

Energy Projects in Red Lodge
 City Council Update November 14, 2017
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Monitoring Initiatives:

Streetlight Retrofit Savings		
Cost Savings since Install	kWh Savings since Install	CO2 Savings since Install
\$828.54	7,012 kWh	4,668 lbs

Building Retrofit Savings			
kWh Savings in October	kWh Savings since Install	Cost Savings in October	Cost Savings since Install
504 kWh	3,696 kWh	-\$52.77	\$532.26

Electric Vehicle Charging Station			
Total Charging Cost	Miles Charged since July	Total Miles Charged	Year to date CO2 Savings
\$413.77	1,968 miles	5,100 miles	98,605 grams

- Two LED Bulbs burnt out on Broadway, four free bulbs have been sent to the City and will be installed
- Kiosk at the EV Charging Station has not come in yet, but should be sent to us soon

City of Red Lodge Baseline Assessment:

- Core Findings:
 - City government energy use resulted in net annual emissions of 1,910 mtCO2e and cost \$201,227 in total (Table 1).
 - 60% of total emissions and energy use are attributed to Buildings & Facilities (Table 2).
 - Over half of energy costs come from consumption of energy in Water Treatment, which encompasses wastewater treatment, water treatment, and pumps and pumping stations (Table 2).
 - City Hall, the Public Works Shop, and the Library, represent the greatest opportunity for cost and carbon savings (Table 3).
 - Streetlight costs are disproportionately high when compared with actual energy usage (Table 5).
- Next step is to form a taskforce and write up reduction goals, which will eventually be incorporated into the City Growth Plan
- Assessment will be available to the public on the City of Red Lodge EnergyCorps page

Streetlight Buy-Back:

- Met from NWE on 10/31 about buying back our 24 decorative streetlights on Broadway
- No offer was made but an offer should come in before January 1
- The lights could be given to us for free or cost us up to \$58,000

- Cost-Benefit Analysis is being done to look at the financial feasibility of buying back and retrofitting the 24 lights

Library Solar Array:

- Project to install a solar array on the Carnegie Library is in the works
- Professional Solar Production Analysis has been done and a Structural Engineer is coming in to calculate the load bearing capacity of the roof
- Grant opportunity has been identified, will work with the Library on this application as the project progresses
- The system would save the Library \$2,433 annually

Wastewater Treatment Plant:

WWTP Production Update -- October 2016 to October 2017			
Hours of operation for October-October	Solar Array kWh	Total kWh Produced	Total kWh per month
1618 hours	48.75	78,877 kWh	6,067 kWh/month
* 212 winter days, 3.3 hrs of sun per day		* 918 summer days, 6.12 hrs of sun per day	

- Last solar production analysis was done in September of 2016
- Current production figures are better than before and have increased by 272.5 kWh per month
- Rebate for the 2 new Variable Frequency Drives has been sent off, should receive a rebate of \$5,000 by the end of the month

Green Team:

- Working with the Green Team to create a Bike Share program in town
- Looking into the feasibility of glass recycling

Recycling:

- Writing an article for the paper to increase awareness of Single-Stream Recycling
- Will revisit composting in the spring

The Mountain Pact:

- Provides information on federal environmental and public lands policies that are relevant to mountain communities