Global Climate Change Working Group

October 11, 2006

PACIFICORP
A MIDAMERICAN ENERGY HOLDINGS COMPANY

Pacific Power | Rocky Mountain Power | PacifiCorp Energy

Agenda

- Introductions
- Overview of transaction commitment #42b
- PacifiCorp's Overview of the Climate Change Issue
- Discussion and Next Steps

PacifiCorp/MEHC Transaction Commitment 42b

Within six months after close of the transaction, MEHC and PacifiCorp commit that PacifiCorp will establish a global warming working group composed of representatives of the regulatory, consumer, educational and environmental communities in the six states that PacifiCorp serves, as well as representatives of PacifiCorp and MEHC.

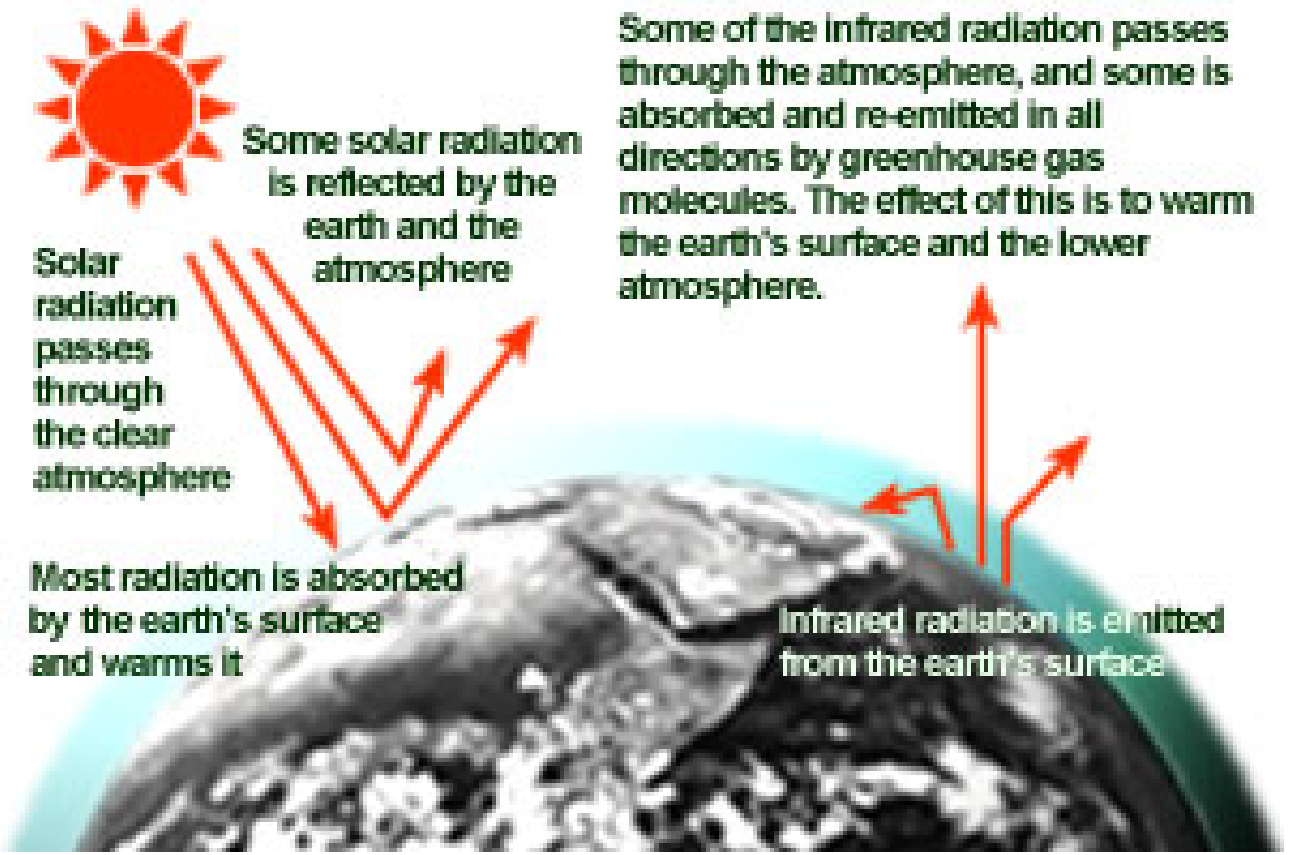
PacifiCorp will work with the global warming working group to identify cost-effective measures to reduce PacifiCorp's greenhouse emissions. PacifiCorp will develop and file with the Commission its strategy, which MEHC supports, for reducing its greenhouse gas emissions.

The Greenhouse Effect

- The greenhouse effect is natural and well understood.
- Keeps the Earth warm enough to be habitable.

- Greenhouse gases like carbon dioxide, methane, nitrous oxide and water vapor trap heat and warm the earth's surface.

