Hassayampa-North Gila line survey
 - Survey work is complete
 - Data analysis expected to be complete by 1/15/05
- Cost estimate for mitigation by 02/28/05
- Mitigation is dirt removal
- Work will take up to 12 months
 - BLM permit required
 - Other environmental considerations

Pipeline Induction Problem

- Low level voltage induced in nearby gas pipeline
- Recent criteria change from 30v to 15v allowable
- Final report from consultants is in
- Solution is parallel grounded copper conductor with connections to pipeline
- Cost estimate by 01/31/05
- Can be implemented within 90 to 180 days

North Gila Series Capacitor Bank

- Additional cans required for rating increase
- New MOV and controls required
- Work can be completed within 12 months of order date
- This is most critical element because capacitor outage will be required
- Targeting 02/01/05 order date
 - Will allow outages to be during spring 06



Questions???