

2011

**Jackson/Teton County
10x10 Initiative**



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Executive Summary

Jackson Hole sits at the southern end of the Greater Yellowstone Ecosystem - the most intact ecosystem in the lower 48 states. The area is home to large keystone species such as wolves, grizzly bears, mountain lions, elk, and moose, countless bird species, native trout populations and much more. The borders of Teton County extend for 4,000 square miles and include a large portion of Yellowstone National Park and the entirety of Grand Teton National Park. Over three million guests travel through the area each year to visit the National Parks, ski at one of the three world class ski areas or to explore the historic Town and County. Tourism is the largest industry in the area and the greatest contributor to revenue for Town and County operations. The Town of Jackson is the only incorporated municipality in this vast county of approximately 25,000 year-round residents.

Teton County and Town of Jackson governments use a large volume of energy in the delivery of services to the community through numerous buildings, infrastructure systems, an extensive fleet of vehicles and equipment, and over 350 employees. The Jackson Hole community, like many communities throughout the country and world, is faced with the challenge of securing safe and affordable energy. In addition, Jackson Hole's remote location surrounded by mountain ranges poses a challenge for the delivery of most commodities, including energy. In 2006, the use of electricity, gasoline, natural gas, diesel and propane required to support Town and County operations was growing despite historically high energy prices, mounting concerns over energy security and the recognition of the human causes of global climate change. Town and County elected officials were particularly concerned with these challenges in the context of Teton County's unique location in this pristine ecosystem.

The Town of Jackson and Teton County have a long history of working together. The agencies work with multiple joint boards and departments and the two elected boards meet monthly to

discuss issues of mutual concern. In 2006, the Town Council and Board of County Commissioners harnessed this cooperative power and adopted an aggressive goal to reduce energy consumption 10% below 2006 usage by 2010 specifically targeting a 10% reduction in electricity use and a 10% reduction in fossil fuel use by December 31, 2010. The initiative was coined Ten by Ten or (10x10). The initiative began as an effort to conserve energy and save money within town and county operations; Town and County elected officials and employees quickly learned that energy conservation also made incredibly good business sense.

In 2006, the Town and County forecasted that energy use would increase 6% by 2010. The 10x10 Initiative effectively reversed the increasing trend of energy consumption within Town and County government operations. Town and County operations now use less energy than they did in 2006. For example, the Town and County vehicle fleet consumed 20% less gasoline and diesel in 2010 than in 2006 while maintaining (and in some cases increasing) levels of service to the community. Equipment upgrades and building retrofits have partially offset the energy required by facilities that have been built or replaced since 2006. Individual behavioral changes and changes within individual departments drove major reductions in electricity and fuel. As a result, in 2010 Town and County government operations consumed fewer resources and spent less public money on energy than in 2006.

In total, Town and County governments reduced electricity and fossil fuel consumption 3% below 2006 levels, specifically achieving a 4% reduction in total fossil fuel and a 1% reduction in electricity. Reductions resulting from projects at the Wastewater Treatment plant and the Recreation Center, which individually use the 1st and 2nd highest proportion of electricity, are not included in these numbers. Contractual issues with both projects delayed their implementation and savings will not be realized until the end of 2011. **Once these projects come online, it is estimated that total usage will be 12% below 2006 levels.**

Electricity usage at the Wastewater Treatment Plant is up 5% from 2006 because of new Department of Environmental Quality regulations, which require the aerators and blowers at the plant to be operated almost constantly. The plant now consumes over 27% of total Town and County energy. Town officials estimate a 20% reduction in electricity usage at the plant once upgrades are complete. Natural gas consumption at the Teton County Recreation Center also increased during the time period and the facility now accounts for 20% of total Town and County energy usage. A solar hot water project will reduce natural gas consumption at this facility by 30% and have a significant impact on total energy consumption with Town and County operations.

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The chart below shows the % change since 2006 for each of the categories that were tracked. In order to provide an equal comparison all numbers are reported in Kilowatt Hours. A complete breakdown by facility is provided in Appendix A.

Category	KWH Used in 2006	KWH Used in 2010	% Change from 2006 (Total KWH)
Existing Buildings	11,183,352	10,606,921	-5%
New/Replaced Buildings	303,767	948,829	+312% ¹
Total Buildings	11,487,119	11,555,750	+1%
Vehicle Fleet	4,334,768	3,452,989	-20%
Streetlights & Irrigation	102,319	61,322	-40%
Water/Wastewater Systems	8,074,228	8,303,979	+3%
Reduction below Business as Usual Forecast	23,998,435	25,438,341	-8%
Total Reduction	23,998,435	23,374,037	-3%
Estimated Total Reduction	23,998,435	20,701,967	-12%

The 10x10 Initiative could not have been successful without the tireless effort of key employees and community members who worked on this project on their own time and outside of their normal assigned job duties.

The primary audience for this report is the Teton County Board of County Commissioners, Jackson Town Council and the Energy Efficiency Advisory Board, however, peer communities, members of the Jackson Hole Community and many others will use this report to learn from the successes and challenges of the initiative.

¹ The 10x10 Initiative required that energy consumption in new and replaced buildings be offset by reductions and efficiencies in current facilities and operations.

Introduction

In 2006, the Town Public Works Department undertook an energy audit of Town Hall, three Public Works buildings and the Waste Water Treatment Plant and began to think about new ways to manage operations more efficiently in order to mitigate costs and rising energy bills. In addition, the Town replaced all incandescent light bulbs with more energy efficient compact fluorescent bulbs in partnership with Lower Valley Energy. In the fall of 2006 a group of employees traveled to Aspen, Colorado for the Aspen Canary Initiative Conference. The Canary Initiative evolved when Aspen commissioned three scientists to study the effects of global warming on Aspen as an international ski resort. Since the Canary Initiative, other ski communities, including Park City, Utah have commissioned studies concerning the potential ramifications to snowfall (and their economic bases) as a result of global warming.

Before the trip to Aspen the Town of Jackson and Teton County had begun making strides towards more energy efficient operations. Teton County Commissioners signed a resolution in 2004 (Appendix F) expressing concern about global warming and its potential to harm the health, safety and welfare of Teton County and its residents. Teton County and the Town of Jackson had established a mass-transportation system, a trash transfer station with on-site composting, a successful recycling program, made investments in pathways and other initiatives. However, the employees who traveled to Aspen were shocked and inspired by what they learned at the Canary Initiative. Rocky Mountain temperatures are climbing faster than the global average. Temperatures in Aspen, Colorado are projected to rise 6° F by 2100, which will give it a climate most similar to that of present day Los Alamos, New Mexico. The employees traveling to Aspen envisioned the same fate for Jackson Hole, which is not only a world class ski area, but located in one of the most ecologically sensitive and pristine areas in the country. Moreover, the economic base of the community depends not only on snow, but also on the abundance of wildlife, scenic vistas and natural areas, all of which are extremely sensitive to environmental changes.

Green Team

The employees who traveled to Aspen, along with others already pursuing green alternatives within the community and Commissioner, Ben Ellis, coined themselves the Green Team and began to meet on a regular basis and to garner support for sustainability initiatives within the Town and County organizations. A Green Building Team was formed and started working on adopting more stringent building and energy codes. The Green Team researched best energy savings practices and looked into the work other mountain communities were doing to curb their energy consumption. This grass roots group, with the support of the Town Council and Teton County Board of County Commissioners, was responsible for initiating the 10x10 Goal,

the joint Town/County Memorandum of Understanding, and the establishment of the Energy Efficiency Action Board.

US Mayor's Climate Protection Agreement

In thinking about ways to formalize the efforts inspired by the Green Team, Mayor Mark Barron signed the US Mayor's Climate Protection Agreement, on behalf of the Town and with the endorsement of the Town Council, in November, 2006. This agreement offered a simple, basic and common sense way to formalize energy efficiency efforts for local government. Mayor Mark Barron was the first, and as of March, 2011 remained the only Mayor, in Wyoming to sign the agreement (Appendix E).

Teton County/Town of Jackson Memorandum of Understanding

In order to establish the working relationship and responsibilities of the Town and County relative to a cooperative effort to implement energy efficiency initiatives, the Jackson Town Council and Teton County Board of County Commissioners signed a Memorandum of Understanding (MOU) in February, 2007 (Appendix C).

10x10 Goal

The Town and County adopted an aggressive joint energy reduction target for local government operations, committing to a 10% reduction in electricity use and a 10% reduction in fossil fuel consumption below 2006 levels by the year 2010 (Appendix D). Although the US Mayor's Climate Protection Agreement outlined a 7% reduction in greenhouse gases below 1990 levels the Town and County (with advice from ICLEI – Local Government) adopted the goal to reduce electricity and fossil fuel consumption 10% below 2006 baseline levels. One of the major reasons for this recommendation was access to reliable and accurate data for 2006 whereas recreating 1990 data would have been nearly impossible.

The 10x10 goal did not speak to CO2 reductions despite being outlined in the US Mayor's Climate Protection Agreement. The green team and elected bodies chose to focus on the tangible actions to conserve, to be energy efficient and to save resources and money. Looking back on the achievements during the past four years, **major CO2 reductions are a positive outcome of conservation and energy efficiency actions.**

Energy Efficiency Advisory Board (EEAB)

Town and County elected bodies formed a joint citizen board called the Energy Efficiency Advisory Board (EEAB). Town and County elected officials realized that there were many members of the community who had excellent technical skills and the EEAB was formed to

provide leadership, expertise and support to the action teams, the elected boards and the overall 10x10 Initiative. The EEAB was composed of seven community leaders who worked in close coordination with citizens and Town and County staff serving on the energy efficiency action teams. Participating members included representatives from our local energy provider, the Chamber of Commerce, a former oil and gas executive, architects, engineers, and others.

The Energy Efficiency Action Board was initially responsible for writing and publishing the 10x10 Action Plan. The purpose of the Action Plan was to outline the short term course for achieving the 10x10 goals. Although outside of the scope of the 10x10 resolution, which only spoke to energy reductions, the Action Plan also recommended longer-term goals and specific strategies for reducing countywide emissions of heat trapping gasses. Finally, the Action Plan recommended a process to expand energy efficiency efforts to areas of government influence, identified key partnerships with other organizations working on similar efforts and set meaningful future goals.

Energy Efficiency Action Teams

Five action teams were established around the areas targeted for reductions in the Energy Efficiency Action Plan including: Baseline Data, Fuels & Fleet, Facilities, Communications and Green Building. The teams set goals for themselves and began to work towards energy efficiency and the 10x10 goal. In 2008, Transportation and Land Use Teams were added and incorporated peripherally into the initiative.

Energy Affairs Coordinator

As recommended in the Action Plan, an Energy Affairs Coordinator was hired in 2008 to work with Town and County Departments and to help the organizations reach the 10x10 goals. Before the Coordinator was hired, one staff member from the Town and one from the County were tasked with fulfilling many of the responsibilities assumed by the coordinator. The position reported jointly to the Town Manager and the County Commissioner's Administrator. The employee was tasked with developing programs to monitor and assess investments and practices for the 10x10 initiative and with recording and reporting the data. The position was also responsible for serving as staff to the Energy Efficiency Advisory Board.

Partnership with Lower Valley Energy

The 10x10 Initiative was greatly enhanced by the close relationship with our local utility provider, Lower Valley Energy. Lower Valley Energy (LVE) has an energy efficiency rebate program, which has helped offset the cost of many of upgrades. In addition, the leadership of

LVE provided encouragement, support and technical expertise throughout the initiative. In 2009, Teton County, the Town of Jackson and Lower Valley Energy signed a joint resolution (Appendix J) to support the Jackson Hole Energy Sustainability Project (JHESP) and continue energy efficiency improvements in the community. The Chief Executive Officer of Lower Valley Energy served on the Energy Efficiency Advisory Board and is on the board of the JHESP.

Project Timeline



2004	Teton County Signs Greenhouse Gas Resolution
2006	Green Team Established (travel to Aspen Canary Initiative)
2006	US Mayor's Climate Protection Agreement Signed
2007	Teton County/Town of Jackson Memorandum of Understanding Signed
2007	10x10 Resolution Signed Committing to a 10% Reduction in Electricity use and a 10% Reduction (from 2006 levels) in Fuel Use and Electricity Consumption.
2007	Energy Efficiency Advisory Board Established
2007	Town and County Energy Audits Performed
2007	Energy Efficiency Action Plan Adopted
2007	Town and County Energy Efficiency Projects Begin
2008	Energy Affairs Coordinator Hired
2009	Waste Water Treatment Plant and Recreation Center Projects Initiated
2010	Final Data Collected
2011	Final Project Report Issued

Reports from the Action Teams

Baseline Data Action Team

Purpose of the Action Team

The purpose of the baseline data action team was to complete a baseline inventory of all energy use and green house gas emissions for the Town of Jackson and Teton County government buildings and operations in 2006 and to monitor and report on progress towards achieving a 10% reduction by 2010.

Goals & Major Accomplishments

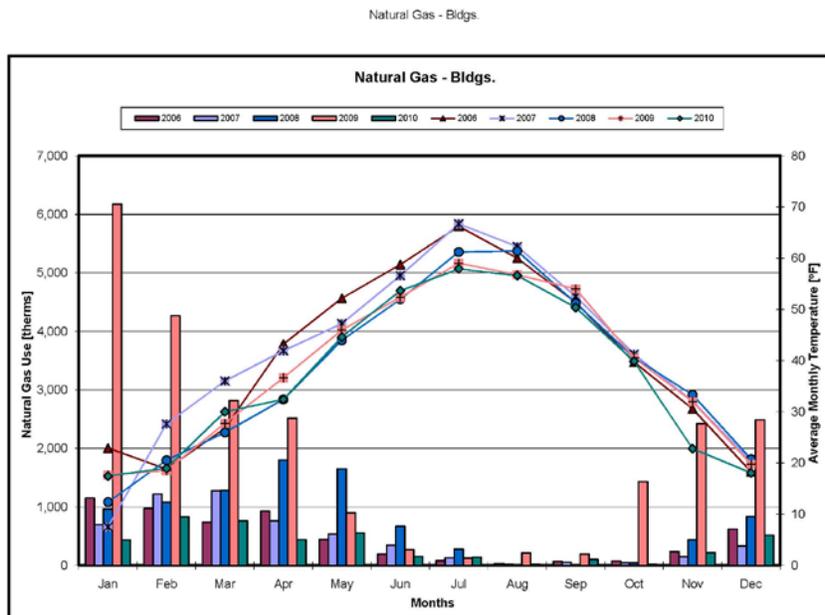
Goal: Establish 2006 Baseline Data

Actions Taken

1. Experimented with the following data collection systems:
 - The first version of energy/emission data reports was created and produced by the Town of Jackson Engineering team in an Excel format.
 - Information was then entered into the Clean Air and Climate Protection (CACP) recommended by ICLEI – Local Government.
 - “Energy Tracker”² was ultimately adopted as the preferred model for data collection.
2. Three Energy Trackers established, which corresponded with the Town of Jackson and Teton County Functional Organizations:
 - a. Town of Jackson Energy Tracker
 - b. Joint Town/County Energy Tracker and
 - c. Teton County Energy Tracker
3. Adjusted Data As Appropriate. The baseline data team realized that the baseline data needed to be adjusted to ensure accurate reporting. All data has been adjusted as follows:

² Energy Tracker was developed e2 Clean Energy Solutions from Schmueser/Gordon/Myer Engineering

- Weather normalization: The extreme temperature shifts and variable snowfall rates experienced in the Jackson Hole region play a big role in the energy use in Town and County facilities. More natural gas is used when temperatures are lower to heat the buildings as shown in Figure 1. Many utility companies, such as Lower Valley Energy, use weather normalization to provide accurate and fair comparisons year over year. Had these adjustments not been made, energy efficiency accomplishments would be masked in colder than normal years or over estimated in warmer than normal years.



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Figure 1: Natural Gas Consumption Increases When Temperature Decreases

- Missing energy data: Energy data for the employee commute sector was not tracked in a way that would allow for relevant year over year comparisons. This sector was removed.
- Other data: The amount of waste generated by the Town and County government was not tracked in detail after 2006. In order to provide an equal comparison of total energy greenhouse gas emissions, the Waste Sector was removed.

Goal: Forecast 2010 Business as Usual

Actions Taken

1. The baseline data team completed a “business as usual” projection of energy use and greenhouse gas emissions for all Town of Jackson and Teton County governmental activities for the year 2010. This forecast accounted for the completion of a new parking structure at Pearl & Milward Streets, the removal of the Cache Street restroom, the completion of a new restroom at the Deloney Parking lot, increased waste water treatment needs, and a small improvement in the fuel economy of the vehicle fleet. All other energy use was assumed to be the same as in 2006. The 2010 forecast helped indicate where the bulk of energy use and greenhouse gas emissions would come from in 2010 and helped to identify areas where projects and programs would most effectively reduce energy use and emissions.

Results

The Business as Usual vs. Actual Chart shown below illustrates what energy consumption would have been had energy efficiency measures not been implemented in pursuit of the goals outlined in the 10x10 Initiative. As shown, Town and County governments successfully reversed the *increasing* trend of fuel consumption. It is likely that consumption would have been higher than projected since the business as usual forecast did not include the change to Department of Environmental Quality Regulations, which increased consumption at the wastewater treatment plant. The large increase in natural gas consumption at the Recreation Center was also not taken into account.

