

**“THE CHANGING LANDSCAPE FOR RETAIL PROCUREMENT:  
FROM RESTRUCTURED TO RE-REGULATED, AND FROM  
REGULATED TO GOVERNMENT-CONTROLLED”**

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- The Year 2007 has brought new legislative and regulatory challenges for all states --- both regulated and restructured --- and some of these challenges are affecting resource evaluation processes, and corresponding resource decisions, for the ultimate load-serving entities.
- The 2 most challenging legislative and business issues today ---- layered on top of continuing discontent with competitive market design and competitive procurement --- are the looming debates over mandated Renewable Portfolio Standards and mandated CO2 emission reductions.
- These frenzied discussions have led some policymakers and activists to call for a moratorium on new coal plants and the retirement of existing ones, along with a dogmatic focus on renewables and energy efficiency as the primary sources for new power supply.
- So --- it's not just the restructured states that are undergoing political upheaval and second-guessing with respect to how electricity is provided to customers.
- Whether you reside in a vertically integrated, rate-regulated, and cost-of-service ratemaking jurisdiction, OR a "retail competition" state that is undergoing some type of transformation back to a more regulated service obligation and pricing regime, you are facing changes in the way that federal and state legislators, and

various activist groups, expect you to manage your electric generation portfolio.

- The premise of my remarks today, which is a conclusion that I have reached during the past several months, is that I'm not sure how much of a "competitive market" or even a self-directed future I see for any retail service provider ---- no matter what state you're in or what type of regulatory framework you have.
- This new, unilateral focus on environmental issues is obscuring the laws of physics --- with respect to how the electricity grid works and what it takes to keep the lights on --- and the laws of economics --- with respect to what electricity costs, based on the fuel source used.
- My overall prediction is, if our hands are tied by the passage of very specific government-mandated generation portfolio standards, and laws that impose penalties on the consumption of specific fuels, we will be dealing with reliability problems in all states, a deviation from "least cost purchasing" standards in traditional states, and a significant reduction in market-driven resource decisions in restructured states.

## CURRENT ENVIRONMENT IN REGULATED STATES

- Most LSEs in regulated states are in the process of making plans to build or buy capacity to meet future shortfalls in generation supply.
- These shortfalls will occur anywhere from next year, to 7 or more years from now.
- If the utility's incremental need is for more baseload power, that baseload can only come from three sources: nuclear, coal or natural gas.

- New nuclear plants ---- whether they be self-build plants owned by IOUs or consortiums --- or wholesale plants built with equity partners and/or long-term PPAs ---- will conservatively take at least 12 years to permit, approve, build, and place into commercial operation.
- New coal plants are coming under increasing and hostile fire from various environmental and NIMBY interests, making it either tremendously challenging to get new ones approved, or leading to cancellations altogether, which will inevitably create capacity shortfalls, possible reliability concerns due to the lack of adequate substitute baseload options, and higher prices for existing supply.
- Since over 90% of all generation over the last decade or so has been built to be natural gas-fired, we now have significantly more demand for natural gas than we have domestically available supply, which has caused higher and more volatile prices for natural gas, along with more reliance on LNG imports to make up the supply shortfall.
- Looking at which countries these LNG imports come from, leads you to the irrevocable conclusion that we will NOT solve our nation's "energy independence" problem, and our independence goals, by putting more of our electric generation eggs into the natural gas & LNG import basket.
- State regulators and load-serving entities alike are concerned about reliability, fuel diversity and cost ---- we want the lights to stay on, the costs to be reasonable, and the fuel to be domestically supplied.
- ERGO: If we continue to pursue this single-minded path of “coal is bad”, and “only renewables, gas and energy efficiency is good”, for the next 12 years until we HOPE to bring new nuclear plants on line, we will be effectively abandoning our traditional electricity policy principles of reliable service and lowest cost, and our national goal of energy independence.
- I'm not convinced that this is the outcome that consumers or policymakers want, but they may not understand that this is the inevitable outcome ---- just like a lot of consumers and

policymakers didn't understand what would happen by deregulating electric generation.

- We may be on the verge of creating yet another era of "unintended consequences" in retail electricity service policy.

