

Lake County

Energy Action Plan

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Energy Advisory Group

Public Sector Representatives

City of Leadville, Jaime Stuever
Governor's Energy Office, Mona Newton
Lake County, Mike Bordogna

Business, Non-Profit, Education Representatives

Building Performance Institute, Jon Kinstad
Colorado Mountain College, Brett Miller
High Country Conservation Center, Lynne Westerfield, Trevor Schatz
Mountain BOCES, Craig Wright
Rocky Mountain Institute, Eric Wanless
Saunders Building, Jack Saunders
Lake County High School, Conor Laing
Lake County School District, Tony Ambrose
Xcel Energy, Suzannah Pedigo

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Executive Summary

Vision

The vision of the *Lake County Energy Action Plan* is to create opportunities for cost and energy savings in Lake County, in order to create jobs, promote a clean and healthy environment, and preserve and enhance our independent mountain lifestyle. The project will instill a new sense of pride in our community.

Statement of Purpose

Successful implementation of this plan will **improve energy efficiency and conservation, increase renewable energy production** and **decrease harmful emissions**. These solutions will have the following local effects. They will:

- save energy and money for residents and businesses,
- improve comfort and quality of life,
- reduce carbon dioxide and other harmful emissions,
- reinvest money in the local economy,
- revitalize building trades, and
- reduce local economic risk from a volatile energy industry.

Background - Energy Planning as Part of a State-Wide Effort

The development of this energy plan is funded through the Governor's Energy Office Community Energy Coordinator Grant. Eighteen community partners across Colorado have received grants to develop local strategies for saving energy and creating jobs in the state's rural, agricultural and mountainous region. According to the Governor's Energy Office, the Community Energy Coordinators will "work across government boundaries, helping obtain energy related grants, developing local strategies and identifying the best energy efficiency opportunities for specific jurisdictions." The Community Energy Coordinator position is administered by the High Country Conservation Center (HC3).

The Energy Action Plan - A Living Document

The *Lake County Energy Action Plan* provides a community-based collaborative approach to energy solutions through a framework of goals, objectives, and action items. The *Energy Advisory Group* and supporting entities will continue to seek new and innovative strategies to achieve the overall goals of the *Lake County Energy Action Plan*. As such, the plan is a 'living document.'

A community-based collaborative approach, incorporating leadership from the public and private sectors, will be most effective in seizing opportunities and addressing local impacts. The *Lake County Energy Action Plan* provides this approach. Buy-in and support for this plan is important from organizations and individuals county-wide. As such, the plan is a 'living document.' Participating individuals and organizations will continue to seek new and innovative strategies to achieve the goals of the plan. Implementation and adaptation of this plan will be guided by the *Energy Advisory Group*, made up of public and private-sector leaders.

