Capacity Markets:
A solution ***to*** a problem or
a solution ***looking*** for a problem?

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Introduction

- No topic being discussed at the wholesale market level is more important than resource adequacy.
  - Whatever decisions are reached they will be significant and will have lasting (potentially permanent) effects on the industry and the economy.
    - The capital intensiveness of the industry means decisions cannot be undone quickly or easily.

Capacity…the core concept

- The intent of all capacity mechanisms is to create or treat capacity, at least in part, as a ***separate and distinguishable*** commodity.
  - Once we make this leap of faith, the next step is to delve into the details.
  - Therein, lies part of the problem…very little attention has been given to (1) why this is necessary and (2) what are the effects (both positive and negative) of making this assumption?

Capacity as a commodity?

- In what other market is “capacity” a separate commodity?
  - Are there any?
- Must be a very “special” reason for doing so in electricity.
  - Generally three such “special” reasons are given:
    1. Short term - instantaneous nature of electricity,i.e. reliability.
    2. Long term - Lumpiness of investment, i.e. boom/bust cycle.
    3. Political - High prices not politically acceptable.

Who could argue with these?

- These are unassailable…right?
  - Not so fast.
  - First we need to provide some clarity…
    - Capacity is not a real time concept…energy is!
      - Most (>90%) real time reliability issues arise from transmission/distribution…**not lack of generation**.
      - The point: a well designed energy market should provide the correct incentives for…energy!
    - Most investment is lumpy…the electricity sector is no different than other industries in this regard.
      - The point: the market should provide the correct investment signals.
    - Politics…is this perhaps the "real" reason?
      - Hold that thought.

Then…

- …should we assume that an uncapped spot market is, in effect, the substitute to creating a separable capacity "commodity".
  - Again, not so fast…
  - A brief digression:
    - Price…a familiar term used by nearly everybody…but…
      - What does it mean?
      - What is a price? What is a good price? How do we know?
      - Where is the price established?
  - What volume of electricity is actually transacted at the spot price?
  - Forget about the plusses/minuses of offer caps…can this really be the issue?

How is it done…

- …in other industries. Plant capacity is built into the fixed costs and recovered through the price of the commodity…
  - Why can't that work in electricity?
    - Because prices are capped…or so we are told.
    - But think about that for a moment…**from the perspective of total expenditure that shouldn't make any difference**! Total payments would not necessarily be different under either scenario…thus expected costs to the consumer would be the same…but the variance (volatility) would be greater…so is that what this is all about…not lower prices…but lower volatility?
    - What are the economic consequences of artificially attempting to reduce volatility?
      - Unit commitment process, mothball/retirement decisions, etc.

Where does that leave us?

- The problem is not reliability, it is not the lumpiness of investment, nor is it capped spot prices…although all of these are issues (particularly price caps).
- The problem is greater than that…and one that must be solved.
  - ***The real problem is an inability/difficulty to long term contract.***

Long term contracting…

- What is the average duration of bilateral contracts in the industry? Any guesses?
- What percentage of load is actually under a long term contract?
- Why isn't there more?
  - NO NEED!
- What is the effect?
  - LONG TERM PRICE SIGNAL IN ELECTRICITY IS EITHER WEAK OR NON-EXISTENT!
- Is the appropriate substitute IRP?

Current Capacity Proposals…

- To a greater or lesser extent, the current capacity proposals are a form of Integrated Resource Planning…with the RTO acting as the utility.
  - …but without taking on the financial risk!
  - There is no actual or "true" demand, i.e there is no representation of actual purchasers in the demand curve. Rather the RTO acts as an agent on behalf of future buyers.
  - Does not represent a market solution!
- Maybe this is what we must accept…

But first…

- Could we at least discuss what are the cornerstones that would be needed to have a real market…
  1. Forward energy contracts with meaningful length.
     - WHAT STEPS MUST BE TAKEN TO ACHIEVE THIS RESULT?
  2. The creation of commercially meaningful long term financial transmission rights to hedge investment decisions.
     - WHAT STEPS MUST BE TAKEN TO ACHIEVE THIS RESULT?
  3. Relaxation of spot market offer caps and offers should not be forced to reflect "simple" variable operating costs.
     - IN PRACTICE IS THIS AS DRASTIC AS IT MIGHT APPEAR - ESPECIALLY IF THE FIRST TWO CORNERSTONES ARE IN PLACE?
  4. Relaxation of sub-regional reserve margins.
     - INCONSISTENT WITH AN INTGRATED NETWORK.

The real question…

- Is not whether this is a "pie in the sky" approach but whether or not we have a choice…
  - That is, until we, as an industry, facilitate long term contracting between actual buyers and sellers, then we will always have more inefficiencies and inequity than we should, i.e. stranded assets, inappropriate and inefficient risk management, etc.
  - What is the cost of choosing a "second" best alternative? How much investment will occur that is inappropriate? How long will customers have to pay? How much extra will they have to pay?

Next Steps

- Identify:
  - The barriers to long term contracting.
    - Assess the feasibility of removing these barriers.
  - The problems associated with long term financial transmission rights.
    - Assess whether these can be overcome.
- If we can solve these two issues then worry about the next two!