

Reducing Your Financial Risk – Pension Disclosure and Greenhouse Gas (GHG) Emissions

Quantifying and Disclosing Financial Risk Associated with GHG Reductions

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Until Recently the Financial Risk of New Environmental Requirements Were Readily Understood

- **Nearly all federal environmental emission limiting requirements (with important exceptions) were required be cost-effective and achievable**
- **Impacts on rates were modest (low single digits)**
- **Virtual all of FMEA coal-fired generation has emission controls meeting 1990 Clean Air Act emission limitations**
- **The Municipal Utility's Official Statement for Bond Rating Agencies were often pro forma**

The Financial Risk Related to Climate Change

- **Environmental Calamities?** Is there really anything you can do beyond Hurricane Planning?
- **Citizen Suits based on Federal Common law (Nuisance Suits).** *Good News: Supreme Court has recently disallowed climate change nuisance suits against electric utilities and other GHG emitting industries. How GHGs will be regulated is the providence of EPA (and states?).*
- **Legislative: No Climate Change Legislation (Cap and Trade) in the foreseeable future**
- **Regulatory: This is where it is happening**

Climate Legislation Fails, EPA to the Rescue

- **Supreme Finds that GHGs are Air Pollutants as defined by the CAA**
- **Supreme Court rules that EPA can regulate GHGs if it finds that GHGs endanger public health and welfare**
- **Based on UN IPCC summary data and without independent study, EPA makes an “Endangerment Finding” for 6 GHGs including CO2.**
The Rise of “Outcome Based” Science
- **CAA Requires Regulation of All Sources emitting over 100 to 250 tons of a regulated air pollutant. Creates over 1 million new sources**
- **EPA Passes a “Tailoring Rule” to raise the limit to 100,000 tons.**
- **Lawsuits filed, Results Uncertain**
- **Can EPA regulations trump the clear language of the CAA?**