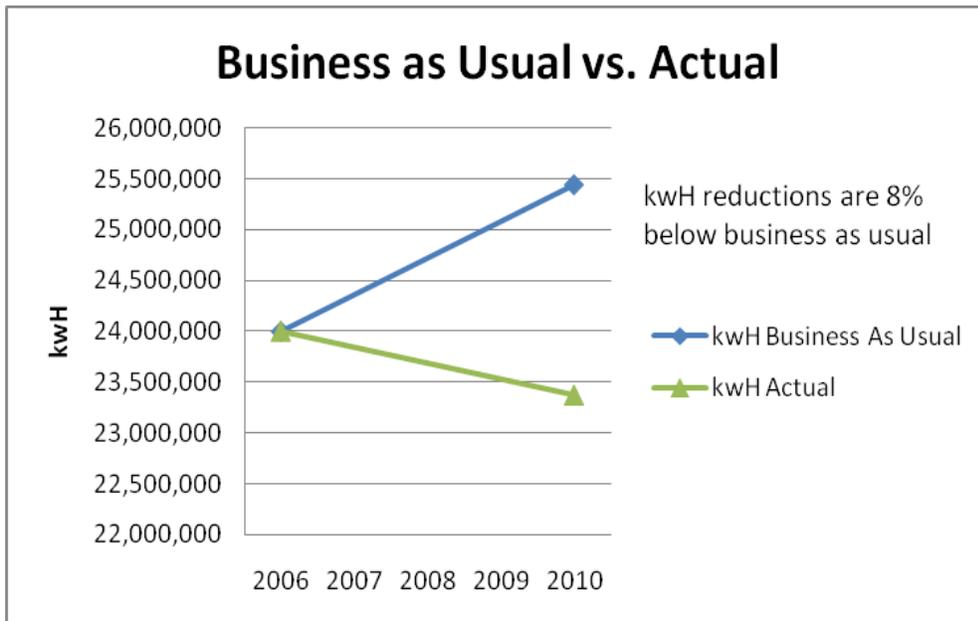


Figure 2: Business as Usual Forecast vs. Actual

Goal: Track Energy Use Data

Actions Taken

1. The Baseline Data Team and the Energy Affairs Coordinator were responsible for tracking and reporting data to the Energy Affairs Action Board, elected officials and employees.
2. Usage was tracked in the following categories: Buildings, Vehicle Fleet, Streetlights and Water/Sewer.
3. Areas for the greatest potential savings were identified. In 2006, the Waste Water Treatment Plan and Recreation Center accounted for over 40% of the Town and County total energy use, as shown in the chart below.

Large Energy User	Energy Source	Proportion of Use in 2006
Wastewater Treatment Plan	Electricity	25.51%
Vehicle Fleet	Gasoline/Diesel	18.06%
Recreation Center	Electricity/Natural Gas	17.40%

Table 1: Large Energy Users

Goal: Provide Timely and Accurate Reports on Progress

Actions Taken

1. Quarterly Reports submitted to elected officials.
2. Reports submitted to individual departments.

Results

The table below shows the % change since 2006 for each category that was tracked. Existing buildings and new/replaced buildings are broken out in order to highlight the fact that the 10x10 Resolution required existing buildings to offset all new and replaced buildings. Both are included in the total building category.

Category	KWH used in 2006	KWH used in 2010	% Change from 2006 (Total KWH)
Existing Buildings	11,183,352	10,606,921	-5%
New/Replaced Buildings	303,767	948,829	+312% ³
Total Buildings	11,487,119	11,555,750	+1%
Vehicle Fleet	4,334,768	3,452,989	-20%
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Table 2: % Change in KWH from 2006 Baseline

Buildings +1%

Many facilities within the Town and County met or exceeded the 10x10 goal. Department accomplishments are highlighted in the Facilities Chapter and the complete data spreadsheet is included in Appendix A. The results for the Building sector are particularly impressive given the fact that the project at the Recreation Center project is not complete and because of the requirement to offset energy use in new facilities with efficiency gains in existing buildings. Behavioral changes of the employees working in existing buildings (and some retrofit projects, too) were key to these successes.

³ The 10x10 Initiative required that energy consumption in new and replaced buildings be offset by reductions and efficiencies in current facilities and operations.

Vehicle Fleet – 20%

Although the use of diesel increased in some departments due to increased service requirements or the purchase of new diesel vehicles or equipment, overall there were major reductions. In 2006, the vehicle fleet was responsible for 18% of total Town and County energy usage. As a result of these reductions (and the increases in other areas) the vehicle fleet now accounts for 14% of total energy use, which equates to real dollar savings for Teton County taxpayers. Additional information about the Fleet Sector is provided in the Fuels & Fleet Chapter.

Streetlights -41%

The streetlight sector fell 41% below 2006 levels. This was a direct result of lighting retrofit projects, which changed all lightbulbs to CFL's. This project was completed in partnership with Lower Valley Energy. The total project cost was \$28,100 and Lower Valley issued the Town a rebate of \$15,100.

Water/Wastewater Systems +3%

Total energy use for the water/sewer sector has increased by 3% since 2006. The sector includes the wastewater treatment plant, water pumps and lift stations. Electricity consumption at the wastewater treatment plant has increased 5% since 2006. The increase at the plant is a direct result of a change in Department of Environmental Quality regulations, which require increased monitoring and reporting of water quality. A retrofit and upgrade project at the plant was delayed and will not come online until Fall, 2011. It is estimated that this project will reduce energy consumption at the plant by 20%.

Lessons Learned

Energy Use by Sector

Figure 3 (on the next page) shows that the in-house energy use by sector has not changed over the past four years. Buildings still make up the majority of Town and County energy use. Going forward, it may make sense to continue to focus on buildings as a place for energy savings. In addition, it is likely that the energy efficiency project at the wastewater treatment plant, which will reduce electricity use by 20% at the plant, will impact the proportion of the water/sewer sector.

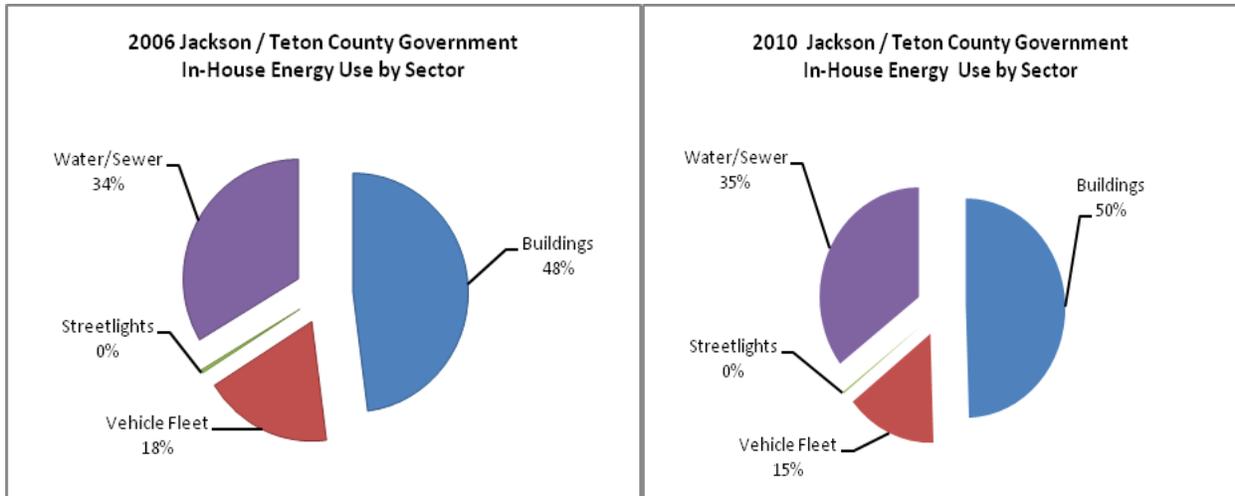


Figure 3: Energy Use by Sector

Energy Use by Source

Figure 4 show that the sources of Town and County energy have remained nearly the same since 2006. Additionally, since the Town currently buys 100% renewable electricity, and the County has signed a letter of intent to do the same, the slight increase in electricity combined with the projected reduction in natural gas consumption resulting from the solar hot water project at the recreation center, shows that the Town and County are making incremental improvements towards cleaner, renewable, and “local” sources of electricity.

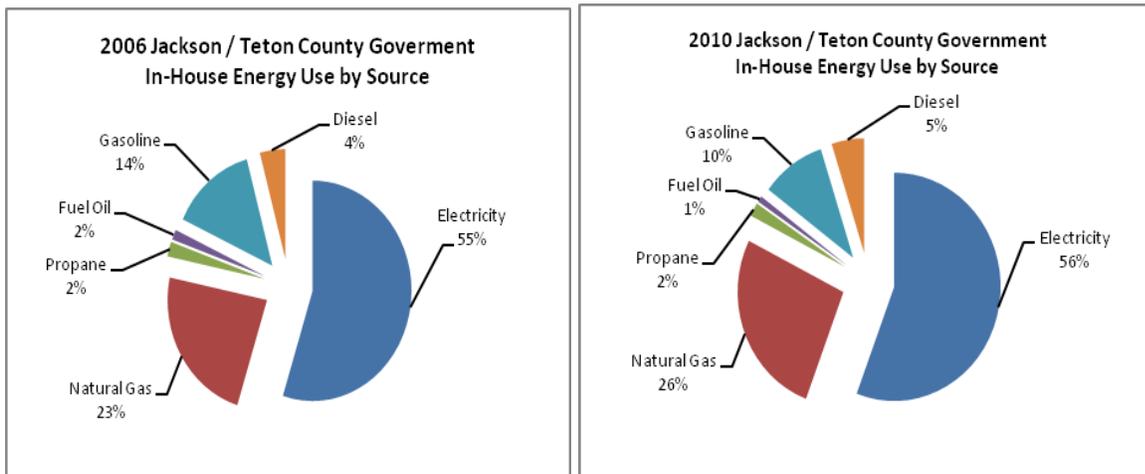


Figure 4: Energy Use by Source

Data Tracking

Data tracking was a challenge throughout the project. Accurate and timely inputs are critical so that the information can be used to educate and inspire employees. Accurate tracking and on-going monitoring of the data was essential, but was also a very large obstacle. We had to overcome staff changes, different inputs and outputs and the wide range of how data can be analyzed. A good set of rules to abide by would have been helpful to establish from the start.

Sharing the Data

The building of the Energy Tracker workbooks and supplying the updated data to employees was an important tool for fostering behavioral change. When individuals are able to visualize their own impact they are more likely to change their behavior to influence the results. The data was also a helpful way to demonstrate several instances where significant reductions have been implemented on the basis of behavioral change alone. Specific examples are discussed in the Facilities Chapter. It was also important for facility managers at the Town and County to have access to accurate data so that they could identify anomalies and mitigate the causes.

Presenting the data was a constant challenge. The format of the data continued to change throughout the process. It would have been helpful to create a clear and consistent report format from the start.

Employee Commute

Data for the employee commute section was initially captured; however, it became clear that data was not captured in a way that would allow for accurate comparisons throughout the time period. Going forward, a process for data collection needs to be established.

Service and Facility Expansion

The 10x10 goal required that new facilities or services be offset by reductions in existing facilities and operations. Going forward, it may make sense to allow for service expansions, policy changes and/or the addition of new facilities. Constantly having to absorb these changes into the data distracts from real energy efficiency improvements to existing facilities and operations. **As we discovered the need to weather normalize we also discovered the need to normalize for service and facility expansion to provide a fair and accurate comparison.** The idea being investigated for future monitoring is called 'Energy Intensive', which shows total energy use per square foot. This will allow services to grow or shrink and still compare the efficiency of operations.

Fuels and Fleet Action Team

Purpose of the Action Team

The Town and County fleet is made up of 283 vehicles and equipment. All vehicles and equipment are serviced at the Town of Jackson Public Works Shop through a cooperative agreement between the Town and County. The fleet includes heavy machinery, START buses, fire trucks, police and sheriff vehicles and every other vehicle or piece of equipment used in Town or County operations.

Goals & Major Accomplishments

Goal: Adopt policies encouraging improvements to the overall energy use and impacts of the vehicle fleet

Actions Taken

1. Adopted Fleet Team Principles, Practices and Procedures (Appendix G), which outlines tangible steps to increase energy efficiency in the Fleet Division.
2. Adopted Plug-In Hybrid Resolution (Appendix H), which encouraged the purchase of flexible fuel, plug-in and hybrid vehicles.

Goal: Upgrade facilities to allow for reduced idling, better maintenance, and alternative fuel usage

Actions Taken

1. Purchased property for new bus and fleet storage and maintenance facility. *Currently buses are parked outside all winter. This increases fuel consumption and CO2 emissions because vehicles are either plugged in or idle. By parking inside, winter labor & maintenance costs will be reduced by approximately 30%. Although the START bus system was not included in the 10x10 data, a reduction in idling will substantially reduce fuel costs and pollution.*



Hybrid START Bus Purchased in 2010

Goal: Improve the way we do business to reduce miles traveled, while accomplishing the same job/task

Actions Taken

1. Adopted Fleet Team Principles, Practices and Procedures that encourages:
 - Scheduling/planning to reduce vehicle miles traveled
 - Accomplishing jobs on foot, bike, horse, etc. when possible (example: Police Department bike patrol program and horse patrol for special events)
 - Use of “stop request cord” on public busses to avoid unnecessary stops.

Results

As shown in the table below, individual departments made enormous contributions to the overall 20% reduction in the Fuels & Fleet category.

Department	% Reduction (Total KWH)
Jackson Hole Community Pathways	Down 68%
Jackson Hole Fire/EMS	Down 14%
Teton County Emergency Management	Down 56%
Teton County Parks & Recreation	Down 16%
Teton County Road & Levee	Down 24%
Teton County Sheriff’s Office	Down 14%
Town of Jackson Engineering Dept	Down 38%
Town of Jackson Building/Planning	Down 38%
Town of Jackson Police Dept	Down 49%
Town of Jackson Public Works Shop	Down 45%
Town of Jackson Streets Dept	Down 23%
Town of Jackson Wastewater Collections	Down 34%
Town of Jackson Water Meters	Down 53%
Town of Jackson Water Operations	Down 29%

Goal: Improve the fuel efficiency of current vehicles

Actions Taken

1. Fuel efficient driving training included in new employee orientation
2. Implement programs & new technologies to reduce vehicle idling times (example: installed back-up battery in patrol vehicles to eliminate the need to idle)
3. Adopted Fleet Principles, Policies and Procedures:
 - Fleet team ensures proper inflation of vehicle tires.
 - Monitor fuel efficiency of each vehicle with a vehicle log to identify poor performing vehicles and monitor improvements.
 - Additional maintenance practices to improve fuel efficiency (example: air filters, synthetic oils, engines tuned).

Goal: Replace current vehicles with more fuel-efficient vehicles

Actions Taken

1. Centralized vehicle and equipment procurement process to Fleet Manager who is responsible for finding most fuel efficient vehicle within performance constraints.
2. Use of www.fueleconomy.gov to compare similar vehicles.
3. Eliminated 21 old and inefficient vehicles and reduced total fleet by 12 vehicles.
4. Town of Jackson Draft FY12 budget includes purchase of a 100% electric vehicle.
5. Town of Jackson Draft FY12 budget includes replacement of one pickup with hybrid electric vehicle.
6. Purchased two hybrid sedans and two hybrid buses with two more buses or sedans being added FY 2011.

Goal: Replace and/or reduce current fossil fuel use with non-fossil alternative fuels – biodiesel, ethanol, electricity, & hydrogen

Actions Taken

1. Purchase 10% Ethanol fuel for all vehicles and equipment.

Goal: Consider fuel/energy savings when evaluating and adding levels of services offered to the community

Actions Taken

1. Reviewed and re-evaluated levels of service (mowing, snow plowing, bus routes) and made changes where appropriate.
2. Considered energy use implications when determining if it was appropriate to add new levels of services to the community.

Goal: Offer incentives to employees to reduce energy use and impact of commute to work

Actions Taken

1. Subsidized START bus passes for all Town of Jackson/Teton County employees.
2. Policy change to allow employees to telecommute to work when appropriate
3. Policy change to allow flexible work schedules when appropriate (i.e. 4 day, 10 hour/day workweeks)

Projects Recommended but Not Implemented

- Provide parking spaces for plug-in hybrid vehicles
 - Will provide when demand calls for it
- Bid out different levels of bio-diesel
 - Explored the idea, but have not implemented in current fleet.
- Investigated upgrading Compressed Natural Gas fill station to quick fill, but have not implemented.
- Utilize biodiesel.
 - Maintenance challenges precluded implementation
- Offer incentive program to employees choosing to carpool to work
 - Not prioritized.
- Offer incentive program to employees choosing to get to work through other non-motorized means (biking, walking)

Results

As a direct result of the actions taken, the vehicle fleet division has decreased total energy use 20% since 2006 and realized a significant cost savings for Teton County taxpayers.

Lessons Learned

The most important lesson learned by the Fuels & Fleets team is that reducing fuel consumption saves real money. It is likely that fuel costs will remain high or escalate making this a very serious consideration. The adoption of the Fleet Principles, Policies & Procedures by the Town and County elected officials was critical to realizing substantial cost savings. This document outlines the tangible steps required to fundamentally change the way we do business to be more energy efficient. The most pressing challenge is to continue to communicate and educate leaders and employees within the Town and County governments regarding new technologies and to implement new technologies where appropriate. In addition to training on efficient techniques for vehicle and equipment operations, providing real-time fuel use data was critical. This allowed the employees to see that everyday changes create big savings.

