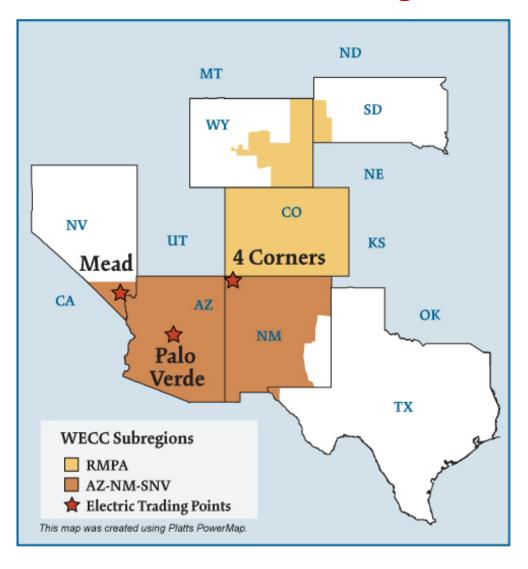
# **Southwest Electric Regions**



#### **Southwest Electric Market: Overview and Focal Points**

## 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.

### **Southwest Electric Market: Overview and Focal Points**

## 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.

## 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		

Source: NERC (www.tsin.com)

Updated February 7, 2007

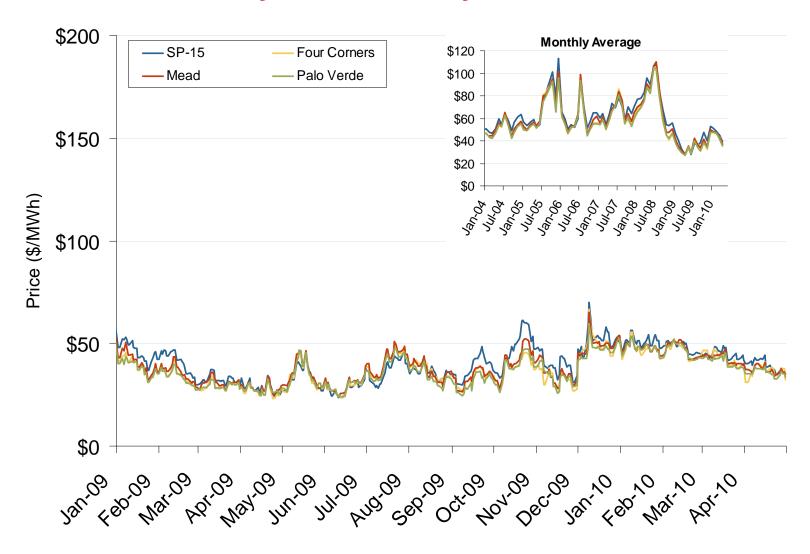
## **Supply and Demand Statistics for the Southwest**

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

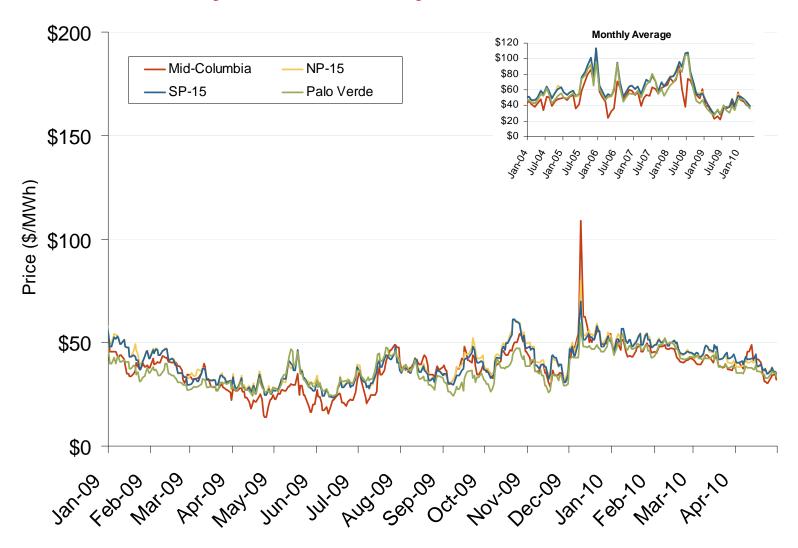
# **Annual Average Bilateral Prices**

Annual Average Day Ahead On Peak Prices						
	2005	2006	2007	2008	2009	5-Year Avg
Four Corners	\$69.39	\$58.52	\$63.21	\$71.84	\$35.38	\$59.68
Palo Verde	\$67.39	\$57.59	\$61.74	\$71.87	\$34.77	\$58.68
Mead	\$70.17	\$59.93	\$64.49	\$75.63	\$36.58	\$61.37

