



RAP

Energy solutions
for a changing world

“Energy-only markets” or “a given form of capacity mechanism”?

Asking the wrong question

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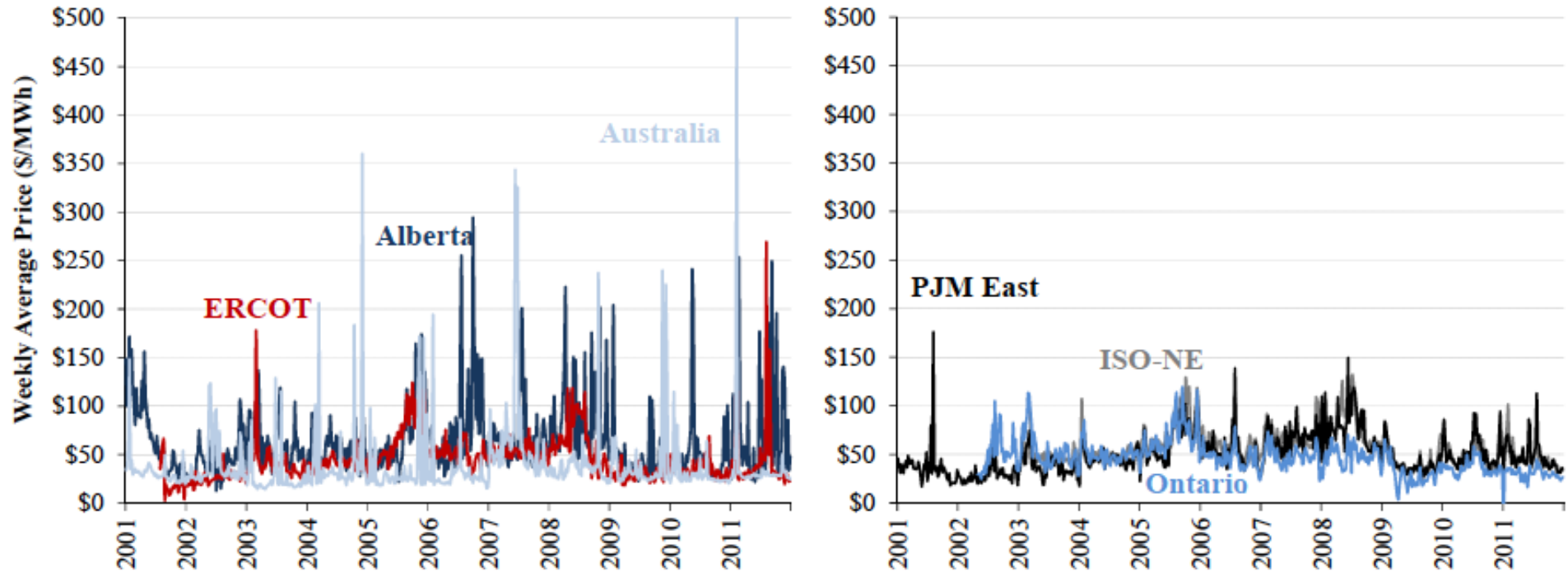
Why are market prices so low?

“The market is swimming in supply...the difficulty regulators and grid operators need to address is not finding flexibility but creating a structure so that flexibility value is revealed.”

Peter Styles, Board Member of European Federation of Energy Traders (24 September 2015)

Price formation in markets

Prices in Energy Only Markets (Left) and Markets with a Reliability Requirement (Right)



Sources and Notes:

Weekly average prices from Ventyx (2012); Weekly average prices for Australia from AEMO (2012).

Historical prices shown for ERCOT are at the North Hub; Australia prices are at New South Wales; PJM prices are at the Eastern Hub; and ISO-NE prices are at the System Hub.

