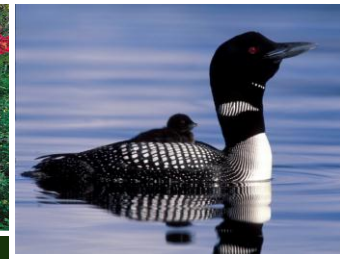




Energy

Reducing Air Pollution from Power Plants



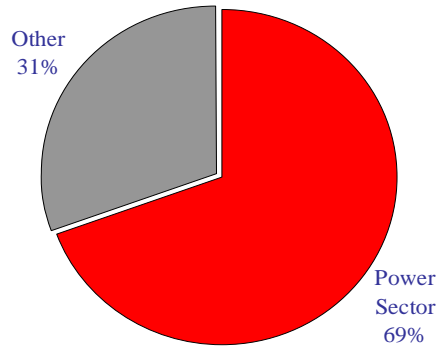
U.S. Environmental Protection Agency
Office Air and Radiation

August 25, 2010

Human Health

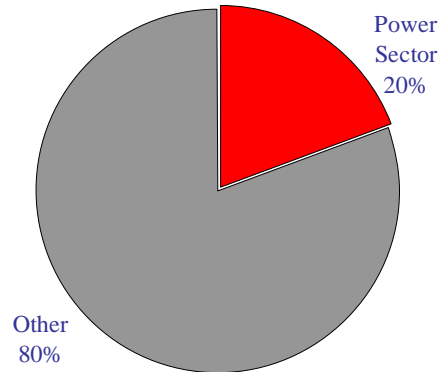
Power Sector Provides a Major Share of Our Air Emissions

SO₂ Emissions, 2007



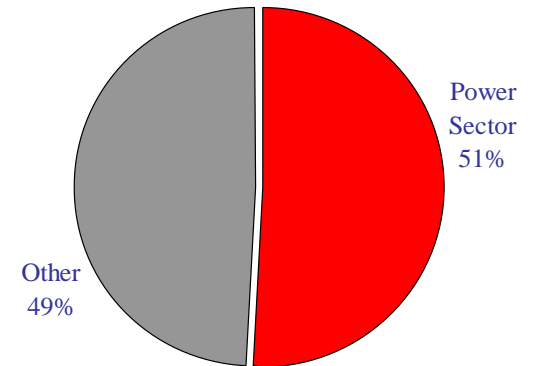
Total: 12.9 Million Tons

NO_x Emissions, 2007



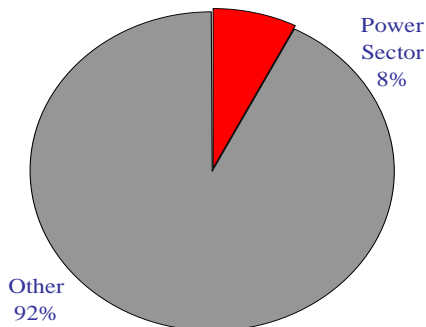
Total: 17.0 Million Tons

Hg Emissions, 2005



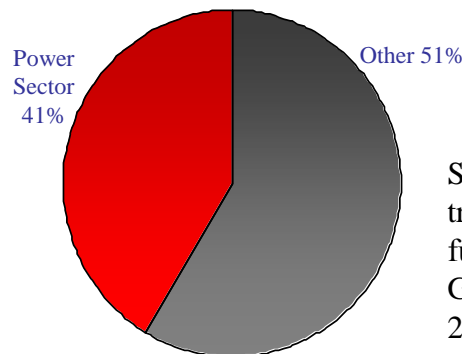
Total: 102.7 Tons

PM₁₀ Emissions, 2007



Total: 2.2 Million Tons

Carbon Dioxide, 2005



Total: 5.8 Billion Tons

Sources: SO₂, NO_x, PM₁₀, and Hg are from NEI trends data; PM₁₀ excludes condensibles and fugitive dust; CO₂ is from EPA's U.S. Greenhouse Gas Emissions and Sinks: 1990-2005 "Other" sources include transportation, other mobile sources, and industrial sources

Upcoming EPA Clean Air Act Power Plant Rules

- **Interstate Pollution Transport Rule for existing PM and ozone NAAQS**
 - Proposed rule unveiled in June, published August 2, 2010
 - Final rule planned June 2011
- **Utility MACT (section 112/hazardous air pollutants)**
 - Propose March 2011, finalize November 2011
- **Utility NSPS (section 111/criteria pollutants)**
 - Same schedule as MACT
 - 2006 utility NSPS is under reconsideration and subject to pending litigation
 - Section 111(b) for new and modified/reconstructed sources,
- **Interstate Pollution Transport Rule for 2010 reconsidered ozone NAAQS**
 - Proposed rule in 2011, final rule in 2012
- **Response to court remand on Utility NSPS (section 111) for greenhouse gases**
 - EPA is considering substance and timing of its response.