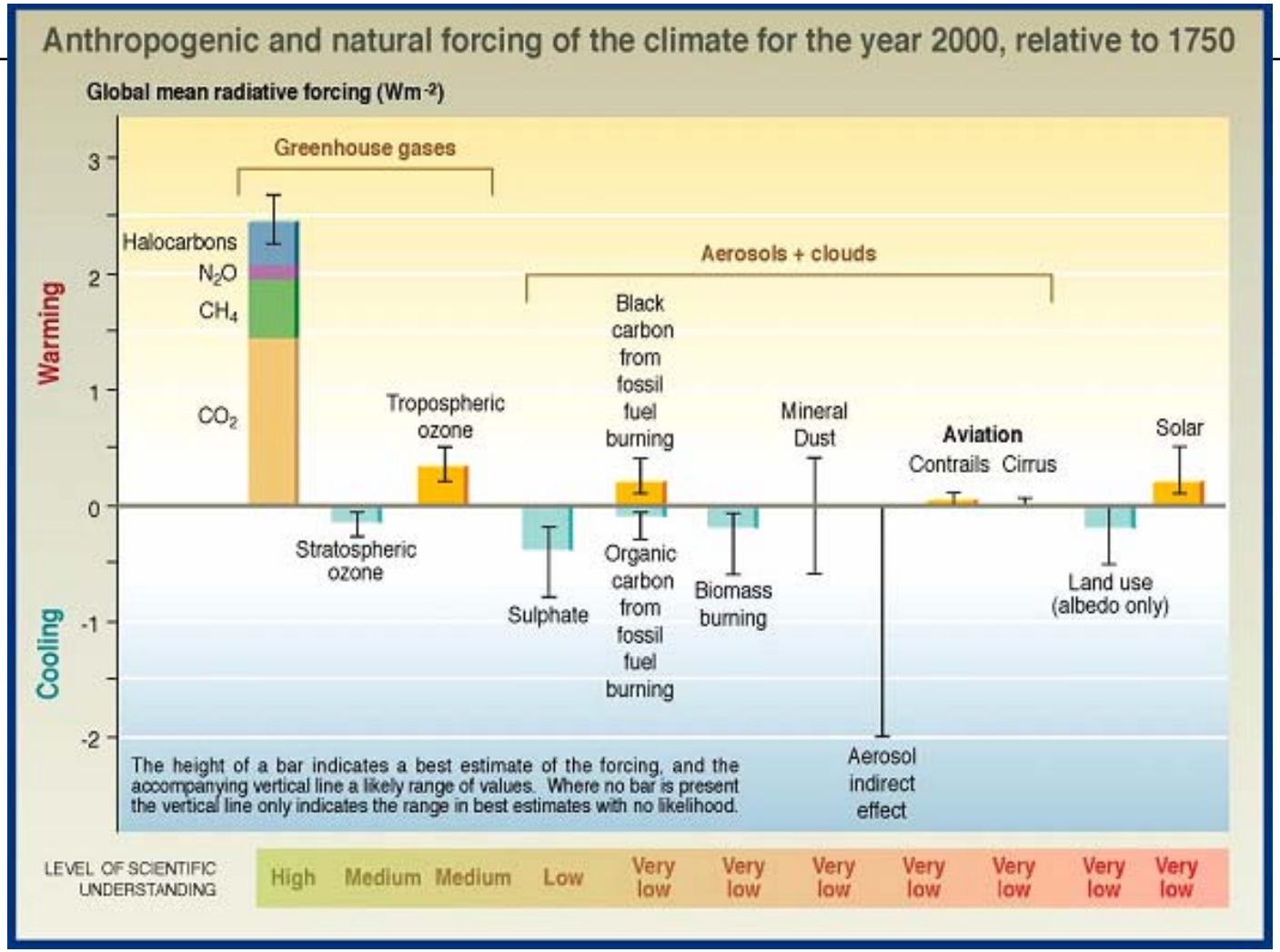
The Greenhouse Effect



Source: http://yosemite.epa.gov/oar/globalwarming.nsf/content/Climate.html

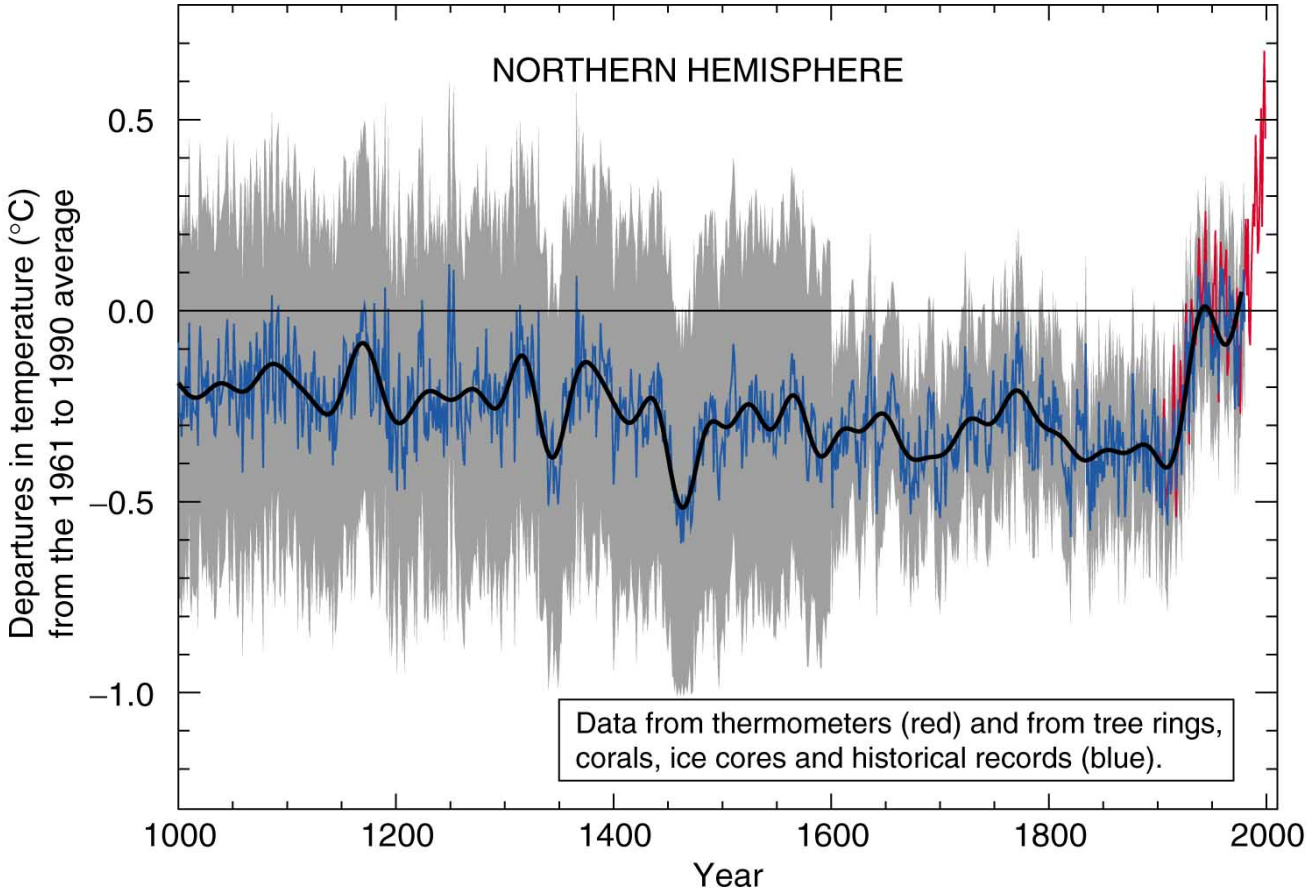
Key Greenhouse Gases

Greenhouse Gas	Natural Sources	Man-made Sources
Carbon Dioxide (CO_2)	Organic decay, forest fires, volcanoes, humans	Fossil fuels, deforestation
Methane (CH_4)	Wetlands, organic decay, termites, cattle, sheep	Natural gas, landfills, biomass burning, rice cultivation, plants
Nitrous Oxide (N_2O)	Forests, grasslands, oceans	Soil cultivation, fertilizers, biomass burning, fossil fuels
Chlorofluorocarbons (CFCs)	None	Refrigerants, aerosol spray propellants, cleaning solvents