Lake County Energy Action Plan

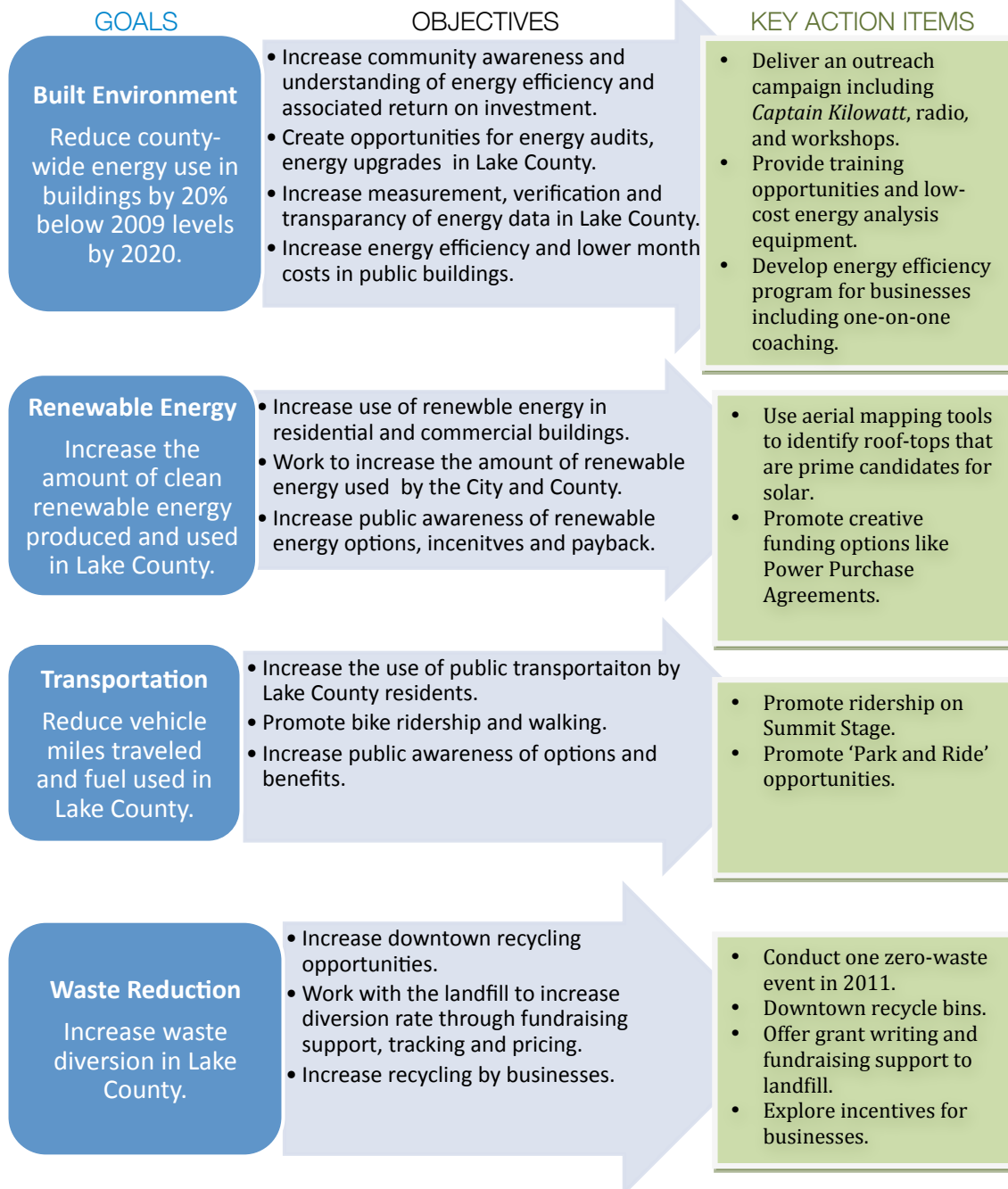
Strategies and tactics are recommended in four major areas: the built environment, renewable energy, transportation and waste reduction. Thirty-eight action items are outlined in this document.

Early action items begun while the plan was in formation include the following:

- An outreach and marketing program is being delivered, including workshops, radio, web and Captain Kilowatt column in the Herald Democrat (\$4,000 committed from Governor's Energy Office, \$4,000 committed by High Country Conservation Center).
- Grant support has been provided for recycling efforts in Lake County and \$160,000 in funding has been secured.
- The Leading Leadville Business program provides up to \$2000 in energy upgrade assistance to local businesses, including energy, waste and lighting audits. Twelve businesses are currently participating (June, 2011).
- In May, 2011, the *Community Energy Partnership* provide free Building Performance Institute training to four under-employed contractors to become energy specialists. In lieu of course payment, participants delivered 20 hours of energy upgrade and audit service to low-income homes (committed \$2,880 from BPI instructor, \$5,900 from High Country Conservation, \$1,600 from CMC, committed \$7,500 from Freeport McMorran).
- Energy audit equipment funding has been secured for Lake County. The equipment will be rented out to local energy auditors and contractors.
- County-wide energy data has been obtained from Xcel Energy. Ongoing analysis informs energy goals.

Key Strategies

Overall Goal: Use energy efficiency and clean energy as a tool to revitalize Leadville and Lake County.



BUILT ENVIRONMENT

1. Goal: Reduce per premise energy use in residential, commercial and public buildings by 10% below 2010 levels by 2015 in Lake County, and 20% by 2020.

- matches state CO2 reduction goals
- to be measured by Lake County Xcel energy data
- to be accomplished through outreach, incentives, audits, upgrades and energy tracking

1.1 Objective: Increase community awareness and understanding of energy efficiency, renewable energy and associated return on investment.

Action Items:

- 1.1.1 Deliver an outreach campaign including print, web, radio and events.

