CERTs Overview

Lissa Pawlisch and Diana McKeown

Clean Energy Resource Teams (CERTs)

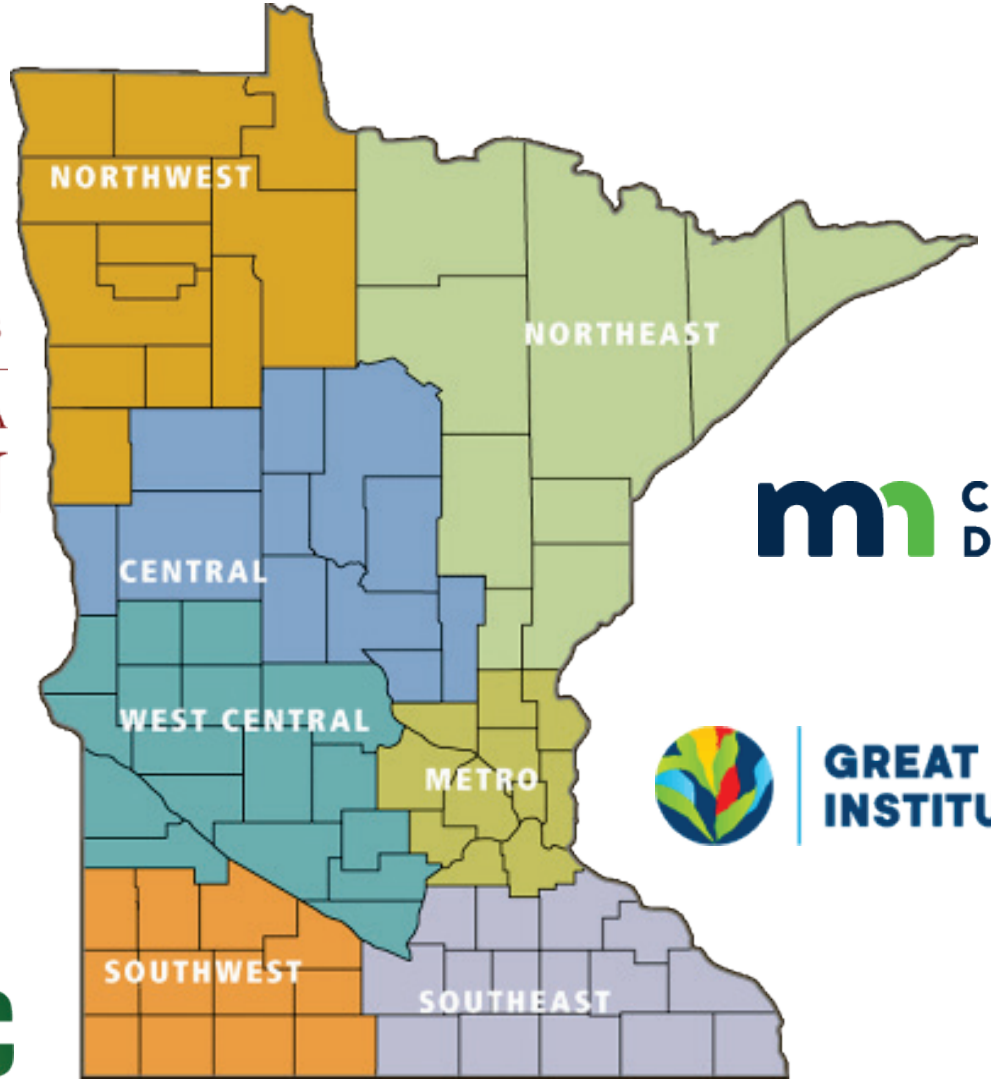
House Energy and Climate Policy and Finance Committee | January 29, 2019

What is CERTs?

CERTs is a Statewide Partnership

Regional Sustainable Development Partnerships

University of Minnesota Extension



Commerce Department

Great Plains Institute
Better Energy. Better World.

SRDC

What is CERTs All About?

Community-based clean energy

- Empowering community-determined conservation, efficiency, and renewables
- Connecting individuals and their communities to effective resources

How is CERTs Funded?

Legislative Statute 216C.385

- Half of statewide budget: 216.241, Subd 1e. Applied Research and Development Grants

Leverage funding:

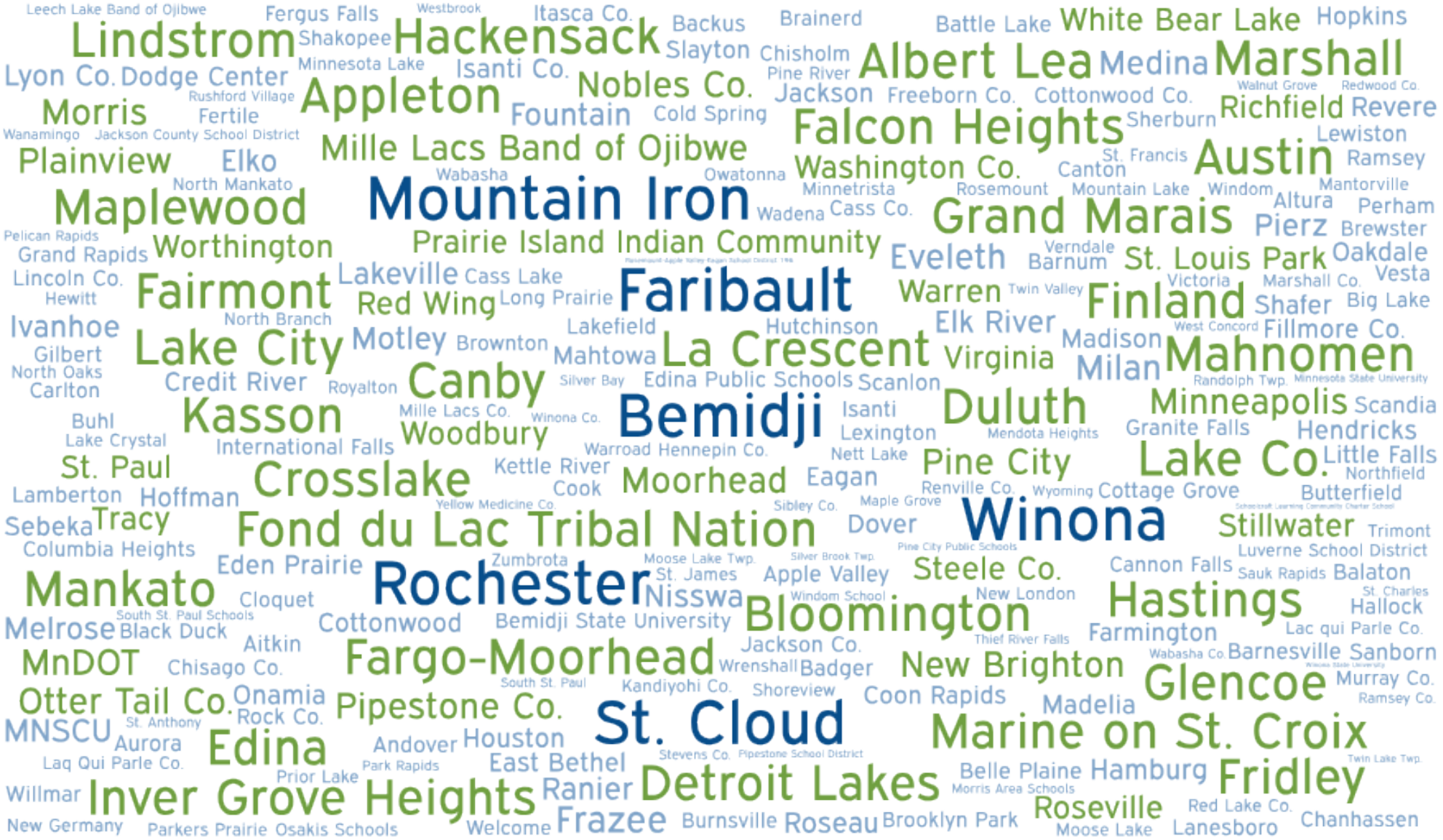
- Contracts
- Federal (USDOE, USDA)
- Foundations

Major 2018 Accomplishments

2018 Highlights

- Saved / offset **49.6 billion BTUs**: equivalent to 1.4 million LED bulbs
- **39** Seed Grant Projects
- Hosted **27** events: nearly **2,000** attendees
- **278** meetings, presentations & outreach events: nearly **4,000** community members

