

CDLE GREENING OF GOVERNMENT 2007-2008

YEAR 2007 REVIEW

Acknowledgement of LEED Certification @ 251 East Grant Avenue

The Governor toured the first State Government LEED® building – our UI Operations building at 251 East 12th Avenue, Denver. Additional information was provided to Governor Ritter, through Angie Fyfe, concerning LEED® certification. Governor Ritter also signed into law several environmentally-related pieces of legislation while on his visit in April 2007. LEED (Leadership in Energy and Environmental Design) is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings.

Hiring of Green Seal

The CDLE Green Team worked with State Greening of Government Council in the hiring of Green Seal, Inc. to consult with State Procurement and GEO regarding HB 07-1220 implementation and training requirements, which led to the education and encouragement of procurement personnel to consider purchasing of “green” (environmentally friendly) products. In November 2007, Green Seal conducted an educational and training conference for State purchasing personnel; PCS Procurement Staff participated in this conference.

Environmentally Preferable Purchasing (EPP) Policy

Lisa Eze and Stacy Steelman (both with PCS) met with OfficeMax regarding CDLE's purchases. Part of that discussion focused on the Governor's greening effort and OfficeMax has already met with the Governor (and Angie) to discuss how OfficeMax can assist with the greening of Colorado Government. PCS held similar discussions with two other office supply vendors from whom we purchase and track recycled purchases.

State Purchasing subsequently began work on the broader Environmentally Preferable Purchasing (EPP) Code and Rules, which encompassed the HB 1220 requirements and the Governor's Energy Office is developing the statewide EPP Policy. PCS in published materials began encouraging the use of recycled paper and the use of CDLE's intranet website and GEO's website. An example of a PCS message to CDLE employees follows:

PCS TIPS and REMINDERS (Examples)

Recycled Goods. The Colorado Statutes (Procurement Code) state that the goal for purchasing recycled paper and paper products should be 50% of the volume of all paper and paper product purchases. Please review your discretionary purchases (purchases under \$5000) to determine when it is feasible to purchase recycled paper.

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Pursuant to Colorado Statute 13-1-133(4)(d), recycled paper means “paper not less than 50% of its total weight consisting of secondary and post-consumer waste and with not less than 10 percent of such total weight consisting of post-consumer waste.”

CDLE Volunteer Assisted with Transportation Audit for State

Green Government (GG) Coordinating Council asked for volunteers to work on the Transportation Efficiency Audit. Mike Willihnganz, Auditor for the Colorado Department of Labor and Employment's Office of Organizational Integrity volunteered to serve on the Transportation Efficiency Auditing Team. Mike had extensive knowledge of professional auditing principles/standards and an excellent understanding of state government operations. Mike has served as the President of the Colorado Fiscal Managers' Association. Mike also served on CDLE's Greening of Government Team while working with the Colorado Green Government Coordinating Council on this major project. Mike committed to 35 – 40 hours of his time over a 90-day period to complete this task. The work was a combination of some individual work (research, analyze, write, review, edit) as well as weekly one-hour conferences with the working group

Goals for Transportation Audit

- Document current fleet processes, policy, regulations, and statute - including procurement processes
- Document past and current fleet statistics, including efficiency / performance
- Evaluate SFM's proposal to meet the GG goals through the analysis of expected results
- Evaluate policy, costs, and benefits of personal vehicle use and reimbursement policies
- Conduct employee transit surveys (*we may have an outside resource available to assist the working group with this*)
- Explore employee transit options
- Prepare recommendations for consideration of the entire Council
- Adopt recommendations and report out to the Governor.

Audit was completed -- on schedule-- during the last quarter of 2007.

Alternative Energy

In September, part of our CDLE team met with Morey Wolfson, Governor's Energy Office Utilities Program Manager to initiate an evaluation of alternative energy sources for use by all agencies using state equipment and automobiles. Morey spent 15 years with the Public Utilities Commission, 5 years with the National Renewable Energy Lab, and led the successful 2004 Amendment 37 campaign. Amendment 37 set a target of 10% renewable-generated electrical production by PUC-regulated utilities by 2015. Xcel Energy is expected to meet that goal by the end of 2007. The new target (established by HB 07-1281) is to double that target to 20% by 2020.

