

An Energy Action Plan for Faribault

2023



ACKNOWLEDGEMENTS

Thank you to the following individuals who contributed many hours of service to developing this Energy Action Plan.

The content of this plan is derived from a series of planning workshops hosted by Xcel Energy's Partners in Energy. Xcel Energy is the main electric and gas utility serving Faribault. Partners in Energy is a two-year collaboration to develop and implement a community's energy goals. For more information about the planning workshops, see Appendix C: Xcel Energy's Partners in Energy Planning Process.

Energy Action Team			
Name	Affiliation		
AJ Smith	Trystar & Economic Development Authority		
Brad Phenow	Communications Coordinator, City of Faribault		
Cynthia Diessner	Environmental Commission		
Danil Thorstensson	MPCA GreenCorps Member		
Dave Wanberg	Community & Economic Development Director, City of Faribault		
Debbie Graham	Children's Fund		
Eric Delgado	Faribault Futures & Planning Commission		
Karl Vohs	Downtown Building Owner		
Kevin O'Brien	Recreation Superintendent, City of Faribault		
Kevin Vorcek	Mayor, City of Faribault		
Martha Brown	Environmental Commission		
Mathias Hughey	Community Development Coordinator, City of Faribault		
Mike Miller	Commission applicant - Planning		
Nort Johnson	Faribault Area Chamber of Commerce		
Roger Steinkamp	Environmental Commission		
Ron Dweik	Faribault Futures & Trystar		
Partners in Energy Team			
Anna Thill	Community Relations Manager, Xcel Energy		
Deirdre Coleman	Partners in Energy Community Facilitator		
Megan Weck	Partners in Energy Community Facilitator		
Tami Gunderzik	Manager of Partners in Energy, Xcel Energy		

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GLOSSARY OF TERMS

15 x 15: Xcel Energy's privacy rule, which requires all data summary statistics to contain at least 15 premises, with no single premise responsible for more than 15% of the total. Following these rules, if a premise(s) is responsible for more than 15% of the total for that data set, it is/they are removed from the summary.

Beneficial Electrification: The transition from fossil fuels to electricity where benefits are achieved through reduced emissions and energy costs.

British Thermal Unit (BTU): The amount of heat needed to raise one pound of water at maximum density through one degree Fahrenheit.

Carbon-free: Carbon-free refers to sources of energy that will not emit additional carbon dioxide into the air. Wind, solar and nuclear energy are all carbon-free sources but only wind and solar are renewable.

Carbon-neutral: Carbon-neutral, also described as "net zero," could include carbonfree sources but is broader and refers to energy that removes or avoids as much carbon dioxide as is released over a set period of time. Carbon-neutral is sometimes used to describe a site that produces an excess amount of electricity from a renewable energy source, such as solar, compared to what it consumes. That excess energy is put back into the grid in an amount that offsets the carbon dioxide produced from the electricity it draws from the grid when it is not producing renewable energy.

Community Data Mapping: A baseline analysis of energy data in a geospatial (map) format across the community.

Conservation Improvement Programs (CIP): Portfolio of approved utility energy efficiency and demand management programs. Minnesota electric utilities have a goal of saving 1.5% of their total energy sales each year via customer conservation efforts. Minnesota natural gas utilities have a goal of saving 0.5% of their total energy sales each year via customer conservation efforts.

Demand Side Management (DSM): Modification of consumer demand for energy through various methods, including education and financial incentives. DSM aims to encourage consumers to decrease energy consumption, especially during peak hours, or to shift time-of-energy use to off-peak periods such as nighttime and weekend.

Direct Installation: Free energy-saving equipment installed by Xcel Energy or other organizations, for program participants, that produces immediate energy savings.

Energy Burden: Percentage of gross household income spent on energy costs.

Energy Reduction: The result of behavior changes that cause less energy to be used. For example, setting the thermostat to a lower temperature *reduces* the energy used in

your home during the winter. Since energy reductions can be easily reversed, they are not accounted for when calculating changes in energy usage.

