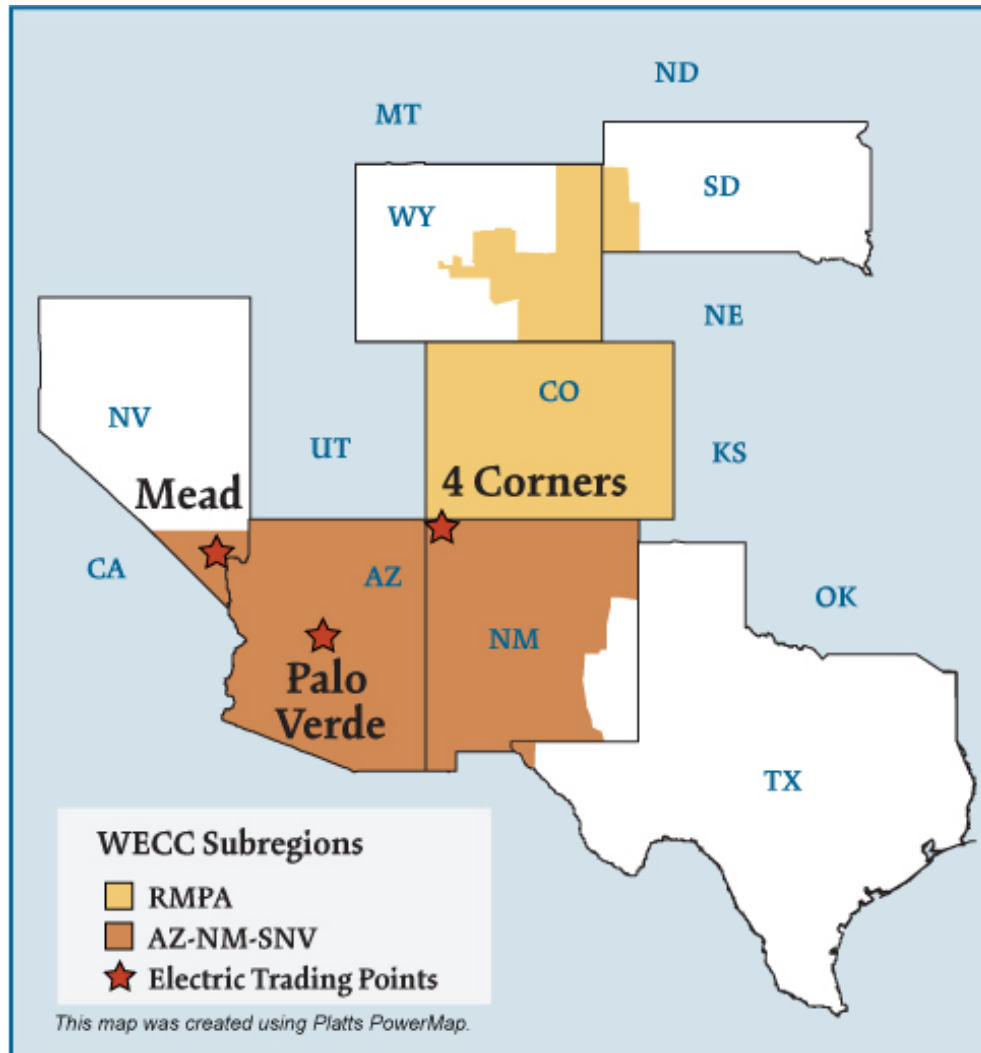


# Southwest Electric Regions



## 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.

**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  
 DECA, LLC - Arlington Valley  
 El Paso Electric Company  
 Gila River Maricopa Arizona  
 Harquahala L.L.C.  
 Imperial Irrigation District  
 Nevada Power Company  
 Public Service Company of New Mexico  
 Salt River Project  
 Tucson Electric Power Company  
 Western Area Power Administration - Lower Colorado

AZPS  
 DEAA  
 EPE  
 GRMA  
 HGMA  
 IID  
 NEVP  
 PNM  
 SRP  
 TEPC  
 WALC

#### RMPA

Public Service Company of Colorado  
 Western Area Power Administration - Colorado-Missouri

