

# RENEWABLE ENERGY TOOLKIT



**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

## **XCEL ENERGY PARTNERS IN ENERGY AND THE ROLE OF TOOLKITS**

Xcel Energy Partners in Energy provides communities in Colorado, Minnesota and Wisconsin services to develop Energy Action Plans, along with assistance to implement those plans. Each community has its own unique energy needs and priorities, and Partners in Energy tailors its services to complement each community's vision. More and more communities now realize that energy planning plays a critical role in helping them reach their goals. The benefits of wise energy choices are diverse. By working with citizens, businesses, and even in their own government facilities, a community can reduce energy and lower bills, promote renewables, drive resource conservation, and contribute toward greenhouse gas (GHG) emission reduction goals. Partners in Energy helps address the challenge of identifying local priorities and structures a path forward, leveraging all available resources. As part of this offering, we have developed several toolkits to help communities reach their energy goals.

For more information about other available toolkits or to customize any of the resources with your community's unique brand identity, contact your Partners in Energy community facilitator.

### **USING THIS TOOLKIT**

Renewable energy is a rapidly changing topic. New technologies, lower prices, new legislation, and broader acceptance of wind and solar energy are continually emerging. Community renewable energy planning is becoming increasingly important as climate action planning becomes more prevalent and cities and regions align around common goals such as 100% renewable electricity and carbon neutrality. Xcel Energy is proud to be a leader in the carbon-free future and will provide regular updates to keep this toolkit up to date and reflective of the exciting changes in renewable energy.

#### **Who is this toolkit for?**

This toolkit is designed to support local government staff, businesses, nonprofit organizations, and volunteers in identifying renewable energy priorities and strategies for their community - to drive actions that support their vision.

#### **Purpose of this toolkit**

Renewable energy offers a variety of opportunities for communities actively engaged in shaping their energy future. This guide is intended to build the foundation needed to make the most of available opportunities – to meet your community's renewable energy goals.

This toolkit is designed to help your community:

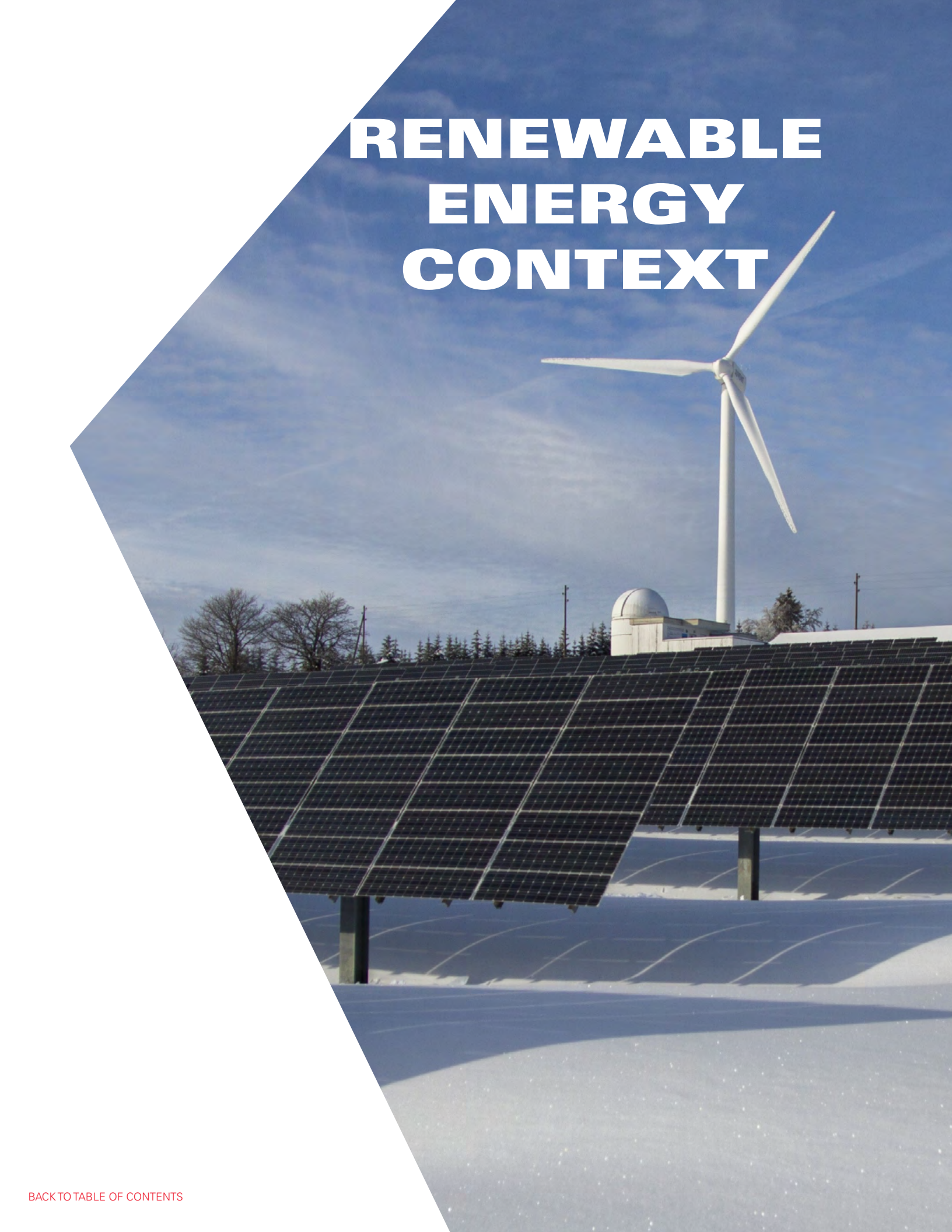
- Learn about Xcel Energy's renewable energy programs.
- Discover how investing in renewable energy sources can contribute to your long-term energy goals.
- Identify potential renewable energy initiatives you can implement in your community.
- Learn how you can use the data provided by Partners in Energy to understand renewable energy use in your community and track progress toward your goals.

# Table of Contents

<b>RENEWABLE ENERGY CONTEXT</b>	<b>1</b>
XCEL ENERGY CLEAN ENERGY LANDSCAPE	2
RENEWABLE ENERGY OPTIONS	4
<b>YOUR RENEWABLE ENERGY GOALS</b>	<b>6</b>
WHAT IS YOUR GOAL?	7
ACCOUNTING FOR RENEWABLE ENERGY IN YOUR GOAL	10
<b>MEASURING PROGRESS AND SHARING SUCCESS</b>	<b>15</b>
USING UTILITY CONSUMPTION AND PROGRAM DATA	16
USING MUNICIPAL DATA AND TRACKING POLICY CHANGES	16
ONLINE TOOLS	17
SHARE SUCCESS STORIES AND PROGRESS TOWARD GOALS	17
<b>RENEWABLE ENERGY STRATEGIES</b>	<b>18</b>
OUTREACH AND EDUCATION	19
PROCESS/POLICY UPDATES	22
CAPITAL INVESTMENT	24
MUNICIPAL SUBSCRIPTIONS	24
FINANCING AND INCENTIVES	26
WORKFORCE DEVELOPMENT	29
<b>COLLATERAL EXAMPLES</b>	<b>31</b>
<b>XCEL ENERGY PROGRAMS</b>	<b>I</b>
COLORADO	II
MINNESOTA	II
WISCONSIN	II
<b>REFERENCES</b>	<b>III</b>



# RENEWABLE ENERGY CONTEXT





# Renewable Energy Context

From energy generation to claiming credit for energy produced, the renewable energy landscape is complex. This section provides context to Xcel Energy's fuel mix and goals, generation types, and programs available to help you achieve your renewable energy goals.

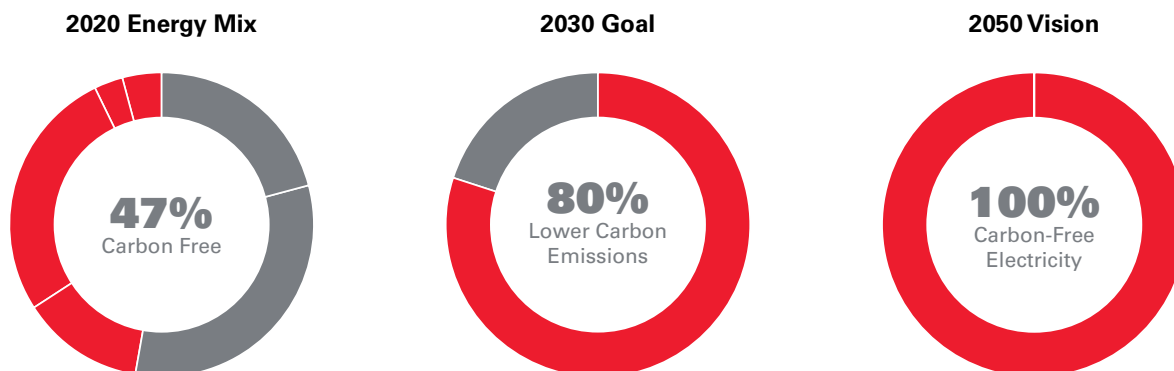
## XCEL ENERGY CLEAN ENERGY LANDSCAPE

### Building a Carbon-Free Future

For more than a decade, Xcel Energy has demonstrated leadership on clean energy — proactively reducing carbon emissions at levels that currently surpass state and federal goals. In 2005, Xcel Energy was one of the first power suppliers to register with the Climate Registry to track and verify emissions; and, in 2018 Xcel Energy was the first major U.S. electricity provider to set a [vision](#) to serve customers with 100% carbon-free electricity by 2050, and to reduce carbon emissions 80% by 2030 from 2005 levels.

The pathway to achieving this bold vision involves adding thousands of megawatts of wind and solar power, incorporating natural gas and storage resources, retiring coal units, supporting electrification, and investing in critical infrastructure.

In 2020, Xcel Energy saw its largest one-year decline in carbon emissions, reducing carbon emissions 51% since 2005, more than halfway to reaching the 2030 goal.



Xcel Energy's [Colorado Energy Plan](#) and [Upper Midwest Energy Plan](#) detail how Xcel Energy plans to transition to cleaner energy resources in each region.

## Certified Renewable Percentage

Xcel Energy developed the Certified Renewable Percentage tool to help customers claim the full benefits of the renewable energy delivered as part of the clean energy mix and credit them toward your sustainability and environmental goals. There is no additional cost or enrollment process to benefit from the Certified Renewable Percentage.

### How Does It Work?

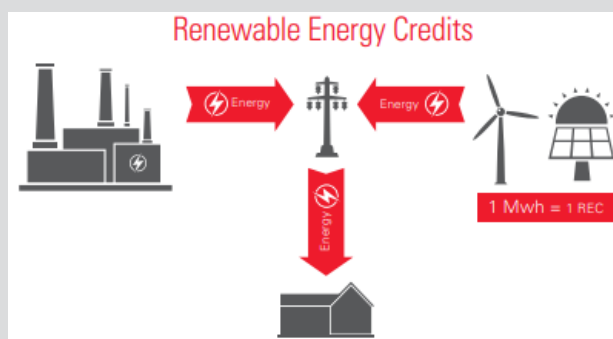
The percentage of renewable energy on Xcel Energy's grid is the same for all electricity customers. Each year, Xcel Energy calculates the total renewable energy delivered, divided by how much electricity customers used that year, and retires the associated Renewable Energy Credits (RECs). Adjustments are made to account for voluntary renewable energy programs (Renewable\*Connect® and Renewable\*Connect® Flex), so these RECs are not double counted. Customers participating in the voluntary programs can count those RECs in addition to the Certified Renewable Percentage. You can use the online [Renewable Mix Calculator](#) to determine your renewable percentage.

### What is a REC?

Renewable Energy Credits (RECs) are market-based instruments developed by federal and state governments. RECs represent the environmental benefits associated with energy produced from a renewable source. They are used to measure renewable energy produced and used to meet renewable energy requirements or goals.

When one megawatt-hour of renewable energy is generated, one REC is created. RECs can be separated from the renewable energy that is produced and may be sold, traded or kept. All the RECs produced in the United States are tracked in national registries and regulated by the Federal Trade Commission.

The claims you can make regarding your renewable energy participation are based on whether you own the RECs. REC ownership for Xcel Energy customers varies depending on the renewable energy program they are participating in.



A REC serves as “proof” that 1 MWh of additional renewable energy was generated and can be purchased separate from electrical service.

<https://www.xcelenergy.com/staticfiles/xcel-responsive/Programs%20and%20Rebates/Residential/Solar-REC-Claims-Info-Sheet.pdf>



## RENEWABLE ENERGY OPTIONS

There are two main renewable energy options beyond Xcel Energy's Certified Renewable Percentage: on-site generation and off-site subscriptions.

### On-Site Generation

On-site and distributed generation involves installing equipment that generates solar, wind, or other types of renewable energy at the same property where the energy will be used. Beyond increasing your renewable energy supply, on-site generation is a visible way to raise awareness and education. When integrated with battery storage, on-site renewable energy can also help provide back-up power during grid-based electricity shortages or blackouts.

Xcel Energy offers two programs for on-site generation:

1. **Solar\*Rewards® for Residences or Businesses** is an incentivized program that provides monthly payments to the customer in exchange for the RECs for the energy produced by the solar system. If you produce more than you need, the extra energy is added to the grid and credited toward your future bills.
2. **Net Metering** allows excess energy to be added to the grid and credited toward your future bills; however, it does not involve REC incentives. Customers may choose this option if they wish to retain the RECs and claim the environmental benefits of the renewable energy generation.



## Off-Site Subscriptions

Off-site, or centralized generation, involves subscribing to energy generated from large solar, wind or other renewable energy projects in a separate location that connect to the grid through transmission and distribution systems. For sites that don't have the resources, space or capital to invest in on-site generation, off-site generation can allow you to meet your financial, environmental, and operational goals. You can typically subscribe to off-site renewable energy through your electric utility or through third-party community solar garden providers.

This toolkit includes information about programs from Xcel Energy. If your community is served by another electric utility or program implementer, it's important to research their options available - as offerings, eligibility and terms will differ between utilities.

Xcel Energy offers the following utility and third-party subscription programs for off-site renewable energy:

### Xcel Energy Utility Subscription Programs

- 1. Renewable\*Connect®** allows customers to subscribe to renewable energy, from an Xcel Energy-owned large-scale solar or wind system, for a subscription fee on your Xcel Energy bill. The customer receives a fuel bill credit for using solar/wind, retains the RECs and can claim the environmental benefits of renewable energy generation for a specified contract term with Xcel Energy.
- 2. Renewable\*Connect® Flex** allows customers to subscribe to wind power, from an Xcel Energy-owned large-scale wind system, for a subscription fee on their Xcel Energy bill. The customer retains the RECs and can claim the environmental benefits of the renewable energy generation.

