RETI Coordination with CTPG

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Stakeholder Steering Committee

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RETI vs CTPG Approaches

- RETI Phase 2A
  - Identified 102 transmission line segments *potentially* needed for 33% renewable goal.
    - No test of need was performed
  - Evaluated usefulness of lines for transmitting renewable energy using shift factors.
    - Line capacities and total power flows were ignored
  - Assumed CREZ generation was proportional to CREZ potential.
    - California CREZ only, no imports considered

RETI vs CTPG Approaches (cont.)

- CTPG Phases 1 & 2
  - Tentatively identified 78 new line segments as needed for 33% renewables under certain conditions.
    - 53 of which were also identified by RETI
  - Based evaluation on power flows and reliability requirements.
  - Tested various CREZ generation profiles and load conditions.
    - 13 different scenarios
    - Varied renewable generation profiles (including imports), fossil redispatch, loads, and system stress.
    - One renewable generation profile was supplied by RETI and used in 3 scenarios

CTPG Scenario Summary

CTPG Scenario ID	Scenario Parameters				Example of Scenario Output
	Renew	Load	Fossil	Stress	
A-Q	Q	**A**	**Econ**		X
ASN-Q	Q	**A**	**Econ**	**SN**	
B-Q	Q	**B**	**Econ**		X
B-CO2	Q	**B**	**CO2**		
OTC	Q	**B**	**OTC**		
A-NW	QNW	**A**	**Econ**		
B-NW	QNW	**B**	**Econ**		
ASN-SW	QSW	**A**	**Econ**	**SN**	X
B-SW	QSW	**B**	**Econ**		X
B-OV	QOV	**B**	**Econ**		
A-RETI	RETI	**A**	**Econ**		X
ASN-RETI	RETI	**A**	**Econ**	**SN**	
B-RETI	RETI	**B**	**Econ**		X

RETI Input for CTPG

- RETI current net short value
- Renewable generation profiles
  - One for CTPG Phase 2 and one for Phase 3
- Feedback on results to CTPG from RETI transmission working group
- Environmental review of lines identified by CTPG using RETI methodology

Environmental Review Matrix

	MDPT_DESC_1	DESC_DEVR_1	JULH_EGMT_1	JULH_EGMT_2
Environmental Concerns Checklist	**3**	**4**	**5**	**6**
Segment length in miles	**50**	**68**	**15**	**15**
Category One Lands (some limited tx may be allowed)				
Category Two Lands (limited tx)				
Other Environmental Concerns				
Other Relevant Information (e.g., line size)				
ROW/Corridor Information				
1 ROW no change			X	X
2 ROW expansion	X	X		
3 New ROW in designated corridor				
4 New ROW co-located but NOT in a designated corridor.				
5 New ROW not colocated and NOT in a designated corridor				
Segment/Section Information				
1 Upgrade/no footprint change				
2 Rebuild/footprint changes			X	X
3 New line	X	X		
Environmental Concern (Low, Medium, High)	H	H	L	L

Future RETI Use of CTPG Results

- CTPG results provide input to RETI consideration of “least regrets” transmission projects.