Figure 1 - Average Retail Price of Electricity - State Rankings 2008 (¢/kWh)

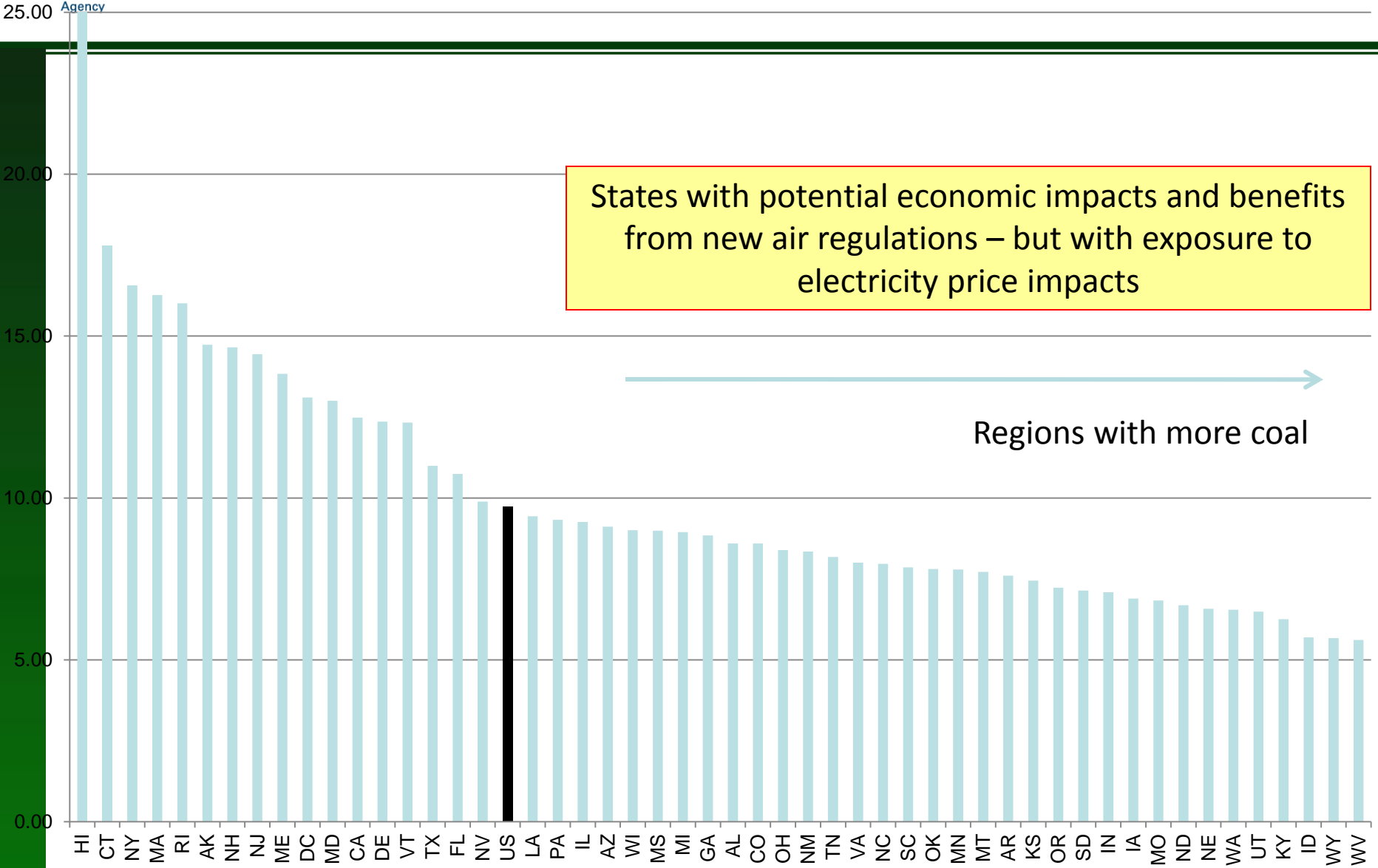


(¢/kWh) United States Environmental Protection Agency

States with potential economic impacts and benefits from new air regulations – but with exposure to electricity price impacts