Sulfur Hexafluoride (SF_6)	Volcanoes, rocks, hydrothermal fluids	Insulated breakers



Source: Intergovernmental Panel on Climate Change (IPCC)

Variations of the Earth's surface temperature over the past 1,000 years



Intergovernmental Panel on Climate Change

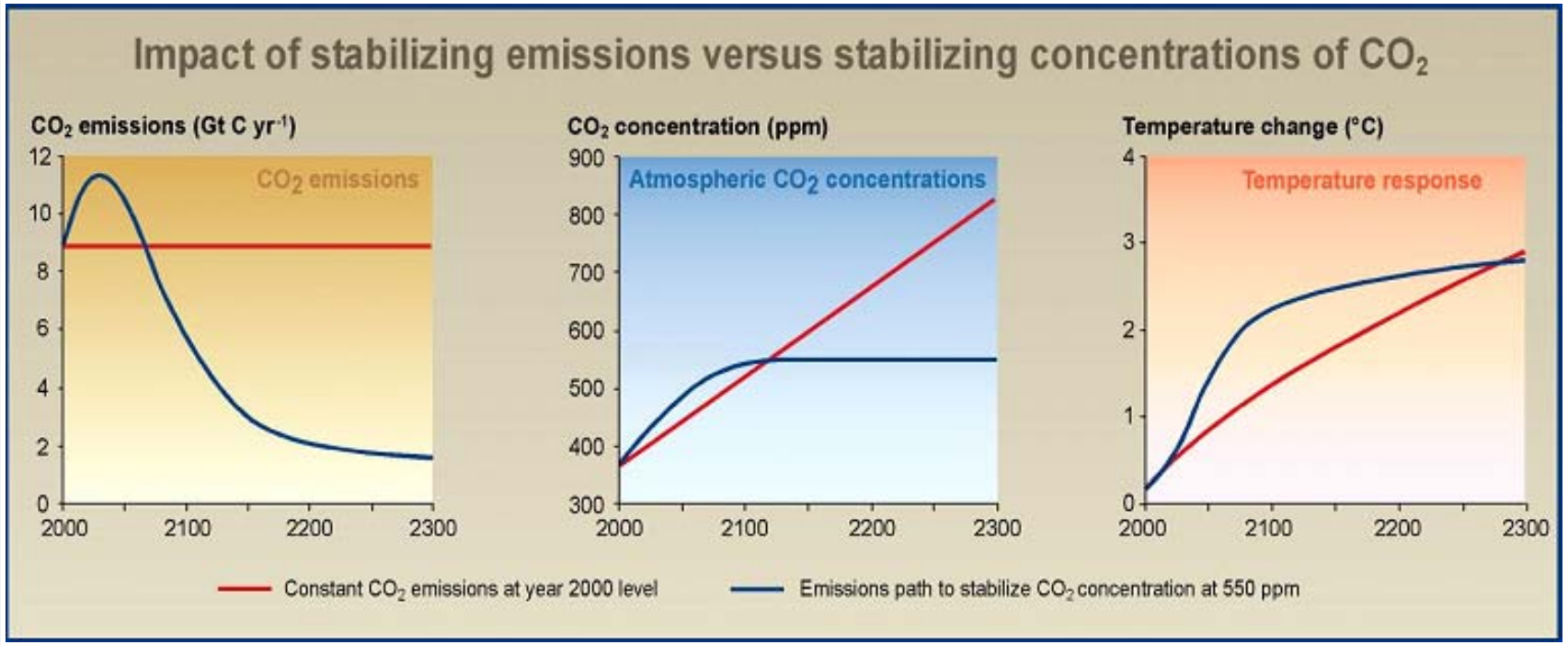
- Jointly formed in 1988 by the United Nations Environment Program and World Meteorological Organization
- Brings together the world's top scientists in all relevant fields and synthesizes peer-reviewed scientific literature on global warming studies
- Produces authoritative assessments of the current state of knowledge of climate change

