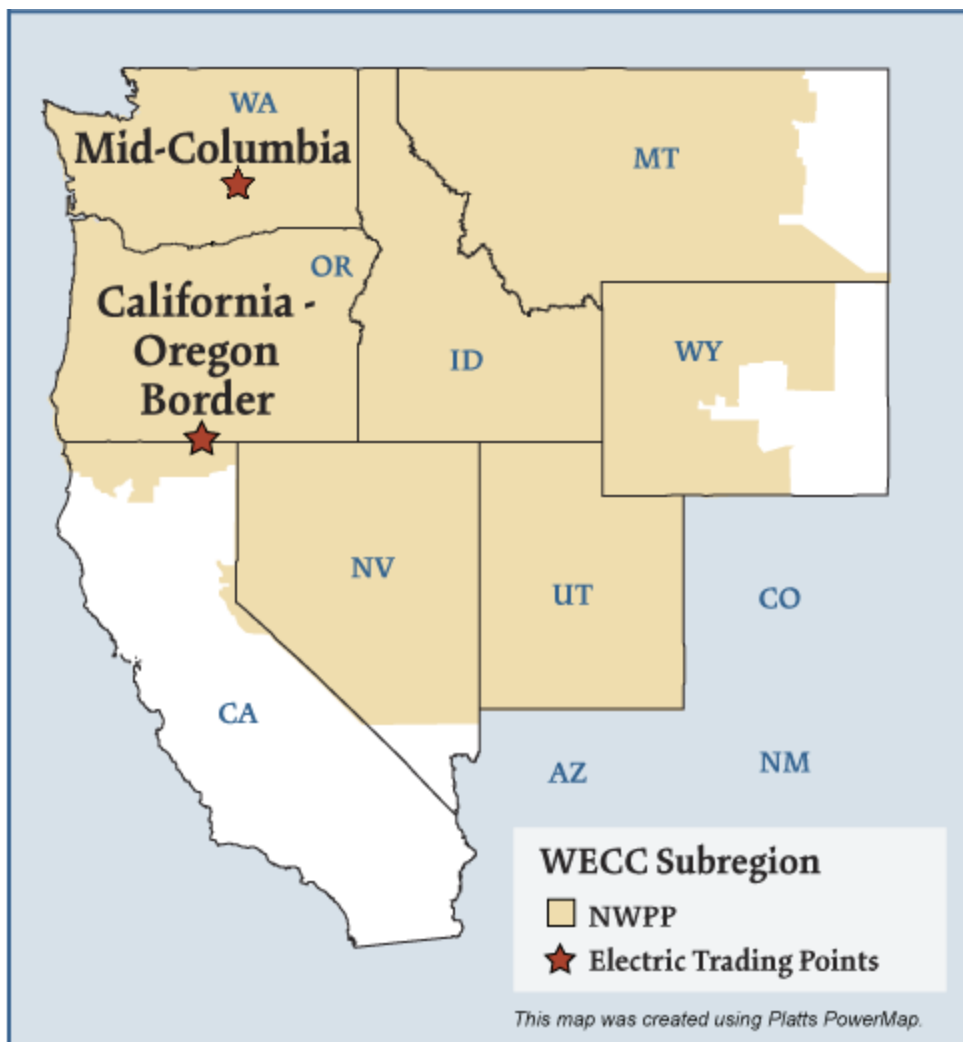


Northwest Electric Market



Overview

Geography

States covered: All or most of Washington, Oregon, Idaho, Utah, Nevada, Montana, Wyoming and part of California.

Reliability region: Northwest Power Pool Area (NWPP) sub-region of the Western Electric Coordinating Council (WECC).

Balancing authorities: See page 5.

Hubs: California-Oregon Border (COB), Mid-Columbia (Mid-C)

RTO/ISO

None

Generation/Supply

Marginal fuel type: Hydro and natural gas

Generating capacity (winter 2005): 57,120 MW

Capacity reserve (winter 2005): 16,822 MW

Reserve margin (winter 2005): 42%

When taken together, hydro, fossil fuels, nuclear energy, and renewable resources, were adequate to provide electricity in excess of in-region needs.

Demand

All time peak demand (2005): 40,298 MW

Peak demand growth: 1.5% (2004–2005)

Prices

Index Annual Average of Daily Bilateral Day Ahead On-Peak Prices:

Platts California-Oregon Border (COB) Hub:

2004: \$49.02/MWh 2005: \$66.95/MWh 2006: \$55.58/MWh 2007: \$62.14/MWh

Platts Mid-Columbia (Mid-C) Hub:

2004: \$44.50/MWh 2005: \$62.95/MWh 2006: \$50.18/MWh 2007: \$56.57/MWh

Physical and financial electricity products are traded through brokers using the Mid-Columbia (Mid-C) and California-Oregon Border (COB) hubs as pricing points.

Interconnections/Seams

The region relies on hydroelectric production for approximately two thirds of its electricity needs. In most years, Northwest sells surplus power into California and the Southwest.