PSCO  
 WACM

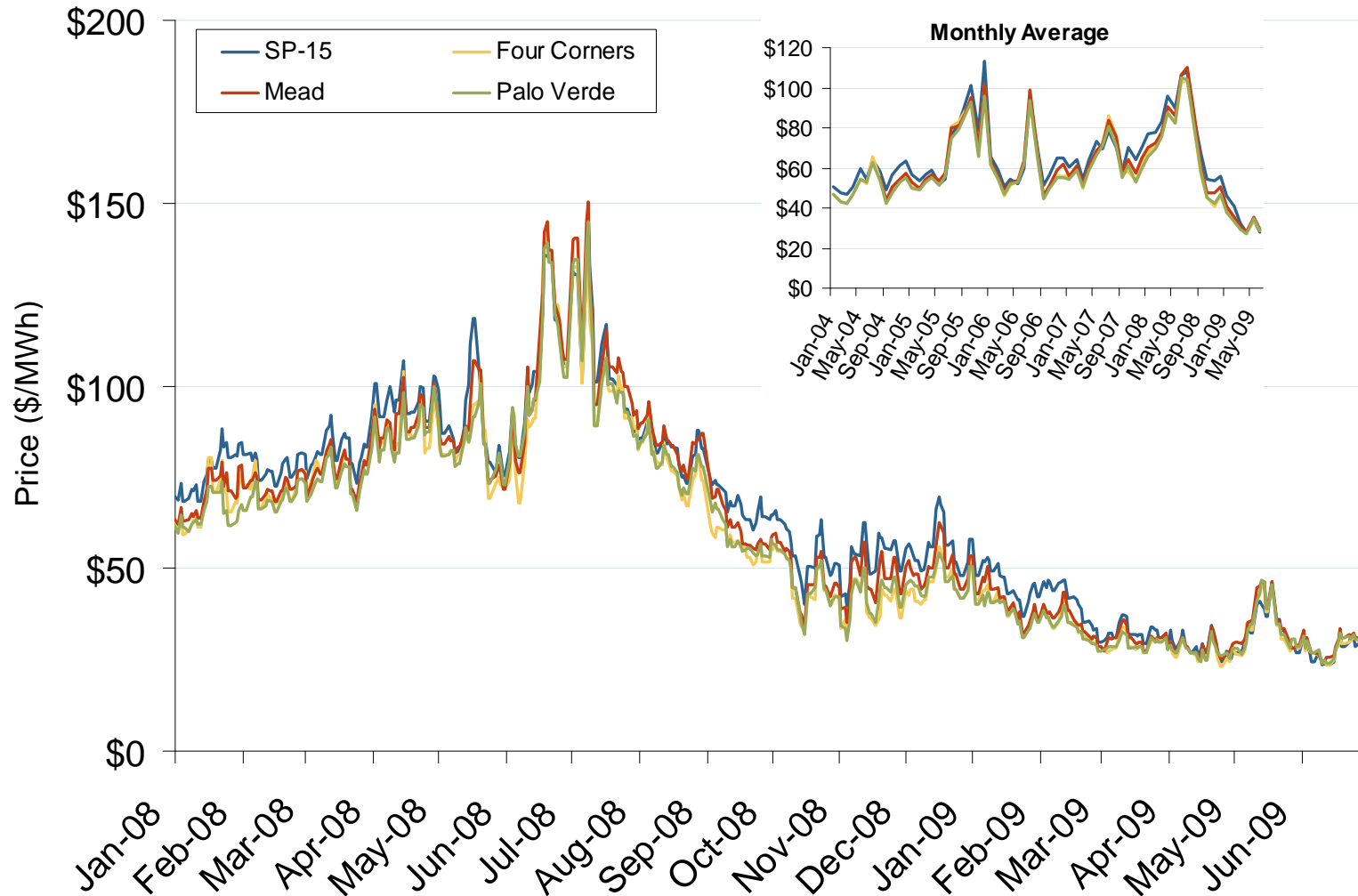
## Supply and Demand Statistics for the Southwest

<b>Supply Demand Statistics</b>			
	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 (\$/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