### Other Electric Utility Renewable Programs

This toolkit includes information about programs from Xcel Energy. If your community is served by another electric utility or program implementer, it's important to research their options available - as offerings, eligibility and terms will differ between utilities.

### Xcel Energy Third-Party Subscription Program

- 1. Solar\*Rewards® Community** allows customers to subscribe to a portion of a third-party owned and operated solar garden for a subscription fee paid to the solar garden operator. The customer receives a bill credit for the solar energy produced and Xcel Energy retains the RECs.

See the Xcel Energy Programs section of this toolkit for a complete overview of the Xcel Energy renewable energy programs in your state.



# **YOUR RENEWABLE ENERGY GOALS**



# Your Renewable Energy Goals

## WHAT IS YOUR GOAL?

This section includes descriptions of common community goals that can be achieved through renewable energy initiatives. Once you've established your goals, you can start charting a path toward achieving those goals.

### Goal: Reduce (Avoid) Greenhouse Gas Emissions

More renewable energy means less energy from carbon-intensive fuel sources. While the electricity grid is continuously becoming less carbon intensive (see [Building a Carbon-Free Future](#)), your community can avoid even more greenhouse gas emissions by supporting renewable energy through a variety of mechanisms, including subscription programs and on-site generation.

#### Greenhouse gas emissions from electricity

One of the simplest ways to reduce greenhouse gas emissions, in addition to energy efficiency, is to increase electricity use from renewable sources through on-site generation or off-site subscriptions. See the [Renewable Energy Options](#) section for available programs.

#### Emissions from Transportation

If emissions from vehicles are included in your emission reduction goals, it's important to consider how to support vehicle electrification, reduce vehicle miles traveled (VMTs) and promote multi-modal transportation. Use the [Partners in Energy Electric Vehicle toolkit](#) to identify ways to reduce emissions from transportation.

#### Term Check

**Carbon-free:** Carbon-free refers to sources of energy that will not emit additional carbon dioxide (CO<sub>2</sub>) into the air. Wind, solar, hydropower and nuclear energy are all carbon-free sources but only wind and solar are renewable.

**Carbon-neutral:** Carbon-neutral means that for every ton of CO<sub>2</sub> emitted into the atmosphere, an equivalent amount of CO<sub>2</sub> is removed (Levin, Song, & Morgan, 2015). Carbon neutrality is achieved through reducing and eliminating carbon emissions and through the purchase of carbon offsets.

**Carbon offsets:** One carbon offset is equivalent to one metric ton of CO<sub>2</sub> or CO<sub>2</sub> equivalent (U.S. EPA, 2018). Carbon offsets represent reduced or avoided GHG emissions. A carbon offset is different than a renewable energy credit. Renewable energy credits are not equivalent to a carbon offset and can only be used to account for a reduction in GHG emissions from electricity.

**Net-Zero Carbon:** Achieving net-zero carbon relies solely on carbon reduction strategies and does not include offsets.

**Zero Energy:** Annual energy delivered is less than or equal to on-site renewable energy generated and used on-site or exported. Natural gas energy can be offset with excess wind or solar. Only on-site renewable energy may be considered.



## Greenhouse gas emissions from natural gas

If one of your community's goals are to reduce greenhouse gas emissions, renewable electricity is only one piece of the puzzle. Natural gas remains a significant source of emissions for many communities and is especially vital for space and water heating in buildings in cold climates such as the Mountain West and Upper Midwest. If you are interested in reducing greenhouse gas emissions from natural gas, you can combine increased renewable electricity with investment in technologies like heat pumps that greatly increase heating and cooling efficiency, along with beneficial electrification of equipment that currently relies on natural gas. As renewable electricity increases, whether from individual investments in renewable energy or from the decarbonization of the grid, the potential to reduce greenhouse gas emissions by electrifying fuel sources increases.

### Accounting for a Greener Grid

As Xcel Energy cuts electric carbon emissions with renewable and carbon-free energy generation, the electric grid will become "greener." This impacts your greenhouse gas emission goals by reducing the impact of individual contributions toward greenhouse gas emissions. If your goal is to reduce emissions from all energy sources (electric and natural gas), consider focusing on greenhouse gas emissions from natural gas.

[Read more](#) about Xcel Energy's natural gas strategy.



## Goal: Increase Resiliency

Renewable energy can also increase resiliency within your community and has additional impacts, beyond reducing greenhouse gas emissions, as outlined below.

### Reliable energy supply

Renewable energy can increase resiliency at critical facilities, such as hospitals, communications centers, or emergency evacuation facilities, especially if coupled with storage. As extreme weather events or other disruptions present increased risk to communities, community resiliency and the need for a reliable, resilient energy supply becomes increasingly important.

### Decreased emissions in communities that have been historically marginalized

Low-income populations and communities of color are disproportionately impacted by greenhouse gas emissions from energy systems, transportation, waste disposal and other environmental hazards. Transitioning to renewables and promoting renewable energy in those areas can help decrease this impact and offer improved health outcomes (USGCRP, 2018).

### Economic resilience

Renewable energy provides economic resilience to communities by reducing the energy burden (percentage of household income spent on energy bills), reducing the number of households not able to pay their bills, and providing financial savings to households and businesses.

- Reducing energy burden  
Rooftop solar and community solar gardens can provide economic relief to low income households through Xcel Energy's net-metering, Solar\*Rewards and Solar\*Rewards for Community programs. The Colorado Energy Office found that low-income solar projects save households between 15 and 50% on their electricity bills (Dobos & Artale, 2017).
- Avoiding electricity shutoffs  
The electricity bill savings from rooftop solar and community solar gardens can provide economic relief to households that may not otherwise be able to pay their bills, reducing the occurrence of electricity shutoffs (CESA, 2019).

### Resilience in Practice

- Xcel Energy is building seven community microgrids across the Denver Metro area - to serve as community resilience centers, providing back-up power to critical facilities and emergency shelters (Wood, 2020).
- The Colorado Energy Office [Weatherization Assistance Program](#) offers rooftop solar to income-qualified clients as part of the program, on a limited basis, to couple energy efficiency with renewable energy -providing even more savings opportunities.
- [Minnesota's Metropolitan Council](#) created a Solar-for-Vouchers Program to provide technical assistance to help multifamily property owners install solar panels and reduce their energy costs in exchange for a commitment to rent some of their units to Section 8 Housing Choice Voucher participants.



## Workforce development opportunities

The renewable energy industry presents significant opportunity for workforce development. In 2019, the solar and wind industries employed over 360,000 people - more than any other electric power generation sector (Barrett & Yudken, 2020). Advancing workforce development opportunities in renewable energy industries in your community can also generate more equitable employment opportunities for those who have historically had less access and to opportunities and that experience higher rates of joblessness. Skills learned through the solar industry are also highly transferrable to other industries, providing more career opportunity (CESA, 2019). As the energy industry shifts away from fossil fuels, there is a need for a just transition, into new career opportunities, for fossil fuel workers. The renewable energy industry provides opportunities for those facing career transitions.



### Resource: Workforce Development Toolkit

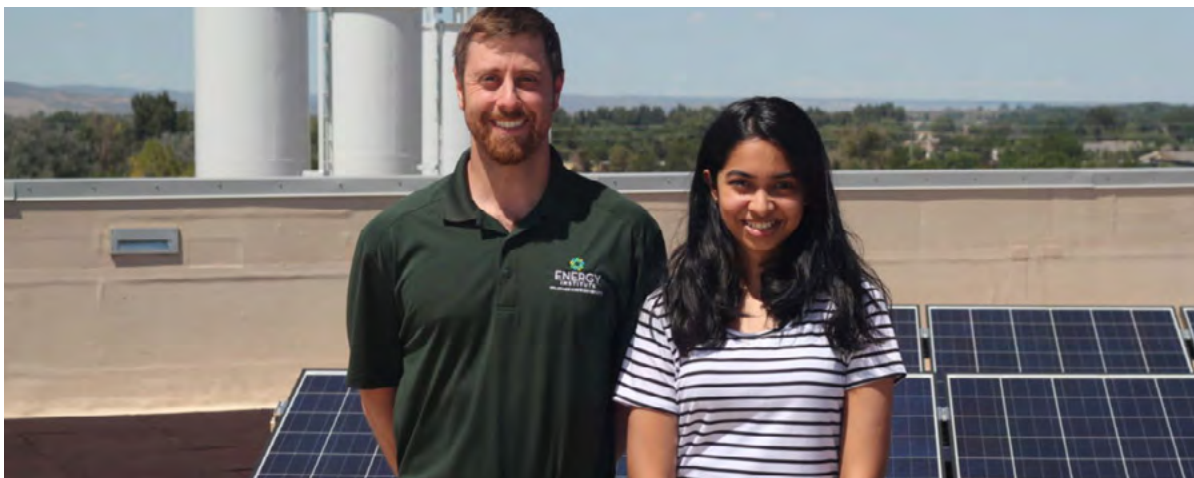
Partners in Energy created a toolkit, to support communities with local workforce development initiatives, promoting the energy sector. This resource is available on the Partners in Energy community portal.

[xcelenergycommunities.com/workforce-development-toolkit](https://xcelenergycommunities.com/workforce-development-toolkit)

## Goal: Lead by Example

If your goal is to lead by example - for other communities, or to those within your own community - focus on how to increase renewable energy production or subscriptions for your operations and showcase those activities in your community. Showcasing your projects with cost and timeline information will allow other cities and counties, businesses and residents to use your projects as a resource and guide for their own renewable energy projects. It's also important to communicate the why—why is renewable energy important to you? Why are you choosing this project instead of others? What are the benefits to you and to taxpayers? Refer to section Measuring Progress and Sharing Success to learn more.

Another important component of leading by example is staying up to date on new renewable initiatives and technologies so you can serve as a local leader and go-to resource for community members and others. In addition to the Department of Energy (DOE) and your state's local energy office, the Solar Energy Industries Association (SEIA) can be a resource to help you understand policy, financing and emerging technology trends.



## ACCOUNTING FOR RENEWABLE ENERGY IN YOUR GOAL

### Start with Energy Efficiency

In addition to understanding how renewable energy can contribute to your community goals, it's important to understand the relationship between energy efficiency and renewable energy. For any renewable energy initiative, increasing energy efficiency should be your first step to avoiding greenhouse gas emissions and increasing resiliency; the cleanest energy is the energy you don't use. By increasing energy efficiency first, you'll maximize the cost-effectiveness of your renewable energy generation and ensure you aren't overbuilding a system or oversubscribing.

Get started on energy efficiency with Partners in Energy [toolkits](#) like the New Construction & Redevelopment toolkit, Small & Medium Business toolkit, and Reaching Underserved Populations toolkit.

### Understand How RECs Impact Your Goal

Renewable Energy Credits (RECs) are a vital component of the greenhouse gas impacts of renewable energy. RECs ultimately dictate who can claim credit for the emission reductions from renewable electricity produced. If your community's goal is to reduce emissions, you must retain the RECs from any renewable electricity produced or invested in.

If you, or another party, sell the RECs, you cannot claim greenhouse gas reductions. Refer to the Renewable Energy Context and Xcel Energy Programs sections for an overview of which programs allow you to retain RECs.

### Establish Your Baseline

To understand your renewable energy needs for reaching your goal, whether 100% renewable electricity or carbon neutral, a baseline is required. The first step is understanding how much energy your community consumes and how much of that energy is considered renewable. Understanding energy consumption is a standard part of the Partners in Energy planning process, and your community facilitator can help you understand your energy baseline.

Renewable energy can be considered in terms of both the number of participants as a portion of total premises in the community and the total amount of electricity subscribed to or produced as a portion of total energy consumption. Recall that only certain subscription programs count toward your renewable energy goals (see Off-Site Subscriptions section).

The steps below outline how to establish your community's renewable energy baseline, including data sources provided by Xcel Energy and through Partners in Energy, as well as additional sources. These data sources will give you the necessary information to implement outreach strategies, update city processes, and adopt policies.

## Step 1: Gather Utility Data

### *Certified Renewable Percentage*

With [Xcel Energy's Certified Renewable Percentage](#), your community can calculate the portion of renewable electricity delivered to you. This changes annually based on the number of RECs Xcel Energy retires.

In 2019, customers could claim the following Certified Renewable Percentages:

- 21.8% in Colorado
- 23.2% in Minnesota
- 22.1% in Wisconsin

### *Xcel Energy Community Energy Reports*

Every community served by Xcel Energy receives an annual Community Energy Report, summarizing your community's resource mix, energy consumption and program data.

### *Xcel Energy Partners in Energy Reports*

Communities active in Partners in Energy receive bi-annual data reports summarizing energy consumption, premises, and energy efficiency programs and renewable energy program participation. These reports provide more customized detail for communities than Community Energy Reports.

### *Other Utility Data*

If your community is served by utilities other than Xcel Energy, gathering data from these utilities about energy use, renewable energy, and program savings can be helpful in establishing a baseline. You should request energy consumption, demand side management (DSM) program participation, and renewable energy program participation and subscription amounts (if available).

## Step 2: Gather Municipal Data

The following list provides options for possible supplemental data, related to renewable energy, that may be provided by your municipal government.

### *Solar Installation Permits*

Another method of tracking local renewable energy is by pulling permit data for solar installations. Most solar installations require permits. Confirm with your permitting department whether they track solar installations separately from other electric permits and if they track the size of installations. In addition to the number of permits, understand the fees residents and businesses must pay to install a solar system.

### *Land Use Zoning Policies*

If you want to reduce barriers to solar installation in your community, you need to understand how your zoning code and land use policies encourage or prohibit them. Doublecheck permitted and conditional uses in all zoning districts to see if there is an opportunity to update these policies.

### *Municipal Utility Bills*

Track building energy consumption by monitoring your energy bills. This process is made easier through a formal benchmarking platform, like ENERGY STAR Portfolio Manager® or B3 Benchmarking Platform, which will show trends and allow you to compare buildings.



## Establish Your Emissions Forecast

Once your baseline is established, a forecast will be necessary to understand what it will take to reach your future goals. This will allow your community to determine what strategies will be most impactful over the long term, when to begin engaging in certain strategies and what potential gaps may remain in your goal year. Following sections in this toolkit provide suggestions for renewable energy strategies to help you meet your goals.

### Step 1: Start with your Energy Baseline

The first step in establishing an emissions forecast is to use the baseline energy consumption developed following the steps outlined in the previous section. Generally, the baseline of energy use per home or business can be used to predict future energy consumption. From there, forecasts can be established in various ways.

### Step 2: Model Future Energy Consumption

Population growth is a common method for determining future energy consumption. For new developments, the estimated number of homes and businesses that will be added might be a better estimate. Additional considerations for building the forecast may include electric vehicle adoption rate, as that will change the electricity portion of the forecast.