Balancing Authorities in the Northwest Electric Market

Balancing Authority

Alberta Electric System Operator
 Avista Corp.
 Bonneville Power Administration
 British Columbia Transmission Corporation
 Idaho Power Company
 NorthWestern Energy
 PacifiCorp-East
 PacifiCorp-West
 Portland General Electric Company
 PUD No. 1 of Chelan County
 PUD No. 1 of Douglas County
 PUD No. 2 of Grant County
 Puget Sound Energy
 Seattle Department of Lighting
 Sierra Pacific Power Company
 Tacoma Power
 Western Area Power Administration - Upper Great Plains West

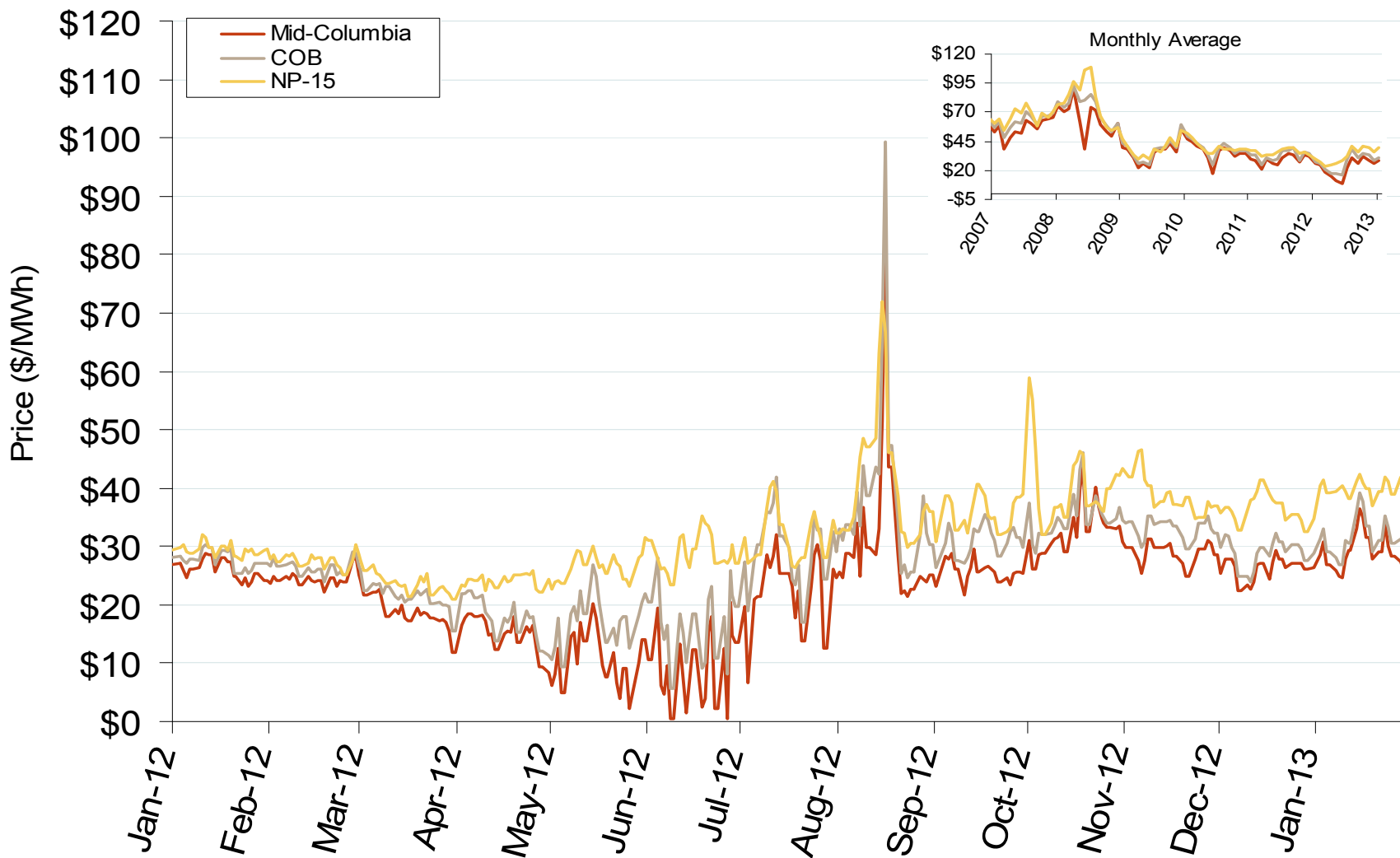
NERC Acronym

AESO
 AVA
 BPAT
 BCHA
 IPCO
 NWMT
 PACE
 PACW
 PGE
 CHPD
 DOPD
 GCPD
 PSEI
 SCL
 SPPC
 TPWR
 WAUW

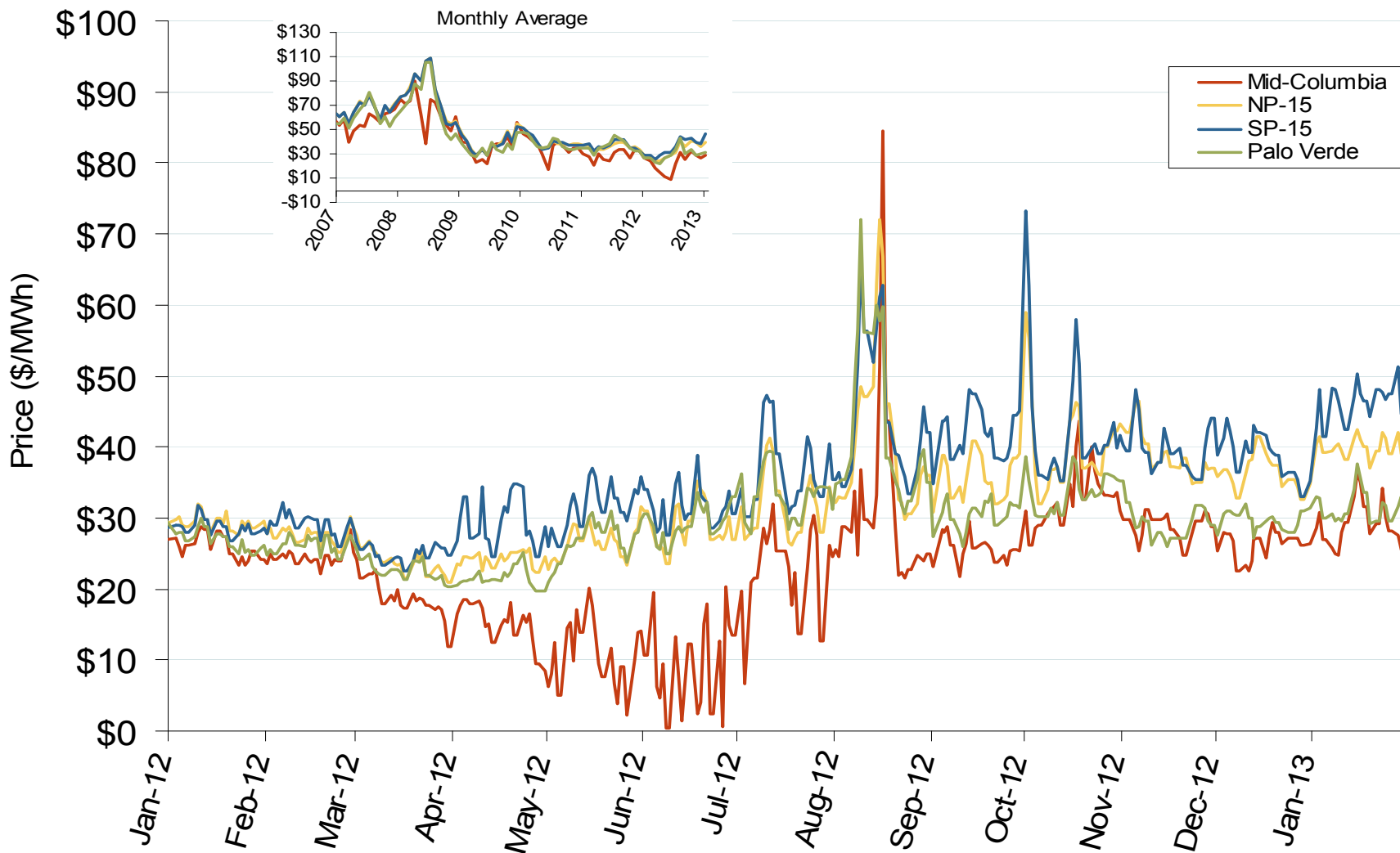
Northwest Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)						
	2008	2009	2010	2011	2012	5-Year Avg
Mid-Columbia (Mid-C)	\$65.00	\$35.66	\$35.90	\$29.10	\$22.54	\$37.66
California-Oregon Border (COB)	\$73.86	\$38.02	\$38.84	\$32.55	\$26.79	\$42.03

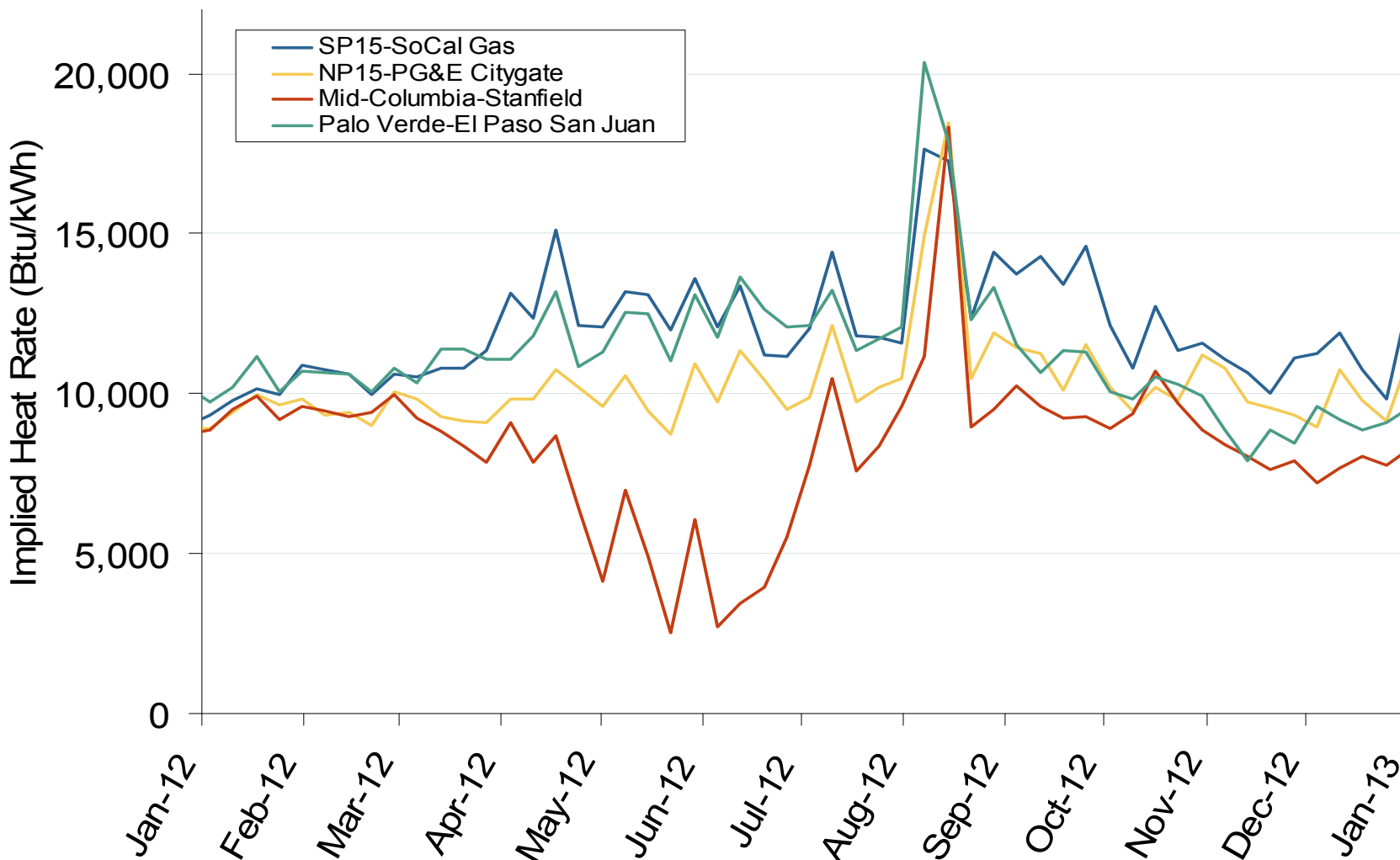
Northwestern Daily Index Day-Ahead On-Peak Prices