Strategy: Public information and awareness will target the supply-side (builders/contractors) and demand-side (residents, communities, businesses) of local energy markets. The High Country Conservation Center (HC3) began an outreach campaign in September 2010, which includes radio, print, web and events in Lake County. Implemented by HC3.

Assessment: At least 5 articles in the Herald Democrat, 5 radio spots, 6 events will be delivered, by January 2012.

- 1.1.2 Deliver an outreach campaign specific to underrepresented groups including the Latino community, low-income residents and Lake County's mobile home communities.

Strategy: Work with key community stakeholder groups like the Integration Collaborative and the Northwest Colorado Council of Governments. Implemented by: HC3, led by HC3 assistant Cameron Millard. The Northwest Colorado Council of Governments delivers free low-income audit and weatherization programs. Typical upgrades include boiler replacements, insulation and air sealing.

Assessment: At least 300 contacts will be made (face to face contacts, events, handouts distributed, contacts through media tools) by January 2012. NWCCOG applications in Lake County will increase by 10% by January 2012.

- 1.1.3 Make community members and key organizations aware of the Energy Plan and community goals.

Strategy: A simple and readable document will be made available to the public and distributed to businesses and organizations throughout Lake County. Energy Advisory Group will ensure respective organizational staff at the City, County and CMC are informed of the plan and community goals.

Assessment: At least 300 copies of the plan and associated outreach materials have been disseminated throughout Lake County by January 2012 (HC3). The majority of staff at the City, County and CMC will be aware of community-wide energy goals, by January 2012. To be measured by verbal check-ins with staff (Advisory group).

1.2 Objective: Create opportunities for energy audits, energy efficiency measures in Lake County

Action Items:

- 1.2.1 Promote energy audits.

Strategy: Market energy audits at media and event forums. Create success stories/case studies with energy audits. HC3 will include information on audits in media campaign in Lake County, which includes radio, print, web forums and events.

Assessment: 40 audits will be conducted in Lake County over one year (1 for every 200 people), from January 2011 to January 2012.

- 1.2.2 Provide training opportunities for energy auditors and contractors in order to increase local capacity for audits and energy conservation measures.

Strategy: Provide Building Performance Institute (BPI) certification opportunities in Lake or surrounding communities. A BPI course is planned in the Spring, 2011 and will be offered for free to qualifying local home performance contractors. BPI courses are planned in surrounding counties throughout 2011.

Assessment: Six BPI-certified contractors will be available for audits and home improvements in Lake County (currently there are two), by January 2012.

- 1.2.3 Lower initial business barriers for perspective auditors and retrofitters by providing rental audit equipment.

Strategy: The Energy Advisory group has written a grant for a set of audit equipment to be housed in Lake County and rented out for a small fee.

Assessment: Audit equipment is available to Lake County perspective auditors and retrofitters.

- 1.2.4 Develop a one-stop shop for residents, builders, contractors at a physical and/or virtual location, where the community can access all incentives and programs. Streamline incentives at the county level.

Strategy: Create a web-page that encompasses all Lake County energy opportunities. Use marketing and outreach to direct people to this web-page. Have a physical presence or 'help desk' where people can get help/coaching.

Assessment: One-stop-shop created. Physical presence created.

- 1.2.5 Lower monthly energy costs and facilitate upgrades for businesses and historic Leadville buildings important to the local economy and culture.

Strategy: Promote existing programs such as free lighting audit, rebates and incentives. Consider further funding for business and historic buildings. Target historic or culturally significant buildings. Explore grant opportunities for audits and retrofits. Consider one-on-one coaching options, energy tracking tools.

Assessment: One business or historic building upgraded will be completed by January 2013. At least 5 businesses will receive one-on-one coaching by January 2012.

- 1.2.6 Develop and promote programs specifically geared toward under-represented populations.

Strategy: Help NWCCOG market current low-income programs to underserved constituents. Market audits and upgrades to under-served populations like Latino community.

Deliver upcoming program planned to offer free retrofit services to 6 under-served residents through service-in-lieu-of-fee BPI training.

Assessment: Increase NWCCOG applications by 10% in Lake County by January 2012.

- 1.2.7 Consider loan program for commercial and residential buildings.

Strategy: Consider property-assessed loan programs. HB 1328 created a statewide district Lake County can opt into next year at no cost to the County. County Commissioners need to 'opt in' to the program and provide admin support.

