



AGENDA ITEM
Solar Project Update
 April 28, 2022

BACKGROUND

In June 2021, a 115 kWDC solar PV system was installed on the roof of the County Shop. The system includes 288 solar modules, two inverters, and 144 optimizers. The system has been estimated to produce 122,100 kWh/year of electricity in its first year of operation.

ANALYSIS

The following table shows the estimated production of solar energy versus the actual system production from January through March 2022, as predicted by the system installer. During this period, production has been below estimated production levels. This is due to overcast weather conditions in conjunction with limited daylight hours over the winter months.

Month	Estimated Production (kWh)	Actual Production (kWh)
January	2,297	2,614
February	7,521	2,775
March	11,763	9,223

The following table shows the shop’s power usage from the grid, the total power usage of the shop, and solar power usage by the shop expressed as a percentage. Increased utility consumption over the winter by the shop compounded with limited daylight has influenced the usage of solar power by the shop. As daylight hours increase, the shop’s solar power consumption will also increase through the spring and summer months.

Month	Power Usage from Grid (kWh)	Total Power Usage (kWh)	Solar Power Percentage
January	50,082	52,696	4.96%
February	44,097	46,872	6.29%
March	37,600	46,823	19.69%

To date, the system has produced 106,400 kWh, which equates to a CO² emission reduction of 41.7 T or the planting of 1,245 trees.



BUDGET IMPLICATIONS

The energy produced by the system resulted in a savings of \$2,013.16 from January through March based on the electricity charges for the County Shop.

LEGISLATIVE RESPONSIBILITIES

Section 3 of the Municipal Government Act (MGA) states the purposes of a municipality are:

- a) to provide good government,
- b) to provide services, facilities, or other things that, in the opinion of council, are necessary or desirable for all or part of the municipality, and
- c) to develop and maintain safe and viable communities

RECOMMENDATION

That Council receive the Solar Project Update as information.

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