Numbers Big Enough to Encourage Air and Energy Regulators to Collaborate? Lessons Learned from State EE/AQ Training

Presented by Chris James
NACAA Fall Meeting, Stevenson, WA

October 1, 2012

The Regulatory Assistance Project

50 State Street, Suite 3
Montpelier, VT 05602

Phone: 802-223-8199
web: www.raponline.org

Overview

- What influences states interest in learning about air quality and energy links?
- Whom have we been working with?
- What are we learning?
- What do these lessons tell us about the future?

But First A Quiz

1. How Much Do We Spend Each Year on Health Care?

- A: $450 billion
- B: $721 billion
- C: $2.5 trillion
- D: $4 trillion

2. How Much Do We Spend Each Year on Energy?

- A. $25 billion
- B. $200 billion
- C. $774 billion
- D. $1 trillion

3. How Much of the Energy Dollars Are for Electricity?

- A: $250 billion
- B: $350 billion
- C: $442 billion
- D: $506 billion

4. What Are the Number of Premature Deaths from Air Pollution in USA?

- A: 5,900
- B: 50,000
- C: 100,000
- D: 2 million

5. What is the Lifetime Health Benefit from Taking One Ton of SO2 Out of the Air in the Ohio Valley?

- A. $200
- B: $2,000
- C: $5,800
- D: $9,600

6. Since 1980, Energy Efficiency Programs in the Pacific Northwest Have Saved Energy in an Amount Equal to the Consumption of?

- A: Alaska
- B: Oregon
- C: Washington
- D: California

You All Did Great

- Now sit back, relax and enjoy the rest of the presentation

The Conversation Has Occurred All Over the USA

- Oklahoma
- Washington
- Virginia
- Nescaum states
- EPA Region 6 and Region 6 states
- EPA OAQPS
- EPA Region 8 and Region 8 states
- EPA Region 10
- EPA HQ
- Next up: North Carolina
- What's next after that? (details in a couple of slides)

States Seek Answers to These Questions

- How many MWh of EE or RE are needed to reduce or avoid one ton of a pollutant?
- How many tons are required to be removed to improve air quality by 1 ppb or 1 ug/m3?
- How many MW/MWh of energy savings and energy generation are being achieved today by my state's EE and RE programs?
- What is current EE and RE program design, and future forecast?

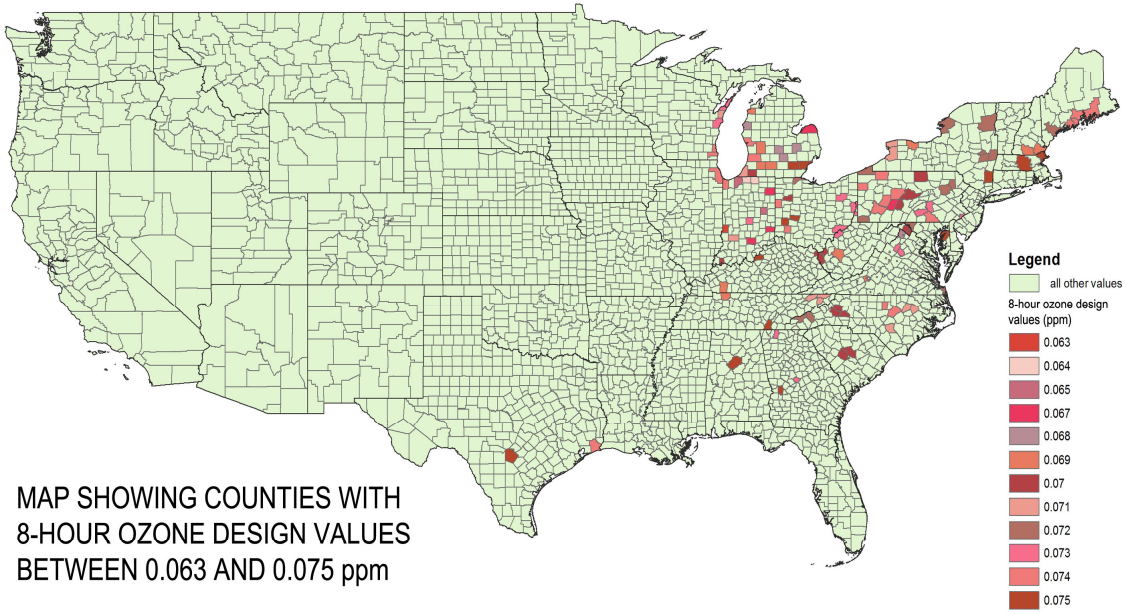
Key Questions That Have Emerged from State Conversations

- What actions increase state flexibility?
- What control measures can achieve the same or better environmental and public health goals sooner and more cost-effectively?
- What resources does my state need to meet current and future electricity growth?
- And, how should my state compare new resources with each other, not new resources with existing resources?

