

Third Community Solar Project Plans Underway >>>

Member interest is growing for participation in a new Phase III Community Solar project. Last month we announced that plans are underway to build another community solar array. The responses from members in one month are encouraging.

Community solar is when a company such as Crow Wing Power builds a large array that multiple people can subscribe to and own shares. It's meant for people who do not have the ability to install one on their property or may not want to spend what it takes for a full blown system.

What drives a member to pay a little more to own a piece of



solar-powered electricity? We asked co-op members Nick and Cassie Heisserer who currently own shares in the Phase II Community array and are planning to purchase more from the new Phase III project. The Heisserers, who live in the Pillager area with their two teenage boys, stated, "One of the main reasons we participate in community solar is wanting to invest in a cleaner future for our children."

Nick, a lifelong learner, said the energy grid is fascinating to him. Their family makes environmentally conscience choices like becoming electric vehicle owners with a home charging station and participating in Crow Wing Power's 2013 Energy Savers contest where they came in second.

The Heisserers believe community solar is a great financially feasible way to have solar energy.

"We want each family member to have their own share for long-term use." said Nick. The idea of the community solar for them was an easy choice. They can drive by the solar garden and say to their boys, "We own shares of that. We are part of a bigger picture impacting us now and in the future, isn't that cool."

More information on becoming a community solar share holder can be found at cwpower.com – click on the environment tab.

>> Finnley, Nick, Cassie & Gavin Heisserer

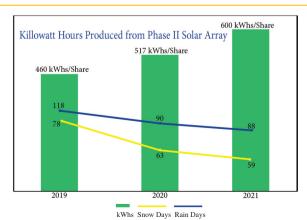
How Did Community Solar Production Fare in the Past Three Years? >>>>

Crow Wing Power has built two community solar arrays since the spring of 2017. We anticipate the planned Phase III Community Solar array will mimic the Phase II project we built in 2018. The design will be similar and the location of Phase III will also be at our outpost in Swanburg east of Pine River.

In order to anticipate how much solar power shareholders of a new Phase III project might expect, we looked at the output of the similar Phase II array over the past three years.

The annual production of power from our second solar array varied significantly, mostly due to weather.

Much of last year we had little snow cover and less rain, which greatly increased production compared to previous years.



>> Less rain and snow days increased solar production in the Phase II array.

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A WORD FROM YOUR CEO Heat Pumps are Growing in Popularity – But What's the Rave About Mini-splits? >>>

Like many cooperatives in our region, we've been promoting the use of electric heat pumps for several years as an energy efficient method of home heating and cooling. They are apparently catching on by the growing number of installations we've seen amongst our membership.

There are two main concepts for heat pumps with a variety of models to accommodate a multitude of building applications— ground source heat pumps (closed loop and open loop) and air-source heat pumps (ASHPs) (ducted systems and mini-splits). Depending on the season, they efficiently heat in the winter and air condition in the summer.

In recent years we've seen a steady increase in heat pump installations, based on the number of rebates given out each year. They've especially taken off with the onset of advanced cold climate ASHPs.

Number of Heat Pump Installation Rebates

	2018	2019	2020	2021
Air-Source Heat Pumps	12	22	37	31
Mini-Split Heat Pumps	33	41	73	95
Both Air-Source and Mini-	Split Heat Pr	ump installatio	ns nearly trip	led in number o

four year period.

ASHP whole-house ducted systems are eligible to receive an \$800 rebate, while mini-splits are \$100 per inside unit up to three (\$300).

I've had an air-source heat pump for about four years and it works great in conjunction with my propane forced-air system. It's quiet, reliable and low maintenance.

Heat pumps are generally coupled with a secondary heating system that supplements heating during the colder months. The heat pumps can be set to switch over to a secondary heat source, propane in my case, when outside temps dip to a certain level. I switch my system at 15 degrees or lower. Some of the newer cold climate heat pumps, however, are touting the ability to heat in below zero weather.



Gabe Ackerman

I wanted to learn more about mini-split heat pumps when I saw the number of rebates given to members in our service area tripled in four years. Luckily we have knowledgeable employees, like member service rep Gabe Ackerman, to tap in to.

Mini-splits are air-source heat pump units that don't require ductwork. They are popular for room additions, guest rooms, garages, finished basements or sheds and places that don't need heat all the time.

They consist of an indoor fixture that can be mounted on a wall, floor or ceiling in an open-spaced room. The indoor unit is connected to an outdoor condenser/compressor through a 2-3" hole in the wall. Depending on the size of the condenser – multiple indoor heads can be connected to one outdoor unit.

Mini-split systems are about 25 to 30 percent more efficient than a traditional heat pump system because heat is not lost through ductwork.

Mini-splits are also popular with homeowners who want more precise control over the temperature of individual rooms. If you have multiple units in your home. each unit has its own thermostat that can be regulated by a remote, and some can be controlled through an app on your phone.

For people who currently don't have central air, but use a window air conditioner, mini-splits are a very good fit. Mini-splits are far more efficient than traditional window AC units,

Board Meeting Highlights

Crow Wing Power's Board of Directors conducted its regular monthly meeting Thursday, December 16, 2021. A quorum of directors was present.

