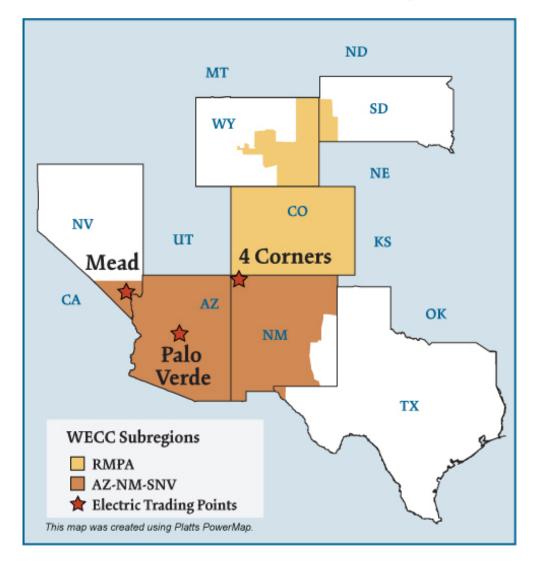
Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Southwest Electric Regions



Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Overview

Geography

States covered: All or most of Arizona, New Mexico, Colorado and parts of Nevada, Wyoming and South Dakota.

Reliability region: Rocky Mountain Power Area (RMPA) and Arizona/New Mexico/Southern Nevada Power Area (AZNMSNV) sub-regions of the Western Electric Coordinating Council (WECC)

Balancing authorities: See list on page 5.

Hubs: Four Corners, Mead, Palo Verde

RTO/ISO

None

Generation/Supply

Marginal fuel type: Natural gas

Generating capacity: 45,459 MW (2005)

Capacity reserve: 8,940 MW (2005)

Reserve margin: 24% (2005)

The region has a surplus of generating capacity, with much of the generation in Arizona and the Four Corners area. Transmission capacity to the California market is often fully utilized in the high load periods of the summer. In 2005, the regional reserve margin decreased from 2004 as demand growth outpaced supply additions.

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Demand

Peak demand: 36,519 MW (2005)

Peak demand growth: 3.5% (2004–2005)

Prices

Annual Average of Daily Bilateral Day Ahead On-Peak Prices

Platts "Palo Verde" Index 2004: \$50.09/MWh 2005: \$67.39/MWh 2006: \$57.59/MWh

2007: \$61.74/MWh

Interconnections/Seams

Generation suppliers export excess power to the rest of the West and particularly to California.

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Balancing Authorities in the Southwest Electric Market

WECC Subregion and Balancing Authority	NERC Acronym		
AZNMSNV			
Arizona Public Service Company	AZPS		
DECA, LLC - Arlington Valley	DEAA		
El Paso Electric Company	EPE		
Gila River Maricopa Arizona	GRMA		
Harquahala L.L.C.	HGMA		
Imperial Irrigation District	IID		
Nevada Power Company	NEVP		
Public Service Company of New Mexico	PNM		
Salt River Project	SRP		
Tucson Electric Power Company	TEPC		
Western Area Power Administration - Lower Colorado	WALC		
RMPA			
Public Service Company of Colorado	PSCO		
Western Area Power Administration - Colorado-Missouri	WACM		

Supply and Demand Statistics for the Southwest

Supply Demand Statistics			
	2003	2004	2005
Summer Generating Capacity MW	41,646	45,588	45,459
Summer Peak Demand MW	35,815	35,280	36,519
Summer Reserves MW	5,831	10,308	8,940
Summer Reserve Margin:	16%	29%	24%
Annual Load (GWh):	177,401	180,154	185,730
Annual Net Generation GWh	NA	NA	NA

