

**To: HONORABLE MAYOR AND CITY COUNCIL.**

**FROM: Dave Maroney, City Administrator.**

**SUBJECT: Presentation – Community Solar Gardens.**

**DATE: September 11, 2019.**

**BACKGROUND.**

Patrick Wier representing *Innovative Power Systems* has requested time to present information to the City Council illustrating how Cannon Falls is able to reduce our cost of electricity through the Minnesota Solar Garden Program.

**REQUESTED COUNCIL ACTION.**

Mr. Wier will provide a power point presentation and answer any questions that you may have. A number of other companies have also expressed interest in presenting information to the City of Cannon Falls (and the Public Works Commission) but we will begin consideration of these opportunities with *Innovative Power Systems*.

# Community Solar Gardens Subscription



Innovative Power Systems

Local solar since 1991.

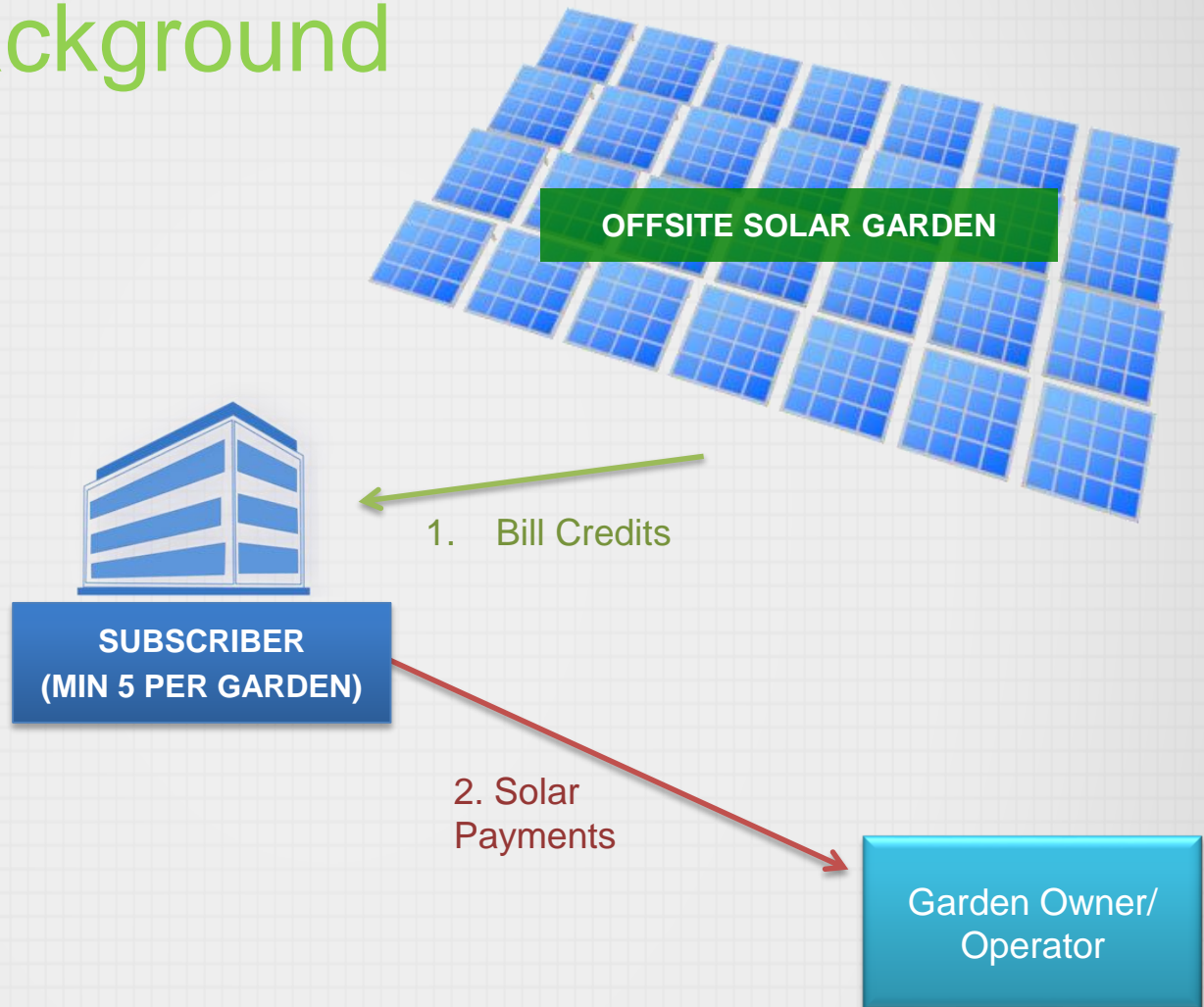


# COMMUNITY SOLAR GARDENS: Program Background

## CSG BACKGROUND

In 2013 the Minnesota legislature passed the Solar Jobs Act and with it a new community-based program that allows homeowners, municipalities, and organizations to join a centrally located solar array in their neighborhood.