Most of the benchmark categories realized significant reductions, however, diesel fuel increased in a few areas. The main reason for the increase was either service expansion or the addition of diesel vehicles or equipment. For example, every time a new recreation field is added to the service area, there is an associated fuel cost to mow and water for irrigation. Going forward, we may need to consider a way to normalize the data for service expansion in order to accurately record energy efficiency efforts.

Facilities Action Team

Purpose of the Action Team

In 2006, buildings accounted for approximately 46% of total Town and County energy use. Therefore, improving the energy efficiency of Teton County and Town of Jackson owned buildings and facilities was one of the most constructive and cost-effective ways to reduce energy use. The facilities team helped prioritize and implement the projects outlined below.

Goals & Major Accomplishments

Goal: Assess and Evaluate Town and County Facilities

Actions Taken:

1. Facilities Action Team developed and prioritized initial list of proposed projects. This list was included in the 2007 Action Plan.
2. Hired Energy Service Companies (ESCO's) to identify immediate and low cost energy efficiency opportunities.
3. Completed energy audits to evaluate all energy systems such as mechanical, lighting, water, heating and cooling, insulation and building structure.
 - Teton County (24 Buildings)
 - Town of Jackson (10 Buildings)

Goal: Modify Current Daily Operational Practices for Conservation

Actions Taken

1. Install HVAC controls, encourage turning off of equipment when not in use, schedule building use, monitor temperatures, limit outdoor air infiltration, etc.



Photovoltaic Installation WWTP

Goal: Identify Specific Projects for Implementation

Actions Taken

Teton County and the Town of Jackson completed energy upgrades on approximately 25 buildings. Many of the improvements were combined with maintenance and upgrade items that would have been done anyway. Doing so allowed the Town and County to leverage grant funding and achieve energy efficiencies at the same time.

Examples:

1. Honeywell Projects

Teton County hired Honeywell/Energy Services Group to carry out the retrofit projects on county facilities. The county implemented 13 Energy Conservation Measures in 15 public facilities. Retrofit projects included replacing heating and cooling systems, insulation upgrades, caulking and window replacements, replacing water heaters, and replacement of lighting fixtures and controls.

2. Town Building Retrofits

Town Building retrofits included the replacement of HVAC and air handling systems, the replacement of major lighting systems and insulation, caulking and window replacements, and replacement of lighting fixtures and controls.

3. Photovoltaic Projects

Federal Stimulus grants, combined with local funding matches, providing the funding for major photovoltaic projects including:

Location	Number of Panels	KW Size
Pearl/Milward Parking Garage	14	2.8
Deloney Street Restroom	20	4.2
Waste Water Treatment Plant – Phase I	144	27.3
Wastewater Treatment Plant – Phase II ⁴	702	165
Water Well #5	108	25
Teton County Library	197	37

⁴ The solar installation project at the Wastewater Treatment Plant is the largest installation in Wyoming.

4. 100% Green Power

In 2007, the Town of Jackson switched all of its electricity to 100% hydro-electricity for all operations. This was done in partnership with Lower Valley Energy. All of the electricity is purchased from the Strawberry Hydro Project in Etna, Wyoming, which is the first hydropower facility in Wyoming to earn the Low Impact Hydropower Institute's certificate. The Institute's voluntary certification program is designed to help consumers identify environmentally sound, low impact hydropower facilities. The town spends an additional \$45,000 per year for all operational needs, which is paid for with savings resulting from energy efficiency projects.

Teton County government has signed a letter of intent to purchase hydropower from Lower Valley Energy's Swift Creek Hydropower facility.

5. Wastewater Treatment Plant

The Waste Water Treatment Plant is operated by the Town of Jackson, but collects most of the waste for the entire county. The energy efficiency upgrades proposed for this facility include replacing aerators, raw wastewater pumps and lift pumps. The motors on the aerators will be reduced from 75hp motors to 45 hp, which use less electricity, but also eject more air and mix better. The pumps and blowers are being replaced with more efficient models. Upgrades were originally estimated to reduce electricity consumption by 35%; however, due to changes in regulations at the Department of Environmental Quality, which require more frequent reporting and almost constant operations of the aerators, the estimate has been revised to a 20% annual reduction in electricity at the waste water treatment plant. Because the waste water treatment plant is the biggest user of electricity in Town/County government operations energy efficiency projects at

Because of the switch to 100% green power and as a result of energy efficiency upgrades, Town and County governments have substantially reduced greenhouse gas (CO2) emissions. Looking back on our achievements during the past four years, major CO2 reductions are a positive outcome of our efforts. Town and County CO2 emissions have been reduced 28% below 2006 levels.

With the first new source of hydro-electricity since 2007, Teton County government has signed a letter of intent to purchase hydropower from Lower Valley Energy's Swift Creek Hydropower facility for its operations.

this facility remains of staff's top priorities. Due to delays in funding and contracts, this project will not come online until fall, 2011.

6. Parks & Recreation Center Solar Thermal Hot Water System

The Recreation Center currently uses natural gas to heat all of its hot water, including 282,000 gallons of water to fill one lap pool, three recreational pools, and one hot tub. The installation of a solar hot water heater at the Recreation Center will reduce natural gas consumption by approximately 30% at this facility. Natural gas consumption at the recreation center continues to increase and 2010 data indicated that natural gas consumption increased 22% since 2006. Using alternative energy to offset natural gas at this location is a priority. The project is estimated to cost \$250,000 with a simple payback of 5 years. The project was delayed due to engineering complications and energy reductions are not included in the 2010 data. The Parks & Recreation Department has a contract in place with a new firm and the project should come online in 2011.



Frazil ice along Flat Creek Jackson, WY

7. Flat Creek Restoration

Flat Creek is a tributary of the Snake River and flows through the National Elk Refuge and the Town of Jackson. As a result of alterations to the natural hydrology of the channel, the creek is susceptible to frazil ice. Frazil ice is ice that builds from the bottom of the creek rather than from the top, which causes flooding. To prevent frazil ice, the Town of Jackson pumps 300 million gallons of water per year from its aquifer into Flat Creek through three thaw wells. In addition to consuming massive amounts of water, the thaw well pumps use an enormous amount of electricity. In an effort to reduce water and electricity consumption natural materials were inserted into the creek bed to slow the creek flow which prevents the frazil icing and also improves fish habitat. These improvements will eliminate the use of 300 million gallons of water from our aquifer and the need for excessive use of electricity to power the pumps. The stream bank enhancements also provide revitalized fish habitat for native trout species and increase the habitat quality of the creek.

Results

Many of the accomplishments in the building sector are 100% attributable to employees changing habits and modifying daily operations. For example, the Jackson Hole Fire/EMS Department created an “Energy Team”, which included a mentor from each of the six fire stations in the county. As a group, the mentors conducted audits at each station and generated reports highlighting areas for potential energy savings, which were sent back to each station. The report included recommendations such as unplugging the television when not in use, turning off the ice maker in winter months, turning off lights and lowering the thermostat when the building was vacant. Volunteers make up the majority of the membership in the department and their individual conservation ethics and actions achieved huge results. The energy savings achieved by Jackson Hole Fire/EMS also equated to substantial savings to the operational budget of one the Town and County’s largest departments. Other notable departmental accomplishments are highlighted in the following table. All fuel sources were converted to KWH. In some cases the conversion to KWH masks savings in other areas. For example, Jackson Hole Fire/EMS is down 14% overall, but achieved an incredible 29% savings in electricity alone.

Department	% Change (Total KWH)
Animal Shelter	Down 26%
Jackson Hole Fire/EMS	Down 14%
Parks & Recreation Shops	Down 27%
Public Works Shops	Down 30%
Teton County Courthouse	Down 13%
Teton County Road & Levee	Down 24%
Teton County Library	Down 11%
Teton County Emergency Management	Down 56%
Town Hall	Down 39%

Lessons Learned

The Town and County took different approaches to prioritizing projects. Both organizations hired qualified firms to conduct energy audits on their buildings and facilities. Once the energy audits were complete, the County prioritized energy audits by facility. The Town prioritized energy conservation measures by individual project and started with those with the lowest costs and shortest paybacks, such as lighting retrofits. When funding and time allowed, the Town pursued costlier energy conservation measures, such as the Wastewater Treatment Plant project. Regardless of the approach taken to implement retrofit projects recognizing the time and funding commitments required was essential.

One of the most important lessons learned is the cheapest and, in our experience, also the hardest to implement; **the employees who work in our buildings were as equally important to energy conservation measures as building retrofits.** Many reductions were the direct result of employees turning off light switches and power to equipment, changing driving habits and generally thinking about energy use differently.

Communications Action Team

Purpose of the Action Team

The purpose of the Communications Action Team was to develop specific tools for communicating and educating Town and County employees about the 10x10 initiative including energy efficiency measures, conservation, budgetary impacts, the environment and its connection to our economy and individual energy consumption.

Goals & Major Accomplishments

Goal: Encourage Internal Education, Communication & Participation

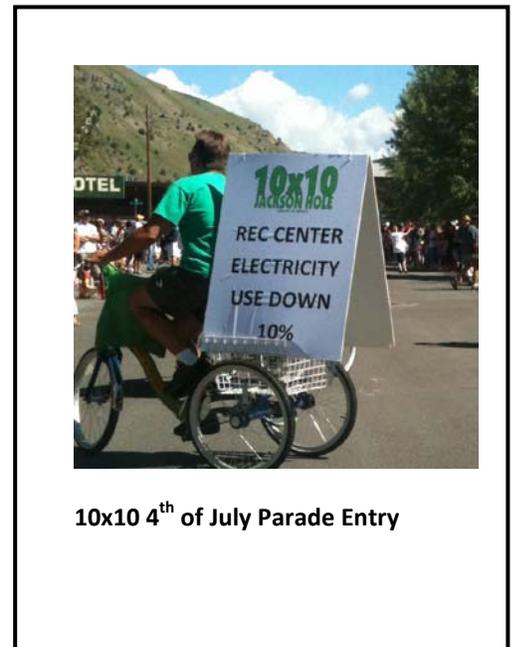
Actions Taken

1. Employee Education and Outreach Events (including a 2007 employee kick-off event)
2. Weekly electronic Energy Efficiency Reminders called *Waste Not Wednesday*
3. Distribution of Canvas Sacks, Polycarb Bottles and Stainless Coffee Mugs
4. 10x10 Newsletter and Brochure
5. 10x10 Website

Goal: Community Wide Communication

Actions Taken

1. Creation of 10x10 Logo and Distribution of Stickers
2. Inclusion of 10x10 Initiative in community presentations and events including: Rotary, Wyoming Association of Municipalities Conference, Eco-Fair and parade entries
3. Public Building and Bus Signage
4. Colorado Association of Ski Towns Plastic Bag Challenge
5. 10x10 Progress Thermometer Display in Town and County Administration Lobby and in Newsletter



10x10 4th of July Parade Entry

Goal: Cultural Change

Actions Taken

1. Stewardship and conservation incorporated into Performance plans and reviews (Town)
2. MPG Monitors purchased and installed in Town and County fleet
3. Energy efficient training included in Town Employee Orientation: recycling, fuel efficient operation of vehicles, overall 10x10 efforts

Goal: Measurement and Evaluation

Actions Taken

1. Employee surveys completed
 - Initial survey
 - Commuter survey
 - Post project survey

Lessons Learned

Ongoing Communication

Ongoing communication about the 10x10 effort was critical to the success of the initiative. **Active participation on the Communications Action Team from employees across both organizations and from the public provided an excellent way to strengthen relationships, share ideas, and improve strategies.** The weekly energy efficiency reminders called *Waste Not Wednesday* were successful in disseminating information to Town and County employees about the little things that could be done to cut down on energy use.

Surveys were helpful tools to provide information to the Action Team about their communications efforts. The surveys also highlighted the challenges of providing information to a diverse group of employees who were used to receiving information in different ways. The Communications Action Team provided information through public meetings, newsletter, emails, on websites and via Department Heads.

Providing Town and County employees with tangible, usable, everyday items such as canvas grocery sacks and polycarb bottles raised internal awareness about the 10x10 Initiative and also helped spread the message to the larger community.

Appealing to a Wide Audience

The initiative started as a grass-roots effort concerned with an impending global environmental crisis with extreme local consequences. However, the Communications Action Team quickly realized that environmental concerns and global warming, while an inspiration to some, infringed on the belief system of others. **It was a constant challenge, therefore, to deliver messages that appealed to a wide and diverse audience.** Once the initiative was formalized and mandated by Teton County Board of Commissioners and the Jackson Town Council as being a budgetary necessity, the Communications Action Team efforts were legitimized.

Another challenge was ‘how’ to disseminate the essential baseline data. Ultimately, the team decided to highlight a certain facility or a team in the newsletter in order to provide examples of reduction measures throughout the two organizations.

Working with Two Organizations and Two Separate Cultures

Teton County and the Town of Jackson have two different structures and cultures. The Teton County Board of Commissioners works in collaboration with seven duly elected officials who are responsible for managing their own departments and budgets. The County Commissioner’s Administrator is responsible for managing the daily operations of all non-elected offices. The Jackson Town Council is the only elected body within the Town and the organization is managed by a Town Manger. Teton County is also a much larger organization with approximately 250 employees whereas the Town employees 100.

The initiative started as a grass-roots effort concerned with an impending global environmental crisis with extreme local consequences. However, the communications teams quickly realized that environmental and global warming, while an inspiration to some, infringed on the belief system of others. It was a constant challenge, therefore, to deliver messages that appealed to a wide and diverse audience.

Because of these differences, different strategies and initiatives were implemented within the two organizations to meet the same goal. The Town implemented changes to personnel policies and performance plans, which helped foster cultural change within the organization. On the county side, gaining buy-in from all elected officials, not just the Board of County Commissioners, was the most important element of creating a unified leadership group.

Green Building Action Team

Purpose of the Action Team

The Green Building Action Team evolved out of a group of architects, engineers, builders and code officials who had been meeting before the initial 10x10 commitment from the Town and County. The Green Building Action Team worked with elected officials to adopt stringent building energy codes, targeted buildings that consume above average amounts of energy, and attempted to incentivize energy efficient building programs for new construction.

Goals & Major Accomplishments

Goal: Encourage New Construction that is Energy Efficient

Actions Taken

1. Implemented Green Building Energy Checklist (Appendix K)

Goal: Encourage Energy Efficient Construction of New Town/County Facilities

Actions Taken

1. Introduced LEED - Leadership in Energy and Environmental Design (LEED) is the most widely recognized and utilized green building program in the United States. The Green Building Action Team recommended that town and county adopt LEED as an energy standard for all new public buildings, or at the very minimum match the energy requirement of LEED which is 14% more efficient than the code minimum.

Results

Although not a formal policy, Town and County buildings built since 2006 have been built to LEED standard including:

- **Teton County Childcare Facility – LEED Gold certified**
- **Teton County Search and Rescue facility – LEED standard construction**
- **Town of Jackson Deloney Street Restroom – LEED Silver standard construction**
- **Town of Jackson Home Ranch Restroom – Anticipation of LEED Silver certification.**

Goal: Realize Greater Efficiencies in Building Code

Actions Taken

1. Town and County Adopted the most recent publication of the 2006 International Energy Conservation Code

Results

1. The 2006 International Energy Conservation Code included more stringent requirements including limiting the amount of windows in a building to 30% of the floor area, which produced energy savings countywide.
2. Town and County jurisdictions are in the process of adopting the updated 2009 International Energy Conservation Code.

Goal: Discourage Energy Intensive Building Elements

Actions Taken

1. Recommended an Energy Mitigation Program (EMP). An EMP is a building permit energy impact fee that is charged for energy intensive building elements that do not meet the current energy code. The fee is rebated for constructing above code energy saving measures, often called “fee-bate”. An energy impact fee challenges building owners to evaluate why the fee is being placed on their project, which raises awareness of the specific elements that are energy intensive and encourages them to consider other options. The fee structures are scaled differently for residential and commercial construction.

Results

1. Teton County Commissioners adopted the Energy Mitigation Program in January 2009.
2. The EMP has had a two-fold effect on building designs. Building owners have modified their plans in response to the EMP and have reduced size and eliminated energy intensive building elements to reduce or eliminate the amount of the EMP fee.
3. Onsite renewable solar photovoltaic and solar hot water heating systems are being utilized in some projects to offset the EMP fee.

4. As of December, 2010 the EMP collected a total of \$519,723. Of that sum, \$229,468 is slated for energy credit refunds to be issued when the buildings receive their certificates of occupancy. The remaining \$290,255 of the EMP fund is available for energy efficiency projects in government buildings.

Lessons Learned

The Green Building Action Team learned that it was important to get buy-in from suppliers, builders, architects and other industry leaders.

Many projects that comply with the requirements of the green building checklist chose to construct a green building on their own accord. If the checklist was incentivized, it might be more widely utilized and could possibly help direct building owners to explore more efficient and progressive methods of construction.

An Energy Mitigation Program is a building permit energy impact fee that is charged for energy intensive building elements that do not meet the current energy code.

Heated exterior patios and driveways are a good example of the success of the Energy Mitigation Program in Jackson Hole. Energy costs of \$10,000 or higher during winter months are incurred to operate large homes with this type of system. These systems also trigger an EMP fee. If the exterior heated hardscape is removed from the building plans areas, the owner avoids the EMP fee for this element, reducing the anticipated energy usage and cost.