Energy Savings: Comes from a permanent change that results in using less energy to achieve the same results. A new furnace uses X% less energy to keep your home at the same temperature (all things being equal), resulting in energy *savings* of X%. For accounting purposes, energy savings are only counted in the year the new equipment is installed.

Greenhouse Gases (GHG): Gases in the atmosphere that absorb and emit radiation and significantly contribute to climate change. The primary greenhouse gases in the earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Grid Decarbonization: The current planned reduction in the carbon intensity of electricity provided by electric utilities through the addition of low- or no-carbon energy sources to the electricity grid.

Kilowatt-hour (kWh): A unit of electricity consumption.

Million British Thermal Units (MMBtu): A unit of energy consumption that allows electricity and natural gas consumption to be combined.

Metric Tons of Carbon Dioxide Equivalent (MTCO2e): A unit of measure for greenhouse gas emissions. The unit "CO2e" represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO2), based on the global warming potential (GWP) of the gas.

Megawatt (MW): A unit of electric power equal to 1 million watts.

Premise: A unique combination of service address and meter. For residential customers, this is the equivalent of an individual house or dwelling unit in a multi-tenant building. For business customers, it is an individual business, or for a larger business, a separately metered portion of the business's load at that address.

Renewable Energy Certificate (REC): For every megawatt-hour of renewable electricity generation, a renewable energy certificate (REC) is created. A REC embodies all the environmental attributes of the generation and can be tracked and traded separately from the underlying electricity. Also known as a Renewable Energy Credit.

Resilience: The ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.

Recommissioning: An energy efficiency service focused on identifying ways that existing building systems can be tuned up to run as efficiently as possible.

Solar Garden: Shared solar array with grid-connected subscribers who receive bill credits for their subscriptions.

Solar Photovoltaic (PV): Solar cells/panels that convert sunlight into electricity (convert light, or photons, into electricity, or voltage).

Subscription: An agreement to purchase a certain amount of something in regular intervals.

Therm (thm): A unit representing a quantity of heat. Can be used to measure natural gas based on the quantity of energy it contains.

Trade Partner: Trade Partners, also known as Trade Allies or Business Trade Partners, are vendors and contractors who work with business and residential customers servicing, installing, and providing consulting services regarding the equipment associated with utility rebate programs. Their support for utility programs can range from providing equipment and assisting with rebate paperwork, to receiving rebates for equipment sold.

FARIBAULT Energy Action Plan

Faribault is a vibrant, diverse community with equitable access to clean, affordable energy for all residents, businesses and institutions. We are reducing greenhouse gas emissions through energy efficiency and renewable energy and creating a sustainable future where all can thrive.



Focus Areas

These focus areas were created to inspire a broad scope of strategic input from the Faribault community





Renewable Energy



Transportation



Electrification

Community Engagement

pault



Team who contributed many hours of service to creating our vision, goals, and

strategies for this plan.

An Xcel Energy*

Energy Action Plan Goal

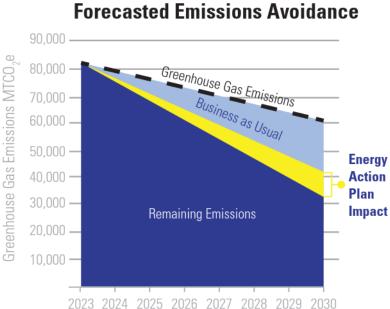
Faribault will avoid an additional 50% of energy-related greenhouse gas emissions by 2030 compared to business as usual, while saving the community energy and money.



By reaching this goal, we estimate Faribault will avoid spending an additional \$5.6 million on energy bills through increased energy efficiency.



Achieving our goal will be equivalent to saving 34 million kWh of electricity and 4.4 million therms of natural gas by 2030.