#### Forecasting in Action

Figure 1 shows an energy forecast for Sterling Ranch, a master planned development in Littleton, CO, that established a goal of 100% renewable electricity by 2030 and carbon neutral by 2040. This forecast was used to determine feasibility of goals, strategies, and targets.

Your community facilitator can help you determine the best metric for building your forecast.

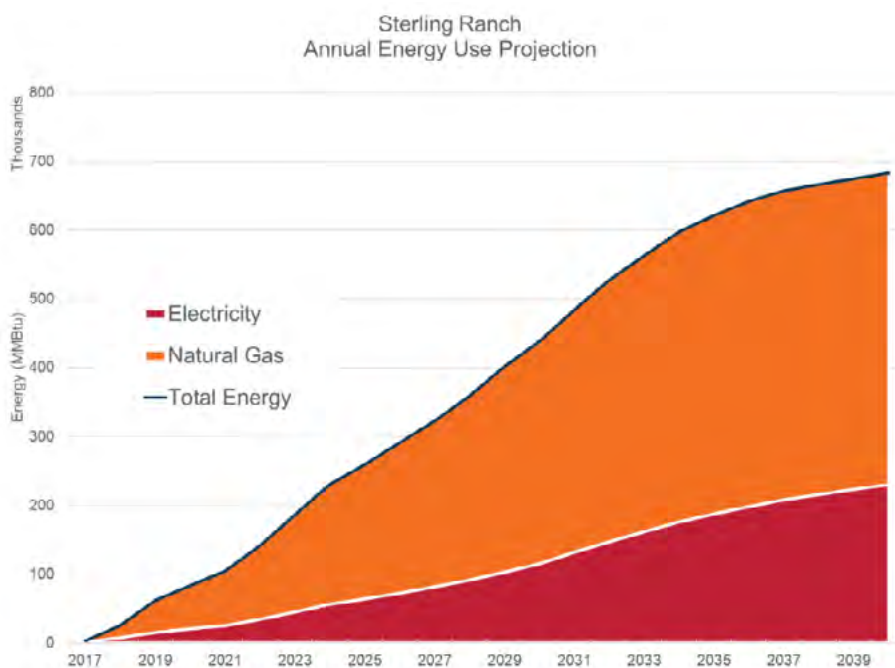


Figure 1

### Step 3: Understand how a Greener Grid Impacts your Forecast

If your community goal is related to carbon neutrality or energy-related greenhouse gas emission reductions, an emissions forecast should be included - based on Xcel Energy's anticipated emissions factors. With Xcel Energy's goal to reduce emissions by 80% by 2030 and to supply carbon-free electricity by 2050, the greening of the grid will impact future emissions and needs to be accounted for. Your community facilitator can help you determine which emissions factors to use. Xcel Energy's Certified Renewable Percentage can also be applied to the electricity portion of the forecast.

### Step 4: Determine Strategies to Achieve your Goals

Your community facilitator can also help with energy and cost modeling - to determine the combination of energy efficiency and renewable strategies that provide a flexible pathway to achieving your community's energy goals. The analysis of renewable strategies will include both off-site subscriptions and on-site generation options, as well as establishing initial working targets for each strategy. For on-site generation estimates, there may be other community sources available to you depending on your location and partnerships. These tools help estimate solar potential at the community level or in some cases the parcel level.

#### *Google Project Sunroof*

Project Sunroof is an online tool to estimate solar energy production at an address. Using Google Earth imagery, the tool analyzes roof shape and weather patterns to create a personalized solar analysis. [google.com/sunroof](https://google.com/sunroof)

#### *National Renewable Energy Laboratory's (NREL) PVWatts® Calculator*

NREL's PVWatts Calculator estimates the energy production and cost for grid-connected solar systems. It allows users to easily develop estimates of the performance of potential photovoltaic systems. [pvwatts.nrel.gov](https://pvwatts.nrel.gov)

#### *Metropolitan Council Solar Suitability Analysis*

In Minnesota, communities served by the Metropolitan Council receive a map and solar resource calculations to understand the solar potential in their community. [metro council.org/solar](https://metro council.org/solar)

#### *Minnesota Solar Suitability App*

The Minnesota Solar App maps solar potential on a large scale across Minnesota. The application allows users to look at certain addresses to determine solar potential, project costs and energy bill savings potential. [solar.maps.umn.edu](https://solar.maps.umn.edu)

### Step 5: Measure Progress Against your Forecast

As you set strategies and targets for achieving renewable energy goals, it will be important to cross-check them against your forecast - to ensure you're on track to meet your goals. Periodic updates to your forecast can also be useful to continue checking progress. Annual Partners in Energy reports along with resources outlined in the Establish Your Baseline section, can help.



# MEASURING PROGRESS AND SHARING SUCCESS

A high-angle, close-up photograph of a person's hands typing on a silver laptop keyboard. The person is wearing a light-colored, long-sleeved shirt and a ring on their left hand. The laptop is open and resting on a dark wooden desk. The background is dark and out of focus. The overall composition is clean and professional, emphasizing the act of working and achieving success.



# Measuring Progress and Sharing Success

Measuring progress toward your goals is an important step, whether you have qualitative or quantitative data to share; and, sharing that progress with your stakeholders is a great way to generate community support.

## USING UTILITY CONSUMPTION AND PROGRAM DATA

Use your Xcel Energy Community Energy and Partners in Energy Reports to compare trends in consumption and greenhouse gas emissions, changes in program participation and market penetration for renewable energy programs.

### Energy Conservation Programs and Savings

Because energy efficiency should be completed first, before renewable energy is prioritized, it's important to gather background on how your community has saved energy. The following information is available from your Xcel Energy reports:

- Total count of participation in energy conservation programs, for residential and commercial & industrial customers.
- Participation counts and savings for specific energy efficiency programs.
- Estimated annual savings, for residential and commercial & industrial customers.

### Energy Consumption from Renewable Sources

Energy consumption, especially from electricity, lays an important groundwork for measuring progress toward your renewable energy goals. A good benchmark is renewable electricity as a percent of total electricity consumed. This considers Certified Renewable Percentage, subscription totals and participation in on-site programs.

### Participation Rate for Renewables Programs

Another good benchmark for renewable energy is participation rates in renewable energy programs. This can be tracked by changes in participation rates year over year, or participation as a percent of total community premises.

## USING MUNICIPAL DATA AND TRACKING POLICY CHANGES

Your city will have both qualitative and quantitative data to track progress toward achieving your goals. Use internal permit and building data to track the number of on-site solar installations. Work with your permitting department to set up a system to regularly report the number of permitted installations. You can also monitor changes in community policies such as changes in zoning codes or your development review process. Use your baseline assessment to compare policy changes and monitor quantitative data changes - to see if changes and impact align.

## ONLINE TOOLS

A variety of online tools are available to help you track progress toward achieving your goals. Some tools we recommend include:

1. ICLEI ClearPath™: An online software platform for completing greenhouse gas inventories, forecasting, developing climate action plans, and monitoring at a community-wide scale. The tool is available at no cost to members of ICLEI and for an annual subscription fee to non-members. [iclei.org/clearpath](https://iclei.org/clearpath)
2. ENERGY STAR Portfolio Manager®: An online tool used to measure and track energy and water consumption, as well as greenhouse gas emissions. Communities can use it to benchmark the performance of one building or a portfolio of buildings, all in a secure online environment. Portfolio Manager is available at no cost. [energystar.gov/portfoliomanager](https://energystar.gov/portfoliomanager)

Through Xcel Energy's Benchmarking program, data can be automatically synced to ENERGY STAR Portfolio Manager® so you don't have to manually update it each month. Visit [www.xcelenergy.com/energybenchmarking](https://www.xcelenergy.com/energybenchmarking) to learn more.


3. B3 Benchmarking: A tool, available to Minnesota cities and counties, that uses basic building and meter information to summarize energy consumption, costs and carbon emissions in easily digestible monthly and annual reports for Minnesota public buildings. [mn.b3benchmarking.com](https://mn.b3benchmarking.com)
4. Regional Indicators Initiative: An online platform that measures annual performance metrics for Minnesota cities committed to increasing their overall efficiency and level of sustainability. The project collects data that reflect activities within each of the participating city's geographical boundaries. Data is only available for participating cities. [regionalindicatorsmn.com](https://regionalindicatorsmn.com)

## SHARE SUCCESS STORIES AND PROGRESS TOWARD GOALS

In addition to tracking your progress, it's important to share that progress with your stakeholders. Reporting the impact of your work keeps your community engaged in that work and generates support and enthusiasm for your goals.

Post reports, success stories and case studies on your website or other public-facing platform(s). If you generate annual reports or have an online dashboard, like Portfolio Manager, share that information so stakeholders can explore the metrics you're using to measure progress toward your goals.

Leverage community communication channels to share your success through press releases, newsletter articles, and social media posts. If your implementation strategies focused on community engagement, collect testimonials from on-site or subscription program participants to generate social norming and peer pressure for others in your community to participate.



# RENEWABLE ENERGY STRATEGIES



# Renewable Energy Strategies

## OUTREACH AND EDUCATION

Below are some outreach strategies you can use to encourage community members to learn about and invest in renewable energy to power their property. Depending on which renewable energy opportunity they choose, community members can save on electricity bills, reduce greenhouse gas emissions and increase their property value.

### First Steps and Quick Wins

#### Maintain an Up-to-Date Website

Develop and maintain a comprehensive renewable energy website that allows residents and businesses to easily access renewable energy information. The website should provide information about renewable energy options, relevant building codes and permitting processes for on-site installations, workforce development opportunities and other local considerations or incentives. The website can also connect customers to external resources such as Xcel Energy renewable energy programs, DOE for federal and state tax credit information, the Database of State Incentives for Renewables & Efficiency (DSIRE), and additional resource tools.

#### Table at Local Events

Promote, facilitate, and attend local events to educate the community about the benefits of renewable energy and available programs and resources. Or, host a community event with tabling opportunities. Tabling events may include community festivals, farmers markets, and energy workshops. Distribute materials such as utility program details and local community garden options, as well as available state and national tax incentives. Contact your Partners in Energy community facilitator for materials or support.



#### Advancing Equity

If your community has a large number of English as a second language (ESL) speakers, consider translating your website and hard-copy materials to make the information more accessible.

When tabling or doing outreach at in-person events, partner with local organizations in neighborhoods typically underserved by renewable energy to reach audiences you may not reach during your usual outreach.



#### Implementation in Action: Eden Prairie Renewable Energy Challenge

The City of Eden Prairie, MN hosted a challenge to residents to sign up for a renewable energy subscription program. Tied to Energy Month outreach, the City leveraged social media, participant testimonials, posters in public spaces, and a City-wide newsletter to get the word out. The City also offered prizes to participants - to encourage participation. This one-month campaign resulted in more than 30 new Renewable\*Connect Flex subscribers.

## Larger Efforts

### Renewable Energy Subscription Program Campaign

Renewable energy subscription programs offer participants the advantage of rapid access, low out-of-pocket expense and deferral of administrative responsibility to third-party subject matter experts. Follow these three steps to design a campaign promoting existing renewable energy subscription programs:

- **Outreach**

During this first phase, the primary mission is broad reach across the community to find those most interested in the opportunity. The best channels for this type of message are those that reach a wide cross section of the community with little effort required by the recipient, including:

- » Existing community newsletters
- » Public relations efforts such as stories in local media
- » More targeted publicity efforts such as talks at various community meetings

### Sample Campaign Messages

Different subscription program types have different advantages you can incorporate into your campaign messaging.

1. **Renewable\*Connect Flex:** This program allows subscribers to keep the RECs created with the renewable energy generation, allowing subscribers to say things like:
  - » I'm reducing my carbon footprint.
  - » I'm helping my community reduce its greenhouse gas emissions.
2. **Solar\*Rewards Community:** In this program, the RECs are transferred to and owned by Xcel Energy. Although subscribers do not own the RECs, they can still say things like:
  - » I'm supporting local community solar gardens.
  - » I help grow solar gardens.



- **Educate**

Once someone has shown interest, the next step is to provide easily accessible resources that provide the information and answers they seek. At this point, communication can be a mix of outbound engagement and inbound response.

- » Outbound Engagement
  - Host a series of webinars featuring local utility representatives.
  - Submit articles for publication in local media.
- » Inbound Response
  - Create a dedicated webpage with FAQs, testimonials from current subscribers and links to articles in local media.
  - Designate a “renewables concierge” – a person who can answer questions from community members concerning anything related to a renewable energy subscription.

- **Coordinate**

Even after providing easy access to information in the “Educate” phase, some community members may not make the decision without a more overt invitation. This is where outreach to local community groups, and to those who have expressed any curiosity, can help motivate a decision. Conducting a round of calls that specifically “ask for the order” can be a very productive tool to move residents to participate.

Creating a local challenge campaign is also a powerful way to leverage various groups’ pride in community participation. Offering neighborhoods or local businesses the opportunity to “team up” to demonstrate who is committed to renewable energy is a great way to keep the idea top of mind.



### **Advancing Equity**

While many renewable energy subscription programs only charge a modest premium compared to conventional energy pricing, that extra premium is enough to make the program out of reach for low-income or fixed-income households.

While new initiatives are in development at the state and at Xcel Energy to address this issue, you may consider ways to make the benefits of these programs available to everyone in the community, such as subscribing to renewable energy programs for public buildings that serve under-resourced households.



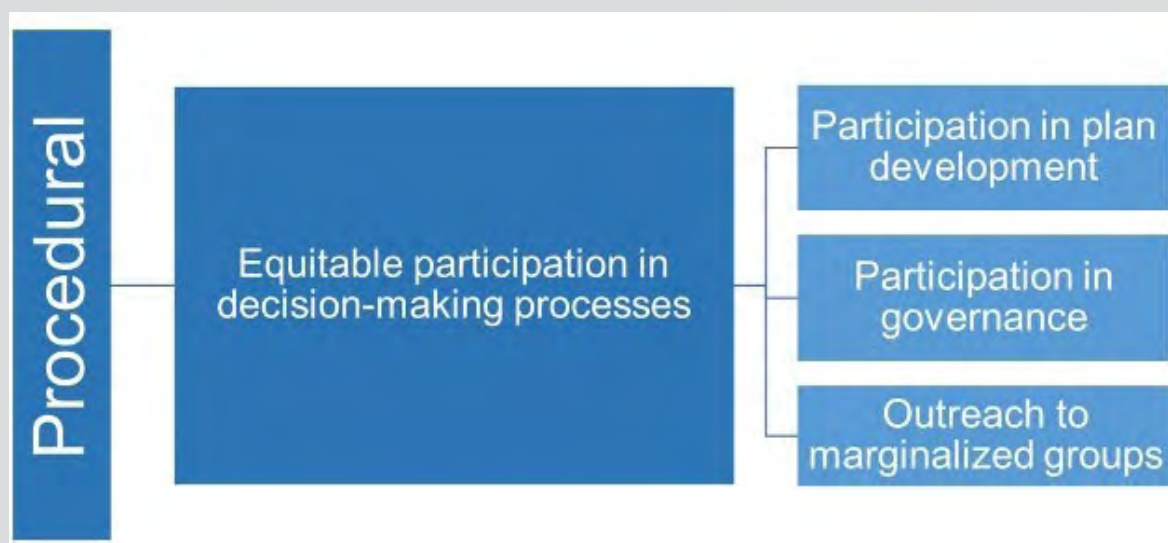
## PROCESS/POLICY UPDATES

Investing in on-site installations can be achieved through different process and policy updates, such as reducing the barriers to on-site installations in permitting and zoning to encourage on-site installations in development review.



