

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

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

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 (8th-3rd 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