- 1.2.8 Promote energy efficiency options for public buildings.

Strategy: Promote energy assessments on public buildings. Consider financing mechanisms such as energy performance contracting.

1.3 Objective: Increase measurement, verification and transparency of energy data in Lake County.

Action Items:

- 1.3.1 Encourage businesses and public entities to track (and therefore understand) energy data and costs. Make tracking tools available.

Strategy: Encourage use of tracking tools, spreadsheets or free online tracking tools like Greenquest and EPA Portfolio Manager. One-on-one coaching by HC3 and the Energy Advisory Group to businesses. In-person visit to every business on Main Street.

Assessment: At least 10 businesses will track energy electronically by January 2012. City and County will compile and track energy data.

- 1.3.2 Provide energy monitoring devices like smart meters or kwh meters, to enable energy measurement and transparency.

Strategy: Explore funding for kwh meters for residences, or something like the kwh meters in public libraries campaign Governors Energy Office has helped to get started in other counties.

- 1.3.3 Develop community-level tracking tools. Use energy baseline/tracking data to inform energy consumption goals.

Strategy: Explore community level tools like Greenquest. Continue to analyze Xcel energy data by premise, per square foot data, \$ per tax payer, and by end user (commercial, industrial, residential).

Assessment: Community-wide energy data can be tracked and analyzed.

- 1.3.4 Consider development of energy-information disclosure before sale or lease.

Strategy: Explore other models for 'point of sale' disclosure and make recommendations. Models exist for disclosure at point-of-sale/lease across the country. For example, an audit or home rating might be requested before sale.

RENEWABLE ENERGY

2. Goal: Increase the amount of clean, local renewable energy produced in Lake County.

2.1 Objective: Increase production and use of renewable energy in residential and commercial buildings.

Assessment: 2009 Xcel data indicates there are currently 19 premises using renewable energy (through Xcel Energy's *Windsorce* and *Solar Rewards*). We will double this number by January 2012.

Action Items:

- 2.1.1 Identify and develop the best potential locations and methods for solar power in Lake County.

Strategy: Use available aerial mapping tools and National Renewable Energy Laboratory (NREL) data to show which rooftops are best suited to solar (HC3 has applied for CSU engineer-

ing student help for this analysis). Local installers will provide free site assessments. Provide resources to advance solar adoption in prime locations. For example: contact owners of roofs with prime solar potential, provide resources and coaching.

- 2.1.2 Develop and promote incentives for Lake County homes and businesses to use renewable energy.

Strategies: Explore financing options, expedited permitting and tax breaks from the City/County for businesses implementing renewable energy measures. The County can opt into a state-funded loan program that provides renewable energy and energy efficiency loans paid through property-tax assessments (property assessed clean energy program). Evaluate and ensure codes and permit structures support renewable energy implementation.

- 2.1.3 Explore solar gardens or other economy-of-scale renewable options.

Strategy: Use NREL and other solar data and consultants to identify best possible community location for solar. Explore development of solar gardens. Solar Gardens allow community members to buy shares in a larger and potentially cheaper solar installation in their community. The solar garden is then connected to the grid and potential customers are given credits toward their energy usage. HB 10-1342, signed into law by Governor Ritter this year, allows solar gardens in Colorado.

2.2 Objective: Work to increase the amount of renewable energy produced and used by the City and County.

Strategy: Explore funding options like grants, Energy Performance Contracting, PPA's, (Power Purchase Agreements - building owners do not own the solar hardware, they pay a rate for solar electricity, usually the same price or less than Xcel Energy's going rate. Governor's Energy Office will release a solar for public buildings grant in November.)

2.3 Objective: Increase public awareness and understanding of renewable energy payback, incentives and options.

Strategy: Develop case studies and publicize successful renewable energy projects, to be used in print, web, radio, handouts. Promote one-stop-shop website for renewable energy resources in Lake County with a centralized list of contractors and incentives in Lake County. Consider partnership with CMC or High School to provide renewable energy internships for students.

Assessment: One-stop-shop created. Renewable energy featured in at least 4 print articles, radio spots and handouts by January 2012.

