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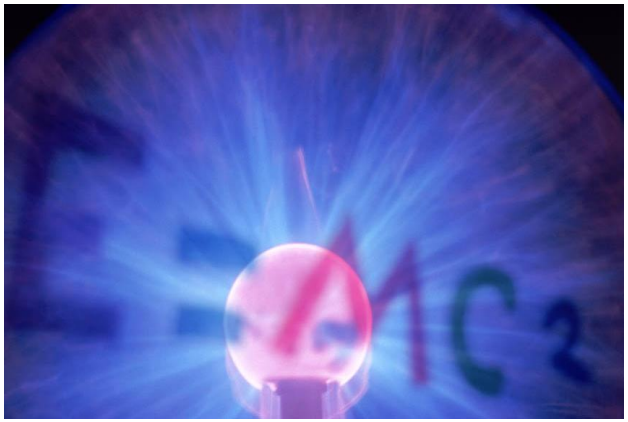
COLORADO ENERGY COALITION



The Balanced ENERGY ECONOMY Series

Presented by:

IHS

Moderator:
Mary Jeffreys
Energy Industry Coordinator
Metro Denver Wired Initiative

THE BALANCED ENERGY ECONOMY SERIES

Energy Policy in Context

Background

Before we make a decision about the policy, we must first understand the context.

What do we mean by context?
What does it have to do with energy?

- From an economic development and business climate standpoint, what role has the energy industry played in Colorado?
- How does that history relate and inform economic and policy decisions going forward?
- So, you have a policy decision, what about the politics?
- Example: Waxman-Markey, a policy and political debate
- What's next for energy policy – climate change in particular?

Context: What Energy Means to Colorado

Our Legacy

- The extractive industries were key to Colorado's early years. Fortunes were made, and lost, time and again.
  - Pike's Peak Gold Rush – 1858-61
  - Colorado Silver Boom/Leadville – 1879
  - The second oil field to be drilled in the United States was located in Colorado. The discovery of the Florence Oil Field produced a classic oil boom scenario in the late 1800s, when Florence grew to 10,000 people, with 25 oil companies and three refineries active. (*Colorado Geological Society*)

History Continues

- Boom and bust cycle of the 1980s
- Ramp up and slowing of last decade
  - Global and national economics (Katrina, gas prices)
  - New rules/regulations (severance tax debate)
- Recently (2007-2009), increased focus on renewables, growth in industry and suppliers. (Vestas, SMA, RES Americas)

Context: What Energy Means to Colorado Today

- The energy industry remains critical to our state's economic success. Key industry sector.
  - Traditional (oil, gas, mining)
  - Renewable (wind, solar)
- Note: When the Chamber speaks about the "New Energy Economy," we are referencing both the traditional and renewable efforts underway.

Context: What Energy Means to Colorado Today

- **A Competitive Advantage**
  - 3rd largest state in terms of energy firm employment (Approximately 2 percent of state civilian work force)
  - Largest oil-shale deposits in the U.S. – estimated one trillion barrels
  - 6th largest producer of natural gas in western U.S.
  - 1st in production of high-quality coal
  - 5th highest installed wind-generation capacity (RMR,CA, TX)
  - 4th highest installed solar-generation capacity (RMR, CA, TX)
  - Presence of federal labs, such as NREL

Context: Aren't we going "green" tomorrow?

- A transition to a more renewable-based economy will take 30 to 50 years as emerging renewable technologies are fully developed and deployed.
- Fossil fuels will continue to play an important role in our energy economy, although major changes are required in the production and use of those fuels.
- Significant research is being conducted into the safe storage of carbon capture and sequestration, and proposed carbon cap and trade policies.
  - "Resource Rich Colorado", Colorado Energy Coalition

How does this relate to policy?
It's all context for decision making

- **You can't forget where you come from**
  - History does not have to define where you are going, but it is a snapshot of where you have been. We must both embrace it – and learn from it.
- **No need to fly blind - data drives good decisions**
  - Knowing Colorado's strengths/weaknesses assists us as we strive to make smart, strategic decisions about where we go in the future.
  - Data helps us educate elected officials with regard to how ideas they have/decisions they make will impact Colorado.
- **Example**
  - The experience of the boom and bust cycle in the 1980s helped business and elected leaders begin to focus on diversifying the economic base of the region.