Western Daily Index Day-Ahead On-Peak Prices



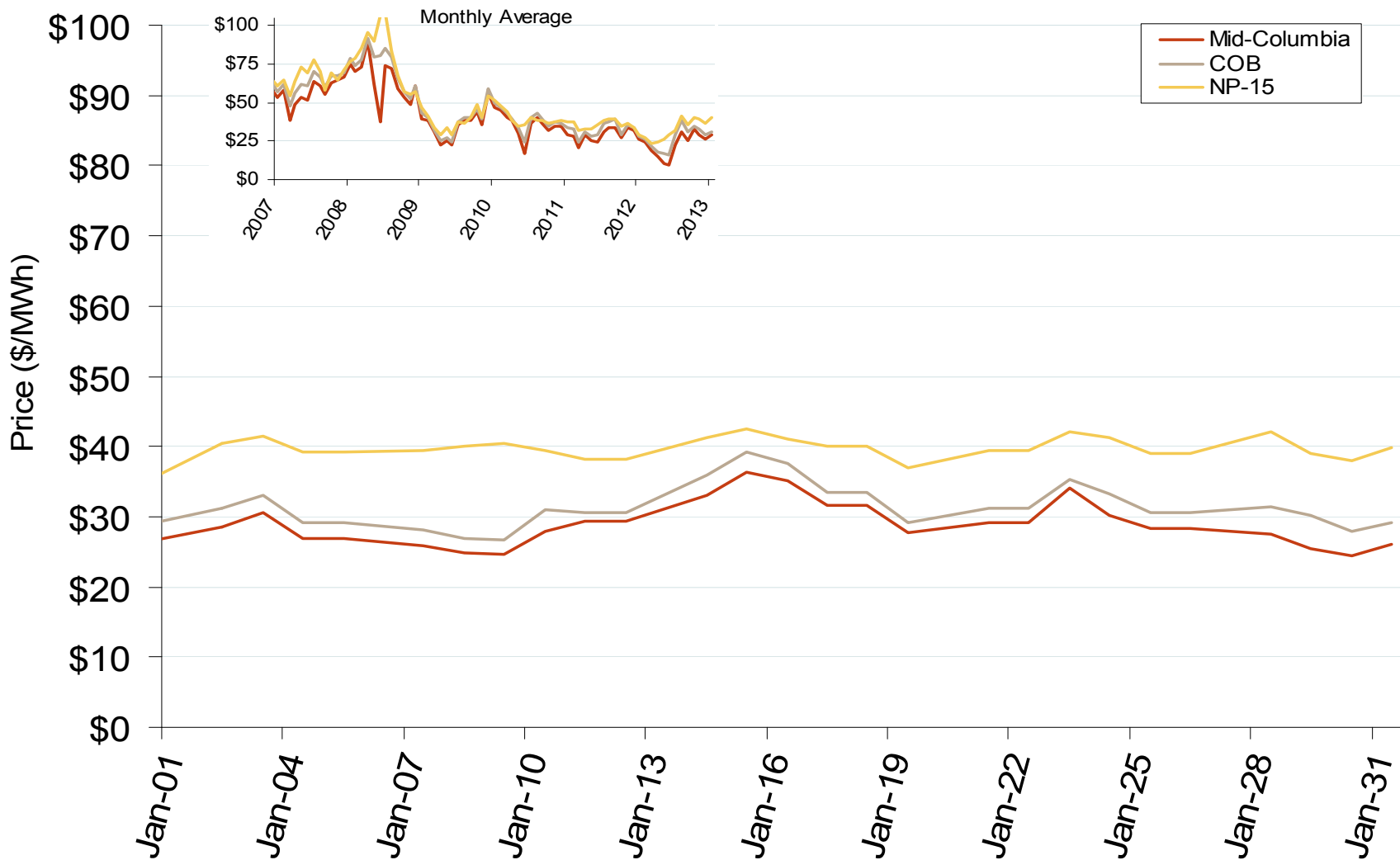
Implied Heat Rates at Western Trading Points - Weekly Avgs.