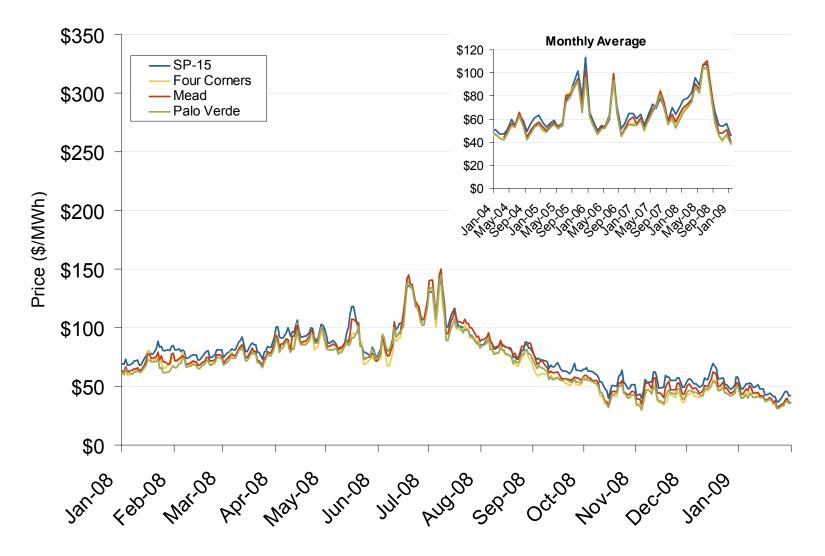
Southwest Electric Market: Annual Bilateral Prices

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Annual Average Bilateral Prices

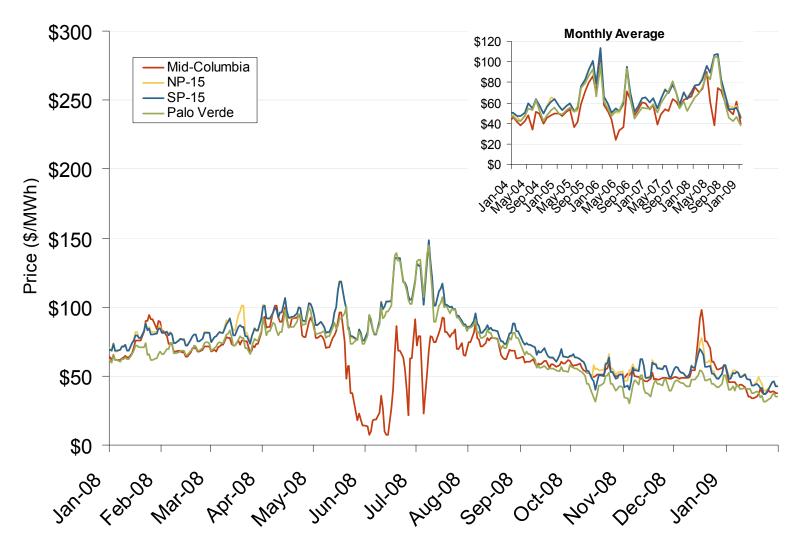
Annual Average Day Ahead On Peak Prices	(\$/MWh)					
	2004	2005	2006	2007	2008	5-Year Avg
Four Corners	\$50.48	\$69.39	\$58.52	\$63.21	\$71.84	\$62.69
Palo Verde	\$50.06	\$67.39	\$57.59	\$61.74	\$71.87	\$61.73
Mead	\$52.34	\$70.17	\$59.93	\$64.49	\$75.63	\$64.72

Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data.

Western Daily Bilateral Day-Ahead On-Peak Prices

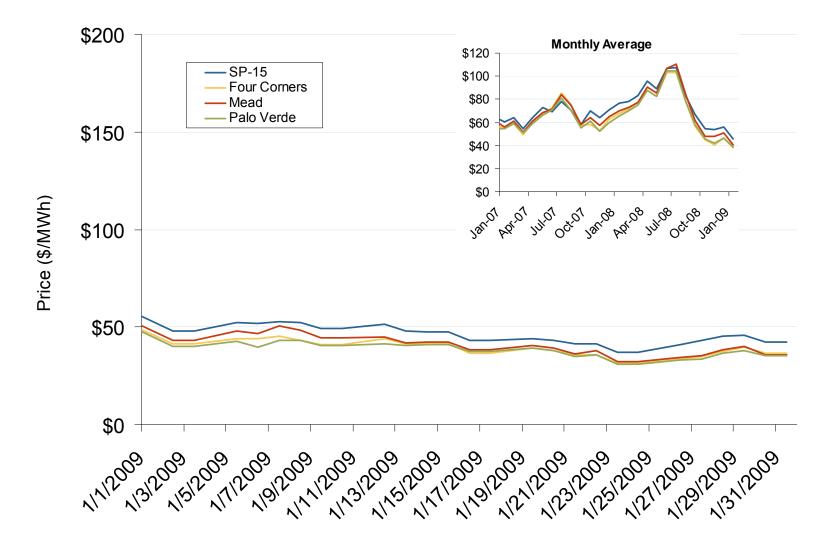


Source: Derived from Platts data.