You've got the *policy* right, now what about the *politics?*

- Policy decisions don't simply move from decision to implementation. Count on those who are professionals thinking through the following.
  - Who's friend or foe?
  - Do they/we have resources (financial and grassroots) to succeed?
  - How does this play back home? Even numbered/odd numbered year discussions
  - What role can/will the media play?

You've got the *policy* right, now what about the *politics?*

Good policy decisions are made with as much information, dialogue and context as possible.

Even then, it can all go haywire.

Example: *Federal Cap and Trade (Climate Change) Legislation*

- Cap and Trade – "Emissions trading" controls pollution by providing economic incentives for achieving reductions in emissions pollutants. The current focus is carbon dioxide.
- Discussion as been around for decades:
  - Acid Rain Program/Clean Air Act – 1995
  - Kyoto Protocol – 1997
  - Copenhagen Treaty – 2009

Federal Climate Change Legislation (cont.)

- Historically, the United States has not fully embraced the options outlined in a binding international treaty. The policy and the politics have not aligned.
- Political changes in 2008 have made the possibility of large-scale changes possible, either through legislation or administrative action. An international agreement remains elusive.

Process can be our friend
***Timing*? Your guess is as good as any**

- Bill introduced in both chambers of Congress
  - Could be same legislation moving simultaneously, more frequently same issue, different substance, timing not considered.
  - Committee hearing/mark-up process (could have several committees of reference before moving to floor for debate/action)
  - Sent to floor for debate/action.

- Moves to second chamber to repeat process.
  - If modified in any fashion must return to first chamber for floor vote, or conference committee.
  - If conference committee occurs, both chambers must vote on final bill.

Example: Current Legislative Proposal

- American Clean Energy and Security Act of 2009 (Waxman-Markey)
  - 1,300-plus page bill. Introduced in May, passed floor vote in June (219-212).
  - More than 400 amendments from Republicans, 310-page amendment offered by sponsor.

Waxman-Markey Cont.

- Policy Highlights:
  - 17 percent reduction in carbon dioxide, methane and other greenhouse gas emissions by 2020
  - Renewable energy standards for electricity providers
  - Modernization of the electric grid
  - Increased energy efficiency standards in buildings, home appliances and electric generation

Waxman-Markey Cont.

- Policy Concerns:
  - If nations like China and India do not comply with something similar is the increased cost to consumers worthwhile?
  - Tariffs on Chinese imports could provide a trade war. GAO notes there is no way to verify if carbon offsets represent real emission reductions.
  - Increased cost of gas, diesel, heating oil, jet fuel and propane will effect consumers, especially low income.
  - Hydro and nuclear power are not considered as renewable, although zero based emissions.

Waxman-Markey Cont.

- Supporters
  - Environmental community
  - United Auto Workers
  - Dow Chemical
  - Pacific Gas and Electric
  - DuPont
- Opposition
  - U.S. Chamber of Commerce
  - National Association of Manufactures
  - Some environmental groups who thought it did not go far enough

What's happened since June?

- Senate steps forward, and back, on their version of climate change legislation. Introduction date still soft.
- EPA paves way to regulate carbon dioxide emissions without legislative action. Expect a fight.
- Copenhagen Treaty gathering underway. No binding agreement expected.

In closing…

- Back to the basics: Good policy decisions are made with as much information, dialogue and context as possible.
- Some times are easier than others.
- Sometimes, you find yourself with only half the needed information.
- Based on what you know, do you think you have the context you need to weigh in on climate change?