"There is new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities."

Intergovernmental Panel on Climate Change, Third Assessment Report (2001)

Concentrations and Temperatures

- 280 ppm CO2 in 1800; 370 ppm currently
- In the 20th century, average global temperatures rose 0.6°C ± 0.2 °C
- Average global temperatures are projected to increase 1.4 °C to 5.8 °C by the end of the 21st century
- Is there a safe level?



Source: Intergovernmental Panel on Climate Change (IPCC)

Fundamental Uncertainties

- Will it be warmer? Cooler?
- When will the global climate change?
- What are the potential adverse and beneficial effects?

"Complex systems, such as the climate system, can respond in non-linear ways and produce surprises."

Intergovernmental Panel on Climate Change, Third Assessment Report (2001)

Uncertain Costs and Benefits

"There does not yet exist and economic model capable of simulating the real costs and benefits of significantly reducing our greenhouse gas emissions."

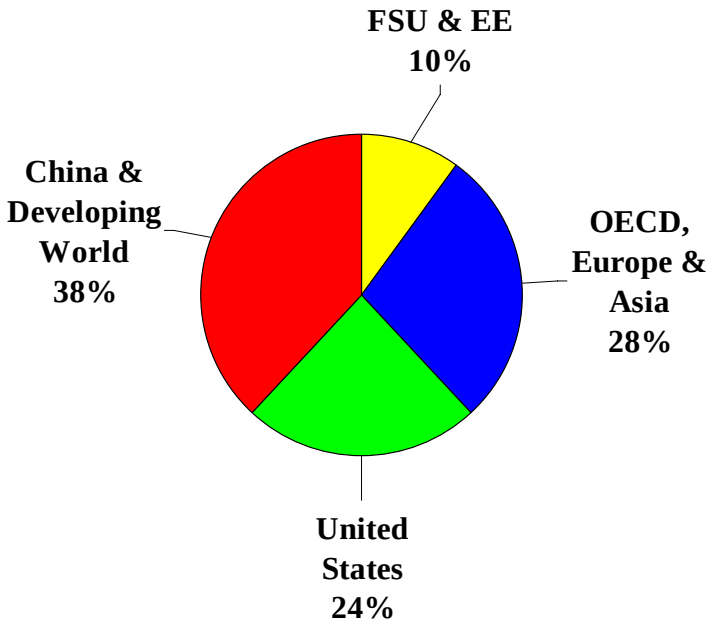
- Eileen Claussen, President, Pew Center on Global Climate Change, July 17, 2002

"The primary benefits of mitigation are the avoided damages of climate change - but a comprehensive global and consistent economic assessment is not as yet possible."

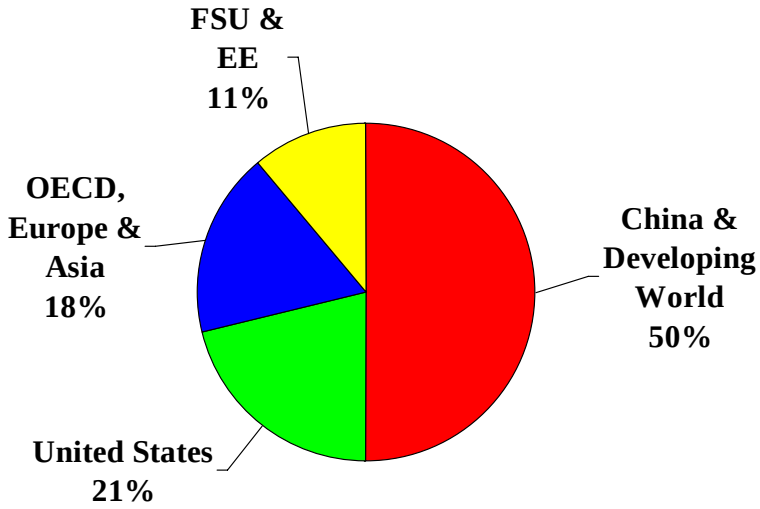
- IPCC, Third Assessment Report, Working Group III, 2001