### Advancing Equity

When updating or changing policies and processes, it's important to use a lens of equity. Procedural equity allows equitable participation in the decision-making process across all sectors of your community, including those typically excluded from decision making. Ways to do this include targeting outreach to include direct participation in the development process.



<https://doi.org/10.1080/13549839.2019.1645103>

### First Steps and Quick Wins

#### Create Permitting and Fee Checklist

Creating a checklist will make the process transparent, especially if additional permits or fees are needed for on-site solar installations. A checklist can be a useful tool to easily communicate with a variety of audiences.

#### Update Zoning Code and Standards

Conditional use permits can discourage solar installations since they require additional review and permitting which impacts the project cost and timeline. Review your zoning code and standards to ensure solar installations are permitted uses in all zoning districts where it makes sense. If you have certain historic overlays or small area plans, maintaining conditional use permits in these standards can ensure design guidelines and other preservation methods are preserved.



#### Resource: SolSmart

SolSmart is a national designation and technical assistance program to help cities remove barriers, in city processes and policies, to on-site solar. Cities are recognized for different actions taken and provide a wide array of actions to fit the needs of each city, including some outlined in this toolkit. [solsmart.org](https://solsmart.org)

### **Encourage Commercial & Residential Developers to Participate**

Leverage your development review process to encourage commercial and residential developers to include renewable energy in their projects. The most cost-effective time to install the electrical conduit needed for a solar system is during construction or major renovation. Share solar-installation information with developers early in the process if they are not already considering renewable energy as part of their project.

#### **Larger Efforts**

#### **Removing Permit Fees**

If additional permits or fees are required for solar installations, review your policy to weigh the cost-benefit of requiring additional fees for on-site solar. Residents or businesses may find the additional fees prohibitive to installing their own systems.

#### **Certifying Solar-ready Sites**

To encourage local solar development, certify city-owned property as “solar ready” or “solar preferred” - to encourage developers to build solar projects in your community. Since the majority of solar construction is above ground, brownfield sites are often good candidates for this type of certification because of the complications of remediation and unforeseen conditions below ground.



#### **Resource: New Construction Toolkit**

Partners in Energy’s New Construction and Development Toolkit walks you through how to update your development process to share energy efficiency and renewable energy program information. From quick communication wins to more involved process changes, the toolkit provides resources you can use to engage with developers.

[xcelenergycommunities.com/new-construction-redevelopment-toolkit](https://xcelenergycommunities.com/new-construction-redevelopment-toolkit)



#### **Implementation in Action: Edina Public Works Community Solar Garden**

To make renewable energy accessible to residents, the City of Edina, MN hosts the Edina Community Solar Garden on the roof of their public works building for local residents to subscribe to renewable energy. The City of Edina leases the roof space to a third-party solar developer, the solar garden owner, for the 612kW system. Sixty-eight households currently subscribe to the solar garden.

## CAPITAL INVESTMENT

On-site solar can be a major capital investment for your community but can also have a meaningful impact on achieving your renewable energy goals. You can install solar to power your own building or, in some cases, can work with a third-party developer to install solar panels on a building - to be used as a solar garden for your community.

### First Steps & Quick Wins

#### Solar Siting or Suitability Analysis

To understand what sites are best suited for solar, you'll need to complete a solar siting or suitability analysis. The analysis will include studying the solar production potential and the rooftop or other structure suitability for solar. Buildings, parking lots, and vacant land (e.g., near a water treatment plant) can all be considered; however, it is important to consider the benefits and limitations of each of these options. Not all building rooftops are good candidates for solar panel installation, due to solar orientation or available space. Resources such as the [American Cities Climate Challenge Renewables Accelerator](#) can guide you through the steps of analyzing potential sites; or, consider hiring a local solar consultant for a siting study.

### Larger Efforts

#### On-site Solar Installations

Based on the results of the solar siting study, determine which sites are best to pursue for on-site solar installation. Aligning this process with your capital improvement planning and budgeting processes will ensure funding is available for both the analyses and any potential solar installations. Once sites have been selected, requests for proposals (RFPs) can be developed to obtain bids for solar installations.

#### Community Solar Gardens

As an alternative to installing solar to power your own buildings, you can work with a community solar developer to create a local community solar garden on city-owned land or, in some special cases, on city buildings. There are different agreements and capital considerations for this approach, so it's important to work closely with a developer to understand the benefits for the city, community participants, and the developer.

## MUNICIPAL SUBSCRIPTIONS

Many communities establish specific energy goals for their municipal facilities. If your goal is to achieve 100% renewable electricity or reduce GHG emissions at the municipal level, the same process discussed above applies, including starting with establishing a baseline and forecast that factors in efficiency, RECs, and Certified Renewable Percentage. When evaluating renewable energy strategies, off-site subscriptions, in addition to the on-site installations discussed in the Capital Investment section, may be a good option.



### Implementation in Action: St. Louis Park 100% Renewable\*Connect Flex Subscriptions

As part of their commitment to achieving carbon neutrality by 2040, the City of St. Louis Park, MN subscribes all city-owned buildings to Xcel Energy's Renewable\*Connect Flex, meaning City building operations are powered 100% by renewable energy.



## Case Study: City and County of Denver Municipal Strategic Energy Plan

In 2019, the City and County of Denver, CO and Xcel Energy developed a Strategic Energy Plan through the Partners in Energy community energy planning offering (Xcel Energy, 2019). This Strategic Energy Plan focuses on the City's goals to achieve 100% renewable electricity for municipal buildings by 2025 and to lead by example for the broader community to take action (City and County of Denver, 2019). The Plan focuses on efficiency measures, as well as renewable energy pathways, through the following four strategies that allow the City to retain REC ownership:

1. Participate in Xcel Energy's Certified Renewable Percentage program.
2. Install rooftop solar using Xcel Energy's Net Metering program through Power Purchase Agreements so third parties will own and operate the systems, relieving operations and maintenance burden on City staff.
3. Maximize subscriptions to Xcel Energy's Renewable\*Connect program, which provides customers access to utility-scale renewable projects in Colorado.
4. Purchase renewable energy through Xcel Energy's Renewable\*Connect Flex program or through REC markets.

These four renewable energy strategies, combined, provide more than enough opportunity for the City and County of Denver to achieve 100% renewable electricity in municipal buildings by 2025 (Figure 2).

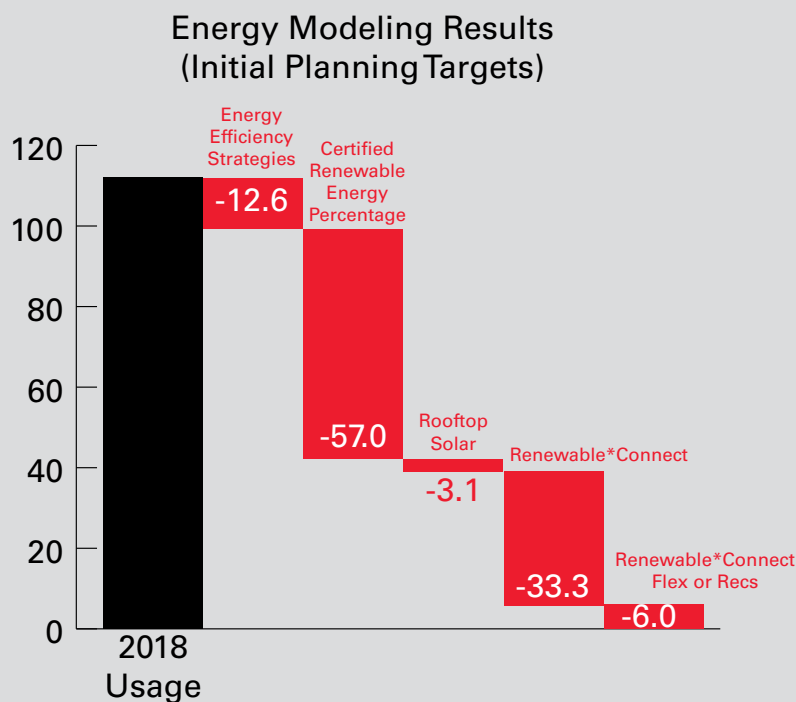


Figure 2. Energy Modeling Results (Initial Planning Targets)

## FINANCING AND INCENTIVES

### First Steps and Quick Wins

#### Leverage Existing Incentives for On-Site Solar Installations

Financing for on-site solar installations is available from the Federal government with tax credits, state programs and tax incentives, and local grants. The following is an overview of tax credits and financing options and should not be taken as professional advice on the eligibility for tax credits or to guide investments.

##### *Federal Tax Credit for Residential Solar Photovoltaics*

The Federal government offers a tax credit for residential solar installations, which can be applied to personal income tax. The tax credit is structured as a dollar-for-dollar reduction that allows the resident to claim a percentage of the cost of a solar system.

The tax credit is “26% for projects that begin construction in 2021 and 2022, step down to 22% in 2023, and ending in 2024” (SEIA, 2020). Tax credit can only be taken if the homeowner owns the system, meaning they do not have a power purchase agreement (PPA) or lease through a third-party. If a homeowner buys a newly built home and owns the system, they can claim the credit the year they move into the house (SEIA, 2020).

##### *Federal Tax Credit for Commercial Solar Photovoltaics*

Similar to the residential tax credit, businesses that install, develop, or finance a solar photovoltaic project can claim up to 30% of the cost of the system (U.S. Department of Energy, 2020). Also similar to the residential tax credit described above, the commercial tax credit will remain at 26% through 2022, and step down to 22% in 2023; however, the commercial tax credit and projects constructed 2024 or later will receive a 10% tax credit.



#### Advancing Equity

Some funding sources have special incentives for low- and moderate-income households that may not have the up-front capital to invest in on-site solar installations. As special incentives are available, conduct targeted outreach to neighborhoods with a proportionally higher percentage of low-income residents - to make sure the information is available. Partnering with service organizations is another great way to ensure resources are connected to underserved populations.

### *Property Assessed Clean Energy (PACE)*

The Property Assessed Clean Energy (PACE) program allows eligible commercial and industrial buildings to finance energy efficiency and renewable energy projects on their buildings through a property tax assessment. Payments are made through a voluntary assessment on the property tax bill and is repaid over the financing term, keeping the payments tied to the building, not owner.

#### *Colorado Commercial PACE*

The Colorado Commercial PACE (C-PACE) program is facilitated through the county property tax assessment process, so participants' buildings must be located in an [eligible participating county](#) (CPACE, 2020). Renewable energy projects are often paired with energy efficiency improvements, which can result in positive cash-flow. Eligible improvements include geothermal, hydroelectric, recycled energy, solar PV and solar thermal.

Contact [C-PACE](#) to understand if your project is eligible.

#### *Minnesota PACE*

Minnesota PACE financing is facilitated by the Saint Paul Port Authority through Joint Powers Agreements with cities and counties. [See the list of participating cities and counties.](#) Property owners are able to invest in both energy efficiency projects and solar or renewable energy upgrades with no up-front costs, and in most cases utility savings exceed payment obligations, making investments cash positive.

Contact [Minnesota PACE](#) to learn if your project is eligible.

#### *Wisconsin PACE*

PACE Wisconsin authorizes municipalities and counties to work with private sector lenders to provide up-front financing to property owners for qualified projects. Wisconsin PACE imposes a special charge on real property to secure loans, with payments going directly to the lender. [Participating counties](#) adopt a model ordinance to join the Wisconsin PACE Commission.

Contact [PACE Wisconsin](#) to learn if your project is eligible.

### *State and County Funding Sources*

Visit the [Database for State Incentives for Renewable Energy® \(DSIRE\)](#) to find policies and incentives near you.

Your local county may offer additional grants or incentives to install solar-systems for municipalities, businesses, or residents. Contact them directly to see what type of funding is available and share those resources with your community.

## Larger Efforts

### Organize Solar Group Buys or Cooperatives

Solar group buys or cooperatives leverage the collective buying power of a group of community members - to save on the total cost of going solar. These arrangements can be made directly with solar providers, or through a third party organization like [Solar United Neighbors](#). After establishing the program in your community, you can develop a strategy for promoting the program. Once a participant signs up, they are responsible for maintaining the individual contract.

1. [Colorado examples](#): Fort Collins, Yampa Valley, Mesa County, Colorado Headwaters, Denver (2 co-ops), Westminster
2. [Minnesota examples](#): Minneapolis, Mahtomedi area, Kandiyohi County, Iron Range, Bemidji, Driftless area, Twin Cities region, Morris & Southwest Prairie

### Implementation in Action: Solar Power Hours

Solar United Neighbors hosts solar power hours in communities to help generate interest in group buys. The organization partners with cities, nonprofit organizations and other local businesses to co-host and promote these events. A number of Partners in Energy cities have co-hosted these events to educate their community about group-buy opportunities.





## WORKFORCE DEVELOPMENT

### First Steps and Quick Wins

#### Promote training and job resources

Many existing resources are available for renewable energy workforce development, including training materials, and job boards and resources. Many community colleges, vocational schools and universities offer training in renewable energy jobs, from solar installation to engineering. Local trade associations or labor unions may also provide resources and training for those interested in entering the renewable energy workforce. National organizations, such as [Solar Energy International](#), also offer online classes and certifications. Promoting these opportunities through existing communications channels can raise awareness of the workforce opportunities available in the renewable energy industry.



#### Implementation in Action: GRID Alternatives

[GRID Alternatives](#) develops and implements renewable energy projects to serve low-income households and communities, while also providing workforce training. In Colorado, they've worked with Denver Housing Authority (DHA) to install a 2 MW community solar project through the Solar\*Rewards Community Program. As part of the project, they provided hands-on and classroom training to residents involved in DHA's resident workforce training programs.