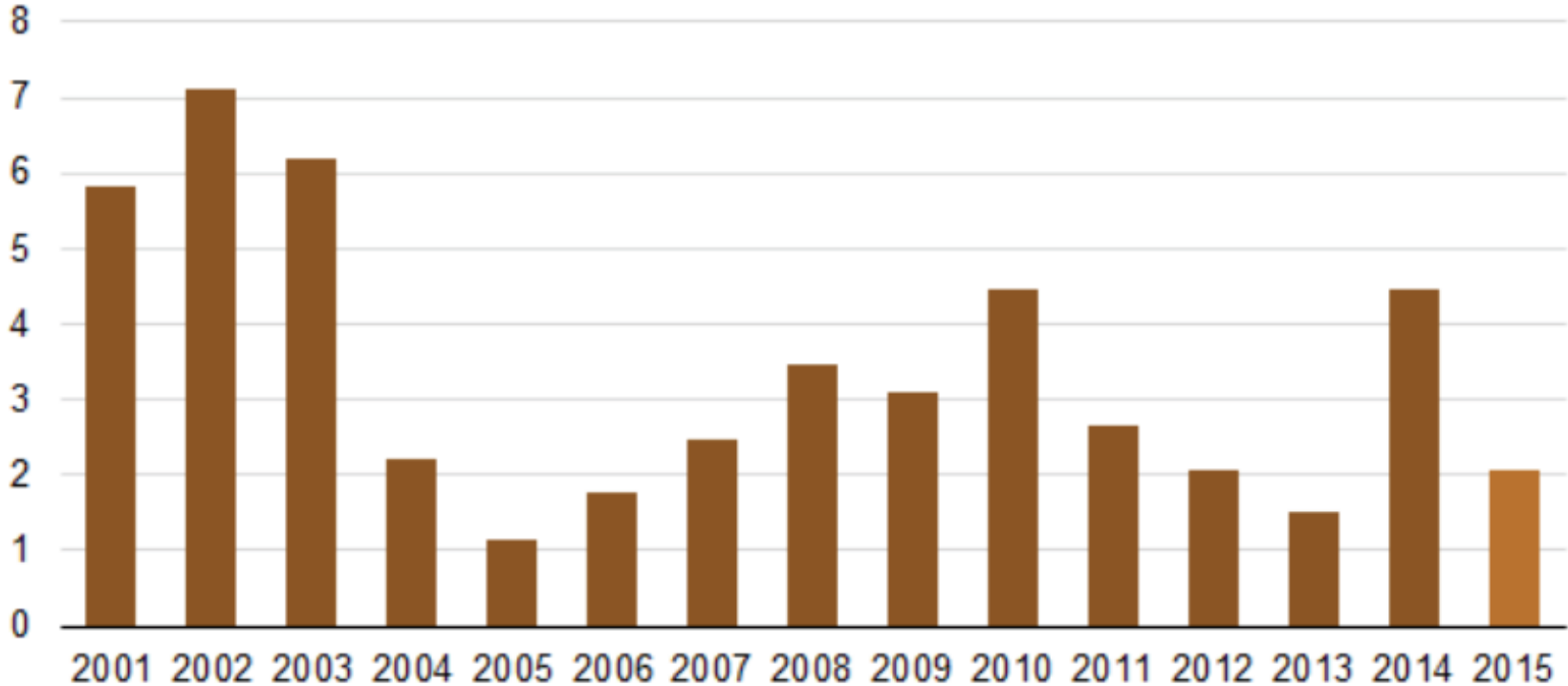
Source: Brattle Group, "ERCOT Investment Incentives and Resource Adequacy"

Which mkt design is best for Europe?

