

TETON COUNTY ENERGY PERFORMANCE REVIEW

FY 2015 QUARTER 1 & 2

Teton County reports on its internal energy use twice a year. This report covers FY 2015 Quarters 1 & 2 (July, August, September) (October, November, December). The report includes information on the organizations energy and fleet fuel use including, total consumption of the top ten biggest energy users and detailed information on the top five biggest energy users.

The report includes statistics on Teton County's annual and quarterly energy consumption. The annual consumption is measured against a 2006 benchmark and the quarterly consumption is measured against both the same quarter of the previous year and the same quarter in 2006.

ORGANIZATION STATISTICS

1. ORGANIZATION

Number of Full Time Employees	270
Number of Part Time & Seasonal Employees	90
Number of Agencies	16
Population Served	22,268

2. PARKS

Number of Parks	19
Total Acres of Maintained Parkland	165
Miles of Pathways Maintained	55

3. TETON COUNTY FACILITIES

Total Number of Buildings:	46
Total Square Footage:	293,278
Average Age of Buildings	27 Years

4. FLEETS

Number of Passenger Vehicles	87
Percentage of Fleet - Hybrid	3%
Percentage of Fleet - Alternative Fuel:	0%
Number of Specialty Vehicles (Fire Trucks etc)	21
Number of Patrol Vehicles	27

TETON COUNTY'S ENERGY LANDSCAPE

A. ORGANIZATION ENERGY USE - Quarter 1 & 2

Facilities	81%
Fleets	19%

B. FACILITY ENERGY MIX - Quarter 1 & 2

Electricity	47%
Natural Gas	52%
Bottled Gas	1%

C. FLEET FUEL MIX - Quarter 1 & 2

Electricity	0
Gasoline	82%
Diesel	18%
Biodiesel	0
Ethanol	0
Propane	0

D. ON SITE RENEWABLE POWER GENERATION

Grid Tied Solar Electric Systems

453 Panels

- | | |
|-------------------------------|-------------------|
| 1. Recycling Center size: | 177 Panels, 46 KW |
| 2. Library | 97 Panels |
| 3. Emergency Operation Center | 106 Panels, 28 kW |



EOC Solar System



Recycling Center Solar System

Solar Thermal Systems

1. Recreation Center



Recycling Center Solar Thermal Collectors

52 Panels

52 Panels



Solar Thermal Heat Exchanger

EMISSIONS

A. TOTAL EMISSION BY SOURCE - FY13-14

Facilities	68%
Fleets	32%

B. Facilities Emissions by Source

Electricity	14%
Natural Gas	85%
Bottled Gas	1%

C. Fleets Emissions by Source

Gasoline	73%
Diesel	27%

EXPENDITURES

5. EXPENDITURES – Quarter 1 & 2

Electricity	\$130,749
Natural Gas	\$109,561
Bottled Gas	\$4,710
Fleet Fuel	Not Available

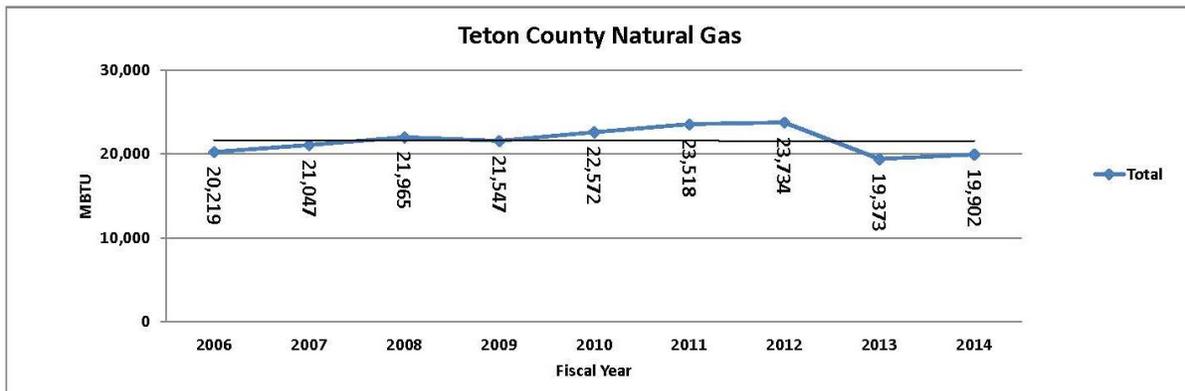
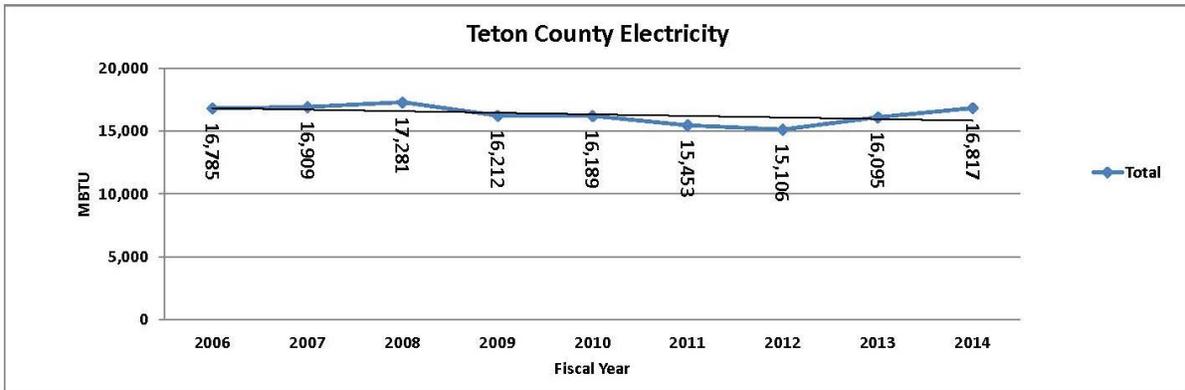
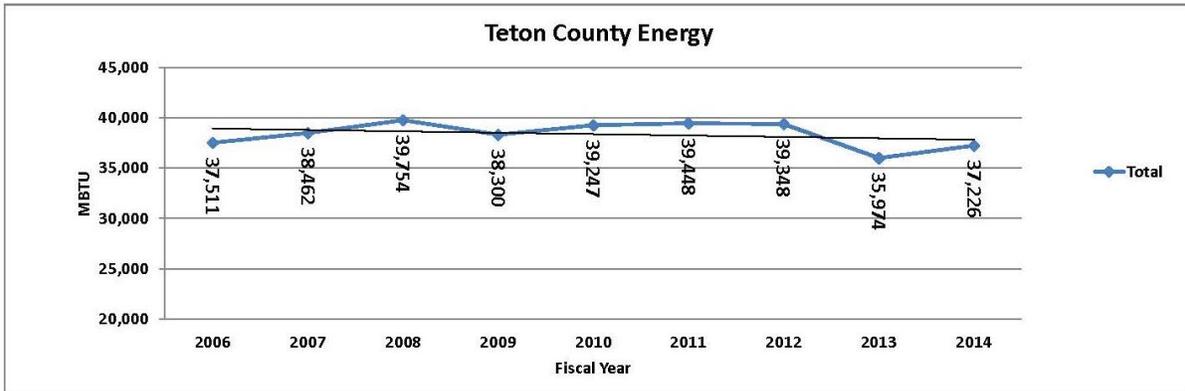
Water	Not Available
Solid Waste	Not Available
Total	\$245,310