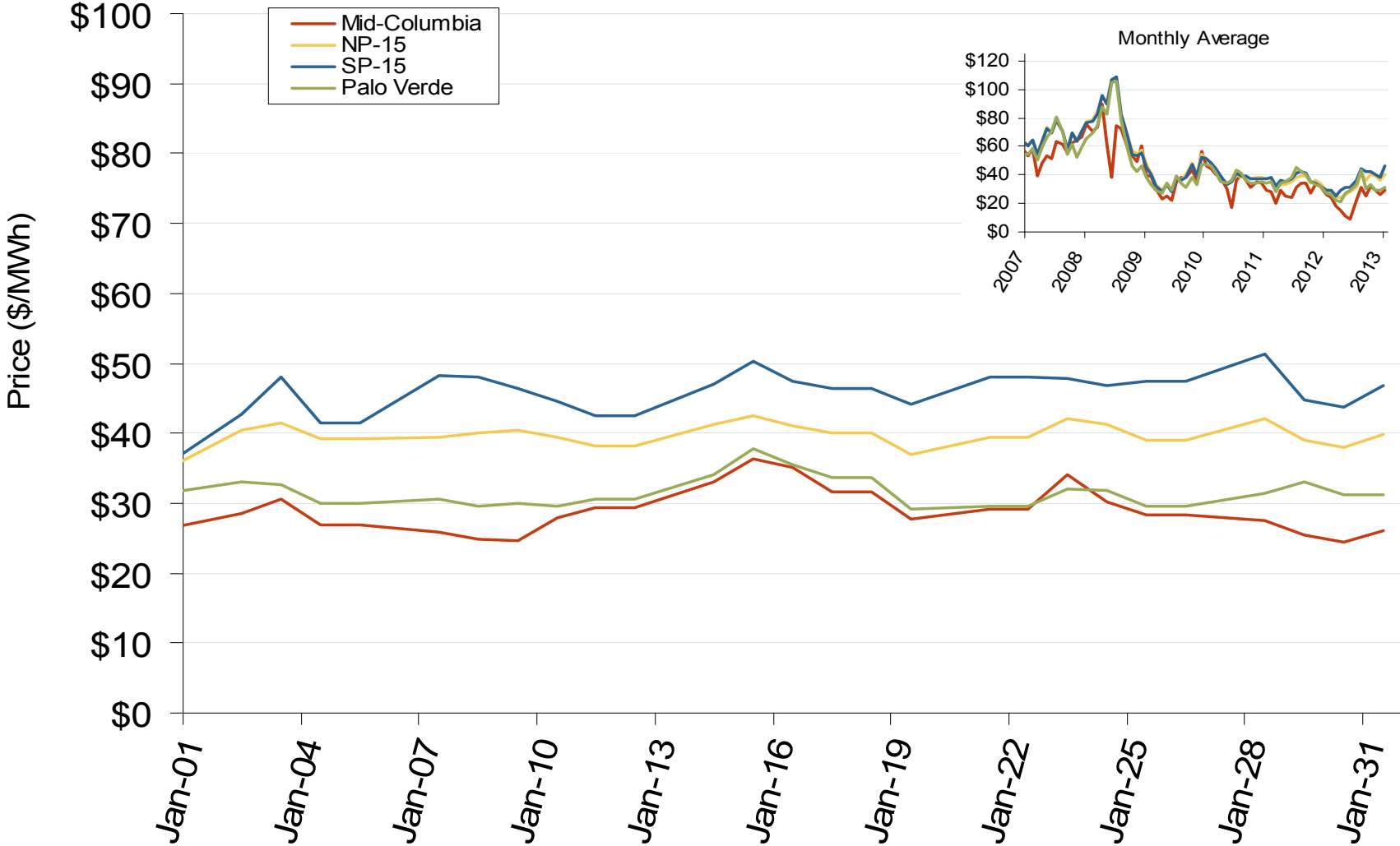
Northwest Electric Market: Last Month's Northwestern Index Prices