Worldwide CO_2 Emissions

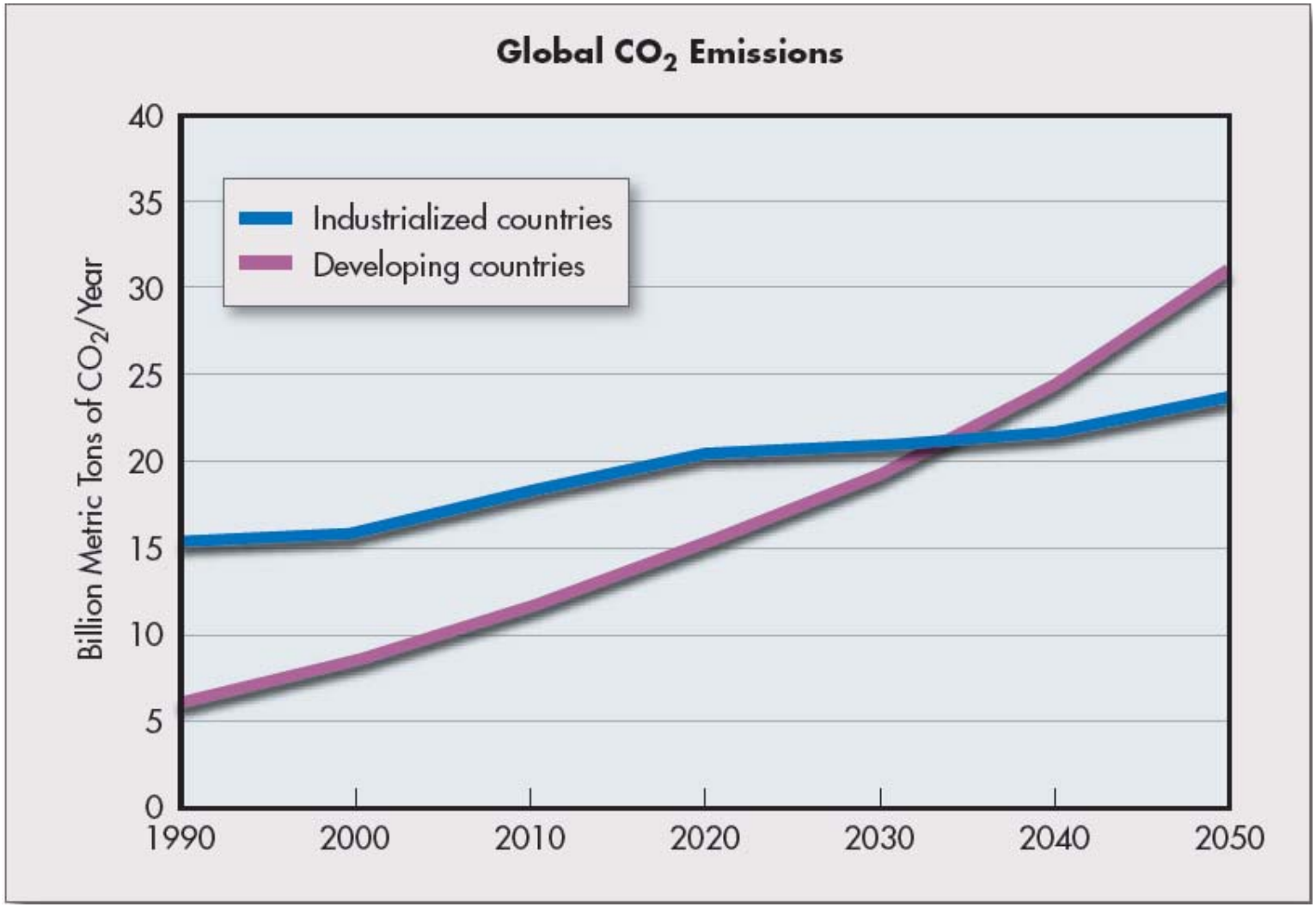
2002



2020



Worldwide CO_2 Emissions Trends



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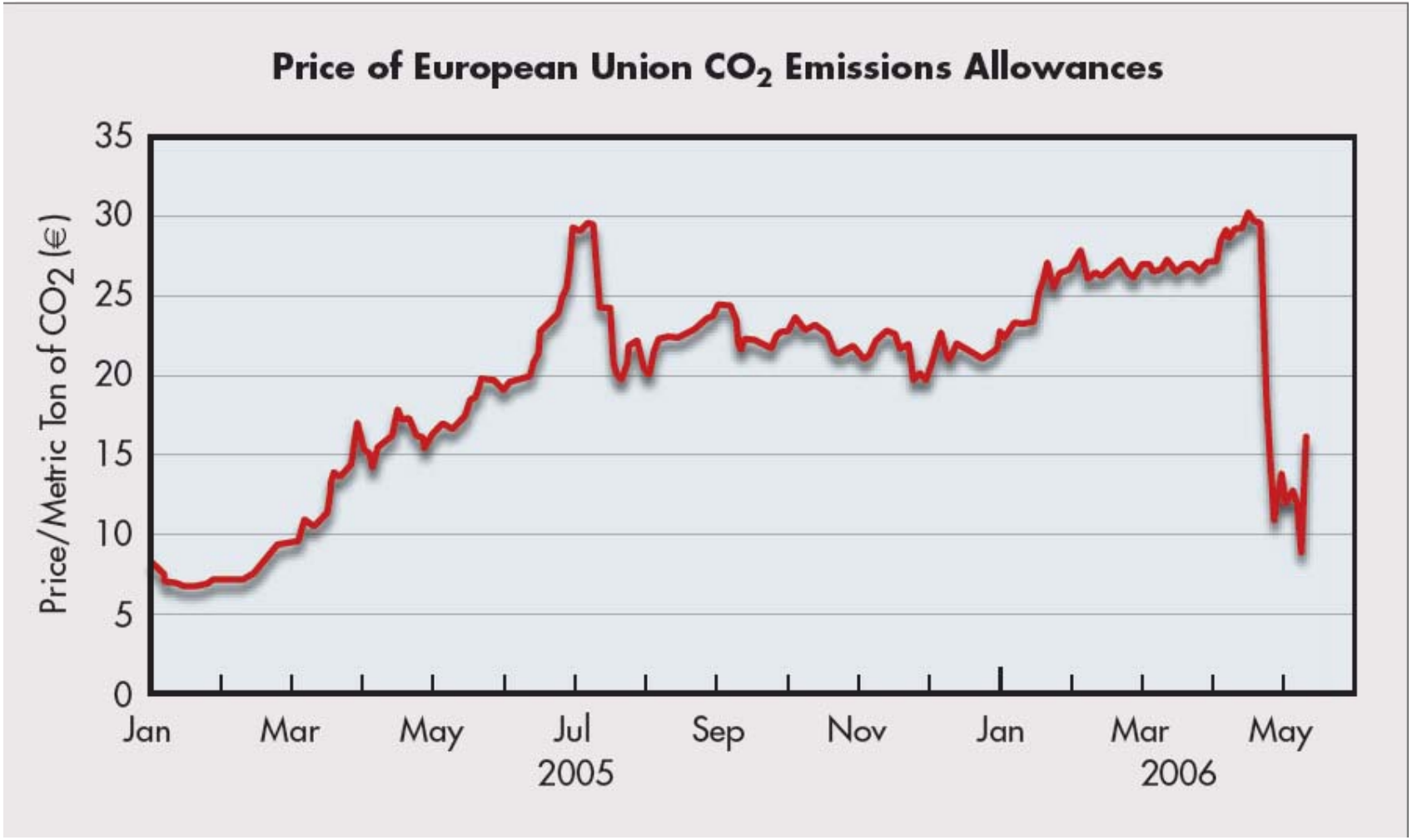
International Response

- Kyoto Protocol effective February 15, 2005, with 156 governments ratifying
- During first commitment period, 2008-2012, more than 30 industrialized countries legally bound to emission reduction targets
- Developed countries to reduce greenhouse gas emissions on average 5.2% below 1990 levels