TETON COUNTY'S ANNUAL ENERGY USE

Total Annual Energy Use - FY 2014

Compared to FY2013 energy use increased by 3.4%

Compared to FY2006 energy use decreased by 1%



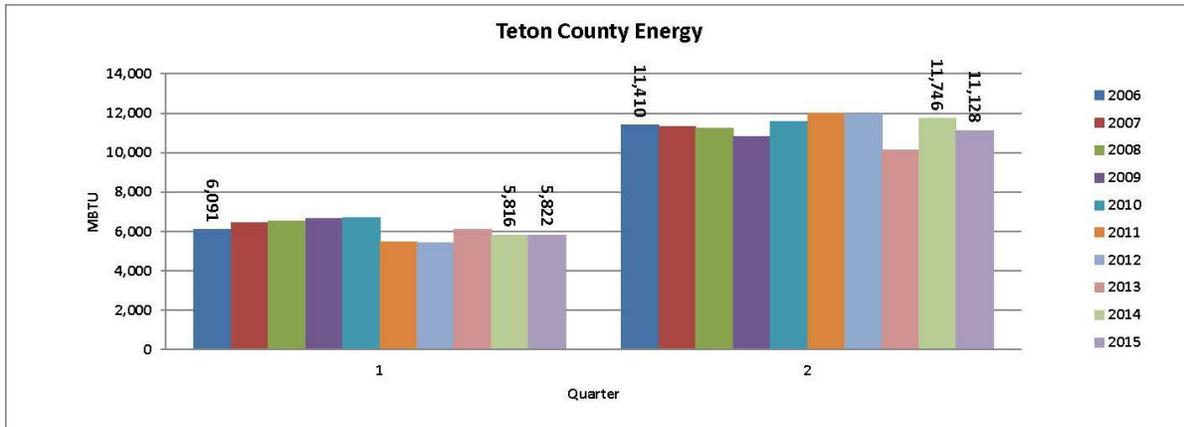
TETON COUNTY'S QUARTERLY ENERGY USE

Total Internal Energy Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 energy use increased by 1%
 Compared to the same period in FY2006 energy use decreased by 5%

Total Internal Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 energy use decreased by 5%
 Compared to the same period in FY2006 energy use decreased by 3%



TETON COUNTY'S QUARTERLY ELECTRICITY USE

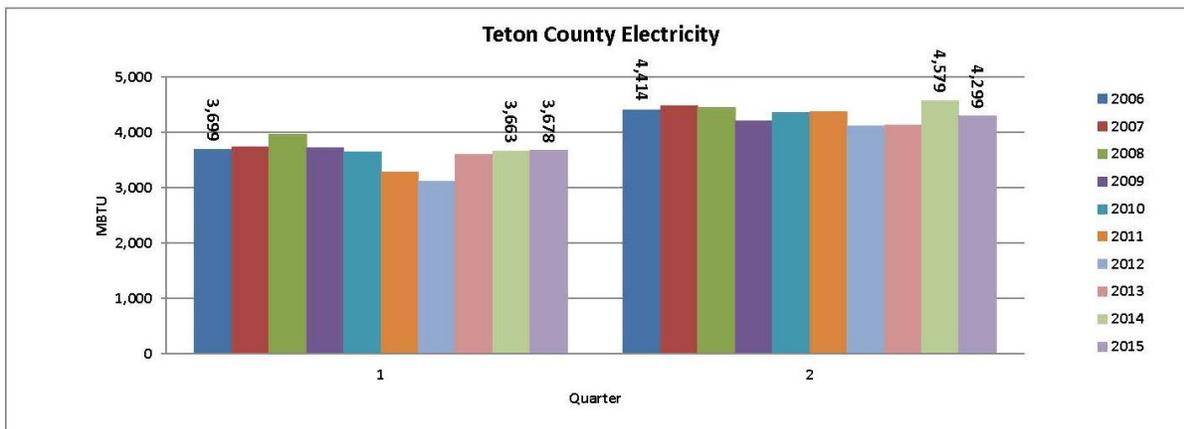
Beginning in 2013 Teton County purchases 100% certified renewable electricity from Lower Valley. The electricity is generated at a certified micro hydro facility.

Total Internal Electric Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 electric use increased by 0.4%
 Compared to the same period in FY2006 electric use decreased by 1%

Total Internal Electric Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 electric use decreased by 6%
 Compared to the same period in FY2006 electric use decreased by 3%



TETON COUNTY'S QUARTERLY NATURAL GAS USE

Total Internal Natural Gas Use by Quarter - FY 2015 Quarter 1

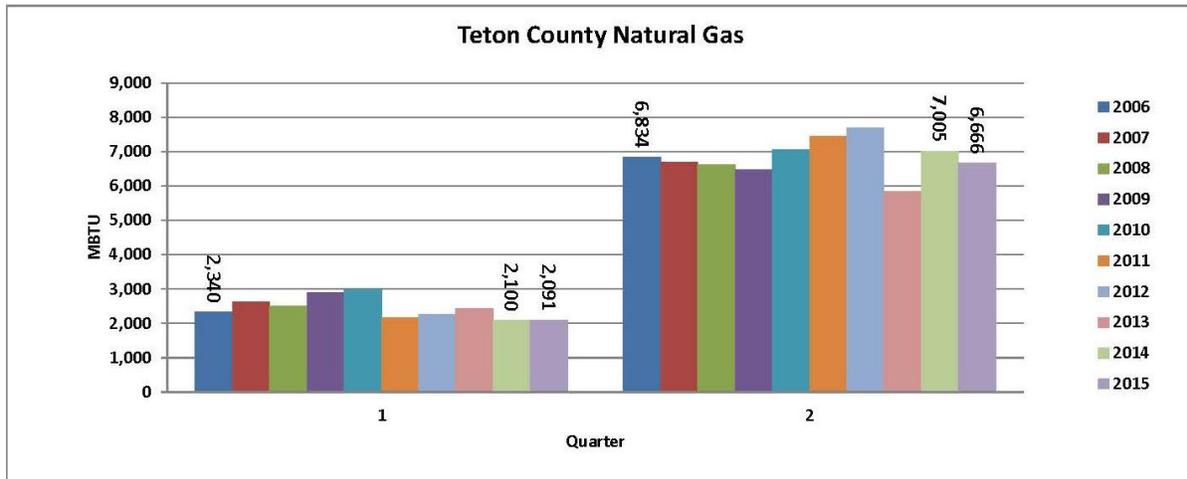
Compared to the same period in FY2014 natural gas use was flat

Compared to the same period in FY2006 natural gas use decreased by 11%

Total Internal Natural Gas Use by Quarter - FY 2015 Quarter 2

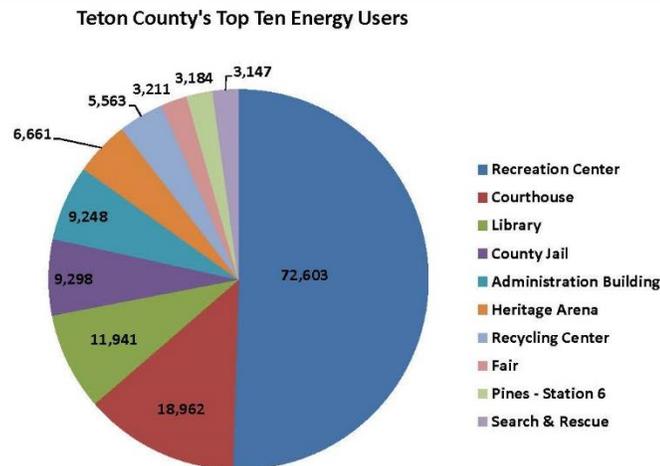
Compared to the same period in FY2014 natural gas use decreased by 5%