Each month subscribers earn Xcel bill credits based on a share of the solar array's performance. In return, the garden owner charges a set percentage of the bill credit for that benefit. An organization's subscription can equal up to 120% of their past 12-month usage.



# Cannon Falls subscription sites:

Goodhue County:

- Siems Farm
- Luhman Farm

Olmstead County:

- Tweite Farm

Rice County:

- Praver Farm

Dakota County:

- 4 properties applied with Xcel Energy



# IPS COMMUNITY SOLAR GARDENS:

Subscribers – over 400

**St. Cloud School District**

**Red Wing School District**

**Forest Lake School District**

**Annandale School District**

**City of Minnetonka**

**Paynesville School District**

**Lester Prairie School District**

**City of Red Wing**

**Belgrade Brooten Schools**

**Hormel**

**City of Zumbrota**

**Columbia Heights School District**

**Goodhue County Education District**

**Holdingford School District**

**Lester Prairie School District**

**Chisago Lakes School District**

**Trinity School/ People of Praise**

**Zumbrota-Mazeppa School District**

**City of Maple Grove**

**City of Cosmos**

**City of lake Lillian**



# Community Solar **fixed** Cashflow- Value of Solar

## Model Inputs

PPA Rate:	\$ 0.0906	Total Subscription (kWh):	2,400,000
Guaranteed Discount	\$ 0.007	Term (Years:)	25
Bill Credit	\$ 0.0976	Degradation Factor:	0.25%
Bill Credit Escalator**:	2.27%		
Total Bill Credit (Year 1)	\$ 0.0976		