204 Communities Served



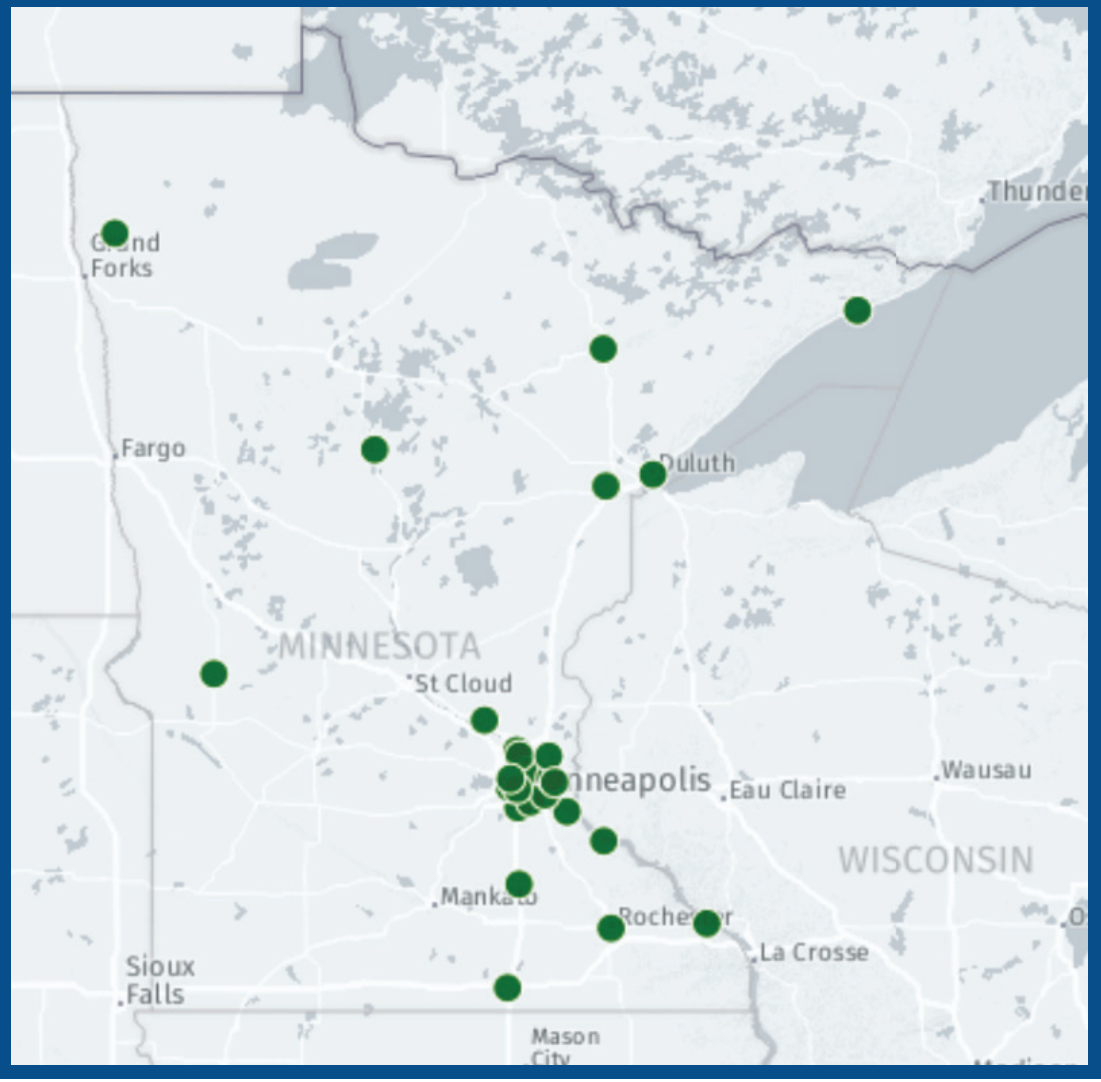
Audience Highlights

Governmental Units – Efficiency

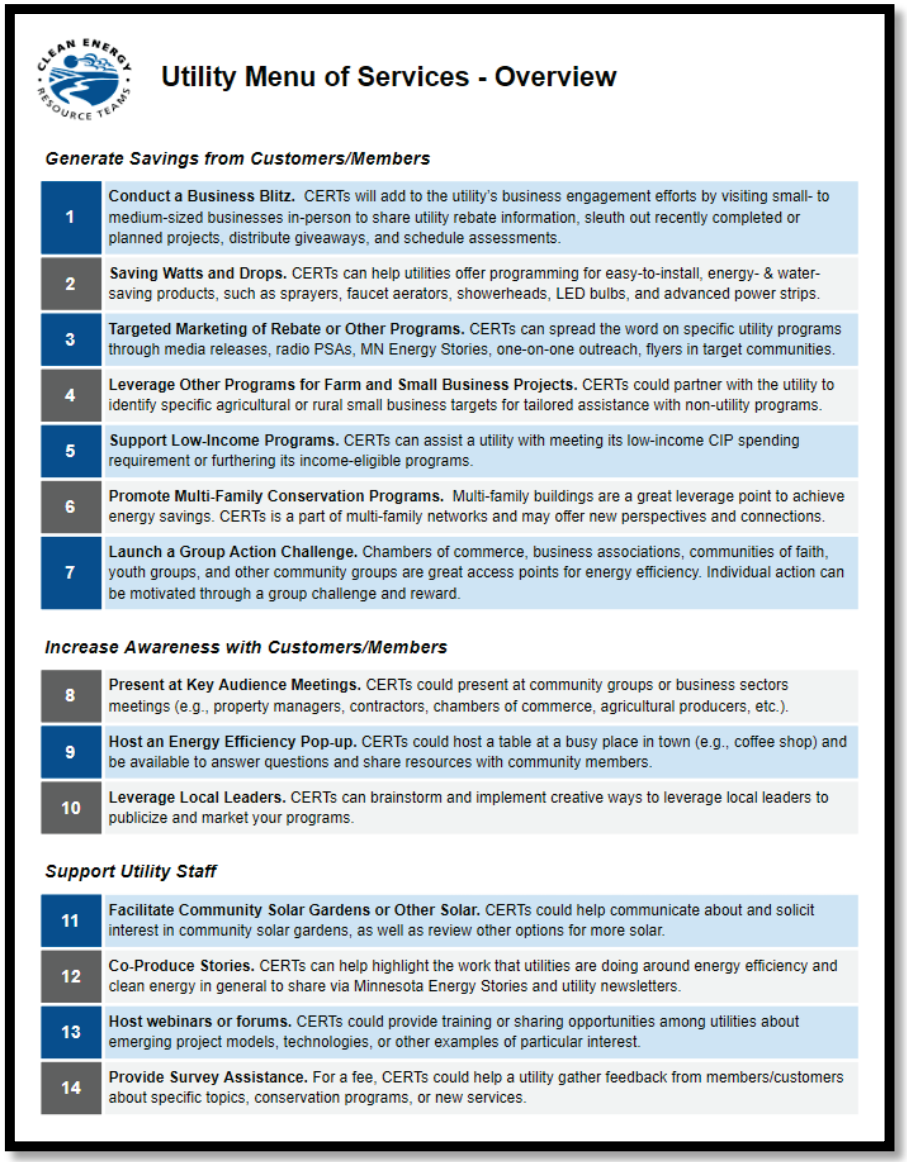
Governmental Units – Cities Charging Ahead

