

A map of the Western United States, showing state boundaries in black. The map is filled with a light yellow color. The text is overlaid in the center of the map. The background of the entire image is a solid light blue color.

***Seams Steering Group-
Western Interconnection
(SSG-WI)***



SSG-WI Planning Work Group

- Develops interconnection-wide data bases
- Conducts interconnection-wide studies to identify transmission congestion and to assess the impact of resource options on the grid
- Provides a coordinated forum for developing modeling improvements
- Supports and helps coordinate subregional groups



Four Subregional Planning Groups

**Northwest
Transmission
Assessment
Committee
(NTAC)**

**Rocky Mountain
Area
Transmission
(RMATS)**

**Southwest
Transmission
Expansion Plan
(STEP)**

**Southwest Area
Transmission
(SWAT) Planning
Group**



Past SSG-WI Study

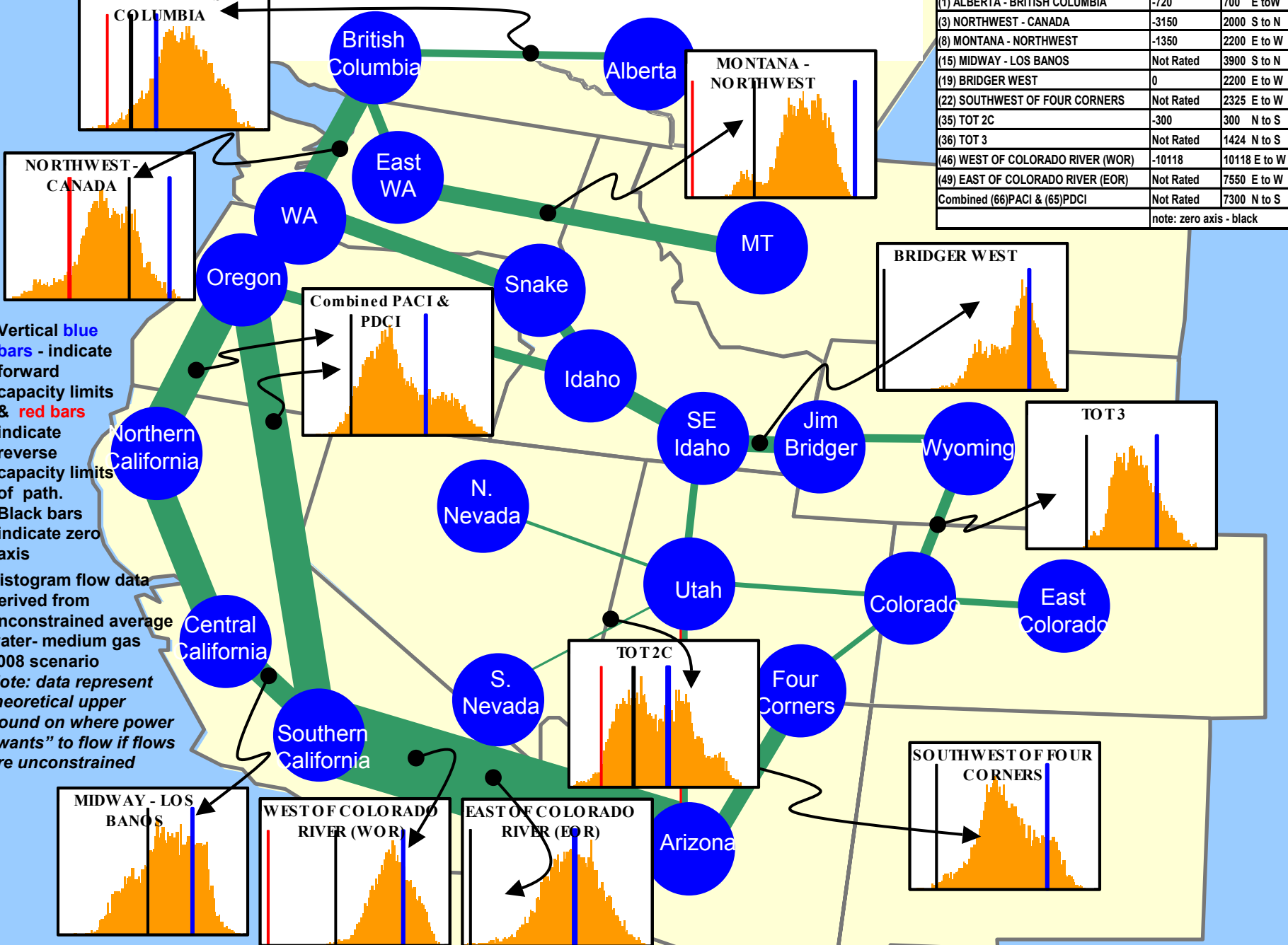
- First and only production cost study in October of 2003
 - Identified transmission congestion
 - Two time frames (5 and 10 years)
 - Looked at different future resource mixes
 - Natural gas, coal, and renewables
 - Study posted on www.ssg-wi.com