After the implementation of the EMP, heated exterior hardscapes have dropped more than 90%, which not only reduces homeowner electrical bills, but reduces energy consumption and greenhouse gas emissions.

Transportation Action Team

Purpose of the Action Team

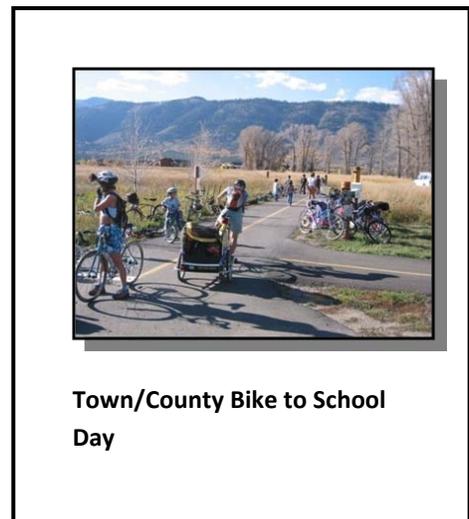
Transportation was not a primary focus of the 10x10 Initiative and the Transportation Action Plan was not formally adopted by the Jackson Town Council or Teton County Board of County Commissioners. Therefore, many of the strategies were not prioritized for implementation but, rather, served as recommendations for further consideration. Some of the strategies noted in the Transportation Action Plan were also included in other action plans (i.e. Fuels and Fleet).

Goals & Major Accomplishments

Goal: Provide Facilities for Non-Consumptive Travel Modes

Actions Taken

1. Installed bike racks at public facilities
2. Constructed Pathways and Sidewalks with Complete Streets Focus including:
 - Pathways on South Park Loop Road near the Middle School and Melody Ranch Subdivision
 - North 89 Pathway between the north boundary of Jackson and the south boundary of Grand Teton National Park
 - Replacement of the Hidden Ranch Pathway Tunnel



Goal: Encourage Non-Consumptive Travel Modes through Education Programming

Actions Taken

1. Collaborated on an Idle Free Marketing and Education Campaign
2. Created a Pathway Ambassador position and Stewardship Partnership

Goal: Encourage Energy Efficient Transportation Habits

Actions Taken

1. START bus pass subsidy for commuter employees

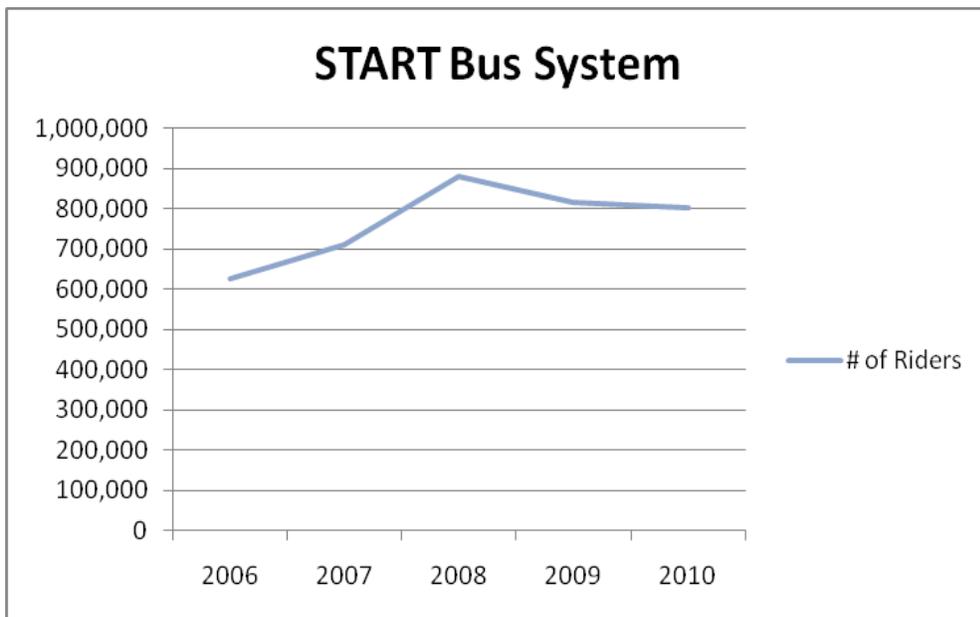
2. Policy Change to allow flexible work schedule, i.e. four 10-hour work days when appropriate
3. Policy Change to allow telecommuting when appropriate

Results

The employee commute sector was removed from the baseline data because comparative data was not available.

Fuel data for the START Bus system was not included in the 10x10 goal. Town and County officials recognized that an increase in ridership in the START bus system would equate to an overall community benefit. Analysis of START bus data demonstrated that approximately 450,000 vehicle trips were eliminated each year on account of the START bus system.

As shown in the graph below, use of the START bus system has continued to increase over time. Ridership peaked in 2008 when summer fuel prices were at all time high. With fuel prices projected to rise during the summer of 2011, the START bus system is on track for a record year.



Lessons Learned

Some of the team's recommendations were difficult to implement because the 10x10 Initiative was focused on internal Town and County operations rather than on community

transportation. In addition, the Town and County were already making significant investments in alternative transportation infrastructure outside of the 10x10 Initiative. Moreover, transportation impacts fall outside of Town and County operations and are appropriately measured on a community-wide scale. However, transportation-related impacts comprise a significant portion of the overall energy footprint in Teton County. **Transportation-based strategies to significantly reduce energy use in both Town/County operations and in the larger community will be relevant should the 10x10 initiative moves towards a broader community-wide program.**

Land Use Action Team

Purpose of the Action Team

The Land Use Action Team was tasked with increasing energy efficiency in the community through the policies and principles of the Jackson/Teton County Comprehensive Plan and the Land Development Regulations.

Goals & Major Accomplishments

Goal: Incorporate the 10x10 Mission into the Community Comprehensive Plan

Actions Taken

1. Teton County and the Town of Jackson began a process to rewrite the Community Comprehensive Plan in 2007. As part of the review process the team initially created a sustainability capstone chapter, which was ultimately revised and included as part of the Community Vision.

Results

Community Vision: **Through the concept of sustainability, this Plan makes clear the singular importance of ecosystem and natural resource preservation and protection in the long-term achievement of all of the community's goals.**

The Land Use Action Team's work is also incorporated into Theme 8: Climate Sustainability and Energy Conservation.

Lessons Learned

While the official review process for the comprehensive plan is ongoing, the community has supported the sustainability concepts presented and Town and County elected officials have recognized sustainability as a goal of the Plan.

Other Projects

The 10x10 Resolution specifically emphasized recycling. In response, the following programs were created.

Comprehensive Recycling Programs have been implemented at Town Hall and numerous County buildings. Many departments purchase 100% recycled paper, restroom paper products, and environmentally sound cleaning products. A comprehensive recycling program has also been implemented in the Public Works Department, which allows them to recycle tires, batteries, steel, oil, antifreeze and cardboard.

Consolidation of Recycling and Trash Transfer

In 2009 the Board of County Commissioners combined the Teton County Solid Waste Transfer Station with local non-profit organization Jackson Community Recycling Program. The Recycling Center and Household Hazardous Waste Collection Facility were also combined with these organizations into a single Integrated Solid Waste and Recycling division of the Teton County Engineering Department. Combining all of the entities into one facilitated a substantial increase in the waste tonnage diverted from the landfill, which resulted in enormous cost savings for the community. The combined organization is now able to make more holistic decisions regarding waste management.

Zero Waste Program

Teton County launched the Zero Waste Program in 2009, which aimed to reduce the amount of recyclable materials being thrown into the garbage by county employees. The program was very basic - remove the full size garbage cans at each work station, replace them with full size recycling bins and a six quart garbage can. Staff was provided with information about what was truly garbage compared to all the disposables that could be recycled. Labels were placed on recycling bins as a reminder of what can be recycled. Recycling receptacles for aluminum cans, newspaper and bottles were delivered to each facility.

Discussion of Funding & Budget

Many of the improvements to facilities were combined with maintenance and upgrade items that would have been done anyway. The 10x10 Initiative encouraged Town and County project managers to scrutinize planned maintenance items through the lens of energy efficiency. Town and County officials were able to leverage grant and rebate programs by including energy efficiency upgrades, which put less pressure on capital budgets and achieved energy efficiencies at the same time. In addition, because of the grant money available for capital projects, Town and County governments were able to use general funds for wages and benefits.

Total expenses associated with the 10x10 initiative are outlined in the table below.

Category	Town/County General Funds	Town/County Capital or Enterprise Funds	Grant Funds	Other (rebates, partnerships)	Total
Facilities	189,972	1,286,719	3,219,692	216,500	4,912,883
Energy Affairs Coordinator (salary & benefits)	163,277				163,277
Training & Travel	1,703				1,703
Marketing/Other	6,289				6,289
Total	\$361,241	\$1,286,719	\$3,219,692	\$216,500	\$5,084,152
% of Total Expenditures	7%	25%	64%	4%	

Again, many of the expenditures included in the 10x10 budget were items that would have been done anyway. For example, HVAC systems at the Town Hall and County Administration buildings were scheduled to be replaced within three years. The aerators and blowers at the Wastewater Treatment Plant (by far the largest and most expensive project) were at the end of their life cycle. **Leveraging grant funds and achieving energy efficiencies at the same time made incredibly good business sense.**

Major sources of funding for the 10x10 Initiative included:

Office of State Lands and Investments: Consensus Block Grant is state funding allocated to each county, by formula, for capital improvement projects. These funds were to be allocated by

consensus with the municipalities in each county. As the Town of Jackson is the only incorporated municipality in Teton County, the Jackson Town Council and Board of County Commissioners together determine how funds would be allocated. The funding allocations were then approved by the State Lands and Investment Board (SLIB). This program did not require local matching funds.

Office of State Lands and Investments: Clean Water/Drinking Water State Revolving Funds, provided by the State of Wyoming, through the Office of State Lands. This federal program is a self-perpetuating loan assistance authority for water quality improvement projects in the United States. This program provides loans for the construction of municipal wastewater facilities and implementation of nonpoint source pollution control and estuary protection projects. This program required local matching funds.

Wyoming State Energy Office: Energy Efficiency and Conservation Block Grants were first funded through the American Recovery and Reinvestment Act of 2009. The grants were allocated to states and local governments in two ways, first by formula and then by competitive grant applications. The Town of Jackson qualified for federal formula funding and state competitive funding while Teton County qualified for competitive state funding. The federal government allowed EECBG funds to be used for a variety of energy efficiency and conservation projects. The state government allowed EECBG funds to be used only for energy efficiency retrofits and upgrades to existing public buildings. Renewable energy projects were not allowable under the state EECBG program. The state competitive program required local matching funds. The federal formula program did not require local matching funds.

WYECIP (Wyoming Energy Conservation Improvement Program). WYECIP facilitates performance contracting, which provides guaranteed energy cost savings which may be used to repay any loans used to pay for energy conservation measures. As part of WYECIP the state provides a list of prequalified energy performance contractors. The State of Wyoming Energy Office created WYECIP and the Town of Jackson joined the program in February 2009 in anticipation of funding for the Waste Water Treatment Plan Project. This was not a successful partnership for the Town and the Town withdrew from the program in late 2009 and pursued alternative funding for the project.

Teton County enrolled in the program and utilized their standards to implement its county-wide energy efficiency retrofit project including the use of Honeywell/Energy Services Group (ESG), one of the programs preselected performance contractors.

Other Initiatives

Other community initiatives have begun since the 10x10 goal was set.

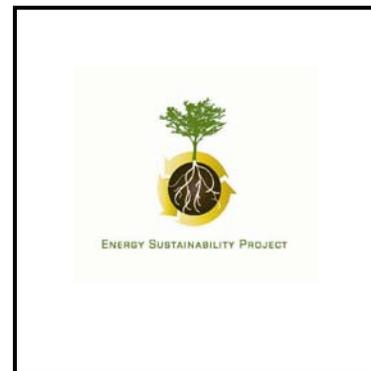
Teton Area 10x10

The Teton Area 10x10 Initiative (TA10x10) was an initiative sponsored by a local non-profit that aimed to bring the 10x10 Initiative to the larger Jackson Hole Community. The Teton Area 10x10 Initiative supported efficiency efforts, produced and provided educational materials, and attempted to make it easier and more acceptable for Teton area residents, visitors, businesses, non-profits, and governmental agencies to use resources in an increasingly efficient fashion.

The Teton Area 10x10 was successful in achieving Phase 1 of their Strategic Plan (Appendix #). Events and programs were engaging and many people participated in the numerous activities provided each month. Upon completion of Phase 1 of the Teton Area 10x10 the Steering Committee decided that there was too much duplication of effort between a number of other organizations and groups working towards the same goals. The committee elected to continue certain efforts through other community groups rather than continuing with their organization. Currently there are a number of programs that have continued including Eco-Fair, Lights Off Radio Show, Green Drinks and Green Speaker Series.

Jackson Hole Energy Sustainability Project

The Jackson Hole Energy Sustainability Project (JHESP) has expanded the efforts begun by the Town and County under the 10x10 Initiative to the community level. The JHESP began with a challenge issued by former World Bank President Jim Wolfensohn to transform Jackson Hole into a leader of sustainability. In 2009, the Town of Jackson, Teton County and the Lower Valley Energy (LVE) Board of Directors passed a joint resolution addressing this goal. The three entities entered into



a Memorandum of Understanding that established the Jackson Hole Energy Sustainability Project Steering Committee. With initial seed funding from Mr. Wolfensohn and with generous donations and aggressive fundraising efforts the group launched the Energy Sustainability Summit in October of 2009. This summit included speakers from the State of Wyoming, as well as regional and national experts and was organized around six key themes: energy efficiency in the built environment, renewable energy opportunities, smart grid technologies, financing energy efficiency, carbon offsets, and the role of fossil fuels. Key note speakers included R.

James Woolsey, former CIA Director and Jim Wolfensohn. The JHESP Steering Committee has received support at the state level with the passage of legislation to allow government funds to be used for private energy retrofits through a loan program, has received community support through passage of a \$3.7 million ballot initiative for energy conservation retrofits to public facilities in the community, and begun formulation of a Joint Powers Board to move forward with hiring an Executive Director for the project.

Idle Free Campaign



Unnecessary vehicle idling is a major contributor to energy, environmental, and health problems. Idling vehicles add pollution, waste fuel, and increase carbon dioxide emissions and noise pollution with no benefit to the vehicle or the driver. The Town of Jackson has implemented idle reduction strategies for its internal operations, has adopted a resolution supporting the reduction of unnecessary vehicle idling in the

community, and has partnered with the Willie Neal Environmental Awareness Fund and the Yellowstone-Teton Clean Energy Coalition to implement an educational and marketing campaign directed towards reducing unnecessary vehicle idling in Jackson Hole.

Global Warming Hero League

The Global Warming Hero League is a student run organization at the Jackson Hole Middle School that is committed to reducing the ecological footprint of humans through education, advocacy, and direct environmental action. The group began after a worldwide telecast called “The 2010 Initiative” about global warming in February of 2007. In April of 2007 the group gave a presentation at Mayor Barron’s Brown Bag Lunch. This presentation then led to additional opportunities at Town Council and Joint Town Council/County Commission meetings. Additionally the group made a presentation as part of the 10x10 kick-off event at the Center for the Arts in 2007. As the middle school students move on to upper grades more students have joined the effort.



Conclusion

The Teton County/Town of Jackson 10x10 Initiative was successful on many fronts. Town and County governments not only reversed the trend of energy consumption, but used less energy in 2010 than in 2006. Because of delays in the implementation of some projects not all projected energy savings are documented in this report. As noted, upgrades to the aerators and blowers at the Wastewater Treatment Plant and the installation of a solar hot water heater at the Recreation Center will produce substantial savings in the coming year.

Change to the culture of the organizations and individual behavior was and remains the biggest challenge, but has also been one of the highlights of the initiative. Individual behaviors will continue to greatly impact energy consumption in Town and County operations. In addition, individuals working in Town and County government operations will transfer some of the behaviors and changes to their personal lives resulting in an overall benefit to the community. A focus on energy issues by the elected bodies provides leadership to the members of the community and reinforces the values professed by the residents of Teton County.

The Town Council and Board of County Commissioners have committed to continued monitoring of energy use within their respective organizations.