Energy Management -- Measuring & Managing

By *January of 2008* develop or update an energy management plan for all state owned facilities. Metrics Matter! The person who coined the phrase “you can't manage what you don't measure” must have had Greening Government in mind. CDLE's goal will be to **measure** our energy and water use, so that we can

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better **manage** those resources Energy of all types, petroleum in particular, water and paper consumption will be the Greening Government Key Performance Indicators when measured, managed, and reported.

The Governor's Energy Office posted a request for proposal (RFP) on the State BIDS system to solicit a vendor to record, track, and report the utility bills associated with all state-owned facilities. The intent is to select and to contract with a vendor no later than the first calendar quarter of 2008.

The Greening Government Executive Order requires that we establish a baseline of our Key Performance Indicators with data from state fiscal year 2005-06. The selected vendor will populate the Colorado utility database with energy and water use data beginning July 1, 2005 forward. This information will be: 1) used to baseline the energy and water consumption and greenhouse gas emissions of state-owned buildings as well as leased premises and 2) to evaluate energy efficiency to better manage those facilities. Tom Morgan was selected to be CDLE's single-point-of-contact for energy management at your agency (a.k.a. CDLE Energy Manager). Initially Tom was tasked with ensuring that CDLE had a complete record (preferably in an electronic format) of all electric, heating, and water bills paid since July 1, 2005. By January 2008, Tom, along with Division Directors and appointed representatives, was tasked with developing a plan on how CDLE could meet the Greening Government goals:

1. reduce water consumption by ten percent (10 %) by June 30, 2012
2. reduce energy consumption by twenty percent (20%) by June 30, 2012



USDA Forest Service 2007 Sustainable Operations Summit November 13-16, 2007

Ron Arthur represented CDLE and the Governor's Greening of Government Council at this national meeting, which was held at the Denver Convention Center

Meeting Objectives:

- To officially launch the Forest Service (FS) National Sustainable Operations effort
- To bring together employees and partners to explore opportunities and ways to support and learn from pragmatic application of sustainable operations efforts
- To share stories, ideas and resources in support of finding solutions and innovative ways to reduce our environment footprint

Denver Mayor John Hickenlooper spoke on his goal of making Denver "The Green City" in the United States. Many projects to accomplish this goal are on schedule or even ahead of schedule e.g., planting 1000's of new trees. Many nationally recognized environmental leader spoke at the Summit. Mohan Peck, United Nations Council on Sustainable Development, spoke on the UN's efforts in sustainable development on a world-wide basis. Ed Pinero, White House Official, Office of the Federal Environmental Executive spoke on federal environmental initiatives.

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Delegates were given the opportunity to tour CDLE's UI Building at 251 East Grant Avenue to gain an understanding of the LEED Program.

Educational Tours for Ideas on Improving the Working Environment and Reducing Energy Consumption

Part of our CDLE Greening Team toured both EPA's LEED building in Denver and the very advanced Denver Non-Profit Center Building (formerly the private sector offices of Mayor Hickenlooper). Many of the ideas, concepts, and practical applications will be considered for use in greening CDLE facilities and for incorporation into the Energy Management Plan, which the Governor's wants initiated early in 2008.

Teleworking (Flexplace) for CDLE Employees

Coordinating with the Governor's Greening Council and Denver Regional Council of Governments (DRCOG), CDLE's Green Team assumed the role of facilitating and collaborating on teleworking or flexplace issues, construing this concept very narrowly as an environmental issue. The Green Team expected at the close of 2007 that the baton should be passed to HR/P for total control in the implementing of the teleworking/flexplace program. The Green Team stands ready to assist HR/P should environmental issues arise or if environmental impact data to support such a program should be required.

Greening Tips and Information Provided Throughout the Year to Employees on the CDLE Greening Website (example follows):

“Paper or Plastic?”