Southwest Electric Market: Last Month's Southwestern Bilateral Prices

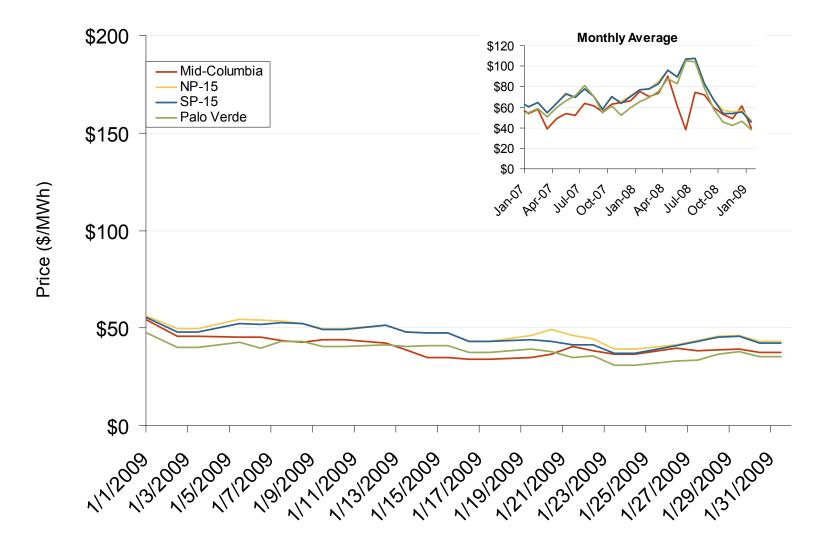
Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data.

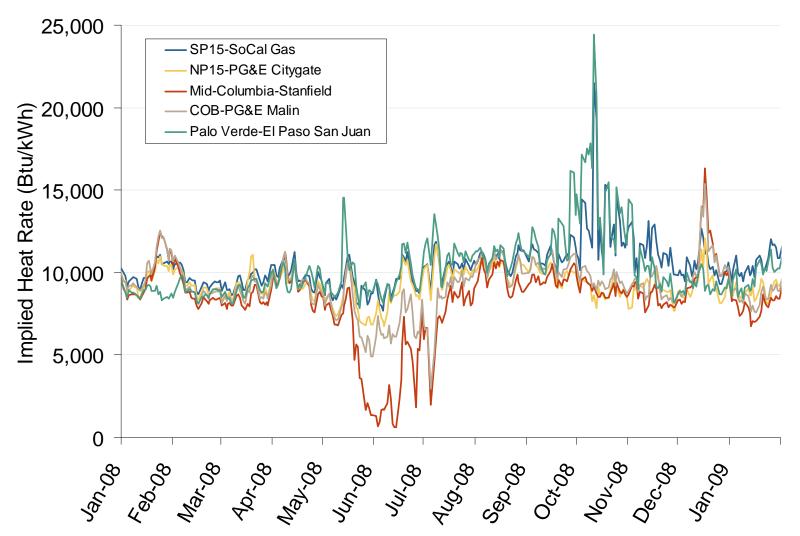
Western Daily Bilateral Day-Ahead On-Peak Prices



Southwest Electric Market: Western Implied Heat Rates

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Implied Heat Rates at Western Trading Points

