

Minnesota GreenStep Cities 2014-2015 Workshop Series

COMMUNITY

SOLAR

Cities and Community Solar

December 17th

9am-11pm

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THE MCKNIGHT FOUNDATION

#GreenStepWkshp



Minnesota GreenStep Cities 2014-2015 Workshop Series

9:00am – Welcome & Introductions and energy related best practices overview -- Diana McKeown, MetroCERT/Great Plains Institute

9:15am – Speakers

- Basics of Community Solar, What role can a city play?- Lissa Pawlisch ,CERTs (30 min)
- What things should I know before signing on the "dotted line"- Holly Lahd, DER (10-15min)
- Model Community Solar Garden- Laura Burrington, MRES (10 -15min)

10:15am – Community Shared Solar Panel Discussion

- CERTs Lissa Pawlisch, U of MN/CERTs
- Division of Energy Resources, DOC- Holly Lahd
- MRES- Laura Burrington
- Xcel Energy- John Wold

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Basics of Community Solar, What role can a city play?



Diana McKeown

Joined the Great Plains Institute in July 2013 and is the Metro CERT (Clean Energy Resource Team) Director. Diana has led the Metro region of CERTs since October 2007, during which time she has coordinated and participated in a number of clean energy initiatives. Diana has also collaborated on the launch of a number of projects/programs including GreenStep Cities, Minnesota Schools Cutting Carbon, and a variety of energy savings measures through CERTified Campaigns. Diana has coordinated successful events, forums and tours, including the annual Brake for Breakfast gathering and the SolarWorks workshop series. Prior to joining the CERTs team, Diana worked for over 14 years at Clean Water Action becoming the program director for four years before leaving in 2007. Diana has a state certificate in residential energy auditing from Dunwoody, and is a graduate of the 2014 Energy Execs Leadership Institute at the Department of Energy's National Renewable Energy Laboratory. Diana holds a B.S. in Environmental Studies from the University of Minnesota.



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Basics of Community Solar, What role can a city play?



Lissa Pawlisch

The Clean Energy Resource Teams (CERTs) Director for the University of Minnesota's Regional Sustainable Development Partnerships and Extension. Melissa has spent over fifteen years working on energy-related issues. Prior to coming to the University she spent several years working as an environmental consultant with a focus on environmental investigations at largescale power plant facilities. In 2002 she began work with community organizations looking for alternatives to centralized power production. For the past eleven years Melissa has staffed five of the greater Minnesota CERTs regions and worked to stimulate clean energy project development by connecting team members with the resources and technical assistance they need to implement community energy projects. She has a Masters degree in Science, Technology and Environmental Policy.

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Community Shared Solar for Local Governments



Lissa Pawlisch Clean Energy Resource Teams (CERTs)



CERTs: We're here to help





<u>CERTs Mission:</u> Connect individuals and their communities to the resources they need to identify and implement community-based clean energy projects



Community Shared Solar: Cliff Notes



Point to yours!





Designed to cover your needs



Electricity Use

A typical MN home uses 800 kWh each month, or 9,600 kWh each year

Solar Subscription



Utility Bill



4 kW of solar could provide half the electricity used by the typical MN home

Solar power production is shown and credited on the subscriber's utility bill

The amount of electricity you use each year helps you decide how much solar to get. Your solar garden subscription can cover as little as 200 watts or up to 120% of your usage.

Why Community Shared Solar?





Photo from: http://www.greenbeltsolar.@mofoofaomshatipg/wwwcfahrent.com/apartment-community-profile/1019896.php, Rosedale Estates II

Who are the players?





Community solar gardens are a simple way to go solar.

You purchase a subscription, then soak in the rays. Minnesota is as sunny as Houston, TX and Tallahassee, FL.



Cooperative Utility Programs



Utility contracts with developer to set up the garden. Utility operates garden and handles all aspects of relationship with subscribers.



Xcel Energy Program

3rd Party Operator develops & runs garden. Maintains relationship w/ subscriber for payment. Utility provides subscriber w/ bill credit.