Compared to the same period in FY2006 natural gas use decreased by 2%



TETON COUNTY'S TOP TEN BIGGEST ENERGY USERS

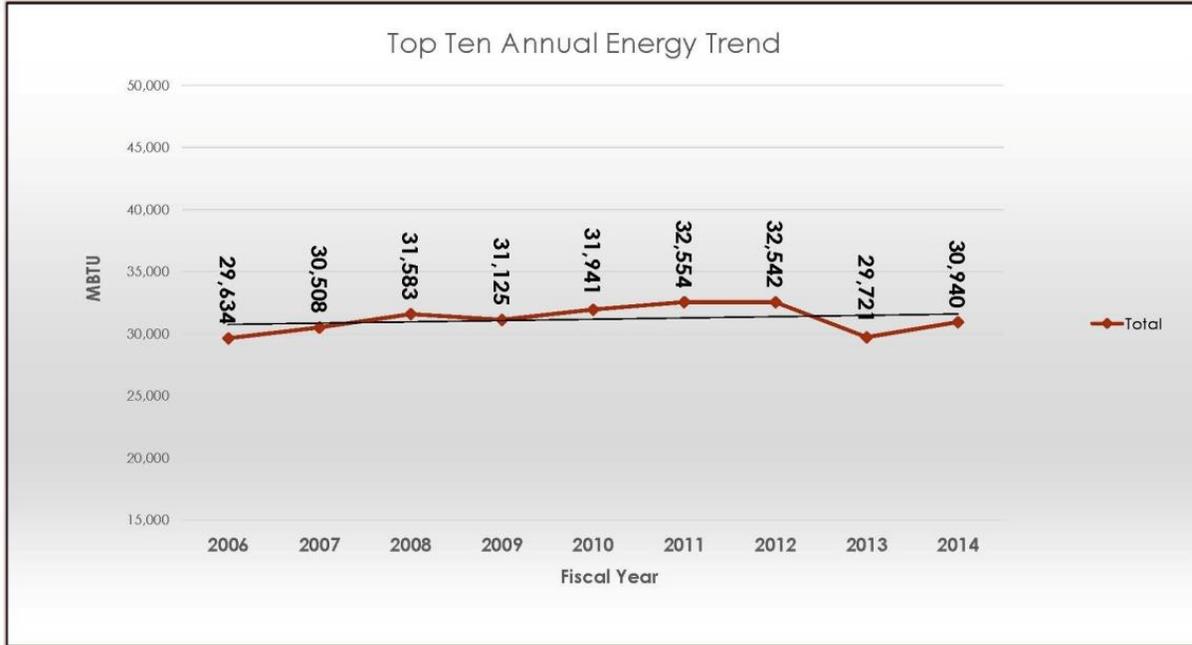
Teton County's top ten facilities consume around 82% of the organizations total energy. In an effort to reduce our energy consumption are currently working on developing energy efficiency projects at 5 of these facilities. We are also have funding and will build another grid tied solar electric system that will mitigate some of this energy demand.



Top Ten Annual Energy Use - FY 2014

Compared to FY2013 top ten energy use increased by 4.1%

Compared to the same period in FY2006 top ten energy use increased by 4.4%



Top Ten Energy Use by Quarter - FY 2015 Quarter 1

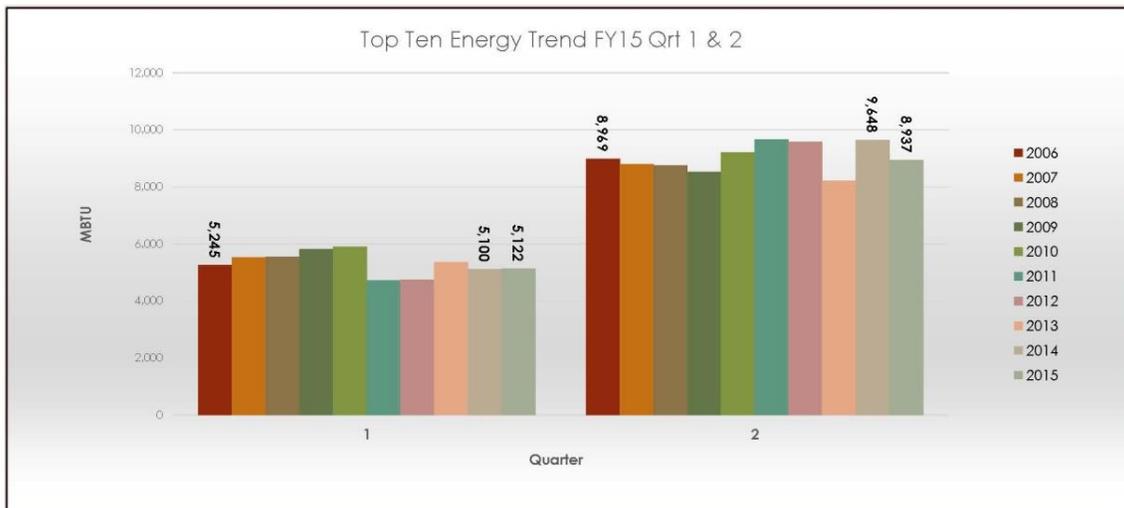
Compared to the same period in FY2014 top ten energy use increased by 0.4%

Compared to the same period in FY2006 top ten energy use decreased by 2.3%

Top Ten Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten energy use decreased by 7%

Compared to the same period in FY2006 top ten energy use decreased by .5%

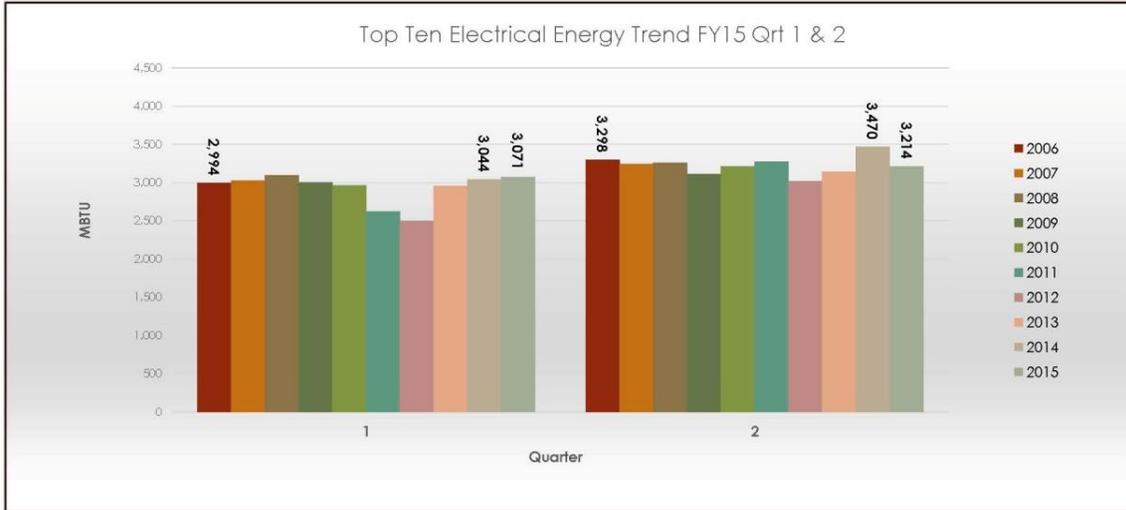


Top Ten Electricity Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 top ten electric use increased by 0.9%
 Compared to the same period in FY2006 top ten electric use increased by 2.6%