#### Develop a renewable energy industry career map

Understanding and communicating the pathways in the renewable energy industry can promote workforce development across a variety of sectors and career levels. See Figure 3 for an example of a solar career map, showing the various options in the solar industry. Locally, these career or industry cluster maps could be developed to connect those entering or already in the workforce - to help them understand the options available in the renewable energy industry. This mapping exercise could also help communicate the benefits of renewable energy to local economic development (attracting new businesses in these industries).

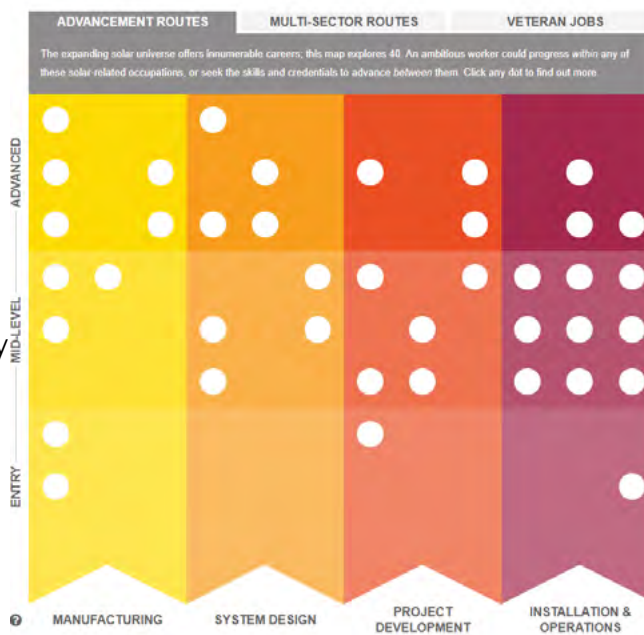


Figure 3: Solar Career Map (IREC, 2021)

#### Align energy and workforce development goals and efforts

Many communities have developed energy efficiency and renewable energy goals through Partners in Energy, sustainability or climate planning efforts. The renewable energy industry provides significant opportunities for workforce development. Integrating renewable energy goals into your community's economic and workforce development departments and organizations provides an opportunity to achieve your energy goals while also providing job opportunities within the community. Ensuring these jobs are accessible to underserved

community members will also advance your community's equity goals.

## Larger Efforts

### Leverage local procurement

When considering solar installations on municipal facilities or land parcels, providing preference or requiring local procurement also benefits local workforce and economic development. And going even further by considering disadvantaged business enterprises or those providing opportunities to underserved community members will ensure an equitable approach to workforce development.

### Incentives for new and existing businesses

Consider providing incentives for attracting new renewable energy businesses and retaining existing renewable energy businesses. Examples might include tax incentives, grants, business support resources, and support for business incubators and start-ups. Building upon existing economic development practices will ensure success in attracting and retaining renewable energy businesses as well.

### Develop a workforce development program

Consider developing a renewable energy workforce development program by partnering with local renewable energy companies, labor unions, job training centers, colleges and universities, and workforce development organizations. The [Partners in Energy Workforce Development Toolkit](#) can help you get started.



#### Advancing Equity

The [Greenlining Institute](#) also provides resources for advancing diversity, equity and inclusion in the cleantech sector, which includes renewable energy.





# COLLATERAL EXAMPLES





## Collateral Examples

The following pages provided examples of community co-branded collateral developed by Xcel Energy Partners in Energy. Contact [PartnersinEnergy@xcelenergy.com](mailto:PartnersinEnergy@xcelenergy.com) to request development of materials customized for your community's unique needs.

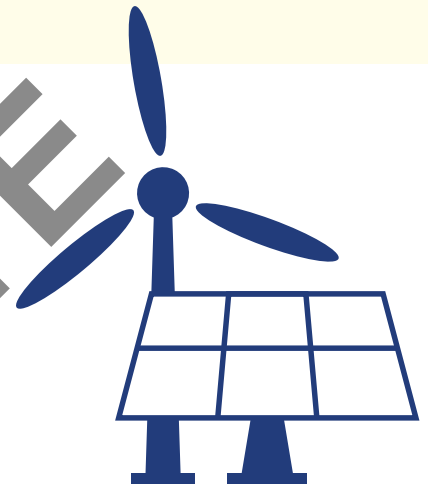


# DE-MYSTIFY RENEWABLE ENERGY!

Interested in renewable energy, but confused about what options are available? Xcel Energy offers solar and wind programs to meet your needs.

## Why should you participate in these programs?

- ✓ Green your fuel source mix
- ✓ Reduce your greenhouse gas emissions
- ✓ Contribute to Minturn’s community energy goals



## Which renewable energy program is the right fit for you?

### Solar\*Rewards®

### Windsorce®

#### Program Description

Install solar panels to produce your own energy and sell energy you don't use back to Xcel Energy.

An easy, flexible, low-risk way to power your home with wind energy.

#### Eligibility

- Xcel Energy electricity customer
- Homeowner

- Xcel Energy electricity customer
- Homeowner or renter

#### Cost & Benefits

Produce your own energy and receive a \$0.005/kWh incentive from Xcel Energy. Also receive credit from Xcel Energy for extra energy produced or carry over to the next month.

Pay \$1.50 per block subscribed in addition to standard electricity charges. Subscriptions available in 100-kWh blocks.

#### Renewable Energy Credits (RECs)

Xcel Energy is the REC owner for 20 years and then ownership is transferred to you.

RECs are retired on your behalf.

## START THE PROCESS TODAY!

For questions and more information visit:

[xcelenergy.com/renewables](http://xcelenergy.com/renewables)



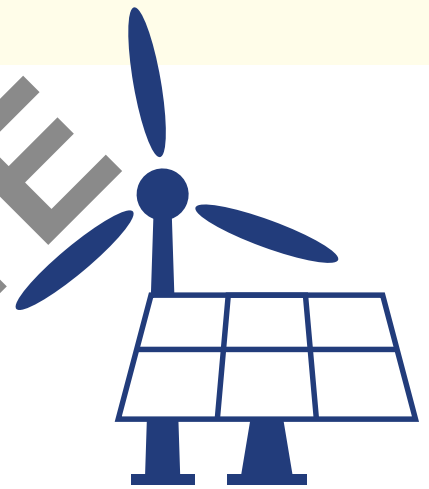
**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

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Interested in renewable energy, but confused about what options are available? Xcel Energy offers solar and wind programs to meet your business's bottom line.

## Why should you participate in these programs?

- ✓ Green your fuel source mix
- ✓ Reduce your greenhouse gas emissions
- ✓ Contribute to Minturn's community energy goals



## Which renewable energy program is the right fit for you?

### Solar\*Rewards®

### Windsource®

#### Program Description

Install solar panels to produce your own energy and sell energy you don't use back to Xcel Energy.

An easy, flexible, low-risk way to power your business with wind energy.

#### Eligibility

- Xcel Energy electricity customer
- Building Owner

- Xcel Energy electricity customer
- Business Owner

#### Cost & Benefits

Produce your own energy and receive a \$0.005/kWh incentive from Xcel Energy. Also receive credit from Xcel Energy for extra energy produced or carry over to the next month.

Pay \$1.50 per block subscribed in addition to standard electricity charges. Subscriptions available in 100-kWh blocks.

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[xcelenergy.com/programs\\_and\\_rebates/business\\_programs\\_and\\_rebates/renewable\\_energy\\_options\\_business](http://xcelenergy.com/programs_and_rebates/business_programs_and_rebates/renewable_energy_options_business)



# Jefferson County Residents POWERING BY WIND



Whether you are a renter or a homeowner, you can take advantage of Colorado's windy weather by subscribing to Xcel Energy's Windsource®. Windsource is a voluntary renewable subscription program enabling residents to easily source their electricity from wind.

It takes less than five minutes to sign-up and costs less than the price of a latte to participate. Now is the time to take action and join!

Joining is easy!



Sign up today by calling **800.895.4999**  
or fill out the online application at  
**[xcelenergy.com/Windsource](http://xcelenergy.com/Windsource)**.

Sign up for a little or a lot. Each 100 kilowatt-hour block is \$1.50 a month, in addition to the electricity charges you already pay.



## How much energy is 100 kilowatt-hours?

In terms of energy, it's enough to power a typical fridge  
AND a standalone freezer for one month.\*



*\*Standard fridge and chest freezer calculation: refrigerator based on standard, 25 cubic foot, side-by-side with icemaker; freezer is based on a typical 5 cubic foot chest freezer.*

# Jefferson County Residents DE-MYSTIFY RENEWABLE ENERGY



Interested in renewable energy, but confused about what options are available? Xcel Energy offers solar and wind programs to meet your needs.

## Why should you participate in these programs?

- ✓ Green your fuel source mix
- ✓ Reduce your greenhouse gas emissions
- ✓ Contribute to your community's community energy goals

## Which renewable energy program is the right fit for you?

	Solar*Rewards®	Windsorce®	Solar*Rewards® Community
Program Description	Install solar panels to produce your own energy and sell energy you don't use back to Xcel Energy.	An easy, flexible, low-risk way to power your home with wind energy.	An easy and flexible way to power your home with solar energy through a third-party community solar garden subscription.
Eligibility	Xcel Energy electricity customer Homeowner	Xcel Energy electricity customer Homeowner or renter	Xcel Energy electricity customer Homeowner or renter
Cost & Benefits	Produce your own energy and receive a \$0.005/kWh incentive from Xcel Energy. Also receive credit from Xcel Energy for extra energy produced or carry over to the next month.	Pay \$1.50 per block subscribed in addition to standard electricity charges. Subscriptions available in 100-kWh blocks.	Pay for a subscription with a third-party provider and receive a bill credit payment for the solar energy produced.
Renewable Energy Credits (RECs)	Xcel Energy is the REC owner for 20 years and then ownership is transferred to you.	RECs are retired on your behalf.	Typically, the solar garden company keeps the RECs and in exchange provides you with payment.

## Get started today!

Visit [xcelenergy.com/renewables](https://xcelenergy.com/renewables) to explore your options and select the right program for you! For questions about sustainability in Jeffco visit [jeffco.us/3574/Sustainability](https://jeffco.us/3574/Sustainability).



# DE-MYSTIFY RENEWABLE ENERGY

Interested in renewable energy,  
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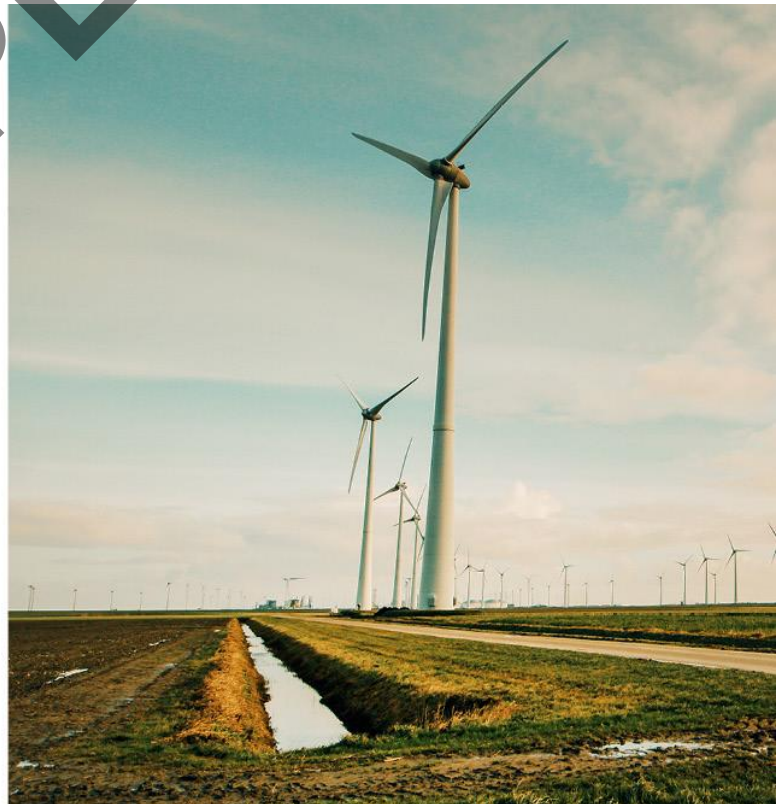


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## Which renewable energy program is the right fit for you?

Xcel Energy offers solar and wind programs to meet your needs.

LEARN MORE AND  
**SIGN UP**

[xcelenergy.com/  
renewables](https://xcelenergy.com/renewables)



### Why participate in renewable energy?

- ✓ Green your fuel source mix
- ✓ Reduce your greenhouse gas emissions
- ✓ Contribute to your community's community energy goals



## JOINING IS EASY!

Windsource is a voluntary renewable subscription program enabling residents to easily source their electricity from wind.

It takes less than five minutes to sign-up and costs less than the price of a latte to participate.

Sign up today by calling 800.895.4999 or fill out the online application at [xcelenergy.com/Windsource](https://xcelenergy.com/Windsource).







## Renewable Energy 101 Workshop

Thursday, June 13<sup>th</sup>  
7:00 p.m. – 8:30 p.m.

Eagle Street Community Room  
7272 S. Eagle St.  
Centennial, CO 80112

Are you interested in renewable energy options for your home? Join the City of Centennial, Colorado State University Extension, and Xcel Energy for a free interactive workshop focused on demystifying renewable energy options. Snacks and drinks provided.

You will learn:

- Important things to do before signing up for renewable energy
- What the options are for solar and wind in your area and how to navigate the process successfully
- How to evaluate the economics of renewable energy to make the best decision for you



COLORADO STATE UNIVERSITY  
EXTENSION



**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration



# Xcel Energy Renewable Energy Options

	Standard Energy Mix	Windsorce®	Solar*Rewards Community	Solar*Rewards®	Net Metering Without Incentives
<b>Energy Source</b>	24% Wind, 3% Solar, 1% Other Renewables	Wind	Community Solar	Solar	Solar
<b>Cost to Participate</b>	28% renewable energy at no extra cost	\$1.50 per 100 kWh block subscription fee on Xcel Energy bill	Subscription fee paid to solar garden per contract terms	Pay solar installer for equipment per contract terms	Pay solar installer for equipment per contract terms
<b>Financial Benefit</b>	Lowest cost renewables keep rates low for everyone	None	Bill credit payment for solar energy produced	Monthly energy use is offset by solar, plus incentive per kWh of solar	Monthly energy use is offset by solar
<b>Requires On-site Installation</b>	No	No	No	Yes	Yes
<b>Minimum Contract Length</b>	none	None	Up to 20 years	Up to 20 years	None
<b>Eligibility Requirements</b>	Homeowner within Xcel Energy service territory and electricity customer				Varies
<b>Contract With</b>	No Contract	Xcel Energy	Solar Garden Company	1) Solar Installer - equipment 2) Xcel Energy - interconnection and Incentive	1) Installer - equipment 2) Xcel Energy - interconnection
<b>Earn Renewable Energy Credits</b>	No	Yes	No	No	Yes

For more about residential renewable energy options visit [XcelEnergy.com/Renewables](https://www.xcelenergy.com/renewables).



