



NARUC

*Serving the consumer interest
by seeking to improve the
quality and effectiveness
of public utility regulation
in America.*

Greenhouse Gas Mitigation Strategies

Technology Policy, Regulation, and Economics

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Introduction



NARUC President



Florida Commissioner



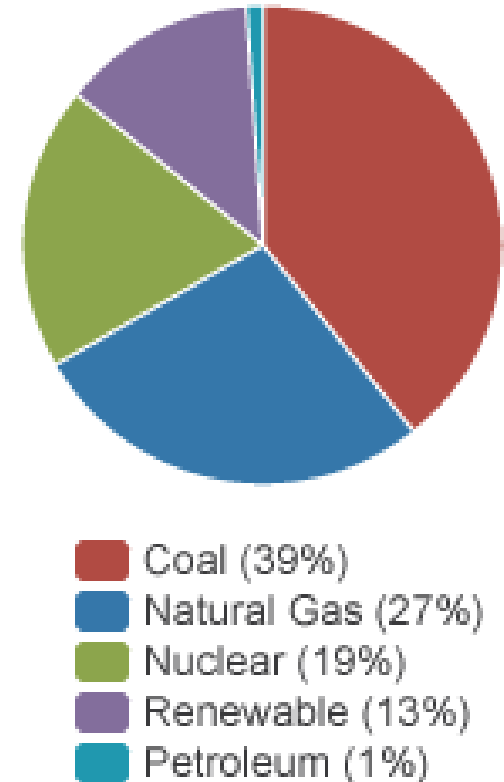
Overview

- ❖ Climate change, renewable energy, and greenhouse gas emissions are not new to NARUC.
- ❖ Recently moved to front-page energy conversations.
- ❖ No single strategy for all States
- ❖ Common regulatory principles
- ❖ NARUC has contributed to the national dialogue and assists member State Commissions
- ❖ Clean Power Plan—NARUC's role



Energy in the U.S.

- In 2014, the U.S. generated ~4,093 billion kWh electricity.
- Of that, 39% was generated by coal.
- Renewable Energy accounted for just 13%
- Coal is the prevailing source of power.





Regulatory Perspective

- State regulators understand electricity markets in their jurisdictions
 - They can identify the best opportunities and barriers to Clean Coal deployment
- Must balance benefits such as clean, sustainable energy and affordable rates.
- Regulators look at
 - **Cost**
 - **Reliability**
 - **Safety**





Cost: ROI

- ❖ The return on investment matters. Investors need to know that they will receive a reasonable return on the resources that they devote to a clean energy project, including their capital.
- ❖ It will not be possible to attract new investment without a tariff regime that offers reliable return over a time period sufficient to cover the investment.





Economics of Maintaining Coal Plants

- ❖ As States adopt more clean energy programs, the existing coal power plants may be retired or retrofitted to meet a variety of standards.
- ❖ Retrofitting technology can significantly reduce harmful emissions
- ❖ But there are costs:
 - ❖ Capital costs
 - ❖ Variable operating and maintenance costs
 - ❖ Fixed operating and maintenance costs
 - ❖ Fuel costs
- ❖ A report published by NARUC estimates that annual MATS compliance will cost several billion dollars annually for these retrofits.



Standards

CSAPR
ELGs
MATS CPP
Cooling-Water-Intake-Structures
GHGs NSPS
CCRs/Ash
CAIR



NARUC's Role

- ❖ Core mission: Understanding how federal policies affect States and giving members a voice.
- ❖ NARUC's resolutions and official positions recognize issues that will have consequence for each State
- ❖ Federal regulations should reflect and respect each State's unique challenges.



Committee Work

❖ **Clean Coal and Carbon Management Committee**

❖ Educates NARUC members on the issues surrounding coal usage and new developments for carbon sequestration and storage.

❖ Sessions at NARUC Winter and Summer meetings have featured presentations highlighting clean coal technologies



Key 2015 Winter & Summer Sessions

NARUC Summer Committee Meetings

- ❖ Improving Plant Efficiency and Emissions through DryFining Technology
- ❖ Low-Energy Carbon Capture Using Metal-Organic Frameworks

NARUC Winter Meetings

- ❖ EPA's Proposed Clean Power Plan and Carbon Capture & Storage
- ❖ Illinois Basin Decatur Project & ADM Industrial CCS Demonstration
- ❖ Opportunities for CCS from the Coal Utilization Research Council (CURC) Perspective
- ❖ The next big reliability challenge: EPA revised ozone standard



NARUC Resolutions

- ❖ Resolution on Carbon Capture and Enhanced Oil Recovery
- ❖ Resolution on Increased Flexibility for the Implementation of EPA Rulemakings



Federal Testimony

- ❖ Another avenue to effect policy decisions on clean coal matters.
- ❖ North Dakota Commissioner P. Kalk testified before the U.S. Senate Energy and Natural Resources Committee Hearing on Energy Infrastructure Legislation in May 2015.



NARUC Resolution - EPA's Regulation of GHGs from Existing EGUs (11/20/2013)

- ❖ Any GHG regulations for existing EGUs should –
- ❖ Allow States to create emission reduction systems that reflect their policies, energy needs, resource mix, & economic conditions
- ❖ Avoid requiring GHG reductions that are not feasible
- ❖ Provide flexible compliance mechanisms to allow States to achieve most cost-effective GHG reductions
- ❖ Recognize each State's GHG reductions & existing programs
- ❖ Respect each State's jurisdiction over generation planning



Clean Power Plan

- ❖ NARUC was at the table throughout the process
- ❖ How State policies and will change and short-term consequences on coal plants is not immediately clear
- ❖ Regulators will review the plan and continue to work toward solutions for their constituents.