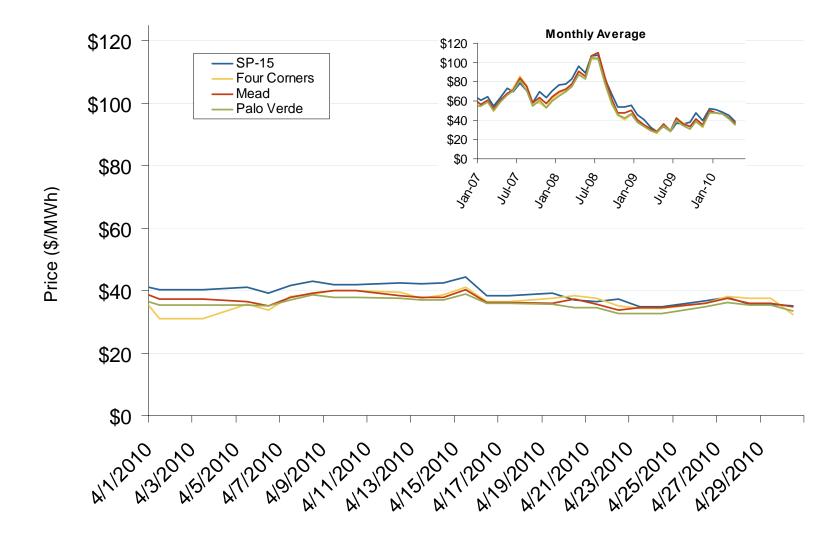
## Southwestern Daily Bilateral Day-Ahead On-Peak Prices



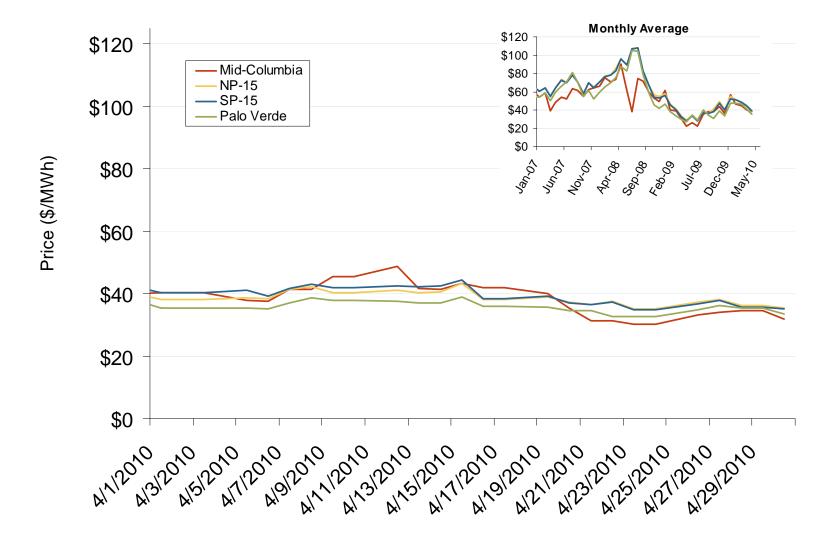
## Western Daily Bilateral Day-Ahead On-Peak Prices



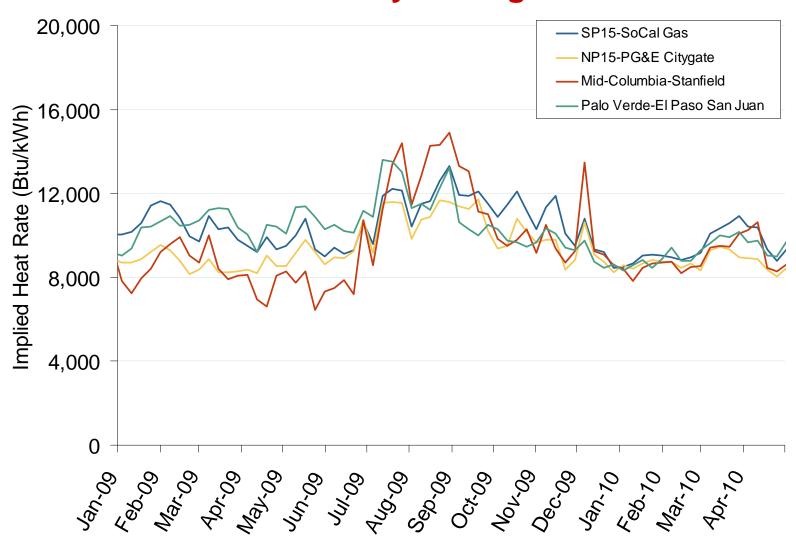
## Southwestern Daily Bilateral Day-Ahead On-Peak Prices



