

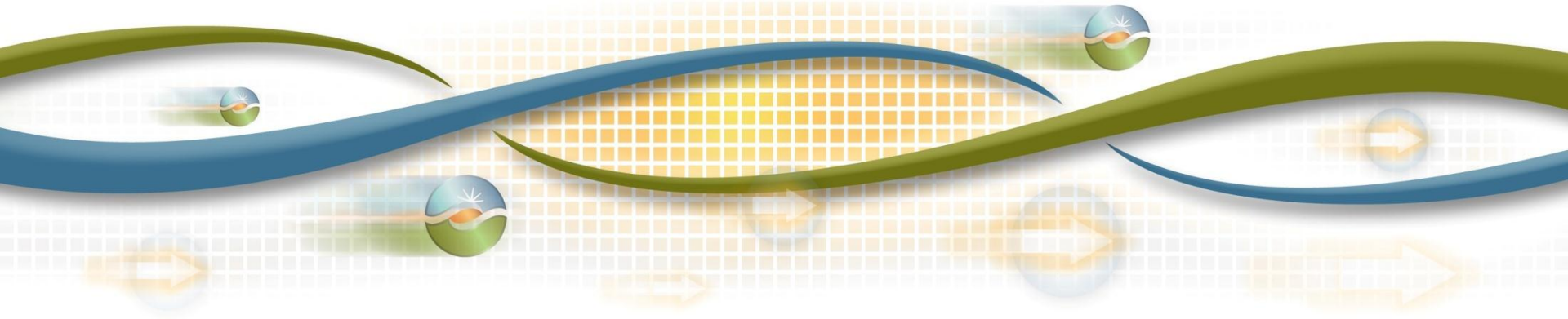
# Energy imbalance market performance

Eric Hildebrandt, Director, Market Monitoring

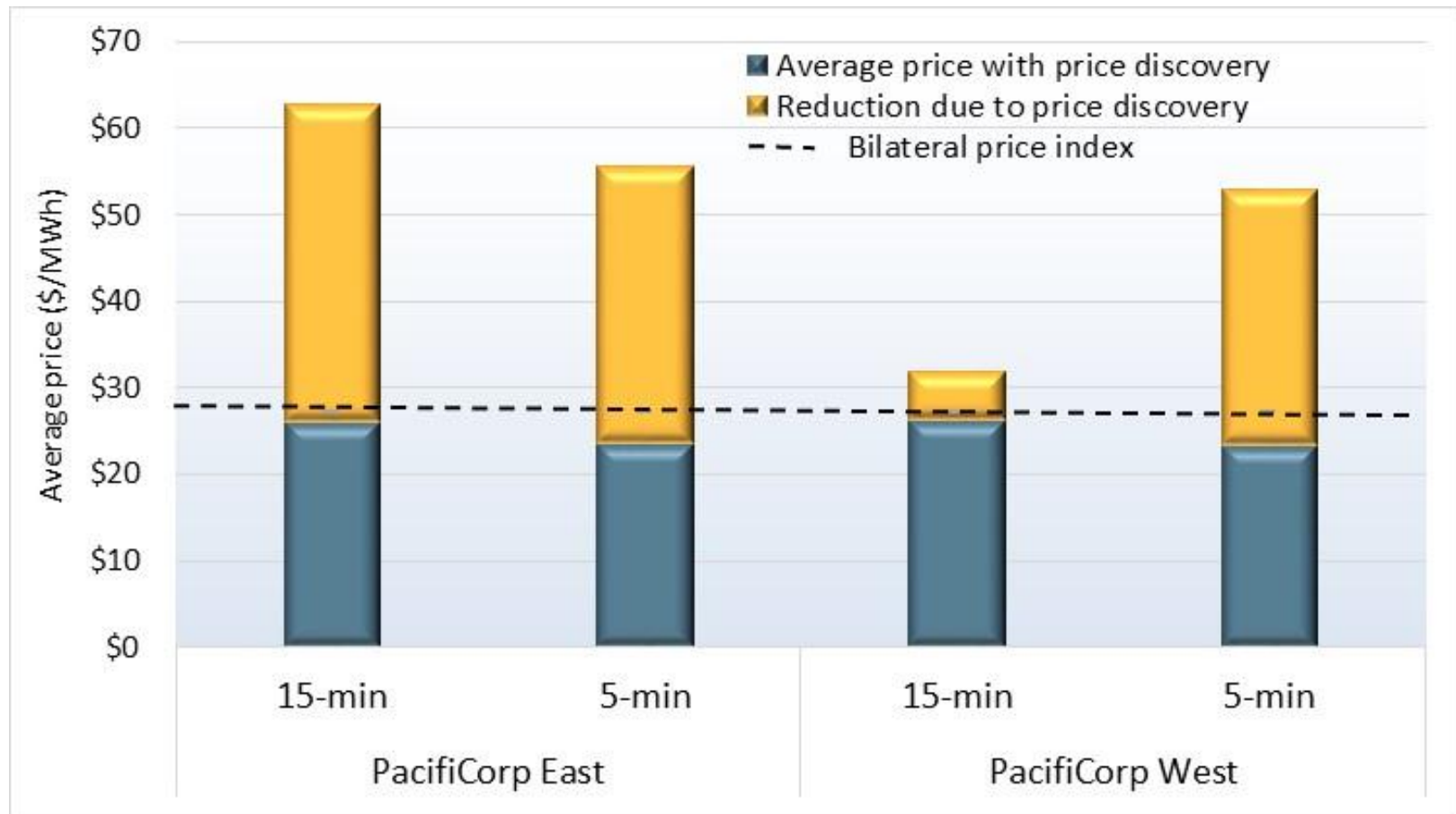
EIM Transitional Committee meeting

