



# **Town of New Castle**

## **Climate Action Plan**

The New Castle Climate Action Advisory Commission gives its deep appreciation to the Town of Carbondale for its leadership and administrative assistance in the preparation of this document.

## Table of Contents

<b>Executive Summary .....</b>	<b>Page 2</b>
<b>Why a New Castle Energy Plan? .....</b>	<b>Page 3</b>
<b>New Castle’s Energy, Economic and Climate Protection Goals.....</b>	<b>Page 5</b>
<b>Energy Plan Actions</b>	
<b>Lead by example .....</b>	<b>Page 5</b>
<b>Change the rules that influence energy use.....</b>	<b>Page 6</b>
<b>Create programs to remove barriers to wiser energy use.....</b>	<b>Page 7</b>
<b>Increase local renewable energy supplies .....</b>	<b>Page 7</b>
<b>Cultivate clean energy jobs and businesses.....</b>	<b>Page 8</b>
<b>Implementation and Financing .....</b>	<b>Page 8</b>

## Executive Summary

On April 3, 2007, Mayor Frank Breslin signed the U.S. Mayors Climate Protection Agreement as the Town Council fully committed to developing and implementing strategies to reduce greenhouse gas emissions. The Climate Action Advisory Commission was created to help the town pursue the goals of this agreement:

1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.
2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities.
3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for carpooling and public transit.
4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, and recovering landfill methane for energy production.
5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy-efficient lighting and urging employees to conserve energy and save money.
6. Purchase only Energy Star equipment and appliances for Town use.
7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or similar system.
8. Increase the average fuel efficiency of municipal fleet vehicles: reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to biodiesel.
9. Evaluate opportunities to increase pump efficiency in water and wastewater systems, recover wastewater treatment methane for energy production.
10. Increase recycling rates in Town operations and in the community.
11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO<sub>2</sub>.
12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

The energy plan to achieve these goals must be flexible. As more data are accrued, more assets become available and more citizens participate, changes are to be expected.

The broad plan has 5 key strategies:

- 1. Lead by example.** Municipal government will make its buildings and operations a model of energy efficiency and renewable energy while reducing energy costs.
- 2. Change the rules that influence energy use.** Energy use is greatly affected by the municipal code. The Town will upgrade ordinances and

regulations to achieve more efficient energy use. Where appropriate, it will join with others to address issues beyond town boundaries.

- 3. Create programs to remove barriers to wiser energy use.** The Town will work with Xcel Energy, Holy Cross Energy, the Roaring Fork Transit Authority (RFTA), the Community Office for Resource Efficiency (CORE), the Clean Energy Economy for the Region (CLEER), the Governor's Energy Office (GEO), and others to accelerate the transition to a clean energy future, offering programs to households and businesses that combine financing, technical assistance, and education.
- 4. Increase local renewable energy supplies.** The Town will use its ability to access funding to act as a local energy producer and investor.
- 5. Cultivate clean energy jobs and businesses.** New Castle will pursue implementation of this energy plan in ways that strengthen the community's reputation for being green to attract green and sustainable energy enterprises.

## **Why a New Castle Energy Plan?**

New Castle has a rich coal mining history marked by multiple explosions and front line participation in the labor movement. The Burning Mountain Fire and the Coal Seam Fire are legacies of a century and more of our fossil fuel past. With new national and global challenges, opportunities, and priorities, New Castle is now taking its first steps into the New Energy Economy of the 21st Century, featuring efficiency, conservation, and renewable energy. Despite the abundance of fossil fuel supplies in our area, there are a number of reasons to pursue a low-carbon future:

### **1. Jobs and Economic Benefits**

The vast majority of money spent on energy-related bills immediately leaves the local economy. Finding ways for each household, business, and government operation to spend less on energy means funds can be used on other priorities, generating economic benefits. In addition, implementing clean energy alternatives is the new growth economy, and can be a significant source of jobs.

### **2. Energy Independence and Energy Security**

The majority of the oil used in the United States is imported from states unfriendly to American interests. Energy independence is increasingly seen as one of the key components of a more peaceful world. Requiring less energy from far away places will insulate New Castle and the U.S. from inevitable energy price increases as finite fossil fuel supplies decline.

### **3. Local Solutions to Global climate change**

We will become an active part of the solution to global climate change. There is broad scientific consensus that anthropogenic global warming must be mitigated to slow climate change. It will be less costly to prevent greenhouse gases from reaching a tipping point than to pay for the economic and social upheavals which will occur after that tipping point.

### **4. Enhanced quality of life and livability**

Implementing clean energy improvements also has near-term benefits on the quality of life in our community. Less pollution means fewer toxic chemicals entering our air, soils, and water, and thus fewer health risks. Our surrounding forests, lakes and streams will retain their esthetic beauty, and wildlife will benefit.

### **5. Solutions to the impacts of energy development**

New Castle residents have long expressed concern for the impacts of resource development in our region; this plan backs up our words with action. Nationwide commitment to renewables and efficiency will be required to limit environmental damage and esthetic degradation in our region. We will need to engage in coordinated action with other stakeholders to be sure that energy development in the region is conducted responsibly, with maintenance of a strong regional economy and prevention of public health problems.

