New England’s Bad News/Good News Story

PUC-Approved Subsidies of NH Coal Plants and ISO-NE Capacity Market Improvements

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NE Coal Plants

1. Brayton Point, Somerset, MA
2. Salem Harbor, Salem, MA
3. Mount Tom, Holyoke, MA
4. Somerset, Somerset, MA
5. Bridgeport Harbor, Bridgeport, CT
6. Merrimack Station, Bow, NH
7. Schiller Station, Portsmouth, NH
8. AES Thames, Uncasville, CT
Brayton Point EBITDA

Source: *Dark Days Ahead: Financial Factors Cloud Future Profitability at Dominion’s Brayton Point* (available [here](#))
What is sustaining New England’s remaining coal plants?

• Why are inefficient coal units in NH surviving?

• Will capacity market design hasten or delay coal plant retirements?
PSNH’s Merrimack Station, Bow, NH
~450 MW, 2 units (1960, 1968)
PSNH’s Schiller Station, Portsmouth, NH
100 MW, 2 coal units (1950s)
1 50 MW biomass unit

Coal unit heat rates
13,000 BTU/kwh
Figure 8: ISO-NE Supply Curve

(Source: Based on 2011 SNL Data)

Source: SNL/NHPUC
PSNH Coal Unit Capacity Factors 2007-2013

Merrimack 1
Merrimack 2
Schiller 4
Schiller 6
Figure 2: Annual Net Revenue (Losses) For Schiller 4 & 6 Combined

Source: Synapse Energy Economics
Cumulative Losses for PSNH Default Service Customers versus GSEC/Liberty
Forward Capacity Market Problems

“Pervasive and worsening performance of existing generation fleet in New England”

“Delays exit of poor performers from the market; creates a bias in the FCM to clear less-reliable resources”

Oil and Coal Resources have Long Start-Up Times

Time before resources can be online from “cold start”

- 10 Hours
  - 1,000 MW

- 16 Hours
  - 5,000 MW

- 24 Hours
  - 6,000 MW

Source: ISO-NE
Pay for Performance Goals

• Incentivize resource decisions that promote reliability, esp. in gas-constrained market with growing # of variable resources
• Reward best-performing resources
• Penalize poor-performing resources
• Operation investments
• Technology turnover
Downward Sloping Demand Curve

Source: ISO-NE
Capacity Prices Across RTOs

Source: Brattle Group