General Session

March 5, 2015

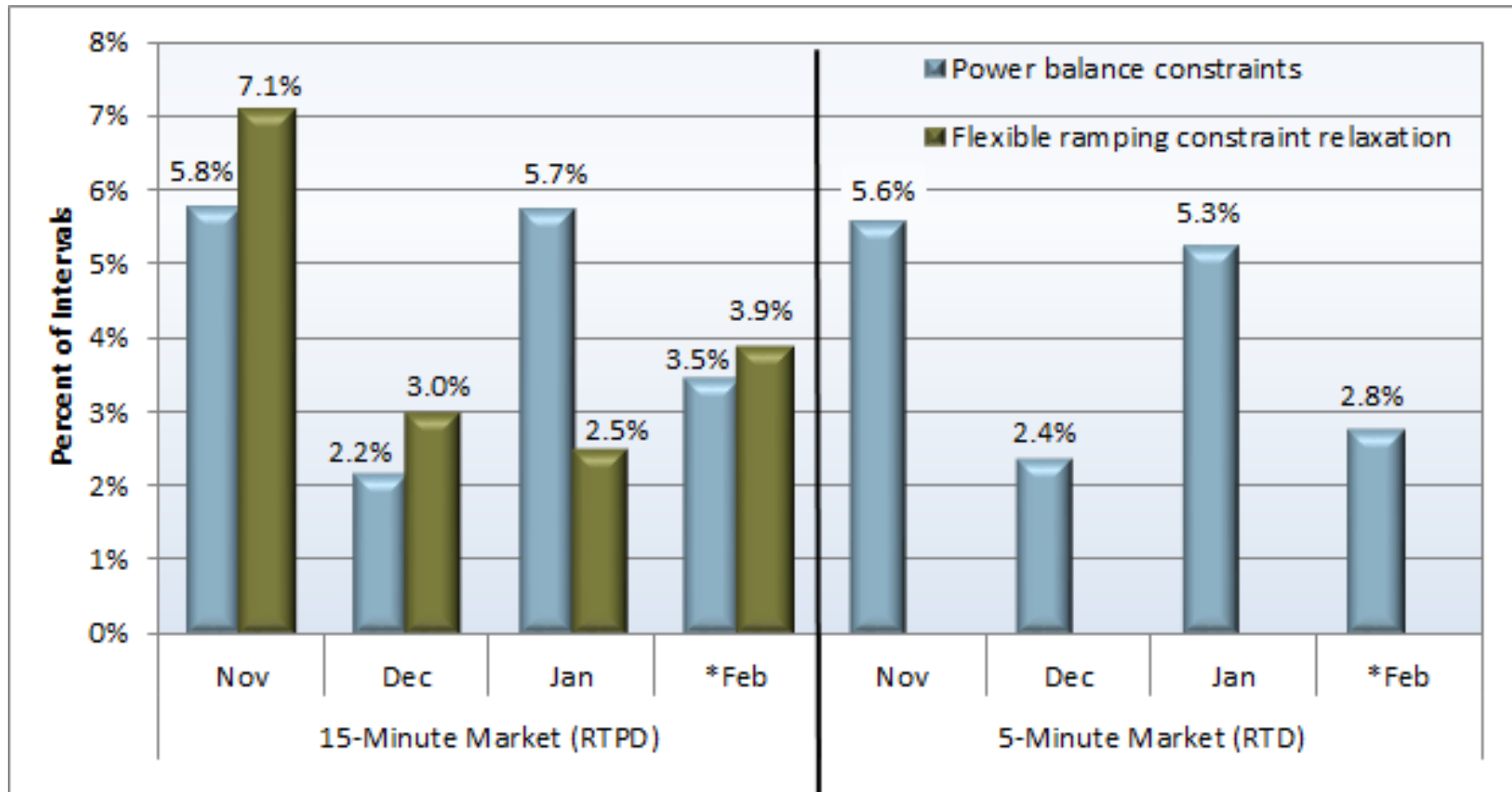


# Price discovery waiver has kept prices closely in line with bilateral market prices.



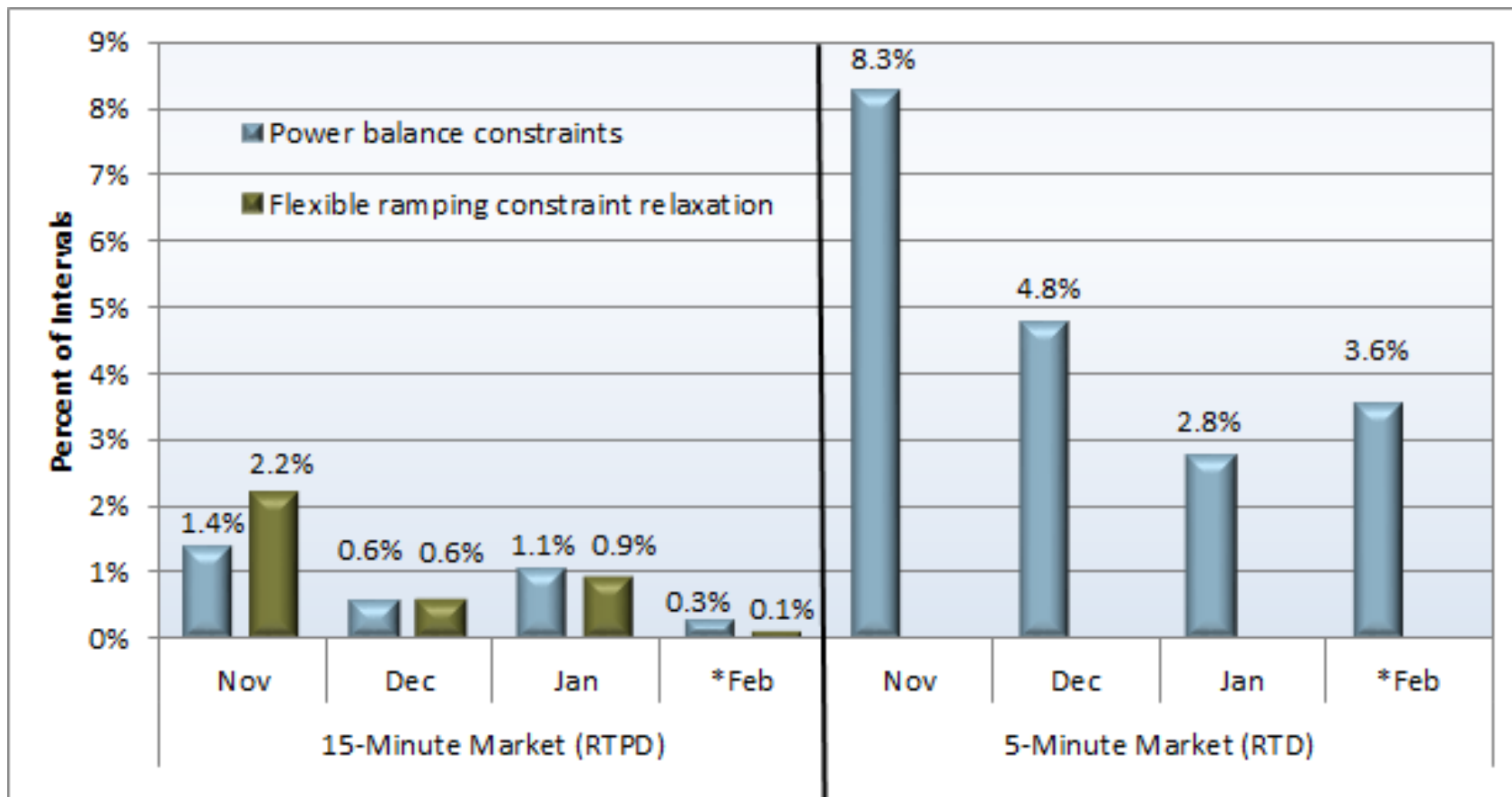