# Renewable Energy Terminology

Term	Definition
<b>EIA</b>	U.S. Energy Information Administration - a principal agency of the U.S. Federal Statistical System responsible for collecting, analyzing, and disseminating energy information
<b>Energy/fuel mix</b>	The mix of fuels used to generate electricity for customers in a service area
<b>Ground-mount solar</b>	Panels installed on the ground
<b>MIRR</b>	Modified internal rate of return – a financial measure of an investment’s attractiveness used to rank alternatives; function of annual net returns, cost of investment in the form of the financing rate, and returns in the form of the reinvestment rate (discount rate)
<b>Net metering</b>	Ability for renewable energy system owners to send the extra power they generate but don’t use to the grid in exchange for banked energy credit they can use when they need it later
<b>NPV</b>	Net present value – the difference between the present value of cash inflow and cash outflow over time; a sum of discounted cash flows over time
<b>PUC</b>	Public Utilities Commission – in Colorado, a regulatory commission with full or partial regulatory authority over publicly held utilities (energy, water, telecommunications, transportation, gas pipeline safety, and rail and transit safety)
<b>RECs</b>	Renewable energy credits/certificates – tradable, non-tangible commodities that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource and was fed into the shared grid
<b>Roof-top solar</b>	Panels installed on building roof surfaces
<b>Solar garden</b>	Shared solar array with grid-connected subscribers who receive bill credits for their subscriptions
<b>Solar PV</b>	Solar cells/panels that convert sunlight into electricity (convert light, or photons, into electricity, or voltage); PV stands for photovoltaics
<b>Subscription</b>	An agreement to purchase a certain amount of something in regular intervals
<b>Third-party producer</b>	Non-utility entity that owns a renewable energy system and sells subscriptions to others
<b>Utility-scale solar</b>	Large-scale electricity generation; typically larger than 4 megawatts

Colorado State University Extension Solar Calculator: <http://solarcalc.colostate.edu>.

# The 5% CHALLENGE

## Renewable Energy by St. Cloud Businesses

### YOUR COMMUNITY



Be a leader & contribute to the use of 21 Million kWh of renewable electricity by 2026.

### YOUR BILL



Get smart on how to reduce long-term bill fluctuations.

### YOUR CHOICE



Choose the renewable option that is best for your business.

**Wednesday, February 7th | 8:30 am to 12:30 pm**  
**St. Cloud Police Headquarters, 101 11th Ave North**

*Breakfast provided*

Want to hear from experts about renewable energy options? Sign-up for the Renewable Energy Options Workshop and get smart on the variety of options and benefits available to you as large businesses and organizations.

**Register by visiting [www.renewablebiz\\_stc.eventbrite.com](http://www.renewablebiz_stc.eventbrite.com) or  
contacting Tracy Hodel at [tracy.hodel@ci.stcloud.mn.us](mailto:tracy.hodel@ci.stcloud.mn.us)**





Source: Kayak.com

# A Community Energy Action Initiative for Local Institutions & Industrial Businesses

## OUR IMPACT GOALS

**5** businesses commit & take action between 2017 to 2018

**7-10** business (per year) commit & take action between 2018 and 2021

### WHY TO TAKE ACTION

To achieve one of our key Community Energy Action Goals, community members are engaging St. Cloud's largest businesses on clean energy. We are doing this by reaching out to our institutions and industrial businesses to teach them about clean electricity opportunities and ask them to commit to the 5% Challenge.

### HOW TO TAKE ACTION

St. Cloud businesses can contribute to our community clean energy goals by committing to install, purchase (power or renewable energy credits), or subscribe to renewable electricity for 5% of all electricity consumed. To make the pledge or attend one of the educational workshops contact Tracy Hodel at the City of St. Cloud: [tracy.hodel@ci.stcloud.mn.us](mailto:tracy.hodel@ci.stcloud.mn.us).



The City of St. Cloud and Xcel Energy are pleased to work together to achieve our Community Energy goals.





# The 5% CHALLENGE

## Renewable Energy by St. Cloud Businesses

We are committed to helping the community achieve its renewable energy goal by being one of 40 large, St. Cloud area businesses and organizations to pledge to the 5% CHALLENGE.

As a result, we are helping the community convert 21.8 million kWh of electricity to renewable energy. We do this as community stewards, as leaders in our industry, and investors in a more stable energy future.

[www.ci.stcloud.mn.us/energyaction](http://www.ci.stcloud.mn.us/energyaction)

TEMPLATE

2018-2026

**CHALLENGE Participant**

# The 5% CHALLENGE

## Renewable Energy by **St. Cloud** Businesses



The 5% CHALLENGE is a pledge by large St. Cloud area businesses and organizations to increase the purchase, subscription, off-set or use of more renewable energy.

The Community Energy Action Plan goal is to have converted 21.8 million kWh of electricity use to renewable power by 2026. This can be accomplished by 40 businesses committing to a 5% or greater increase in renewable energy, by 2020.

TEMPLATE

*These Businesses have pledged to the 5% CHALLENGE*

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



ST. CLOUD AND XCEL ENERGY ARE PLEASED TO WORK TOGETHER TO ACHIEVE OUR COMMUNITY ENERGY GOALS.



# POWER YOUR HOME WITH WIND



More than 600 Fridley residents are taking advantage of Minnesota's wind power by subscribing to Xcel Energy's low-cost Windsource®.

With no equipment needed, Fridley residents can invest in renewable energy and lower their carbon footprint.

## **Sign up for Fridley's #WindUpChallenge**

We are challenging residents to sign-up for Windsource and lower their carbon footprint. Sign up by Feb 26 to enter the #WindUpChallenge and be recognized as a *Fridley Clean Energy Supporter*.

**Learn more at**  
**[FridleyMN.gov/WindUpChallenge](http://FridleyMN.gov/WindUpChallenge)**

FRIDLEY AND XCEL ENERGY ARE PLEASED TO WORK TOGETHER TO ACHIEVE OUR COMMUNITY ENERGY GOALS.



City of Fridley  
7071 University Ave NE  
Fridley, MN 55432

### **What is Windsource?**

Windsource is a voluntary subscription program from Xcel Energy enabling you to easily source your electricity from wind.

### **Who is eligible?**

Homeowners and renters with an Xcel Energy account can sign up for Windsource. Any resident is eligible to enter the Fridley #WindUpChallenge.

### **How much does it cost?**

You can subscribe for as little as \$1 a month—enough to power all the lights in your home.<sup>1</sup> For about \$5 a month, the average Fridley household can get 100% of its electricity from renewable energy by participating.<sup>2</sup>

**Sign up today.**  
**[FridleyMN.gov/WindUpChallenge](http://FridleyMN.gov/WindUpChallenge)**



**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

<sup>1</sup> Based on home with 42 light sockets, using a mix of CFLs, LEDs and incandescent bulbs.

<sup>2</sup> One 100 kilowatt-hour block of renewable energy costs about \$1, and the average household in Fridley uses approximately 5 blocks per month.

# RENEWABLE ENERGY FOR RENTERS



More than 600 Fridley residents are taking advantage of Minnesota's wind power by subscribing to Xcel Energy's low-cost Windsource®.

With no equipment needed, renters can invest in renewable energy and lower their carbon footprint.

## **Sign up for Fridley's #WindUpChallenge**

We are challenging residents to sign-up for Windsource and lower their carbon footprint.

Sign up by Feb 26 to enter the #WindUpChallenge and be recognized as a *Fridley Clean Energy Supporter*.

**Learn more at**  
**[FridleyMN.gov/WindUpChallenge](http://FridleyMN.gov/WindUpChallenge)**

FRIDLEY AND XCEL ENERGY ARE PLEASED TO WORK TOGETHER TO ACHIEVE OUR COMMUNITY ENERGY GOALS.

City of Fridley  
7071 University Ave NE  
Fridley, MN 55432

### What is Windsource?

Windsource is a voluntary subscription program from Xcel Energy enabling you to easily source your electricity from wind.

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**Sign up today.**  
**[FridleyMN.gov/WindUpChallenge](http://FridleyMN.gov/WindUpChallenge)**



**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

<sup>1</sup> Based on home with 42 light sockets, using a mix of CFLs, LEDs and incandescent bulbs.

<sup>2</sup> One 100 kilowatt-hour block of renewable energy costs about \$1, and the average household in Fridley uses approximately 5 blocks per month.

# RENEWABLE ENERGY OPTIONS FOR FRIDLEY BUSINESS

Program Name	Xcel Energy® Renewable*Connect®	Xcel Energy Windsource®	Xcel Energy Solar*Rewards Community®	Xcel Energy Solar*Rewards®	Xcel Energy Net Metering Without Incentives
<b>Description</b>	Subscription program from Xcel Energy for renewable energy with potential contract to lock in pricing. No equipment necessary.	Subscription program from Xcel Energy for renewable energy with monthly fee on your electric bill. No equipment necessary.	Subscription program from a community solar garden with monthly bill credit from Xcel Energy. No equipment necessary.	On-site solar panel installation with incentive from Xcel Energy for all energy produced.	On-site solar panel installation with credit from Xcel Energy for excess energy produced.
<b>Energy Source</b>	Solar and Wind	Wind	Solar	Solar	Solar
<b>Cost to participant</b>	Subscription fee on Xcel Energy bill	Subscription fee on Xcel Energy bill	Subscription fee paid to solar garden per contract terms	Pay solar installer for equipment per contract terms	Pay solar installer for equipment per contract terms
<b>Financial Benefit</b>	Personal per kWh fuel credit for using solar and wind	Personal per kWh fuel credit for using wind	Bill credit payment for solar energy produced	Monthly energy use is offset by solar, plus incentive per kWh of solar	Monthly energy use is offset by solar, plus credit for excess energy produced
<b>Contract length</b>	Month-to-month up to 10 years	Month-to-month	Up to 25 years	Up to 10 years	None
<b>Contract with</b>	Xcel Energy	Xcel Energy	1) Solar Garden Company 2) Subscription fee on Xcel Energy bill	1) Solar Installer – equipment 2) Xcel Energy – interconnection & incentive	1) Solar Installer– equipment 2) Xcel Energy – interconnection
<b>Size/Participation Parameters</b>	Minimum of 1 block (100kWh), but can purchase up to 100% of energy consumption	Minimum of 1 block (100kWh), but can purchase up to 100% of energy consumption.	Varies by contract.	System generation must not exceed 120% of customer consumption.	System size may not exceed 1 MW
<b>Earn Renewable Energy Credits*</b>	Yes	Yes	No	No	Yes
<b>Website</b>	<a href="http://xcelenergy.com/RenewableConnectBusiness">xcelenergy.com/RenewableConnectBusiness</a>	<a href="http://xcelenergy.com/BusinessWindsource">xcelenergy.com/BusinessWindsource</a>	<a href="http://xcelenergy.com/SolarRewardsCommunity">xcelenergy.com/SolarRewardsCommunity</a>	<a href="http://xcelenergy.com/Solar">xcelenergy.com/Solar</a>	<a href="http://xcelenergy.com/Solar">xcelenergy.com/Solar</a>

\* Renewable Energy Credits (RECs) are the currency used to measure renewable energy produced and used to meet renewable energy goals. If the renewable program allows you to keep the RECs, you can claim that they are offsetting their energy use or are using renewable energy.



**FRIDLEY AND XCEL ENERGY ARE PLEASED TO WORK TOGETHER TO ACHIEVE OUR COMMUNITY ENERGY GOALS.**



# POWER YOUR HOME WITH SOLAR ENERGY

## Residential Solar Checklist

### BEFORE YOU BEGIN

Reduce the amount of energy your homes uses by increasing your home's energy efficiency. Signing up for a Home Energy Squad® visit is a great way to identify energy-saving improvements. During your visit you will receive free energy-saving installations such as: LED light bulbs, a programmable thermostat, door weather stripping, and more. Visits also include a blower door test to measure for air leaks, an insulation inspection, a safety check on your heating system, and help with next steps. The cost is only **\$50** for Fridley residents (normally \$100)!

Visit [HomeEnergySquad.net](http://HomeEnergySquad.net) or call **612-328-6220**.

### START PLANNING

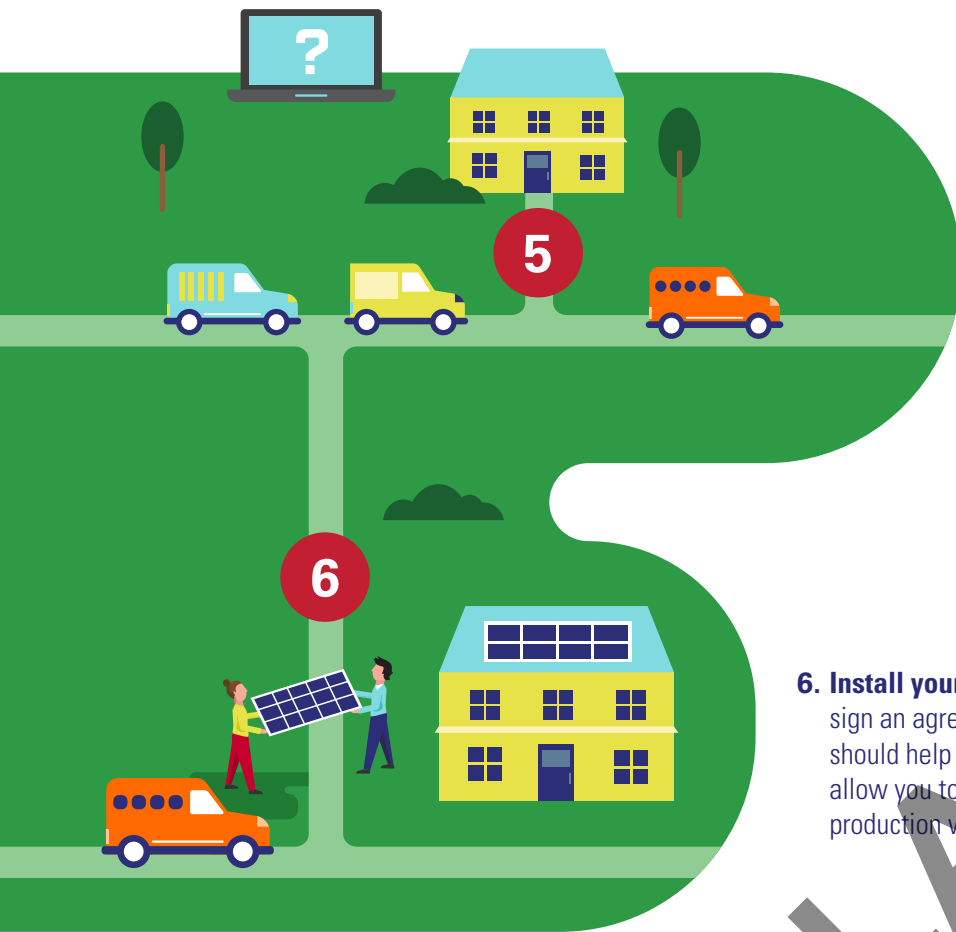
- 1. Determine your home's solar potential:** It's important to consider your home's solar potential before deciding if installing solar panels is right for you. You can get a sense of your solar potential by using the Minnesota Solar Suitability App. Visit [mn.gov/SolarApp](http://mn.gov/SolarApp).
- 2. Talk to the City:** Solar panels that are attached to your principal structure are allowed without a special use permit. You will need to obtain a building permit and electrical permit before installation. The permit requires two sets of engineered plans and the cost depends on the value of the panels. Detached solar panels require a special use permit. Special limitations may be required for attached or detached solar panels on properties west of East River Road related to the Mississippi River Corridor Critical Area. Contact Rachel Workin, Environmental Planner at **763-572-3594**.
- 3. Talk to your HOA:** If you live in a residence that has a Homeowners Association (HOA), it's important to know if there are restrictions to installing rooftop or ground mount solar. Contact your HOA directly to learn more.