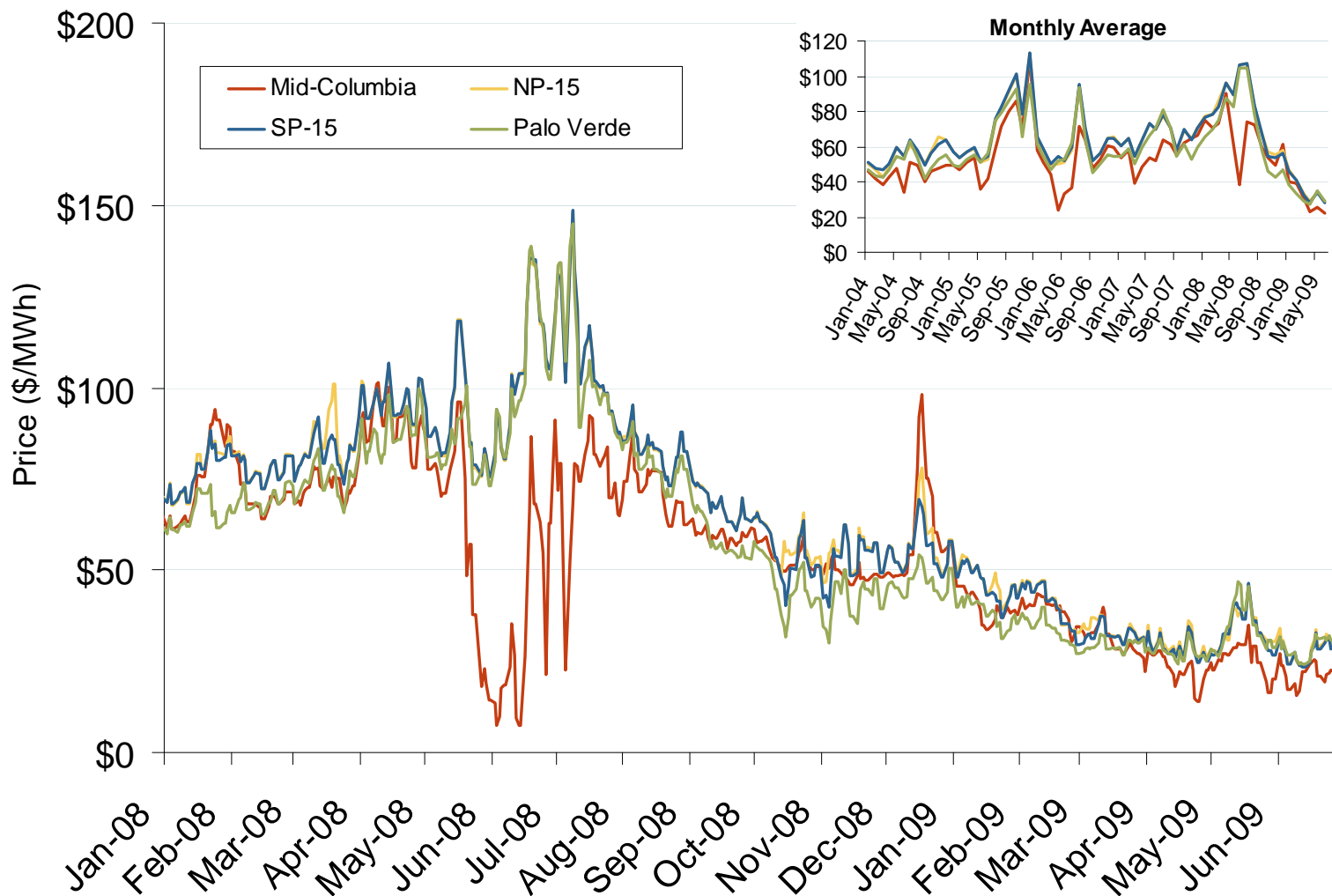
# Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.  
July 2009

Updated July 8, 2009

# Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.



# Southwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.  
July 2009

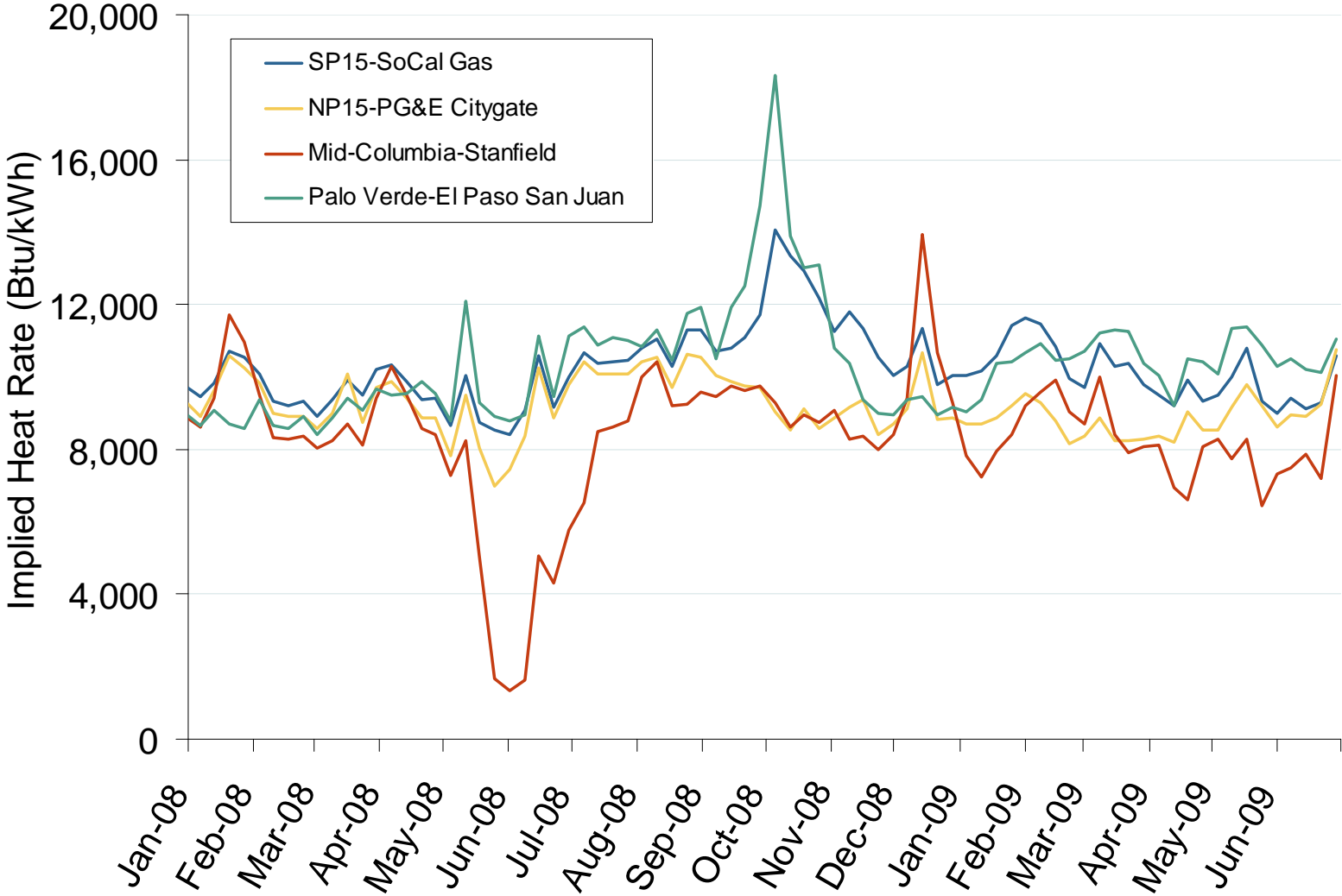
# Western Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data.  
July 2009

Updated July 8, 2009

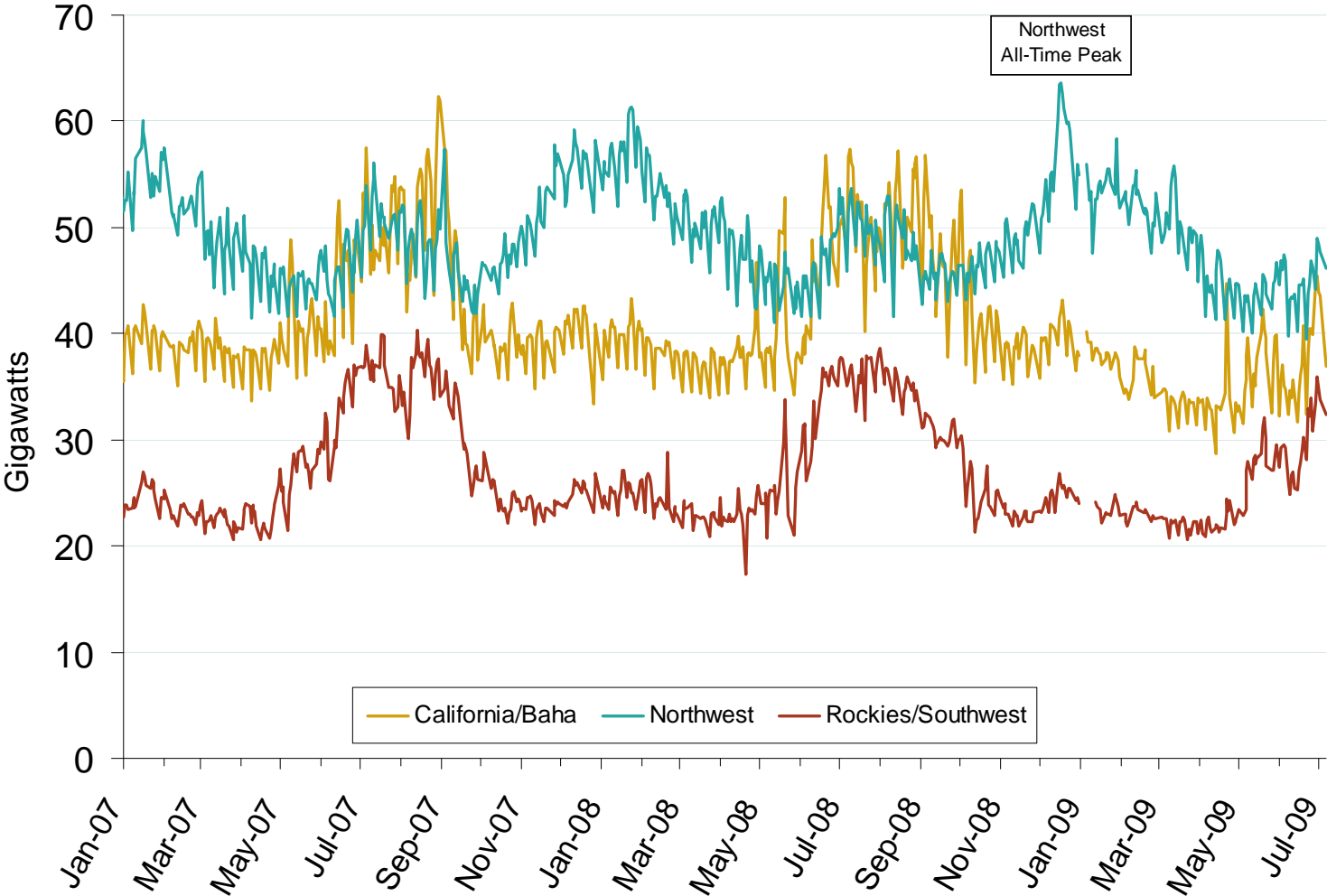
# Implied Heat Rates at Western Trading Points Weekly Average