November 14, 2014 to February 21, 2015

# Constraint relaxation has decreased, but continues in PacifiCorp East.



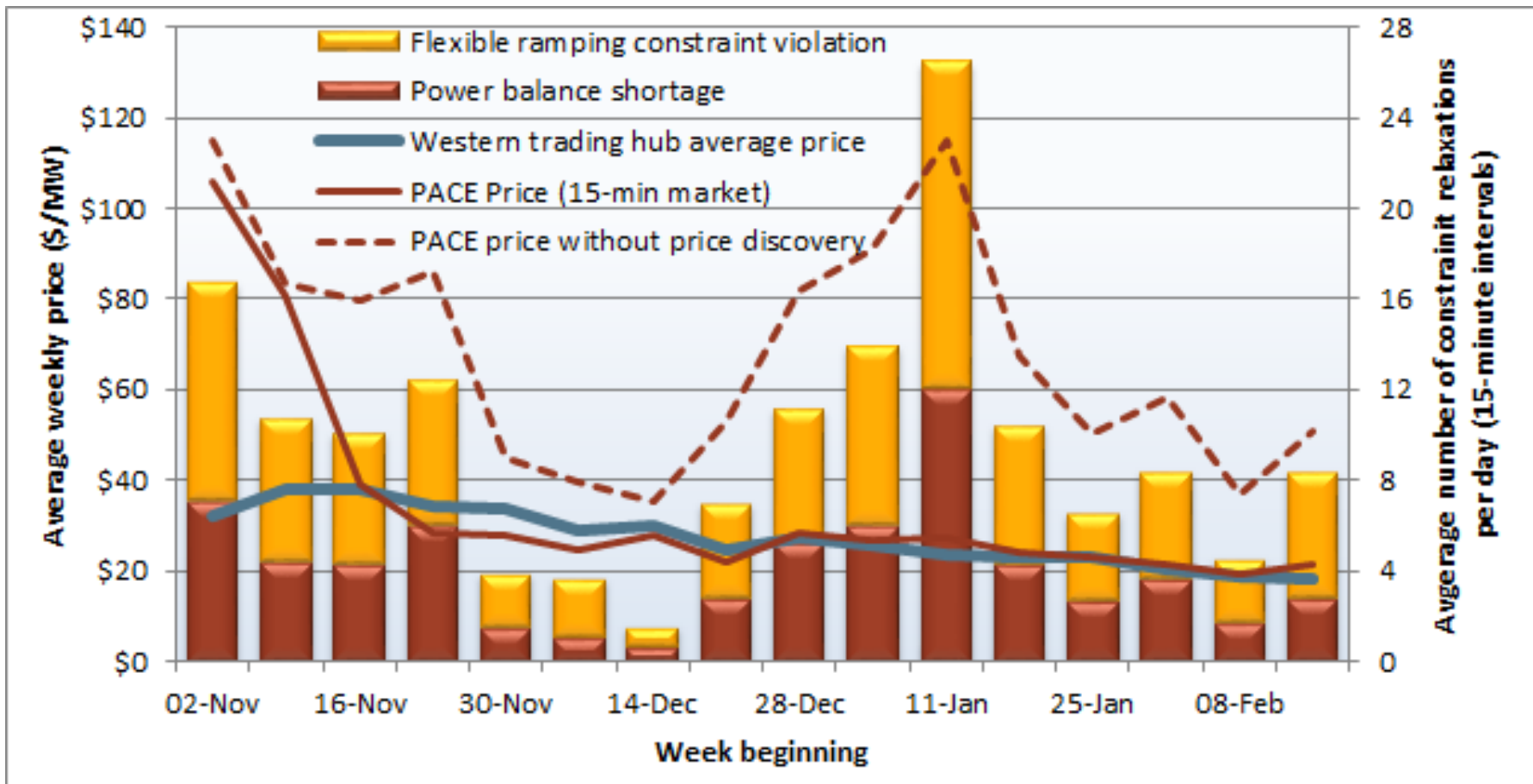
\* Includes results through February 21.