Resources

Town of Jackson Town Council

Mark Barron, Mayor and Chair of the Jackson Hole Energy Sustainability Project

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Melissa Turley, Town Councilor and Energy Efficiency Action Board Liaison

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Bob Lenz, Town Councilor

Greg Miles, Town Councilor

Mark Obringer, Town Councilor

Teton County Board of County Commissioners

Ben Ellis, Chairman and Energy Efficiency Action Board Liaison

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Hank Phibbs, Commissioner

Paul Volgelhein, Commissioner

Andy Schwartz, Commissioner and Jackson Hole Energy Sustainability Project Board Member

Paul Perry, Commissioner

Leland Christensen, Former Commissioner

Energy Efficiency Advisory Board

Dan Butcher, Chair

Jim Webb, Board Member and CEO of Lower Valley Energy

Sarah Mitchell, Board Member

Sandy Schuptrine, Board Member

John Willot, Board Member

Larry Thal, Board Member

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Charlotte Reynolds, Teton County Public Relations and Grant Manager

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Community Members Serving on the Action Teams or Energy Efficiency Action Board

Sarah Flitner

Kate Foster

Lori Fussel

Arne Jorgensen

Tim O'Donoghue, Board Member

Keith Peters

Shelley Simonton

Brian Tanabe

Andy Watson

Alice Widdess

Jan 1st 2006 - Dec 31st 2010 (10x10 Final)

2006 All Combined
Energy Source Totals in
KWH's2006 % of
Energy2010 All Combined
Energy Source Totals in
KWH's2010 % of
Energy2006 vs. 2010
% difference

Existing Buildings in 2006

COUNTY DEPARTMENTS		KWH's	%	KWH's	%	%
Admin Building		806,339	3.36%	686,501	2.94%	85%
Courthouse		1,252,564	5.22%	1,090,227	4.66%	87%
County Jail		610,674	2.54%	559,759	2.39%	92%
Social Services		99,066	0.41%	97,595	0.42%	99%
Old Library		93,079	0.39%	28,263	0.12%	30%
Transfer Station		107,476	0.45%	104,023	0.45%	97%
Scale House		18,738	0.08%	22,357	0.10%	119%
Road and Levee		107,153	0.45%	70,451	0.30%	66%
Public Health		166,003	0.69%	160,573	0.69%	97%
Septic Transfer Station		97,789	0.41%	66,147	0.28%	68%
Juvenile Detention Fac.		8,141	0.03%	31,331	0.13%	385%
Fair Building		85,110	0.35%	88,972	0.38%	105%
Livestock Building		68,950	0.29%	53,924	0.23%	78%
Rodeo Ground Concession		20,720	0.09%	41,440	0.18%	200%
Library		511,390	2.13%	454,733	1.95%	89%
Recycling Center		313,029	1.30%	308,815	1.32%	99%
Road and Levee Trailer Hook Up		7,338	0.03%	0	0.00%	0%
Adams Canyon Storage/ FEMS Shop		16,904	0.07%	19,750	0.08%	117%
Total County Bldgs - Totals:		4,390,463	18.29%	3,884,862	16.62%	88%
PARKS & RECREATION / ANIMAL SHELTER		KWH's	%	KWH's	%	%
Recreation Center		4,174,646	17.40%	4,707,225	20.14%	113%
Parks Shop		43,704	0.18%	31,816	0.14%	73%
Parks, Lights & Irrigation		68,735	0.29%	78,301	0.33%	114%
Miller Park Restroom		37,786	0.16%	38,041	0.16%	101%
Rangeview Park Well Pump		13,640	0.06%	7,200	0.03%	53%
Animal Shelter		191,110	0.80%	140,734	0.60%	74%
Parks & Rec / Animal Shelter Totals:		4,529,622	18.87%	5,003,316	21.41%	110%
FIRE DEPARTMENT		KWH's	%	KWH's	%	%
JH Fire Admin		110,678	0.46%	78,711	0.34%	71%
Jackson - Station 1		187,937	0.78%	152,558	0.65%	81%
Adams - Station 7		198,789	0.83%	134,004	0.57%	67%
Hoback - Station 3		53,206	0.22%	42,103	0.18%	79%
Moran - Station 4		52,908	0.22%	66,589	0.28%	126%
Wilson - Station 2		107,135	0.45%	83,408	0.36%	78%
Pines - Station 6		214,019	0.89%	213,256	0.91%	100%
Alta - Station 5		1,805	0.01%	577	0.00%	32%
Fire Totals Existing Buildings:		926,476	3.86%	771,206	3.30%	83%
TOWN FACILITIES		KWH's	%	KWH's	%	%
PW Shops		673,477	2.81%	471,912	2.02%	70%
Town Hall		420,991	1.75%	255,456	1.09%	61%
Home Ranch Restrooms		36,986	0.15%	42,401	0.18%	115%
Heat Tape		3,276	0.01%	3,575	0.02%	109%
Snow King New Shop		202,061	0.84%	174,193	0.75%	86%
Town Total Existing Buildings:		1,336,791	5.57%	947,537	4.05%	71%
1) All Town & County Existing Buildings in 2006 Totals:		11,183,352	46.60%	10,606,921	45.38%	95%
New and/or Replaced Buildings						
TC - NEW / REPLACED FACILITIES		KWH's	%	KWH's	%	%
Housing Authority		37,015	0.15%	39,920	0.17%	108%
Emergency Operations Center		68,833	0.29%	113,604	0.49%	165%
Heritage Arena		136,687	0.57%	562,338	2.41%	411%
Alta Library		4,238	0.02%	40,679	0.17%	960%
TC - New/Replaced Facilities Totals:		246,773	1.03%	756,541	3.24%	307%
Total Public Works		29,095	0.12%	12,932	0.06%	44%
New / Replaced & Existing Teton County Totals:		275,868	1.15%	769,473	3.29%	279%
TOJ - NEW/REPLACED FACILITIES		KWH's	%	KWH's	%	%
Cache (700SF) / To Deloney Restroom/Bus Shelter		27,899	0.12%	31,704	0.14%	114%
New - Parking Garage- (260,440) Apr-08 thru Mar09		0	0.00%	147,652	0.63%	0%
Total New/Replaced Buildings - (2)		27,899	0.12%	179,356	0.77%	643%
2) Total Existing & New / Replaced Building Totals Combined:		11,487,119	47.87%	11,555,750	49.44%	101%

Jan 1st 2006 - Dec 31st 2010 (10x10 Final)

2007 All Combined
Energy Source Totals in
KWH's

2006 % of
Energy

2010 All Combined
Energy Source Totals in
KWH's

2010 % of
Energy

2006 vs. 2010
% difference

Vehicle Fleet

Gasoline & Diesel Use Totals in KWH's	G & D Totals		G & D Totals		%
TETON COUNTY	KWH's	%	KWH's	%	
TC Fair	16,220	0.07%	51,743	0.22%	319%
TCSO	1,166,963	4.86%	1,003,110	4.29%	86%
TC Admin	134,688	0.56%	118,551	0.51%	88%
TC Road and Levee	115,619	0.48%	87,719	0.38%	76%
TCEMA	14,750	0.06%	6,456	0.03%	44%
TC Public Health	-	0.00%	1,845	0.01%	0%
Recycling Center (bio - seasonal blend)	112,836	0.47%	128,864	0.55%	114%
Facility Management	-	0.00%	34,810	0.15%	0%
County Transportation Totals:	1,561,076	6.50%	1,433,099	6.13%	92%
JOINT DEPARTMENTS	KWH's	%	KWH's	%	%
JH Fire Admin / EMS	230,653	0.96%	198,027	0.85%	86%
JH Fire Truck	165,492	0.69%	199,094	0.85%	120%
TC Park and Rec	441,978	1.84%	371,101	1.59%	84%
Joint Transportation Totals:	838,124	3.49%	768,222	3.29%	92%
TOWN	KWH's	%	KWH's	%	%
Engineering	42,712	0.18%	26,484	0.11%	62%
Building/Planning	23,644	0.10%	14,757	0.06%	62%
Pathways	3,880	0.02%	1,252	0.01%	32%
PW Streets	760,037	3.17%	587,162	2.51%	77%
PW Shop combined with TH admin 06 #'s	19,435	0.08%	10,673	0.05%	55%
Police	780,532	3.25%	398,092	1.70%	51%
Custodian	4,904	0.02%	2,965	0.01%	60%
WW Collections	87,385	0.36%	57,431	0.25%	66%
WW Treatment Plant	57,928	0.24%	55,975	0.24%	97%
Water Meters	54,388	0.23%	25,430	0.11%	47%
Water Operations	100,725	0.42%	71,448	0.31%	71%
Town Transportation Totals:	1,935,569	8.07%	1,251,668	5.35%	65%
Gasoline (with E10 reduction) & Diesel TOTALS:	4,334,768	18.06%	3,452,989	14.77%	80%

3) **All Buildings & Vehicle Fleet Totals:** 15,821,888 65.93% 15,008,739 64.21% **95%**

Streetlights & Irrigation

PUBLIC WORKS STREETLIGHTS & IRRIGATION SYSTEMS	KWH's	%	KWH's	%	%
Streetlights - (168 lights)	100,269	0.42%	58,914	0.25%	59%
Irrigation	2,050	0.01%	2,408	0.01%	117%
Public Works Totals:	102,319	0.43%	61,322	0.26%	60%

4) **All Buildings / Vehicle Fleet / Streetlights Totals:** 15,924,207 66.36% 15,070,061 64.47% **95%**

Water / Wastewater Systems

PUBLIC WORKS Water Wastewater SYSTEMS	KWH's	%	KWH's	%	%
Water Production & Systems	1,951,348	8.13%	1,861,139	7.96%	95%
Waste Water Treatment Plant & Systems	6,122,880	25.51%	6,442,838	27.56%	105%
Public Works Totals:	8,074,228	33.64%	8,303,976	35.53%	103%

5) **All Buildings / Vehicle Fleet / Streetlights / Water / Sewer Totals:** 23,998,435 100.00% 23,374,037 100.00% **97%**



JACKSON HOLE
ENERGY EFFICIENCY
ACTION PLAN
FALL 2007

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1. INTRODUCTION

In 2007, the Jackson Town Council and Board of Teton County Commissioners took action to improve energy efficiencies and reduce heat trapping gas emissions by forming an Energy Efficiency Advisory Board (EEAB) tasked with improving energy efficiency in local governmental operations. In order to provide focus for the newly formed Board, the Town and County adopted an aggressive energy reduction target for local government operations, committing to 10% reduction in electricity and fossil fuel use by the year 2010 (10x10).

The EEAB is composed of seven community leaders that work in close coordination with citizens and Town and County staff serving on Action Teams. Action Teams have formed around five key areas to assess government energy use and provide input and ideas for steps to meet the 10x10 challenge.

Over the last six months, the EEAB has developed a quantitative baseline of Town and County government's energy use and drafted this Jackson Hole Energy Efficiency Action Plan to achieve the goals of 10x10. The following summarizes the Action Plan's short-term recommendations from the EEAB and the five Action Teams for the Town of Jackson and Teton County to achieve 10x10.

Summary of Recommendations

1. Engage a data consultant to quantify net benefits of fuels and fleet measures for achieving 10x10 efficiencies
2. Engage a facilitator to integrate 10x10 actions into employee's daily operations
3. Expand Action Teams to include land use and transportation
4. Begin working on a community plan for energy efficiency
5. Update and revise this action plan in six months
6. Assess budget and staffing needs for FY 2008-2009
7. Continue the Energy Efficiency Advisory Board until January 2011

Fiscal Impact

Recommended expenditures as of the fall of 2007 include hiring a consultant who can determine the costs and quantify energy savings of Fuels and Fleet action steps, as well as a facilitator to integrate the recommended actions into employee's daily operations.

These are outlined below:

- Baseline Data Consultant- \$10,000
- Fuels and Fleet Data Consultant- \$10,000
- 10x10 Employee Meeting- \$5,000
- Facilitator for Focus Group Meetings- \$3,000
- Total Recommended Expenditures: \$28,000

Funding requests for other actions recommended in this Plan will be brought before the Jackson Town Council and/or Teton County Board of Commissioners for approval during the budget cycle. Each recommended measure will include costs and savings, as well as efficiencies gained and reductions in heat trapping gasses.

1. PURPOSE

The Jackson Hole community faces challenges with regard to the supply of safe and affordable energy. Energy demand to support Town and County operations continues to grow despite historically high energy prices, mounting concerns over energy security, and the recognition of human effects on global climate change. The decisions we make now regarding our energy supply and demand can either help our community address these challenges or complicate our ability to secure a stable energy future.

Improving the energy efficiency of our buildings and facility operations, as well as reducing our fossil fuel use are two of the most constructive and cost-effective ways to address these challenges. Increased investment in energy efficiency, renewable energy, and energy conservation can lower energy bills, reduce demand for fossil fuels, help stabilize energy prices and energy system reliability, and help reduce air pollutants and heat trapping gas emissions.

The Jackson Hole Energy Efficiency Action Plan (Action Plan) charts the short-term course for achieving the 10x10 goals, outlined in the 10x10 Resolution (Appendix 1-b), as well as recommends a longer-term process to expand the efficiency efforts to areas of government influence, partner with other organizations working on similar efforts, and set meaningful future goals for reducing heat trapping gasses. This plan will evolve over time, with annual updates that summarize what has been achieved and highlight areas of improvement to meet 10x10 and beyond.

Looking forward, the Action Plan recognizes that meaningful investment in energy efficiency, renewable energy, and energy conservation in Jackson Hole cannot happen based on the work of Town and County operations alone. Through ongoing efforts by the Town and County to advance land use planning, improve multimodal transportation systems, expand recycling and use of consumables, and update building standards, Local Government can engage the larger community energy efficiency work. As efforts to achieve 10x10 result in energy savings in Town and County operations, opportunities for partnering with other organizations and business in Teton County will emerge to improve energy efficiency throughout the community. The Action Plan has identified programs and activities to bring the appropriate stakeholders together to be part of a collaborative effort to increase energy efficiency and reduce heat-trapping gasses produced in Jackson Hole.

Finally, the Action Plan also recommends long-term goals and outlines specific strategies for reducing countywide emissions of heat trapping gases. The best available science, including the recent reports by the Intergovernmental Panel on Climate Change, recommend reducing emissions of heat trapping pollutants by 80 percent from today's levels by 2050. Many communities around the US and the world have committed to this goal, but their plans for achieving the goal generally lack specifics. This Action Plan calls for setting the goal and putting in motion a process to study the effects of climate change on our community and develop a list of defined projects that can help us achieve these goals.

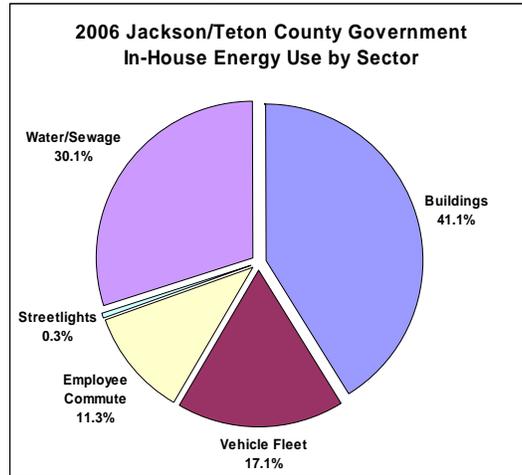
3. ENERGY USE SNAPSHOT

The Baseline Action Team quantified all of the energy used in 2006 to support Town and County government operations¹. This is the baseline from which we will try to achieve ten percent energy reductions. The Team then forecasted energy use in 2010, assuming the construction of a number of planned new buildings. **Table 1 shows that to meet 10x10, we have to reduce our projected energy use by 15 percent, with close to 20 percent savings in buildings.**

Table 1. Baseline energy use and 10x10 target

	2006 Energy Use (kWh)	2010 10x10 Goal (kWh)	2010 Forecasted Use (kWh)	% Reduction by 2010 Forecast Required To Meet 10x10 Goal
Buildings	10,890,900	9,801,810	12,040,587	18.6%
Vehicle Fleet	4,542,352	4,088,117	4,542,352	10.0%
Employee Commute	3,003,237	2,702,913	2,949,650	8.4%
Streetlights	91,213	82,092	91,213	10.0%
Water/Sewage	7,974,773	7,177,296	8,520,553	15.8%
Total	26,502,474	23,852,227	28,144,355	15.3%

Table 2. 2006 Jackson/Teton County Government In-House Energy Use by Sector



It is also useful to list the facilities and vehicle fleets that contribute significantly to the forecasted 2010 energy use in order to help identify where efforts will have the most impact. Therefore, all facilities and/or fleets contributing more than 2.5% of the total energy use in 2010 are listed below from largest to smallest:

- Waste Water Treatment Plant 21.93% of total energy use
- Parks and Recreation Rec Center 14.2% of total energy use
- Teton County Court House 5.75% of total energy use
- Teton County Sheriff's Office 4.23% of total energy use
- New Parking Structure 3.02% of total energy use
- Teton County Jail 2.9% of total energy use
- Jackson Police Department 2.79% of total energy use
- Teton County Public Works Streets 2.51% of total energy use

¹ Our baseline does not include the energy used for town and county services, such as public transportation, recycling, trash transfer. These will be included in a future report that considers community-wide energy use and recognizes the net energy use of these services.

4. STRATEGIES

Strategies used in this Action Plan are broad statements that set direction for developing specific actions.