Cities Charging Ahead Participants

- Albert Lea
- Bloomington
- Burnsville
- Coon Rapids
- Duluth
- Eagan
- Edina
- Elk River
- Falcon Heights
- Faribault
- Fond du Lac Tribe
- Fridley
- Grand Marais
- Hackensack
- Hastings
- Inver Grove Heights
- Maplewood
- Marine on St. Croix
- Morris
- Red Wing
- Richfield
- Rochester
- St. Louis Park
- Virginia
- Warren
- White Bear Lake
- Winona
- Woodbury



Utilities: Menu of Services



Utility Menu of Services - Overview

Generate Savings from Customers/Members

1	**Conduct a Business Blitz.** CERTs will add to the utility's business engagement efforts by visiting small- to medium-sized businesses in-person to share utility rebate information, sleuth out recently completed or planned projects, distribute giveaways, and schedule assessments.
2	**Saving Watts and Drops.** CERTs can help utilities offer programming for easy-to-install, energy- & water-saving products, such as sprayers, faucet aerators, showerheads, LED bulbs, and advanced power strips.
3	**Targeted Marketing of Rebate or Other Programs.** CERTs can spread the word on specific utility programs through media releases, radio PSAs, MN Energy Stories, one-on-one outreach, flyers in target communities.
4	**Leverage Other Programs for Farm and Small Business Projects.** CERTs could partner with the utility to identify specific agricultural or rural small business targets for tailored assistance with non-utility programs.
5	**Support Low-Income Programs.** CERTs can assist a utility with meeting its low-income CIP spending requirement or furthering its income-eligible programs.
6	**Promote Multi-Family Conservation Programs.** Multi-family buildings are a great leverage point to achieve energy savings. CERTs is a part of multi-family networks and may offer new perspectives and connections.
7	**Launch a Group Action Challenge.** Chambers of commerce, business associations, communities of faith, youth groups, and other community groups are great access points for energy efficiency. Individual action can be motivated through a group challenge and reward.

Increase Awareness with Customers/Members

8	**Present at Key Audience Meetings.** CERTs could present at community groups or business sectors meetings (e.g., property managers, contractors, chambers of commerce, agricultural producers, etc.).
9	**Host an Energy Efficiency Pop-up.** CERTs could host a table at a busy place in town (e.g., coffee shop) and be available to answer questions and share resources with community members.
10	**Leverage Local Leaders.** CERTs can brainstorm and implement creative ways to leverage local leaders to publicize and market your programs.

Support Utility Staff

11	**Facilitate Community Solar Gardens or Other Solar.** CERTs could help communicate about and solicit interest in community solar gardens, as well as review other options for more solar.
12	**Co-Produce Stories.** CERTs can help highlight the work that utilities are doing around energy efficiency and clean energy in general to share via Minnesota Energy Stories and utility newsletters.
13	**Host webinars or forums.** CERTs could provide training or sharing opportunities among utilities about emerging project models, technologies, or other examples of particular interest.
14	**Provide Survey Assistance.** For a fee, CERTs could help a utility gather feedback from members/customers about specific topics, conservation programs, or new services.

Utilities: Replicable Tools

CONSERVE & $AVE®

with a new

Faucet Aerator

Get hands clean while saving over 50% on water, sewer, and energy costs with your new faucet aerator!

Recommended Use: *Bathroom sinks and other sinks for handwashing only*

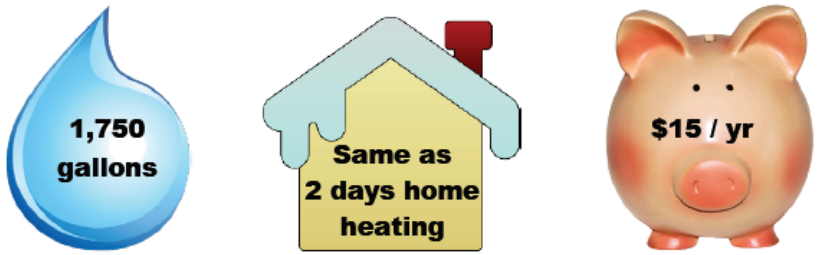
Replacement Tip: *Look for flow rate inscribed on outer side of faucet aerator; it will have a number and then the units GPM standing for "gallons per minute" following the number.* *(It can be printed quite small - you may need a magnifying glass.)*

Replace faucet aerators on sinks with flowrates higher than 1.0 GPM.