Source: Derived from Platts data  
July 2009

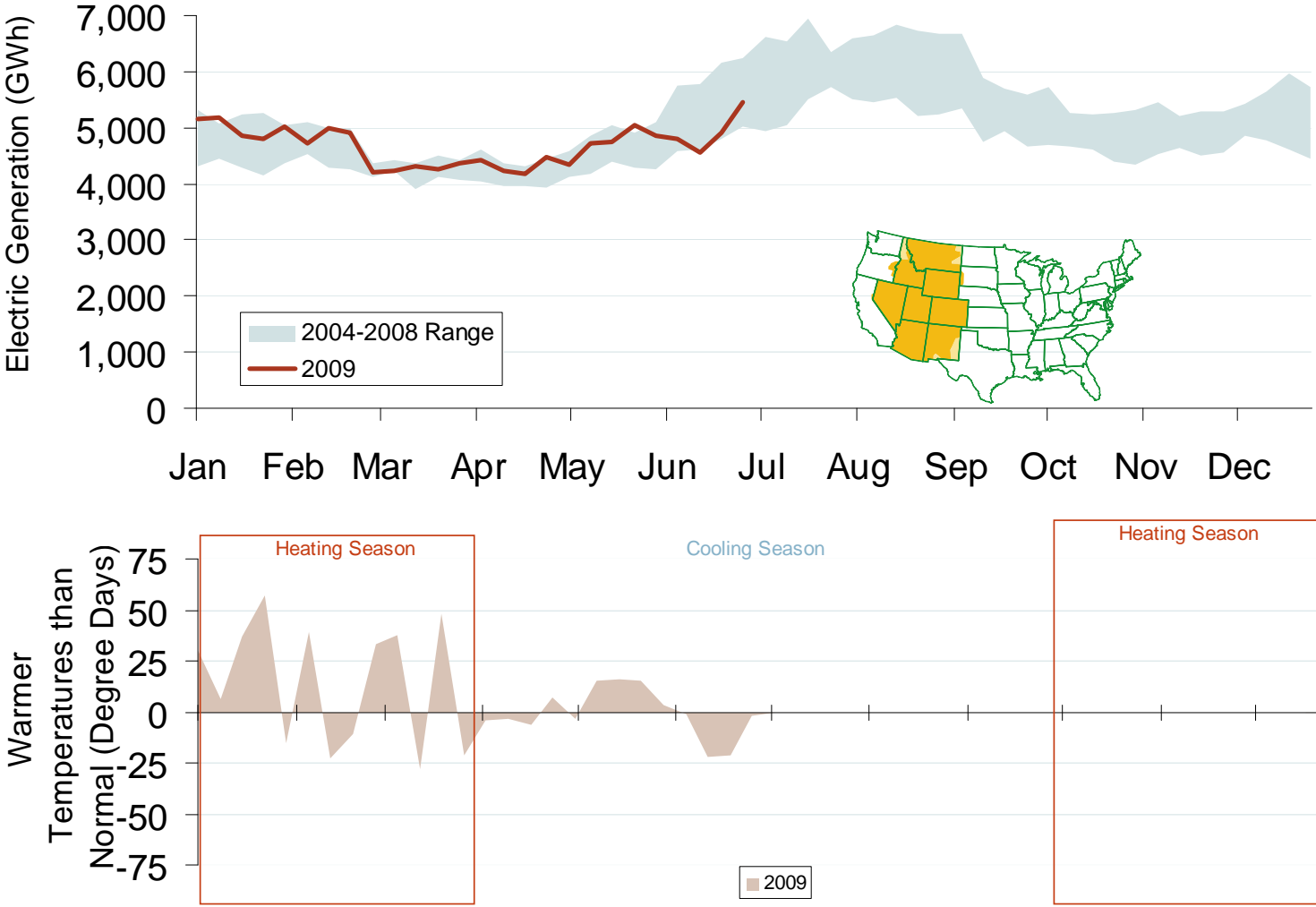
Updated July 8, 2009

# 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