Figure V-1: Transmission Constrained Generation

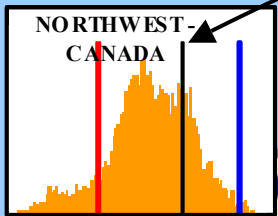
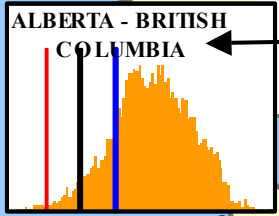
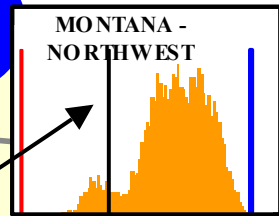
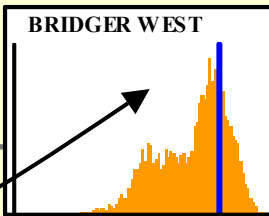
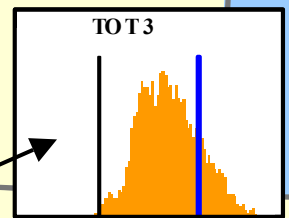
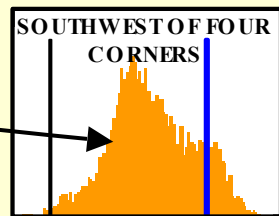
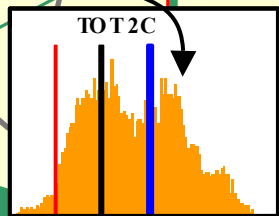
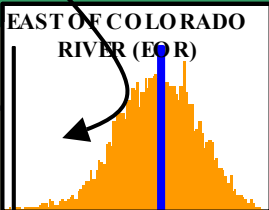
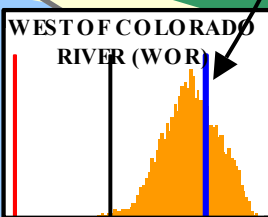
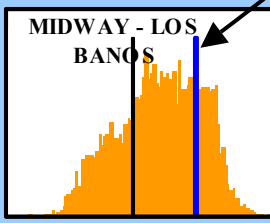
	red	blue
(1) ALBERTA - BRITISH COLUMBIA	-720	700 E to W
(3) NORTHWEST - CANADA	-3150	2000 S to N
(8) MONTANA - NORTHWEST	-1350	2200 E to W
(15) MIDWAY - LOS BANOS	Not Rated	3900 S to N
(19) BRIDGER WEST	0	2200 E to W
(22) SOUTHWEST OF FOUR CORNERS	Not Rated	2325 E to W
(35) TOT 2C	-300	300 N to S
(36) TOT 3	Not Rated	1424 N to S
(46) WEST OF COLORADO RIVER (WOR)	-10118	10118 E to W
(49) EAST OF COLORADO RIVER (EOR)	Not Rated	7550 E to W
Combined (66)PACI & (65)PDCI	Not Rated	7300 N to S

note: zero axis - black



Vertical blue bars - indicate forward capacity limits & red bars indicate reverse capacity limits of path. Black bars indicate zero axis

Histogram flow data derived from unconstrained average water- medium gas 2008 scenario
 Note: data represent theoretical upper bound on where power "wants" to flow if flows are unconstrained





New Study Underway

- 2008 and 2015 models being developed
 - 2008 ready next month
 - 2015 ready later this year
 - Open data base
- Many improvements being incorporated





Planned Improvements

- 1) Unit commitment
- 2) Heat rate curves instead of average heat rates
- 3) Incremental losses
- 4) Improved load forecast review and load modeling
- 5) Improved review of generation assumptions
- 6) Closer correlation between northwest hydro and load
- 7) Updated network model, path ratings, and nomograms



A map of the United States with state boundaries outlined in black. The map is set against a light blue background representing the ocean. The word "Questions" is written in a large, bold, red font with a slight shadow effect, centered over the middle of the country.

Questions