Top Ten Electricity Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten electric use decreased by 7%
 Compared to the same period in FY2006 top ten electric use decreased by 2%

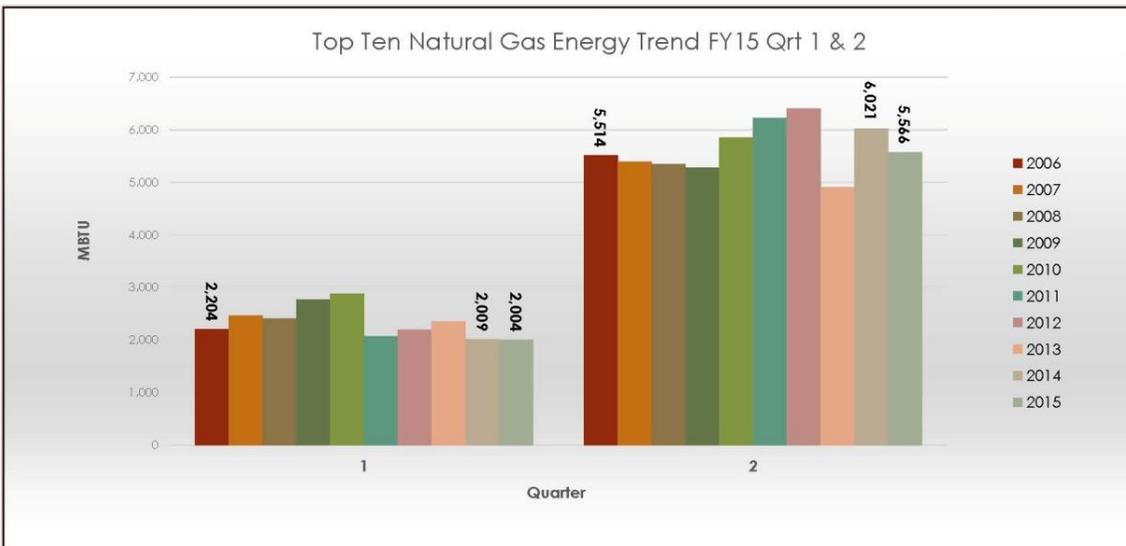


Top Ten Natural Gas Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 top ten natural gas use was flat
 Compared to the same period in FY2006 top ten natural gas use decreased by 9%

Top Ten Natural Gas Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten natural gas use decreased by 8%
 Compared to the same period in FY2006 top ten natural gas use increased by 1%



TETON COUNTY'S TOP FIVE FACILITIES

Because these five facilities make up a large amount of Teton County's overall energy consumption we track their energy use very closely. At the beginning of this fiscal year, with the help of Planet Footprint, we began setting up a system to track the effectiveness of energy efficiency projects in the Court House, Recreation Center and Administration Building. We plan to have preliminary information on these projects at the end of the year.

1. RECREATION CENTER

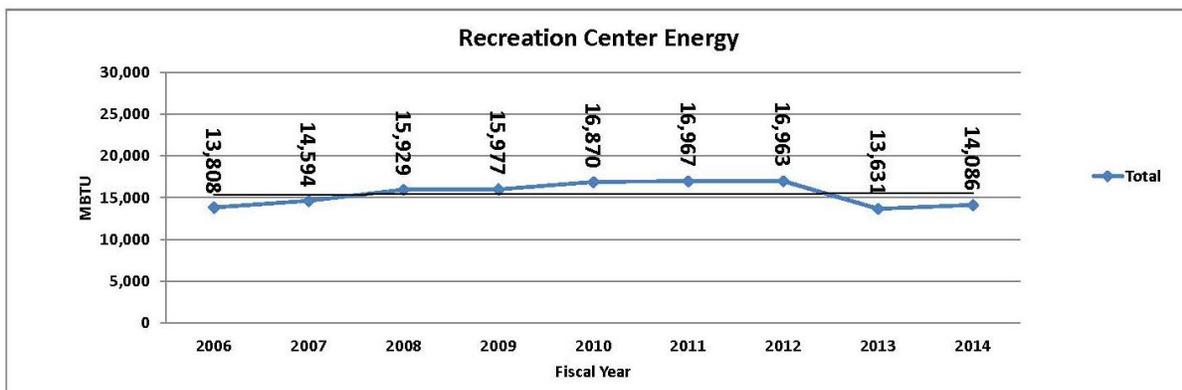
The Recreation Center is Teton County's largest energy user. Beginning in 2012 a multiphase project began at the Recreation Center, it included installation of a Solar Thermal System and additional small high efficiency boilers. The solar thermal system was operational in December of 2012 but due to a problem went offline for 8 months beginning in November 2013. The system came back on line in August of 2014 and has been working well since. I have been coordinating with Rick Smith, the facility manager, Lower Valley and Bonneville Power to have additional data loggers installed so we can gather more detailed information the solar thermal system. With an expansion and renovation design being planned for this facility, including additional pools, we can expect this facility to remain as Teton County's largest energy user and can expect the amount of energy to increase in the future.

Annual Energy Mix	Annual Expenditure	Annual Emissions
Electricity 26%	Electricity: \$55,993	Electricity 40 tons
Natural Gas 74%	Natural Gas: \$138,108	Natural Gas: 555 tons
	<i>Total \$194,101</i>	<i>Total: 595 tons</i>