# Constraint relaxation has been much lower and trended down in PacifiCorp West.

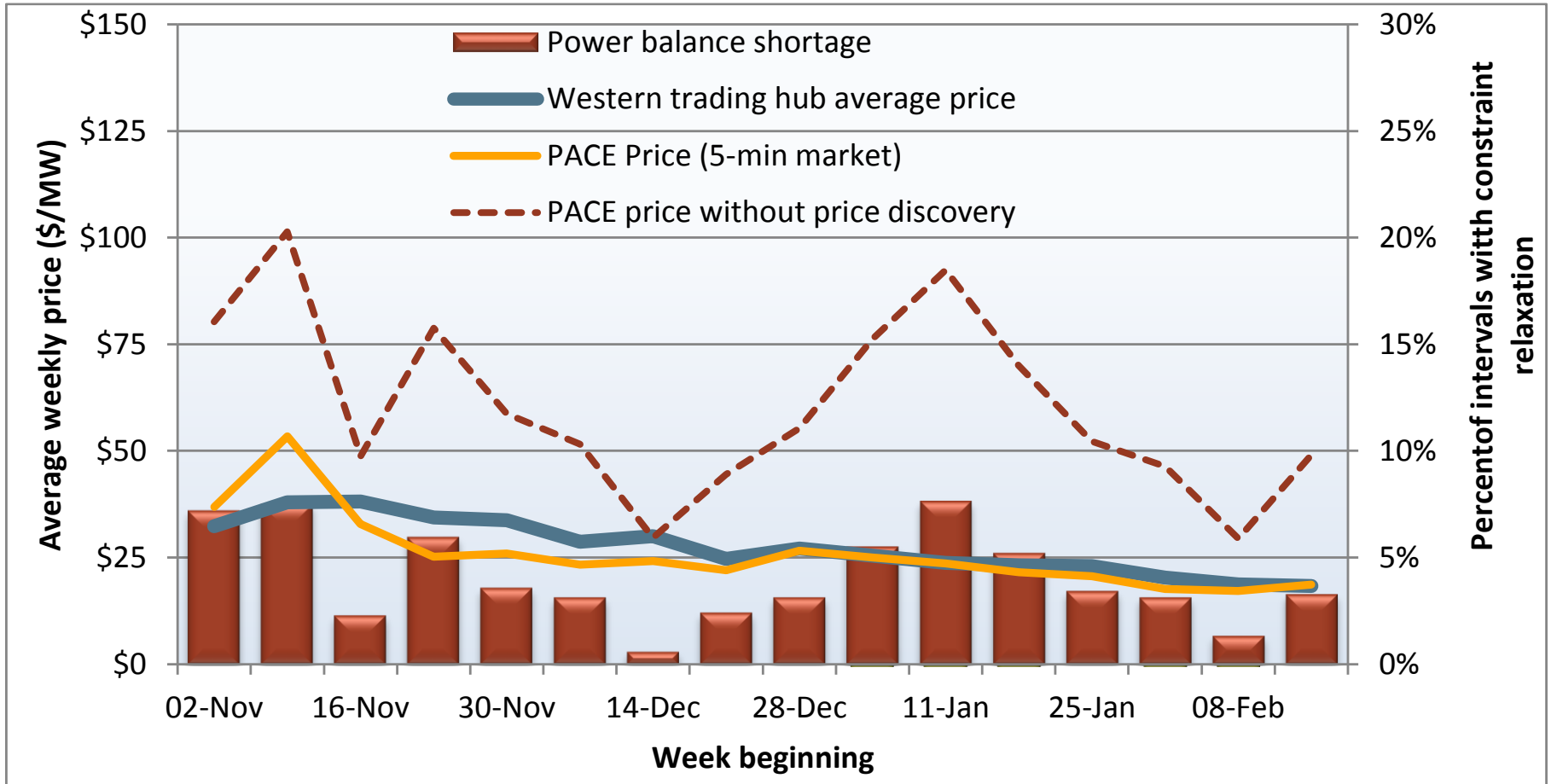


\* Includes results through February 21.

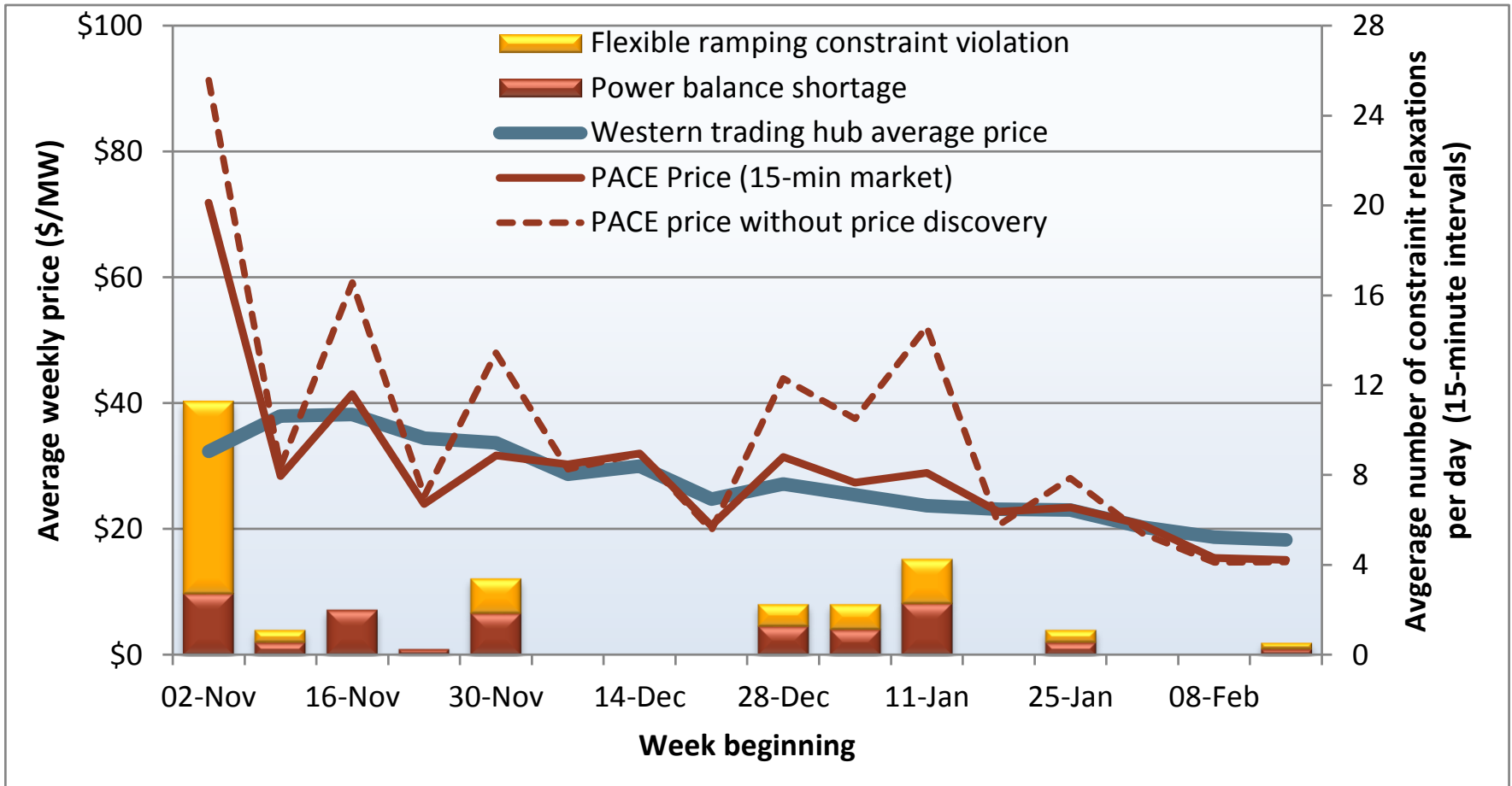
# Average prices and constraint relaxation PacifiCorp East – 15 minute market



