



Community Solar Garden Proposal



a subsidiary of



Executive Summary

- ❑ In 2013, Minnesota legislation directed Minneapolis-based utility, Xcel Energy, to create a program for community solar gardens (“CSGs”). Approved community solar gardens sell electricity to Xcel in exchange for bill credits that can be used by Xcel Energy customers to offset their electricity costs.
 - Under the program Xcel Energy remains the City of Northfield’s (“Northfield”) electricity provider
 - Instead of paying Xcel Energy directly Northfield will purchase bill credits from MN Community Solar
 - Bill credits are sold at a discount, creating savings for you
 - **\$0 upfront cost, no upfront investment is required and no upfront fees are charged**
 - The CSG will not be located on your premises and you will not take any risk on the CSG electricity production, you will only pay for bill credits you actually receive
- ❑ Minnesota Community Solar (“MNCS”) is proposing three custom subscription options: a fixed rate option, a floating rate option and a flat rate option.
- ❑ **With a subscription of 1,500kW (1,912,500kWh) Northfield’s estimated savings over the course of 25 years for the fixed rate option is \$1,202,568, \$450,508 for our floating rate option and \$2,313,048 for our flat rate option.**
- ❑ Under the fixed rate option the subscription rate will begin at one and a half cents below the enhanced applicable retail rate (“ARR”) and increase at 2% per year. Under the floating rate option the subscription rate will begin and remain one cent below the ARR. Our flat rate option begins one cent below the ARR in year one with no future escalator.
- ❑ Minnesota Community Solar and Novel Energy Solutions (“NES”) are locally owned leaders in the Minnesota solar market, having constructed over 85 projects, including the first four CSGs to be completed under Xcel’s program.

Subscription Opportunity

Subscription Pricing

- ❑ **Opportunity to fix future energy costs for 25 years at one low monthly rate**
 - Under the Fixed Rate option: the subscription rate starts at one and a half cents off the enhanced applicable retail rate and increases at a fixed rate of 2.0% each year. Savings are anticipated to grow as Xcel's energy rates have increased at a 3.3% rate over the last 15 years and for 2017 the Xcel rate increased 5.7%
 - Under the Floating Rate option: the subscription rate starts at one cent below the enhanced applicable retail rate and remains one cent below the enhanced applicable retail rate.
 - Billing is monthly with an annual true up so there is no risk associated with the performance of the solar garden. Northfield will only pay for electrical credits actually received
 - Under the Flat Rate option: the subscription rate starts at one cent below the enhanced applicable retail rate and remains this rate throughout the full term of the program.

Additional Benefits

- ❑ **Creates environmental marketing opportunities**
 - Northfield can switch to green energy AND lower electricity rates
 - Can be important marketing tool, now and particularly in the future as more pressure is put on cities for environmental leadership

Other Terms

- ❑ **Assignment and Termination**
 - Allows assignment of contract to new subscriber at limited, administrative charge
 - Lowered termination fees in the event of moving business and no termination fees if terminated due to MNCS fault

Flexibility

- ❑ **MNCS is open to discussing Northfield's needs and priorities and creating a custom subscription solution**

Our Strengths and Financing

❑ **Strengths or uniqueness to this opportunity**

- MN Community Solar is a locally- owned Minnesota-made company
- MNCS has offices in Rochester and St. Paul, MN
- MNCS built the first four community solar gardens in the Xcel Solar Rewards program
- We are partnered with Northfield Area Community Solar (“NACS”)
- NACS will be redistributing their commission from MNCS back into the Northfield community.
- MNCS is not only looking to subscribe the City of Northfield and local businesses but also residents with the help of NACS.
- This is only the beginning: as the benefits and reputation of community solar spread MNCS will continue to be based out of Minnesota, working with local communities to keep solar accessible and affordable.

❑ **A strong financial partner**

- Cypress Creek Renewables is a national provider of local solar with 5 gigawatts of local solar farms deployed or in development.
- Cypress Creek is one of the largest dedicated providers of solar farms with over \$2 billion invested in solar development throughout the U.S.
- Cypress is financing 5 of our utility-scale solar gardens this summer. They know solar and they thrive on supporting local businesses like MN Community Solar.

Termination and Transfer (Fixed Rate Option Example)

☐ Termination in Year 10 with subscription transfer available immediately

- Fee: \$5,000 transfer fee.