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Federal climate change legislation

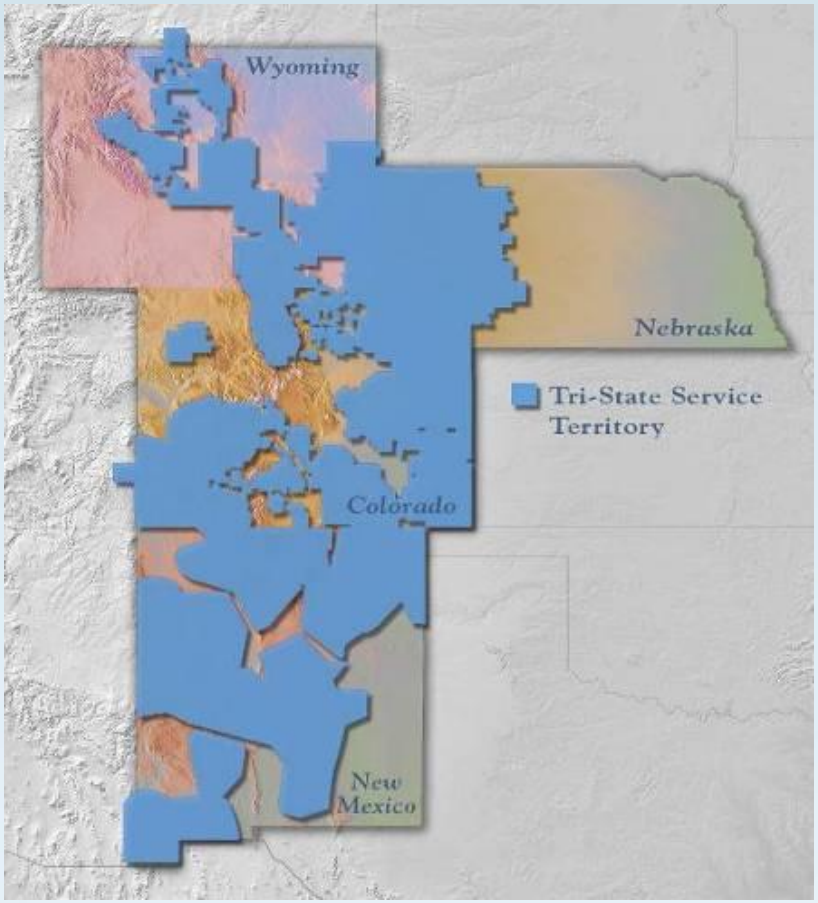
Tri-State's analysis and reflections

Denver Metro Chamber of Commerce

December 15th, 2009

Tri-State Generation and Transmission Association

- Member owned, not-for-profit, generation and transmission cooperative
  - 44 Member-System owners across CO (18), NM (12), NE (6), WY (8)
  - Member-systems serve approximately 1.4 million consumers
  - 250,000 square miles of service territory
  - 5,200 miles of transmission lines
  - Own all or part of 11 generation plants in four states