Source: The Alliance for Climate Protection

Paper	Plastic
1 ton of bags = 17 trees	1 ton of bags = 11 barrels of crude oil
20% get recycled	1% get recycled
Ingredients: wood, petroleum, coal	Ingredients: natural gas, petroleum
Could biodegrade in as little as a month, but due to poor landfill design actually decompose at about the same rate as plastic.	Decompose in 5 to 1,000 years
Each bag leads to 5.75 pounds of air pollution	Each bag results in 1.2 pounds of air pollution, almost 80% less than paper.
Generates 5 times as much solid waste as plastic	40% less energy to manufacture and 91% less energy to recycle than paper
Due to bulk, it uses more fuel getting trucked to the store	Up to 3% of the world's plastic bags end up as free-floating litter.
The manufacturing process produces 50 times more water pollution than plastic	Easily washes out to sea, where it clogs the stomachs of whales and turtles (and floats out of high-country Colorado landfills into the forest)

Results of CDLE's Recycling and Waste Reduction Efforts

Fiscal Year 2006-2007

129,159 pounds of confidential paper* (saving 1002 trees) { 1 ton=17 trees }; Paper is shredded and recycled.

329 pounds of media destruction (tapes & microfiche)

\$12,462 spent on destruction @ \$.085 per pound for paper and \$1.00 per pound for media

2007 (9 month total)

93,550 pounds of confidential paper (saving 795 trees) { 1 ton=17 trees }

205 pounds of media destruction (tapes & microfiche)

\$9,210.53 spent on destruction @ \$.085 per pound for paper and \$1.00 per pound for media

PAPER

July 7, 2006 – January 18, 2008

125,820 pounds (62,910 tons)

Recycling 62,910 tons of paper *saved*:

1,069,470 Trees (17 trees per ton)

215,640,000 Kwh (kilowatt hours) of energy (4,000 Kwh per ton)

440,370,000 gallons of water (7,000 gallons per ton)

188,730 cubic yards of landfill space (3 cu. yd. per ton)

3,774,600 pounds of air pollution (60 pounds per ton)

7,926,660 gallons of oil (3 barrels @ 42 gallons per barrel/per ton)

Aluminum Cans

June 28, 2006 – January 14, 2008

731 pounds

731 pounds at 31.92 cans per pound equals approximately 23,333 cans.

Each can is 4.88 inches tall.

23,333 cans laid end to end equals approximately 9,488 feet or 1.79 miles.

Recycling 23,333 cans saved enough energy to run your TV for approximately 69,999 hours.

Mixed Metals

Steel – Bailing Scrap – Copper Pipe – Copper Wire – Aluminum – Red & Yellow Brass

August 10th, 2004 – November 27th, 2007 = \$28,588.79

June 29th, 2006 – November 27th, 2007 – 28,099 pounds (no weight totals for August 10th, 2004 – June 29th, 2006)

Co-mingled Recycling

February 15th, 2007 – January 11th, 2008

Mixed Paper – Approximately 116.5 cubic yards

Mixed Plastics and Tin – Approximately 39 cubic yards

Total Volume – Approximately 41,110 pounds – 20.5 tons

Cardboard

Cardboard - September 20th, 2007 – January 17th, 2008 - 820 pounds
(Began recycling cardboard 9/20/2007)

Xeriscape Landscape

Approximately 4,584 sq. ft. landscaped with Colorado Native plants and drip irrigation system.
Approximately 1,156 sq. ft. left to landscape.

CDLE Green Team Member Assisted Governor's Energy Office (GEO) with Transportation Survey

Tom Morgan (Office of Government & Public Relations), who in the private sector owned and ran a survey research company for nearly a decade, volunteered to assist Angie Fyfe and the GEO with the GEO's Transportation Survey. One of the more onerous jobs was collapsing open ended responses for analysis. Because of the subjective analysis involved, this is usually best done in a team setting by one or two people. He worked with one of Angie's interns, Don McKinney, to translate the lengthy responses to questions in the GEO transportation survey into short and quantifiable responses. Tom and Don took in excess of 1800 lengthy responses contributed by State employees produced a list of easily understood general categories.