	Relevant Considerations	
	Restores “missing money”	
	Promotes “adequate” investment	
	Efficient stakeholder risk/reward	
	Monetizes full value of flexibility	
	Promotes demand participation	
	Facilitates low-carbon transition	
	Facilitates progress toward the IEM	
	Enables market power mitigation	
	Promotes innovation	
	Promotes new entry	

New investment in ERCOT market

Annual capacity additions in ERCOT (2001-15)
gigawatts

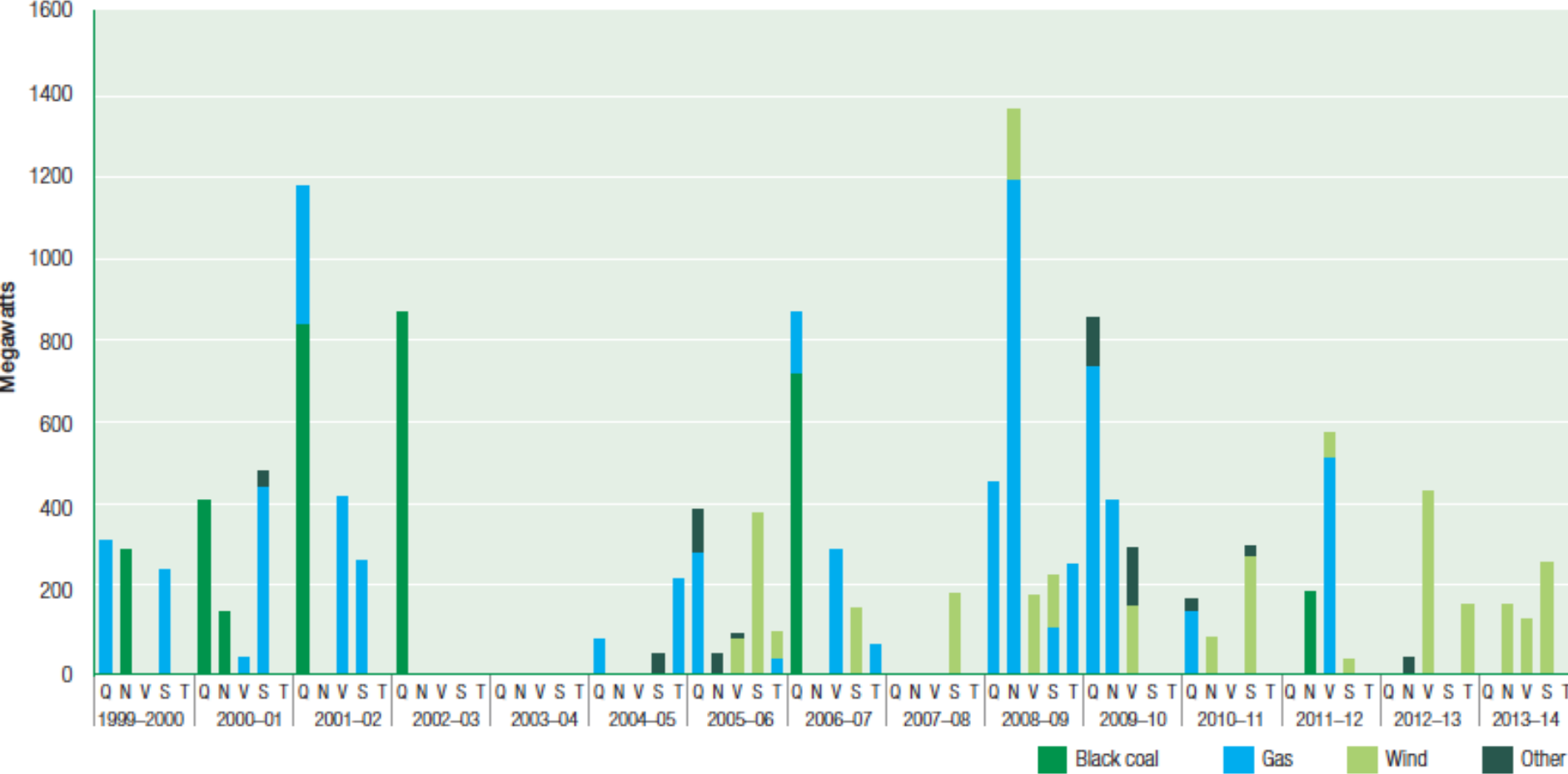


Source: EIA, data from [Survey Form EIA-860](#), Summer Capacity

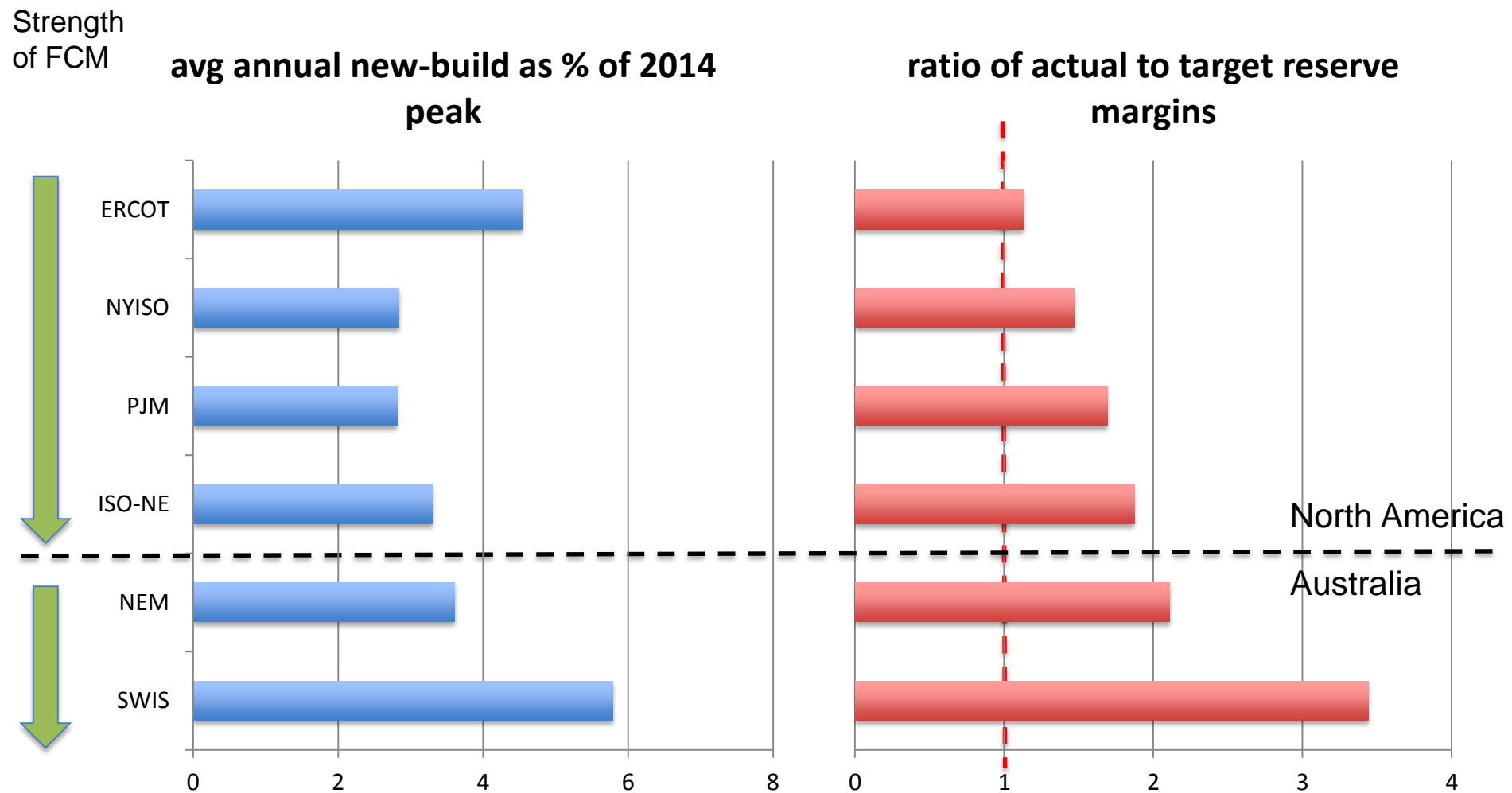
Note: Data for 2015 are through May.