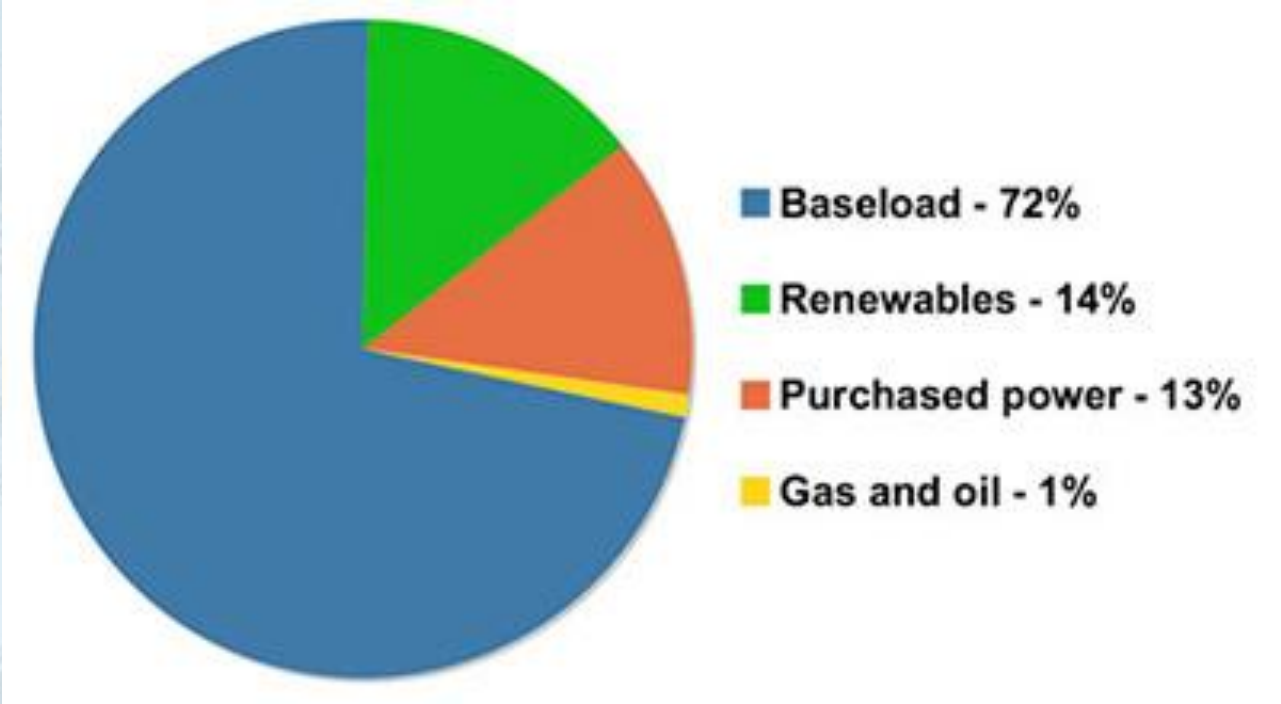
Basic Statistics

- 2008 Peak Member Load – 2498 MW (July 1)

- Load Locations
  - New Mexico 399 MW ~16%
  - West Colorado 485 MW ~20%
  - East Colorado 1061 MW ~42%
  - Nebraska 325 MW ~13%
  - Wyoming 228 MW ~ 9%

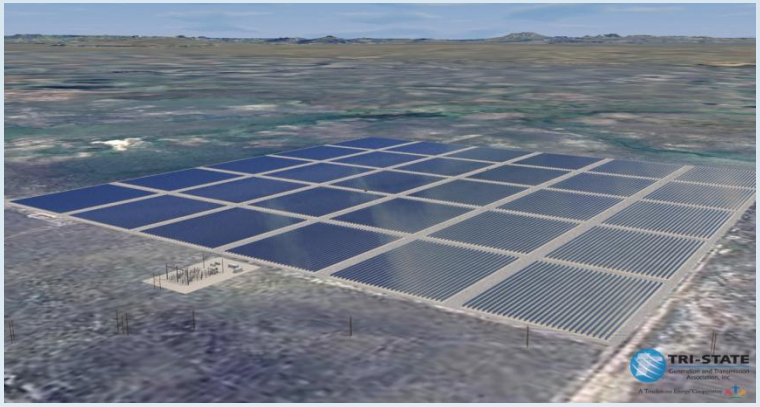
- Diverse Membership
  - United Power– Brighton, CO – 65,000 meters – 287 MW
  - Garland L&P- Powell, WY – 1,900 meters – 6 MW

Portfolio



Major initiatives

- Energy efficiency and demand side management
- Utility and community- scale renewable energy
  - Cimarron I solar project - 30MW
  - Kit Carson wind project - 51MW
  - Numerous local projects - 16 MW