(over for more about installation & savings)

Installation Guide: Simply unscrew existing faucet aerators and screw on the new faucet aerator. You may need a pair of pliers to loosen the existing faucet aerator. On really tough jobs, you may need to soak the existing faucet aerator with a cleaning solution that is capable of removing the build-up.

POTENTIAL ANNUAL SAVINGS



Assumptions - Base flow: 2.2 gallons per minute (federal standard), Program model: 1.0 gallons per minute; 365 days used/year, 4 minutes use/day, heat water to 90 degree F. Cost references: Austin Utilities. Actual savings depend on usage.

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Connections for Better Living™

EPA WaterSense PARTNER

Utilities: Replicable Tools, cont.

Right Light Guide
for General Use Bulbs

mjenergy™ COOPERATIVE
Your Touchstone Energy® Cooperative

Today there are many lighting options available.
The right bulb for you depends on how much light you need, what color light you want, and its costs and features.

STEP 1 Decide How Much Light You Need

Focus on Brightness. Different amounts of light are needed for different uses. Instead of thinking about light bulbs based solely on the amount of energy they use, focus on their brightness level.

Lumen is the measurement of brightness. Higher lumen bulbs produce brighter light.

Watt (W) is the measure of power consumption. Lower wattage bulbs can lower your electric bills.

If you like your bulb's current brightness, choose an LED with similar lumens to reduce your energy use. You may also consider a bulb that is less bright to save more.

Brightness	Incandescent	CFL	LED
450 lumens	40W	9-13W	4-8W
800 lumens	60W	13-16W	8-13W
1100 lumens	75W	17-23W	11-15W
1600 lumens	100W	23-28W	16-20W

Least Efficient → Most Efficient

Note: Lumen output listed on packages may vary. Light bulbs listing anywhere from 800 to 860 lumens are similarly bright, for instance.

STEP 2 Decide What Color Light You Want

Choose Light Appearance. You'll be pleased with your new bulb by choosing a light appearance that you like. All of these colors are available for LEDs, and at most brightness levels.

Note: Choose warm or soft white (2700-3000 K) to match the color of incandescent bulbs.

LIGHTING Guide

Making improvements to your home's lighting is one of the fastest and easiest ways to lower your energy bill and doesn't require a major investment of money - even your time. Here are a few simple ideas that will cost you little or nothing but can help reduce your energy bill:

- Don't leave unnecessary lights on during the day.
- Make sure all the lights are turned off or use an energy-saving light if you do need to leave one on.
- Consider replacing your home's five most frequently used incandescent bulbs with ENERGY STAR® certified light bulbs, which use about 70-90 percent less energy than traditional incandescent bulbs and last at least 15 times longer, saving you money.
- Take a look at the lighting you use at night for security. Check with your local cooperative or municipal to see if they can help you save money by installing a pole-mounted outdoor light.
- Motion sensor, photocell or LED lights can provide security lighting while saving you energy.
- LED Christmas lights use up to 90 percent less energy than traditional lights, last for many years and require no bulb changes.
- For high-quality products with the greatest energy savings, choose bulbs that have earned the ENERGY STAR label.

What bulb is right for you

Today there are many lighting options available. The right bulb for you depends on how much light you need, what color light you want and its costs and features.

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Think about costs and benefits

Compare types of bulbs. You can think about product, replacement and energy costs over 20 years for different bulb types. Why 20 years? Because LEDs can last that long. Many incandescent bulbs have been phased out, and CFLs are becoming less popular. The pros and cons below will help you pick a bulb that is right for you.

Cost Over 20 Years (Bulb(s) / Energy)		Pros (+) and Cons (-)
LED	1 bulb in 20 years; $35 total cost	+ Saves 85% of energy use over Incandescent + Lasts 25 times longer than Incandescent + Great for dimmed, recessed, or enclosed fixtures + Performs well in cold temperatures - Higher bulb cost
CFL	3 bulbs in 20 years; $54 total cost	+ Saves 75% of energy use over Incandescent + Lasts 10 times longer than Incandescent - Recessed & enclosed fixtures reduce bulb life - Performs poorly in cold temperatures - Contains mercury (recycling required)
Incandescent	22 bulbs in 20 years; Bulb & Replacement Cost / Energy Cost; $284 total cost	

Note: Cost comparison is based on a 20-year life and takes into account power consumption, hours of use per day, residential electric cost, bulb cost, and replacement cost. For detailed cost calculations and a full pro/con list, visit http://Lighting.MnCERTs.org.

Guide provided by the Clean Energy Resource Teams (CERTS).