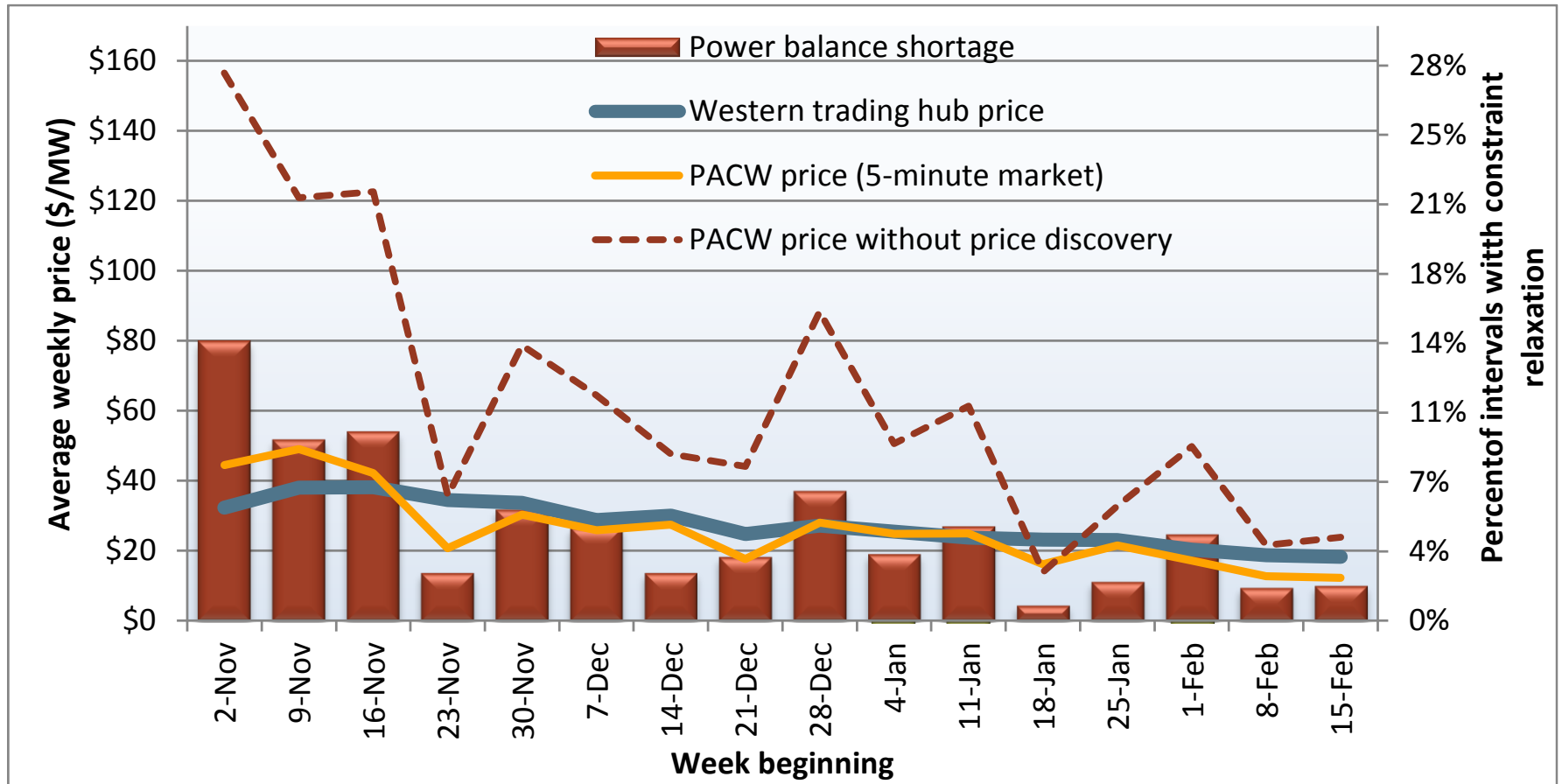
# Average prices and constraint relaxation PacifiCorp East – 5 minute market