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

Northwestern Daily Index Day-Ahead On-Peak Prices



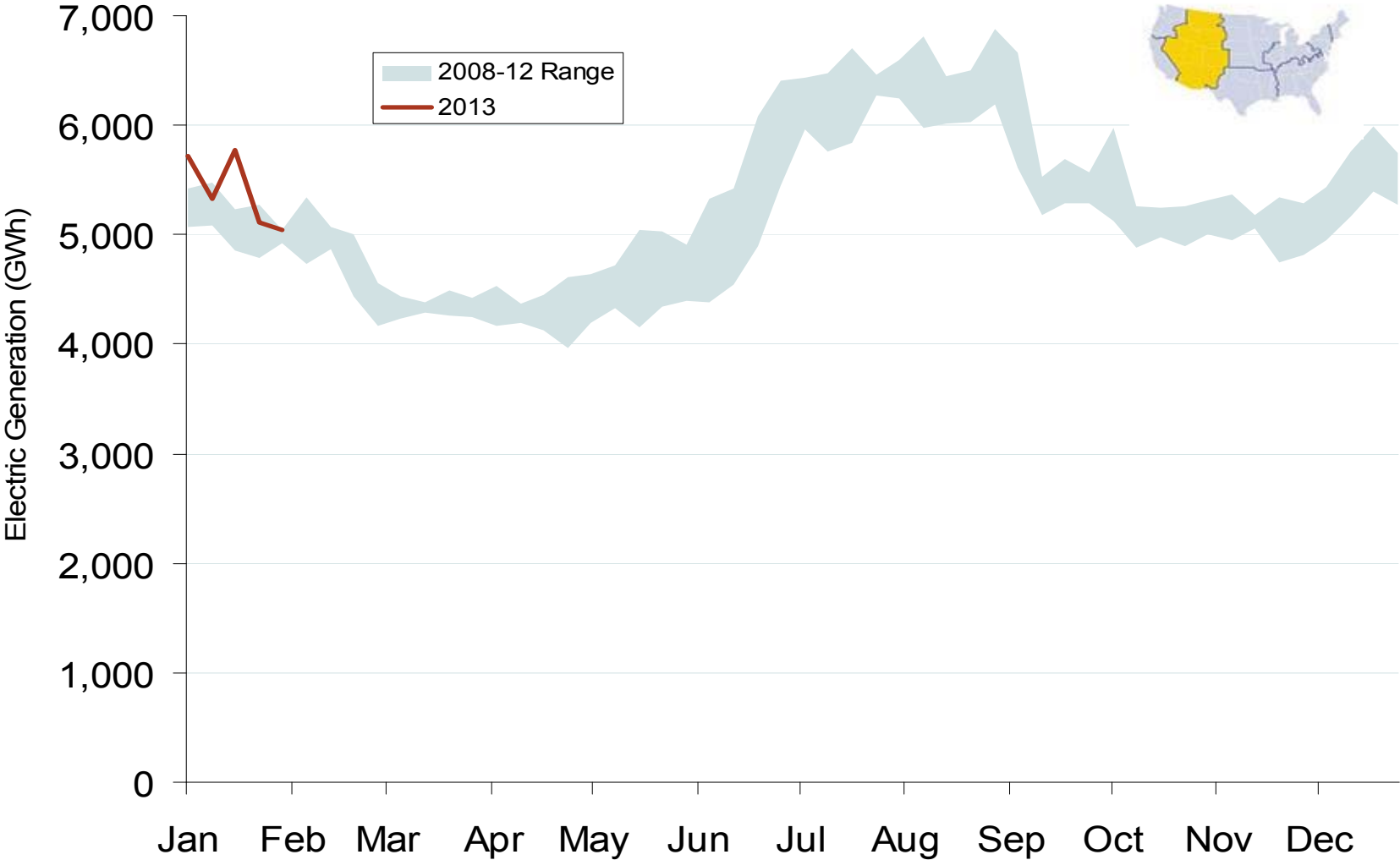
Western Daily Index Day-Ahead On-Peak Prices



Source: Derived from Platts data
February 2013

Updated: February 06, 2013

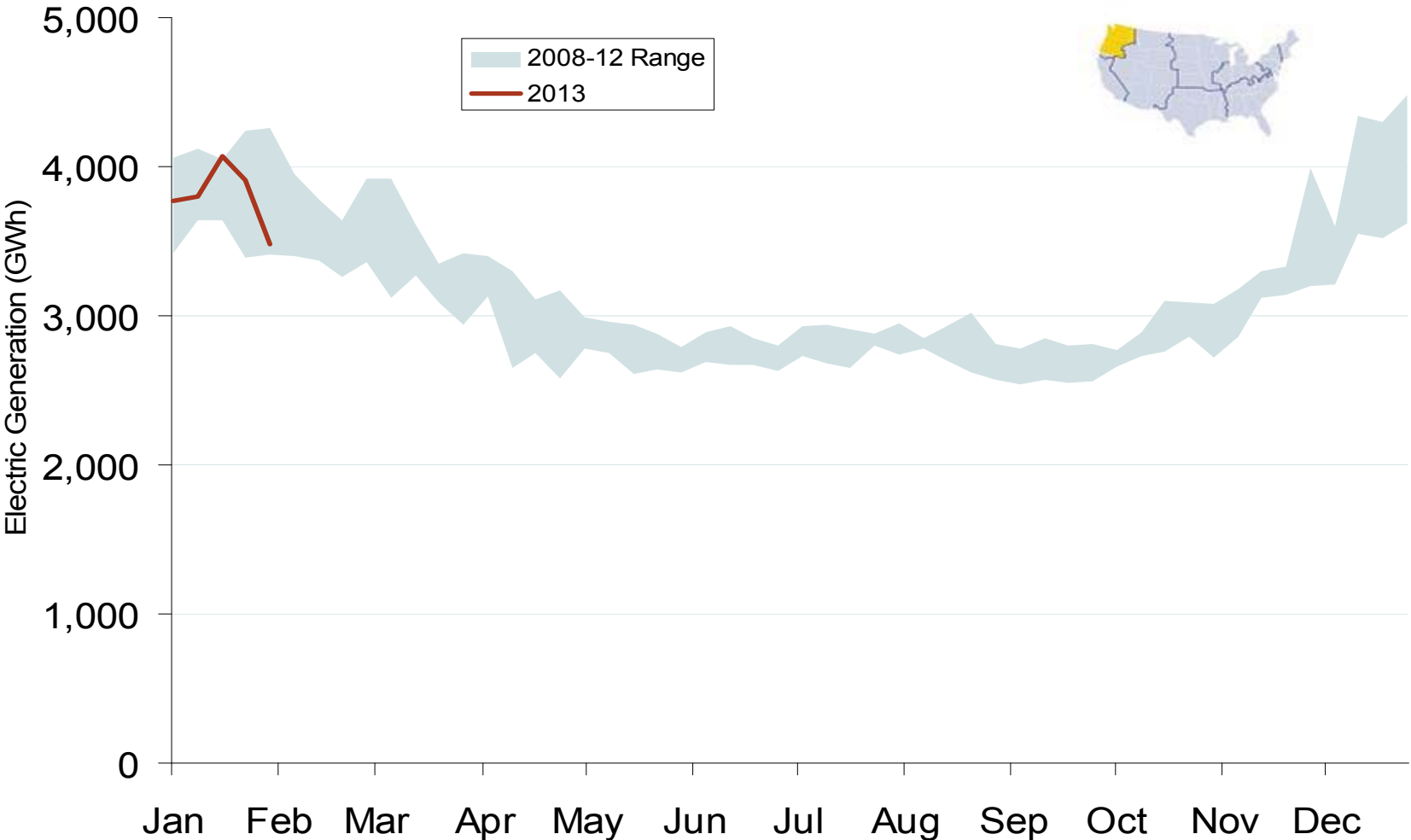
Weekly Generation Output - Rocky Mountains