- New technology and GHG management
  - Greenhouse Gas Management Roadmap
  - Carbon capture and sequestration
  - Solar/fossil hybrid development
- Transmission development

Climate Policy Proposals

- H.R. 2454 – American Clean Energy and Security Act (Waxman-Markey)
- S-1733 – Clean Energy Jobs and American Power Act (Kerry-Boxer)

- Greenhouse gas reduction targets
  - 17%-20% below 2005 levels by 2020 and 80%+ below 2005 levels by 2050
  - Create cap and trade system
    - Utilities and others receive a declining number of allowances and must reduce or purchase additional allowances to meet targets

Climate Policy Proposals

- Allowance allocation is crux of debate
  - Who should receive allowances?
    - Only those who emit greenhouse gasses and must comply?
    - Even utilities with limited GHG emissions?
  - Should there be a cap on what they can trade for?
  - Can they be transformed into financial “products” (e.g. traded like commodities; used as the basis for derivatives)
  - Are there sufficient allowances to allow for smooth technology transition without major price shock?
  - What about offsets?

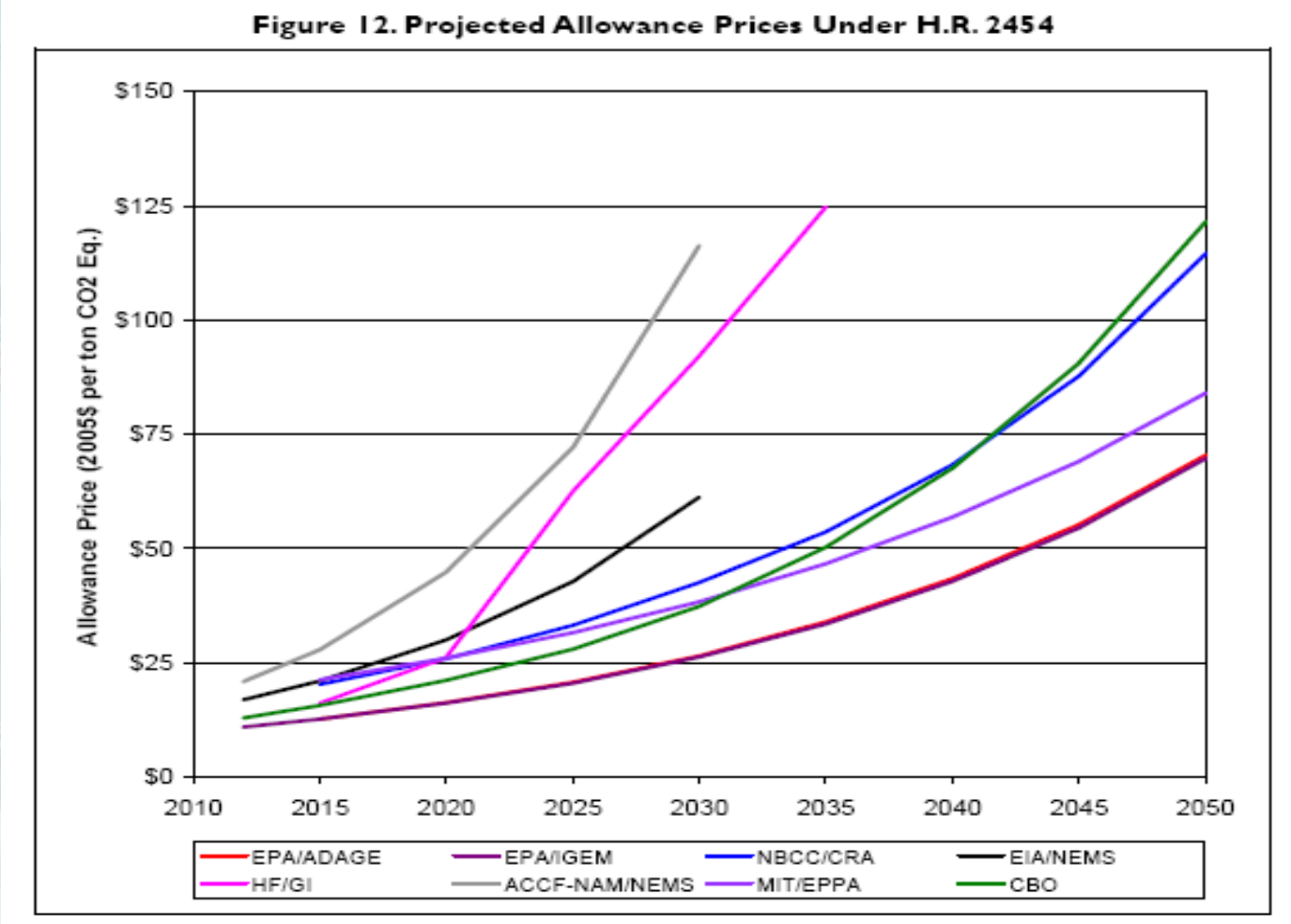
Climate Policy proposals status

- Waxman-Markey passed the House in late June 219-212
  - DeGette, Polis, Markey, Perlmutter “yes”
  - Salazar, Lamborn, Coffman “no”
- Kerry-Boxer passed out of the Environment and Public Works Committee 11-1
  - Only Ds participated in the mark-up; Rs boycotted