YEAR 2008 CDLE GREENING PLANS

Overview

For 2008, the CDLE Greening of Government Team (Green Team) plans to work on both projects that can be completed within the year 2008 and those that will be on-going into the next several years. We plan to continue to educate our employees on Governor Ritter's environmental goals for State Government and the State of Colorado. The Green Team will continue to develop educational materials for CDLE employees on sustainability, stewardship, climate change, and other environmental issues, so that employees better understand the reason for this Executive Order. These materials will be posted on the CDLE Greening Website.

Goals. The Greening Government Program calls for Colorado state government to reduce its impact on the environment and take a position of leadership in the New Energy Economy through the efficient management and conservation of resources (energy, water, petroleum, and paper) used in conducting state business. The overall objective of the Greening Government public information program is to promote the goals outlined by the Governor in his Executive Orders. In order to reach these goals, Greening Government must convey its goals and benefits to all state agencies. Additionally, this must be communicated to those that are working with Colorado state government, including vendors and the general public. Some of the Governor's goals that will have either a direct trickle-down effect on CDLE follow:

- Reduce energy usage by 20% by June 30, 2012
- Paper Reduction 20% by June 30, 2012
- Water reduction 10% by June 30, 2012
- Volumetric petroleum use reduction 25% by June 30, 2012
- Educate State employees about the purpose and benefit of the Energy Office
- Develop "zero waste" strategies
- Assess/implement state renewable energy projects
- Successful reporting of goals to stakeholders
- Related Greening Government goal: 25% volumetric reduction in petroleum consumption by 2012.

Motivation. The motivation of CDLE employees will come through playing off of what the Governor refers to as "*Key Messages*":

- Government is leading by example through conservation and efficient use of energy and resources.
- Energy efficiency is both environmentally and fiscally sound.
- Greening Government is helping to lead Colorado to a New Energy Economy through conservation, energy efficiency, renewable and clean energy resources

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Media Strategy. The CDLE Green Team will coordinate with the Office of Government Policy and Public Relations to build relationships with Colorado media including energy and state government reporters. Promote Greening Government programs on all levels by securing media coverage in local, trade, print, online, broadcast media. Identification of Target Media to reach key audience.

Virtual Conferences (Aimed at reducing travel and meeting costs and environmental impact associated with travel)

Telephone and web conferencing. The Colorado Department of Personnel and Administration (DPA) Division of Information Technologies (DoIT) <http://www.colorado.gov/dpa/doit/> provides state agencies and institutions of higher education with telecommunications support through a preferred service provider, Qwest Communications. The Qwest Reservationless Conferencing services are convenient and easy to use. Whether a meeting is across town or across the state, meeting by telephone is a great way to communicate. The Qwest service also allows meeting organizers to post documents on a web site for meeting attendees to view, approved, or edit while on the telephone conference. Visit Qwest's web site for more details: <http://conferencing.qwest.com/audioservices/resless.asp>

Video conferencing. If an employee prefers a face-to-face meeting, but want to save gas and time, consider one of the 100 or so video conferencing sites available around the state. DPA's Division of Central Services maintains a list of these sites, most of which are available for use by state employees. The list of sites is available on the web at: <http://www.colorado.gov/dpa/dcs/fleet/docs/green/videosite.pdf> The list contains the name of a contact person, who can reserve the site for you.

Tracking CDLE's progress. When a CDLE employee chooses a virtual rather than in-person meeting, the CDLE Green Team would like want to know about it so we can share your story with the rest of our employees. ron.arthur@state.co.us Please help us to track our agency's progress in reducing vehicle miles traveled. With a reduction of fifteen percent (15%) in fuel use on an annual basis (\$3.00 per gallon average), the State would save approximately **\$1,200,000** according to the Governor's Energy Office.