New investment in Australian NEM mkt

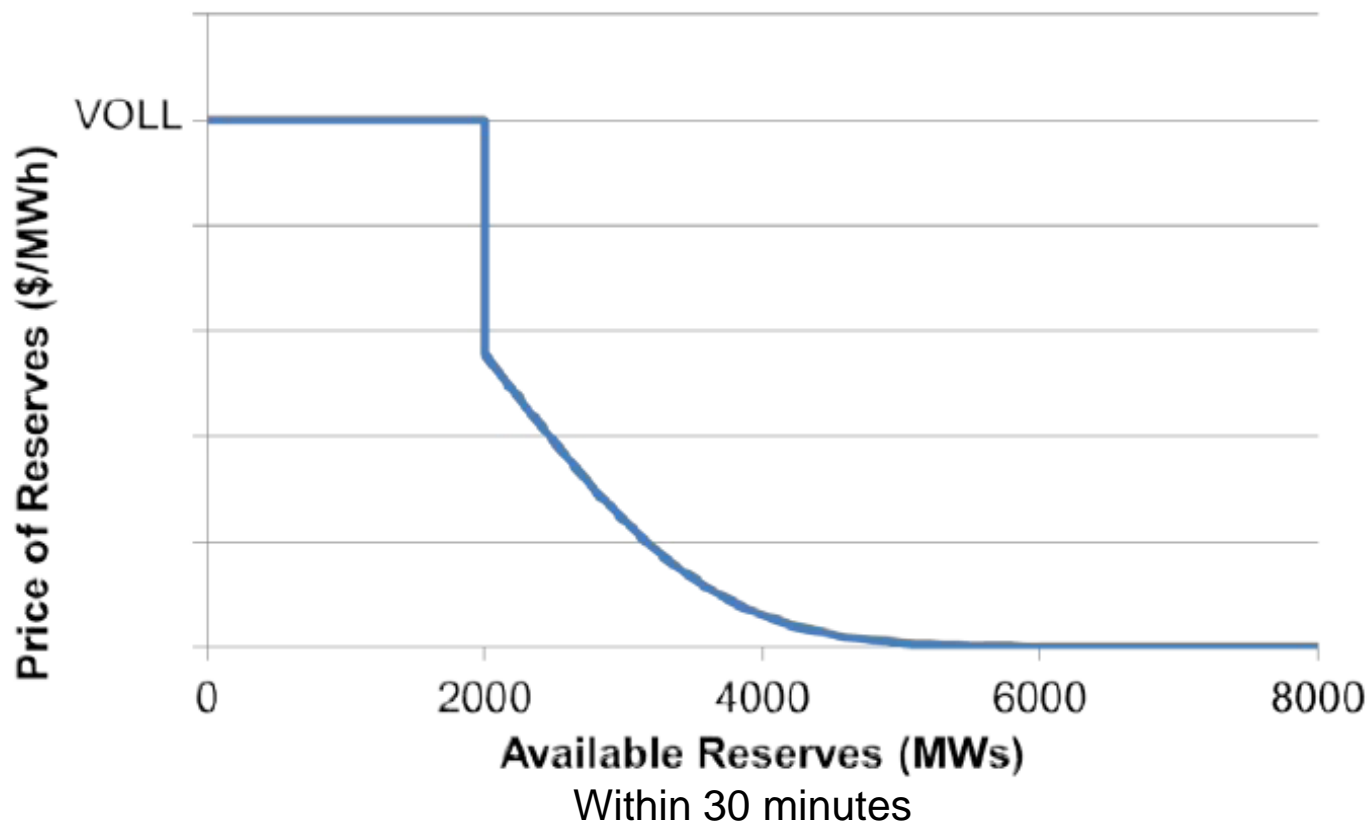
Annual investment in registered generation capacity