# Average prices and constraint relaxation PacifiCorp West – 15 minute market



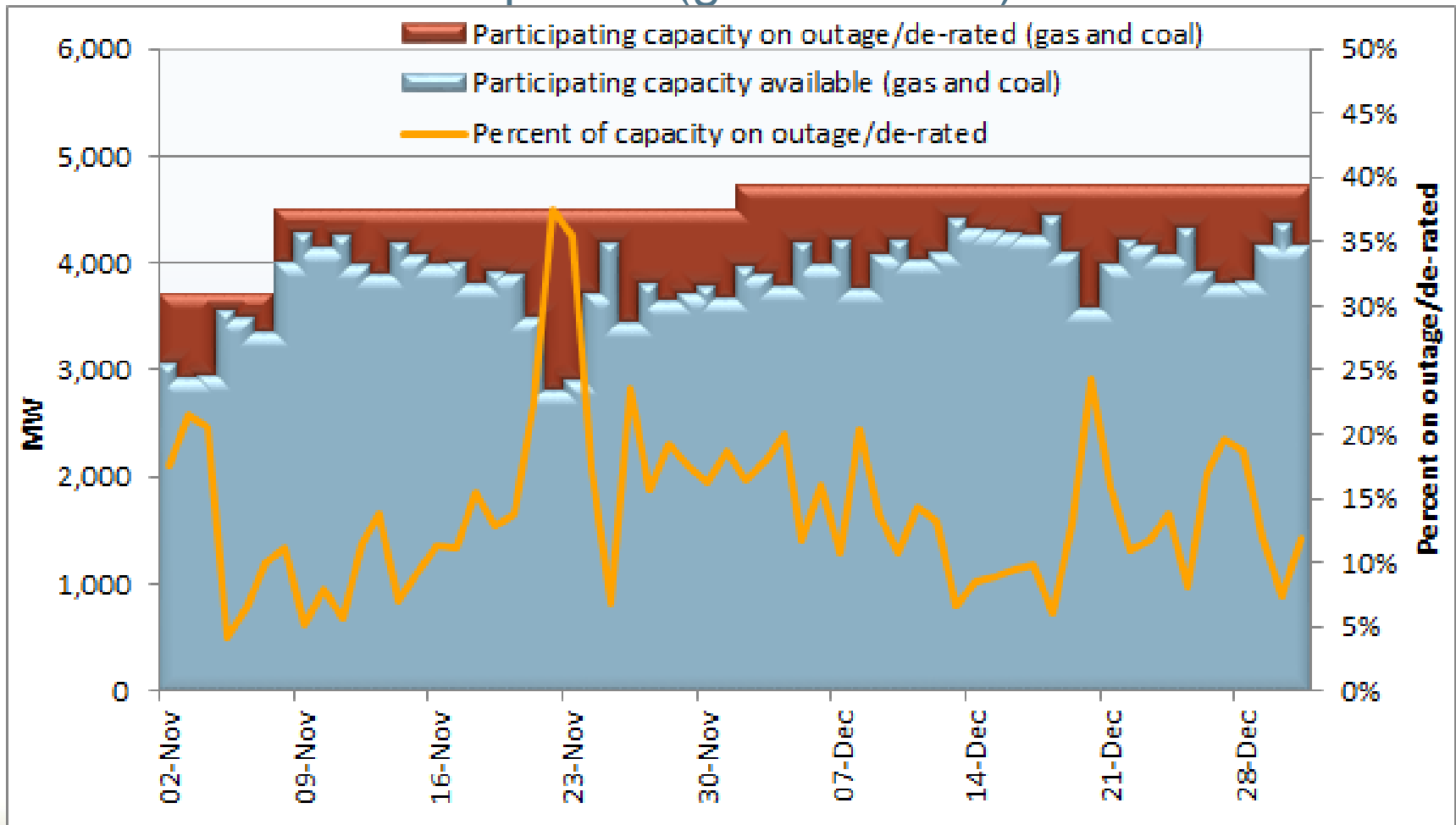
# Average prices and constraint relaxation PacifiCorp West – 5 minute market





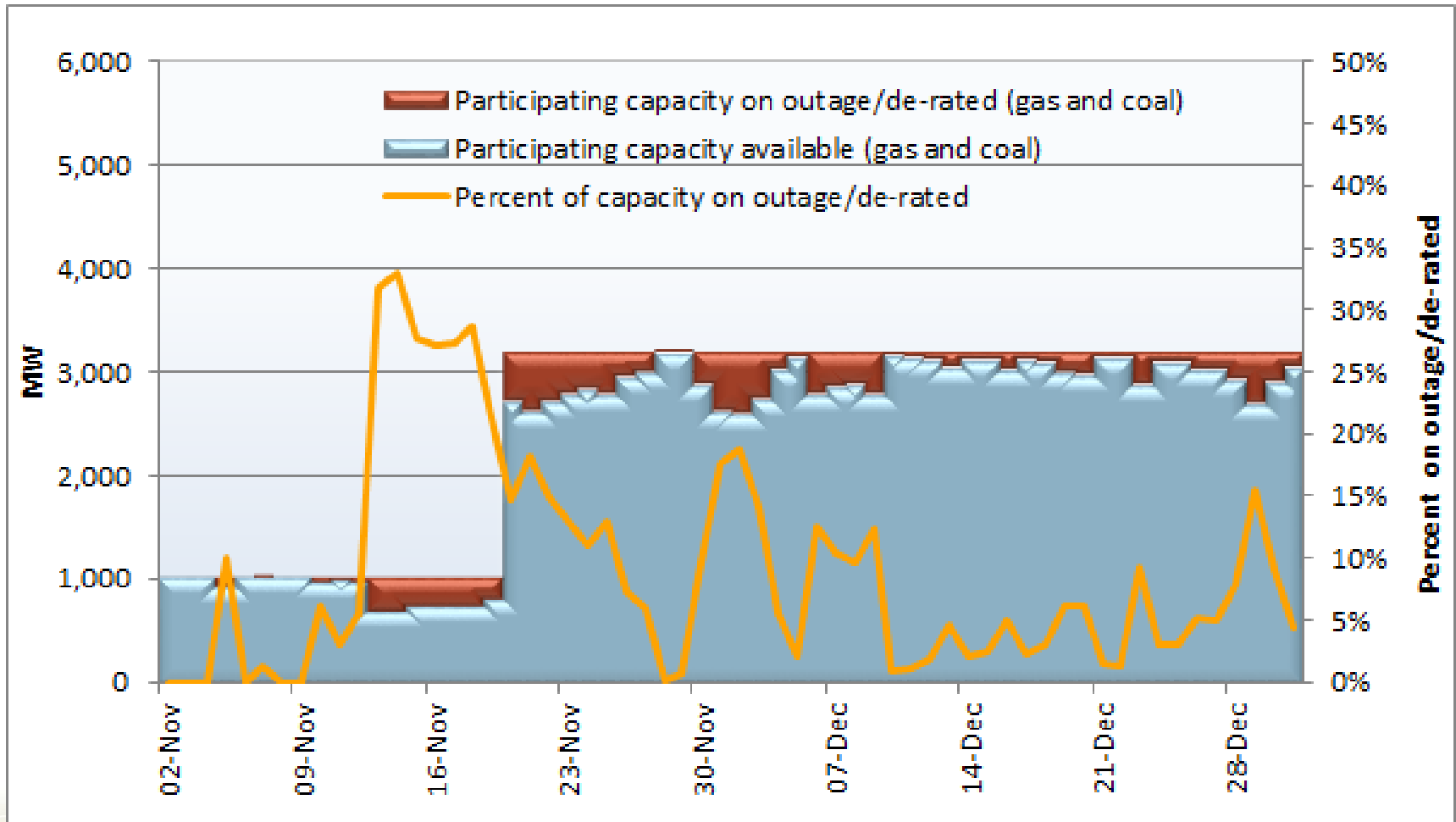
Outages rates in PacifiCorp East averaging about 15 percent – but can be much higher some hours.

