EPA Regulations: Status and Impacts

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Before Senate Utilities Committee

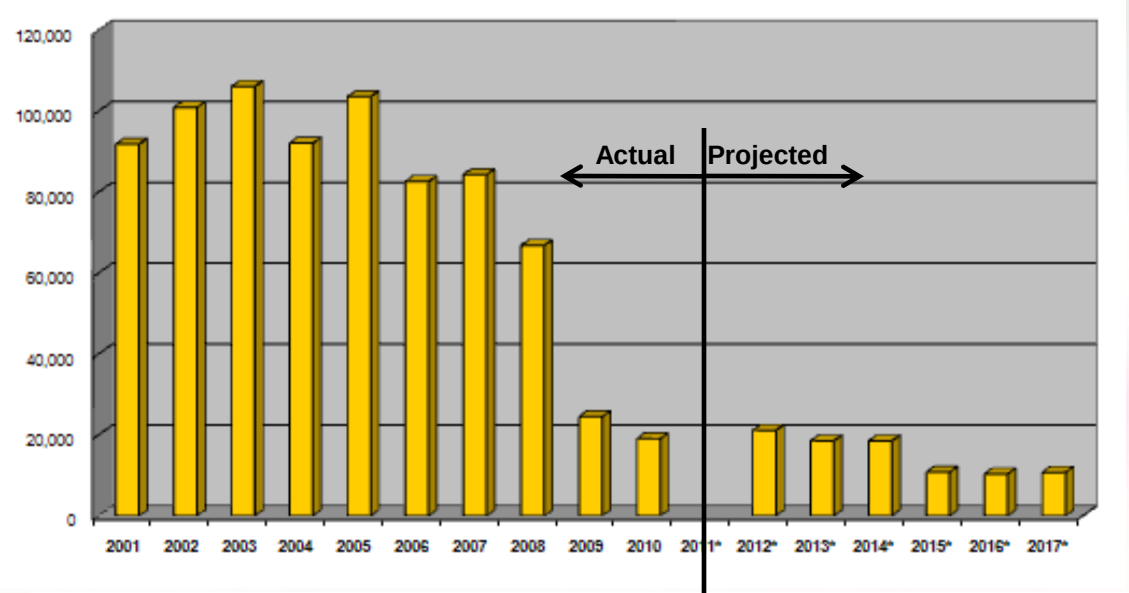
January 17, 2012

Regulatory Summary

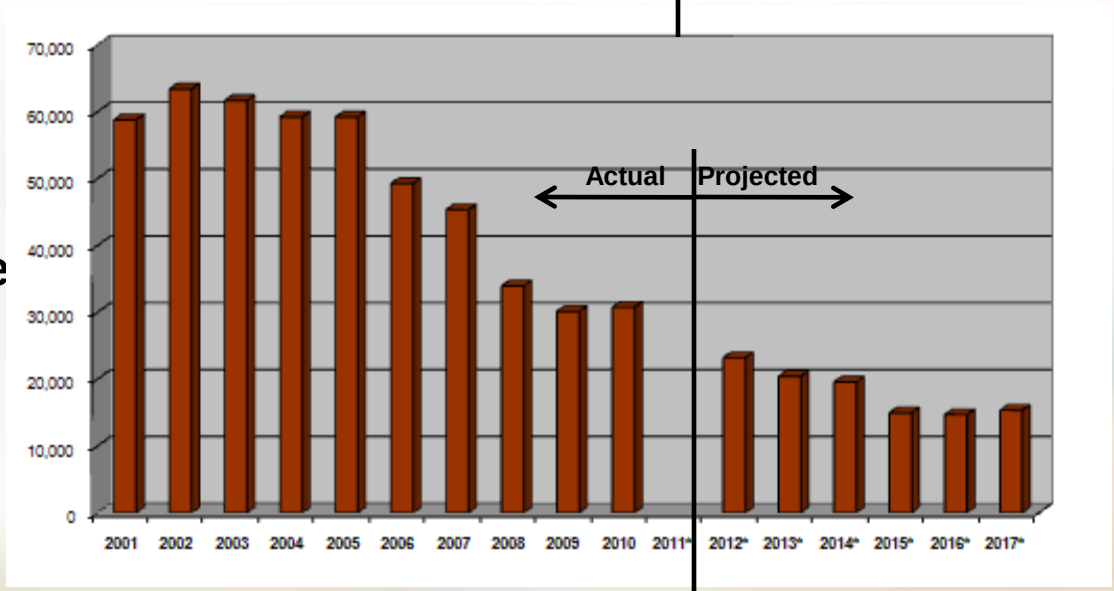
	Cross States Air Pollution Rule	Utility MATS	316(b)	Coal Combustion Waste
Status	Stayed Dec. 30, 2011	Final Dec. 21, 2011	Proposed	Proposed
Effective	TBD	March, 2012	July, 2012	Mid-2013
Emissions/Areas covered	NOx, SO_2	Mercury, Acid Gases	Water Intakes	Fly ash Bottom ash Gypsum
Energy Centers impacted	Coal, Gas	Coal, Oil	Coal, Nuclear	Coal
Issue(s)	Cost, reliability, allowances, timeline	Cost, timeline	Cost	Cost, hazardous/non-hazardous

Westar's Emission Reductions

Sulfur Dioxide ↓82% to date (tons)



Nitrogen Oxide ↓ 48% to date (tons)