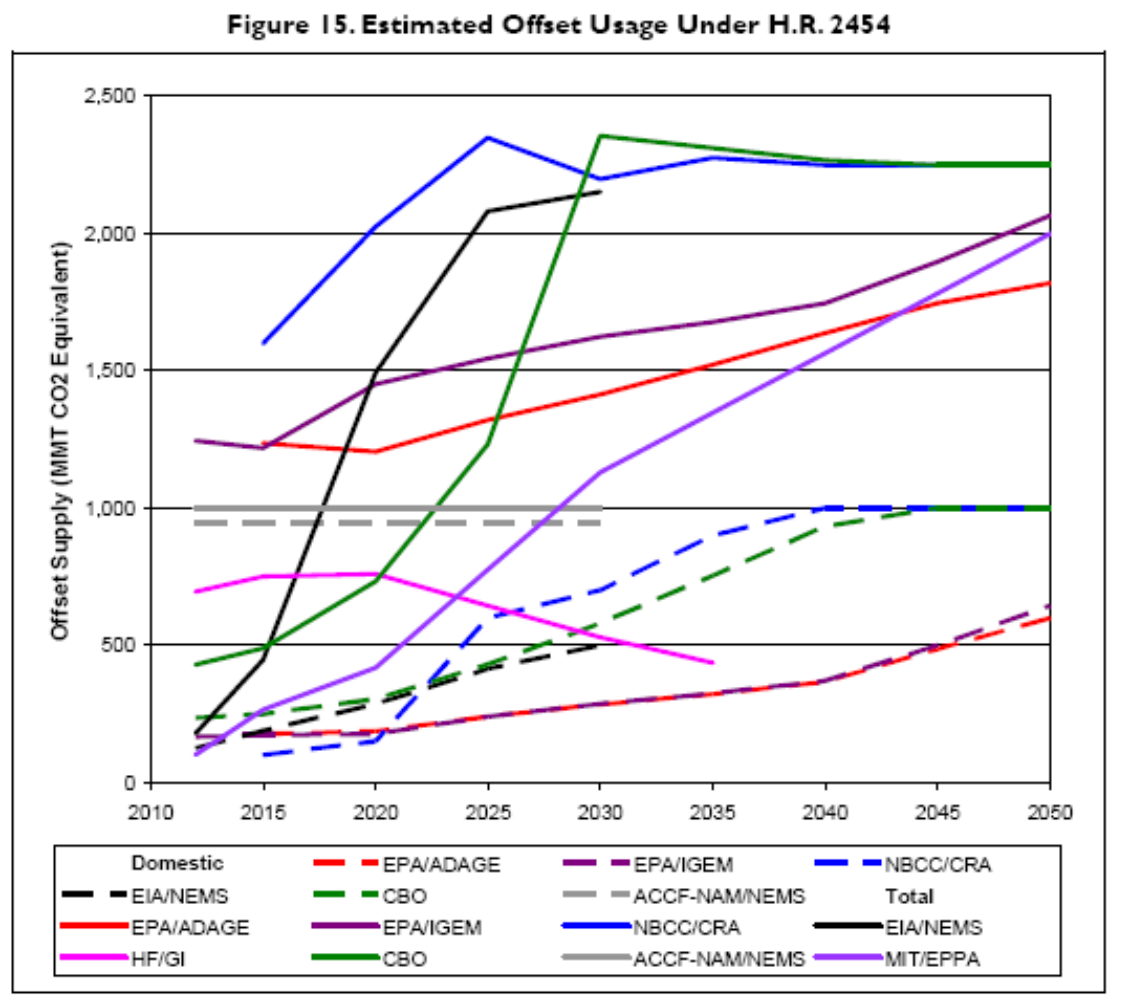
Potential impacts

- Waxman-Markey -- Wholesale
  - $150-$480 million system-wide in 2012
  - $6-$19 billion between 2012 and 2030
    - Based on EPA analysis; $20-$60 per ton of CO_2 costs
- Kerry-Boxer -- Wholesale
  - $172-$556 million system-wide in 2012
  - $7-$22 billion between 2012 and 2030
    - Operating costs = $1.3 billion
- Estimated retail rates in 2012
  - 1.1 cents per kWh impact to Tri-State rates means:
    - 8% increase to irrigation
    - 10% increase to small commercial
    - 12% increase to residential
    - 13% increase to large commercial
    - 22% increase to industrial

Potential impacts



Potential impacts



Tri-State's position

- Support climate legislation
  - Superior to regulating GHGs under the Clean Air Act
- Current proposals need to be changed, however
  - Reduction targets, timetables more realistic
    - Sync up with technology availability
  - Offsets should be unlimited