Year	Total kWh	Bill Credit*	PPA Rate	Bill Savings= kWh x Bill Credit	Solar Payments= PPA x kWh	Annual Savings	Cumulative Savings
Year 1	2,400,000	\$0.0976	\$0.0906	\$234,240	\$217,440	\$16,800	\$16,800
Year 2	2,394,000	\$0.0998	\$0.0928	\$238,958	\$222,200	\$16,758	\$33,558
Year 3	2,388,015	\$0.1021	\$0.0951	\$243,772	\$227,056	\$16,716	\$50,274
Year 4	2,382,045	\$0.1044	\$0.0974	\$248,682	\$232,008	\$16,674	\$66,948
Year 5	2,376,090	\$0.1068	\$0.0998	\$253,691	\$237,059	\$16,633	\$83,581
Year 6	2,370,150	\$0.1092	\$0.1022	\$258,802	\$242,210	\$16,591	\$100,172
Year 7	2,364,224	\$0.1117	\$0.1047	\$264,015	\$247,465	\$16,550	\$116,722
Year 8	2,358,314	\$0.1142	\$0.1072	\$269,333	\$252,825	\$16,508	\$133,230
Year 9	2,352,418	\$0.1168	\$0.1098	\$274,758	\$258,291	\$16,467	\$149,697
Year 10	2,346,537	\$0.1194	\$0.1124	\$280,293	\$263,867	\$16,426	\$166,123
Year 11	2,340,671	\$0.1222	\$0.1152	\$285,939	\$269,554	\$16,385	\$182,507
Year 12	2,334,819	\$0.1249	\$0.1179	\$291,698	\$275,355	\$16,344	\$198,851
Year 13	2,328,982	\$0.1278	\$0.1208	\$297,574	\$281,271	\$16,303	\$215,154
Year 14	2,323,159	\$0.1307	\$0.1237	\$303,568	\$287,306	\$16,262	\$231,416
Year 15	2,317,351	\$0.1336	\$0.1266	\$309,683	\$293,461	\$16,221	\$247,637
Year 16	2,311,558	\$0.1367	\$0.1297	\$315,921	\$299,740	\$16,181	\$263,818
Year 17	2,305,779	\$0.1398	\$0.1328	\$322,285	\$306,144	\$16,140	\$279,959
Year 18	2,300,015	\$0.1429	\$0.1359	\$328,777	\$312,676	\$16,100	\$296,059
Year 19	2,294,265	\$0.1462	\$0.1392	\$335,399	\$319,339	\$16,060	\$312,119
Year 20	2,288,529	\$0.1495	\$0.1425	\$342,155	\$326,135	\$16,020	\$328,138
Year 21	2,282,808	\$0.1529	\$0.1459	\$349,047	\$333,068	\$15,980	\$344,118
Year 22	2,277,101	\$0.1564	\$0.1494	\$356,078	\$340,139	\$15,940	\$360,058
Year 23	2,271,408	\$0.1599	\$0.1529	\$363,251	\$347,351	\$15,900	\$375,958
Year 24	2,265,729	\$0.1636	\$0.1566	\$370,568	\$354,708	\$15,860	\$391,818
Year 25	2,260,065	\$0.1673	\$0.1603	\$378,032	\$362,212	\$15,820	\$407,638

\*\* Bill credit escalator is locked in by Xcel Energy for 25 years

# Risk to Cannon Falls

- **25 year contract**
- **But, 2 year out of contract with 90 day notice:**
  - e. Subscriber is moving from the premises associated with the Utility Account, following at least ninety (90) days' prior notice thereof to Operator. In such case, Subscriber shall assist Operator in negotiating the assumption of this Agreement by the new occupant of the premises. In any event, Subscriber shall remain responsible for paying for the Subscription until the earlier of (a) Operator securing a replacement subscriber for the Subscription or (b) the date falling two years from the date on which Operator receives notice of termination under this paragraph 2.4.e.





[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

**OTHER RECURRING CHARGES DETAILS**

DESCRIPTION	CHARGE
Solar*Rewards Community Solar Production Credit Solar Production Period	March 2017
SRC039467 REC credit >250kW 59240 kWh x -0.117400	- \$6,954.78 <b>CR</b>
SRC040718 REC credit >250kW 33550.49 kWh x -0.117400	- \$3,938.83 <b>CR</b>
SRC040841 REC credit >250kW 12231.77 kWh x -0.117400	- \$1,436.01 <b>CR</b>
<b>Total</b>	<b>- \$12,329.62 CR</b>

**Premises Total** **\$138.95**

DAILY AVERAGES	Last Year	This Year
Temperature	42° F	37° F
Electricity kWh	4896.9	4601.8
Electricity Cost	\$470.15	\$0.74

**INFORMATION ABOUT YOUR BILL**

For an average non-demand customer, 72% of your bill refers to power plant costs, 12% to high voltage line costs, and 16% to the cost of local wires connected to your business. For an average demand-billed customer, 81% of your total bill refers to power plant costs, 12% to high voltage lines, and 7% to the cost of local wires connected to your business.



# Easy way to start spring cleaning

## Enroll in eBill now through My Account

By signing up for eBill, not only will you avoid the paper clutter, you can also:

- Receive text or email payment notifications
- View your online bill history
- Utilize online payment options

And you won't miss giving up your paper bill. To enroll in eBill go to [xcelenergy.com/MyAccount](http://xcelenergy.com/MyAccount). Enroll today!

To find more billing and payment options visit [xcelenergy.com/MyAccount](http://xcelenergy.com/MyAccount).