.

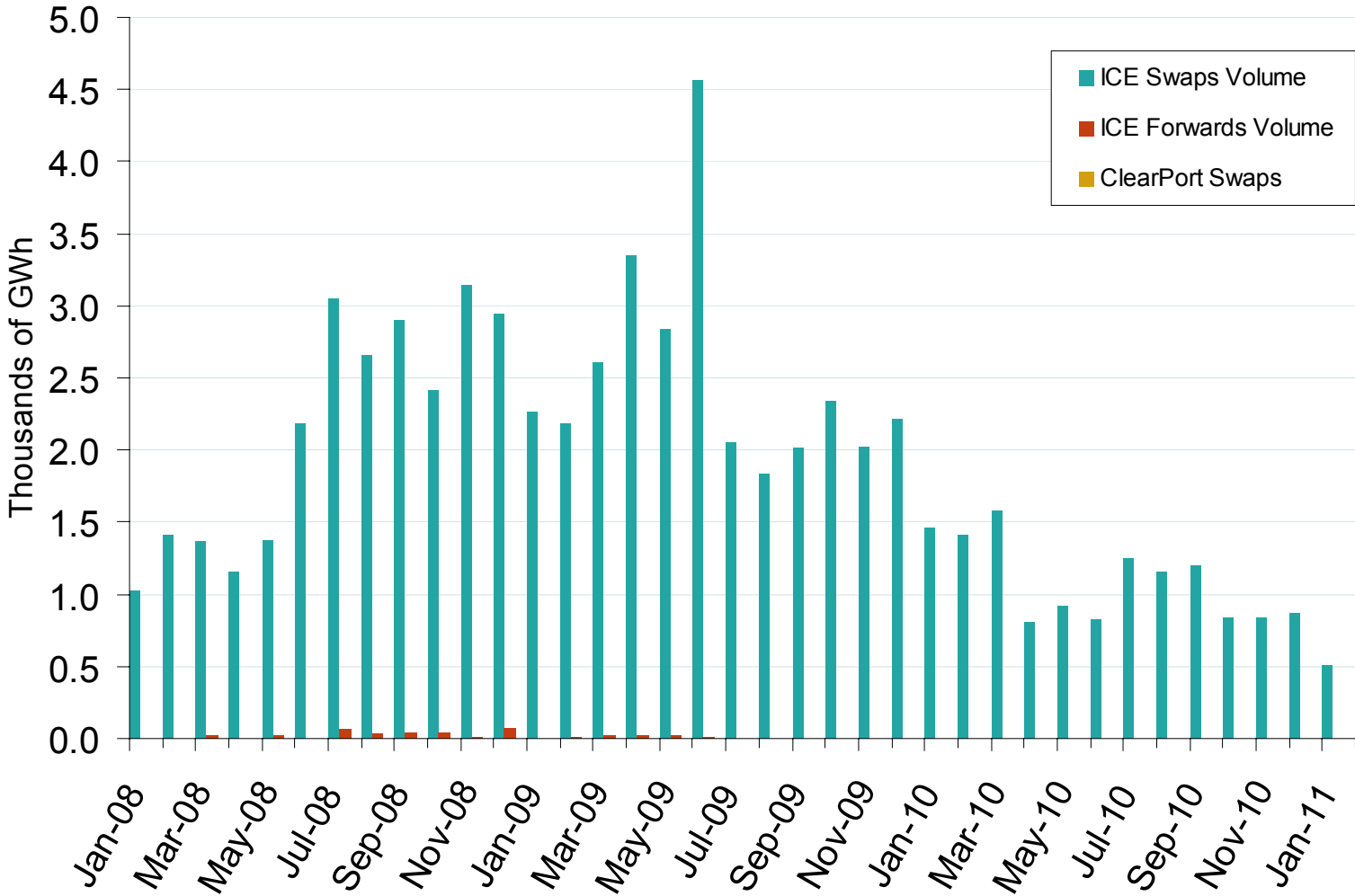
# Weekly Electric Generation Output and Temperatures Rocky Mountains Region