Regions with more coal

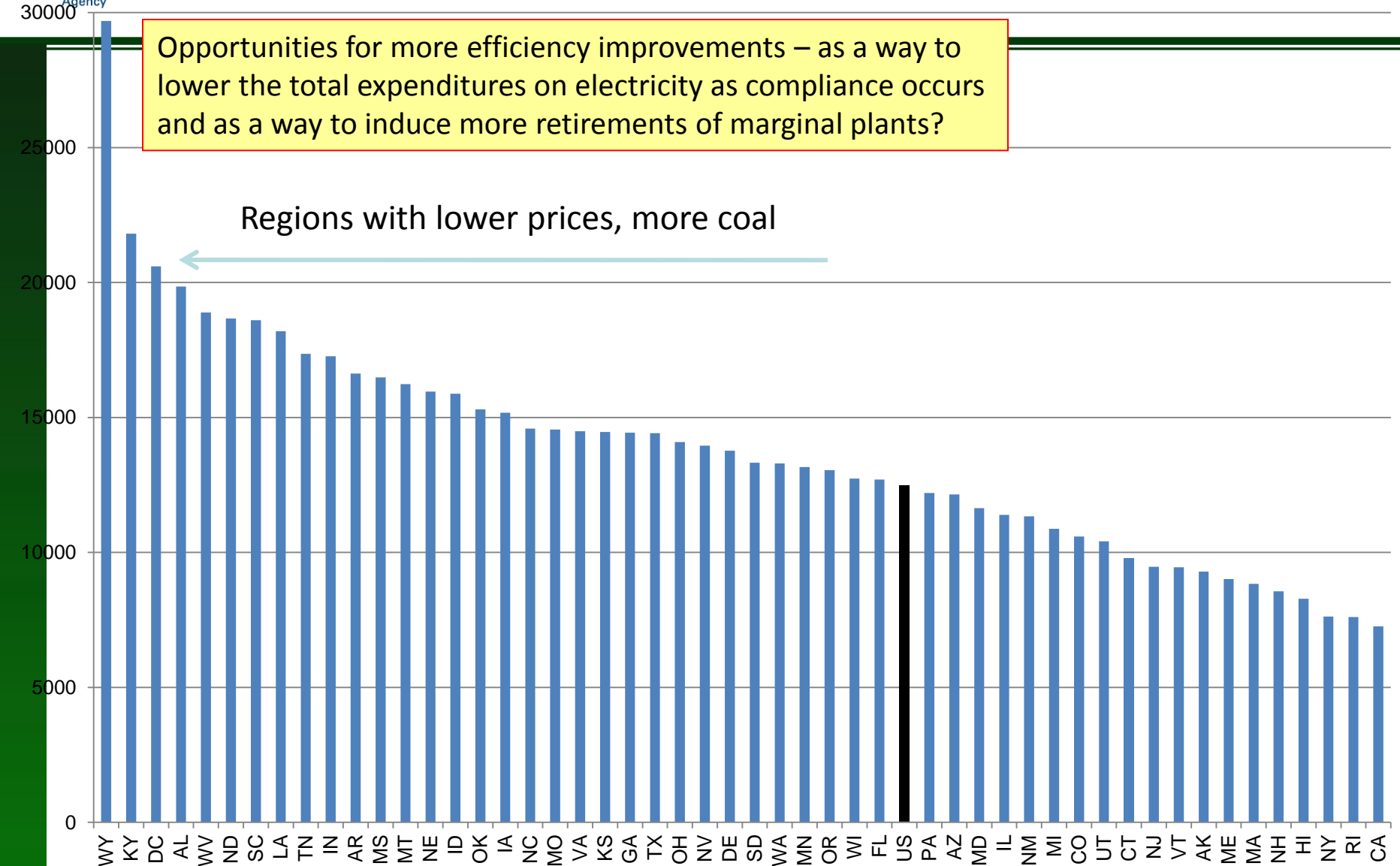


Data: Energy Information Administration, 826 Data series (electricity expenditures by state)



