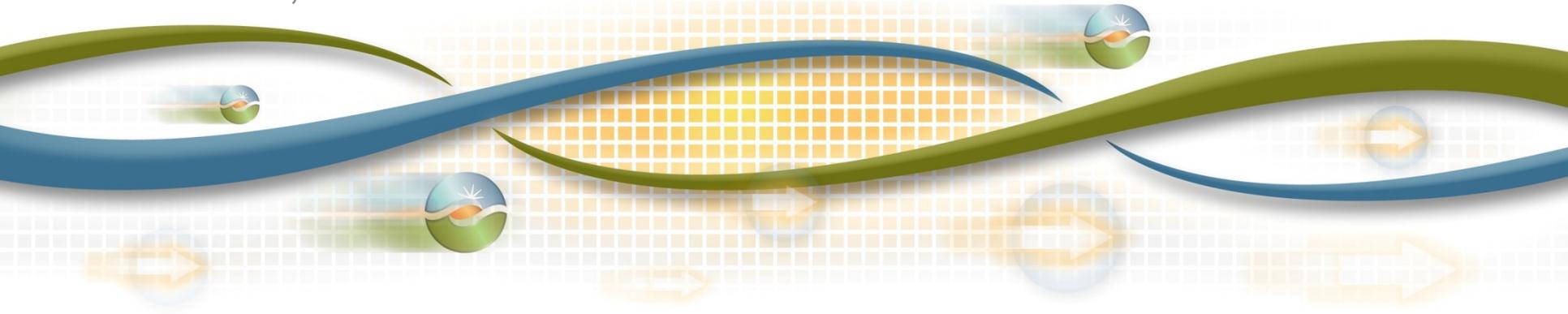




Annual report on market issues and performance

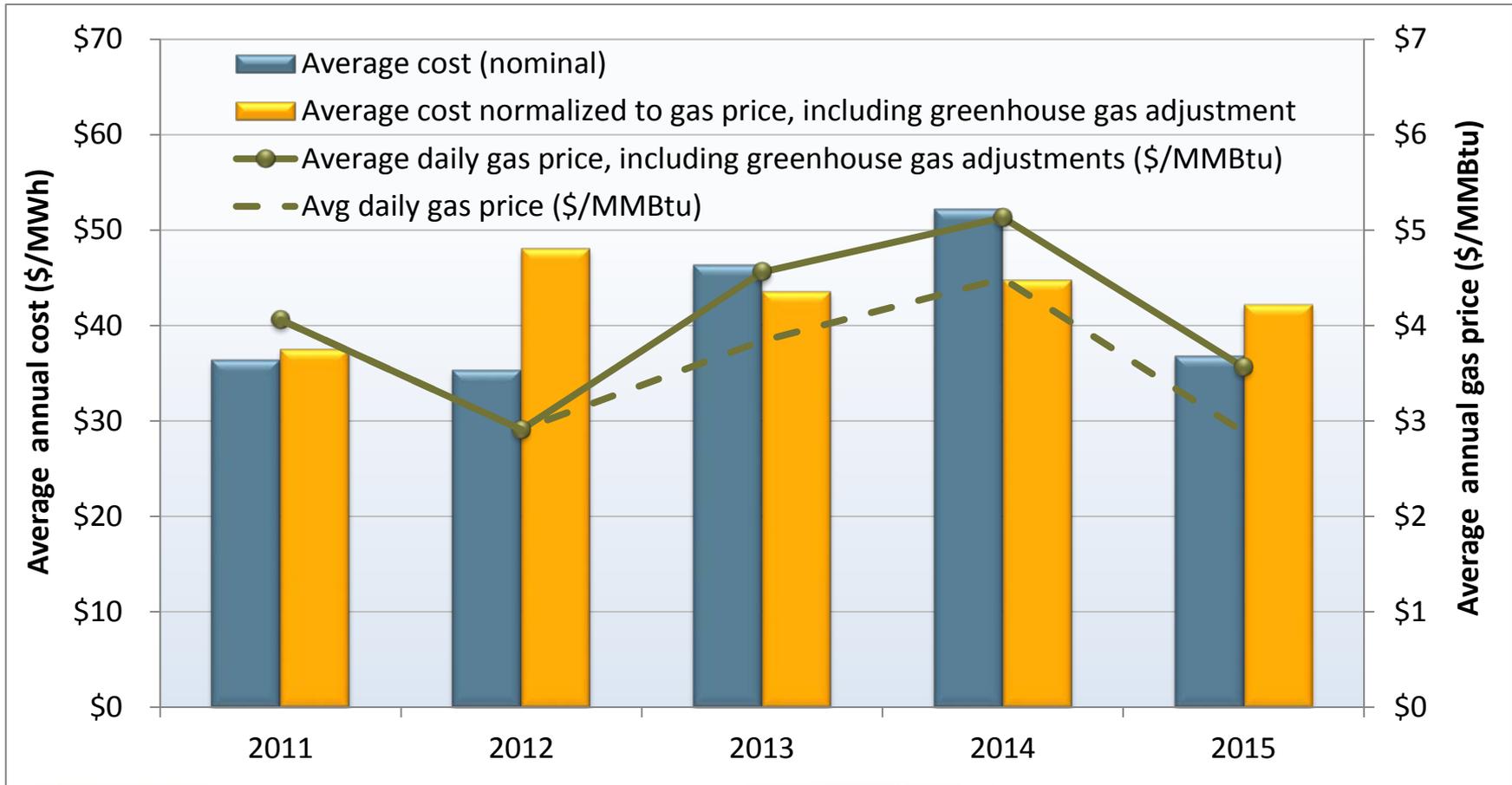
Eric Hildebrandt, Director
Department of Market Monitoring