- 4. Identify financing opportunities:** Low-interest loans are available to help homeowners add rooftop or ground mount solar at their home. Contact the Center for Energy and Environment at **612-335-5884** or [mnlendingcenter.org](http://mnlendingcenter.org).

### Take advantage of the Renewable Energy Tax Credit before time runs out!

2019 is the final year for the full 30% Residential Renewable Energy Tax Credit, which applies to solar energy projects. The incentive allows you claim a 30% credit on your federal tax return for the costs of the system. Projects must be installed by December 31, 2019 – don't miss your opportunity to take advantage of this tax credit!





## SELECT YOUR CONTRACTOR AND INSTALL YOUR SYSTEM

**5. Find a qualified contractor:** Use the Clean Energy Project Builder online directory to search for qualified solar installers. Contacting more than one installer will help you compare bids and make the best choice. Clean Energy Project Builder also has a list of questions you should ask solar installers. Visit [CleanEnergyProjectBuilder.org](https://www.CleanEnergyProjectBuilder.org).

**6. Install your system!** Once you select a contractor, you will sign an agreement and install your system. Your contractor should help facilitate the agreement with Xcel Energy to allow you to track your production and get paid for excess production with net metering.

## KNOW THE ALTERNATIVES TO INSTALLING YOUR OWN SOLAR PANELS

If your home has low solar potential or the costs are too high to install your own system, you can still source some or all of your electricity from renewable sources. Consider these alternative renewable energy options:

- **Xcel Energy's Windsource®:** Windsource is a renewable energy subscription program that allows residential customers to source some or all of their electricity from wind energy. For about \$5 a month, the average Fridley household can get 100% of its electricity from renewable energy.<sup>1</sup> Sign up [xcelenergy.com/Windsource](https://www.xcelenergy.com/Windsource).
- **Community Solar Gardens:** Community solar gardens are great opportunity for homeowners and renters to subscribe to renewable energy. You will receive a monthly bill credit based on how large your subscription amount is. Visit [CleanEnergyProjectBuilder.org](https://www.CleanEnergyProjectBuilder.org) to find a garden operator and a list of questions to ask before subscribing.

<sup>1</sup> One 100 kilowatt-hour block of renewable energy costs \$1, and the average household in Fridley uses approximately 5 blocks per month.

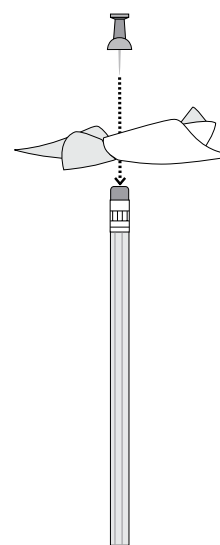
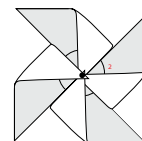
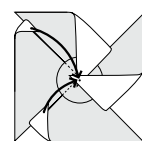
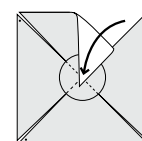
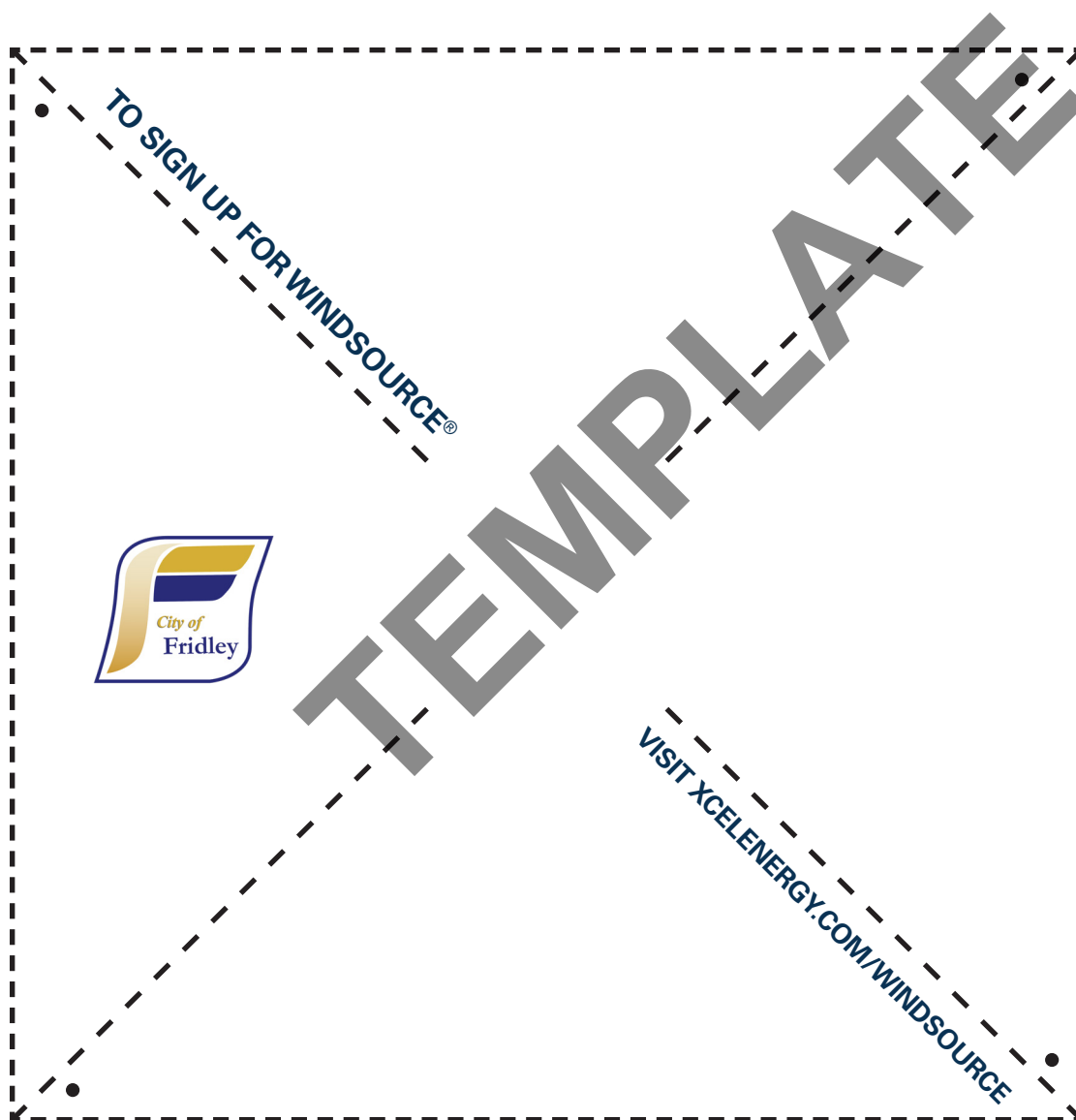


# MAKE A PINWHEEL TO CELEBRATE WIND ENERGY!

## Make an informational pinwheel.

You will need: scissors, a pushpin, and a wooden pencil

1. Decorate the pinwheel template below.
2. Cut out the pinwheel. Then cut along the diagonal, dashed lines.
3. Use the pushpin to poke holes in the center of the pinwheel and in the four corners.
4. Stick the pushpin through each of the corner holes, through the center hole, then into the pencil eraser.
5. Take a picture with your pinwheel and post it on the City's Facebook page



**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

EDEN PRAIRIE RESIDENTS

# INTERESTED IN RENEWABLE ENERGY?



"First ten panels on the roof!" by Jon Callas is licensed under CC BY 2.0



"Wind turbines" by Charles D P Miller is licensed under CC BY 2.0



"Solar panels" by Chris Booth is licensed under CC BY 2.0

**LEARN  
MORE HERE!**







# Join the Renewable Energy Challenge

## The Challenge

Subscribe 100% of your electricity to renewable energy.

## Our Goal

Add 100 new subscribers who sign up for 100% of their electricity to come from renewable energy by **May 15, 2020**.

## How

1. Sign up for a renewable energy subscription program.
2. Register online to be recognized as a Northfield Clean Energy Supporter.

[ci.northfield.mn.us/EnergyChallenge](http://ci.northfield.mn.us/EnergyChallenge)

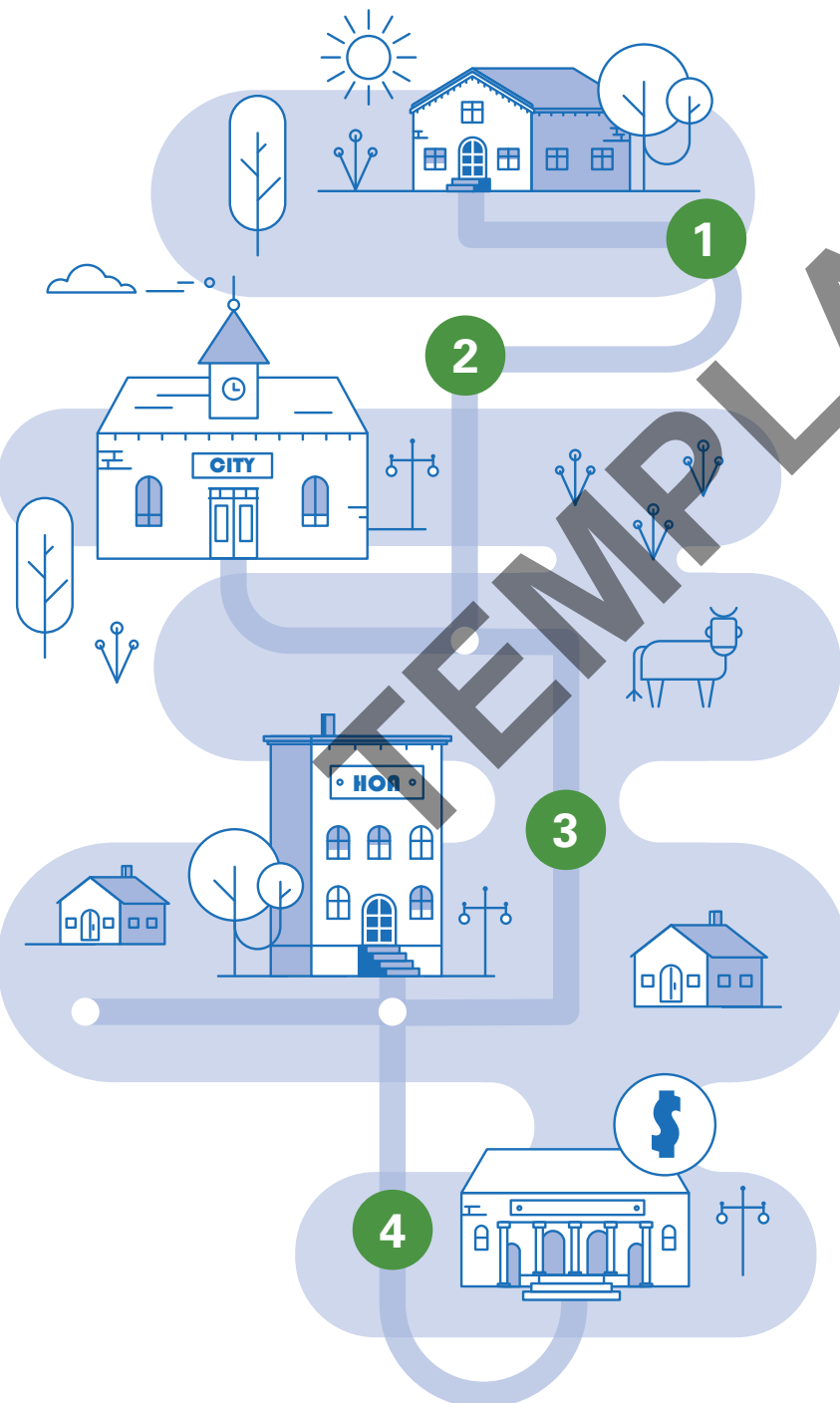
# Power your home with solar energy

## Residential Solar Checklist

### Before you begin

Reduce the amount of energy your homes uses by increasing your home's energy efficiency. Signing up for a Home Energy Squad® visit is a great way to identify energy-saving improvements. During an in-home visit you will receive free energy-saving installations such as: LED light bulbs, a programmable thermostat, door weather stripping, and more. Virtual visits are available and free to Northfield residents to help you safely learn more about your home's energy use.

Visit [HomeEnergySquad.net](https://HomeEnergySquad.net) or call **651-328-6220**.



#### 1. Determine your home's solar potential:

It's important to consider your home's solar potential before deciding if installing solar panels is right for you. You can get a sense of your solar potential by using the Minnesota Solar Suitability App.

Visit [mn.gov/SolarApp](https://mn.gov/SolarApp).

#### 2. Talk to the City:

Solar panels that are attached to your principal structure are allowed. Your solar installer is required to pull a building permit from the City of Northfield, and be inspected by Rice County's electrical inspector.

Call **507-645-3004** to talk to the City of Northfield about the process.