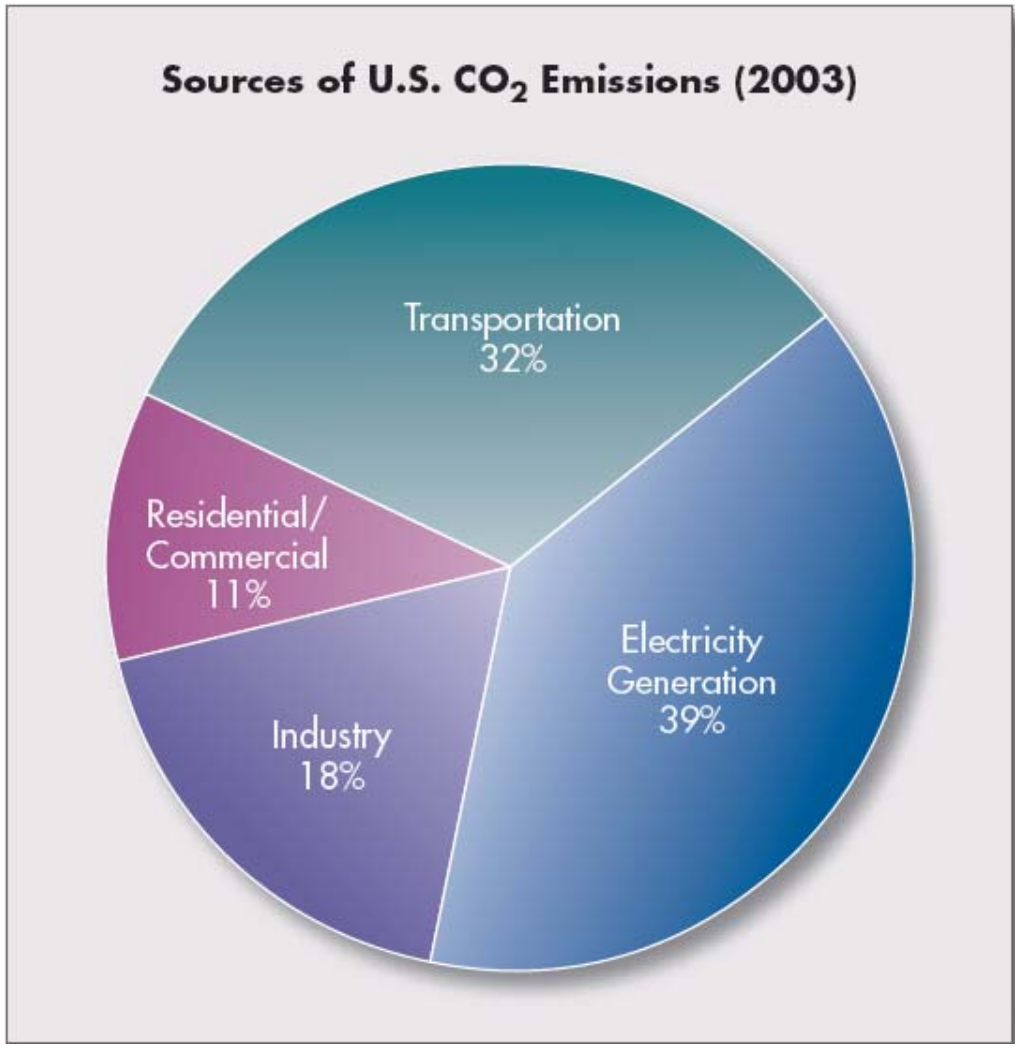
Kyoto – International Progress

- EU trading program implemented in 2005 with higher costs and volatility than anticipated
- Only 2 of the 15 countries are expected to reach their Kyoto targets (Britain and Sweden)
- Canada's emissions are expected to be 24% above their Kyoto target
- Japan's emissions expected to be 14% above its Kyoto target (implementing a carbon tax in 2007 of 2,400 yen [$21USD] per ton)

European Allowance Volatility



U.S. CO_2 Emissions by Sector



United States Response

- U.S. joins the 1992 United Nations Framework Convention on Climate Change
- Bush Administration's 18% reduction in carbon intensity from 2002-2012 (voluntary program)

"I recognize that the surface of the Earth is warmer and that an increase in greenhouse gases caused by humans is contributing to the problem. Kyoto didn't work for the United States, and it frankly didn't work for the world."

- President George W. Bush, July 2005

Asia-Pacific Partnership on Clean Development and Climate

- United States, Japan, China, India, Australia, and South Korea
- Non-binding compact to develop and deploy clean power generation technologies to deal with climate change, air pollution, energy security, and poverty reduction
- Public-private partnership

United States Legislation

- 2005 Sense of the Senate Resolution (Bingaman)
  - Urges Congress to "enact a comprehensive and effective national program of mandatory, market-based limits on emissions of greenhouse gases, that slow, stop and reverse the growth of such emissions."
  - Must not significantly harm the United States economy
  - Seeks comparable action by foreign countries that are United States trade partners and key sources of greenhouse gas emissions

Domenici/Bingaman "White Paper"

- In early February 2006, the Senate Energy & Natural Resources Committee released a White Paper that raised questions about the possible design of a domestic mandatory cap-and-trade scheme. The Senate Committee solicited response to the questions raised within the White Paper.
- Themes that emerged:
  - Begin modestly and strengthen gradually over time
  - Economy-wide
  - Regulate at the source of energy production
  - Allow offsets (agricultural and forestry)
  - Link up to existing domestic and foreign trading markets
  - First steps contingent on the efforts of developing nations such as China and India