## CURRENT ENVIRONMENT IN "RETAIL COMPETITION" STATES

- The evidence is clear that retail competition has not brought the intended results of more competition and lower electricity costs for consumers
- Whether the experiment would have worked under different circumstances, different market designs, or at a different time in the life cycle cost of embedded generation is "water under the bridge", and politically beside the point
- Academic argument aside, the retail prices in restructured states ARE higher than in regulated states, and will likely remain so, unless fundamental changes are made to either the retail service obligation, procurement methods, or wholesale market pricing structure ---- or all of the above
- The question only becomes one of what model do you move to, and each state will obviously have to chart its own course, based on its own politics, its own generation preferences, and its own demographic and economic development circumstances
- Virginia and Montana have re-regulated --- completely, as best I can tell
- Illinois will utilize a public power purchasing/construction power authority
- Governor Strickland's proposal for Ohio will allow utility self-builds, rate recovery, and cost-of-service pricing, along with competitive procurements
- Michigan, Maryland and Maine are looking at re-regulation
- There are certain groups calling for re-regulation in Texas

- Connecticut is allowing its utilities to build and own peaking plants, and has been looking at a public power authority; the DPUC is allowing generators to rate base new plants and be assured of cost recovery so that they will be built in lieu of consumers contending with black-outs
- That adds up to 9 --- by my math --- and there are only 8 others --- which I imagine will follow their brethren into some type of new regime
- Many of these states also have RPS and CO2 emission reduction mandates, which means that the issue of baseload generation --- who will build it and what will it be?---- raises the same problems and concerns that I mentioned earlier for traditionally regulated states
- This dilemma will only accelerate the move back to a more regulated regime, for obvious reasons -----
  1. These states need reliability, so they need to impose the obligation to serve on some entity
  2. They desperately need cost control, and some way to minimize volatility and assure a reasonable and predictable price, based on real costs
  3. The "market", per se, will only build what's cheapest and easiest to build, which does not lend itself well to either nuclear or coal assets being built as true "merchant" plants.
  4. WHOLESALE nuclear and coal plants are and will continue to be helpful as part of the future, but they need either equity partners, life-of-unit contracts, or VERY long PPAs.
  5. It's certainly quite understandable, but short-term auctions and day-ahead and real-time markets are NOT going to produce such investments.
- This confluence of events leads restructured states to the same paradoxical "fork in the road" that exists for traditionally regulated states, but for slightly more dramatic reasons ---- since we all need new baseload generation investments, some semblance of cost control, and pricing certainty to protect consumers and our economy, AND we may all potentially face the need to meet RPS

and CO2 emission reduction requirements ---- where do we collectively go from here???

## PROCUREMENT PATH GOING FORWARD

- The overarching premise for the rest of my remarks is that ---- no matter what regulatory framework you are currently operating in -- either a traditionally regulated state, or a restructured state that's morphing -- the various energy components of electricity service -- - baseload, intermediate, and peaking supply --- have to be thought of as separate services needed to "keep the lights on".
- The characteristics of each type of electric service are different and the fuel options are different, and so the construction, purchase, bidding, pricing, and any other relevant procurement feature need to be thought of in a separate and distinct fashion.
- We need a tremendous amount of national and state-by-state education ---- for policymakers and consumers alike --- on how electricity is generated, how it is dispatched, what kinds of fuels provide what segments of the utility's load curve, and that different policies need to attach to each.
- As an average utility statistic, baseload (24/7) electricity service constitutes approximately 60 % of total electric needs ---- and this energy is supplied by either nuclear, coal, or natural gas CCGT plants (and sometimes oil, and sometimes hydro)
- Intermediate, or load-following electricity constitutes another 30% --- and it can be coal, but it's usually natural gas
- Peaking capacity is roughly the final 10% of the load curve --- and it's supplied by the highest-cost gas plants, because they're only utilized 100 or so hours out of the year
- Renewable energy runs when it runs ---- it's intermittent in nature, based on nature, and in many cases -- particularly wind --- cannot be relied on for baseload or other "must run" applications
- Each one of these types of electricity service has different capacity requirements, different fuel supply needs, different operational and maintenance issues, and correspondingly

different capacity and energy cost profiles --- and it varies by state and region.