Pay Up Front / Pre-Pay Model

Subscriber purchases a subscription for a onetime fee that covers the life of the agreement.







20 year project timeline.



Pay As You Go

Bill Geolic

Subscriber pays in installments over time. Subscriber receives bill credit for their share of output on their energy bill the following month.



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What role to (-(-)-) / /









Current projects



Solar Gardens by Utility Territory & CERT region

Connexus Energy (current) – Metro

Kandiyohi Power Coop (current) - WC

Lake Region Electric Cooperative (current) - Central

McLeod Cooperative Power (current) - WC

Tri-County Electric Cooperative (current) – SE

Wright-Hennepin Cooperative Electric Association (current) - Metro

Xcel Energy (program launching 2015) - Metro, SE, SW, WC

Looking for more information about this program? See the Minnesota Public Utilities Commission (PUC) Docket E002/M-13-867 general page.

- Update: PUC ruling from April 7
- Update: Xcel response to ruling from May 7, 2014
- Update: PUC Order Approving Solar-Garden Plan with Modifications posted on September 17, 2014

Update: Xcel began accepting applications on Friday, December 12th at 9 am.





Northfield Area

Community Solar





M I N N E S O T A





Current CERTs efforts





Solar Mapping Tools



http://solar.maps.umn.edu/app/



CERTs:

Minnesotans Building a Clean Energy Future



Learn More: Download our community solar guide, see frequently asked questions, and find utility programs. http://SolarGardens.MnCERTs.org





What things should I know before signing on the "dotted line"



Holly Lahd

Holly Lahd is a Public Utilities Analyst with the Minnesota Department of Commerce, Division of Energy Resources. At the Department of Commerce Holly analyzes utility filings on solar energy projects, resource plans, and greenhouse gas regulations. Prior to state service Holly worked with local, state, and federal government agencies on greenhouse gas inventories and sustainable procurement strategies.



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Community Solar Gardens

Holly Lahd Public Utilities Rates Analyst

2013 Solar Energy Legislation

1.5% Solar Energy Standard

Value of Solar Tariff Methodology

Xcel's Solar*Rewards and Made in Minnesota Incentives

Community Solar Gardens



Rates

2014 Applicable Retail Rates + Renewable Energy Credit (REC) Payments				
(\$/kWh)				
REC Payment	Residential Service	Small General Service	Demand Metered	
None (Applicable Retail Rate)	0.12033	0.11783	0.09456	
0.02 (> 250 kW gardens)	0.14033	0.13783	0.11456	
0.03 (≤ 250 kW gardens)	0.15033	0.14783	0.12456	

Subscription Considerations

- Contract Relationships
- Garden life
- Sizing your subscription(s)
- Who handles your utility bills?

Subscriber Resources



Community Solar Garden Subscriber Disclosure Checklist

The Minnesota Public Utility Commission issued an Order on April 7, 2014 on Xcel Energy's Community Solar Garden Program (Minnesota Public Utilities Docket No. E002/M-13-867). The Order, among other points, requires Community Solar Garden operators to disclose to prospective subscribers the project information listed below. Subscribers and prospective subscribers in Xcel Energy's service territory can contact the Community Solar Garden operator to obtain the following information as part of any Community Solar Garden project. All potential Community Solar Garden subscribers may use this form as a tool to review subscriber agreements.

On the left, subscribers can check to indicate they have reviewed this item. On the far right, operators and/or subscribers can note on which page numbers in the subscriber agreement the item is addressed.

Subscriber Agreement Items	Page #:
Future costs and benefits of the Subscription including:	
All nonrecurring (i.e., one-time) charges	
All recurring charges	
Terms and conditions of service	
Whether any charges may increase during the course of service, and if so, how advance notice is provided to the Subscriber	nuch
Whether the Subscriber is required to sign a term contract	
Terms and conditions for early termination	
Any penalties that the Community Solar Garden may charge to the Subscriber	
The process for unsubscribing and any associated costs	
An explanation of how the Community Solar Garden Operator and the Utility wishare the Subscribers data with each other	

COMMUNITY SOLAR GARDEN SUBSCRIBER QUESTIONS





This document begins by briefly introducing Community Solar Gardens and what you should know as a potential subscriber.