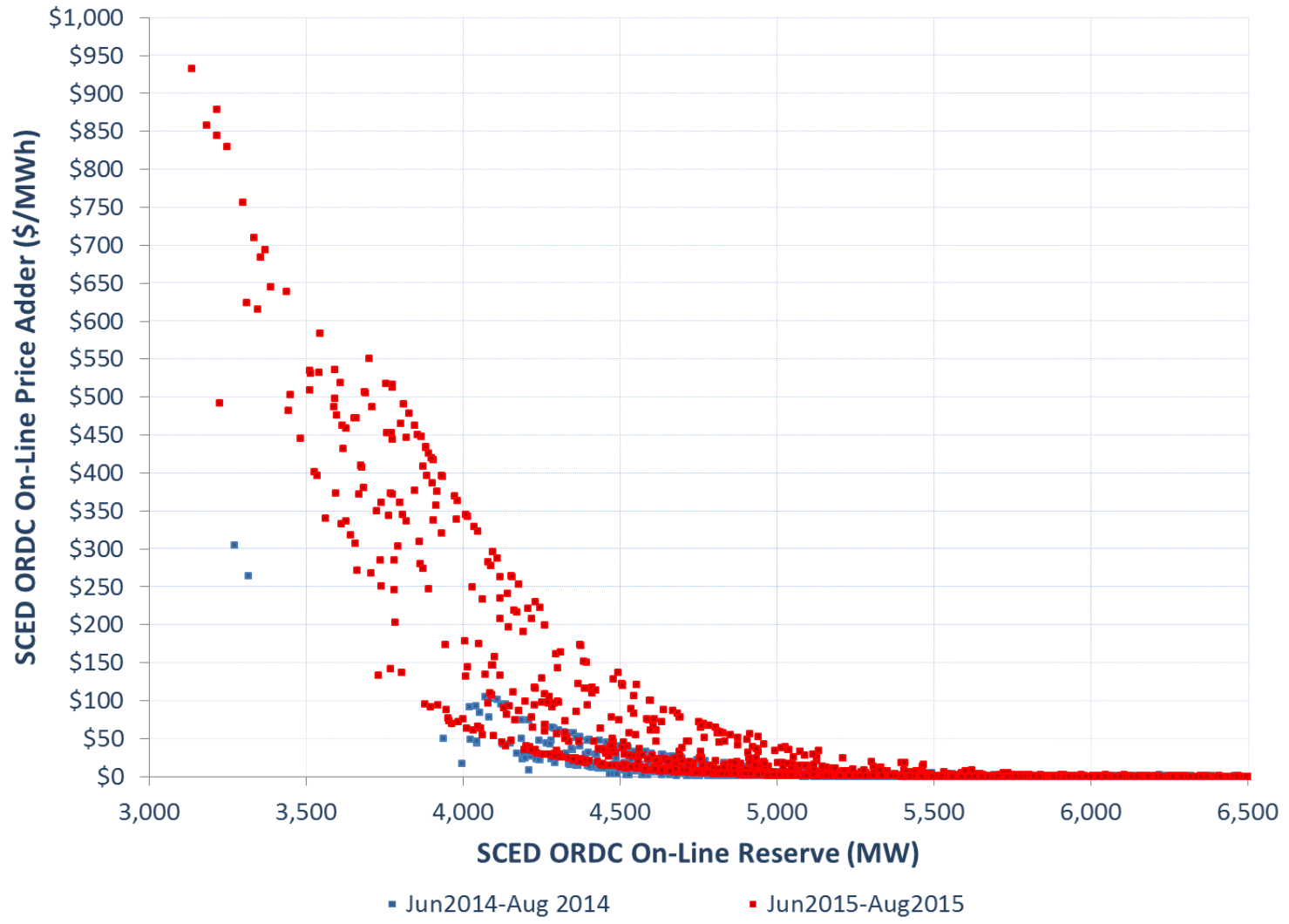
Investment (& over-investment) experience