TRANSPORTATION

3. Goal: Reduce Lake County vehicle miles travelled (vmt) and fuel used.

3.1 Objective: Increase the use of public transportation by Lake County residents.

Strategies:

- 3.1.1 Explore 'Park and Ride' around high population centers in Lake County.
- Consider expansion of local public transport options to and from major residential areas. For example, a local line that connects to Summit Stage stops, Inter-City Trolley or other tourist friendly local options.
- Work to expand ridership and Summit Stage service to and from Lake County to better serve commuters.

- Explore local community perks/incentives for public transit use, carpooling, or fuel efficiency, such as cheaper fuel, better parking or free coffee coupons.

3.2 Objective: Decrease vehicle miles travelled (vmt) and fuel used, in and through Lake County (residents, visitors, businesses, public operations).

Action Items:

- 3.2.1 Promote bike ridership and walking in Lake County.

Strategies: Explore development of a community-share bike system. Consider adding bike lanes on highways, and heavily travelled county roads, and downtowns to mobile home communities. Support building a bike path between Lake and Summit; Lake and Chaffee. Consider improvement of street plowing to be more bike-friendly in winter with wider plow areas. Consider incentives for tourists who walk, bike or take public transport around town. Consider funding for bike-friendly infrastructure, like bike racks.

- 3.2.2 Consider employer incentives for flexible schedules.

Strategies: Promote and encourage workforce flexibility, including increased teleconferencing and carpooling.

- 3.2.3 Promote guidelines for fuel efficiency.

Strategy: Encourage fuel guidelines for public fleets. Encourage employers to include driving guidelines for fuel efficiency in driver training of company vehicles (max speed, idling). Encourage DMV to promote driving guidelines for fuel efficiency.

- 3.2.4 Explore alternative fuels: local biofuel, electric cars. Explore incentives for use of alternatively fueled vehicles.

3.3 Objective: Increase public awareness of options for reducing VMT and fuel use, and associated cost and community benefits.

Strategy: Use print, radio, web and one-on-one contact to raise awareness. Ensure that community members and public employees are aware of community transportation goals. Encourage walking and biking (around town, commuting, etc.), public transport. Emphasize costs of single occupant vehicle miles traveled, community benefits to alternative modes of transportation.

WASTE REDUCTION

4. Goal: Increase waste diversion rate Lake County.

4.1 Objectives: Increase recycling options downtown and drop-off locations across the County.

Action Items:

- 4.1.1 Conduct one zero-waste event.

Strategy: Choose at least one visible event: Ski Joring and Crystal Carnival, Boone Days or Leadville Trail 100. Work with community partners. Consider contracting with Green Wolf Recycling. HC3 can help with volunteer recruitment, coordination and training. (*Zero waste* is a philosophy and a design principle. It acknowledges that the process may not actually achieve 100 percent waste reduction, but will almost always result in significantly lower levels of waste generation than traditional recycling programs have been able to accomplish.).

The event would have recycle/compost tents and many volunteers staffing them. HC3 has done many of these events in Summit, with resulting high diversion rates. Grow volunteer base at High School and at CMC for zero-waste events.

Assessment: One zero-waste event conducted by January 2012, at least 10 volunteers, diversion rate of over 50%.

- 4.1.2 Obtain recycling bins for downtown area and arrange joint pick up between city and county.

Strategy: City and County have agreed to joint pick-up at two downtown locations.

Assessment: Available recycling bins increased in downtown area. Drop off locations increased in the County.

- 4.1.3 Develop drop off locations North and South of town. County is currently developing a grant proposal to increase drop-off locations north and south of town.

4.2 Objective: Work with the landfill to increase diversion rate.

Action Items:

- 4.2.1 Establish a diversion rate and a diversion goal. Compile current data on waste reduction. Measure and track diversion rate, tons recycled and dollars saved (we have this info, just need to get it all in one place). This allows the County to document and market improvement. Reconsider pricing scheme, appliance fees, etc. to incentivize recycling.
- 4.2.2 Offer grant writing and other fundraising support as needed to the landfill.
- 4.2.3 Examine pricing scheme at landfill to incentivize diversion. (Landfill will institute new pricing in April.)

4.3 Objective: Increase commercial recycling.

Strategy: Explore incentives for commercial sector, like commercial recycling logo/sticker and recognition program, pressure from local officials. Encourage Climax to recycle, track recycling and report to community, as a visible showcase for this effort.

4.4 Objective: Increase re-use of construction materials.

4.5 Objective: Explore and support options for composing.