It then continues with questions that you can ask operators as you move forward. Let's go!

What are Community Solar Gardens?

Community Solar Gardens (also called Community Solar and Community-Shared Solar) are centrallylocated solar photovoltaic (PV) systems that produce electricity for participating subscribers. They are a way for people in Minnesota to benefit from solar PV systems without installing their own stand-alone project. Programs vary by utility in Minnesota. Many Cooperative utility customers can subscribe to a project owned by their local utility. Customers served by Xcel Energy will be able to participate in projects offered by private Community Solar Garden Operators.

What's the point of this document?

To assist potential subscribers in their decision making about which project might be right, CERTs and the Minnesota Department of Commerce – Division of Energy Resources have developed a document outlining the basics any Subscriber Agreement should address and highlighting the questions a potential subscriber may ask up front to ensure a clear understanding of their subscription and its terms.

What should you know before subscribing?

GET THE CHECKLIST

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See what Community Solar Subscriber Agreements should include by downloading our subscriber checklist at <u>MnCERTs.org/CSG-Disclosure</u> Before subscribing to any particular project, all subscribers should ask for and review the operator's subscriber agreement. All subscriber agreements should address elements included in the Community Solar Garden Subscriber Disclosure Checklist (see link at left). Additional questions that subscribers can ask are on the pages to come.

Next pages: Important subscriber questions & info

Colorado Governments with Subscriptions









WESTMINSTER





Questions

Holly Lahd Holly.Lahd@state.mn.us 651-539-1826



Model Community Solar Garden



Laura Burrington

As the Managing Director of the MN Renewable Energy Society (MRES) it is her job assist the Board Members in instituting the Society's goals of education, outreach, training, and advocacy in the Renewable Energy field. MRES recently won a Renewable Development Fund grant to build a 1MW community solar garden.

Laura received her Bachelor Degree in Political Science and Sustainable Studies from the University of Minnesota. She previously worked for Solarflow, a solar leasing company and is a passionate advocate and volunteer for environmental causes of all types. She is currently attending the Humphrey Institute at the University of Minnesota for her Masters in Public Affairs.





- Education
- Awareness
- Advocacy

For the Growth of Renewable Energy in Minnesota

Project Goals:

- Establish Best Practices
 - Lessons Learned
 - Model Documents









Land or Roof Lease Considerations





Roof Mounted Solar

- 1 MW needs about 150,000 sq feet of uninterrupted roof
- Roof replacement
- Protecting your building



Ground Mounted Solar





Ground Mounted Solar

From Worthless... to Worthwhile



Ist dibs for your constituents?



Electricity Use



Transparency is key



Laura Burrington

612-963-4757 <u>laurab@mnrenewables.org</u> www.mnrenewables.org

Community Shared Solar Panel Discussion



Lissa Pawlisch – Clean Energy Resource Teams



Holly Lahd – Department of Energy Resources



Laura Burrington – MN Renewable Energy Society



John Wold – Xcel Energy – John Wold has managed the Minnesota Solar*Rewards program since pre-launch in 2009. Prior to Solar*Rewards, John managed Xcel Energy's Billing and Payment programs. John has held marketing and business development positions within the utility and banking industries. He earned his BA in Journalism from the University of Minnesota and a Masters in Organizational Management from Concordia University.



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Minnesota GreenStep Cities 2014-2015 Workshop Series

Thank you for participating in out December GreenStep Cities Workshop!

Keep an eye out for our post workshop blog and survey! Also make sure to register on Eventbrite for our next workshop on January 21st: Protecting and Utilizing our Water Resources

If you missed the October or November workshops check out their blogs on the Great Plains Institute's Website:

www.betterenergy.org

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