FINAL DRAFT

BOULDER COUNTY
CONSORTIUM OF CITIES

Energy Strategy Task Force

SUSTAINABLE ENERGY PLAN

Developed by Boulder County Public Health
on behalf of and supported by the
communities of Boulder County

December 2007

Executive Summary

Scientific evidence now incontrovertibly demonstrates that carbon dioxide and other greenhouse gases (GHG) released into the atmosphere are currently impacting the Earth's climate and will continue to have profound and devastating effects. To address the local impacts and embrace the opportunities presented by this critical issue, the Boulder County Consortium Cities convened the Energy Strategy Task Force. One of the chief aims of the Task Force is to provide "a framework for local and regional action on energy sustainability."

The Sustainable Energy Plan (SEP) seeks to provide such a framework. The SEP includes 35 recommended actions that will lead to meaningful progress toward a sustainable energy future. These actions will not only reduce our county's impact on global climate change, they also result in significant cost savings through increased energy efficiency. In fact, most of the actions identified pay for themselves in six years or less. Of the 35 total actions, cost, cost savings, and GHG reduction impacts have been quantified for 30 of them. The remaining five strategies focus on planning, educational, and revenue generating efforts that could not be quantified.

Out of the 35 actions identified, 20 actions are recommended for "first tier" adoption based on: their emissions reductions potential, their cost effectiveness, and to ensure equitable contributions across the main GHG contributing sectors. The key strategies include voluntary and support actions as well as statewide and local regulatory programs. Combined, and accounting for overlap between strategies, these key strategies will lead to:

- Emissions reductions in 2012 of more than 1.3 million metric tons of carbon dioxide equivalent
- Emissions reductions in 2020 of more than 3.6 million metric tons carbon dioxide equivalent
- Annual cost savings in 2020 of more than $445 million dollars
- Nine year payback for all 20 actions (5 years for all actions except vehicle-to-grid)

Putting the impact of these strategies into perspective, the Kyoto target calls for developed countries to reduce their GHG emissions 7% below 1990 levels by the year 2012. The SEP strategies will bring the county nearly halfway (46%) toward achieving the Kyoto Protocol target.

In the longer term, these strategies will reduce emissions even more significantly. By 2020, for example, the SEP strategies will enable the county to reduce GHG emissions 11% below 1990 levels. Putting this in terms of Governor Ritters' Climate Action goal (which uses a 2005 baseline) the SEP will result in a reduction of emissions 40% below 2005 levels in the year 2020. This is a reduction nearly twice that called for by the Governor.

Key Strategies

(Number in parenthesis indicates the location of the description of the strategy in the body of the report.)

Residential	1. Continue to offer high efficiency light bulb discounts (1.1) 2. Continue to conduct neighborhood energy awareness sweeps (1.2) 3. Continue to offer discounted residential energy audits (1.3) 4. Develop residential green building codes and ordinances for new and existing buildings (1.4)
Commercial and Industrial	5. Implement Partners for A Clean Environment (PACE) Energy Performance Project (2.1) 6. Develop green building codes and ordinances for new and existing commercial and government buildings (2.2 and 2.1.4) 7. Promote industrial combined heat and power technologies (2.3) 8. Encourage statewide participation in the Western States Climate Initiative (2.4)
Local Government	9. Implement controls and policies to limit idling of municipal and county vehicles (2.1.1) 10. Install light emitting diode (LED) traffic signals (2.1.3)
Transportation	11. Promote sustainable biofuels (3.1) 12. Promote vehicle-to-grid power connection (3.3) 13. Implement a Clean Car Incentive program (3.4) 14. Adopt a statewide Clean Car Standard (3.5)
Power Supply	15. Develop a sustainable energy financing district (4.4) 16. Maximize the use of rebate incentives (4.1.1) 17. Increase utility demand and power supply incentives, including an aggressive renewable portfolio standard (4.1.2)
Revenue Streams	18. Create energy budgets and rate structures (5.1) 19. Create a revolving loan fund (5.2) 20. Offer “climate offsets credits” and use to build community wind (5.3)