Source: Derived from *EEI* data
February 2013

Updated: February 12, 2013

Weekly Generation Output - Pacific Northwest



Source: Derived from *EEI* data
February 2013

Updated: February 12, 2013

Pacific/Northwest Hydro and Snowpack Levels

	Hydro Generation		Snow Water Equivalent ³		
	In-State Capacity (MW ¹)	Additional Capacity Created Downstream (MW ²)	One Month Ago (12/1/2012) (% of historical median)	Current (1/1/2013) (% of historical median)	Change from One Year Ago
Washington	21,500	0	95%	148%	51%
Oregon	9,100	0	45%	111%	63%
California	10,400	0	192%	181%	164%
Idaho	2,700	19,700	91%	103%	22%
Montana	2,700	16,200	86%	103%	20%

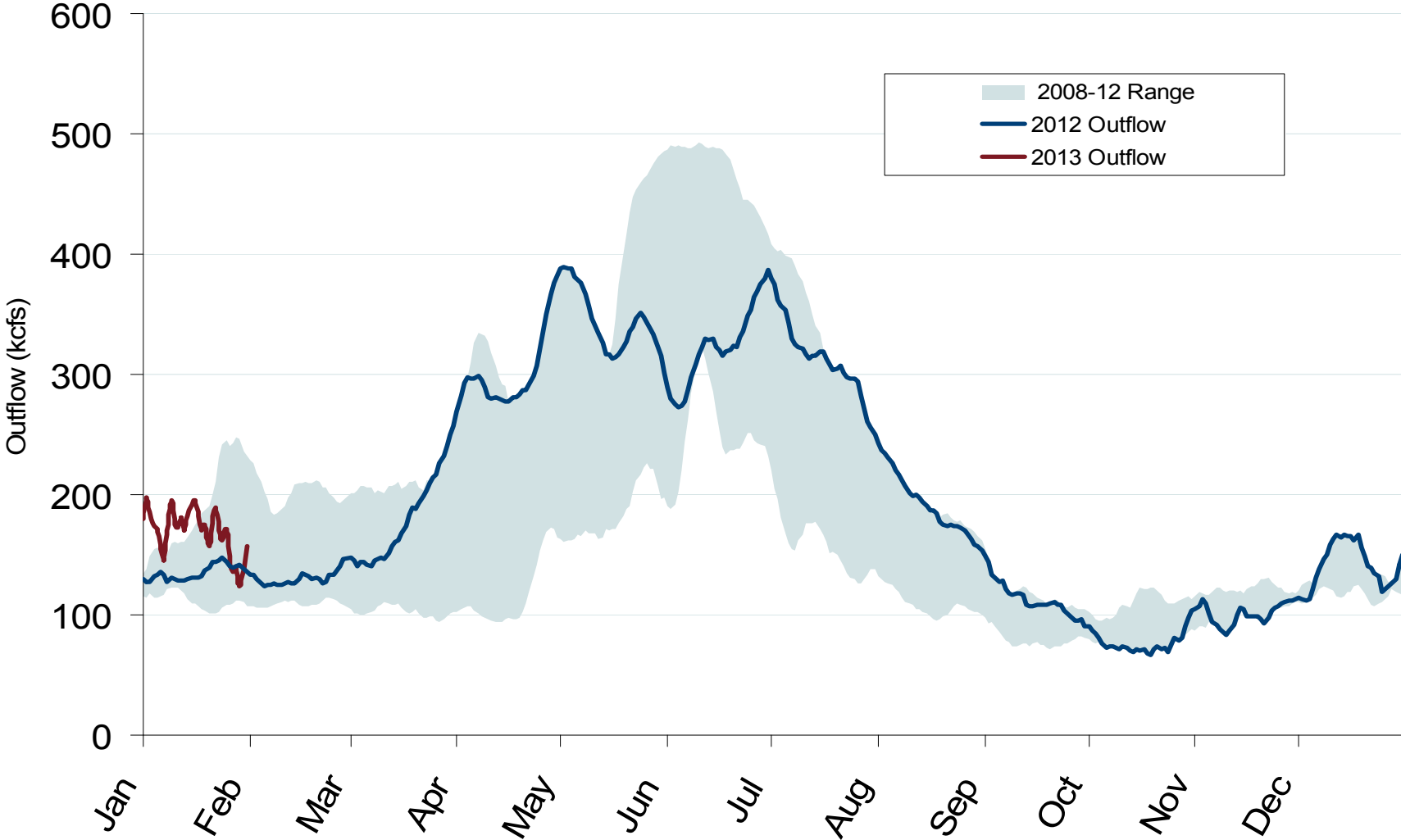
Notes:

1 Net summer capacity in megawatts by state (EIA)

2 Approximate electric capacity created by water flow through downstream states (EIA and BPA). The capacity estimates reflect water flow patterns of the series of hydro facilities on the Snake and Columbia rivers.

3 Snow Water Equivalent represents the depth of water in the snowpack, if the snowpack were melted, expressed in inches. The percentage of median is the ratio of current snow water equivalents compared to the median for the same day f 1981-2010. Source: U.S. Department of Agriculture Natural Resources Conservation Service.

Stream Flows at the Dalles Dam



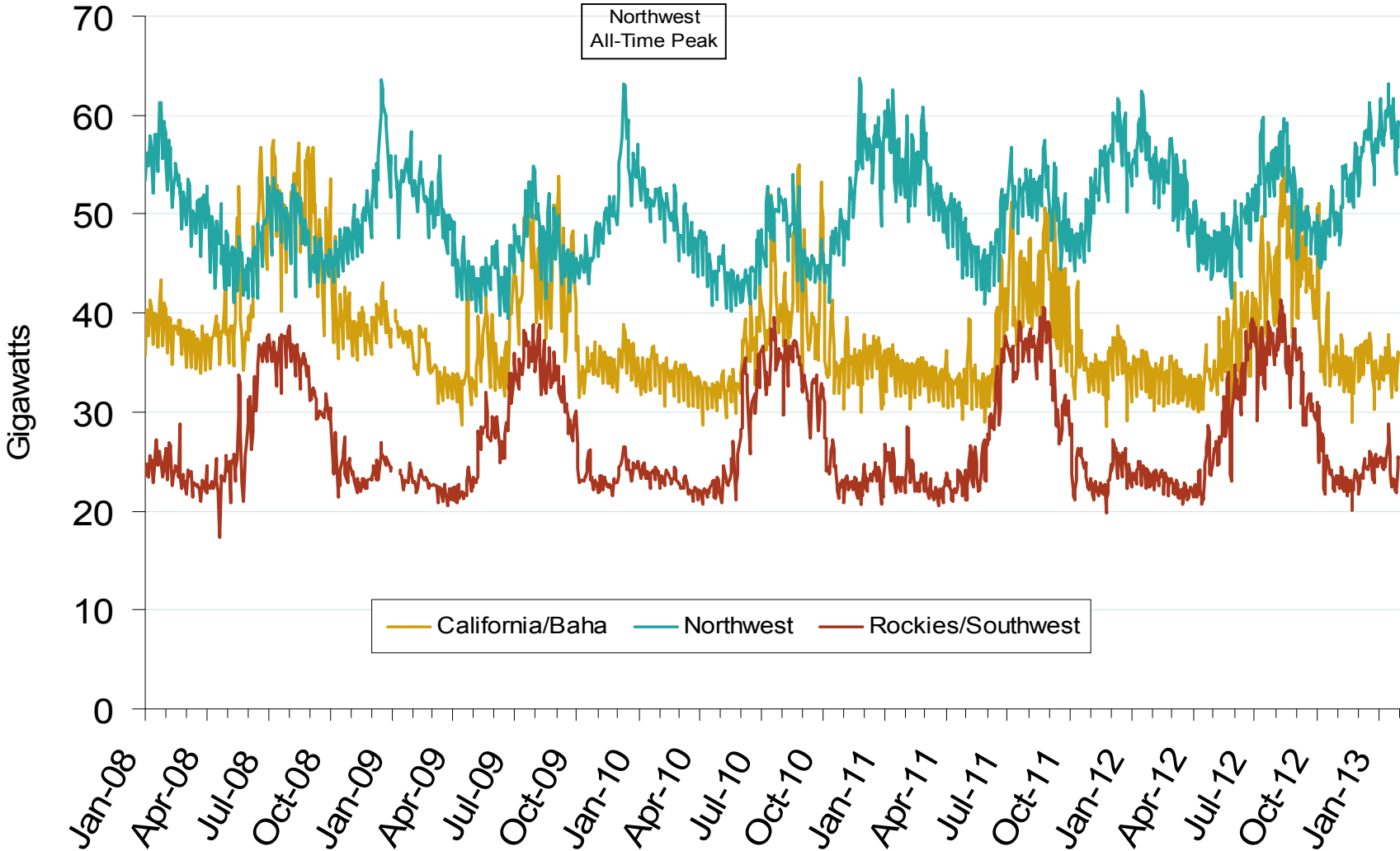
Notes: Trend lines are 7-day moving averages

Source: Derived from USACE data

February 2013

Updated: February 08, 2013

Western Daily Actual Peak Demand



Notes: Data does not include weekends and holidays. Some data for 12/31/2008 – 1/9/2009 are not available from WECC

Source: Derived from WECC Daily Report data available at <http://wecc.biz>