### **6. Tapping unique local resources and success to date**

Our region has a wealth of expertise and experience to draw from. People come from across the globe to take classes at Solar Energy International. Rocky Mountain Institute is world-renowned. Rising Sun employs some of the nation's best lighting efficiency experts. CORE has pioneered renewable energy funding mechanisms. Holy Cross Energy and Xcel Energy have exciting programs for efficiency and renewable energy. The GEO and Garfield County have programs for energy efficiency and renewable energy. CLEER is taking the lead on energy issues in the valley. Many local architects and builders specialize in green design. There are several suppliers of solar photovoltaic systems. There are many new green businesses beginning operations in Garfield County. The Federal government is becoming more supportive of green initiatives. **In short, our community is well positioned to make rapid progress on the clean energy initiative described below.**

## New Castle's Energy, Economic and Climate Protection Goals

Setting emissions reductions goals is an evolving science. We have based our emissions goals on those of other active climate protection cities. Goals will be refined as implementation of the plan moves forward. In addition to emissions goals our plan includes more qualitative goals. Our baseline year will be 2007, the first year for which data has been kept.

- Reduce emissions directly attributable to Town facilities and Town operations by at least 20% by 2015 through increasing energy efficiency in all buildings and operations, and increasing the percentage of renewables.
- Reduce community-wide (estimated) per capita CO2 emissions by 30% by 2020 and by 80% by 2050.
- Turn emissions reduction efforts into an economic advantage by reducing household, business, and local government energy bills; keeping money currently spent on energy within the local economy; and investing in existing jobs/creating new jobs tied to sustainable energy.
- Obtain at least 30% of our energy for heating & electricity from renewable sources by 2030.
- Develop a resource-efficient building ethic in New Castle modeled on the plans developed by our neighbors, Carbondale and Pitkin County.

## Energy Plan Actions

### 1. Town Government Actions: Lead by Example

**Action Item 1.1:** Create the organizational, human resource, and financing framework for ensuring this plan is turned into action over a 5-year timeframe.

**Action Item 1.2:** Establish a Program for Energy Efficiency Retrofits in Municipal Buildings.

- Conduct energy audits of municipal operations to identify opportunities for saving energy and money.
- Invest in energy efficiency improvements on municipal facilities, prioritizing them based on audit recommendations.

**Action Item 1.3:** Commit to using best practices in energy efficiency and renewable energy in all new buildings and operations, e.g. LEEDS or similar standard.

**Action Item 1.4:** Measure and track annual energy consumption in facilities and track annual progress toward lower emissions. Energy costs and trends will be very transparent and reported on annually during the annual budget cycle. Town staff will see the energy bills associated with their department.

**Action Item 1.5:** Increase the percentage of renewable energy by 50% by 2010, either through on-site renewable generation, or through purchasing more power from renewable sources.

**Action Item 1.6:** Purchase the most fuel-efficient vehicles possible; use biodiesel where practical.

**Action Item 1.7:** Make bus passes available to those Town employees who can commute by bus.

**Action Item 1.8:** Locate town facilities and operations based on access by transit, walking, biking, and evaluated for encouraging more compact land uses.

**Action Item 1.9:** Support efforts to create affordable in-town housing for employees to reduce the need to commute.

**Action Item 1.10:** Encourage Town employees to make in-town trips on bicycle when practical.

**Action Item 1.11:** Use locally grown food for Town-sponsored functions when practical.

## 2. Change the rules that influence how we use energy

**Action Item 2.1:** Adopt and implement public policies to increase energy efficiency, increase use of renewable energy, and reduce dependence on oil.

- Enforce existing codes to address energy efficiency and resource efficient practices.
- Upgrade the building code to encourage greater energy efficiency and use of renewable energy in all new buildings constructed in town. At a minimum, adopt the current International Energy Conservation Code (IECC).
- Continue to support mixed-use developments on commercial projects to reduce transportation energy.
- Promote a leadership position for the Town and advocate our positions on renewable energy supply and efficiency issues.
- Work with other communities and any statewide efforts to improve regional, statewide, and national policies and laws influencing energy use.
- Review Town codes to ensure they do not conflict with the ethic to become more sustainable.

**Action Item 2.2:** Expand, adopt, and implement policies to encourage less oil-dependent, more climate-friendly approaches to mobility and access.

- Reward compact land use patterns and development proposals that encourage less dependence on the automobile.
- Require all new development to provide convenient bike and walking access.
- Increase public transit use by working with regional stakeholders: New Castle RFTA representative will encourage RFTA to develop a timeline, target dates, and implementation plan for expanded service on the Hogback Route.
- Work with RFTA, Garfield County, and the State of Colorado to develop a timeline and implementation strategy for creating an accompanying feeder transit system for in-town transit to increase local public transit use. This should include a Park-and-Ride garage and improved pedestrian and bike access from south of the Colorado River. The pedestrian /bike access should receive maximum attention because of extreme danger to the public.
- Work with other communities and any statewide efforts to improve state policies to encourage a more climate friendly transportation system.

