



Prudent Planning and New Coal Fired Power Generation

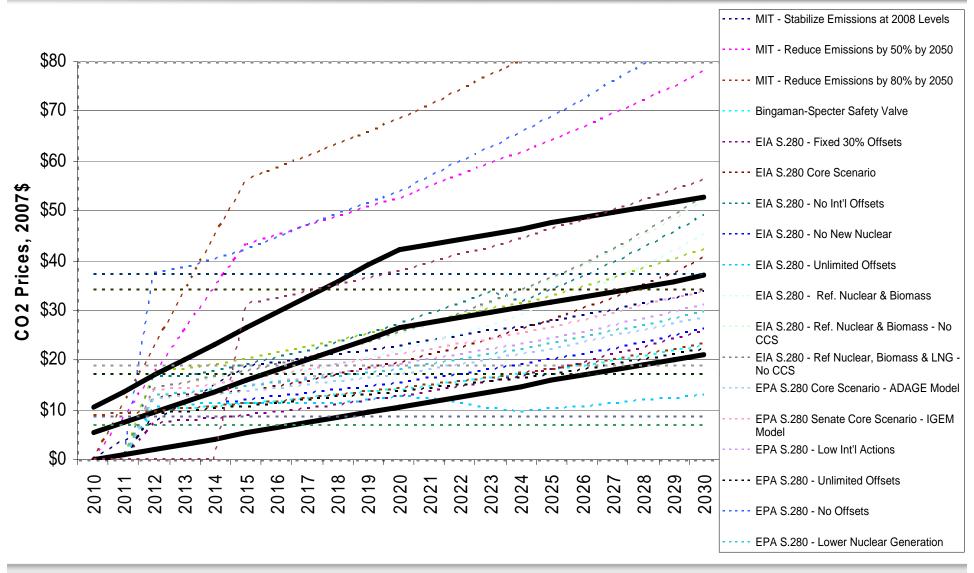
CERES Conference 2008

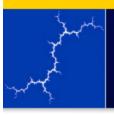
"The Coal Conundrum: Too Abundant to Ignore, or Too Risky to Pursue?"

April 29, 2008

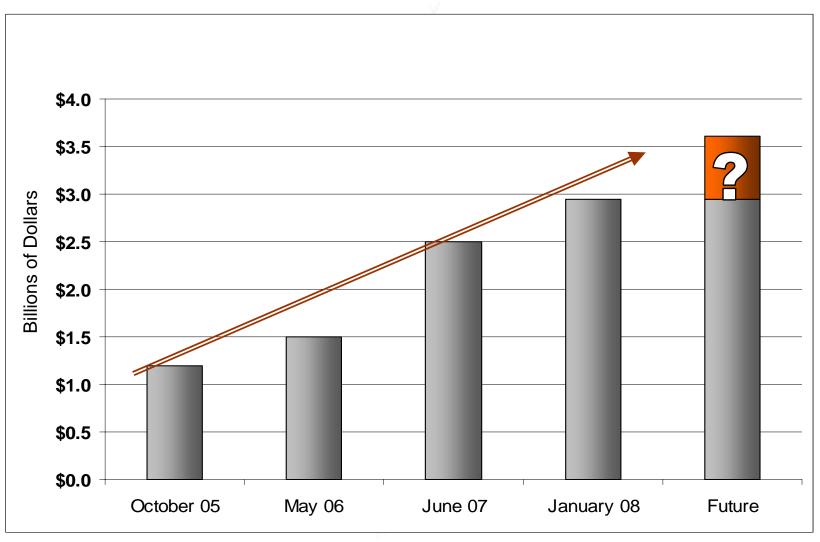
Presented by Bruce Biewald

Carbon Price Graph (\$/ton)