- That's why it makes infinite sense to treat these different categories of electricity service differently, and to recognize that the electricity delivery circumstances vary tremendously by utility service territory.
- These facts need to be acknowledged and incorporated into engineering-based legislative and regulatory policy --- policies which will accommodate diversified utility portfolio obligations, load-curve specific RFPs, load-curve specific commitments, and resource choices based on physics and cost --- not politics.

TRADITIONALLY REGULATED STATES are at a legislative and regulatory crossroads with respect to policymaker understanding of the facts that I just recited. And here's the irony: Although we have the regulatory frameworks in place to be able to have the right to CONSTRUCT and to OWN, and the utility OBLIGATION of reliable service and least cost, the impending imposition of new "one size fits all" state and federal environmental mandates may unwittingly produce the LACK of our ABILITY to do either.

Today's focus at the federal level, and also in many states, is NOT what fuel sources are needed to keep the lights on and what will be the lowest cost option among available alternatives --- it's what is environmentally benign and politically palatable. I submit that this will drive all of us to strict statutory mandates on exactly what will be allowed into our generation portfolios. Our electricity portfolio investment decisions won't be driven by either market factors or least-cost factors ----- they will be based purely on politics.

If, in fact, we are faced with the prospects of fixed percentages of renewables, fixed percentages of energy efficiency investments, a moratorium on coal plants for the next 12-plus years (until carbon capture and storage technology is available), then we will NOT be making resource decisions based on reliability and cost considerations.

If you add onto those dynamics the prospects for no approval of Yucca Mountain, I'm not sure we'll see any new nuclear plants to supply our

baseload capacity. If the financial and political players are OK with continued on-site nuclear waste storage --- which I seriously doubt --- then the costs of taking on that additional risk factor will be enormous. And, even if we can build another round of nuclear power plants, conservative estimates predict that they won't come on line until 2020.

So, if you take nuclear and coal out of the picture for the next 12 years of new baseload generation, all you are left with is natural gas. There isn't enough natural gas to fuel all of the new need for baseload generation. You can't get enough LNG imports to fill that supply gap, and Congress still has moratoria on most of the gas that's available in the Outer Continental Shelf.

And, on top of that, there won't be any natural gas left over for end-use natural gas customers --- no gas furnaces, gas water heaters, gas dryers, or anything else.

All of the manufacturing and industrial customers that rely on natural gas for their processes will move to other countries.

So --- the "Retail Procurement Strategy" for traditionally regulated states needs to be: Legislator Education and Consumer Education. Congress needs to act to resolve the uncertainties surrounding new nuclear plants and Yucca Mountain, and they need to open up all areas of domestic natural gas supply to exploration and production.

Congress FURTHER needs to avoid the political temptations to impose mandates on what each utility's generation resource portfolio looks like - --- lest we have severe reliability problems, and dramatically higher costs.

We need to explain that we CANNOT supply all of our incremental electricity growth with renewables and energy efficiency. We need nuclear, we need coal, and we need natural gas ----- and LOTS of it.

RESTRUCTURED STATES need to join us in these Congressional and Consumer education efforts, and they should also consider legislative changes to accomplish the following, as a better means of ensuring a reliable electricity supply and least-cost service:



- Reinstitute the "obligation to serve" and "obligation to procure sufficient supply", whether that be through a public power entity, purchasing consortium, or individual LSE obligations
- Reinstitute the option of LSEs to build and own their own generation, or acquire percentage ownership interests in generation projects, or enter into long-term PPAs, and sell that power at cost-of-service
- Require LSEs to issue load-curve-specific RFPs (i.e., baseload, intermediate and peaking), so that multiple folks can bid on the incremental resource needs, and the cost of an external option can be compared with the cost of a self-build option
- Look at instituting an IRP process ---- perhaps coordinated with other states on a regional level --- so that costs can be "optimized" across all resource options, be they G, T, or EE, and whether available at the retail or wholesale level

I'll look forward to the post-panel questions and dialogue.