



Your Energy Assessment Report

Community-Based Small Business Program

Lori Johnson, City of Carlos Shop/Office
107 1ST ST W, CARLOS, MN 56319
Account No. 1004911

Prepared By:
Brian Wimmer
bwimmer@franklinenergy.com
507-273-3217
5/13/2021

Overview

This report is designed to help you achieve energy savings by implementing energy-efficient upgrades to your facility. Investing in your business through energy improvements can help you reduce your operating costs and improve your bottom line.



To assist in your energy-saving journey, the attached assessment report includes:

- Recommendations on opportunities to save energy.
 - A summary of estimated energy and cost savings.
 - Estimated incentives available from Otter Tail Power Company
-

If the proposed recommendations are fully implemented they may result in:

Energy Incentives	Approximate Customer Investment	Approx 5 Year Energy Savings
\$896	\$1,730	\$3,078

We appreciate your participation in the Otter Tail Power Small Business Program.

If you have questions, please feel free to contact me at 507-273-3217 or bwimmer@franklinenergy.com.

Sincerely,

Brian Wimmer
Franklin Energy
Otter Tail Power Community-Based Small Business Program

Your System Analysis

The visual below summarizes our assessment of the general condition of each energy-using system in your building at the time of our visit. Please consult a professional contractor where action is needed.

Property/Business Name

City of Carlos
Shop/Office

System	Description	System Status
1 Heating	Analysis includes a visual inspection of heating system(s) used to heat the facility.	Excellent
2 Cooling	Analysis includes a visual inspection of system(s) used to cool the facility.	Fair
3 Domestic Hot Water	Analysis includes a visual inspection of water heating equipment used in the facility.	Fair
4 Lighting	Analysis includes a visual inspection of the lighting equipment observed indoors and out.	*Action Needed

*Efficiency improvements recommended.

Recommendations

The following is a list of customized energy-saving opportunities we identified for your property with corresponding incentives from Otter Tail Power Company. All figures are estimates based on typical annual usage and costs, as well as our observations of end use equipment in your facility at the time of our assessment. These estimates are intended to help you prioritize which projects to pursue first. The next step is to get bids from local contractors, where applicable. We recommend getting multiple bids for those opportunities that require greater upfront investment.

Replace 4' 32W T8 lamps with Type B TLED	Est. annual savings \$202.08
This method of converting your fluorescent fixture to LED requires an electrician to remove or bypass the ballast for the new LED lamps to work. Benefits of Type B LED T8 lamps include greater efficiency than plug-and-play lamps and avoided future ballast maintenance. This is the preferred method of retrofit if you have old or incompatible ballasts that are frequently requiring replacement. Once this retrofit is performed, fluorescent T8 lamps will no longer work inside the fixtures.	Est. Total Cost \$800.16 Estimated Payback 1.4 years Est. Rebate \$518.40 Quantity 48
Replace 150W HID wall pack with LED	Est. annual savings \$212
The exterior security lighting is done with wall pack HID lamps and magnetic ballasts. Installing a new LED fixture will reduce energy consumption 60% -70% while providing similar light levels for security. Some wall pack LED light fixtures, known as full-cutoff, shine the light down to increase the light levels where it is needed versus flooding the area (and potentially bothering your neighbors). LEDs also have a longer life which saves on bulb replacement maintenance costs.	Est. Total Cost \$600 Estimated Payback 1.9 years Est. Rebate \$193.60 Quantity 4
Replace 250W HID wall pack with LED	Est. annual savings \$201.48
The exterior security lighting is done with wall pack HID lamps and magnetic ballasts. Installing a new LED fixture will reduce energy consumption 60% -70% while providing similar light levels for security. Some wall pack LED light fixtures, known as full-cutoff, shine the light down to increase the light levels where it is needed versus flooding the area (and potentially bothering your neighbors). LEDs also have a longer life which saves on bulb replacement maintenance costs.	Est. Total Cost \$330 Estimated Payback 0.7 year Est. Rebate \$184.00 Quantity 2

Free Upgrades Received Today

The following products were installed and/or provided free of charge on behalf of Otter Tail Power Company to help you start saving immediately. The annual savings figures are estimates based on typical usage patterns, baseline equipment and electric rates.

Install Value	Qty.	Item	Annual Savings*
\$48.00	4	LED tube, 12W, 4000K, Type A (Direct Replacement)	\$24.92

Annual Electric Savings:
249 kWh (kilowatt hours)

Total Estimated
Annual Energy
Savings:

\$25

* Savings based on typical usage

Next Steps

You have taken the first step towards greater energy efficiency in your business. Now make the opportunities described in this report a reality by following the graphic below.



3

Develop your projects.

When ready, contact your energy professional for additional advice and help developing and reviewing proposals.

2

See what measures fit your budget.

Use this report to set target dates for items from your investment opportunities.

1

Review your opportunities.

Follow up with your energy professional with any questions you may have.