Annual Energy Use

Compared to the same period in FY2014 energy use increased 3%

Compared to the same period in FY2006 top ten natural gas use Increased by 2%

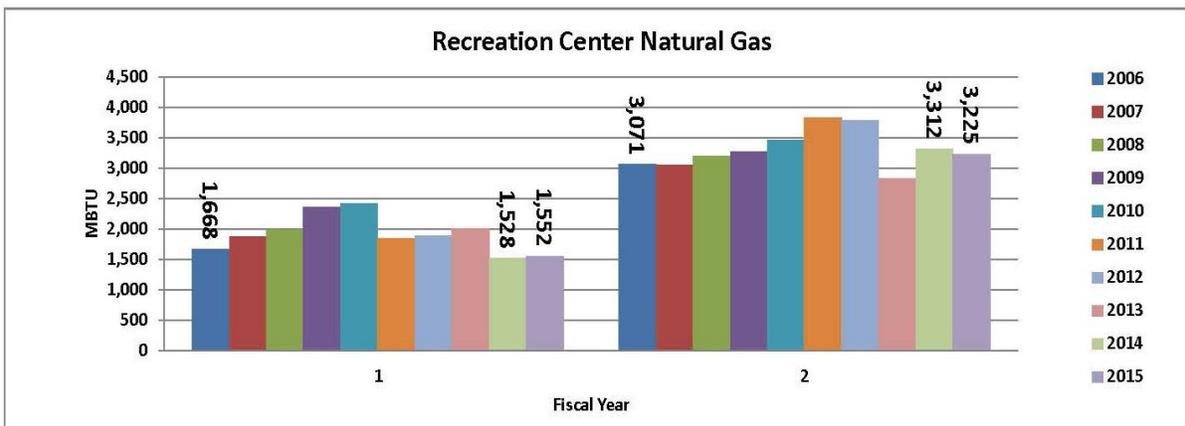
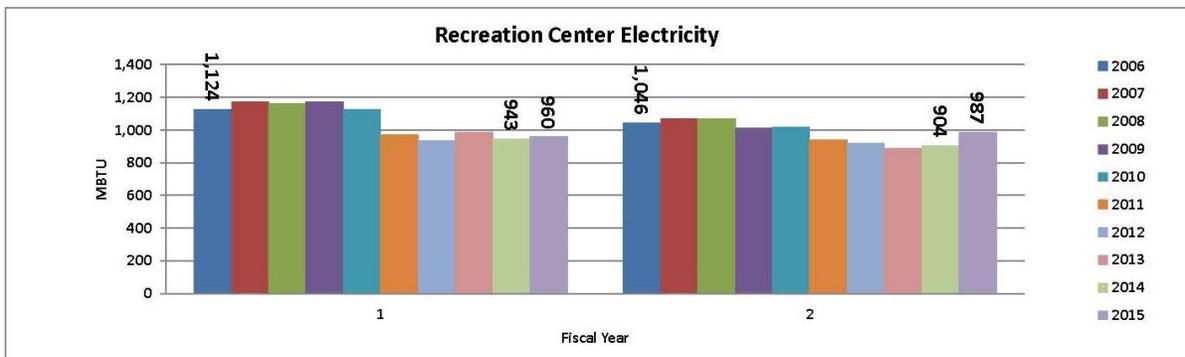
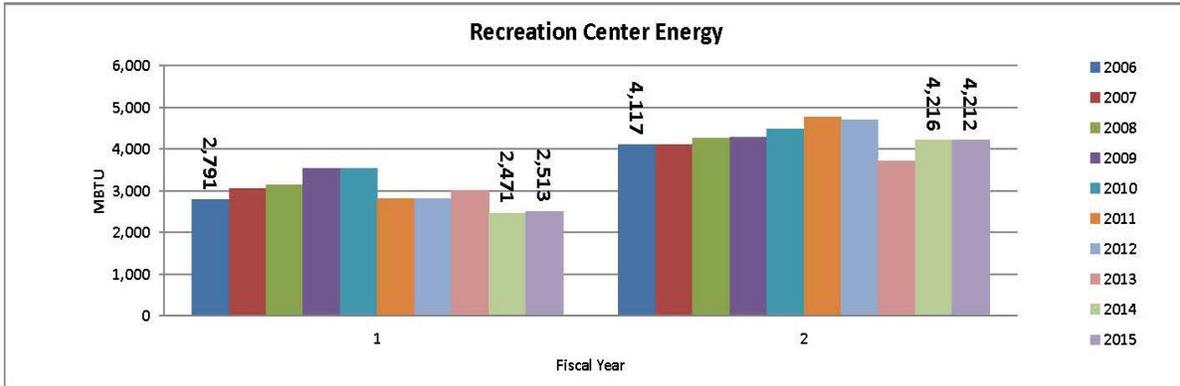


Energy Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 top ten natural gas use increased by 2%
 Compared to the same period in FY2006 top ten natural gas use decreased by 10%

Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 energy use was flat
 Compared to the same period in FY2006 top ten natural gas use increased by 2.3%



2. COURT HOUSE

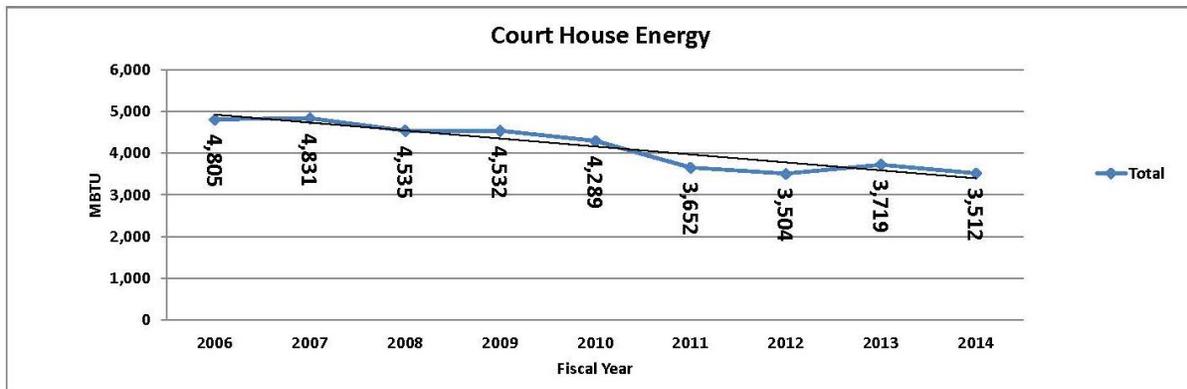
There have been a number of efficiency projects completed at the Court house including insulation upgrades, caulking and sealing, HVAC controls and new high efficiency boilers in 2014.

Annual Energy Mix	Annual Expenditure	Annual Emissions
Electricity 44%	Electricity: \$24,915	Electricity 17 tons
Natural Gas 55%	Natural Gas: \$25,766	Natural Gas: 107 tons
	<i>Total \$50,681</i>	<i>Total: 125 tons</i>

Annual Energy

Compared to the same period in FY2014 energy use decreased by 5%

Compared to FY2006 energy use decreased by 27%



Energy Use by Quarter - FY 2015 Quarter 1

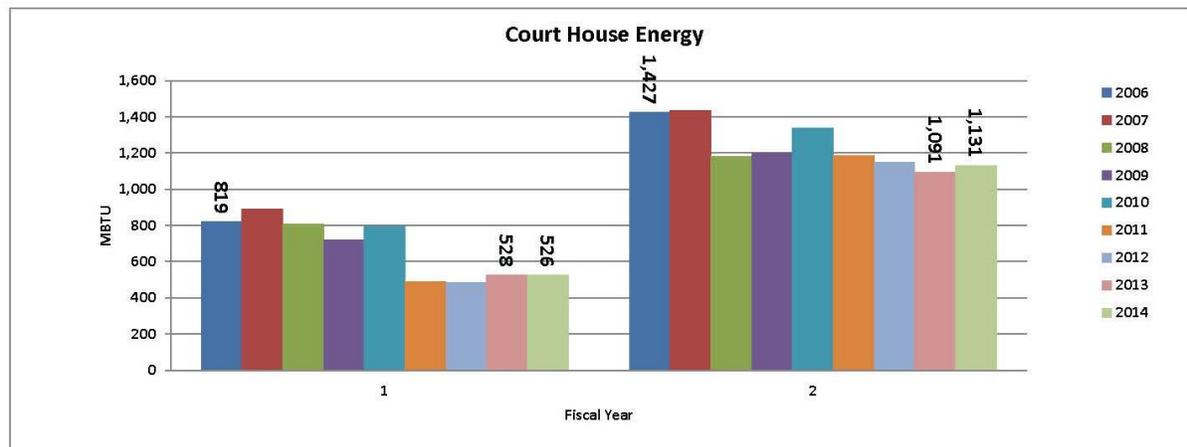
Compared to the same period in FY2014 energy use was flat