### PacifiCorp East (gas and coal)



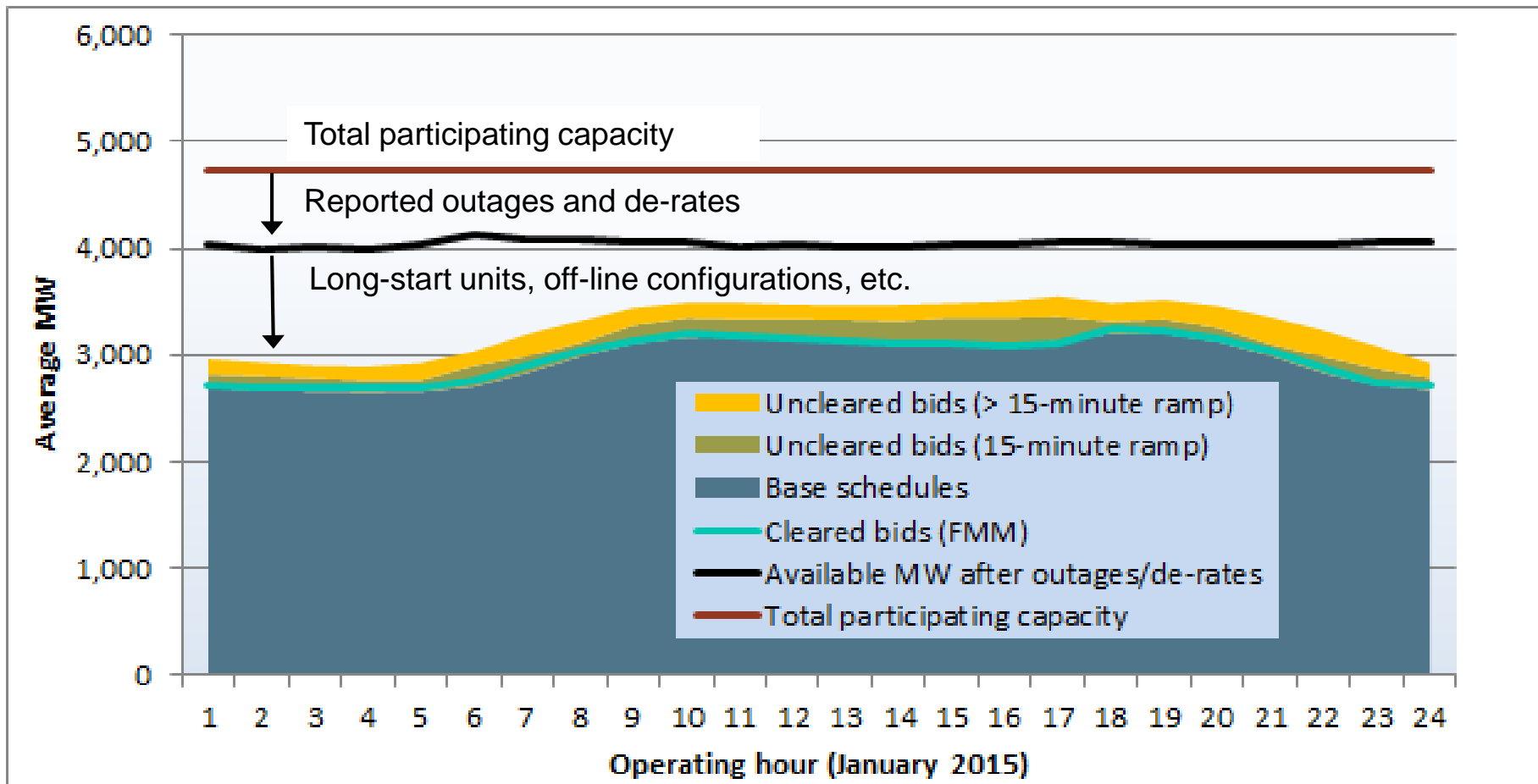
# Outages rates for participating capacity in PacifiCorp West are averaging about 10 percent.

## PacifiCorp West (gas and coal)



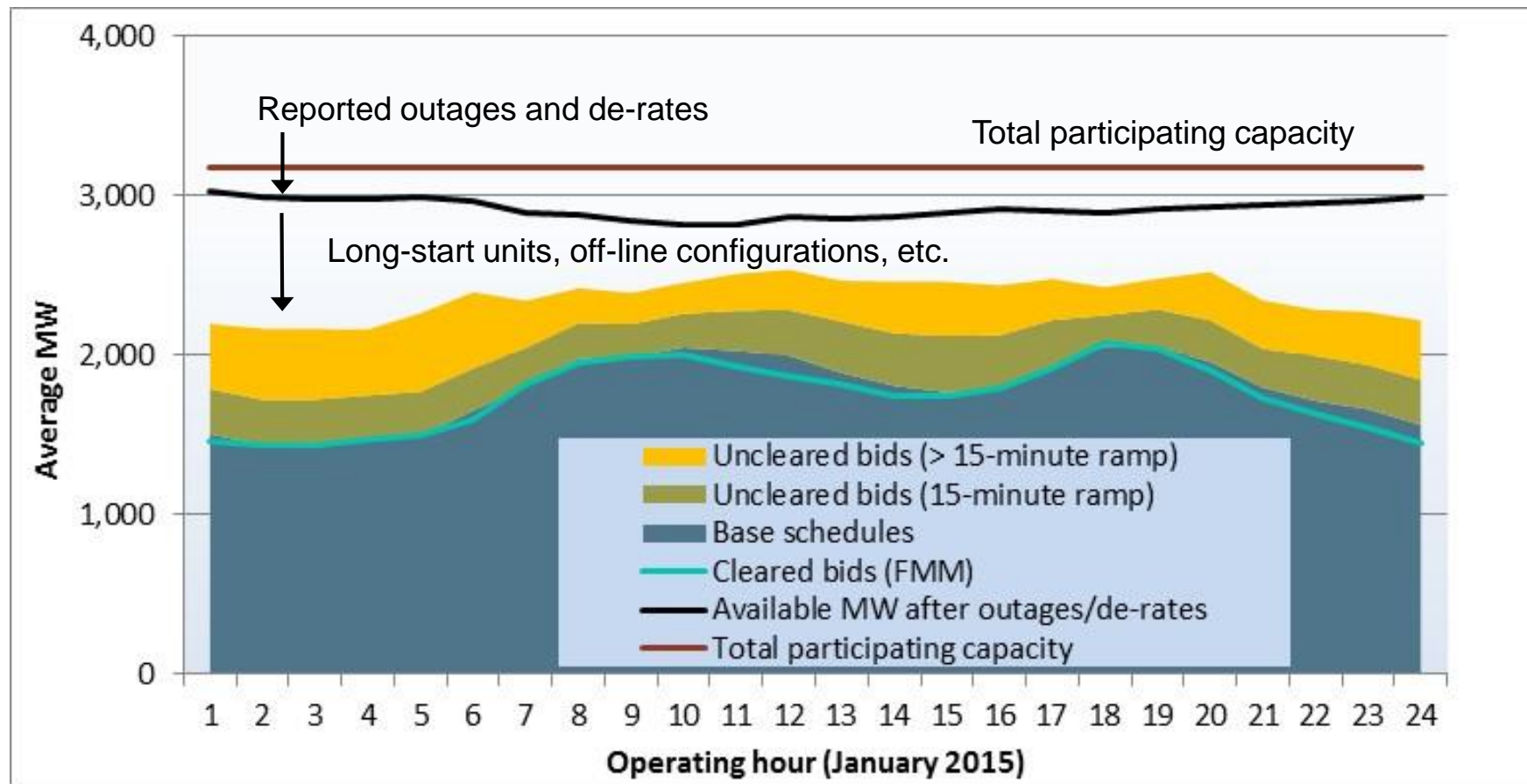
# Undispatched bids average about 5.6 percent of total load on PacifiCorp East.

