

Senate Committee on Environment
and Natural Resources

Reducing Carbon Emissions Through Energy Policy

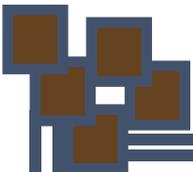
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Major Federal Policies Relating to Coal Generation

Federal Policies:

- Regional Haze
- Mercury and Air Toxics Standards (MATS)
- 316(d) Cooling Water Intake
- Coal Combustion Residuals
- Ozone Standard
- 111(b) CO₂e cap on new plants
- 111(d) CO₂e cap on existing plants

Major Oregon Policies

Oregon Policies

- Aspirational goal – state policy to reduce GHG emissions to 10% below 1990 levels by 2020 and 75% below 1990 by 2050.
 - Global Warming Commission established in statute in 2007.
- Oregon first in the country to enact a CO₂ emission standard from new power plants; creation of the Climate Trust to invest in carbon offsets.
- Emission Performance Standard: utilities may not sign long-term contracts to buy power generated above a designated CO₂/MWhr standard.
- Energy Efficiency: Energy Trust of Oregon acquires cost-effective E.E. for the investor-owned utilities (SB 1149 and SB 838). Bonneville Power Administration runs a core E.E. program for its consumer-owned utility customers.

Major Oregon Policies

- Renewable Portfolio Standard (SB 838) applies to all utilities in the state. 2025 standard depends on size of the utility
 - RPS requirements of 25% by 2025 apply to PGE, PacifiCorp and EWEB
 - 5% or 10% by 2025 for smaller utilities
- Various Solar Incentives: includes net metering, volumetric incentive rate (feed-in tariff pilot), solar capacity standard, etc.
- SB 844 incents voluntary emission reduction projects by natural gas utilities.
 - PUC can consider the value of the GHG emissions reduced
 - Projects must benefit natural gas utility ratepayers

Commission Carbon Tool Kit

- Integrated Resource Planning
 - Utility long term resource plans must analyze the impact of CO₂ emissions assuming a range of costs per ton
 - Will have increased significantly during the next IRP process when modeling 111(d) compliance.
 - Utilities must identify what resource action they would take to meet the state's GHG emission reduction goals.
- Rate Making and Prudence Review
 - Net present value of resource decisions.
 - For example, compare the cost of early coal plant closure vs. cost of pollution controls and carbon risk. PUC can allow only the costs of the prudent alternative in rates.

Commission Action on Carbon

- PGE's 2009 IRP – Early Closure of Boardman Coal Plant
 - PUC found early closure mitigated future carbon regulation and other risks given the cost of Clean Air Act compliance.
- PAC 2007 IRP – PAC Proposed 2 New Coal Plants
 - Commission did not acknowledge these investments and they were never built.
- PAC 2012 Rate Case (UE 246)
 - PAC requested recovery of pollution control investments on coal plants. Commission found that PAC did not fully analyze all options including early shut down of coal units. PUC disallowed a portion of the investment.
- PAC 2013 IRP
 - PAC sought acknowledgement of coal plant retrofits
 - Commission did not acknowledge investments.

Other States' Carbon Policies

- **RGGI** - launched in 2009, caps aggregated carbon emissions from all power plants larger than 25MW in nine-state Northeast region.
 - States auction emission allowances, then use the revenue to fund energy efficiency programs and low income rate relief.
 - RGGI projects that program will avoid 8 million tons of CO₂ and will save customers in participating states nearly \$2 billion.
- **CA AB 32** – Passed in 2006 implemented in 2012. Applies to the power sector and large industrial plants, in 2015 the regulations extend to fuel distributors. (85% of the states GHG emissions).
 - Driven to adoption and implementation through a Scoping Plan. This allowed for planning, certainty and compromise. It allows the state and stakeholders to plan for a path forward to meet the targets set out in AB 32 of reducing emissions to 1990 levels by 2020.

Canada's Carbon Policy

- **Quebec's Carbon Market** - Similar to the California Cap and Trade mechanism whereby businesses that emit 25,000 metric tons or more of CO₂ equivalent a year are subject to the cap and trade system.
 - First compliance period (2013-2014), only the industrial and electricity sectors are subject to the system.
 - Second and third compliance periods (2015-2017 and 2018-2020), fossil fuel distributors are also subject to the system.
- **British Columbia Carbon Price** – Uses market forces by sending a price signal to consumers to allow them to choose less carbon-intensive and thus less expensive alternatives. Raises revenue.
 - The BC carbon tax is revenue neutral, meaning every dollar generated by the tax is returned to British Columbians through reductions in other taxes.
 - Taxes fossil fuels burned for transportation, home heating, and electricity.

Colorado's Clean Air, Clean Jobs Act

- Colorado's Clean Air, Clean Jobs Act
 - Required Public Service Company of Colorado (PSCo) to submit a plan to reduce emissions and meet compliance with reasonable foreseeable state and federal Clean Air Act regulations.
 - In 2010 PSCo presented scenarios to the PUC which incorporated retrofitting in-state power plants with emissions- control equipment, refueling existing coal-fired generation with natural gas, or retiring and replacing plants with natural gas and other energy efficiency programs.
- Nevada's Emission Reduction & Capacity Replacement Plan
 - The retirement (three phases) of 800 MW of in-state coal-fired generation.
 - The first 300 MW must be retired by December 31, 2014,
 - Then 250 MW by December 31, 2017,
 - Followed by 250 MW by December 31, 2019.