President Bob Kangas opened the meeting with the Pledge of Allegiance.

The following reports were given:

- CEO report
- Finance Committee report

The following actions were taken:

The Board approved:

- December Consent Agenda
- Date for 2022 Annual Business Meeting
- Minutes of the November 18, 2021 regular board meeting
- Director expense reports for November 2021

Members can review detailed minutes at cwpower.com/board-and-meetings or by logging into their SmartHub account. Log in is located on the homepage of our website. January minutes will be published after approval in February. The next board meeting is February 17, 2022.

upwards of 200% -300% output for the energy used dependent on outside temperature.

The main reason heat pumps are so efficient and unique is they transfer heat through a modulate compression process rather than resistance heating elements. For more information on heat pumps, go to cwpower.com under the services tab click Dual Fuel, Cycled AC and Heat Pumps.

I'll keep you informed,

June L Kraemer

Bruce L. Kraemer, CEO



Heads Up High School Seniors – Scholarships >>>

Crow Wing Power is currently seeking scholarship applications from high school seniors planning to further their education. Applications are being accepted until March 31 for consideration for one of four scholarship categories.

New! Non-traditional students

This year we added a new category to reach out to students that don't go to public schools. Non-traditional students, for example, students from private educational institutions or a school located outside our service territory. Non-traditional students can go online to apply for \$1,500 scholarships to attend a college or tech school.

Public School/Home School students

Separately, we also provide scholarship opportunities to college-bound seniors through all high schools within our service territory. Students should see their school counselor for details.

Luck of the Draw - On-line Random Drawing

Our Operation Round-Up® program sponsors an easy online application process, where the Round-Up® Trust board randomly draws three winners at their April meeting.

Legal Notice: Statement of Nondiscrimination

"Crow Wing Cooperative Power & Light Company (Crow Wing Power)" is the recipient of Federal financial assistance from the U.S. Department of Agriculture (USDA).

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Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign

Electrical Line Worker School students

Minnesota has several line worker technology schools. We give \$1,000 scholarships to Crow Wing Power member dependents attending line worker schools like Minnesota State Community College in Baudette and Wadena, Minnesota West in Jackson or Dakota County Technical College in Rosemount.

Applicants must be a dependent of a Crow Wing Power member.

Scholarships other than the online drawing are made possible through unclaimed capital credits, checks that have been returned to the cooperative and held for seven years.

If you have questions regarding the scholarship program, please call 1-800-648-9401.



Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

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 mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW Washington, D.C. 20250-9410;
fax: (202) 690-7442; or

(3) email: program.intake@usda.gov.

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How Did Community Solar Production Fare in the Past Three Years?

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After looking at the data and not knowing what the future weather will be, a fairly safe estimate of what the Phase III array will produce in a year would be 500 kWhs per share.

The new project is anticipated to have 111 shares available at \$1,300 per share. The investment covers a 20-year contract. In other words, members who purchase one share can anticipate an average 500 kWhs of solar credit annually on their electric bill. The monthly solar production in kWhs is deducted from the monthly total kWhs on vour bill.

Billing Example: If you were billed for 685 kWhs in one month, and the solar credit you purchased produced 85 kWhs, we would subtract the solar kWhs you earned and you would pay for only 600 kWhs that month.

If you'd like to learn more go to cwpower.com or call our member service reps at 1-800-648-9401.



Win \$25 off your electric bill >>>

Complete the bi-monthly word find puzzle below, clip and send entire coupon back to us by March 15. We've sized it to fit in your billing payment, so you can save a stamp. If you'd rather, you can send it separately to Crow Wing Power, PO Box 507, Brainerd, MN 56401. Attn: Puzzle or scan and email to info@cwpower.com. The winning entry will be drawn on March 15.

Name

Our winner for the last puzzle: James J. Puetz, Brainerd

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1.	. Air Source heat pump with no ductwork split.															
2.	. There are categories of scholarships.															
3.	. In the past four years, heat pump rebates															

- 4. New category of scholarship _____

- 5. A mini-split heat pump heats and cools ____ room.
- 6. Line worker school _____ eligible for \$1,000.
- 7. We had 118 days of _____ in 2019 compared to 88 in 2021.
- 8. Three lucky students win the _ _ _ _ _ random drawing.
- 10. It's anticipated that a Phase III community solar _ _ _ will cost \$1300.
- 11. We currently have _ _ _ community solar arrays.

Address City Zip State E-mail Acct number

December Puzzle Answers:

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Bowers, Confidence, Drive, Free, Homeless, Hunnicutt, Longville, October, Org, Sertoma, Seven, Tunnel

A Touchstone Energy* Cooperative 🔨 The power of human connection

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Editor: Char Kinzer

Board meetings are held the third Thursday of each month beginning at 9:30 a.m.

Directors. Here to Help!

Following is a list of directors and their telephone numbers:

Bob Kangas	218-587-4453
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Gordon Martin	218-746-3971
Bryan McCulloch	218-820-9708
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Gert Roggenkamp	218-562-4566
Dwight Thiesse	218-831-8605