

## APPENDIX C

### U.S. EPA REGION 8 CLIMATE CHANGE STRATEGIC PLAN

#### Comparison of State Climate Change Action Plans - Colorado, Utah, Montana -

##### DRAFT

Three EPA Region 8 States have completed Climate Change Action Plans: Colorado, Utah, and Montana. These plans are summarized in the following chart, and further discussed below:

|                       | <b>Colorado</b>   | <b>Utah</b>  | <b>Montana</b>  |
|-----------------------|---|--|---|
| <b>Effective Date</b> | November 2007   | October 2007   | October, 2007   |
| <b>Goals</b>          | Reduce 20% below 2005 levels by 2020 & 80% by 2050  | Reduce to 2005 levels by 2020  | Reduce to 1990 levels by 2020   |
| <b>Target Sectors</b> | Agriculture<br>Transportation<br>Electric Energy<br>Natural Gas<br>Solid Waste/Recycling<br>GHG emission reporting<br>Leading by example<br>West. Climate Initiative<br>Education<br>New Energy Economy | Agriculture<br>Forestry<br>Cross-Cutting Issues<br>Energy Supply<br>RCI <sup>1</sup><br>Transportation<br>Land Use | Energy Supply<br>RCI<br>Institutional<br>Transportation<br>Land Use<br>Agriculture<br>Forestry<br>Waste Management.<br>Cross-Cutting Issues |

#### **Colorado:**

On November 5, 2007, Governor Bill Ritter released Colorado's first Climate Action Plan with the goal of cutting Colorado's greenhouse gas (GHG) emissions 20% below 2005 levels by 2020 and 80% by 2050. This shall be accomplished through a comprehensive set of goals and strategies. Specifically, the Plan directs various State Agencies to take action under the coordination of the Governor's Climate Change and Energy Advisor. These agencies include the Department of Natural Resources, the Department of Public Health and Environment, the Governor's Energy Office, the Colorado Department of Agriculture, and the Colorado Public Utilities Commission.

Colorado state government has three important roles to play in facing the climate change challenge:

<sup>1</sup> RCI is Residential, Commercial, and Industrial energy use

- Enact “bridge strategies” that immediately reduce GHG emissions while we pursue technologies to generate cleaner energy.
- Provide leadership to ensure that long-term solutions, such as renewable energy and clean coal technologies, are fully developed and broadly implemented.
- Prepare the state to adapt to those climate changes that cannot be avoided.

Observations in recent decades show that Colorado is seeing:

- Shorter and warmer winters, with a thinner snowpack and earlier spring runoff.
- Less precipitation overall, and more falling as rain than snow.
- Longer periods of drought.
- More wildfires, burning twice as many acres each year than before 1980.
- Widespread beetle infestations wiping out pine forests, and die-off in aspen stands.
- Rapid spread of West Nile virus due to higher summer temperatures.

During late September and early October 2007, the Governor worked with business leaders, conservationists, water and electric utilities, and many others through a series of nine roundtable meetings to seek input into the Plan. The roundtable topics were:

- Agriculture and Forestry
- Solid Waste/Recycling
- Energy Efficiency and Renewable Energy
- Business and Industry
- Transportation and Land Use
- Residential and Commercial Built Environment
- Environmental Community
- Utilities
- Water and Tourism

Colorado already established a strong foundation of measures in the 2007 legislative session to reduce emissions of GHGs and strengthen the New Energy Economy. The other goals and strategies in the Plan are organized as follows:

- Agriculture
- Transportation
- Electric Energy
- Natural Gas
- Solid Waste/Recycling
- GHG emission reporting
- Leading by example
- Western Climate Initiative
- Education

- New Energy Economy

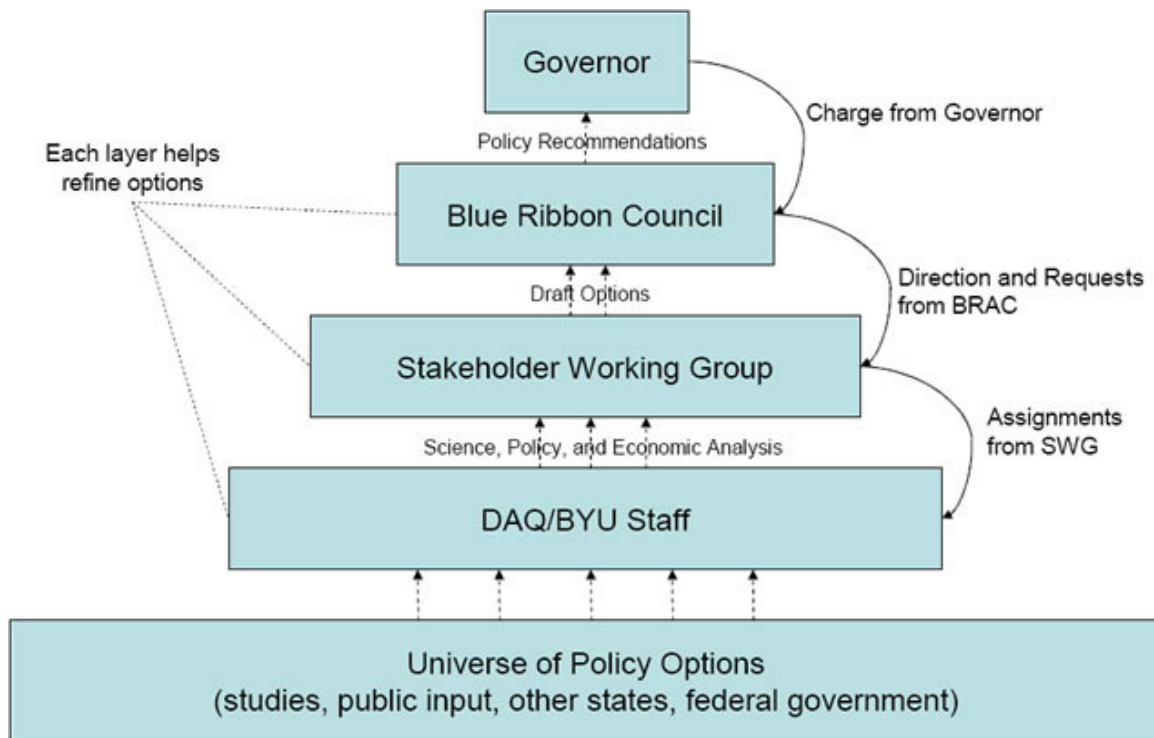
## Utah:

Governor Huntsman organized a Blue Ribbon Advisory Council on Climate Change (BRAC) on August 25, 2006, to identify proactive measures that Utah might take to mitigate the impacts of GHGs. Twenty-four industry, government, community and environmental leaders participated. In their final report dated October 3, 2007, they presented a broad list of policy options organized under five major sectors headings. The Governor also organized a Renewable Energy Initiative (REI) Focus Group in late June 2007, as a technical group for the BRAC. The purpose of the Initiative was to develop detailed public policy actions that can be taken by state government and other leaders to increase the development of cost effective renewable energy resources within the electric sector. The REI Focus Group consisted of representatives from a wide range of stakeholders, including state environmental, energy, and regulatory agencies; public and investor-owned utilities; environmental and health advocacy organizations; renewable energy developers; financial and legal firms; academic institutions; and other interested parties.

The BRAC report titled “Climate Change and Utah: The Scientific Consensus,” summarizes the present scientific understanding of climate change and its potential impacts on Utah and the Western United States and emphasizes the consensus view of the scientific community.

Utah is projected to warm more than the average for the entire globe and the expected consequences of this warming are fewer frost days, longer growing seasons, and more heat waves. Studies of precipitation and runoff over the past several centuries and climate model projections for the next century indicate that ongoing greenhouse gas emissions at or above current levels will likely result in a decline in Utah’s mountain snowpack and the threat of severe and prolonged episodic drought in Utah is real. Preparation for the future impacts of climate variability and change on Utah requires enhanced monitoring and knowledge of Utah’s climate, as well as better understanding of the impacts of weather and climate on the state’s water availability, agriculture, industry, and natural resources.”

The following chart summarizes the process used by the BRAC to develop recommendations:



To assist the BRAC in meeting Governor Huntsman’s directive, a Stakeholder Working Group<sup>5</sup> (SWG) was formed to provide a preliminary evaluation of a broad list of policy options. The initial policy option list was based on suggestions by BRAC and SWG members and options included in reports by the U.S. Environmental Protection Agency and other organizations where stakeholder groups did similar work. Nearly 200 options were organized under five major sector headings:

- Agriculture/Forestry
- Cross-Cutting Issues
- Energy Supply
- Residential/Commercial/Industrial
- Transportation/Land Use

These options, which are currently being considered by the State, have the goal of reducing greenhouse gas emissions to 2005 levels by 2020.

### Montana:

In 2005, Governor Brian Schweitzer directed the Montana Department of Environmental Quality (DEQ) to establish a Climate Change Advisory Committee (CCAC). The CCAC was a broad-based group of 18 Montana citizens to be supported by a panel of scientific experts, public and private sector technical and policy specialists, and staff from MDEQ. These individuals evaluated options and made recommendations on existing programs in Montana, policies to reduce GHG emissions, and the potential cost of those policies. The CCAC met six

times from July 2006 through July 2007 to evaluate the recommendations from technical work groups representing four sectors of Montana's economy:

1. Energy Supply (ES)
2. Residential, Commercial, Institutional, and Industrial (RCII)
3. Transportation and Land Use (TLU)
4. Agricultural, Forestry, and Waste Management (AFW)

A fifth group evaluated Cross-Cutting Issues (CC) and developed strategies that cut across many sectors of Montana's economy, such as inventorying, forecasting, reporting, and registering Montana's GHG emissions.

In October 2007, the CCAC issued 54 policy recommendations designed to reduce Montana's greenhouse emissions to 1990 levels by the year 2020. The CCAC followed a process designed and implemented by the nonprofit Center for Climate Strategies (CCS). Staff from the CCS provided facilitation services and technical expertise to the CCAC as it formulated its recommendations. The Montana DEQ provided coordination and oversight to the process.

Under the consumption-based approach with the GHG reductions from the policy options, the four sectors of Montana's economy (as defined in the CCAC process) would provide the following reductions:

- 29.0% of the reductions (18.4 MMtCO<sub>2</sub>e) would come from the RCII sector,
- 34.5% (21.9 MMtCO<sub>2</sub>e) would come from the ES sector,
- 9.6% (6.1 MMtCO<sub>2</sub>e) would come from the TLU sector, and
- 26.9% (17.1 MMtCO<sub>2</sub>e) would come from the AFW sector.

Some of the recommendations can be implemented immediately, and some will require the support of the Montana State Legislature. Some will cost money to implement, and many will save money by reducing energy needs and costs. Others will require technological advances to fully implement. Most of these recommendations will have additional benefits beyond reducing GHG emissions, including reduced reliance on imported fossil fuels, reduction in air pollution, increased opportunity for Montana agriculture to provide renewable fuels, healthier forests, and the opportunity for Montana to be a leader in developing new technologies to produce cleaner burning fuels while sequestering GHGs.