Board of Governors Meeting
General Session
June 28, 2016



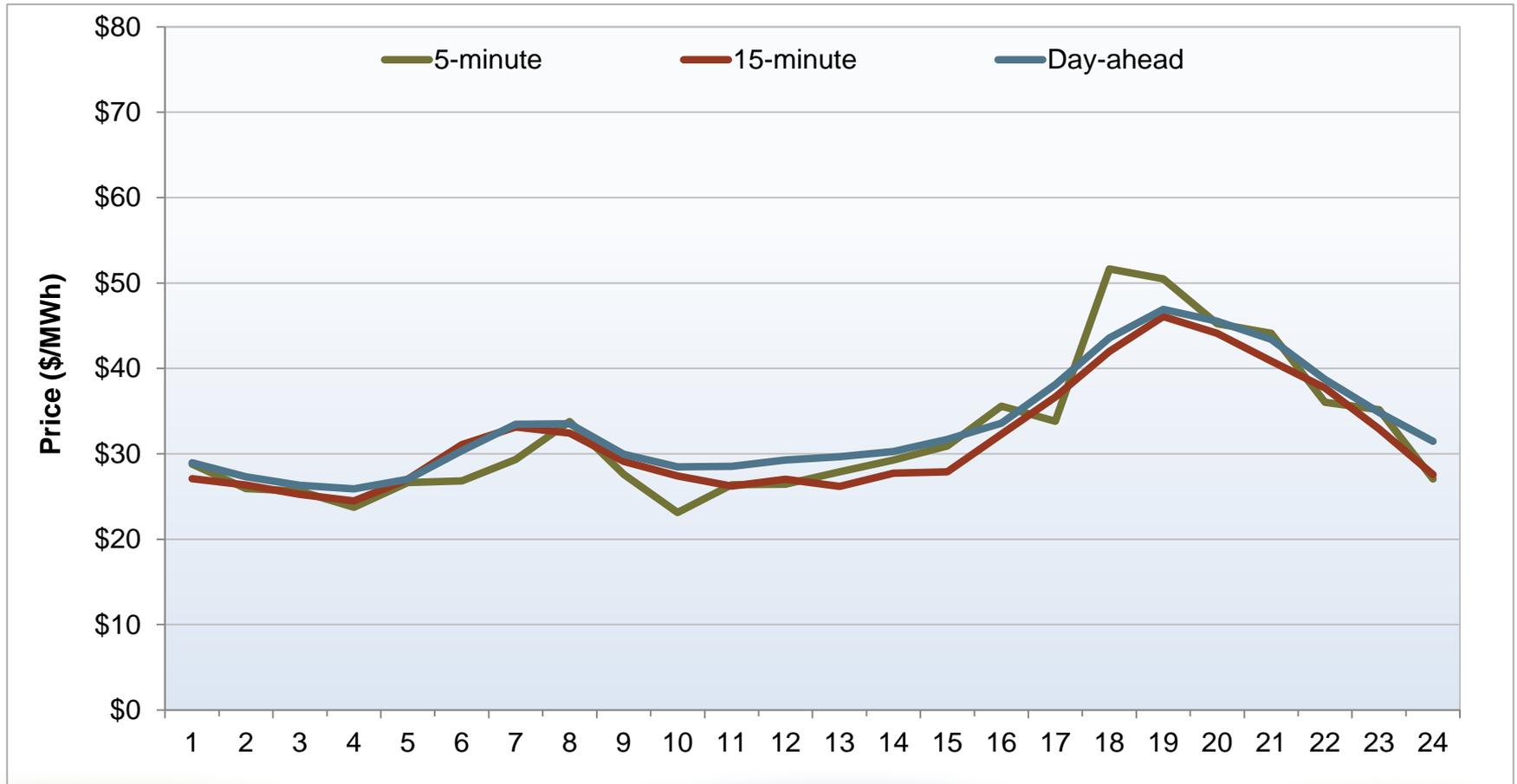
Market performance remains highly competitive.

