

# City of Red Lodge Energy Projects

Council Update, 12/13/16

Katelynn Essig, Montana Energy Corps Member, City Sustainability Coordinator

## LED Building Retrofit

- Completed retrofit analysis for City Hall, Police Station, and Public Works Shop
- There are three options with varying payback options. I suggest replacing the lights in all three buildings at the same time; costs higher but maintenance is lower
- Combo Estimated cost: \$12,677 with a payback period of 8.87
- Monthly costs will decrease from \$410.82 to \$291.77; an average savings of \$1,428.60
- There is a new rebate program from NWE that will give us significant savings on the project: rebate could drop payback down to 6 years
- Recommend the Council to budget \$13,000 for the project

<b>Combo Replacement:</b>	\$9,722	Pre Avg kWh:	\$3,574	Pre Avg Cost:	\$411
Installation Estimate*	\$2,955	Post Avg kWh:	\$1,523	Post Avg Cost:	\$292
<b>Project Cost Total:</b>	<b>\$12,677</b>	<b>Avg kWh Save:</b>	<b>\$2,051</b>	<b>Avg \$ Savings:</b>	<b>\$119</b>
<b>Avg Yearly Savings: \$1,429</b>					
<b>Pay Back Estimate: 8.87 Years</b>					

## Streetlights

- Reached out to Public Service Commission to discuss the current streetlight case
  - Original case filed by Russ Doty for Billings residents in 2010 claimed Northwestern Energy overcharged consumers of street lighting services
  - There was a lot of data collected and presented for Billings as a whole but the City never legally became a part
  - Currently, the PSC has settled the case and is looking at whether or not the streetlight tariff is set at an appropriate rate
- The City has options to legally intervene in this process but would need to be done by the City's civil attorney
- LED Streetlight Retrofit (8<sup>th</sup>-3<sup>rd</sup> St.) Management Plan completed; monitoring process using Google Sheets nearly complete

## Recycling

- Advising new City Recycling board:
  - Three meetings; Republic Services has attended two
  - Goal: Figure out the best way to manage recycling in the City
- Electronic recycling will be included in this process

### **High School Green Team**

- Assisted the 3 seniors completing an independent study in researching the potential impacts and benefits of installing a wind turbine
  - From visual-spatial analysis to marketing for votes, the seniors did an incredible job on this project
  - Farmer's Insurance informed Kate they did not get the grant; a management plan is being created and more grant opportunities are in the pipeline
- Working to increase recycling in the schools and completed energy audit

### **Electric Vehicle Charging Stations**

- Management Plan completed
  - Binder with plan, manuals, receipts, and monitoring will be compiled
- Monitoring process using Google Sheets will track the usage of the charging stations - nearly complete
- Still have not communicated with Yellowstone Teton Clean Cities to get a counter
- Charging stations are being marketed by Chamber of Commerce
  - Will be in the 2017 Red Lodge magazine and on the front page of Redlodge.com
  - Will look into other communities our size to see what they have done to promote their charging stations

### **Greenhouse Gas Inventory**

- Data gathering completed – Wastewater data, gasoline and diesel purchase, kWh used, etc.
- Complete City operations inventory and full written document analysis

### **Energy Conservation Plan**

- Energy Audits for Wastewater and Water Treatment plants are completed
  - 2 main recommendations were LED retrofits and wall insulation for physical structure
  - Rebates available to install Variable Frequency Drivers on motors from NWE

### **Solar Panel Analysis for City Buildings**

- Complete full written analysis
- Research financing mechanisms, including grant opportunities and tax incentives