Energy Management for CDLE

The CDLE Energy Management Plan will be completed in January '08 and subsequently will be integrated into the State Energy Plan during the first quarter of '08. The State's annual utility budget is approximately \$154,000,000. Assuming the greening government energy reduction measures are initiated, using a cost-neutral tool such as energy performance contracting, the EO believes the State could achieve conservatively a three percent (3%) net cost reduction. That equates to **\$4,600,000 per year** in potential cost avoidance

Environmentally Preferable Purchasing (EPP) Policy

The PCS staff completed training by Green Seal, Inc. in November 2007. The push for 2008 will be to continue to educate our employees on procuring products that minimally impact our environment.

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Reduce Paper Consumption

Educating our employees on reducing the waste and expense associated with paper usage will continue. Our Super User Group educated employees last year on duplexing (printing on both sides of a sheet of paper rather than on two separate pieces). The CDLE Green Team will post reminders on the CDLE Greening Site throughout the year on reducing paper usage. The State Greening Council believes reducing paper consumption by twenty percent (20%) could result in a twenty percent (20%) cost savings. Patti Torres (Office of the Deputy Director and Fleet Manager) continues to battle against waste and to report the numbers associated with DocuVault and the destruction of confidential paper (shredding, etc.) She always has supported replacing paper with electronic versions of documents when possible. Remember, CDLE employees view SP's and SPP's on CDLE's intranet or through e-mails -- but not in paper format thanks to Patti.

New Employee Orientation – Training Materials on The Greening of Government.

The Green Team plans to work with HR/P and provide some greening materials for use during the new employee orientation process. At a minimum the new employee should know that the Greening Government program exists and that the program has goals which benefit the employee as well as the environment.

Automobile Usage and Fleet Management

Patti Torres (Fleet Manager for CDLE) participates in State Fleet actions which lead CDLE to reduce costs and environmental impact attributed to travel (e.g., fuel consumption and smog reduction)

Strategy to Meet State Goal – Reduce Petroleum Consumption by 25% by June 30, 2012

- Reduce miles driven

- Improve MPG (replace gas guzzlers with hybrids and next-generation vehicles)

- Increase use of alternate fuels and hybrid (hybrid rebates)

Depending upon funding, either four (4) vehicles will be replaced by “hybrid” vehicles or E-85 vehicles.

Existing Building (“EB”) LEED Certification for 251 East Grant Avenue

Janey Antal heads a sustainability team at 251 whose goal is to change/green the older section of the building to meet the requirements for EB LEED Certification. Don Burns a member of the team will seek a \$250,000 grant related to renewable energy.

Greening of 633 17th Street (Jones-LaSalle – Building Management -- in Cooperation with Tenants)

Energy Star

Achieved a score of 87 for 2006; qualified for Energy Star certification. Presently In the process of completing the necessary documentation for 2007 certification. This high score is a result of efforts already taken to run an efficient building, including modified maintenance P&Ps: adding VFDs to various equipment, using energy efficient lighting, flat plate heat exchanger, etc.

Greening CDLE

Recycling

On February 1, a “single stream recycling program” will be launched throughout the building. This program will allow the tenants to easily recycle almost everything used at their desk or elsewhere. Each occupant will have one container (no trash can liners). If there is anything NON-recyclable (e.g., garbage or contaminated tissues), such items should be disposed of in a centralized containers conveniently located throughout the CDLE’s office space. The building’s current trash compactor will be converted to a recycling compactor, and there will be a small roll-off for the garbage.

Baseline numbers for this new program will be provided for February 2008 early in March 2008.

Irrigation

Plans in progress to install a web based rain sensor on our grassy area is planned to avoid overwatering. This sensor is monitored by an outside company that controls the irrigation water based on the weather.

Working with City to add trees in our landscape areas, as part of Greenprint Denver. Presently evaluating existing plant materials to determine if these materials should be replaced with others that require less water.

Transportation

Want to institute a program to promote the use of public transportation and car pooling.

Looking into adding bicycle storage lockers.

Considering preferred parking benefits for hybrid vehicles and carpooling.