Lessons from EE/AQ Training

- States are in different places, but all are interested in better communications, and potential coordination with their PUCs and energy offices
- States value flexibility and want choices in the selection of control measures and the timing for their implementation
- Cost-effectiveness of control measures is increasingly important, as states may have to calculate and justify costs of new or revised regulations
- States understand that energy efficiency can reduce emissions, but need to better understand PUC processes and may need improved evaluation methods to properly account for the benefits of EE in air quality plans
- What are future opportunities for initial engagement or to deepen the conversations we're already having? (see next slide)

Where to Focus Future EE/RE Based AQ Measures



MAP SHOWING COUNTIES WITH
8-HOUR OZONE DESIGN VALUES
BETWEEN 0.063 AND 0.075 ppm

Examples of Good Air Quality and Energy Integration

- Colorado Clean Air Clean Jobs Act
- Arkansas, New Hampshire: broad statutory authority
- North Carolina, Georgia: statutes expect/require interagency co-operation (GA extends that to Federal level)
- Xcel Energy IRP (MN): Concludes that costs to meet new resource needs are the same for building new wind or new coal, with less risk for wind
- TVA IRP: stakeholder driven process- future resource needs can substantially be met through energy efficiency
- NPCC: Sixth Power Plan- nearly all future resource needs are to be met through new energy efficiency.
- FERC Order 1000

A Few Future Opportunities…

- FERC Order 1000
- Uncertainty caused by CSAPR vacatur, future ozone and PM2.5 NAAQS
- Water quantity and quality are big issues in many states. Linking air and water benefits from EE/RE could garner additional support
- …and what are the long-term goals?

Long-Term Goals: Five Principles of Coordinated Regulation

- Energy regulators have the authority or mandate to consider, respond to, or address environmental impacts like pollutant emissions or water consumption in their decisions and orders
- Environmental regulators have the authority or mandate to consider, respond to, or address energy impacts like cost and reliability in their decisions and regulatory determinations
- Statutes require or encourage energy and environmental collaboration
- The state moved to eliminate major legal or institutional barriers to integrated consideration of regulatory and policy determinations by administrative and regulatory agencies on a regional, multi-jurisdictional basis
- Energy and environmental agencies have eliminated or addressed disparate or conflicting legal or administrative requirements for timing and deadlines

It Matters That We Get It Right

- Thank you

About RAP

The Regulatory Assistance Project (RAP) is a global, non-profit team of experts that focuses on the long-term economic and environmental sustainability of the power and natural gas sectors. RAP has deep expertise in regulatory and market policies that:

- Promote economic efficiency
- Protect the environment
- Ensure system reliability
- Allocate system benefits fairly among all consumers

Learn more about RAP at www.raponline.org

Chris James: cjames@raponline.org
Phone: 617-861-7684 (M), 802-498-0725 (O) (Pacific Time), Skype: climatekaos

Global
US
China
EU

The Regulatory Assistance Project
50 State Street, Suite 3
Montpelier, Vermont 05602
phone: 802-223-8199
fax: 802-223-8172
www.raponline.org

Extra Slides

- Provide description and details for:
  - What are the goals?
  - Why is this important?
  - How can the goals be achieved?

NACAA Overview

- **What** do we mean when we urge regulators, policymakers, and lawmakers to integrate energy and environment?
- **Why** is it increasingly important to make the integration of energy and environment a priority issue?
- **How** can regulators adopt our recommendations - what concrete actions can be taken, and what policies should be pursued?

What?

- Energy policymakers and regulators are aware of the environmental consequences of the decisions they make and they are empowered to act on that knowledge in ways that help meet the relevant environmental goals, and
- Environmental policymakers and regulators are aware of the impact of their choices on the energy sector and they are empowered to act on that knowledge in ways that support energy-related goals and policies.

Why?

- Energy and environment may be easily separated on a government organizational chart, but they are inextricably linked in the real world. The connections between the two are significant, compelling, and unarguable.
- Conditions have changed so much since our energy and environmental institutions were structured that the failure to coordinate energy and environmental policies is leading to bad outcomes. Most important is the transition of the power sector from a regulated cost-based system to one increasingly reflective of competitive markets and the need to address climate change.
- Experience around the world is showing that better integration produces better, faster, and cheaper results.

Why Examples

- The United States spends over $1 trillion annually on energy. Of that, about $350 billion is spent directly by customers on electricity.
- The United States spends over $2.5 trillion annually on health care ($ does not include premature deaths, lost productivity)

How?

- Organizational and institutional reforms that will enable better coordination of energy and environmental agencies
- Economic principles that inherently integrate energy and environmental concerns
- Regulatory practices that invite cooperation between environmental and energy regulators.