## Western Daily Bilateral Day-Ahead On-Peak Prices

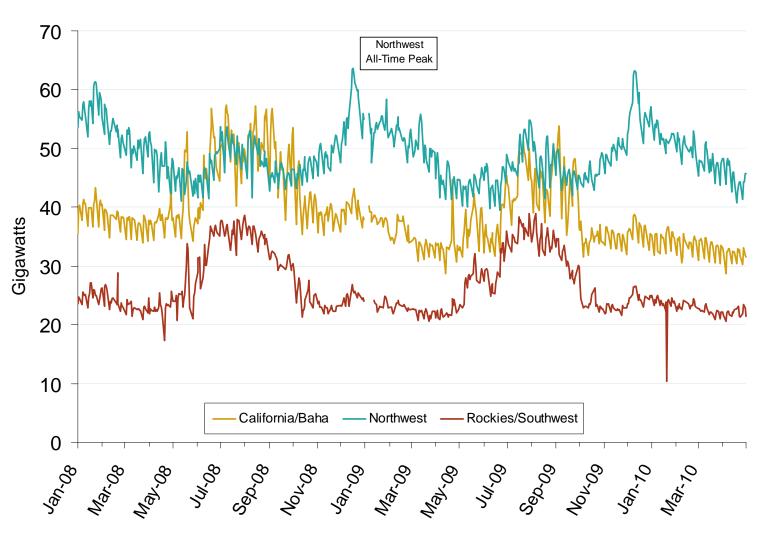


# Implied Heat Rates at Western Trading Points Weekly Average



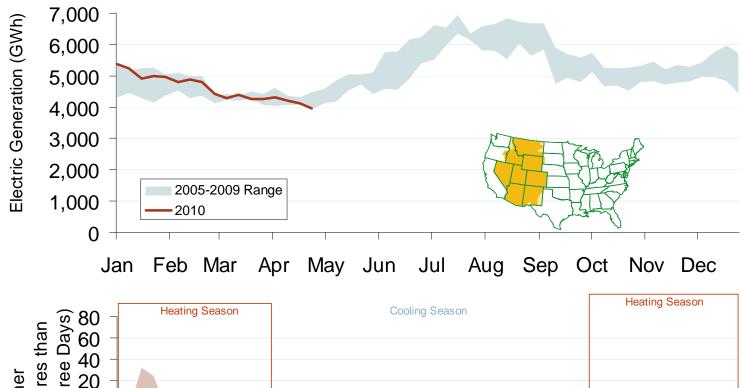
Source: Derived from *Platts* on-peak electric and natural gas price data.

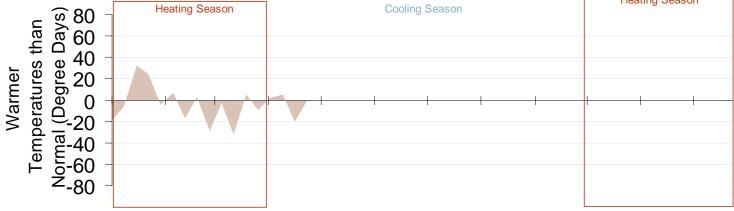
## **Western Daily Actual Peak Demand**



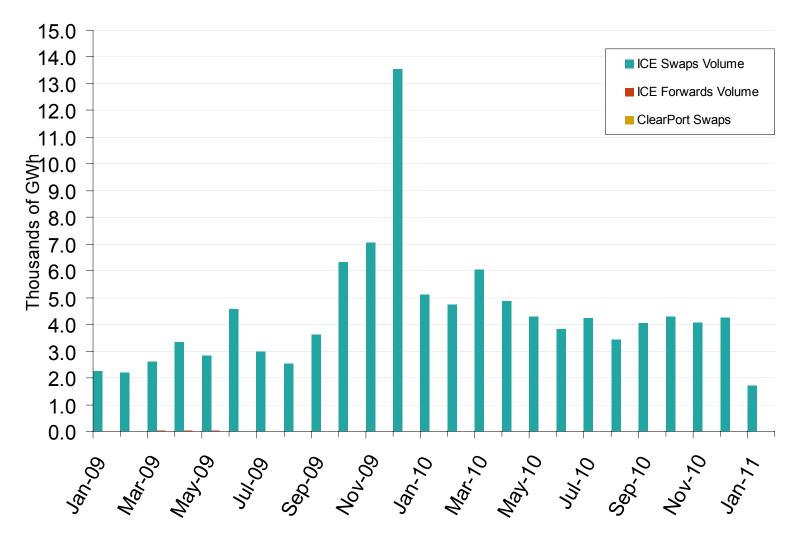
Source: Derived from WECC Daily Report data available at http://wecc.biz. Data does not include weekends and holidays. Some data for 12/31/2008 – 1/9/2009 are not available from WECC.

# Weekly Electric Generation Output and Temperatures Rocky Mountains Region





## 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.