Underserved Communities

Clean Energy Resource Teams

Minnesota Energy Resources

City of Melrose

cee
Center for Energy and Environment

Missouri River Energy Services

Cooperative Light & Power
Your Touchstone Energy® Partner

minnesota power
AN ALLETE COMPANY

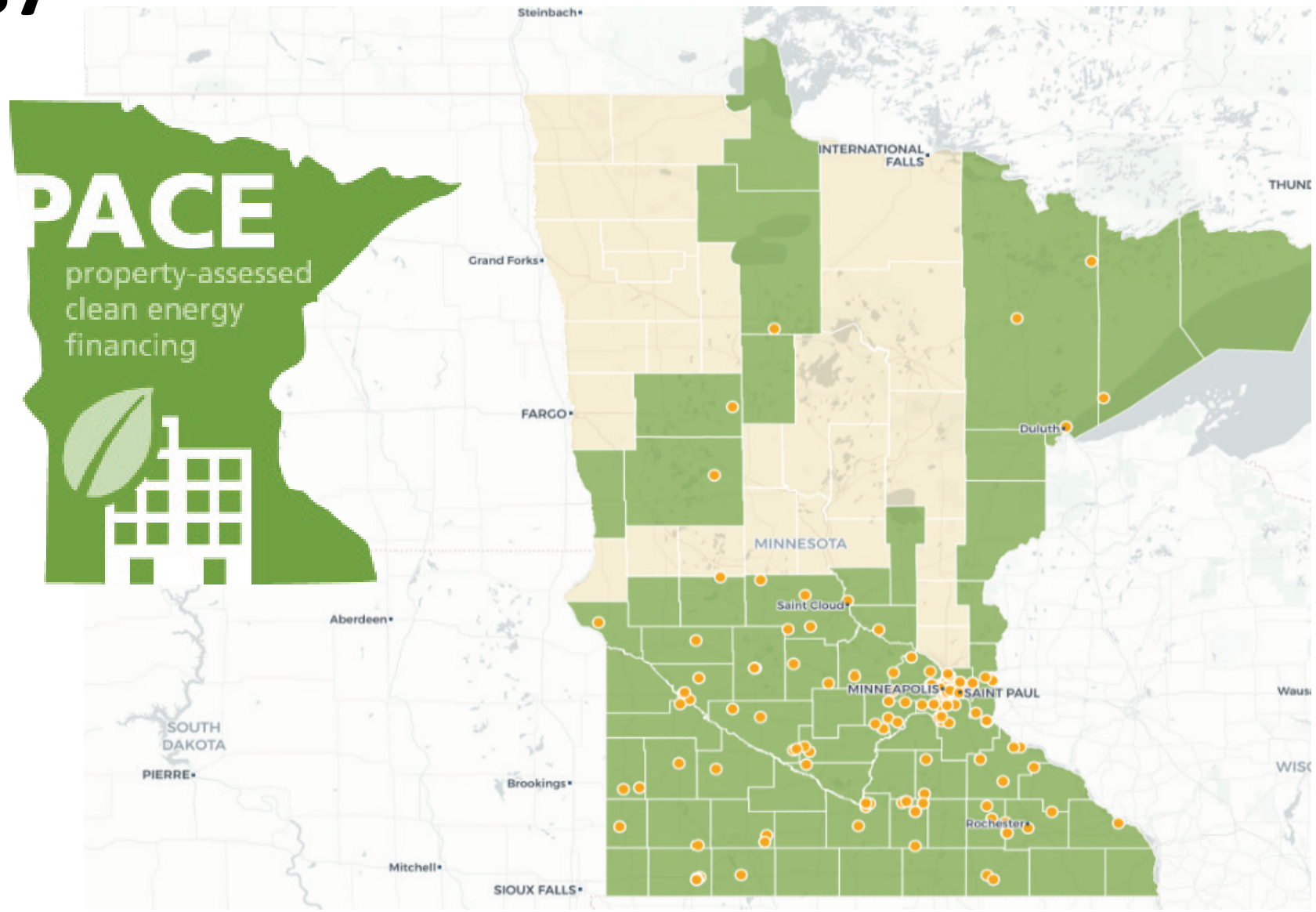
Underserved Communities + Small Business