Coal-fired Generation Becomes EPA's Public Enemy # 1

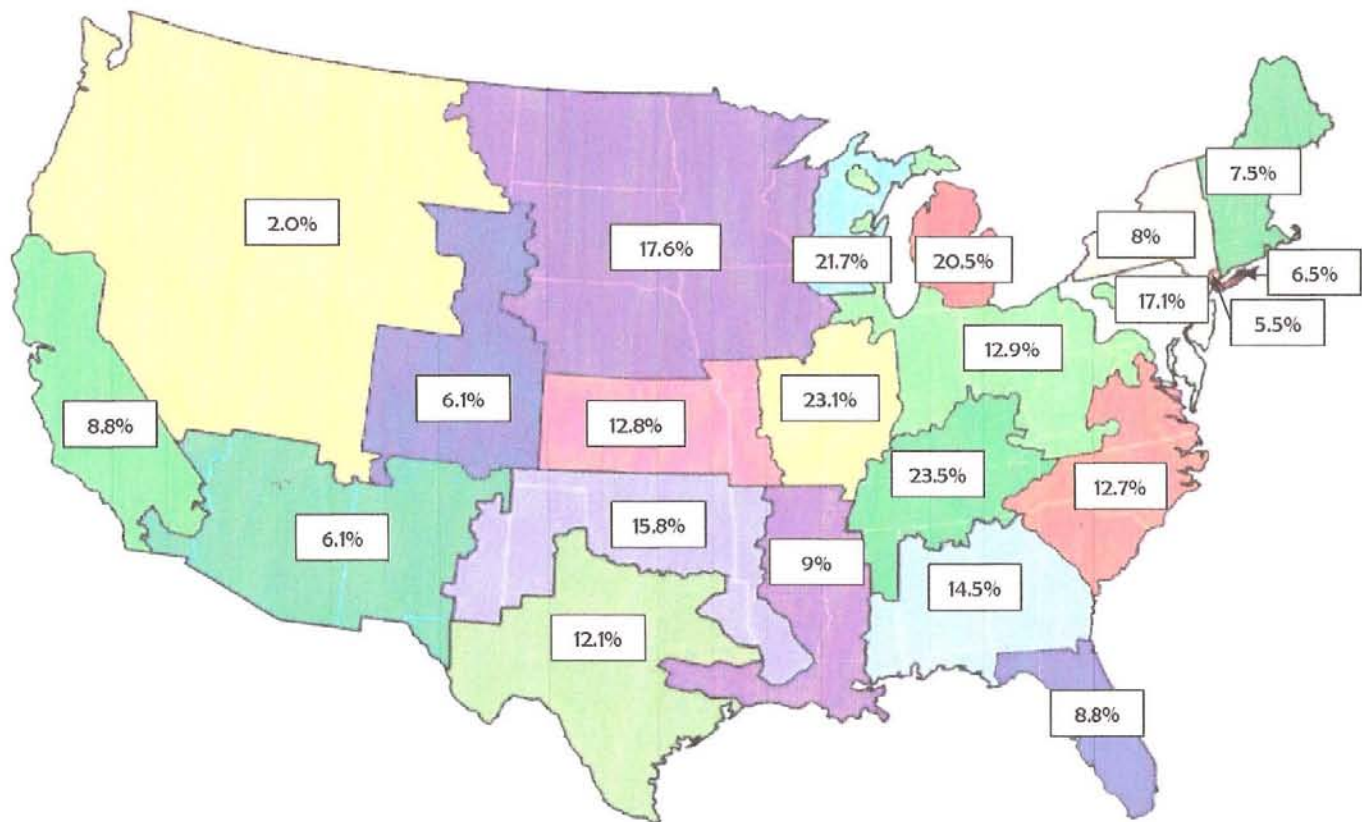


EPA's Climate Strategy: Eliminate Fossil Fuels Starting With Coal, use natural gas as a “bridge fuel”, and eventually Replace all with Green Energy

Goal 80% reduction of GHGs from 2005 levels

- **Continuous revisions of NAAQSs (Cost not considered) to force Coal-fired retirements Via CATR: Reduction of SO₂, NO_x and GHGs**
- **New NSPS based on Gas-fired Combined Cycle (Fuel-Neutral): No new coal units therefore GHGs avoided**
- **EPA's Utility Air Toxic Rule requires MACT (Maximum Available Control Technology) Again no cost consideration: controls required for compliance will prove uneconomical for many coal-fired units**
- **DOE estimates that in combination, EPA's regulations will eliminate 35 to 70 GWs of Coal-fired Generation (10% to 20% of US Coal-fired Capacity)**

Average Regional Electricity Price Increases in 2016 due to Transport Rule and MACT Proposals



A/E

Outlook for Florida Municipal Generating Utilities

- No immediate Issues for most Gas-fired generation, especially Combined Cycle Units
- Until July 5th, Most Coal-fired Generating Units with higher efficiency (90% plus) flue gas scrubbers and selective catalytic reduction systems were anticipated to need only limited additional controls to meet CAA regulations.
- EPA will continue to tighten regulations to achieve GHG reductions and green energy goals

4 Key Issues

- **What is Your Exposure, Either Directly or Through your Energy Suppliers?**
- **Can Your Existing Generating Sources Comply?**
- **What Will it Cost?**
- **Can You Pay: Are the Rate Impacts Tolerable?**

How your energy costs and rates rank relative state and regional utilities will prove as important the absolute cost.

Risk Mitigation Suggestions

- **Accurately Define the Environmental Issues**
- **Address the Reasonable Anticipated Outcomes, Potential Responses, and Resulting Impacts**
- **Use Recognized Methods to Evaluate the Economic Risk to the Utility, Rate Payers and Community. (Incorporate projected range of environmental costs to your Integrated Resource Plan)**
- **Understand Your Evaluation Process, “Trust but Verify”**

Can anything be done?

- **Increase the education of your consumers as the environmental and energy issues facing your utility (Editorial Board visits, City Commission Presentations etc).**
- **Inform your local, state, and federal elected officials as to the issues and the economic impacts facing your consumers and their constituents.**
- **Encourage strong lobbying by your trade associations (FMEA, APPA) to mitigate the economic impacts of EPA's aggressive push to reduce GHGs**