Operations

- Submitting a proposal to the property owner to add Variable Frequency Drives to our building exhaust fans, in order to achieve additional energy efficiencies.
- Considering day cleaning in areas of the building that it may be acceptable (CDLE would need to agree to allow such daytime cleaning and janitorial work).
- Modifying our policies and procedures regarding the hours for running common area and exterior lighting after hours.
- Replacing inefficient lighting with more efficient lighting.
- Establishing a tenant council or Green Team to discuss efforts that tenants can take to help us all achieve better sustainability results.
- Addressing the chemicals and supplies used in our business for landscaping, cleaning, water treatment, office supplies, etc. and converting to Green products wherever possible.
- Discussing IPM (integrated pest management) with our pest control company to obtain counsel on modifying our practices (and including the tenants).
- Evaluating all building systems for further efficiencies and may decide to re-commission the building.
- Considering making the property a Non-smoking property in its entirety. Also considering offering smoking cessation clinics for our tenants.
- Analyzing hands free and water efficient restroom fixtures. Waterless urinals provide another option.
- Talking to all of building’s vendors, contractors, and tenants, to work with us on our team-based approach to making 633 17th Street a green building.

Greening CDLE

Ultimate goal for 633 17th Street: achieve LEED certification for Existing Building (EB). Target Time: 18 months. Building Manager will be testing for LEED AP accreditation sometime in the first quarter of 2008.

Recognition Program for CDLE Employees

A rewards program will be discussed and developed beginning in the first quarter for implementation in FY 2008-09 for employees who contribute to CDLE's greening efforts .

CDLE Greening Website

The goal for 2008 is to increase the use and improve the content of our Greening Website. Vicki Netherland, who developed and continues to maintain the website, remains open to suggestions for increasing the number of hits and the type of information posted.

The members of the 2008 CDLE Green Team and some of their interests/functions follow:

Dawn Anderson (OPS @ 633) -- flexplace and waste reduction/recycling

Janey Antal (UI Operations -Staff Services @ 251) -- energy consumption, paper reduction, teleworking, and placing more documents (books) for UI on-line.

Shari Ashley (PCS @ 633) -- EcoPass, RideShare, and toner cartridge recycling.

Don Burns (UI Facilities/Electrical @251) -- energy management and pursuing energy-related grants (e.g., solar array for 251)

Mike Dawson HR/P @ 633) -- commuting, flexplace, telecommuting/teleworking, Eco Pass, and all other HR/P related issues

Lisa Eze (PCS @ 633) -- EPP, Marketing & Education, and Energy Performance Contracting.

Katherine Gallagher (ICAP @ 633) -- commuting and alternative energy

Greg Goldman (Accounting @ 633) -- recycling and waste reduction

John Gould (OPS) -- commuting and alternative fuel usage

Carol Harr (Workforce Programs/TAA @633) -- education of employees in the workplace.

Greening CDLE

Richard Jaramillo (UI Facilities/Building Services @251) -- co-mingled recycling at 251 and waste reduction

Mike Mange (IMO @ 633) -- greening of IT, commuting, and flexplace.

Tom Morgan (GPPR @ 633) -- Department Energy Manager

Vicki Nederland (GPPR @ 633) – CDLE Greening Website and other projects involving graphics

Scott Renville (Workers' Comp @ 633) – materials management (waste reduction & recycling) and energy consumption

Patti Torres (Fleet Manager, Mgr. Document Destruction & Storage - DocuVault, CDLE Handbook @ 633) will work on Greening of CDLE's Fleet and paper reduction.

Jerry Valdez (UI Facilities/Building Services @ 251) will work on energy conservation and water conservation

Submitted on February 2008 by Ron Arthur

Ron Arthur (Office of Government Policy and Public Relations) serves as the Representative for CDLE on Governor's Council for the Greening of Government and Chair of CDLE Green Team; he also serves as the Liaison for the Building Management's Greening Program at 633 17th Street.

Executive Director Don Mares supports greening of government efforts within CDLE; Don would like for the accomplishments of our employees to be recognized.