Total market costs down by about 6 percent after accounting for natural gas and greenhouse gas prices.



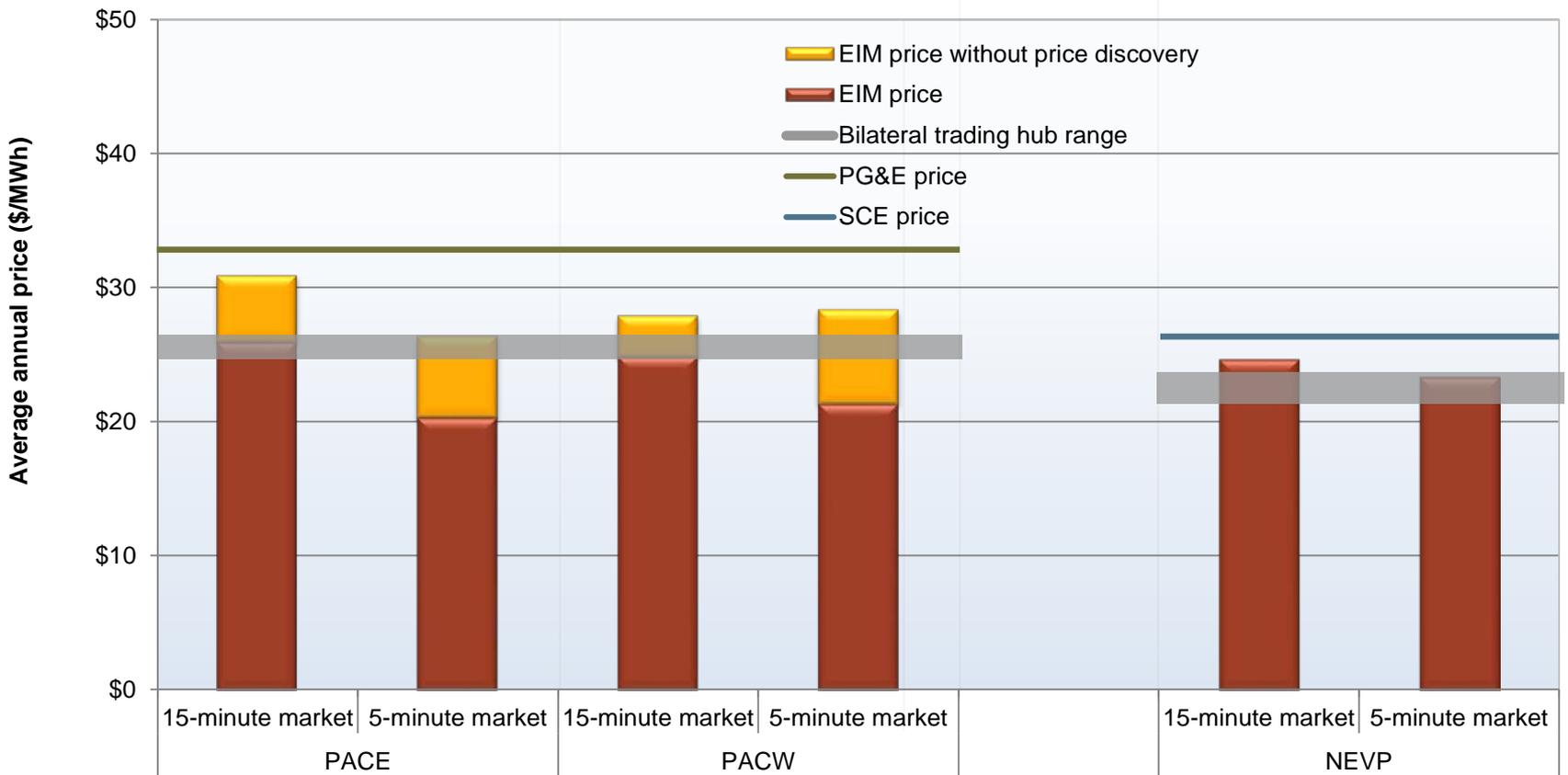
Hourly prices have begun to reflect the impact of renewables on the net load curve.