    - As long as they are legitimate, verifiable
  - A price collar needs to be established
  - Allocations should be based solely on emissions
  - Federal law and state/regional program pre-emption

Prognostications

- Copenhagen
  - Will not produce a treaty or binding agreement
  - Political agreement to try again in Mexico City in 2010
- Congress
  - Senate may be able to pass climate bill in early ‘10
  - Won’t be Kerry-Boxer
  - Kerry, Lieberman and Graham working on proposal
    - Can they hit the sweet spot – meaningful reductions without undue economic hardships?
  - 60 votes hard to come by
- EPA
  - Will propose GHG reduction rule using Clean Air Act
    - Litigation frenzy
    - Will president want to be solely responsible?

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Question and Answer

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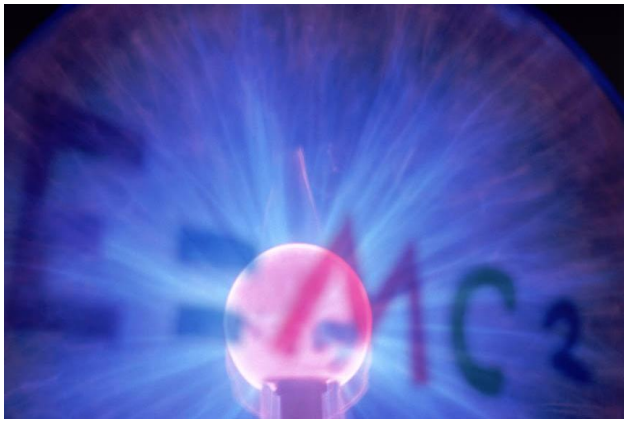

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