

The Future of Power Markets in a Low Marginal Cost World: Important tidbits from the workshop



Challenges in the system

- Expect states to continue to do things they want to do – with effects bleeding into other states' systems
- States' policies are using various instruments to bring certain resources into the market (because they may/do not like what the market is delivering).
- This creates surplus conditions, exacerbating problems in the energy market prices with adverse implications for existing resources. One problem is states' tendency to exclude existing resources from competitive procurements of resources.
- Reliability isn't the issue: the issue is how to accomplish it efficiently.

Interesting observations

Why are energy prices too low? Massive over-supply of capacity.

- Way too much investment in resources.
- Resources are pulled into markets for lots of reasons, not just RA.
- 1 in 10 standard has no basis in economics.
- Already ISO markets are moving toward providing more of the total revenues through capacity payments with decreasing share coming from energy markets

“Capacity markets” is an anachronism: (“Long trail of tears”).

- What we need the flexible services: if you buy that, you’ll get capacity.
- “Capacity” is not homogeneous. So figure out what services you want.

Interesting observations

A system with high capital costs and low operating costs will still have conditions leading to price variation across time and place (e.g., scarcity)

- Likely to be more volatile

On the demand side:

- What's happening at the end of the network is the most interesting – but prices to consumers are still way too blunt
- We need more “bendy” demand curve: can't insulate demand from seeing scarcity prices.
- Pricing profiles in current markets (e.g., CA) are topsy turvy with the conventional pricing model (e.g., high prices midday)

A sustained condition of high energy-market prices will be an irresistible target for government/political interventions.

- But not a universal view!

Missing design elements and/or products?

Carbon-intensity of resource = yes

Baseloadability = no

The “successful market design” is missing in regions that don’t have it = yes

Bid-based, security-constrained economic market is missing

Load-following = maybe

Capacity markets = not as good as getting lots of services (daily ramping, stability, reactive)

Capacity mechanisms = yes. Politicians won’t allow the baby to play by the window even if the baby will learn not to jump out after doing it the first time.

Visibility of RT and scarcity prices to consumers = many people

Transactive grid model (platform) = yes

Last thoughts

Great paper from RFF and NREL

Welcome comments

Looking forward to final product

Lots of great questions, comments, red flags, perspectives around the table

Lots of work is needed ahead on these topics

Thanks to DOE for sponsoring this meeting