Baseline

1. To establish baseline energy use and emissions
2. Forecast energy use and emissions in 2010
3. Forecast improvements to energy use and emissions in 2010
4. Monitor actual improvements in energy use and emissions in 2010 from actions taken by EEAB and Action Teams

Communications

1. Share with Town and County employees the issues related to energy use, energy independence, energy efficiency and conservation, financial savings, and environmental protection in a way that engages them and inspires them to make positive personal choices around these topics
2. Communicate to Town & County employees the significance of the 10x10 resolution and their roles in achieving that goal
3. Communicate the programs, challenges, and successes of the Town and County energy projects to a broad audience

Facilities Energy Use

1. Assess and evaluate Facilities
2. Modify current daily operational practices for conservation
3. Identify specific projects for implementation
4. Submit recommendations to respective agencies for consideration and action
5. Develop and adopt standards for new Town and County buildings

Fuels & Fleet

1. Adopt policies encouraging improvements to the overall energy use and impacts of the vehicle fleet
2. Upgrade facilities to permit reduced idling, better maintenance, and alternative fuel usage
3. Improve the way we do business to reduce miles traveled, while accomplishing the same job/task
4. Improve the fuel efficiency of the current vehicles we use
5. Replace the vehicles we use with more fuel-efficient vehicles
6. Replace and/or reduce current fossil fuel use with non-fossil alternative fuels- biodiesel, ethanol, electricity, and hydrogen
7. Consider fuel/energy savings when evaluating and adding levels of services offered to the community
8. Offer incentives to employees that will reduce the energy use and impact of their commute to work

Green Buildings

1. Meet or exceed United States Green Building Council's Silver LEED Standard for all Town and County buildings
2. Build one or more key public buildings built and certified to a Silver LEED standard
3. Implement High Performance Residential Home Program for residents in the community

5. SHORT-TERM RECOMMENDATIONS: 6 months

Organization

- Utilize consultants and staff to complete detailed analysis of action items- \$
- Add two additional workgroups: land use and transportation(referenced in Beyond 10x10 Section)
- Partner with other community based institutions/organizations to expand energy efficiency.
- Identify future staffing structure for FY 2008-2009
- Continue Energy Efficiency Advisory Board until January 2011

Baseline

- Forecast energy use and emissions reductions expected from recommended actions- \$
- Monitor energy use, emissions reductions, and progress towards the 10x10 goals-\$

Communications

- Implement all employee meeting and employee focus groups- \$
- Develop an employee program to effectively engage staff in 10x10 Goals.
- Continue to engage in outreach and education activities with other like communities.
- Utilize the 10x10 brand when referring to the Energy Efficiency initiative

Facilities Energy Use

- Complete Energy Audits on all Town and County facilities (*started*)-\$
- Identify, prioritize, and begin to implement specific projects based on cost benefit analysis

Fuels and Fleet

- Utilize a consultant to quantify reductions and perform a cost benefit analysis-\$
- Prioritize identified actions.

Green Building

- Develop a Town and County building policy for new buildings and retrofits (*started*).
- Identify a Town or County building project for LEED Silver demonstration.
- Implement the High Performance Residential Home Program (*started*).
- Adopt and begin implementing the International Energy Code (*started*)...

\$ Future costs may be associated- will be brought as individual items before the Elected Boards.

6. LONG-TERM RECOMMENDATIONS: 6 months and Beyond

Organization

- Develop long-term policies for maximizing energy efficiency
- Set Town and County goal for reducing greenhouse gas (GHG) emissions
- Determine future staffing structure to achieve 10x10 and beyond- \$

Communications

- Refine and implement a Community Plan for energy efficiency
- Implement an Employee Program to effectively engage staff in the 10x10 Goal-\$
- Continue to engage in outreach and education activities with other communities

Baseline

- Continue to monitor efficacy of Town and County actions
- Establish baseline and forecast of county-wide GHG emissions- \$
- Work with Lower Valley Energy to weather-normalize results to baseline data
- Literature review and summary of climate change in the West

Facilities Energy Use

- Work with Green Buildings Action Team to develop and adopt standards and guidelines for all facilities constructed by the Town and County to reduce future energy use
- Continue building retrofits to improve energy efficiency (*started*)- \$
- Evaluate the operational practices of Town and County buildings and develop a plan to address energy use reduction and foster employee participation in the plan

Fuels and Fleet

- Support employee carpooling, use of public transit, and use of alternative transportation
- Support development of new START and fleet facility-\$
- Implement more energy efficient fleet maintenance practices
- Develop green fleet procurement policy
- Incorporate biofuels and necessary infrastructure as deemed desirable/possible-\$

Green Buildings

- Support implementation of adopted green building policy
- Support necessary staff training to implement green building policy- \$

\$ Future costs may be associated- will be brought as individual items before the Elected Boards.

7. BEYOND 10x10

Achieving 10 percent energy reductions by the year 2010 will offer the Town of Jackson and Teton County substantial economic and environmental benefits. Additional substantial energy efficiency gains can be realized by **expanding the scope of the 10x10 initiative to include non-governmental organizations, businesses, and residents.** Through the leadership demonstrated in the 10x10 initiative and the conduct of the EEAB and Action Teams, the Town and County should collaborate with the private sector to further pursue goals set forth in the U.S Mayor's Climate Protection Agreement and the County's Climate Change Resolution (Attachment 1-c).

The work of Town and County government includes: improving the public transportation infrastructure, permitting and inspecting new buildings, developing land use plans that protect environmental resources and allow reasonable growth, and solid waste management practices that minimize costs and risks associated with burying waste. Developing plans to improve energy efficiency throughout these areas of influence can **expand energy efficiency far beyond government operations**, bringing the benefits of reduced energy use and corresponding cost savings, and reduction of fossil fuel use and corresponding heat trapping gas emissions. The following are the beyond 10x10 recommendations:

1. Expand 10x10 to areas of government influence, including Land Use and Transportation.
2. Set heat trapping gas emission reduction targets.

The GfK Roper Yale Survey on Environmental Issues states that 3 in 4 Americans want their own city or local government to do more to reduce heat-trapping gases that cause global warming (see Supporting Documents 3-b). The EEAB recognizes that global climate change presents one of the foremost economical, social and environmental threats to our community and the world. Increasing concentrations of heat trapping pollutants in the atmosphere are causing higher temperatures, resulting in more frequent intense storms and forest fires, rising sea levels, changes in precipitation, reduced snow pack and water availability, biodiversity loss, species extinction, changes in infectious disease incidence, increases in mortality due to heat stress, and human displacement. The economy of Jackson Hole depends on sufficient and sustained snow pack and water supply, and healthy, diverse plant, fish, and wildlife populations.

Global warming is more than a quality of life issue. It is about our future ability to live in Jackson Hole and how that future rests on the choices we make in our daily lives. In order to address the threats presented by global climate change, governments, businesses and the individual citizen must commit to action now and into the future. The EEAB recognizes the need to address climate change head on with a consistent, community-wide program of energy efficiency and reduction of greenhouse gas emissions. **This program should include further energy efficiency and heat trapping gas emissions reduction targets.**

MEMORANDUM OF UNDERSTANDING**Between Town of Jackson And Teton County
For Development of Joint Energy Efficiency, Environmental
Initiatives, Policies and Programs**

1. Parties. This Memorandum of Understanding (MOU) is made and entered into by and between the Town of Jackson, whose address is 150 East Pearl Avenue ("Town"), and Teton County, Wyoming, whose address is 180 South King Street ("County").
2. Purpose. The purpose of this MOU is to establish the working relationship and responsibilities of the Town and County relative to a cooperative effort to implement energy efficiency and other environmental initiatives. The purpose of this MOU is also to test the efficacy and need for forming an Energy Efficiency Joint Powers Board to develop and implement energy efficiency policies and programs, based on the Attachment. Specific tasks include formalizing procedures for achieving the US Mayor's Climate Protection Agreement and the County's Climate Change Resolution.
3. Term. This MOU will be effective for 6 months ending August 1, 2007, and may be renewed for another 6 months, after which time the Town and County may choose to abandon the program, establish a Joint Powers Board to formalize and further the energy efficiency initiatives, or to continue the program in a different form.
4. Procedure.
 - a. During the MOU period, two employees, one from the Town and one from the County, will be designated as Energy Efficiency Coordinators ("Coordinators") to work together to achieve the goals of the MOU. The Coordinators' responsibilities include: 1) drafting a strategic Environmental Policy, based on energy use baselines for departments and buildings; 2) working cooperatively with department heads to develop initiative-specific policies, strategies, plans, funding and timelines; 3) evaluating the cost and benefit of energy efficiency initiatives; 4) working with department heads to seek approval for energy efficiency initiatives from elected boards; 5) researching partnerships, grants and other funding sources; and 6) evaluating, tracking, and communicating results.

b. *Advisory Board.* By March 2007, the Town and County elected officials will appoint an advisory board of 7 members, including at least one member from the Town Council and one from the County Commission. The advisory board will have no direct authority over the staff, but will meet monthly, be active advisors with the skills to help staff develop policy, assume research and policy development tasks, help establish measurable goals, identify and evaluate innovative programs to meet the mission, and develop goals and standards the energy efficiency program.

The Coordinators will work with the advisory board to develop both long- and short-range plans for town and county energy efficiency initiatives. For each project, on a project-by-project basis, prior to consideration and approval by the respective government entity, the Coordinators will meet with the County Administrator and Town Administrator, and others as appropriate to establish milestones and determine the department responsible for each project.

c. *Costs and Expenditures.* Any operational expenditures and revenue transactions pertaining to this MOU will be tracked. Capital projects, if any, will comply with both entities budgetary procedures. All capital projects associated with this MOU require approval from either the Town of Jackson Town Council or the Teton County Commissioners, depending on jurisdiction, before the project is considered "approved".

5. General Provisions.

a. *Amendments.* Either party may request changes to this MOU. Any changes, modification, revisions or amendments to this MOU which are mutually agreed upon by and between the parties to this MOU shall be incorporated by written instrument, and effective when executed and signed by all parties to this MOU.

b. *Applicable Law.* The construction, interpretation, and enforcement of this MOU shall be governed by the laws of the State of Wyoming. The Courts of the State of Wyoming shall have jurisdiction over any action arising out of this

MOU and over the parties, and venue shall be the Ninth Judicial District, State of Wyoming.

c. *Entirety of Agreement.* This MOU represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations and agreements, whether written or oral.

d. *Severability.* Should any portion of this MOU be judicially determined to be illegal or unenforceable, the remainder of the MOU shall continue in full force and effect, and either party may renegotiate the terms affected by the severance.

e. *Signatures.* In witness thereof, the parties to this MOU through their duly authorized representatives have executed this MOU on the days and dates set out below, and certify that they have read, understood, and agreed to the terms and conditions of this MOU as set forth herein.

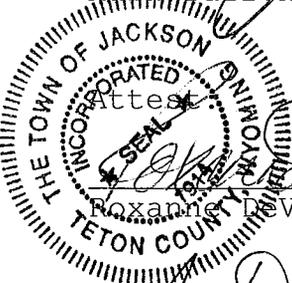
The effective date of this MOU is the date of the signature last affixed to this page.

Town of Jackson, Wyoming



Mark Barron, Mayor

Date 2/28/07





Roxanne DeVries Robinson, Town Clerk

Date 2/28/07

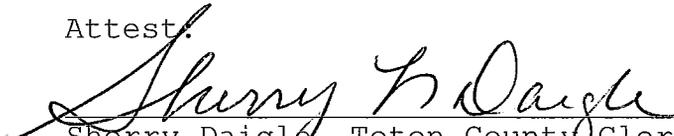
Teton County, Wyoming



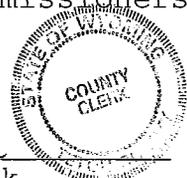
Andy Schwartz, Chairman
Teton County Board of County Commissioners

Date 2/15/07

Attest:



Sherry Daigle, Teton County Clerk



Date 2/20/07

RESOLUTION 07-10
A joint Town of Jackson – Teton County, Wyoming resolution
committing to
10% energy reduction by 2010

WHEREAS, on behalf of the citizens of Teton County the Mayor and Town Council of Jackson and the Board of County Commissioners for Teton County have committed to energy resource reduction by the signing of the US Mayor’s Climate Protection Agreement, the County’s Climate Change Resolution, the signing of a Global Warming Resolution, the signing of a Joint Memorandum of Understanding to form a Joint Energy Efficiency Advisory Board, as well as dedicating partial staff time to the effort; and

WHEREAS, these two government agencies representing all of Teton County citizens have joined the Local Government for Sustainability program (ICLEI) and in doing so are encouraged to set energy reduction goals specific to this community; and

WHEREAS, because they have the ability to do so, the Town and County have chosen to go beyond the reduction goal set in the US Mayor’s Climate Protection Agreement which was 7% off of 1990 baseline by 2012; and

WHEREAS, local leaders believe setting an aggressive goal is important because they recognize the “power of place” in which we live and their responsibility towards environmental stewardship in the Tetons; they are committed to energy independence from foreign oil sources; they recognize that “the least expensive kilowatt hour is the one we don’t use;” and because it is fiscally prudent to save the taxpayers of Teton County money whenever possible; and

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners for Teton County and the Mayor and Town Council of Jackson recognizing these stated documents and initiatives set their goal:

Reducing electricity and fossil fuel consumption 10 percent each by 2010;

BE IT FURTHER RESOLVED, that this specifically targets 10% reduction in electricity use and 10% reduction in fossil fuel use by December 31, 2010, and additionally places great emphasis on recycling and reducing purchasing whenever possible specific to Town and County organizational operations.

PASSED, APPROVED, AND ADOPTED this 2nd day of April, 2007.

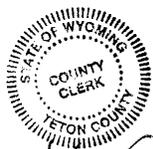
BOARD OF COUNTY COMMISSIONERS
TETON COUNTY

By: *Andy Schwartz*
Andy Schwartz, Chairman

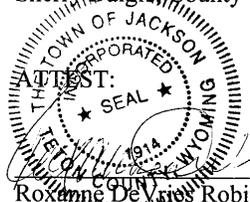
TOWN OF JACKSON

By: *Mark Barron*
Mark Barron, Mayor

ATTEST:



Sherry Daigle
Sherry Daigle, County Clerk



Roxanne DeVries
Roxanne DeVries Robinson, Town Clerk

RESOLUTION 06-21
ENDORING THE U.S. MAYORS CLIMATE PROTECTION AGREEMENT

WHEREAS, the U.S. Conference of Mayors has previously adopted strong policy resolutions calling for cities, communities and the federal government to take actions to reduce global warming pollution; and

WHEREAS, the Inter-Governmental Panel on Climate Change (IPCC), the international community's most respected assemblage of scientists, has found that climate disruption is a reality and that human activities are largely responsible for increasing concentrations of global warming pollution; and

WHEREAS, recent, well-documented impacts of climate disruption include average global sea level increases of four to eight inches during the 20th century; a 40 percent decline in Arctic sea-ice thickness; and nine of the ten hottest years on record occurring in the past decade; and

WHEREAS, climate disruption of the magnitude now predicted by the scientific community will cause extremely costly disruption of human and natural systems throughout the world including: increased risk of floods or droughts; sea-level rises that interact with coastal storms to erode beaches, inundate land, and damage structures; more frequent and extreme heat waves; more frequent and greater concentrations of smog; and

WHEREAS, on February 16, 2005, the Kyoto Protocol, an international agreement to address climate disruption, went into effect in the 141 countries that have ratified it to date; 38 of those countries are now legally required to reduce greenhouse gas emissions on average 5.2 percent below 1990 levels by 2012; and

WHEREAS, the United States of America, with less than five percent of the world's population, is responsible for producing approximately 25 percent of the world's global warming pollutants; and

WHEREAS, the Kyoto Protocol emissions reduction target for the U.S. would have been 7 percent below 1990 levels by 2012; and

WHEREAS, many leading US companies that have adopted greenhouse gas reduction programs to demonstrate corporate social responsibility have also publicly expressed preference for the US to adopt precise and mandatory emissions targets and timetables as a means by which to remain competitive in the international marketplace, to mitigate financial risk and to promote sound investment decisions; and

WHEREAS, state and local governments throughout the United States are adopting emission reduction targets and programs and that this leadership is bipartisan, coming from Republican and Democratic governors and mayors alike; and

WHEREAS, many cities throughout the nation, both large and small, are reducing global warming pollutants through programs that provide economic and quality of life benefits such as reduced energy bills, green space preservation, air quality improvements, reduced traffic congestion, improved transportation choices, and economic development and job creation through energy conservation and new energy technologies; and

WHEREAS, mayors from around the nation have signed the U.S. Mayors Climate Protection Agreement which, as amended at the 73rd Annual U.S. Conference of Mayors meeting, reads:

The U.S. Mayors Climate Protection Agreement

A. We urge the federal government and state governments to enact policies and programs to meet or beat the target of reducing global warming pollution levels to 7 percent below 1990 levels by 2012, including efforts to: reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;

B. We urge the U.S. Congress to pass bipartisan greenhouse gas reduction legislation that includes 1) clear timetables and emissions limits and 2) a flexible, market-based system of tradable allowances among emitting industries; and

C. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:

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, reserve open space, and create compact, walkable urban communities;
3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling 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, recovering landfill methane for energy production, and supporting the use of waste to energy technology;
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 City use;
7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a 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 bio-diesel;
9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;
10. Increase recycling rates in City operations and in the community;
11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO₂; and
12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

NOW, THEREFORE, BE IT RESOLVED that The U.S. Conference of Mayors endorses the U.S. Mayors Climate Protection Agreement as amended by the 73rd annual U.S. Conference of Mayors meeting and urges mayors from around the nation to join this effort.

BE IT FURTHER RESOLVED, The U.S. Conference of Mayors will work in conjunction with ICLEI Local Governments for Sustainability and other appropriate organizations to track progress and implementation of the U.S. Mayors Climate Protection Agreement as amended by the 73rd annual U.S. Conference of Mayors meeting.

DATED THIS 8th day of NOVEMBER, 2006.