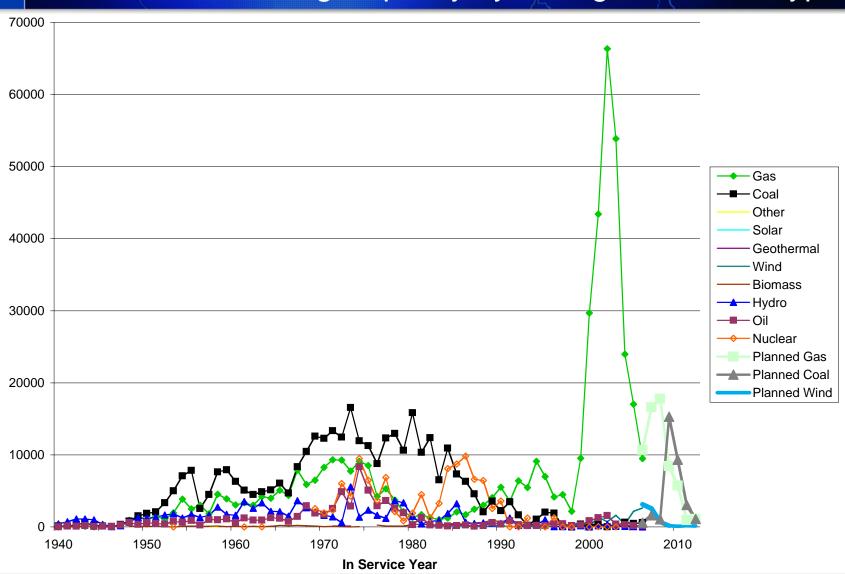




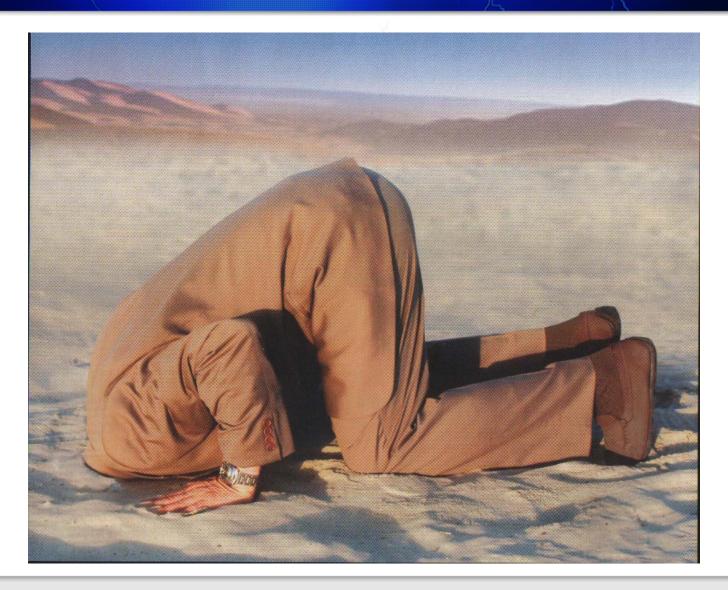
Proposed AMP-Ohio Coal Plant - Increases in Estimated Construction Costs Since 2005



US Generating Capacity by Vintage and Fuel Type







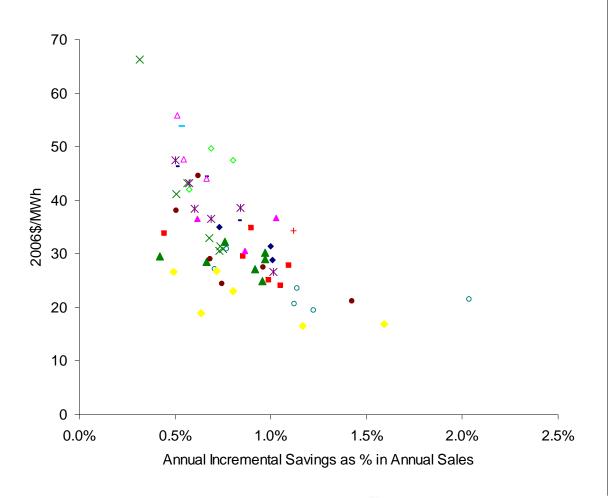


Poor Electric System Planning Practice

- Passive attitude toward information
- Rely on out of date construction cost estimates
- Ignore CO₂ price, or treat it "at the end" as a sensitivity case
- Overly constrain alternatives such renewables and energy efficiency

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Electric Utility Energy Efficiency Costs



- CT IOUs 2000-2005
- MA IOUs 2003-2005
- ▲ Efficiency Vermont 2000-2006
- × SMUD 2000-2006
- * Seattle 2000-2005
- PG&E 2000-2005
- o SDG&E 2000-2005
- SCE 2000-2005
- Mass. Electric 2000-2002
- W. Mass. Electric 2000-2002
- △ Boston Ed/Nstar 2000-2002
- + Cambr. Elec. 2000
- Com. Elec. 2000
- Fithb. G&E 2000-2002



Good Electric System Planning Practice

- Actively seek out relevant information
- Rely on up-to-date and realistic construction cost estimates
- Include reasonable CO2 price forecast in the reference case, and analyze high and low sensitivities
- Include full consideration of alternatives

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Questions, Comments

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