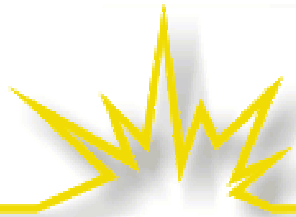


Emissions Portfolio Standards

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Emissions Portfolio Standard (EPS)

- A requirement on the electric load server
- Power from sales cannot exceed a certain level of emissions (output based standard)
 - ❖ An average mass (tons or pounds) per kWh
- How to set the level?
 - ❖ Health objectives (update)
 - ❖ Expected pace of improvement (realism)
 - ❖ Level of aggressiveness (determination, politics)



Distinct from a Performance Standard

- California is considering a requirement that load servers cannot contract with generation that has an emissions profile that exceeds some standard. Period.
 - ❖ Intent seems to be to discourage pulverized coal generation selling into California



Distinct from Environmental Dispatch

- Environmental Dispatch would add environmental cost to production cost, then cheapest units would be dispatched first
- The Bid-based dispatch systems of the Northeast are incompatible with environmental dispatch



Expected EPS strategies

- No change in generation mix, acquire credits from load servers with clean portfolios
- Clean up, Divest, Retire polluting sources to meet or exceed requirement (sell credits if exceeding)
- Build or Buy (new) clean resources
- For compliant companies
 - ❖ No change in gen, sell credits
 - ❖ Divest, retire, sell more credits
- Depends on offset policy (if any), connection other NO_x markets, like mobile sources (if any)



To Support an EPS

➤ A law

- ❖ Typically, a PUC would not spontaneously order an EPS requirement on load servers
- ❖ An EPS is an expression of public policy overlaid on economic regulation

➤ An information system for compliance

- ❖ New England and PJM track all generation
- ❖ Imports assigned importing system average
 - ◆ Is this sufficiently accurate? Need some modeling.

New Jersey § 48:3-87. Environmental disclosure requirements

c. (1) The board may adopt, in consultation with the Department of Environmental Protection, after notice and opportunity for public comment, an emissions portfolio standard applicable to all electric power suppliers and basic generation service providers, upon a finding that:

(a) The standard is necessary as part of a plan to enable the State to meet federal Clean Air Act or State ambient air quality standards; and

(b) Actions at the regional or federal level cannot reasonably be expected to achieve the compliance with the federal standards.

(2) The board shall adopt an emissions portfolio standard applicable to all electric power suppliers and basic generation service providers, **if two other states in the PJM power pool comprising at least 40 percent of the retail electric usage in the PJM Interconnection, L.L.C. independent system operator or its successor adopt such standards.**

f. The board may assess, by written order and after notice and opportunity for comment, a separate fee to cover the cost of implementing and overseeing an emission disclosure system or emission portfolio standard, which fee shall be assessed based on an electric power supplier's or basic generation service provider's share of the retail electricity supply market.



EPS in Other States

- Authorizing states
 - ❖ Massachusetts restructuring law
 - ❖ Connecticut restructuring law
 - ◆ A population trigger and a “go along” trigger
- NESCAUM model rule (out of date?)
 - ❖ 1 lb/MWh for NO_x



Trading program...

- May not by itself encourage new technology solutions and end use energy efficiency needed for best long term results
- But can work in tandem with other programs that do
- A region-wide trading program appears to be workable, but modeling is advised before implementing to identify value and gaming potential



Connection to RGGI

- Reminder that power from outside the OTC can enter OTC
 - ❖ Unless the portfolio requirement accounts for all power, regardless of source, there is a gaming opportunity
 - ❖ Is a “system average” sufficiently accurate?