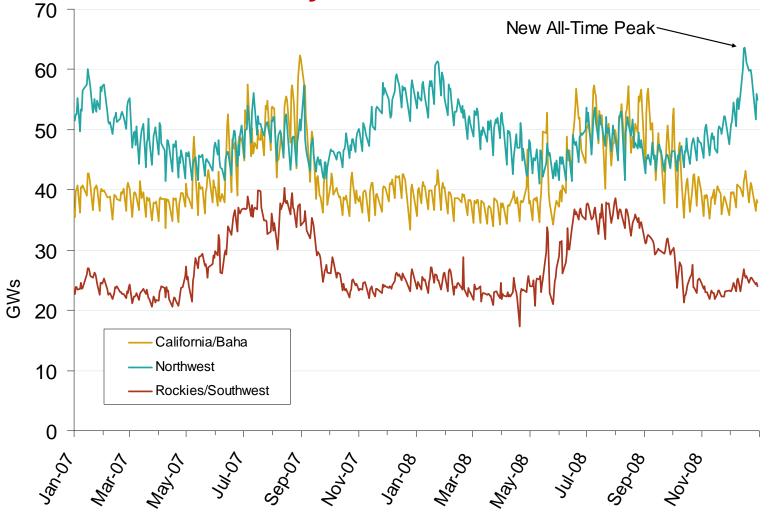


Source: Derived from Platts data

Southwest Electric Market: Daily Peak Demand

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Western Daily Actual Peak Demand



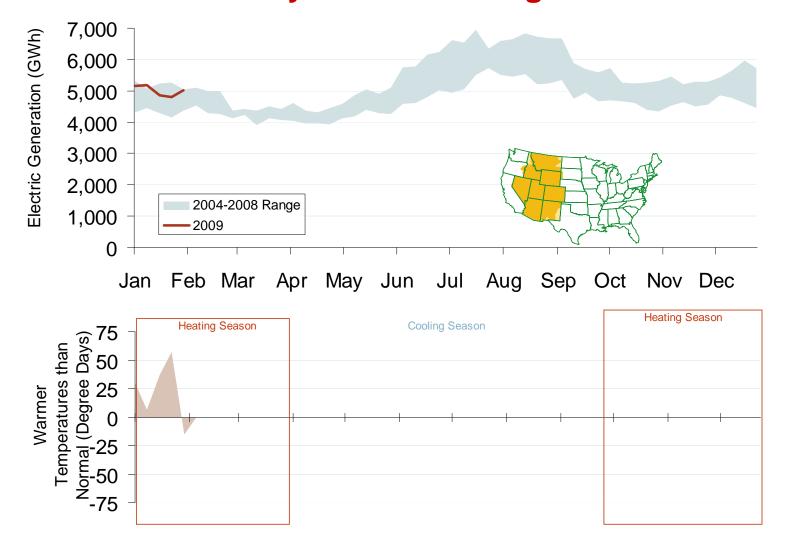
Source: Derived from WECC Daily Report data available at http://wecc.biz. Data shown is generally Sunday through Thursday due to limitations of daily reports.

Updated January 9, 2009 1193

Southwest Electric Market: Generation Output and Temperatures

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Weekly Electric Generation Output and Temperatures Rocky Mountains Region



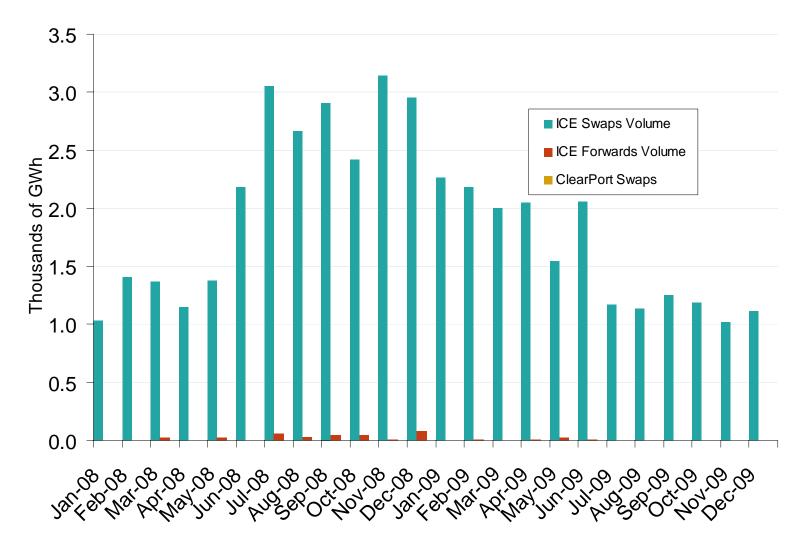
Source: Derived from EEI and NOAA data.

