



# NARUC

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

## **Environmental Challenges Facing United States Utility Commissions**

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Kentucky Public Service Commission**

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# I. ENVIRONMENTAL REGULATIONS

## A. Air Regulations (Clean Air Act)

### 1. National Ambient Air Quality Standards (NAAQS)

Particulate Matter, Ozone, Nitrogen Oxides (NO<sub>x</sub>), Sulfur Oxides (SO<sub>x</sub>), Carbon Monoxide (Criteria Pollutants)



# I. ENVIRONMENTAL REGULATIONS

2. Cross-State Air Pollution Rule (CSAPR)  
(and predecessor Clean Air Interstate Rule  
-- CAIR)

SO<sub>2</sub>, NO<sub>x</sub>

3. Mercury and Air Toxics Rules (MATS)  
Mercury, heavy metals, acid gases and  
certain toxic organic compounds



# I. ENVIRONMENTAL REGULATIONS

## 4. Greenhouse Gases

- a. 111(b) – New Sources (power plants)  
(September 2013)

### **Fossil fuel-fired utility boilers (coal)**

- i. 1100 lbs CO<sub>2</sub>/MWh over 12 month  
operating period

1000-1050 lbs CO<sub>2</sub>/MWh over 7 year  
operating period

(Carbon Capture and Sequestration)



# I. ENVIRONMENTAL REGULATIONS

(a. continued)

## 4. Greenhouse Gases

### Natural gas fired (combined cycle)

ii. 1000 lbs CO<sub>2</sub>/MWh gross (>850 mm Btu)

1100 lbs CO<sub>2</sub>/MWh gross ( $\leq$ 850 mm Btu)



# I. ENVIRONMENTAL REGULATIONS

4. Greenhouse Gases
  - b. 111(d) Existing Sources  
(expected June 2, 2014)

## **Issues:**

1. Starting date (ex. 2005)
2. Reduction Amount (ex 20% by 2020)  
(80% by 2050)
3. Inside fence line / outside fence line



# I. ENVIRONMENTAL REGULATIONS

## Issues (continued):

4. Customer side energy efficiency
5. Regional approach
6. Carbon trading



# I. ENVIRONMENTAL REGULATIONS

## B. Water Regulations (Clean Water Act) (Pending)

### 1. 316(b) cooling water intake

Structures at existing facilities

Reduce harmful effects on fish

Impingement (fish caught in screen)

Entrainment (fish pass thru to cooling system)





# I. ENVIRONMENTAL REGULATIONS

## C. Coal Combustion Residuals (Pending)

Effluent Limitations Guidelines

Toxic Pollutants



## II. STATE UTILITY COMMISSION REVIEWS

### A. De-regulated states

No direct review

### B. Regulated states

1. Environmental Compliance Plans
2. Integrated Resource Plans
3. Environmental surcharge recovery
4. Certificate of Public Convenience and Necessity



## II. STATE UTILITY COMMISSION REVIEWS

### C. Results – contested hearings (e.g. Sierra Club)

1. Close facilities – older, smaller
2. Environmental control – SCR; FGD (scrubber)
3. Convert to Gas Fired combined cycle
4. Renewables
5. Energy efficiency – customer side
6. Smart grid



## II. STATE UTILITY COMMISSION REVIEWS

(continued)

### C. Results – contested hearings

7. Variable pricing
8. Economic modeling
9. Very costly – billions
10. Reliability (Polar Vortex)



### III. NARUC – THREE RESOLUTIONS

February 16, 2011, July 20, 2011

- No position on merits
- Reliability, minimize costs to consumers
- States and regions unique, flexibility
- Extend timelines, phase in



### III. NARUC – THREE RESOLUTIONS

November 20, 2013 (Specific to carbon)

- Recognize primacy of states
- Consider reliability and feasibility
- Flexibility so cost effective
- Consider reduction achievements to date



**Thank You**

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