Mark Barron, Mayor




Roxanne DeVries Robinson, Town Clerk

04 057

RESOLUTION CONCERNING GLOBAL WARMING

WHEREAS, Teton County, Wyoming is located in the heart of the Greater Yellowstone Ecosystem, the largest contiguous ecosystem in the continental United States; and

WHEREAS, all of Grand Teton National Park, and half of Yellowstone National Park, lie within Teton County; and

WHEREAS, the Teton County Commissioners in particular, and the residents of Teton County in general, have a responsibility to current and future generations of people around the world to be good stewards of the land, landscapes, and environment that comprise and support Grand Teton and Yellowstone National Parks; and

WHEREAS, the economy of Teton County, Wyoming is grounded in people who come to the area to appreciate its beauty and wildlife, and to take advantage of its outdoor recreational activities; and

WHEREAS, the land, landscapes, and environment of Jackson Hole contribute not just to Teton County's economic well-being, but also to the quality of life of its residents; and

WHEREAS, the land, landscapes, and environment of both Teton County, Wyoming and the Greater Yellowstone Ecosystem enjoy and prosper from a weather pattern characterized by warm, wet summers and cold, dry winters with abundant snowfall; and

WHEREAS, the terrain of Teton County, Wyoming has been formed by glaciation, and these glaciers in the Teton and other mountain ranges have appreciably shrunk during the last several decades; and

WHEREAS, the winters in Teton County, Wyoming have become less severe over the last several decades, which in turn has influenced the summers as well; and

WHEREAS, these changes have occurred during a period of global warming, and are possibly linked to global warming; and

WHEREAS, global warming holds the potential to produce both short-term and long-term damage to the environment, landscape, economy, and well-being of Teton County, Wyoming and its residents; and

WHEREAS, the overwhelming body of independent scientific evidence shows that global warming has been created, at least in part, by human activity, and is clearly exacerbated by such activity;

Therefore be it resolved by the Board of County Commissioners of Teton County, Wyoming that:

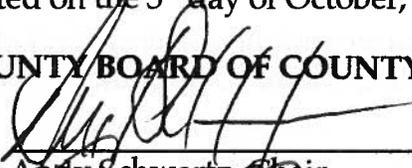
The Board of County Commissioners expresses its concern about global warming, in particular its potential to harm the health, safety, and welfare of Teton County, Wyoming residents; and

The Board of County Commissioners urges all Teton County, Wyoming residents to inform themselves about the nature and causes of global warming, in particular the role humans play in exacerbating global warming; and

The Board of County Commissioners urges all Teton County, Wyoming residents to do everything within their power to address global warming issues, in particular to do everything within their power to help the county, the state, the nation, and the world reduce human contributions to global warming.

Adopted on the 5th day of October, 2004.

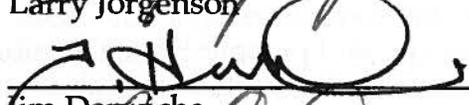
TETON COUNTY BOARD OF COUNTY COMMISSIONERS



Andy Schwartz, Chair



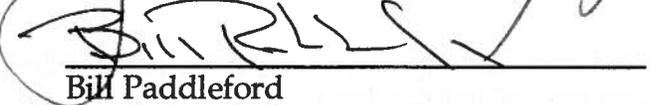
Larry Jorgenson



Jim Darwiche



John Carney



Bill Paddleford

(Seal)



Attest:



Sherry Daigle, Teton County Clerk

TOWN OF JACKSON & TETON COUNTY

FLEET PRINCIPLES, PRACTICES & PROCEDURES

Principles

The Town of Jackson and Teton County are committed to being fiscal and environmental stewards, as demonstrated by their joint adoption of the 10 x 10 Action Plan and its goal to improve the energy efficiency of town and county operations 10%, from a 2006 baseline, by the year 2010. As a significant component of improving energy efficiency, the town and county are committed to improving fleet fuel efficiency and reducing transportation related energy use by their employees while also reducing emissions. The ultimate goal is to reduce costs and reduce environmental impacts, whenever possible.

Practices & Procedures

For All Town and County Personnel:

1. It is against state law to leave an unoccupied vehicle idling. Idling is prohibited in Town and County vehicles, with the following exceptions:
 - a. START Buses Startup and Shut down procedures
 - Per manufactures recommendations or
 - Per departments operating procedures
 - Until a bus reaches adequate air pressure and 120°, plus an additional 5 minutes of idle time;
 - While actively loading or unloading passengers.
 - b. All other Town & County vehicles Startup and Shut down procedures
 - Per manufactures recommendations or
 - Per departments operating procedures
 - Only when necessary to safely perform the need and function of the work task at hand.

See: “Fuel Efficient Driving Strategies” and idling information in **appendix**.

2. Employees shall utilize efficient vehicle operating techniques. Training shall be provided to all new Town and County employees with periodic refresher courses. Incentive programs that encourage fuel-efficient driving, both on and off the job, will be developed and offered to implement this principle.

See: - “Fuel Efficient Driving Strategies” in **appendix**

3. Fleet vehicle trips shall be reduced or consolidated whenever possible. In addition, alternative forms of transportation, such as bicycles, walking, and START, shall be encouraged and incentive programs implemented, such as reimbursement for START bus commuter passes.

See: - “Fuel Efficient Driving Strategies, Vehicle Trip Reduction Strategies” in **appendix**

4. Vehicle maintenance is a shared responsibility of each person utilizing a fleet vehicle, including checking for appropriate tire pressure, adhering to establish maintenance schedules, reporting any potential operating concerns, and utilizing technologies and supplies that increase fuel efficiency and/or decrease emissions.

See: - “Fuel Efficient Driving Strategies” “Training employees in efficient maintenance” add a vehicle checklist for all users in vehicles

For Supervisors and Managers:

1. Supervisors shall work with employees to develop an awareness of methods for optimizing work related trips and routes to maximize efficiency, minimize vehicle use and also engage in continuous evaluations of related work practices.
2. All vehicles purchased, leased, or otherwise obtained by the Town of Jackson or Teton County shall be the most energy efficient, lowest emission vehicle possible, taking into account the functional and operational needs for which the vehicle is intended. A lifecycle cost analysis should be performed prior to choosing a vehicle by using the 'Vehicle Solutions' tab of the 'Jackson Energy Tracker.'
The following considerations should be included in decision making:
 - a) Higher miles per gallon
 - b) Lower emissions
 - c) Minimum size and/or load rating needed for the task
 - d) Alternative power sources, such as electric, CNG, biofuels, and propane
 - e) Conditions under which the vehicle will be used
 - f) Price of the vehicle vs. life cycle cost.

See: - Utilize baseline data worksheets – Town Engineer has the reports.

3. When assessing the need to replace an existing vehicle, the following criteria shall be considered in the lifecycle analysis:
 - a) Current fuel usage versus the fuel efficiency of a replacement
 - b) Repair and maintenance history to determine if it is excessive
 - c) Return on investment when compared to a replacement
 - d) Compatibility with the current task to which it is assigned
 - e) Mileage
 - f) Price of a replacement vehicle

See: - - Utilize baseline data worksheets – Town Engineer has the reports.

4. Supervisors shall facilitate training in vehicle efficiencies and driving practices for their staff and themselves.

See: - "Fuel Efficient Driving Strategies" in **appendix**

5. Supervisors shall consult with their staff, the Fleet and Fuel Action Team and others who are working to develop programs for town and county employees in order to integrate alternatives to single occupancy vehicle travel into individual routines and to create new 'standard practice' and mobility for town and county employees.
6. Monthly and/or quarterly meetings shall be held to monitor and review all departments' progress towards 10x10 goal with the most current real time data. Also discuss next steps in moving towards accomplishing 10x10 goal and beyond.

See: - Utilize baseline data worksheets – Town Engineer has the reports.

For Administrators, Energy Advisory Board and Decision-Makers:

1. Infrastructure that enhances options for the utilization of cleaner, renewable fuels, such as storage tanks and dispensers for bio-fuels or CNG, plug-in capabilities or car sharing program shall be planned for and funded to meet the goal of reducing energy consumption 10% by December 31st 2010 and beyond.
2. Infrastructure that supports storage of regularly used fleet vehicles shall be developed to reduce the need for idling vehicles and improve vehicle life, especially in cold weather.
3. Vehicle life cycle analysis shall be required for all departmental, fleet related, budget requests.
4. In conjunction with the energy Efficiency Advisory Board, local government administrators and elected officials will track progress toward 10 x10 goals and review the effectiveness of policies, programs and processes for achieving them. In addition, recommendations for furthering goals may be made.

APPENDIX

VEHICLE TRIP REDUCTION STRATEGIES

- Employee communication and education on vehicle trip reduction opportunities, including a real time calendar listing who's going where, at what time, etc.
- Encourage teleconferencing for meeting when applicable and invest in the necessary equipment.
- Provide showers and lockers for employees who walk, jog or cycle to work.
- Provide and maintain municipal fleet bikes for employees to use for work-related trips.
- Provide cash and/or public [transit passes](#) instead of free parking as an employee benefit.
- Establish 'transit mentors' as resources for new riders.
- Provide a shuttle service to public transit stops if necessary.
- Establish a car pool or ride-sharing network (community wide) to facilitate and encourage use.
- Provide preferential parking for car pools and high efficiency vehicles.
- Provide a guaranteed ride home policy for employees who took alternative modes of transportation.
- Allow telecommuting options and flexible working hours, such as '9/80' – allowing employees to work 80 hours within 9 working days, eliminating at least one trip every two weeks.
- Consider a car sharing program for the region or municipality.
- Encourage better scheduling/planning to reduce vehicle miles.

FUEL EFFICIENT DRIVING STRATEGIES

Drive Sensibly

Aggressive driving (speeding, rapid acceleration and braking) wastes gas. It can lower your gas mileage by 33 percent at highway speeds and by 5 percent around town. Sensible driving is also safer for you and others, so you may save more than gas money.

Drive in the highest gear you can, at the lowest possible speed. The slower your engine turns, the less gas you use. Don't accelerate when driving uphill — it makes your mileage per gallon plummet. Instead, try to drive at the same speed, or even a little slower.

Try to brake less by anticipating stops. When you brake, you waste the acceleration you've already used. Instead, try to accelerate slowly when leaving a stoplight, and then coast to the next light.

Fuel Economy Benefit:	5-33%
Equivalent Gasoline Savings:	\$0.20-\$1.35/gallon

Use Cruise Control and Overdrive Gears

Using cruise control on the highway helps you maintain a constant speed and, in most cases, will save gas. When you use overdrive gearing, your car's engine speed goes down. This saves gas and reduces engine wear.

Maintain Your Vehicle

Keeping up with routine car maintenance can help your fuel efficiency. Be sure your tire pressure is at the recommended PSI according to manufacturer's specifications. Change your air filter regularly. A properly functioning car will result in better gas mileage.

Observe the Speed Limit

While each vehicle reaches its optimal fuel economy at a different speed (or range of speeds), gas mileage usually decreases rapidly at speeds above 60 mph.

For every mile you drive above 55 mph, your fuel economy drops by 2 percent. You can assume that each 5 mph you drive over 60 mph is like paying an additional \$0.30 per gallon for gas.

Fuel Economy Benefit:	7-23%
Equivalent Gasoline Savings:	\$0.29-\$0.94/gallon



Remove Excess Weight

Avoid keeping unnecessary items in your vehicle, especially heavy ones. An extra 100 pounds in your vehicle could reduce your MPG by up to 2%. The reduction is based on the percentage of extra weight relative to the vehicle's weight and affects smaller vehicles more than larger ones.

Remove your car's luggage rack, roof rack and related outdoor gear and put it away until you actually need to use it. The drag created from this gear can reduce your mileage per gallon by up to 5 percent.

Fuel Economy Benefit:	1-2%/100 lbs
Equivalent Gasoline Savings:	\$0.04-\$0.08/gallon

Avoid Excessive Idling

- **Turn off you ignition if you're waiting more than 10 seconds.** Contrary to popular belief, restarting your car does not burn more fuel than leaving it idling. In fact, idling for just 10 seconds wastes more gas than restarting the engine.
- **Warm up your engine by driving it, not by idling.** Today's electronic engines do not need to warm up, even in winter. The best way to warm the engine is by easing into your drive and avoiding excessive engine revving. After just a few seconds, your vehicle is safe to drive. The vehicle's engine warms twice as quickly when driven. A cold engine produces dirtier exhaust since the catalytic converter does not function properly when the car is idling.
- **Warm up the cabin interior by driving, not idling.** Easing into your drive is also the best way to get your vehicle's heating system delivering warmer air faster. Sitting in an idling car means you are breathing in more of the exhaust that leaks into the car cabin. Any warmth you may get from a car heater is not worth the damage to your health. If parked and waiting, it is healthier to get out of your car and go inside a store or building.
- **Protect your car engine by idling less.** Frequent restarts are no longer hard on a car's engine and battery. The added wear is much less costly than the cost of fuel saved. Worse, an idling engine is not operating at peak temperature, which causes fuel residue to condense on engine cylinder walls and leads to damage.

Note: Cost savings are based on an assumed fuel price of \$4.00/gallon.

07-18A

**Town of Jackson and Teton County Joint Resolution
For Plug-In Hybrid National Campaign**

WHEREAS, the over-reliance of America on foreign oil has become a growing and serious threat to economic vitality and national security interest of the United States; and

WHEREAS, vehicle emissions have been identified by a significant portion of the scientific community as a serious contributing factor to climate change and smog in our cities, which threaten the health and safety of our citizens and sustainability of our planet; and

WHEREAS, the imbalance between gasoline resources and worldwide demand has escalated gasoline prices to a level that has burdened commerce, hurt economic growth and caused hardship on our citizens; and

WHEREAS, the technology exists today to build a flexible-fuel plug-in hybrid electric automobile that could reduce oil imports, fuel costs to our citizens and our economy and air emissions by dramatic margins; and

WHEREAS, the Town of Jackson and Teton County, Wyoming are partnering with the City of Austin and others of the nation's largest cities, county governments, businesses, utilities and non-profits to urge automakers to mass produce plug-in hybrid vehicles for the substantial economic, environmental and strategic reasons outlined; and

WHEREAS, the Town of Jackson and Teton County are officially launching "Plug-In the Tetons", a community-wide campaign to promote the mass production of plug-in hybrid vehicles;

NOW, THEREFORE,

BE IT RESOLVED BY THE JACKSON MAYOR AND TOWN COUNCIL AND TETON COUNTY BOARD OF COMMISSIONERS ON THIS 10TH DAY OF SEPT. 2007 :

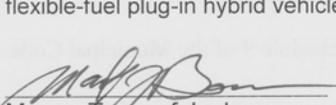
That the Town of Jackson and Teton County, WY join the Plug-In Partners National Campaign; and

BE IT FURTHER RESOLVED:

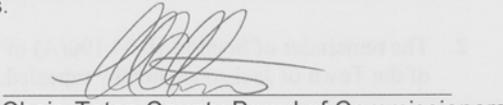
That the Town Administrator and County Director of Administrative Services, in conjunction with the newly formed Energy Efficiency Advisory Board, are directed to develop a program to encourage the future purchase of flexible-fuel plug-in hybrid vehicles for the review of the Town Council and County Commissioners; and

BE IT FURTHER RESOLVED:

That the Town of Jackson and Teton County will work with the local government, education, business and environmental community to advocate for the purchase of flexible-fuel plug-in hybrid vehicles.



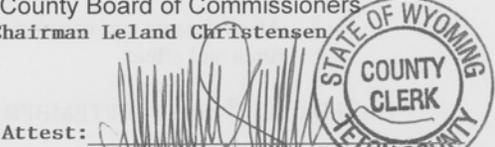
Mayor, Town of Jackson



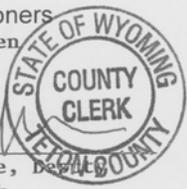
Chair, Teton County Board of Commissioners
BY Vice-Chairman Leland Christensen



Alexandra DeVries Robinson
Town Clerk



Melissa K. Sherrill, Deputy
Teton County Clerk



**RESOLUTION 10-19
IDLE-FREE RESOLUTION FOR MOTORIZED VEHICLES IN THE TOWN OF
JACKSON, WY**

WHEREAS, Willie Neal, a passionate believer in environmental issues who continually challenged people to take responsibility for the impacts of their actions and embodied the concept that Change Begins with an Individual, actively encouraged the Town of Jackson and local businesses to adopt idle-reduction strategies and policies through his Idle-Free Jackson Initiative; and

WHEREAS, idling a vehicle for more than ten seconds consumes more fuel than restarting that vehicle, resulting in excessive emissions, wasted fuel, and possible damage to the vehicle's engine; and

WHEREAS, engine idling in cold temperatures causes acid build-up in engine oil causing added wear and tear to the engine; and

WHEREAS, petroleum fuels are non-renewable and should be used wisely and not wasted; and

WHEREAS, idling is a source of unnecessary roadside air pollution, increasing the risk of health problems for all residents and visitors, including the driver of the idling vehicle; and

WHEREAS, vehicle exhaust causes health problems such as asthma and lung disease, and heart disease; and

WHEREAS, children and elderly persons are the most susceptible to the negative effects of air pollution from motor vehicles; and

WHEREAS, W.S. § 31-5-509 recognizes the health and safety concerns of idling vehicles; and

WHEREAS, fossil fuel-based vehicle engines emit a range of gases and particulate matter, including carbon dioxide, carbon monoxide, nitrous oxide and other volatile organic compounds, which are directly linked to the accumulation of greenhouse gases; and

WHEREAS, state and local governments throughout the United States are adopting emission reduction targets and programs such as 10x10 Jackson Hole and that this leadership is bipartisan; and

WHEREAS Jackson, like many cities throughout the nation, is reducing polluting emissions through conservation and efficiency measures, which provide economic, health, and quality of life benefits; and

WHEREAS, the Town of Jackson has voluntarily implemented an idle-free program for Town of Jackson departments and employees, and this program has resulted in measurable reductions in fuel use and expenditures of public funds; and

WHEREAS, the Town Council desires to take a proactive stance on unnecessary engine idling to ensure the livability and viability of the Town of Jackson for its residents, visitors, and guests; and

WHEREAS, the Town Council encourages the reduction of idling on Town Streets and in public locations, such as schools, parking lots, and business centers; and

WHEREAS, it is the Town's goal to reduce idling voluntarily, and voluntary measures undertaken by each citizen and visitor can have a lasting impact in the overall reduction of engine idling; and

WHEREAS, the Yellowstone-Teton Clean Energy Coalition will, on its own, and in partnership with the Town and other like-minded organizations, continue to educate residents and guests of the detrimental effects of vehicle idling; and

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Town Council of the Town of Jackson, Wyoming, in regular session duly assembled, that the Town of Jackson is committed to the continued education of Jackson residents, visitors, and guests regarding the harmful effects of

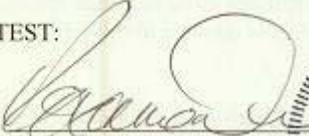
unnecessary engine idling and will promote and publicize the efforts of the Town and partner organizations to reduce engine idling in the Town of Jackson.