Source: Derived from EEI and NOAA data.  
July 2009

Updated July 8, 2009

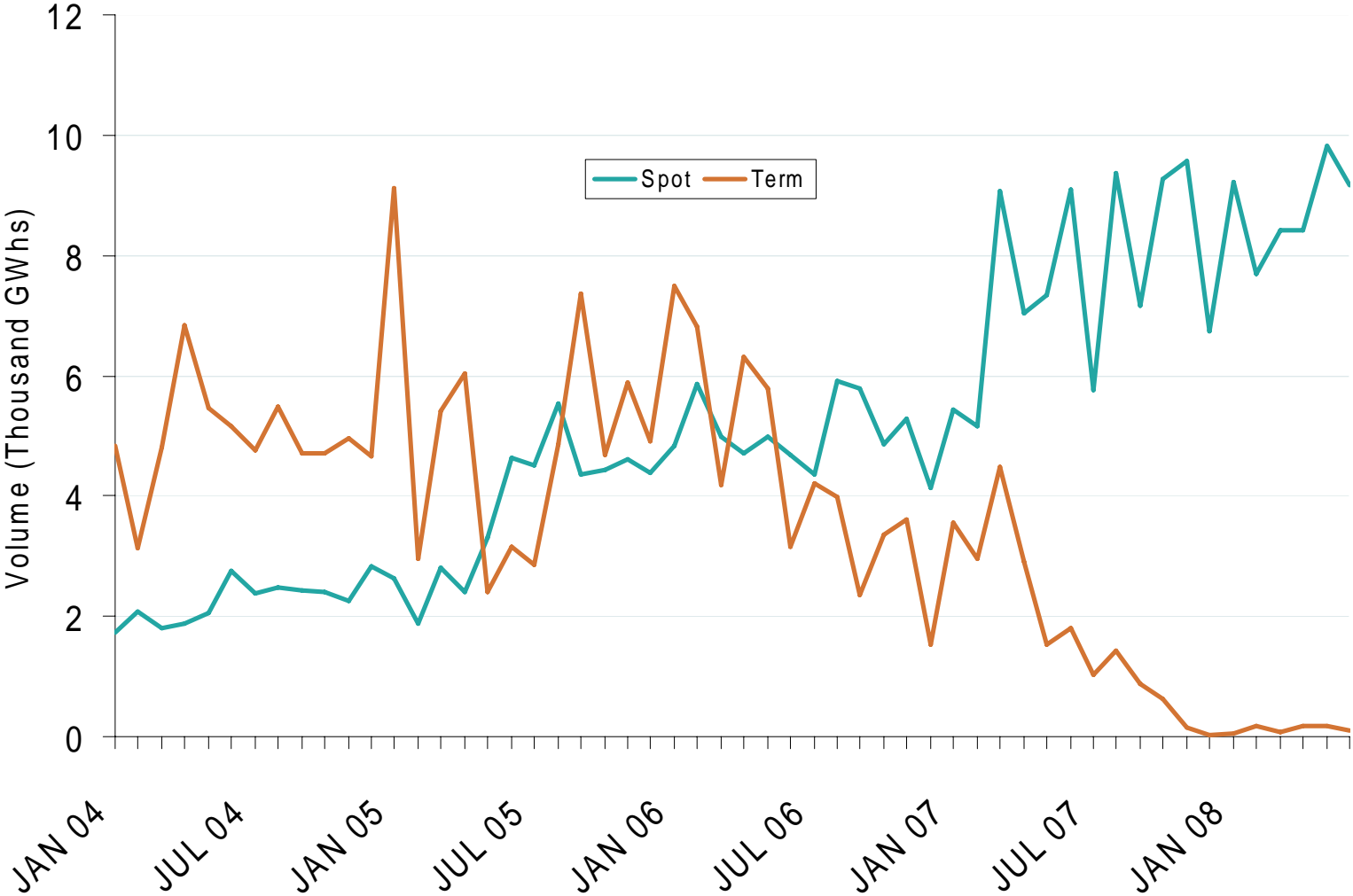
# Palo Verde Forward and Swap Volumes



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 July 8, 2009

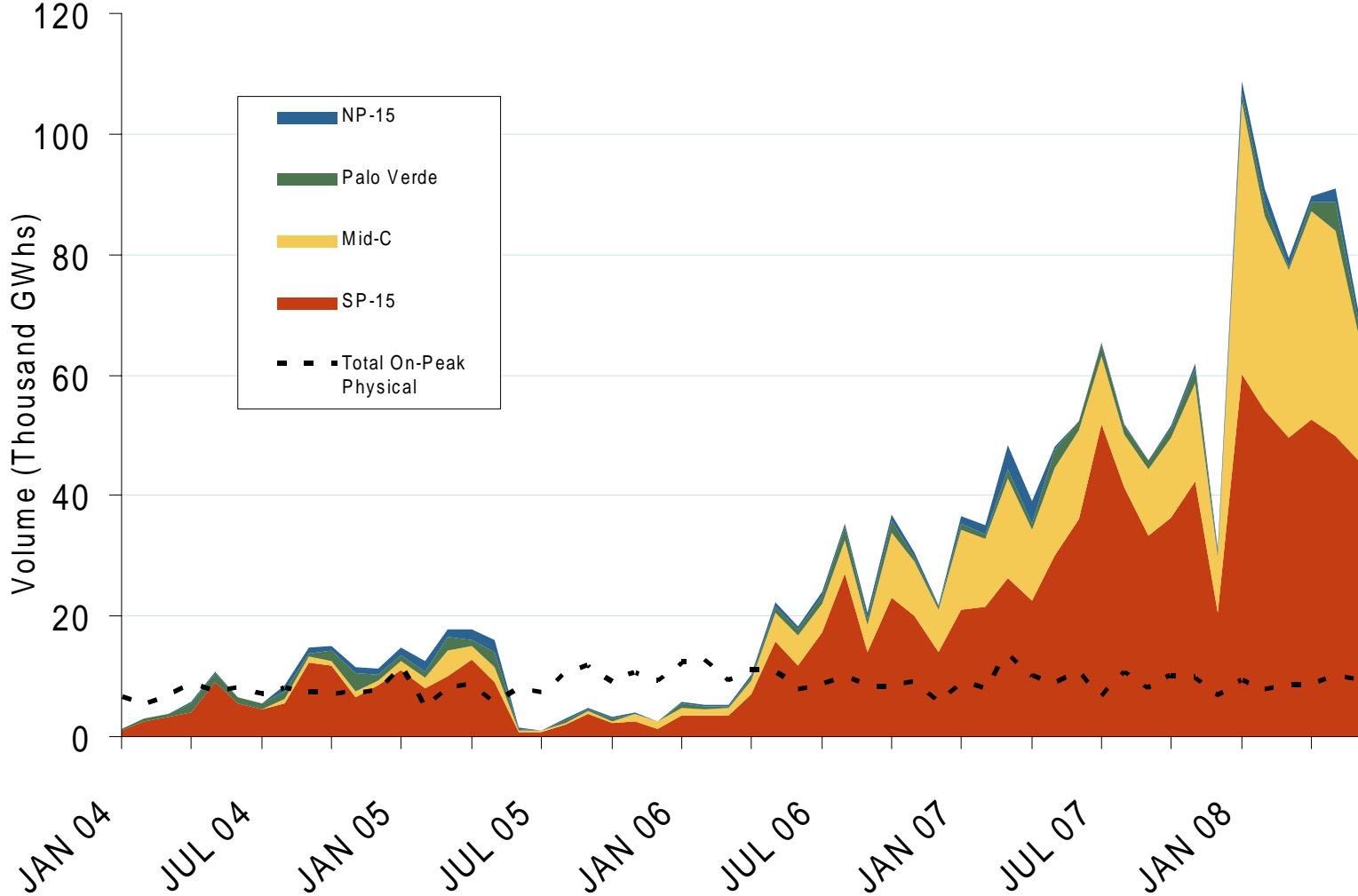
# Western Physical Power Volumes Traded on ICE by Month



Source: Derived from ICE data.  
July 2009

Updated August 14, 2008

# Western Financial On-Peak Products Traded on ICE by Hub



Source: Derived from ICE data. July 2009

Updated August 14, 2008