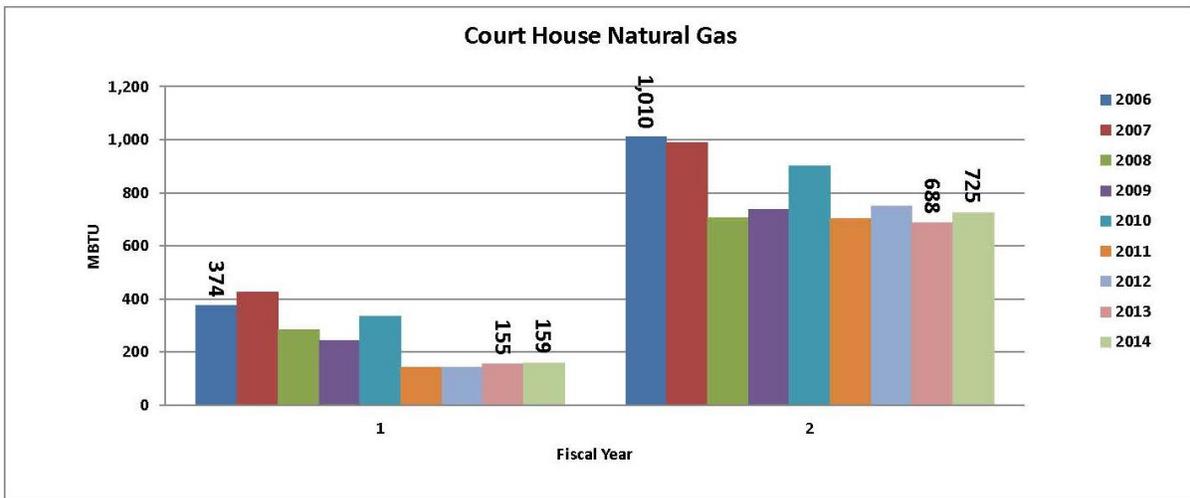
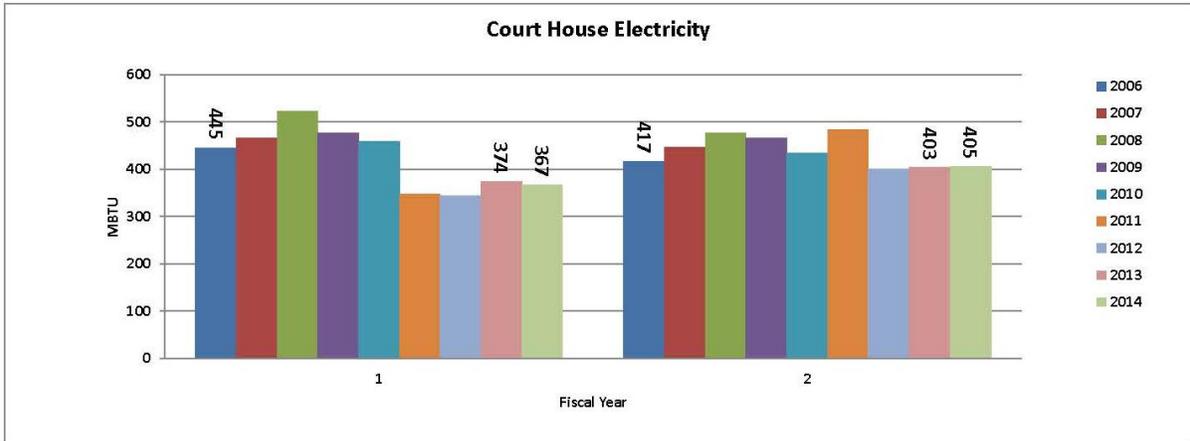
Compared to the same period in FY2006 energy use decreased 36%

Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten energy use increased 3.7%

Compared to the same period in FY2006 top ten energy use 20%





3. LIBRARY ANNUAL

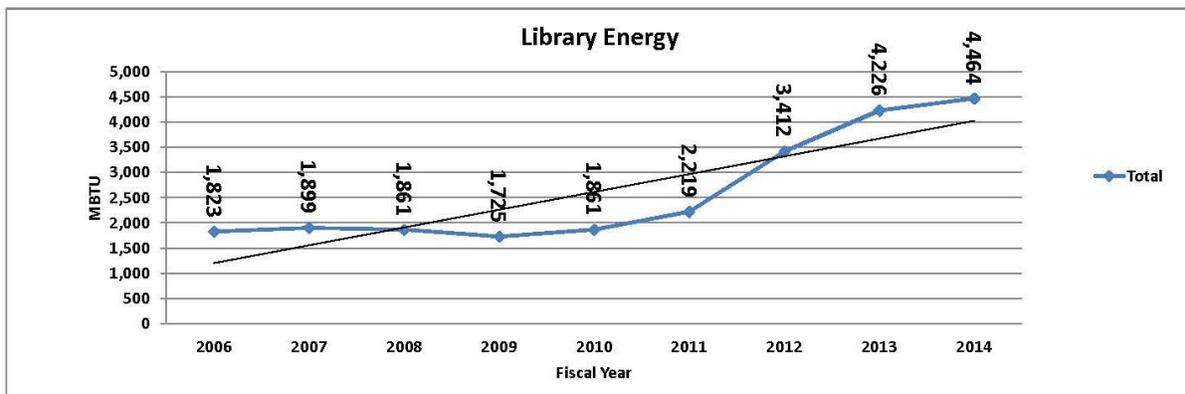
An 11,000 square foot addition and total renovation was completed at the Library in early 2013. The new facility is a LEED Gold Certified facility and includes a grid tied solar electric system on the roof. Now that the construction phase is completed we are starting to see what the new annual energy use will be for this facility.

Annual Energy Mix	Annual Expenditure	Annual Emissions
Electricity 66%	Electricity: \$22,629	Electricity 29 tons
Natural Gas 34%	Natural Gas: \$19,288	Natural Gas: 72 tons
	<i>Total \$41,917</i>	<i>Total: 101 tons</i>

Annual Energy

Compared to the same period in FY2014 energy use increased by 6 %

Compared to the same period in FY2006 energy use increased by 160%



Energy Use by Quarter - FY 2015 Quarter 1

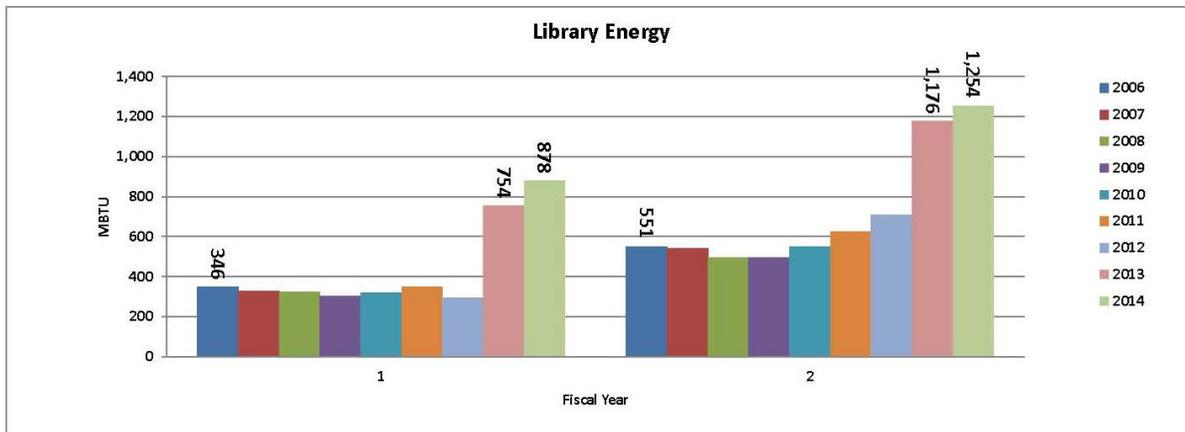
Compared to the same period in FY2014 energy use decreased 0.4%

