Panel Discussion
March 28, 2018
Town of Crystal Bay

Solar Capital of the Continental USA
Per-Capita Solar PV Installed

- Town of Crystal Bay, Finland MN: 282 watts
- San Diego: 218 watts
- Town of CB w/142 W.R. daily residents: 215 watts
- San Jose: 169 watts
- Indianapolis: 149 watts
- Albuquerque: 146 watts
- Las Vegas: 120 watts
- Phoenix: 106 watts
- Riverside: 99 watts
- New Orleans: 95 watts
- Sacramento: 81 watts
Finland Community Center - 10.5 kW Solar

Solar PV

US Made PV Panels
Wolf Ridge ELC – 39.6 kW Solar Install
Ecological Buildings

<table>
<thead>
<tr>
<th>Category</th>
<th>Goal</th>
<th>Stretch Goal</th>
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<tbody>
<tr>
<td>Human</td>
<td>80% Satisfied</td>
<td>90%+ Sense of Joy</td>
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<tr>
<td>Energy</td>
<td>EUI 30</td>
<td>Zero-Plus 105%</td>
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<tr>
<td>Carbon</td>
<td>250 tons avoided</td>
<td>Zero-Plus all 3 scopes</td>
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<tr>
<td>Water</td>
<td>50% less</td>
<td>Zero-Plus water balance</td>
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<tr>
<td>Waste</td>
<td>95% Const. Div.</td>
<td>Zero-Plus operational waste, LNT</td>
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<tr>
<td>Material</td>
<td>Low Emissions</td>
<td>Zero-Plus, Biomimicry, 0 tons/ale-carbon/energy</td>
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<tr>
<td>Value</td>
<td>Reduce ops cost</td>
<td>ROI-Value financial &amp; non financial</td>
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Finland Community Center

- Geothermal Heating
- Solar PV, LED lighting
- Double thick walls...
Solar Cooking

Solar Water Heating

Wood Heat

Heating Systems

Wood Cooking

Pellet Furnaces

Solar Cooking
Local Food Production
Edina’s Electricity Action Plan
Xcel Energy’s Partners in Energy

Partners in Energy is a two-year collaboration between communities and Xcel Energy to develop and implement energy plan goals.

Xcel Energy provides tools and resources to enable community-driven energy planning and support plan implementation.
Edina’s Electricity Action Plan

Within the next 18 months lower the City’s electricity greenhouse gas emissions by 7.5%, which is 1.34 million kWh, or 943 metric tons of CO2 equivalent.*

Reduce and/or off-set 2% of electricity usage annually, which is 7.3 million kWh, equivalent to 5,140 metric tons of CO2 equivalent.*

750 homes take energy savings actions each year, saving 562,000 kWh annually, or 395 metric tons of CO2 equivalent.*

Double the number of subscribers to Windsource®, and double the average subscription amount within 18 month, producing 8,505,000 kWh total, or 5,977 metric tons of CO2 equivalent.*
Utilizing Current City Publications & Tools

Windsource Brings Clean, Renewable Energy Option to Edina

Residents can take part each month for less than the cost of a latte

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Edition: Edina

New Race & Equity Task Force

Page 60

About Town

Official Magazine of the City of Edina

Edina Seeks Help Cutting Energy Consumption

By Debbie Tonsor

Edina has a lot of qualities to brag about, but being a top energy user is not one of them.

Edina residents consume more energy per capita than people in any other city in the state. According to the Regional Indicators Initiative, Edina is third highest, just behind Lake Ervins and Minneapolis, and far above Minnesota and Dakota.

“It’s not something we want to be No. 3 at,” said Rhoda Zorn, 2016 Chairman of the City’s Energy & Government Commission.

To change that, the City has been an effort to reduce energy consumption in homes, businesses and City buildings. It created its plan with the support of Partners in Energy, a two-year service offered to communities by Xcel Energy. Edina is among 20 cities in Minnesota and Colorado that have joined the program.

The two most obvious benefits are saving money and helping the environment. Reductions also will help the City reach the state-adopted 30 percent reduction in greenhouse gas emissions by 2025.

“We know the largest greenhouse gas savings are for energy consumption, so that’s where we’re focusing,” said Tom Brown, the City’s Sustainability Coordinator.

The City
goal is the city's work on energy reduction efforts. Edina businesses have been urged and strategized for their energy use and efficiencies, and has been shared. There’s that a lot of potential energy reduction opportunities in being reviewed and yielded. This spring, the City will be evaluated, looking at various aspects, including on energy cost savings. Edina officials hope to start planning upgrade steps sooner, using money that comes from a change on electricity bills, the Conservation & Sustainability Program.

“The majority of the Conservation & Sustainability Program’s customers per have been spent on energy-saving upgrades,” Stevens said. The projects, once completed, will result in ongoing energy savings for the City and its taxpayers.
Making the Messaging Fun!

PROTECT THE FUTURE
FOR OUR CHILDREN.

Sign up today
for renewable energy.
EdinaMN.gov/Windsource

The City of Edina and Xcel Energy are pleased to work together to achieve our community goals.
Creating a Meaningful Event

EDINA HOME ENERGY FAIR
SAVE ENERGY & MONEY!

9 a.m. - 1 p.m.
Saturday, Oct. 7

Braemar Clubhouse
6364 Johe Harris Drive
Edina, MN
EdinaGoGreen.org

- Learn to lower your energy bill!
- Kid-friendly!
- Win prizes!
City of Red Wing

Green Wing Energy Action Plan
Partners in Energy Scope

Planning Stage
(February-November 2015)

Goal #1 - Residents. 10% or (700) of households to participate in an energy efficiency or renewable energy program in the next two years.