Average hourly prices (2015)

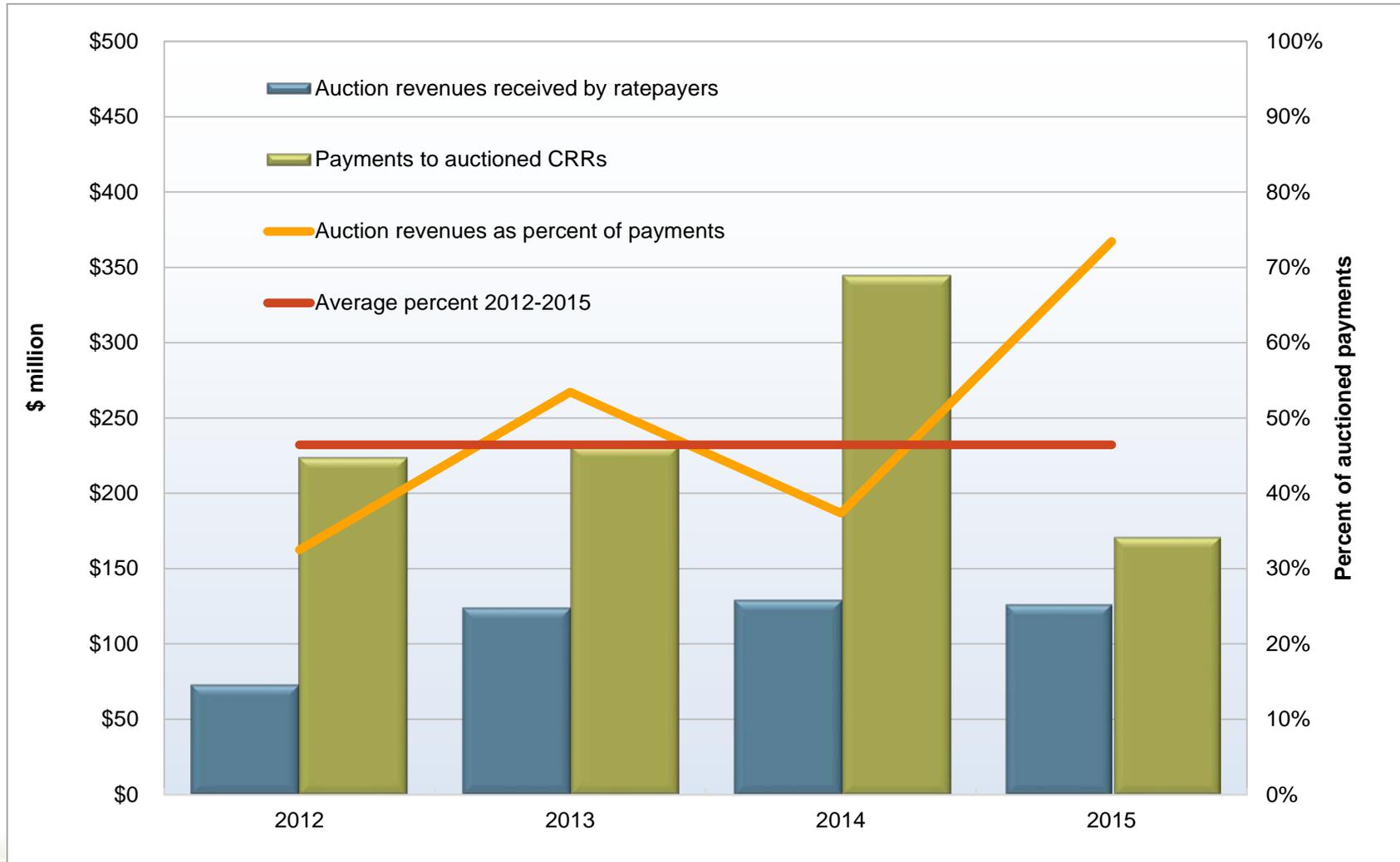


Energy imbalance market prices were highly competitive.

Special price discovery mechanism kept prices competitive while market performance improved over 2015.



Congestion revenue rights auction revenues have averaged less than 50% of congestion payments.



Financial participants receive most profits from congestion revenue rights purchased in the auction.

Congestion revenue rights auction (2015)

Entity type	Auction costs	CRR payments	Net Revenue	Payments as a percent of costs
Financial	\$48	\$94	\$47	196%
Marketer	\$61	\$53	(\$8)	87%
Physical gen	\$17	\$24	\$7	141%
Physical load	(\$16)	(\$2)	\$14	13%
Total	\$110	\$169	\$60	154%
Total w/o load	\$126	\$171	\$46	136%

Key recommendations

- **Congestion revenue rights**
 - Eliminate auction and let transmission ratepayers keep congestion rents.
- **Resource adequacy imports**
 - Clarify/revise rules concerning how “physical” or “firm” imports used to meet resource adequacy requirements must be.
- **Start-up and minimum load costs**
 - Begin developing and testing opportunity cost model.
 - Begin review of contract limits to ISO plans to allow under exemption.