



## AGENDA ITEM

### Solar Project Update

October 14, 2021

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#### BACKGROUND

In June 2021, SkyFire Energy completed the installation of a 115 kWDC solar PV system on the roof of the Lacombe County shop building. This system includes 288 solar modules, two inverters, and 144 optimizers. The system is conservatively estimated to produce 122,100 kWh/year of electricity in year one.

#### ANALYSIS

The following table shows the estimated production of solar energy versus the actual system production from June to September. Each month the actual production exceeded the estimated production.

Month	Estimated Production (kWh)	Actual Production (kWh)
June	15,109	15,940
July	14,989	17,660
August	13,033	15,010
September	12,097	12,200

The following table shows the average monthly electricity usage of the shop before the installation of the solar system, the actual monthly electricity usage after the installation, and the percent difference between the two. The decreased electricity usage is a direct reflection of the solar energy produced by the system.



Month	Average Monthly Usage before Solar Installation (kWh)	2021 Actual Usage with Solar Installation (kWh)	Decrease in Electricity Usage
June	20,425	18,130	11.24%
July	23,254	15,822	31.96%
Aug	21,458	10,765	49.83%

To date, the system has produced 71,460 kWh, which equates to a CO<sup>2</sup> emission reduction of 28.01 T or the planting of 836 trees.

### **BUDGET IMPLICATIONS**

A \$3,773.09 cost savings have been seen based on the rate of 0.0528 per produced kWh. 12 months of data is required to analyze distribution savings.

### **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

### **STRATEGIC PLAN**

The following elements of the County's Strategic Plan are relevant to this issue:

Strategy 2: Environment

- a) Protect the Environment



**PUBLIC PARTICIPATION**

Pursuant to *Policy AD(40): Public Participation Policy* the appropriate level of engagement for each public participation opportunity is selected on a project-to-project basis. For this item the following engagement will take place:

- *Inform:* To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.

Highlights of all County Council meetings are published on the County Website and in the County News.

**RECOMMENDATION**

That Council receives this Solar Update as information.

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**PREPARED BY:** Jennifer Berry, Environmental Coordinator

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**REVIEWED BY:** Keith Boras, Director of Community Services

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**REVIEWED BY:** Tim Timmons, County Manager

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