PASSED, APPROVED, & ADOPTED this 7th day of September, 2010.

TOWN OF JACKSON

By: 
Mark Barron, Mayor

ATTEST:

By: 
Roxanne DeVries Robinson, Town Clerk



JOINT RESOLUTION

TOWN OF JACKSON – TETON COUNTY – LOWER VALLEY ENERGY, INC.

A Resolution setting forth the mutual understanding of the purpose of the Energy Sustainability Project (“Project”) and a pledge to support the project into the future.

WHEREAS, the purpose of the Project is to respond to a generational challenge to make Jackson Hole a leader in energy efficiency and energy innovation and to transform the community into a model for economic sustainability, energy cost savings and energy conservation; and

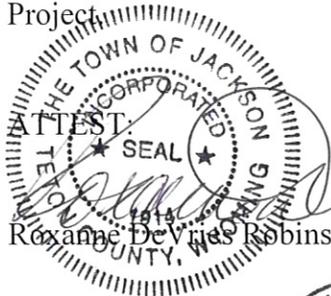
WHEREAS, the leadership of the Jackson Hole Community and the citizens of the valley have expressed their desire and made numerous decisions for protection, preservation and continuation of the high quality of life for themselves and future generations; and

WHEREAS, it is the intention of the Jackson Town Council, the Teton County Commissioners and the Lower Valley Energy Board of Directors to act prudently in the public interest by working together to communicate regularly regarding energy efficiency, conservation, economic vitality and planning for the availability, reliability and affordability of energy; and

WHEREAS, the Jackson Hole Community is expected to see higher energy costs as new resources are acquired by Lower Valley Energy to meet increases in the demand for energy, the parties to this Resolution agree to work together to encourage, educate about and implement conservation measures and adopt related public policy to reduce energy demand and slow the increase in related energy costs;

NOW THEREFORE BE IT RESOLVED, by the Town Council of the Town of Jackson, the Teton County Commissioners, and the Lower Valley Energy Board, that the three entities agree and pledge that they will jointly support the Jackson Hole Energy Sustainability Project into the future by working together on a regular basis, to seek solutions to energy challenges and to support staff of the three entities in their work on the Project.

DATED this 27 day of August, 2009

ATTEST:

Roxanne DeVries Robinson
Roxanne DeVries Robinson, Town Clerk

Town of Jackson
Mark Barron
Mark Barron, Mayor

ATTEST:
Sherry Daigle
For: Sherry Daigle, Teton County Clerk


Teton County
Hank Phibbs
Hank Phibbs, Commissioner

ATTEST:
Secretary/Treasurer, Lower Valley Energy, Inc.
Linda Willard Schmidt

Lower Valley Energy, Inc.
Dean Lewis, Board Chairman
Dean Lewis

Linda Willard Schmidt

Teton County and Town of Jackson Green Building Checklist

	Community	Energy	IAQ/Health	Resources	Water
A. SITE					
Possible Points					
1. Protect Native Soil and Minimize Disruption of Existing Plants & Trees					
a. Protect Native Topsoil from Erosion and Reuse after Construction	1				1
b. Limit and Delineate Construction Footprint for Maximum Protection					1
2. Deconstruct Instead of Demolishing Existing Buildings On Site				3	
3. Recycle Job Site Construction Waste (Including Green Waste)					
a. <i>Minimum 50% Waste Diversion by Weight (Recycling or Reuse) - Required</i>				R	
b. Minimum 65% Diversion by Weight (Recycling or Reuse)				2	
c. Minimum 80% Diversion by Weight (Recycling or Reuse)				2	
4. Use Recycled Content Aggregate (Minimum 25%)					
a. Walkway and Driveway				1	
b. Roadway Base				1	
5. Reduce Pervious Area					
a. LEED - NC 2.1 SS Credit 6.1					1
b. LEED - NC 2.1 SS Credit 6.2					1
B. LANDSCAPING					
Possible Points					
1. Construct Resource-Efficient Landscapes					
a. Plant Native Trees and Shrubs					1
b. Require Native Seed for Reclamation Areas				1	
c. No Fruit Bearing Trees or Other Bear Attracting Landscape					1
2. Use Fire-Safe Landscaping Techniques	1				
3. Minimize Turf Areas in Landscape Installed by Builder					
a. All Turf Will Have a Water Requirement Less than or Equal to Tall Fescue					2
b. Turf Shall Not Be Installed on Slopes Exceeding 10% or in Areas Less than 8 Feet Wide					2
c. Turf is <33% of Landscaped Area					2
d. Turf is <10% of Landscaped Area					2
4. Plant Native Deciduous Shade Trees Focusing on the West Aspect					1
5. Implement Hydrozoning: Group Plants by Water Needs					1
6. Install High-Efficiency Irrigation Systems					
a. System Uses Only Low-Flow Drip, Bubblers, or Low-flow Sprinklers					1
b. System Has Smart (Weather-Based) Controllers					2
7. Apply Two Inches of Compost in the Top 6 to 12 Inches of Soil					2
8. Mulch All Planting Beds to the Greater of 2 Inches					1
9. Use 50% Salvaged or Recycled-Content Materials for 50% of Non-Plant Landscape Elements				1	
10. No Ponds or Water Features				1	
11. Install Gray Water or Rain Harvesting Features				1	

Teton County and Town of Jackson Green Building Checklist

	Community	Energy	IAQ/Health	Resources	Water
C. FOUNDATION					
Possible Points					
1. Incorporate Recycled Flyash in Concrete					
a. Minimum 20% Flyash				1	
b. Minimum 25% Flyash				1	
D. STRUCTURAL FRAME & BUILDING ENVELOPE					
Possible Points					
1. Apply Optimal Value Engineering					
a. Studs at 24-Inch On Center Framing				1	
b. Door and Window Headers Sized for Load				1	
c. Use Only Jack and Cripple Studs Required for Load				1	
2. Use Engineered Lumber					
a. Beams and Headers				1	
b. Insulated Engineered Headers		1			
c. Wood I-Joists or Web Trusses for Floors				1	
d. Wood I-Joists or Rafters				1	
e. Engineered or Finger-Jointed Studs for Vertical Applications				1	
3. Use FSC-Certified Wood					
a. Dimensional Studs: Minimum 40%				2	
b. Dimensional Studs: Minimum 70%				2	
c. Panel Products: Minimum 40%				1	
d. Panel Products: Minimum 70%				1	
4. Design Energy Heels on Trusses (75% of Attic Insulation Height at Outside Edge of Exterior Wall)					
		1			
5. Design Trusses to Accommodate Ductwork					
		1			
6. Use Oriented Strand Board (OSB)					
a. Subfloor				1	
b. Sheathing				1	
7. Use Recycled-Content Steel Studs for 90% of Interior Wall Framing					
				1	
8. Use Solid Wall Systems (Includes SIPs, ICFs, & Any Non-Stick Frame Assembly)					
a. Floors		2		2	
b. Walls		2		2	
c. Roofs		2		2	
9. Thermal Mass Walls: 5/8-Inch Drywall on All Interior Walls or Walls Weigh more than 40 lb/cu.ft.					
		1			
10. Reduce Pollution Entering the Home from the Garage					
a. Tightly Seal the Air Barrier between Garage and Living Area			1		
b. Install Separate Garage Exhaust Fan			1		
11. Install Overhangs and Gutters					
a. Minimum 20-Inch Overhangs and Gutters				1	
b. Minimum 36-Inch Overhangs and Gutters		1			
12. No Log Homes					
		R			
13. Max Sq Ft 3000					
		R			

Teton County and Town of Jackson Green Building Checklist

	Community	Energy	IAQ/Health	Resources	Water
14. Local Manufactured/Harvested Materials					
a. 20% Materials Manufactured Regionally - 500 Mile Radius - LEED-NC 2.1 MR C5	1	1			
b. 50% Materials Extracted Regionally - 500 Mile Radius - LEED-NC 2.1 MR C5	1	1			
15. Tripple Pane or Heat Mirror Glass					
		1			
E. EXTERIOR FINISH Possible Points					
1. Use Recycled-Content (No Virgin Plastic) or FSC-Certified Wood Decking				2	
2. Install a Drainage Plane (Rain Screen Wall System)				2	
3. Use Durable and Non-Combustible Siding Materials				1	
4. Select Durable and Non-Combustible Roofing Materials				2	
F. PLUMBING Possible Points					
1. Distribute Domestic Hot Water Efficiently					
a. Insulate Hot Water Pipes from Water Heater to Kitchen					1
b. Insulate All Hot Water Pipes OR Install On-Demand Hot Water Circulation System		1			1
c. Locate the Water Heater within 25 feet of All Hot Water Fixtures and Appliances					1
d. Use Engineered Parallel Piping					1
2. Install Only High Efficiency Toilets (Dual-Flush or <=1.3 gpf)					3
3. Install Dual Plumbing				1	1
4. Use Graywater Systems - Landscape or Other Non Potable Water Use				1	1
5. Innovative Septic Systems				1	1
G. APPLIANCES Possible Points					
1. Install ENERGY STAR Dishwasher					
a. ENERGY STAR		1			
b. Dishwasher Uses No More than 6.5 Gallons/Cycle		1			1
2. Install ENERGY STAR Clothes Washing Machine with Water Factor of 6 or Less		1			3
3. Install ENERGY STAR Refrigerator					
a. ENERGY STAR: 15% above Federal Minimum		1			
b. Super-Efficient Home Appliance Tier 2: 25% above Federal Minimum		1			
4. Install Built-In Recycling Center				2	
H. INSULATION Possible Points					
1. Install Insulation with 75% Recycled Content					
a. Walls and/or Floors				1	
b. Ceilings				1	
2. Install Insulation that is Low-Emitting					
a. Walls and/or Floors			1		
b. Ceilings			1		
3. Pre-Drywall Inspection Shows Quality Installation of Insulation		1			
I. HEATING, VENTILATION & AIR CONDITIONING Possible Points					
1. Design and Install HVAC System to ACCA Manual J, D, and S Recommendations		4			

Teton County and Town of Jackson Green Building Checklist

	Community	Energy	IAQ/Health	Resources	Water
2. Install Sealed Combustion Units					
a. Furnaces			2		
b. Water Heaters			2		
c. Boilers					
3. No Fireplace or Sealed Gas Fireplace with Efficiency Rating Not Less Than 60%			1		
4. Install ENERGY STAR Appliances in Living Areas and Bedrooms					
a. Ceiling Fans		1			
b. CFL or LED Light Fixtures		1			
5. Install Mechanical Ventilation System for Nighttime Cooling (Points are Cumulative up to 3)					
a. Whole House Fan		1			
b. Automatically Controlled Integrated System		2			
c. Integrated System with Variable Speed Control		3			
6. Design and Install Effective Ductwork					
a. Install HVAC Unit and Ductwork within Conditioned Space		3			
b. Use Duct Mastic on All Duct Joints and Seams		1			
c. Install Ductwork under Attic Insulation (Buried Ducts)		1			
d. Pressure Balance the Ductwork System for Master Bedroom		1			
e. Protect Ducts during Construction and Clean All Ducts before Occupancy			1		
7. Install High Efficiency HVAC Filter (MERV 6+)			1		
8. Install Zoned, Hydronic Radiant Heating with Slab Edge Insulation		1	1		
9. Install Mechanical Ventilation System					
a. Any Energy Recovery Ventilation System That Meets ASHRAE 62.2		1	2		
b. Install ENERGY STAR Bathroom Fan			1		
c. All Bathroom Fans Are on Timer or Humidistat			1		
10. Use Low-Sone Range Hood Vented to the Outside			1		
11. Install Carbon Monoxide Alarm(s)			1		
12. No Exterior Heated Hardscape Surfaces		R			
13. Install Programmable Thermostats		R			
J. BUILDING PERFORMANCE		Possible Points			
1. Design and Build High Performance Homes		30			
2. House Obtains ENERGY STAR and/or LEED Certification			5	2	
3. Inspection and Diagnostic Evaluations					
a. Third Party Energy and Green Building Review of Home Plans		1	1	1	
b. Blower Door Test Performed		1			
c. House Passes Combustion Safety Backdraft Test			1		
4. Create Building/Home User and Operator Manual		1			
K. RENEWABLE ENERGY		Possible Points			
1. Pre-Plumb for Solar Hot Water Heating		4			
2. Install Solar Water Heating System		10			
3. Install Wiring Conduit for Future Photovoltaic Installation & Provide 200 ft² of South-Facing Roof		2			

Teton County and Town of Jackson Green Building Checklist

	Community	Energy	IAQ/Health	Resources	Water
4. Install Photovoltaic (PV) Panels					
a. 1.2 kW System		6			
b. 2.4 kW System		6			
c. 3.6 kW or more		6			
5. Orient/Situate House to Maximize Passive Solar Heating		6			
6. Two (2) Year Contract with Utility Company to Provide 50% Green Power		6			

L. FINISHES Possible Points

1. Provide Permanent Walk-Off Mats and Shoe Storage at Home Entrances			1		
2. Use Low/No-VOC Paint					
a. Low-VOC Interior Wall/Ceiling Paints (<50 gpl VOCs (Flat) and <150 gpl VOCs (Non-Flat))			1		
b. Zero-VOC: Interior Wall/Ceiling Paints (<5 gpl VOCs (Flat))			3		
3. Use Low VOC, Water-Based Wood Finishes (<150 gpl VOCs)			2		
4. Use Low-VOC Construction Adhesives (<70 gpl VOCs) for All Adhesives			2		
5. Use Recycled-Content Paint				1	
6. Use Environmentally Preferable Materials for Interior Finish: A) FSC-Certified Wood, B) Reclaimed Lumber, C) Rapidly Renewable D) Recycled-Content or E) Finger-Jointed					
At Least 50% of Each Material (1 pt each):					
a. Cabinets				1	
b. Interior Trim				1	
c. Shelving				1	
d. Doors				1	
e. Countertops				1	
7. Reduce Formaldehyde in Interior Finish (Section 01350) for At Least 50% of Each Material Below:					
a. Cabinets			1		
b. Interior Trim			1		
c. Shelving			1		
d. Subfloor			1		
8. After Installation of Finishes, Test of Indoor Air Shows Formaldehyde Level <27ppb			3		

M. FLOORING Possible Points

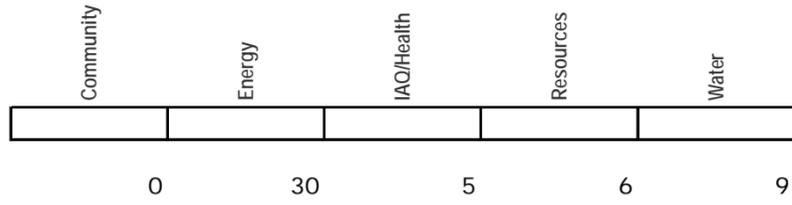
1. Use Environmentally Preferable Flooring: A) FSC-Certified or Reclaimed Wood, B) Rapidly Renewable Flooring Materials, C) Recycled-Content Ceramic Tiles, D) Exposed Concrete as Finished Floor or E) Recycled-Content Carpet. <i>Note: Flooring Adhesives Must Have <50 gpl VOCs.</i>					
a. Minimum 15% of Floor Area				1	
b. Minimum 30% of Floor Area				1	
c. Minimum 50% of Floor Area				1	
d. Minimum 75% of Floor Area				1	
2. Thermal Mass Floors: Floor Covering Other than Carpet on 50% or More of Concrete Floors		1			
3. Flooring Meets Section 01350 or CRI Green Label Plus Requirements (50% Minimum)			2		

N. OTHER Possible Points

1. Incorporate Green Points Checklist in Blueprints - <i>Required</i>			R		
2. Develop Homeowner Manual of Green Features/Benefits	1	1		1	
3. Community Design Measures & Local Priorities: See the Community Planning & Design section in Chapter 4 of the New Home Guidelines for measures. Maximum of 20 points for suggested measures. Local requirements may also be listed here.					
Enter description here					
Enter description here					
Enter description here					
Enter description here					
4. Innovation: List innovative measures that meet the green building objectives of the Guidelines. Enter up to a maximum combined total of 20 pts. See Innovation Checklist for suggested measures.					
Innovation in Community: Enter description here					
Innovation in Energy: Enter description here					
Innovation in IAQ/Health: Enter description here					
Innovation in Resources: Enter description here					

Teton County and Town of Jackson Green Building Checklist

Innovation in Water: Enter description here



Minimum Points Required Per Category

50 Points Plus Required Credits Minimum for Certification