☐ Termination in Year 10 with 1 year of unassigned subscription

- Fee: \$2,465,187 fee to terminate (Net present value of remaining subscription)
- Returned Fee after 1 year of unassigned subscription: \$2,229,316
- Remaining Termination Cost: \$235,870

☐ Detail

- The Subscription payment to MNCS for year 10 would have been \$235,870. This cost covers the unassigned subscription during the time we work on reassignment (1 year, in this example). Should the reassignment period take less time the returned payment will be greater.

☐ We emphasize the transfer option. If enough notice is given a new subscriber can take on the subscription and Northfield will only be responsible for the transfer fee (\$5,000).

☐ Transfer Opportunities

- Rice County transfer eligibility: 5 counties are eligible for subscription in our Steele County garden. Interest in Applicable Retail Rate (“ARR”) gardens will grow as capacity for Value of Solar (“VOS”) gardens is limited. MN Community Solar is already accumulating a waitlist for surplus ARR subscriptions.

The Value of a Subscription

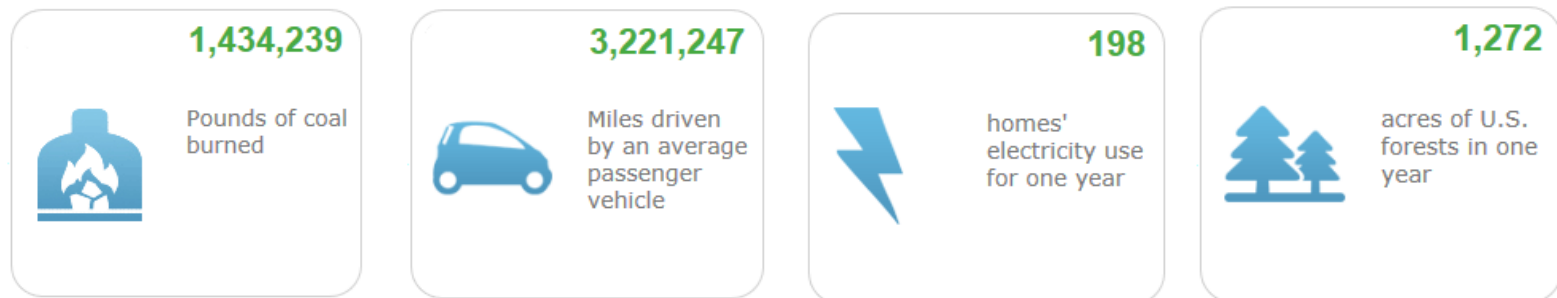
❑ Upcoming Legislative Changes Make a Subscription Now More Attractive

- Our Waseca garden is an Applicable Retail Rate garden.
- Starting in 2017 all gardens associated with the Solar Rewards program will be under the Value of Solar model.
- The VOS model and rate will be reassessed every year with Xcel and the Public Utilities Commission.

❑ Changing Solar Climate Example

- Recently the Made in Minnesota program, a state incentive for rooftop solar that made distributed solar more accessible to municipalities, was not renewed. Signing up for Solar Rewards is a strong statement that programs offering more accessibility to affordable solar is essential.

❑ A 1,500 kW subscription (1,912,500 kWh) in year 1 is the equivalent to:



Source: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Estimated Total Savings: Fixed Rate Option