Small Businesses: Blitzes






Small business: Property Assessed Clean Energy



Small business: Sample PACE Projects

First National Bank: St. Paul, MN

Cozy Corner: Richmond, MN

Agriculture

Swine Energy Management Seminar | Nov 15 | Fairmont, MN

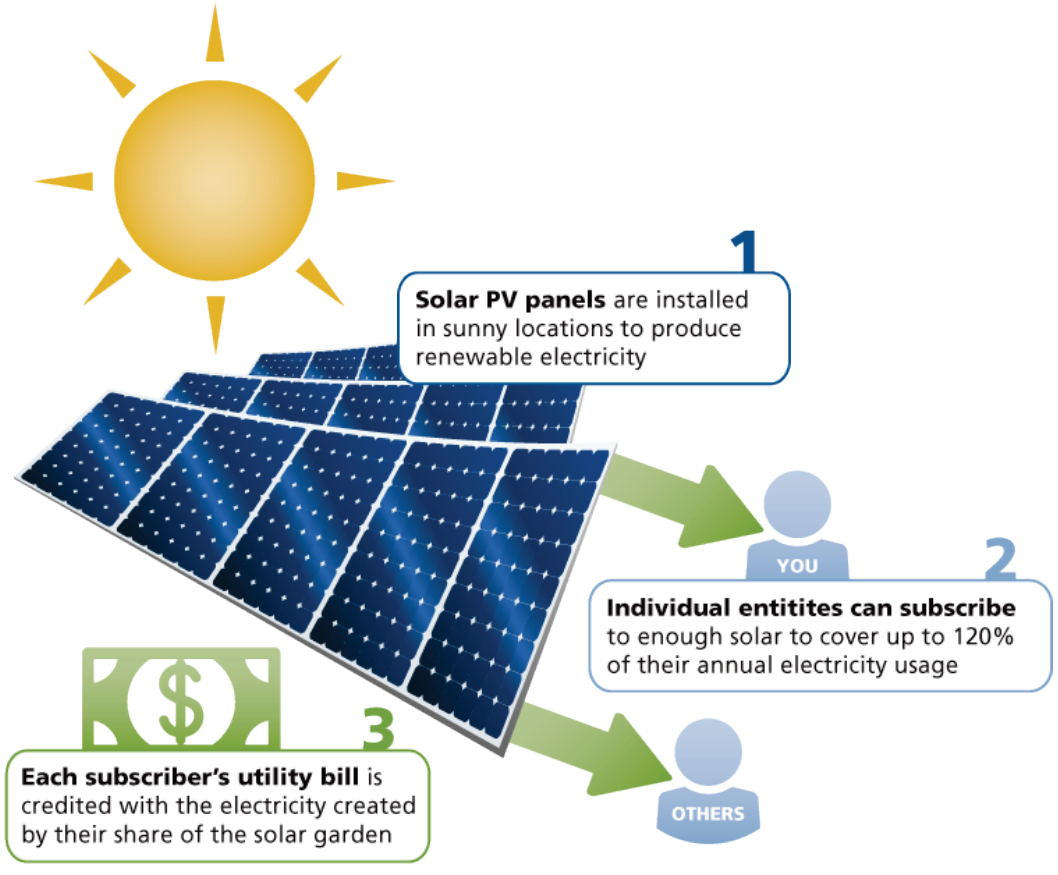
Regional Sustainable Development Partnerships
University of Minnesota Extension
MN Pork Board
Great River Energy
Energy Wise MN

Resources

Resource Highlights

MN CLEAN ENERGY JOBS

Resource Highlights



TIPS FOR SUBSCRIBING TO A COMMUNITY SOLAR GARDEN

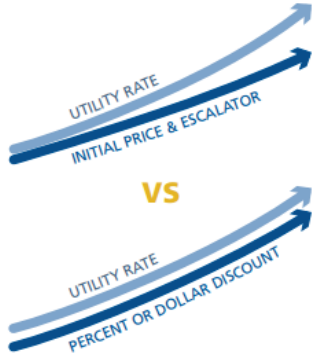
Maybe you've been approached by a company or attended a local event, and now you're thinking about subscribing to a community solar garden. This document provides guidance about how to get started and highlights key resources to help you move forward.

What does a good contract look like?

Subscription Price: Escalator vs. Discount Models

- **Escalator:** This model sets an initial subscription price and subscription rate escalator. In general, the lower the starting rate and lower the escalator, the better. The initial subscription price should be close to your monthly bill credit (mncerts.org/csg-subscribers), and the escalator should be less than anticipated utility rate increases. Xcel Energy rates went up an average of 3.5% annually from 2000-2014, so any escalator should be less than that. Your ultimate savings will depend upon the difference between your subscription price and actual utility rate increases over time. Developers will assume different utility rate increases in estimating your potential savings. Compare the estimates and assumptions at mncerts.org/csg-calc.

- **Discount:** In this model subscription prices are set to be consistently lower than your utility rate by either a stated percent or dollar amount. Though it could provide smaller financial returns, this approach provides a higher level of certainty for future savings.



Updated 7/24/2017

Transferability and Early Termination

It's important to know what happens if you move out of the service area, die, or cancel the subscription. Many developers will have a different procedure for each of those three scenarios. For example, if you move out of the utility territory, some developers take back the subscription without penalty, while others charge a set fee. Some developers will not charge a fee if you transfer your subscription to another eligible subscriber. If you decide simply to cancel, there will be a higher fee. It is up to you what terms are acceptable, but they should be VERY clear in the agreement. You should also understand what procedures to follow, who is responsible for each step, and what the associated costs may be.