Updated February 6, 2009 1120

Southwest Electric Markets: Physical & Financial Market Volumes

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Palo Verde Forward and Swap Volumes



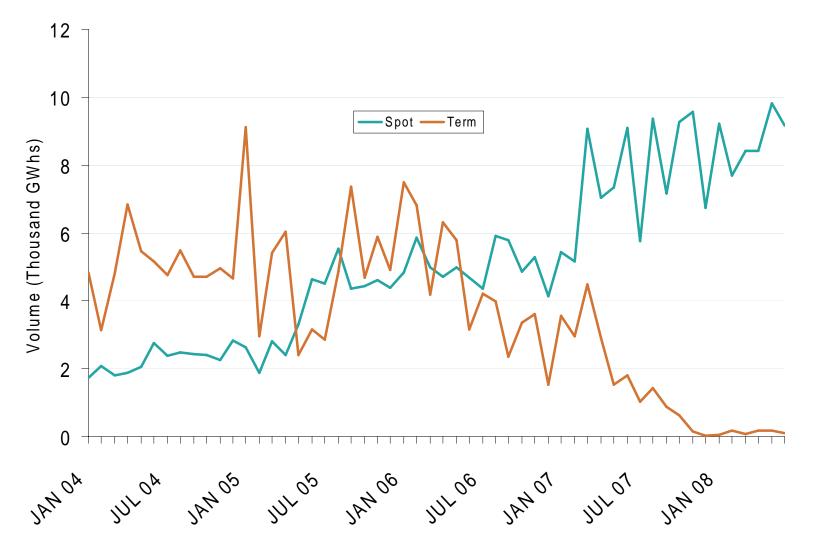
Source: Derived from *ICE* and *Nymex ClearPort* data. ICE on-peak forward (physical) and swap (financial) volumes are for Palo Verde and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month. Nymex ClearPort on-peak swap (financial) volumes are for Palo Verde and are traded by month.

Updated February 6, 2009 1068

Southwest Electric Market: ICE Physical Volumes

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

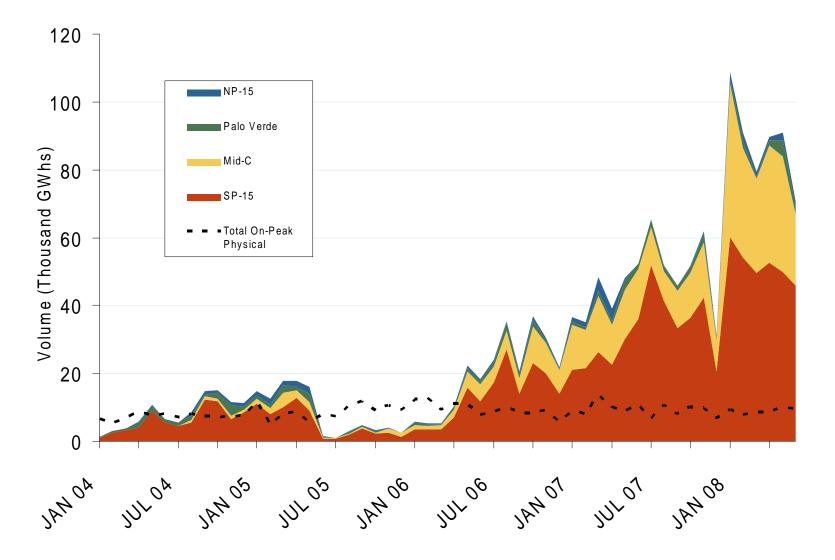
Western Physical Power Volumes Traded on ICE by Month



Southwest Electric Market: ICE Financial Volumes

Federal Energy Regulatory Commission • Market Oversight @ FERC.gov

Western Financial On-Peak Products Traded on ICE by Hub



Source: Derived from ICE data.