# Local and State Action on Climate Change

Climate Change: Science and Society Spring 2009 Nicky Phear

### Local and State Action on Climate Change

The importance of local and state action.
 What state governments can do.
 What local governments can do.
 What are the drivers of change?



### Local and State Action on Climate Change

The importance of local and state action:

 Policy innovators - incubators of new ideas
 Measurable emissions reductions
 Establish credibility on the international level

2) What state governments can do...

3) What local governments can do...

4) What are the drivers of change?

- Climate change impactsEconomic opportunity
- Good leadership



In 2007, Premier Gordon Campbell and California Governor Arnold Schwarzenegger signed an agreement that will result in unprecedented levels of co-operation between B.C. and California on reducing green house gases

### State Action on Climate Change

Set emission reduction targets

•Develop plans to mitigate climate change (Climate Action Plans)

•Design greenhouse gas cap and trade programs

•Mandate and incentivize investment in renewables and energy efficiency (renewable portfolio standards, energy efficiency resource standard, public benefit funds, net metering)

#### **States with Emissions Targets**



#### **States with Climate Action Plans**



## California

# **Climate Action Plan**



The AB 32 (the Global warming Solution Act) scoping plan contains the main strategies California will use to reduce GHG emissions to 1990 levels by the year 2020, and ultimately achieving an 80% reduction from 1990 levels by 2050. The scoping plan has a range of GHG reduction actions which include:

Cap-and-Trade Rulemaking (to begin 2012)
Auto Standards – AB 1493
Low Carbon Fuel Standard
Reduction of refrigerant losses from motor vehicle A/C systems
Increased methane capture from landfills



## Montana

## **Climate Action Plan**

In 2007, the Climate Change Advisory Committee (CCAC) agreed upon 54 policy recommendations that are designed to help reduce Montana's emissions of GHGs to 1990 levels by the year 2020. Recommendations were made in the following five areas:

 Energy Supply (ES)
 Residential, Commercial, Institutional, and Industrial (RCII)
 Transportation and Land Use (TLU)
 Agricultural, Forestry, and Waste Management (AFW)
 Cross-Cutting Issues (CC)



Climate Change Action Plan

Final Report of the Governor's Climate Change Advisory Committee

November 200

http://www.deq.state.mt.us/ClimateChange/Action PlanNov2007/FinalReportChapters.pdf/

#### **Montana Governor's Climate Action Plan**



Source: http://www.deq.state.mt.us/ClimateChange/ActionPlanNov2007/FinalReportChapters.pdf

### **Montana Governor's Climate Action Plan**

Figure EX-6. Policy recommendations ranked by cost-per-ton reduced



#### Montana Legislative Bills - 2009 Session

#### Clean Coal:

SB 66/Sen. Erickson, D-Missoula: This bill establishes standards for the sequestration of carbon dioxide, which will reduce the impacts of coal-based energy projects.

#### Renewable Energy Standard:

HB 255/Rep. Phillips, D-Bozeman: This bill would incrementally increase the percentage of energy power companied must get from renewable sources in the years 2020-2025.

SB 257/Sen. Keane, D-Butte: This bill would include upgrades and routine maintenance to hydroelectric facilities in the definition of a renewable energy resource.

#### Energy Efficiency:

SB 49/Sen. Wanzenried, D-Missoula: This bill would require that new state buildings and major renovations on state buildings would maximize their energy efficiency.

HB 641. Rep. Noonan, D-Butte: This bill requires major gas and electric utilities to mine the system for energy resources through efficiency.

HB 361, Rep. Brady Wiseman, D-Bozeman: This bill authorizes cities and counties to establish Energy Improvement Districts, to make loans to local property owners for energy efficiency and small renewable energy projects.

HB 420, Rep. Michele Reinhart, D-Missoula: This bill allows local governments to improve energy codes by establishing voluntary, incentive-based energy conservation standards for new green construction.

#### Montana Action on Climate Change

Set emission reduction targets and will be part of a regional cap and trade initiative (by joining the Western Climate Initiative). Emissions target of a 15 percent reduction below 2005 levels by 2020,

**Developed Climate Action Plan** 

Mandated investment in renewables and energy efficiency (renewable portfolio standard, energy efficiency resource standard)

Governor Schweitzer's Leadership:

•The Governor's Initiative – 20X10 asks state agencies to reduce their energy consumption by 20% by the year 2010.

Montana NGOs working on climate change research, education, outreach, and policy recommendations:

Montana Environmental Information Center (MEIC)
Northern Plains Resources Council (NPRC)
Montana Conservation Voters Education Fund (MCVEF)
Alternative Energy Resource Organization (AERO)
National Center for Appropriate Technology (NCAT)
Montana Audubon
Sierra Club local chapters
Clark Fork River Coalition
PEW Environmental Group
UM Climate Action Now (CAN)
Student Advocates for Valuing the Environment (S.A.V.E.)

http://www.montanaclimatechange.com/files/Changing\_climate\_Changing\_future.pdf

#### **Regional Cap-and-Trade Initiatives**



#### **Renewable Portfolio Standards**



#### **Public Benefit Funds**



### **Net Metering**



#### **Energy Efficiency Resource Standards**



## **Other State Actions?**

### Local Action on Climate Change

•Cities have control over energy supply, issue building and development permits, and control growth patterns, public transit, and bike/ped systems

•Energy efficiency incentives can reduce city costs and provide low income assistance

Many cities have developed climate action plans



Source: http://www.seattle.gov/Mayor/Climate/

### **Energy Supply**

•Cities of Bellingham, WA and Santa Monica, CA – 100% of its public facilities energy needs from green power

 City of Dallas - 40% of its public facilities energy needs from wind power

•Murray City Power created a landfill gas energy project to use methane from the Salt Lake Valley Landfill for power generation

•Albuquerque - solar powering city's six swimming pools saves Albuquerque \$275,000/year







### **Increasing Efficiency**

The **traffic light retrofit** saves Albuquerque \$1,000,000/year – they paid the project back in 1 year.

**Waste reduction** can return substantial cost savings; both in supplies purchased and landfill fees. Lake Oswego, Oregon downsized the size of their dumpsters due to recycling.

Cities across the country have developed **Green Teams** advocating for better energy conservation.

**Energy performance contracting** – to determine where the biggest bang for the buck will come







## Buildings

Green Building Standards (Fayetteville, Arkansas now requires all new city-owned buildings to meet the LEED-Silver standard.)

Building retrofits (<u>Empire State Building</u> via the Clinton Climate Initiative reducing energy use by up to 38 percent and energy costs by \$4.4 million annually)

Weatherization programs (Portland weatherized 10,000 multifamily units and over 800 homes in two years)

Incentivizing renewable energy developments (City of Berkeley pays the up-front costs of renewable energy installations; Chicago offers a grant program to put green roofs and cool roofs on their buildings. Today, there are more than 200 public and private green roofs totaling more than 2.5 million square feet in Chicago)









### Transportation, Vehicles, and Smart Growth

Light Rail: The addition of two major light rail lines and the Portland Streetcar helped lead to 75 percent growth in public transit use since 1990.

Hybrids: City of Eugene, Oregon: 53% of the city fleet vehicles are now hybrids











### Drivers of Local and State Action on Climate Change

















#### Comparison of Per Capita Electricity Consumption in U.S. and California