Electricity Use Per Person (KWh) by State and US: 2007

(kWh/person)
United States
Environmental Protection
Agency



Data: Energy Information Administration, State Energy Data System (most recent annual data available as of

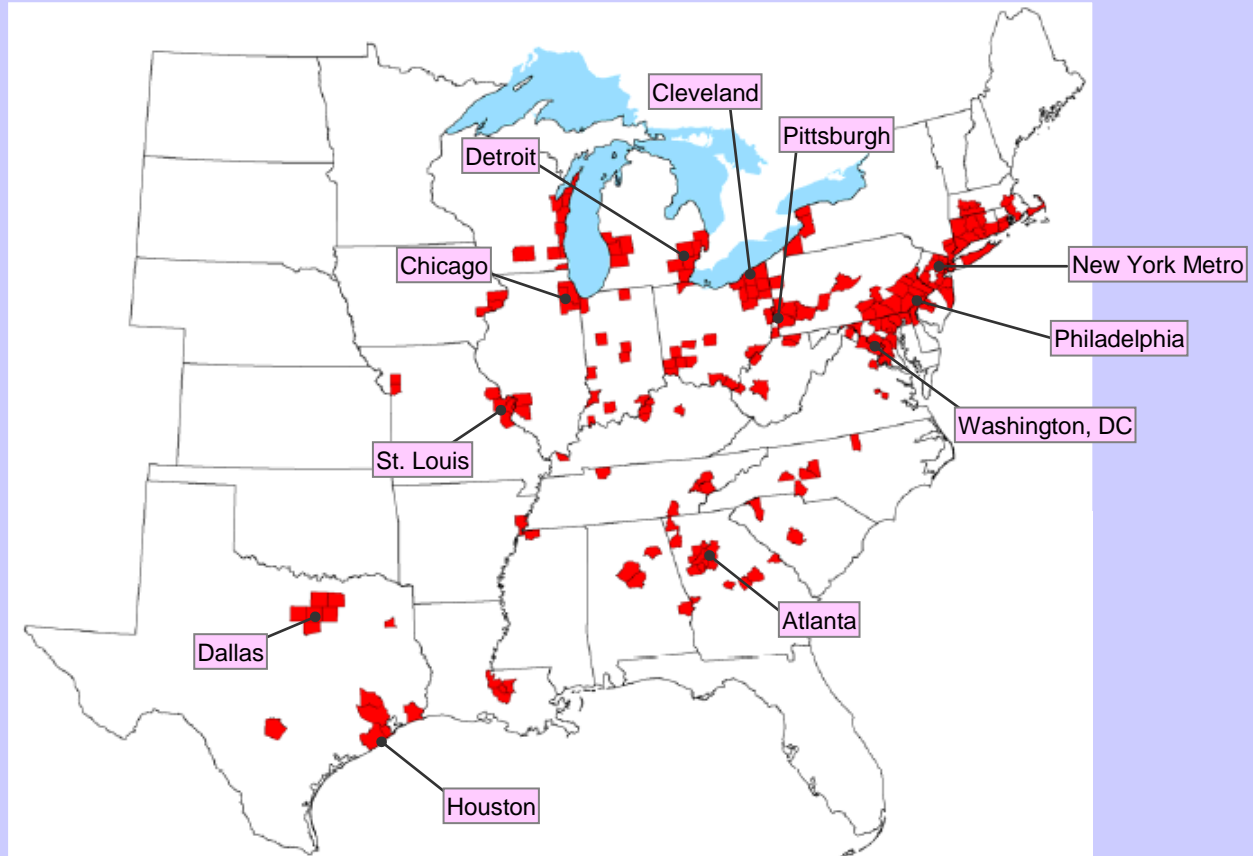
Areas Out of Attainment are Frequently Population Centers

Counties Violating Air Quality Standards in the Proposed Transport Rule Region

(based on 2003-07 air quality monitoring data)

Counties in **red** are in violation of one or more of the following NAAQS in the periods 2003-2005, 2004-2006, and/or 2005-2007:

- 1997 PM_{2.5}
- 1997 Ozone
- 2006 PM_{2.5}



Source: U.S. EPA (with city/urban center locations added by MJB&A)

In 2008 EPA estimated that 127 million Americans lived in non-attainment areas.