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Current Status under CSAPR

- ✓ **SO_2 – OK pending finalization of October 6 proposed amendments**
- ✓ **Seasonal NO_x– OK through 2013/2014 considering December 16th supplemental notice**
- ✓ **Annual NO_x – remains a significant concern**
  - **Acquired some allowances**
  - **Results of technical corrections pending with EPA**

Construction Status

- **Jeffrey Energy Center**
  - Installed low NO_x burner systems (completed)
  - Installing Selective Catalytic Reduction (2014)
  - Installing Selective Non-Catalytic Reduction (2012)
  - Already meet SO_2 limits (completed)
- **Lawrence Energy Center**
  - Upgrading scrubbers (2012)
  - Installing fabric filters/baghouses (2012)
- **LaCygne**
  - Upgrading and installing scrubbers
  - Installing fabric filers/baghouses
  - Installing Selective Catalytic Reduction (SCR)

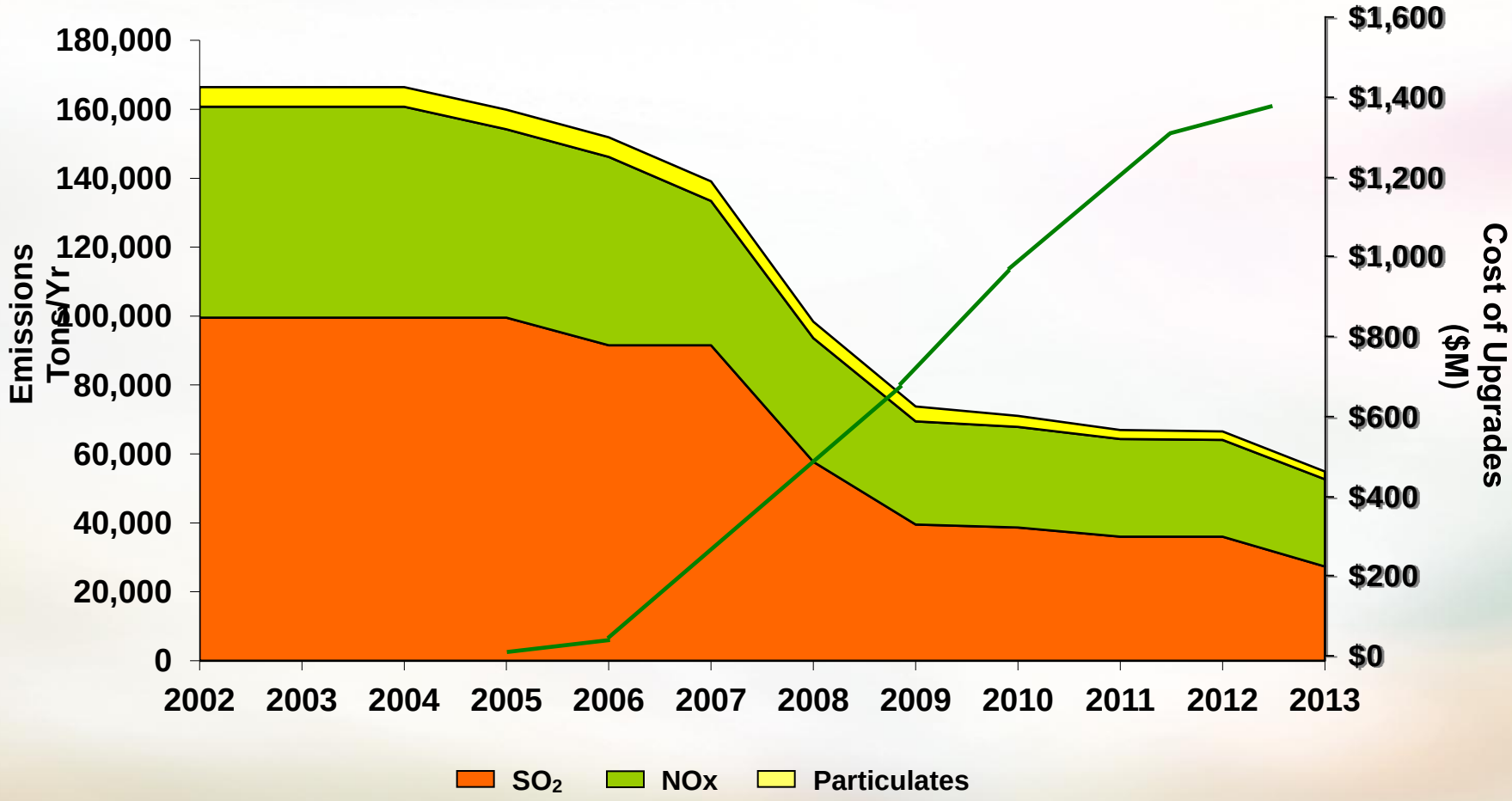
Mercury and Air Toxics Standards (MATS)

- Rule issued December 21, 2011
- 3-year implementation (4th year “maybe”)
- Industry rec’d limited relief
  - Particulate
  - Mercury emission rate
  - Emissions averaging
  - Start-up & shutdown exclusion?
  - Co-benefits of existing projects
- Mature technologies but will still have challenges

Technology

- Low NOx burner systems, SCR, SNCR – reduce/remove NOx
- Scrubbers – remove SO_2, acid gases and some level of mercury
- Baghouses – particulate matter and small amount of mercury
- Precipitators – particulate matter
- Dry Sorbent Injection
  - Activated Carbon – absorbs mercury
  - Trona – absorbs SO_2 and acid gases

Emission Reductions vs. Costs



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Questions?