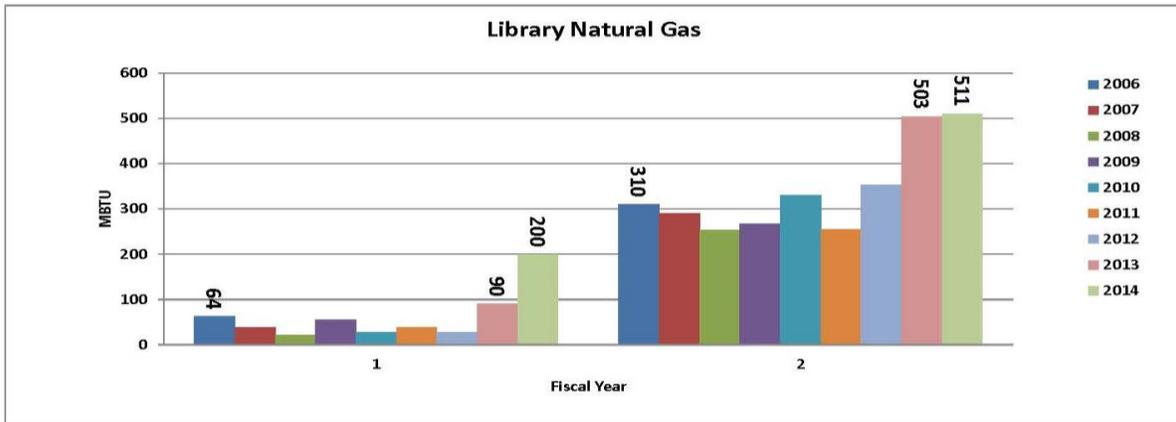
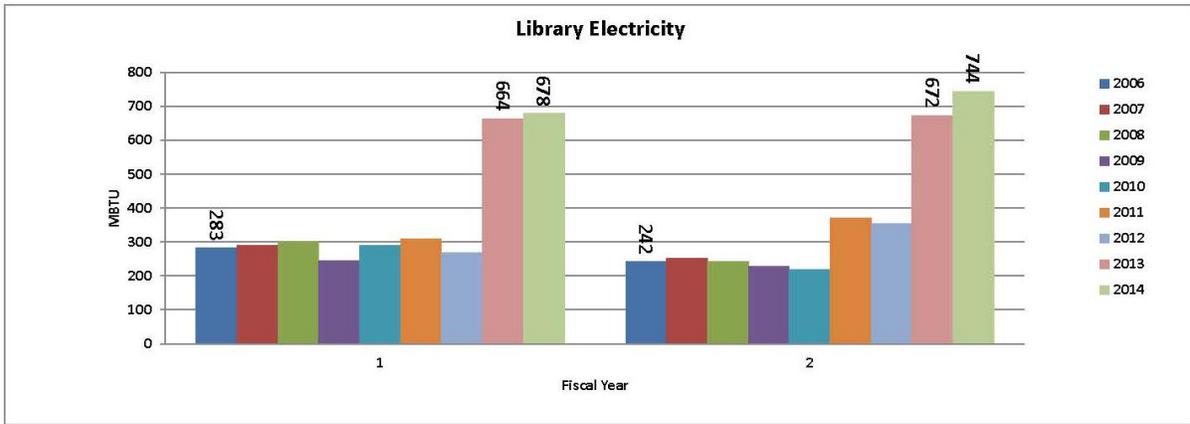
Compared to the same period in FY2006 energy use decreased 36%

Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten energy use increased 103%

Compared to the same period in FY2006 top ten energy use 20%





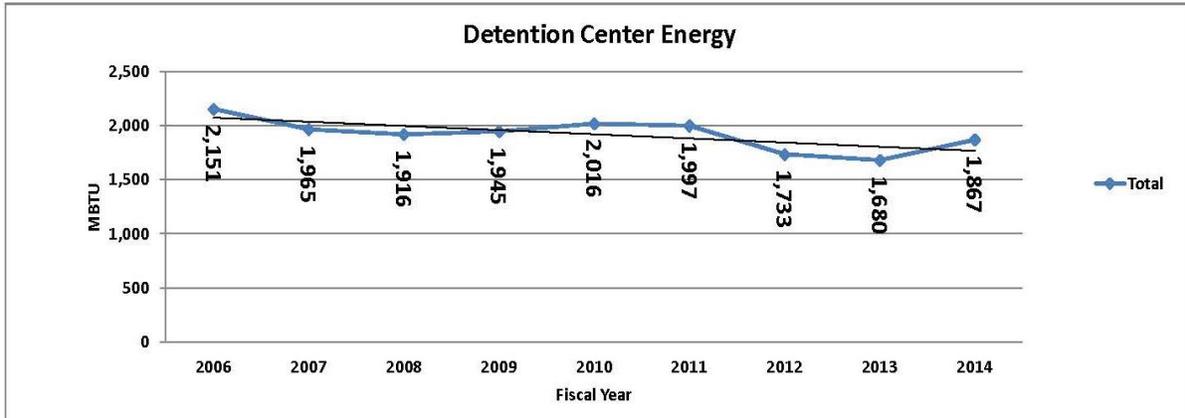
4. DENTENTION CENTER

Energy efficiency projects completed at the jail include replacing the existing HVAC equipment with an energy efficient furnace and controls in 2012 and then an exterior LED retrofit in 2013. This facility will get a complete interior LED lighting retrofit in the next year which should reduce its electrical demand by 29%

Annual Energy Mix	Annual Expenditure	Annual Emissions
Electricity 95%	Electricity: \$29,711	Electricity 19 tons
Natural Gas 5%	Natural Gas: \$1,460	Natural Gas: 5 tons
	<i>Total \$31,171</i>	<i>Total: 24 tons</i>

Annual Energy

Compared to the same period in FY2014 energy use increased by 11%
 Compared to the same period in FY2006 energy use decreased by 13%