Year	Subscriber Energy Production (kWh)	Subscriber Energy Production (kWh)	Bill Credit Rate (\$/kWh)	Estimated Total Bill Credit (\$/yr)	Subscription Rate (\$/kWh)	MNCS Subscription (\$/yr)	Estimated Annual Savings
1	6,247,500	1,912,500	\$0.12296	\$235,161	\$0.10796	\$206,474	\$28,688
2	6,216,263	1,902,938	\$0.12579	\$239,373	\$0.11012	\$209,550	\$29,823
3	6,185,181	1,893,423	\$0.12870	\$243,685	\$0.11232	\$212,672	\$31,013
4	6,154,255	1,883,956	\$0.13169	\$248,098	\$0.11457	\$215,841	\$32,257
5	6,123,484	1,874,536	\$0.13476	\$252,615	\$0.11686	\$219,057	\$33,558
6	6,092,867	1,865,163	\$0.13792	\$257,238	\$0.11920	\$222,321	\$34,917
7	6,062,402	1,855,837	\$0.14116	\$261,970	\$0.12158	\$225,634	\$36,337
8	6,032,090	1,846,558	\$0.14449	\$266,813	\$0.12401	\$228,996	\$37,817
9	6,001,930	1,837,325	\$0.14792	\$271,769	\$0.12649	\$232,408	\$39,361
10	5,971,920	1,828,139	\$0.15143	\$276,841	\$0.12902	\$235,870	\$40,970
11	5,942,061	1,818,998	\$0.15505	\$282,031	\$0.13160	\$239,385	\$42,646
12	5,912,350	1,809,903	\$0.15876	\$287,343	\$0.13423	\$242,952	\$44,391
13	5,882,788	1,800,854	\$0.16258	\$292,778	\$0.13692	\$246,572	\$46,206
14	5,853,375	1,791,849	\$0.16650	\$298,340	\$0.13966	\$250,246	\$48,094
15	5,824,108	1,782,890	\$0.17053	\$304,031	\$0.14245	\$253,974	\$50,056
16	5,794,987	1,773,976	\$0.17467	\$309,854	\$0.14530	\$257,759	\$52,095
17	5,766,012	1,765,106	\$0.17892	\$315,812	\$0.14821	\$261,599	\$54,213
18	5,737,182	1,756,280	\$0.18329	\$321,909	\$0.15117	\$265,497	\$56,412
19	5,708,496	1,747,499	\$0.18778	\$328,146	\$0.15419	\$269,453	\$58,693
20	5,679,954	1,738,761	\$0.19239	\$334,528	\$0.15728	\$273,468	\$61,060
21	5,651,554	1,730,068	\$0.19714	\$341,057	\$0.16042	\$277,542	\$63,515
22	5,623,296	1,721,417	\$0.20201	\$347,738	\$0.16363	\$281,678	\$66,060
23	5,595,180	1,712,810	\$0.20701	\$354,572	\$0.16690	\$285,875	\$68,697
24	5,567,204	1,704,246	\$0.21215	\$361,564	\$0.17024	\$290,134	\$71,429
25	5,539,368	1,695,725	\$0.21744	\$368,716	\$0.17365	\$294,457	\$74,259
Estimated Total Savings							\$1,202,568

Estimated Total Savings: Floating Rate Option

Year	Subscriber Energy Production (kWh)	Subscriber Energy Production (kWh)	Bill Credit Rate (\$/kWh)	Estimated Total Bill Credit (\$/yr)	Subscription Rate (\$/kWh)	MNCS Subscription (\$/yr)	Estimated Annual Savings
1	6,247,500	1,912,500	\$0.12296	\$235,161	\$0.11296	\$216,036	\$19,125
2	6,216,263	1,902,938	\$0.12579	\$239,373	\$0.11579	\$220,344	\$19,029
3	6,185,181	1,893,423	\$0.12870	\$243,685	\$0.11870	\$224,751	\$18,934
4	6,154,255	1,883,956	\$0.13169	\$248,098	\$0.12169	\$229,258	\$18,840
5	6,123,484	1,874,536	\$0.13476	\$252,615	\$0.12476	\$233,870	\$18,745
6	6,092,867	1,865,163	\$0.13792	\$257,238	\$0.12792	\$238,587	\$18,652
7	6,062,402	1,855,837	\$0.14116	\$261,970	\$0.13116	\$243,412	\$18,558
8	6,032,090	1,846,558	\$0.14449	\$266,813	\$0.13449	\$248,347	\$18,466
9	6,001,930	1,837,325	\$0.14792	\$271,769	\$0.13792	\$253,396	\$18,373
10	5,971,920	1,828,139	\$0.15143	\$276,841	\$0.14143	\$258,559	\$18,281
11	5,942,061	1,818,998	\$0.15505	\$282,031	\$0.14505	\$263,841	\$18,190
12	5,912,350	1,809,903	\$0.15876	\$287,343	\$0.14876	\$269,244	\$18,099
13	5,882,788	1,800,854	\$0.16258	\$292,778	\$0.15258	\$274,769	\$18,009
14	5,853,375	1,791,849	\$0.16650	\$298,340	\$0.15650	\$280,421	\$17,918
15	5,824,108	1,782,890	\$0.17053	\$304,031	\$0.16053	\$286,202	\$17,829
16	5,794,987	1,773,976	\$0.17467	\$309,854	\$0.16467	\$292,114	\$17,740
17	5,766,012	1,765,106	\$0.17892	\$315,812	\$0.16892	\$298,161	\$17,651
18	5,737,182	1,756,280	\$0.18329	\$321,909	\$0.17329	\$304,346	\$17,563
19	5,708,496	1,747,499	\$0.18778	\$328,146	\$0.17778	\$310,671	\$17,475
20	5,679,954	1,738,761	\$0.19239	\$334,528	\$0.18239	\$317,140	\$17,388
21	5,651,554	1,730,068	\$0.19714	\$341,057	\$0.18714	\$323,757	\$17,301
22	5,623,296	1,721,417	\$0.20201	\$347,738	\$0.19201	\$330,523	\$17,214
23	5,595,180	1,712,810	\$0.20701	\$354,572	\$0.19701	\$337,444	\$17,128
24	5,567,204	1,704,246	\$0.21215	\$361,564	\$0.20215	\$344,521	\$17,042
25	5,539,368	1,695,725	\$0.21744	\$368,716	\$0.20744	\$351,759	\$16,957
Estimated Total Savings							\$450,508

