

Climate Change

September 24, 2007

Purpose

- Overview of current climate change activities
- Review draft District principles
 - Approve principles next week

AGENDA

- Part 1 (Gregg)
 - Climate Change Basics
 - Legislative Issues
- Part 2 (Rich)
 - Proposed District Principles

The Basics

- The debate in Congress and the states is not over whether to regulate CO₂, but how to regulate CO₂

Regulation Points

- Points of regulation
 - Raw Fuel Production (upstream)
 - Petroleum (43%)
 - Coal (35%)
 - Natural Gas (19%)
 - Industrial Processes (2%)
 - Fuel Processing (midstream)
 - Fuel refining (59%)
 - Conversion to Electricity (39%)
 - Direct Industrial Uses (2%)
 - Fuel Use (downstream)
 - Residential (21%)
 - Commercial (18%)
 - Industrial (30%)
 - Transportation (31%)

The Carbon Market

- Carbon Tax
 - Upstream approach paid for by consumers through increased prices/rates
 - Lowest risk to electric generators
- Cap and Trade
 - Set the emission targets and allow trading of “emission credits” or allowances (number allowances equal to target)
 - EU rates have risen 7 to 15%
 - UK rates have risen 25 to 35%
- Hybrid
 - Carbon tax pays for transportation sector
 - Cap and trade for energy sector

Cap and Trade Terms

- Trading Allowances (the right to pollute)
 - Allocation
 - Initially – free allowances
 - Over time – decreased allowances and/or future growth accommodated within the ceiling established
 - Surplus allowances can be sold to others
 - Allocations will be distributed by each State
 - Auction
 - Quick results
 - Immediate price impacts
 - Sold to highest bidder
 - Revenues collected by government
 - Larger companies with significant liquidity could buy and hold allowances until prices rise
 - Hybrid/Transition
 - Most bills include allocation at beginning and switch over to full auction over time

Allocation Terms

- **Emission-based allocations (Bingaman/Specter)**
 - high-emission generating facilities would get most allowances
 - Low-emission generating facilities have few opportunities to reduce further and would need to buy allowances from high-emission generating facilities
 - Future generation would need to be efficient or would need to buy allowances
- **Generation-based allocations (Feinstein/Carper)**
 - All generating facilities would get allowances based on power produced and cleaner projects would be able to sell allowances
- **Load-based allocations (TBD)**
 - All utilities that currently serve customers would get allowances based on their share of the overall load in the U.S.

Federal Legislation

- Energy Bills
 - House (HR 6 - August) and Senate (HR 3221 - June)
- Climate change or greenhouse gas legislation:
 - McCain/Lieberman (S.280)
 - 65% below 1990 levels by 2050
 - Sanders/Boxer (S.309)
 - 80% below 1990 levels by 2050
 - Carper/Feinstein (S.317)
 - 40% below 1990 levels by 2050
 - Kerry/Snowe (S.485)
 - 65% below 1990 levels by 2050
 - Bingaman (Draft)
 - 14% below 2004 levels by 2030 (estimated)

Regional and State Activities

- Western Climate Initiative
 - Six Western States (Arizona, California, New Mexico, Oregon, Utah and Washington) and Two Canadian Provinces (British Columbia and Manitoba)
 - Target: 15% below 2005 levels by 2020
- State Goals
 - AZ Target: 50% below 2000 levels by 2040
 - CA Target: 80% below 1990 levels by 2050
 - NM Target: 75% below 2000 levels by 2050
 - OR Target: >75% below 1990 levels by 2050
 - WA Target: 50% below 1990 levels by 2050

Washington State Activities

- Governor's Executive Order 07-02
 - 1990 levels by 2020
 - 25% below 1990 levels by 2030
 - 50% below 1990 levels by 2050
 - Directors of Ecology and CTED to develop “Washington Climate Change Challenge” to achieve the goals of this Executive Order.
 - Climate Advisory Team (CAT)
 - Submit “Washington Climate Change Challenge” to Governor within one year (by Feb. 7, 2008).

Washington State Activities

- Governor's Climate Advisory Team (CAT)
 - Rich's Role: to speak as an individual not as a sector representative.
 - Focus: To develop recommendations for achieving goals laid out in the Governors Executive Order
 - Technical Working Groups: Transportation, Residential/Commercial/Industrial, Energy Supply, Agriculture, Forestry

Washington State Activities

- SB 6001 (2007)
 - Rulemaking process focused on electric emissions performance standard
 - Follows the Governor's Executive Order Target: 1990 levels by 2020, 50% below 1990 levels by 2050
 - Requires the governor to develop policy recommendations by 2008
 - Effectively prevents coal plants from being built in Washington State by establishing low emission standard (1,100 lbs CO₂/MWh)

Washington State Activities

- 1937 - “Washington Energy Independence Act” (2007)
 - Rulemaking happening now
 - Requires all feasible conservation measures be identified and implemented starting in 2010
 - Requires “eligible” renewable energy be used
 - 3 % by 2012
 - 9 % by 2015
 - 15 % by 2020

AGENDA

- Part 1
- Part 2
 - District Principles
 - What's next

Why establish District principles?

- There is little doubt that the District will be impacted by Federal, Regional and State climate change regulations
- We need to be prepared for all new regulatory requirements and to be positioned for new energy markets
- Our primary goal is to protect and enhance the role that hydropower plays in the climate change debate and make sure it is recognized as a renewable energy resource
- District climate change policies and principles are needed to provide direction and alignment of our team
- Others (e.g. rating agencies) expect companies to have climate change principles in place

District Principles

1. Hydropower should be included as an eligible renewable resource under a national renewable portfolio standard
2. Demonstrable increases in incremental hydropower should be encouraged as “offsetting” greenhouse gases
3. Emissions legislation must include all sectors the economy and protect our ratepayers

District Principles

4. Emissions legislation should allocate allowances to assure future investments in renewable energy, efficiency improvements and conservation
5. Emissions legislation should credit utilities for their past accomplishments in renewables, energy efficiency, and conservation and support the development of new technologies

District Principles

6. Government grants, loans and incentives should be available to promote renewable efficiency improvements
7. Tax-based or other incentives for the development and deployment of renewable and clean energy facilities and programs should be provided on a comparable basis to all electric industry sectors including public power

What's Next?

- Board edit and adopt these principles next week
- Once adopted, work with our team to help promote hydropower as a renewable resource that offsets greenhouse gas emissions