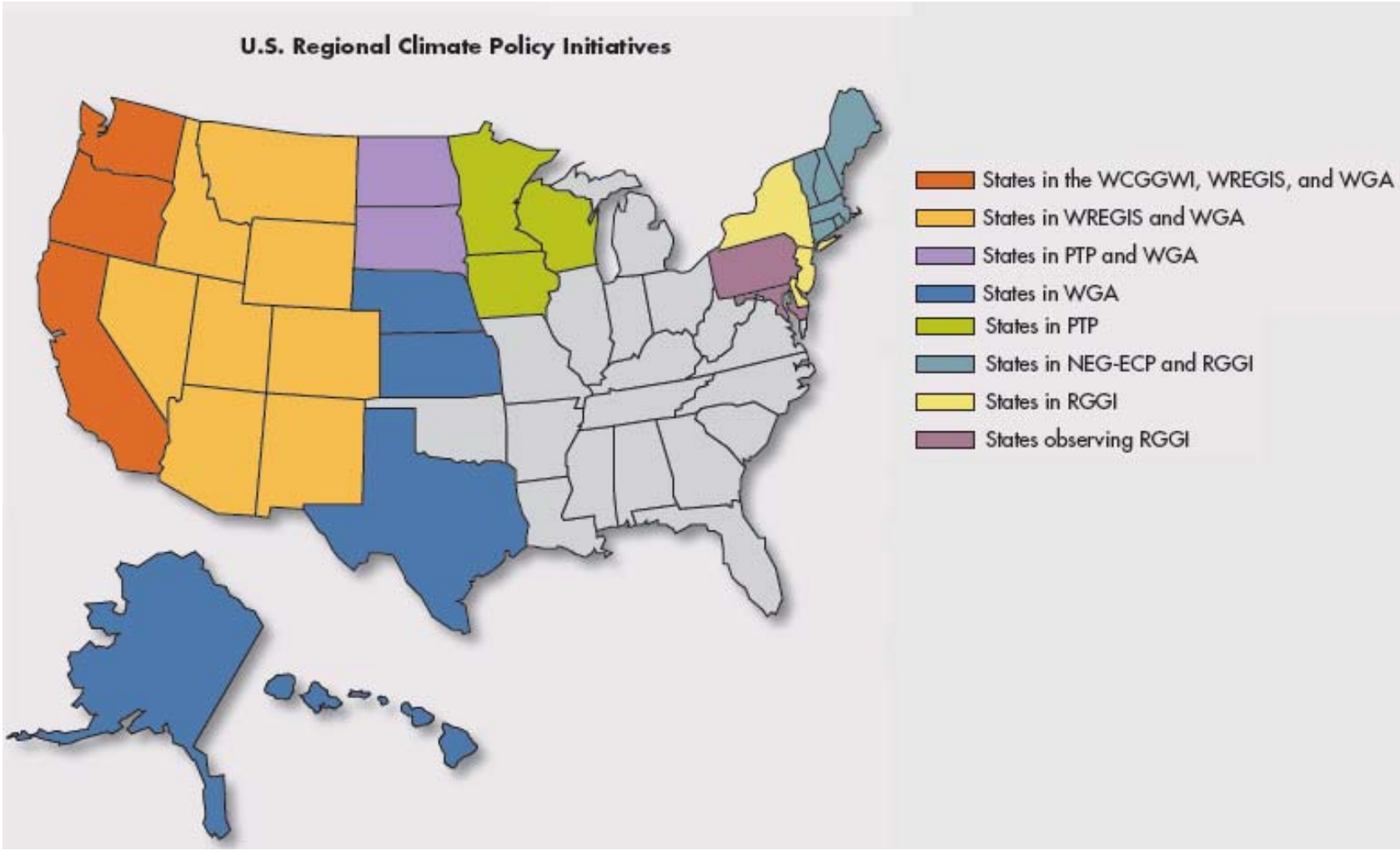
Key Litigation

- *Commonwealth of Massachusetts v. EPA*, 05-1120, Supreme Court
  - Stems from the Environmental Protection Agency decision not to regulate CO_2 under the Clean Air Act. The case is scheduled for the Supreme Court's Fall 2006 term.
- *New York/Open Spaces Coalition v. TVA/Cinergy/AEP/Southern Company and XCel Energy Inc.*, 05-5104, 2nd U.S. Circuit Court of Appeals
  - Lawsuit alleges utilities are creating a public nuisance with their greenhouse gas emissions.

Key Litigation

- *New York v. EPA*, 06-1148/*Coke Oven Environmental Task Force v. EPA*, 06-1131, U.S. Circuit Court of Appeals for the District of Columbia
  - Two consolidated lawsuits alleging EPA in February 2005 failed to regulate carbon dioxide from new coal-fired power plants and industrial boilers.
- *Montana Environmental Information Center and Environmental Defense Inc. v. EPA*, 06-1059, U.S. Circuit Court of Appeals for the District of Columbia
  - Environmentalists appealing a December 2005 memo that says the Clean Air Act does not mandate new power plant owners weigh construction of a coal gasification plant.

State-Lead Action



Options

- Cap and trade program
- Mandatory versus voluntary
- Carbon tax
- Generator standards
- Upstream versus downstream
- Renewable portfolio standards
- Gross emissions versus intensity reductions
- Adaptation

The Role of Technology

- Integrated Gasification Combined Cycle
  - IGCC emissions versus Supercritical PC
- Carbon Sequestration
  - Ocean
  - Underground
  - Enhanced Oil Recovery
- FutureGen
- Renewables

PacifiCorp's Greenhouse Gas Reductions Efforts

- On-System
  - $8 carbon adder (shadow price)
  - energy efficiency (customer and thermal)
  - renewable capacity additions
  - mitigation of fugitive emissions (methane, SF_6)
  - recycling (fly ash, steel)
- Off-System
  - Integrated Gasification Combined Cycle Working Group
  - Big Sky Carbon Sequestration Partnership
  - EPRI, Noel Kempff (The Nature Conservancy)
  - ***this group …***

Discussion and Next Steps

- How can we improve our existing programs?
- What is the justification for making the changes?
- Are the justifications enough to satisfy any Commission's prudency test that might be applied?
- How do priorities differ from one jurisdiction to the next?
- Are legislative/regulatory changes necessary?

- ***What are we missing?***