- Conduct ongoing publicity campaigns to promote sustainable transportation, including the promotion of biking and walking as major transportation modes within New Castle; make New Castle known for respecting and encouraging biking and walking.

### **3. Create programs to overcome barriers: Partner with utilities and others to remove barriers, encourage alternatives, increase access to resources and increase energy awareness**

There are numerous ways households and businesses can reduce energy use or tap renewable energy. Currently, better practices are not always implemented due to a variety of barriers:

- Lack of awareness
- Lack of technical know-how
- Lack of upfront financing to cover initial cost
- Lack of motivation: issue does not rise to the top of the “to-do” list

Creating organized programs to package technical know-how and financing can make it much easier for households and businesses to implement improvements. A community campaign can also play a major role in increasing awareness and motivation to act on the information.

**Action Item 3.1:** Partner with Xcel Energy, Holy Cross Energy, CORE, the Northwest Colorado Council of Governments, (NWCCOG), CLEER and other entities to provide a convenient source of financing and rebate information and technical information for residential and commercial customers.

- Partner with these entities to encourage a household by household campaign to increase efficiency and tap renewables. Through this program every household in New Castle will be encouraged to implement improvements with the goal of 25% of all households in New Castle participating within the first two years. This action item may require staffing and/or support of local citizen environmental groups.
- The Town will partner with these entities to encourage a business by business campaign to increase efficiency and tap renewables. Through this program every business and commercial energy user in New Castle will be encouraged to implement improvements with the goal of 25% of all businesses and organizations in New Castle participating within the first two years. This action item may require staffing, and/or support of local citizen groups.

### **4. Increase local renewable energy supplies**

**Action Item 4.1:** Pursue additional installations of photovoltaics on public buildings.

**Action Item 4.2:** Pursue Clean Renewable Energy Bonds or privately funded ventures to build one or more local renewable power stations.

**Action Item 4.3:** Encourage installation of renewable energy systems on private property through financing mechanisms and community campaigns.

**Action Item 4.4:** Consider purchases of green power to reduce greenhouse gases.

**Action Item 4.5:** Pursue development of other local renewable supplies such as microhydroelectric or methane capture at the sewer plant.

**Action Item 4.6:** Support efforts to turn waste cooking oil into biodiesel.

## **5. Cultivate clean energy jobs and businesses focused on sustainable technologies, expertise, and education**

**Action Item 5.1:** Work with the Chamber of Commerce to encourage the preservation of existing renewable energy jobs and encourage the creation of additional jobs tied into a sustainable energy economy.

- Create a supportive environment for businesses to build green and support green businesses.
- Develop informational materials to promote New Castle as a center of sustainable energy.
- Conduct outreach to state and national audiences of the resources New Castle offers for sustainable energy education; promote New Castle as an example of sustainable energy technologies.

## **APPENDIX: Implementation and Financing**

Plans are implemented when it is someone's responsibility to ensure the implementation, when there are financial rewards for implementation, when the plan is backed up with support from organizations and policy makers, but ONLY when there is adequate financing. To be sure this document turns into action we need to answer "Who will do the work, who is responsible for moving items forward, and where do we obtain funding?"

### **Possible organizational/staffing arrangements:**

- In-house energy manager within Town Government, full time salary completely covered by Town government.
- Staffing as part of regional non-profit energy office, Town funds part of salary joining with other entities in a regional effort.
- Energy Services Company: Town contracts with a for-profit company.
- Individual contractors on a project by project basis.

It will take a team of resources to implement the plan, and it may require using a combination of several above-listed approaches. The Climate Action Advisory Commission (CAAC) will provide volunteer guidance and recommendations.

### **Possible financing sources**

Financing is required for staffing, management, and upfront costs of efficiency upgrades and installation of renewable energy systems. Here are potential sources of financing:

- **Franchise fees:** The Town receives franchise fees from utility companies, and could choose to dedicate some or all of its fees toward creating a more energy-wise community.
- **Bonds:** In 2001 San Francisco voters overwhelmingly approved a landmark \$100 million bond initiative that paid for solar panels, energy efficiency and wind turbines for public facilities. The measure paid for itself entirely from energy savings at no cost to taxpayers. Visit [www.votesolar.org](http://www.votesolar.org) to learn more.
- **Grants:** Public and private grants can be a valuable part of the funding mix.
- **Revenue-generating mechanisms:** It is possible to pursue a revenue generating mechanism such as Pitkin County's Renewable Energy Mitigation Program.
- **Occupation Tax:** E.g., Qwest pays about \$7,500 annually to New Castle.
- **Utilities:** Fully utilizing existing or emerging utility efficiency and renewable energy programs can also add to the pool of financial resources available.
- **Severance Tax:** Mineral and gas extraction tax monies could be applied to renewable projects.
- **Third party financing:** Power Purchase Agreements are a good example of the opportunities which may be pursued.

**This last section is a placeholder for future sections that may need to be added, including Implementation and Adaptation.**