30 Programs in MN

17 Cooperative

- Agralite Electric Cooperative
- Arrowhead Electric Cooperative, Inc.
- Beltrami Electric Cooperative
- Connexus Energy
- Crow Wing Power
- Itasca-Mantrap Cooperative Services
- Kandiyohi Power Cooperative
- Lake Region Electric Cooperative
- McLeod Cooperative Power
- MiEnergy Cooperative
- People's Energy Cooperative
- Redwood Electric Cooperative
- Runestone Electric Association
- South Central Electric Cooperative
- Stearns Electric Association
- Steele-Waseca Cooperative Electric
- Wright-Hennepin Cooperative Electric Association

13 Municipal

SMMPA:

- Austin Utilities
- Rochester Public Utilities
- Saint Peter Municipal Utilities
- Princeton Public Utilities
- Preston Public Utilities

CMPAS:

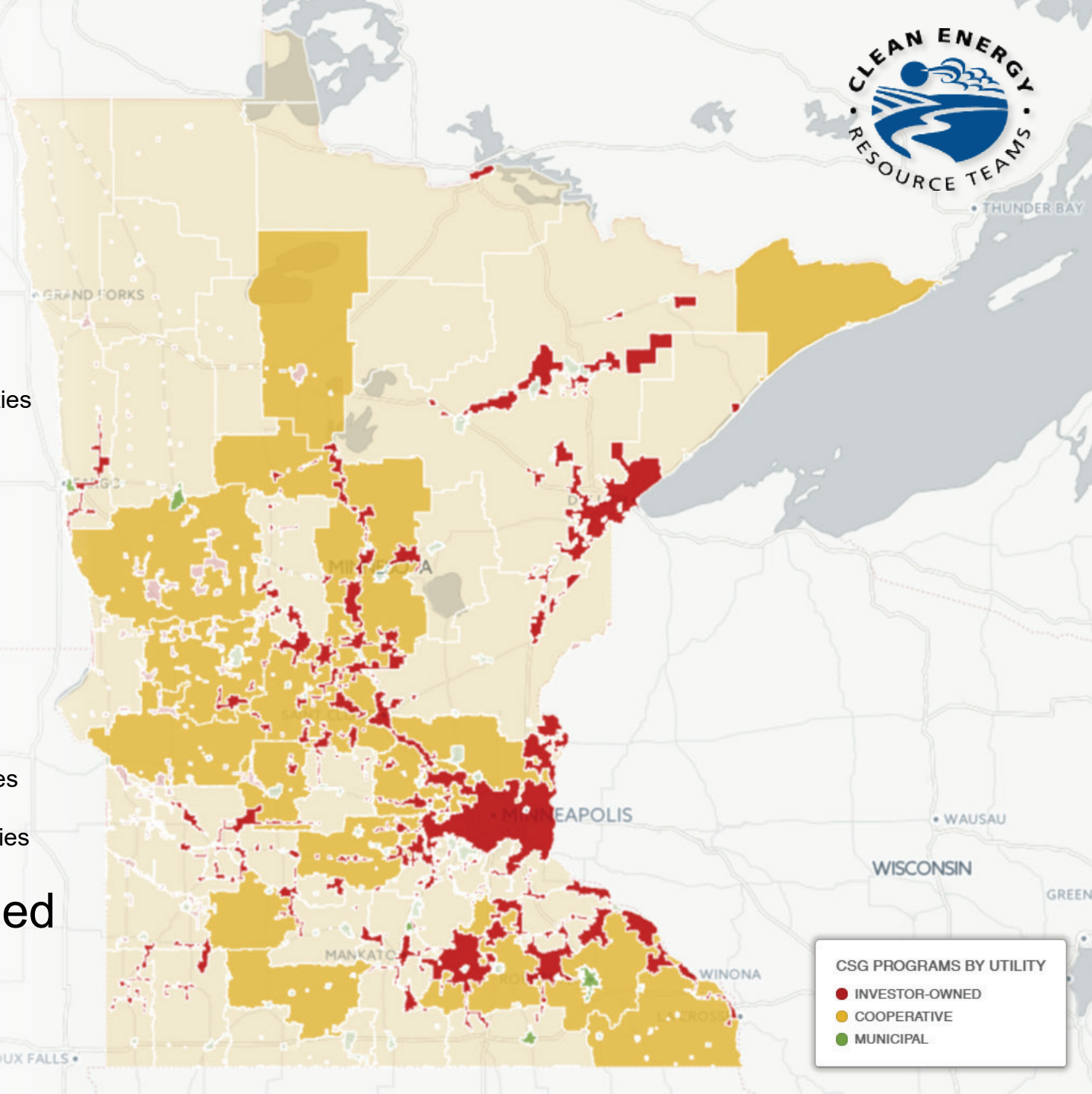
- Blue Earth Light & Power
- Kenyon Municipal Utilities
- City of Janesville
- City of Kasson
- City of Granite Falls
- Sleepy-Eye

MRES:

- Detroit Lakes Public Utilities
- Moorhead Public Service
- Barnesville Municipal Utilities

2 Investor-Owned

- Minnesota Power
- Xcel Energy



Questions?