PacifiCorp East – January 2015 (gas and coal only)

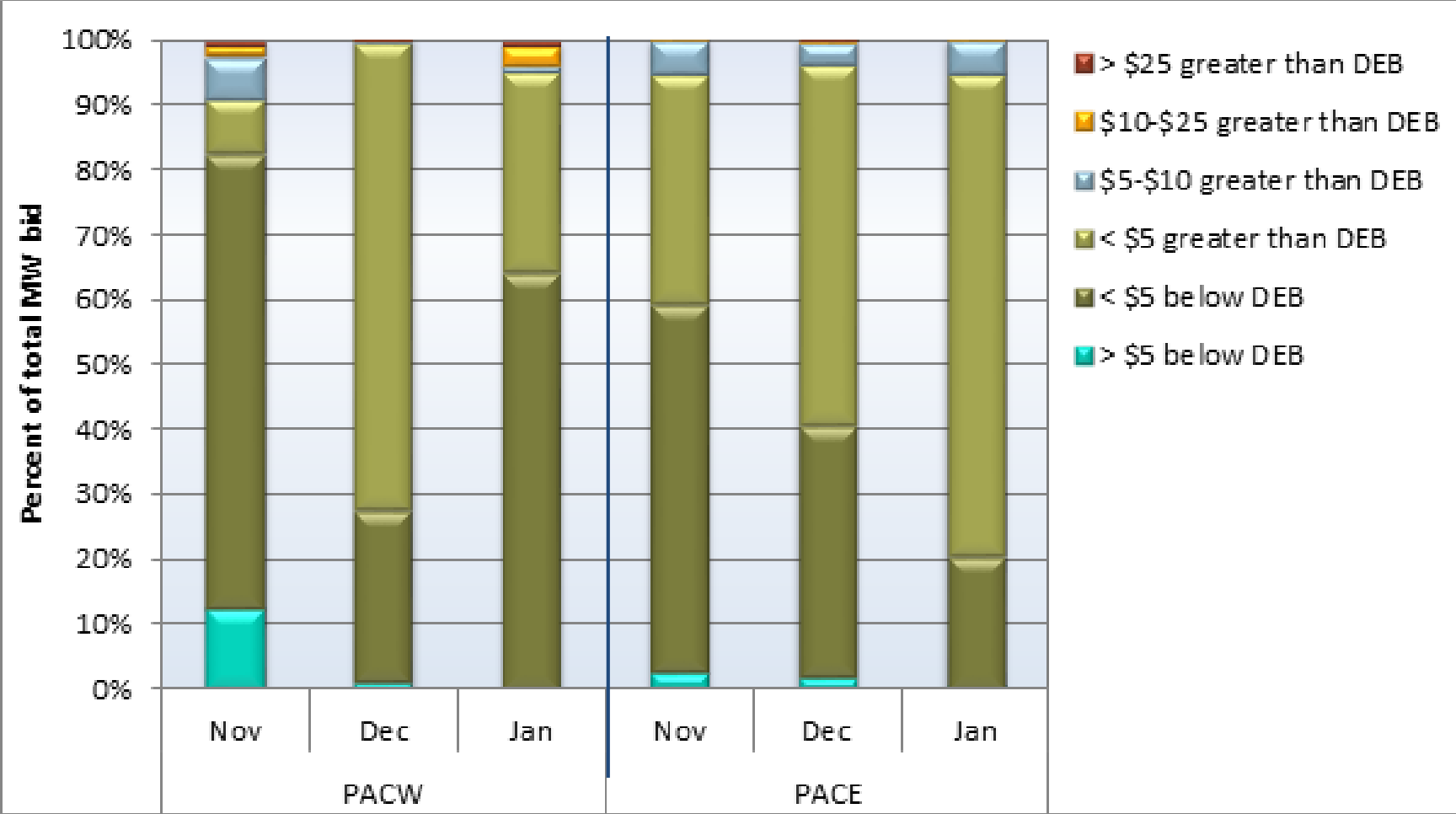


# Undispatched bids average about 23 percent of total load in PacifiCorp West.

PacifiCorp West – January 2015 (gas and coal only)



# Bidding has been very competitive.



Flexible ramping constraint issues associated with EIM led to lower procurement and constraint prices in ISO, but have been addressed.

Average hourly flexible ramping capacity in ISO (Nov-Dec 2014)