Estimated Total Savings: Flat Rate Option

Year	Subscriber Energy Production (kWh)	Subscriber Energy Production (kWh)	Bill Credit Rate (\$/kWh)	Estimated Total Bill Credit (\$/yr)	Subscription Rate (\$/kWh)	MNCS Subscription (\$/yr)	Estimated Annual Savings
1	6,247,500	1,912,500	\$0.12296	\$235,161	\$0.11296	\$216,036	\$19,125
2	6,216,263	1,902,938	\$0.12579	\$239,373	\$0.11296	\$214,956	\$24,417
3	6,185,181	1,893,423	\$0.12870	\$243,685	\$0.11296	\$213,881	\$29,804
4	6,154,255	1,883,956	\$0.13169	\$248,098	\$0.11296	\$212,812	\$35,286
5	6,123,484	1,874,536	\$0.13476	\$252,615	\$0.11296	\$211,748	\$40,868
6	6,092,867	1,865,163	\$0.13792	\$257,238	\$0.11296	\$210,689	\$46,550
7	6,062,402	1,855,837	\$0.14116	\$261,970	\$0.11296	\$209,635	\$52,335
8	6,032,090	1,846,558	\$0.14449	\$266,813	\$0.11296	\$208,587	\$58,226
9	6,001,930	1,837,325	\$0.14792	\$271,769	\$0.11296	\$207,544	\$64,225
10	5,971,920	1,828,139	\$0.15143	\$276,841	\$0.11296	\$206,507	\$70,334
11	5,942,061	1,818,998	\$0.15505	\$282,031	\$0.11296	\$205,474	\$76,557
12	5,912,350	1,809,903	\$0.15876	\$287,343	\$0.11296	\$204,447	\$82,896
13	5,882,788	1,800,854	\$0.16258	\$292,778	\$0.11296	\$203,424	\$89,354
14	5,853,375	1,791,849	\$0.16650	\$298,340	\$0.11296	\$202,407	\$95,932
15	5,824,108	1,782,890	\$0.17053	\$304,031	\$0.11296	\$201,395	\$102,635
16	5,794,987	1,773,976	\$0.17467	\$309,854	\$0.11296	\$200,388	\$109,466
17	5,766,012	1,765,106	\$0.17892	\$315,812	\$0.11296	\$199,386	\$116,426
18	5,737,182	1,756,280	\$0.18329	\$321,909	\$0.11296	\$198,389	\$123,519
19	5,708,496	1,747,499	\$0.18778	\$328,146	\$0.11296	\$197,397	\$130,749
20	5,679,954	1,738,761	\$0.19239	\$334,528	\$0.11296	\$196,410	\$138,118
21	5,651,554	1,730,068	\$0.19714	\$341,057	\$0.11296	\$195,428	\$145,629
22	5,623,296	1,721,417	\$0.20201	\$347,738	\$0.11296	\$194,451	\$153,286
23	5,595,180	1,712,810	\$0.20701	\$354,572	\$0.11296	\$193,479	\$161,093
24	5,567,204	1,704,246	\$0.21215	\$361,564	\$0.11296	\$192,512	\$169,052
25	5,539,368	1,695,725	\$0.21744	\$368,716	\$0.11296	\$191,549	\$177,167
Estimated Total Savings							\$2,313,048

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