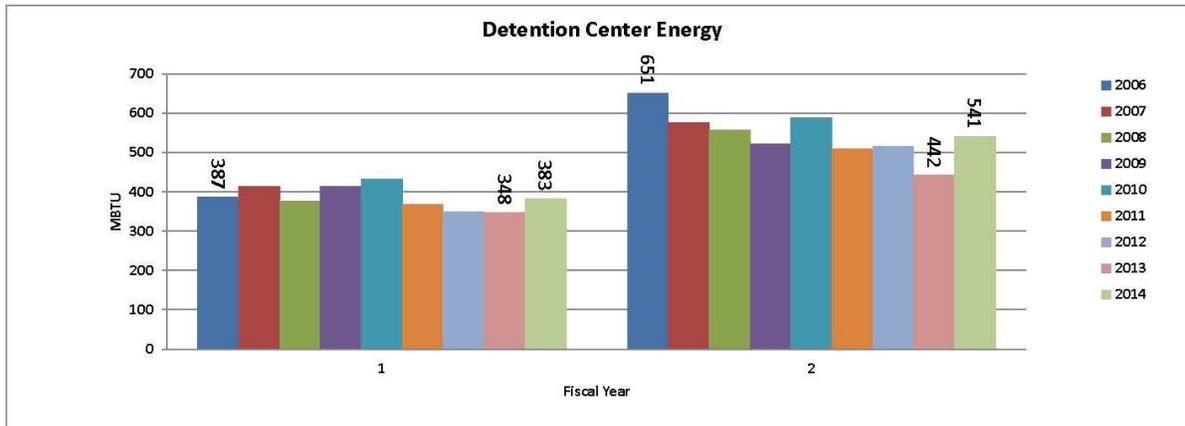


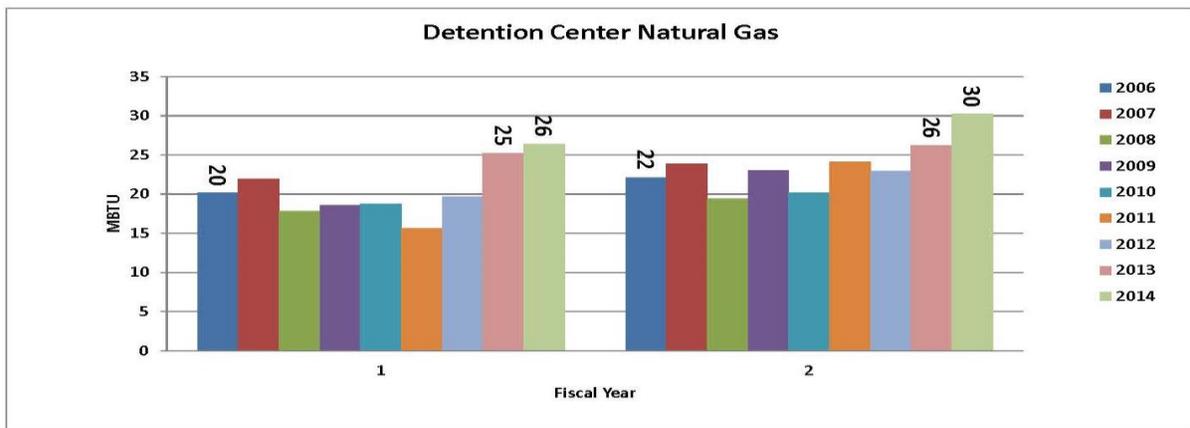
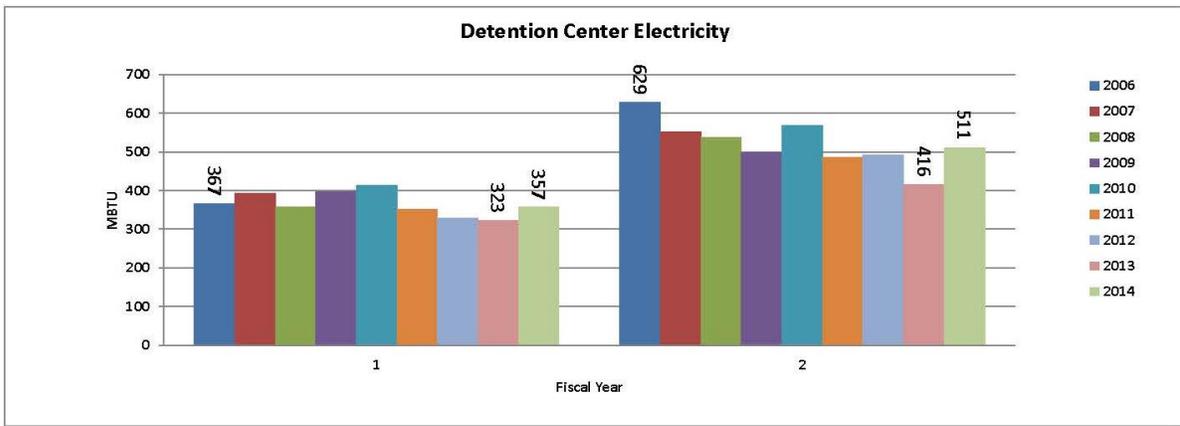
Energy Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 energy use increased 10%
 Compared to the same period in FY2006 energy use decreased 1%

Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten energy use increased 22%
 Compared to the same period in FY2006 top ten energy use decreased 17%





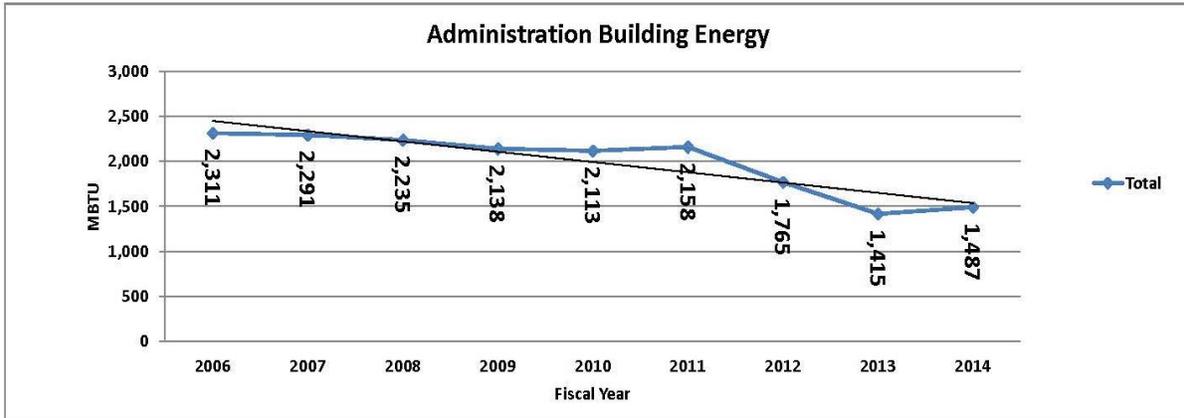
5. ADMINISTRATION BUILDING

The Administration Building is the County's largest office building. We have made multiple energy efficiency investments to the building. Some of these include installation of fluid cooling equipment, and efficient variable frequency drives for the heating system. This facility will get a complete interior LED lighting retrofit in FY 2016 which will reduce the electrical demand by another 14%

Annual Energy Mix	Annual Expenditure	Annual Emissions
Electricity 54%	Electricity: \$15,482	Electricity 10 tons
Natural Gas 46%	Natural Gas: \$10,460	Natural Gas: 40 tons
	<i>Total \$25,942</i>	<i>Total: 50 tons</i>

Annual Energy

Compared to the same period in FY2014 energy use increased by 5%
 Compared to the same period in FY2006 energy use decreased by 36%



Energy Use by Quarter - FY 2015 Quarter 1

Compared to the same period in FY2014 energy use Increased 12%
 Compared to the same period in FY2006 energy use decreased 40%

Energy Use by Quarter - FY 2015 Quarter 2

Compared to the same period in FY2014 top ten energy use increased 10%
 Compared to the same period in FY2006 top ten energy use decreased 33%