#### 3. Talk to your HOA:

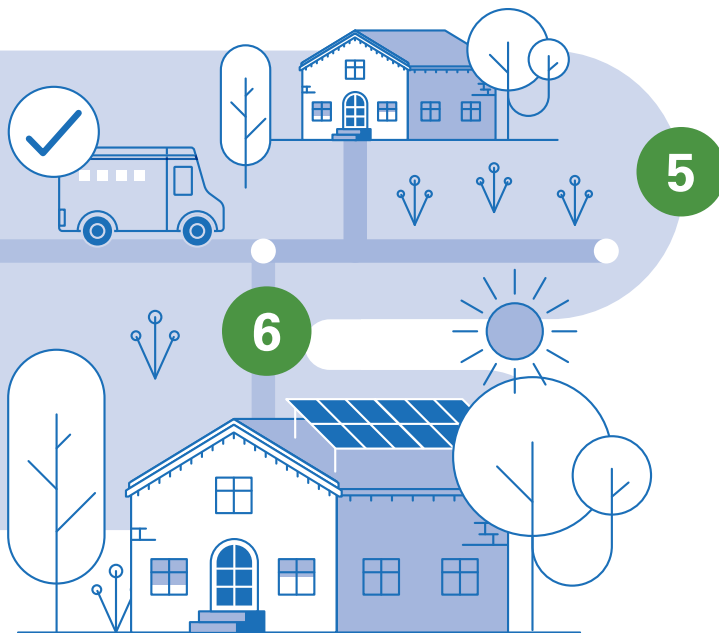
If you live in a residence that has a Homeowners Association (HOA), it's important to know if there are restrictions to installing rooftop or ground mount solar. Contact your HOA directly to learn more.

#### 4. Identify financing opportunities:

Low-interest loans are available to help homeowners add rooftop or ground mount solar at their home.

Contact the Minnesota Lending Center at **612-335-5884** or [mnlendingcenter.org](https://mnlendingcenter.org).

## Select your contractor and install your system



- 5. Find a qualified contractor:** Use Minnesota Solar Energy Industries Association's online directory to search for qualified solar installers. Contacting more than one installer will help you compare bids and make the best choice.

Visit [MnSEIA.org/find-installer](https://MnSEIA.org/find-installer).

- 6. Install your system!** Once you select a contractor, you will sign an agreement and install your system. Your contractor should help facilitate the agreement with Xcel Energy to allow you to track your production and get paid for excess production with net metering.

### Xcel Energy Programs

**Solar\*Rewards®** is an incentivized program where you receive monthly payments in exchange for the Renewable Energy Credits (RECs) for the energy produced. If your system produces more energy than you need, the extra energy is added to the grid and you receive a bill credit.

**Net Metering** is a non-incentivized program where you retain the RECs and can register or claim the REC. If your system produces more energy than you need, the extra energy is added to the grid and you receive a bill credit.

In most cases, your contractor will facilitate the application for Solar\*Rewards. You can also create and manage your own application at [xcelenergy.com/Solar](https://xcelenergy.com/Solar).

### Take advantage of the Renewable Energy Tax Credit before time runs out!

The Residential Renewable Energy Tax Credit is a tax incentive that allows you claim a 26% credit on your federal tax return for the costs of the system. Projects must be installed by December 31, 2020—don't miss your opportunity to take advantage of this tax credit!

## Know the alternatives to installing your own solar panels

If your home has low solar potential or the costs are too high to install your own system, you can still source some or all of your electricity from renewable sources. Consider these alternative renewable energy options:

- **Xcel Energy's Windsource®:** Windsource is a renewable energy subscription program that allows residential customers to source some or all of their electricity from wind energy. For less than \$10 a month, the average Northfield household can get 100% of its electricity from renewable energy.<sup>1</sup> Sign up [xcelenergy.com/Windsource](https://xcelenergy.com/Windsource).
- **Solar\*Rewards Community:** Community solar gardens are great opportunity for homeowners and renters to subscribe to renewable energy. You will receive a monthly bill credit based on how large your subscription amount is. Visit [xcelenergy.com/SolarRewardsCommunity](https://xcelenergy.com/SolarRewardsCommunity) to find a garden operator and list of FAQs when subscribing to a garden.

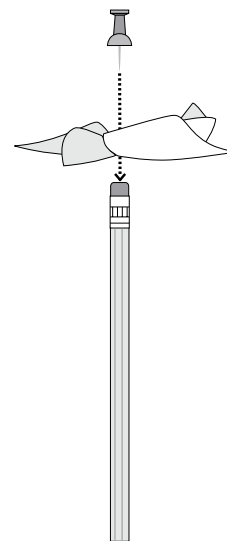
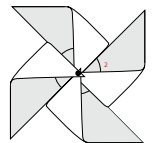
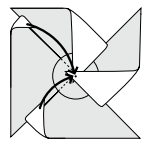
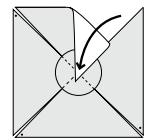
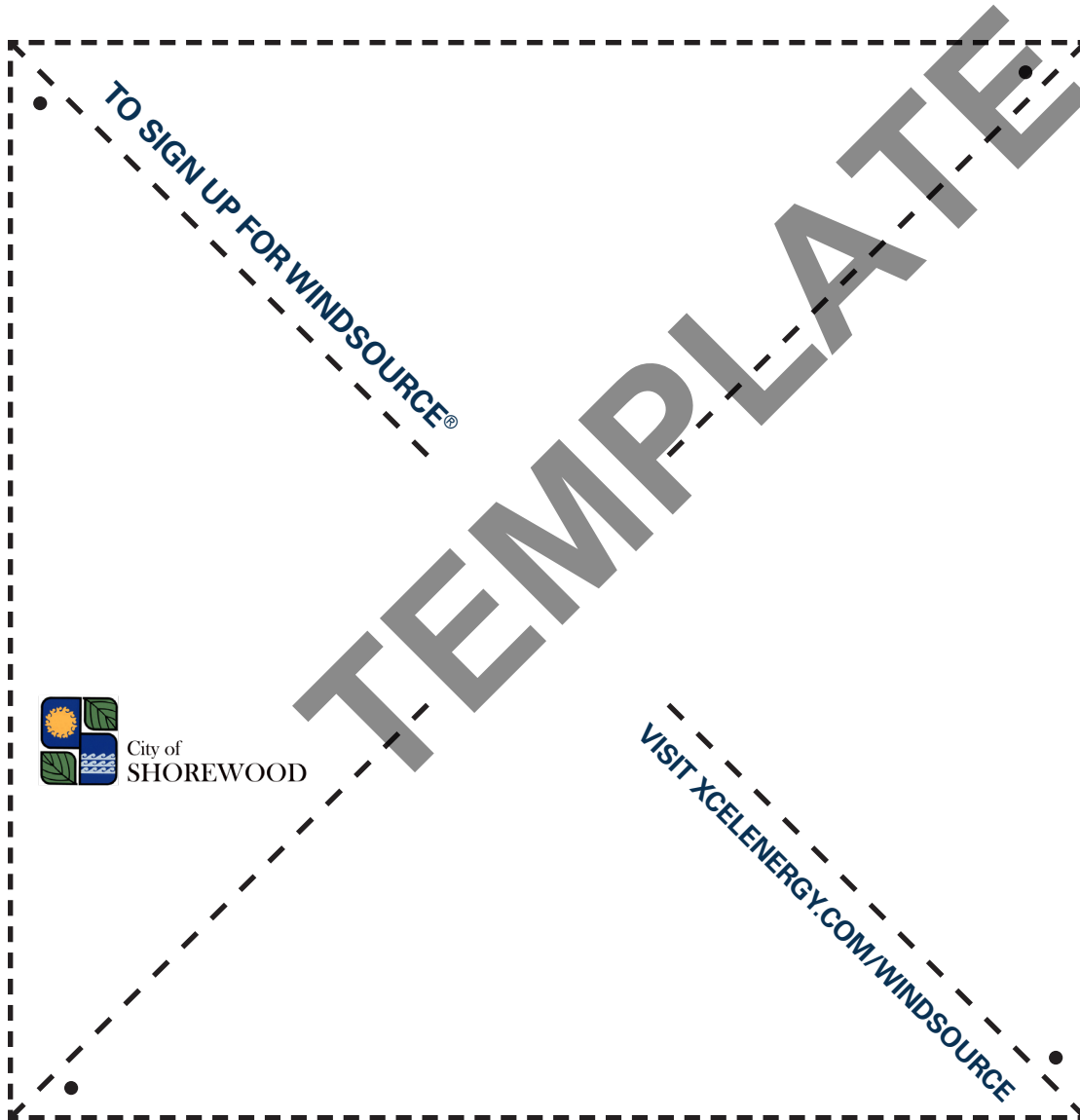
<sup>1</sup> One 100 kilowatt-hour block of renewable energy costs \$1, and the average household in Northfield uses approximately 7 blocks per month.

# MAKE A PINWHEEL TO CELEBRATE WIND ENERGY WITH YOUR NEIGHBORS!

Make an informational pinwheel for your neighbor.

You will need: sissors, a pushpin, and a wooden pencil

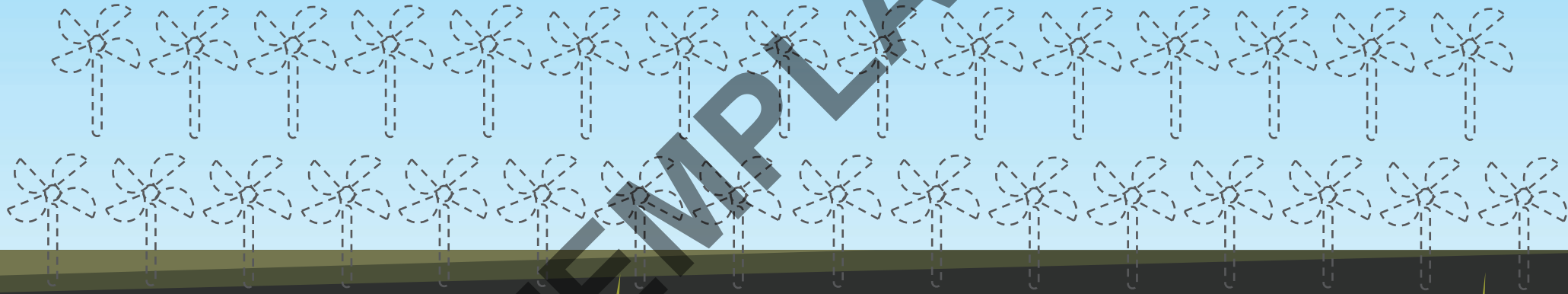
1. Decorate the pinwheel template below.
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3. Use the pushpin to poke holes in the center of the pinwheel and in the four corners.
4. Stick the pushpin through each of the corner holes, through the center hole, then into the pencil eraser.
5. Take a picture with your pinwheel and post it on the City's Facebook page
6. Give your pinwheel to a neighbor. Be sure to tell them how you subscribe to Windsource®.





# Grow the Garden!

Go to [xcelenergy.com/Windsources](https://xcelenergy.com/Windsources)



Shorewood Wind Garden 1 pinwheel = 10 subscribers

# SHOREWOOD RESIDENTS POWERING BY WIND

Shorewood residents are taking advantage of Minnesota's wind power by subscribing to Xcel Energy's Windsource®. Windsource is a voluntary renewable subscription program enabling residents to easily source their electricity from wind.

As a local energy leader, our community has a goal of getting 300 new Windsource subscribers over the next two years. It takes less than five minutes to sign-up and only \$1-10/month to participate. Now is the time to take action and join!

## Joining is easy!



Sign up today by calling 800.895.4999  
or fill out the online application at  
[xcelenergy.com/Windsource](http://xcelenergy.com/Windsource)



Sign up for a little or a lot. Get started  
with one, 100 kilowatt-hour block for  
less than \$1\* a month, in addition to  
the electricity charges you already pay.



### How much energy is 100 kilowatt-hours?

In terms of energy, it's enough to power a typical fridge  
AND a standalone freezer for one month.\*\*



CITY OF  
SHOREWOOD

\*The Windsource rate is in addition to the full retail rate and includes a \$3.53 per block charge for Windsource, less a credit for fuel costs. In 2017, the average fuel cost credit for a residential customer was \$2.53, making the net charge for Windsource \$1.00 per block.  
\*\*Standard fridge and chest freezer calculation: refrigerator based on standard, 25 cubic foot, side-by-side with icemaker; freezer is based on a typical 5 cubic-ft chest freezer.

 **Xcel Energy**®

**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration



## CONGRATULATIONS ON BEING SELECTED AS A WINNER FOR **BLOOMINGTON'S WIN WITH WIND CHALLENGE!**

### **THANK YOU FOR HELPING THE CITY OF BLOOMINGTON REACH ITS ENERGY GOALS!**

The City of Bloomington and the Bloomington Sustainability Commission would love your help to get the word out about renewable energy to others in Bloomington. Please fill out the form below to help us **reach our renewable energy goals!**

- Yes, the City of Bloomington may use my **quotes, first name, and/or image** in promotions about Bloomington's Energy Action plan.

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Why did you choose to support renewable energy?**

**Are you subscribed to Xcel Energy's Windsource®?**

- If **yes**, why did you choose to subscribe? How was the signup process?
- If **no**, in what other ways are you supporting renewable energy?

**How did you learn about the challenge?**

- Facebook
- The Bloomington Briefing
- Other \_\_\_\_\_
- Nextdoor
- EV Expo
- Word of mouth

**Anything else you would like to share?**

# **XCEL ENERGY PROGRAMS**



# Xcel Energy Programs

As of April 2021, the following Xcel Energy programs and tools are available, separated by state.

## COLORADO

[Residential Main Page](#) | [Commercial Main Page](#)

- Renewable\*Connect Flex: [Residential](#) | [Commercial](#)
- Renewable\*Connect: [Residential](#) | [Commercial](#)
- Solar\*Rewards: [Residential](#)
- Solar\*Rewards Community: [Residential](#) | [Commercial](#)
- Net Metering: [Residential](#) | [Commercial](#)
- Renewables Advisor Tool: [Residential](#) | [Commercial](#)
- [Certified Renewable Percentage](#)

## MINNESOTA

[Residential Main Page](#) | [Commercial Main Page](#)

- Renewable\*Connect Flex: [Residential](#) | [Commercial](#)
- Renewable\*Connect: [Residential](#) | [Commercial](#)
- Solar\*Rewards: [Residential](#) | [Commercial](#)
- Income-Qualified Solar Rewards
- Solar\*Rewards Community: [Residential](#) | [Commercial](#)
- Net Metering: [Residential](#) | [Commercial](#)
- Renewables Advisor Tool: [Residential](#) | [Commercial](#)
- [Certified Renewable Percentage](#)

## WISCONSIN

[Residential Main Page](#) | [Commercial Main Page](#)

- Renewable\*Connect: [Residential](#) | [Commercial](#)
- Solar\*Rewards Community: [Residential](#)
- Solar\* Connect Community: [Commercial](#)
- Net Metering: [Residential](#) | [Commercial](#)
- [Certified Renewable Percentage](#)
- Focus on Energy Renewable Energy Incentive: [Commercial](#)

# REFERENCES



## References

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