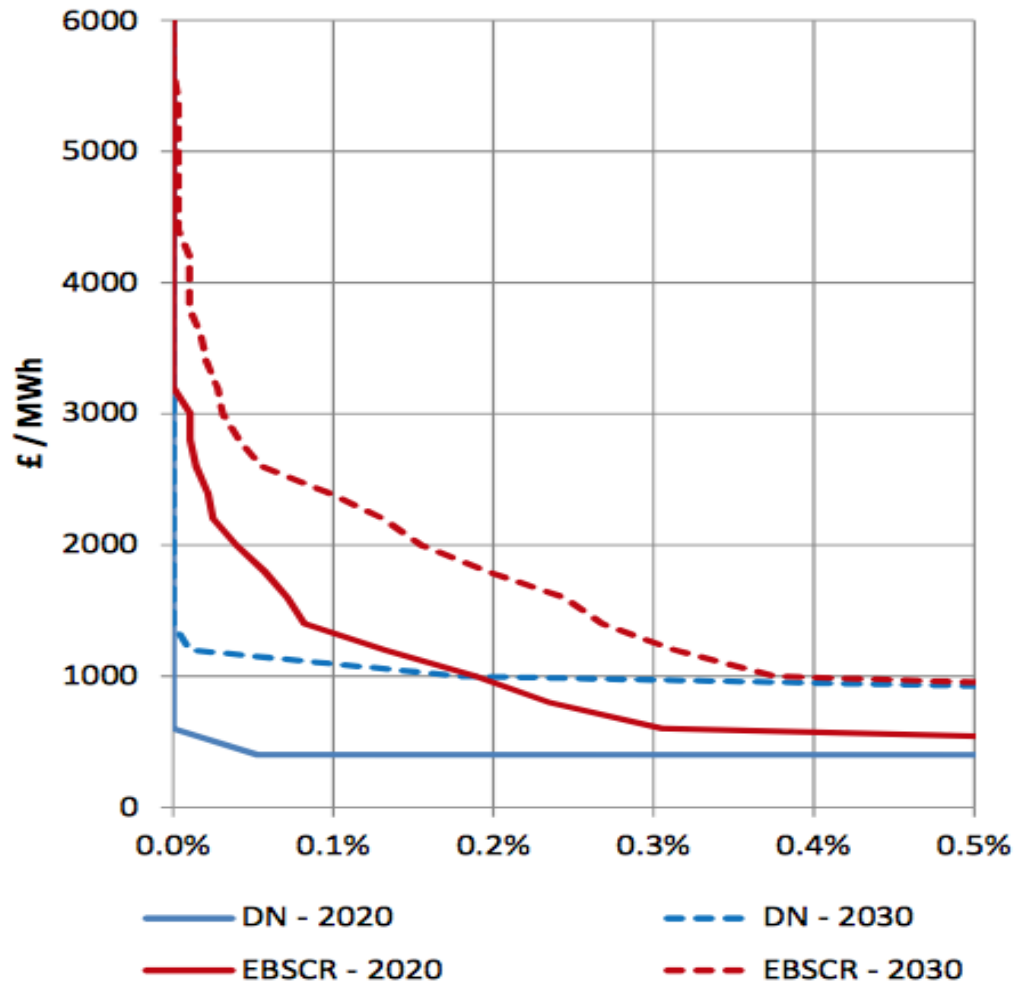
Reserve shortage pricing mechanism



Reserve shortage pricing mechanism



GB cash-out price reform



Source: Baringa/Redpoint

Which CRM design is best for Europe?

€/MWh	Relevant Considerations	€/MW
✓✓	Restores “missing money”	✓✓
✓✓	Promotes “adequate” investment	✓✓
✓	Efficient stakeholder risk/reward	✗
✓✓✓	Monetizes full value of flexibility	✗ ✗ ✗
✓✓	Promotes demand participation	✓
✓✓	Facilitates low-carbon transition	✗ ✗
✓✓	Facilitates progress toward the IEM	✗ ✗ ✗
✓✓	Enables market power mitigation	✓✓
✓✓✓	Promotes innovation	✓
✗	Promotes new entry	✓

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raonline.org

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