Goal #2 - Businesses. 10% (or 100) businesses To participate in energy efficiency programs
GET-UP-AND-SAVE Congregation Challenge

Dear Congregation Leaders:

GET-UP-AND-SAVE Congregational Energy Challenge

The City of Red Wing and Xcel Energy are pleased to work together to achieve our energy goals.

What is the Get-Up-And-Save Congregational Energy Challenge?

A fun and easy challenge to get your congregation hiking together on your campus! It is simple conservation, save energy and save money.

How can my building save energy and money?

Congratulations! You are saving energy by doing the following:

- Increase your energy reduction rate.
- Reduce your energy consumption.
- Increase your energy efficiency.
- Reduce your energy costs.
- Increase your energy savings.
- Increase your energy conservation.
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Green Wing Energy Coaches

SAVE ENERGY AND MONEY IN YOUR BUSINESS!

Red Wing's energy coach stopped by to tell you about the Green Wing Energy Challenge.

Get started today!
The Green Wing Energy Challenge is designed to save local Red Wing business owners energy and money. Our goal is to make the process easier to understand by providing low-cost measures for general assistance, building assessments, and financing.

Not sure where to get started?
Contact with a local Green Wing representative to coach you through the program. Visit red-wing earnsenergy or contact Jay McCliskey (jay.mccliskey@ci.red-wing.mn.us and 612.768.6874) or Paul Cardinal (p cardinal86@gmail.com and 612.720.3343).

"If you are a Red Wing business or property owner, you should schedule an energy audit. Definitely worth your time."
- Mandy and Paul Cardinal

Green Wing Energy Coaches
Reach Out via TIPS & TALKING POINTS

Components of Successful Outreach

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tbody>
<tr>
<td>Education</td>
<td>Provide information on energy efficiency and conservation practices.</td>
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<tr>
<td>Awareness</td>
<td>Increase awareness by sharing success stories and encouraging participation.</td>
</tr>
<tr>
<td>Support</td>
<td>Offer support through workshops, webinars, and one-on-one consultations.</td>
</tr>
</tbody>
</table>

Language

- English
- Spanish
- French

Energy Audit

- Conduct an energy audit
- Identify areas for improvement
- Develop a plan for implementation

WEBS

- Website
- Email newsletter
- Social media

Follow-Up

- Track progress
- Encourage feedback
- Celebrate successes
Business Toolkit

What is the Green Wing Energy Challenge?
The Red Wing community developed Green Wing in collaboration with Xcel Energy to encourage less energy use and the creation of more renewable sources across Red Wing. We’re challenging local businesses to save money and help the community by participating in simple energy saving programs.

For more information visit redwing.org/greenwing

Please Contact

Not sure where to get started?

Green Wing Energy Challenge

SAVE ENERGY AND MONEY IN YOUR BUSINESS

Financing

- Property Assessed Clean Energy Program (PACE): Innovative way to finance energy efficiency projects and invest in renewable energy. This program is ideal for Red Wing property owners looking for 100% financing for energy efficiency and renewable energy upgrades, repaid as a property tax assessment. To take action, call 888.208.6221 or email pnak@spba.com.

- Trillion BTU Energy Efficiency Loan Program: Revolving loan program to help businesses make improvements to lower energy costs. This program is ideal if your business is looking for a loan to cover 100% of project costs with no money down and a streamlined payment schedule. To take action, call 851.204.6221 or email pnak@spba.com.

- Center for Energy and Environment Lending Center: A nonprofit that offers financing for businesses to make cost-effective energy efficiency improvements. This program is right for commercial, non-profit, or rental property owners looking for financing options for energy efficiency improvements with low interest rates. To take action, call 812.338.5888 or visit maicentral.org.

Please contact one of Green Wing’s local energy coaches:

Jay

jay.mcelhany@xcel-energy.com
612.764.4074

OR

Paul

pocordinal80@gmail.com
612.720.3343

Xcel Energy’s Business Solutions Center

Red Wing businesses have free access to energy efficiency solutions through Xcel.

Free Energy Assessments

Energy assessments are an easy way for businesses to set a customized path to energy savings.

Xcel Energy

Partners in Energy

An Xcel Energy Community Collaboration

Red Wing and Xcel Energy are pleased to work together to achieve our community goal.
Moving Winona County Forward:  
A Rural Energy Collaboration
Key Message #1: Collaborate

Winona Housing & Redevelopment Authority

Minnesota Pollution Control Agency

SUSTAIN WINONA

Semcac
Community Action Agency
People Are Our Business

CITY OF WINONA

Winona County

HOME ENERGY SQUAD

JEFFERSON CENTER

MINNESOTA STATE COLLEGE SOUTHEAST
A TECHNICAL & COMMUNITY COLLEGE

CLEAN ENERGY RESOURCE TEAMS

Xcel Energy
PARTNERS IN ENERGY
An Xcel Energy Community Collaboration
Working with utility (Xcel Energy) revealed many opportunities

Able to utilize free energy Home Energy Squad visits for low income customers
Key Message #3: Consider working with Housing Authority

- 170 audits in two months – rapid implementation
“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it is the only thing that ever has”

- Margaret Mead
THANK YOU for your work to date to help achieve Minnesota’s clean energy goals.

There are many RESOURCES to help your community start or do more.
Technical Assistance
mn.gov/commerce/industries/energy/technical-assistance/

Financial Assistance
mn.gov/commerce/industries/energy/financial-assistance/

Research
mn.gov/commerce/industries/energy/utilities/cip/applied-research-development/

Partnerships
Questions?