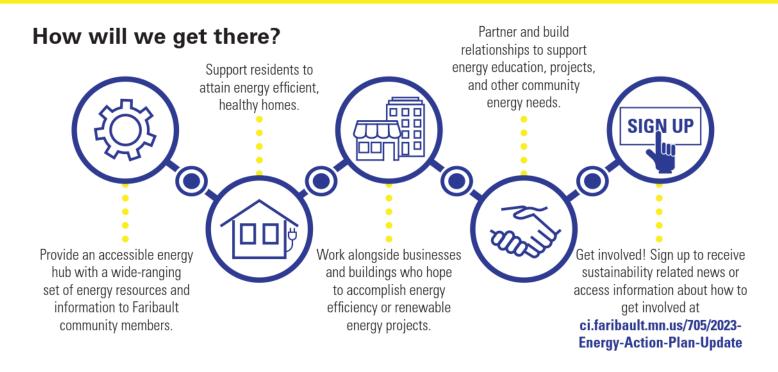
What are your hopes for Faribault's energy future?

A clean and healthy environment that is affordable to sustain."

---Faribault Community Member

To help save money and be energy efficient while keeping costs affordable for low-income families."

—Faribault Community Member





INTRODUCTION

The City of Faribault is dedicated to sustainability and has led several efforts to engage the community in environmental initiatives. In 2017, Faribault created an Energy Action Plan, then a Climate Adaptation Plan in 2020. Since that time, Faribault has implemented an environmental commission, planted pollinator gardens, completed stormwater projects, and completed many more sustainability projects in addition to energy projects and outreach.

2017 Energy Action Plan

Faribault's 2017 Energy Action Plan has a goal to reduce community-wide energy expenditure by 1% annually from business as usual (using a 2015 baseline). By 2040, this plan was estimated to save Faribault residents and businesses over \$8 million a year, with accumulated savings of over \$100 million. As of 2022, the City is on track to meet and exceed the expenditure and savings goal.

2017 Energy Action Plan Goal Progress¹



Figure 1. Progress toward community cost savings goal, 2017-2021

Figure 2. Progress toward community energy savings goal, 2017-2021



Faribault has saved residents dollars, connected with the community, and proved to be a useful educational conduit for energy information and resources.

2017 Energy Action Plan Implementation Highlights

- Facilitating manufactured home park residents' access to energy assessment services and energy resources such as weatherization and utility bill help.
- Conducting multi-family building outreach for building owners to take energy efficiency measures.
- Hosting forums for contractors and developers on energy efficiency.
- The residential energy outreach earned Faribault the 2022 Home Energy Squad[®] Intercity Challenge award for the highest percentage of low-income households to receive home energy assessments.

¹ The 2017 Energy Action Plan goal was to reduce community-wide energy expenditure by 1% annually and to save 1% of energy as a percentage of consumption from business as usual (2015 baseline year). Progress toward the 2017 plan goals were calculated by applying 1% of the baseline consumption and energy expenditure applied to each year and measuring the actual expenditure and energy savings between 2017 and 2021.

Energy Action Plan Update

There are now new state regulations on carbon emissions, new and emerging technologies, updated energy data from the utility, and additional funding for large and small energy projects. This presents a great opportunity to build on existing efforts and add new strategies, audiences and areas of focus into a new Energy Action Plan.

Faribault residents answer: Why an Energy Action Plan?

- "To help save money and be energy efficient while keeping costs affordable for low-income families/residents."
- "There are so many inefficient home and buildings updating with incentives would be so beneficial to the community."
- "I hope we can strive towards being a carbon neutral city."
- "Stable, affordable, clean energy."

The opportunity for this plan to be more thoughtful in engaging residents was also an important reason to create new energy strategies. The City wanted to understand community members' priorities, needs, and hopes for Faribault's energy future, and to make sure all voices were represented in that process.

This plan sets new goals and targets for Faribault's energy future, that will build on the previous plan's goals and incorporate new areas of focus to adjust to the changing energy opportunities and landscape.

Faribault hopes to continue to work with residents and businesses to help them save energy and money and be a part of a clean energy transition that will increase the health and resilience of the community.

Our Engagement & Outreach Process

The creation of this updated Energy Action Plan was a six-month process to help Faribault review updated community energy use data, create new energy-related goals and develop engaging strategies to shape Faribault's energy future. The planning process began in February 2023 with a series of community planning workshops with a team composed of community members, City of Faribault staff and Xcel Energy.

Engagement by the numbers:

- More than **35 people** attended planning workshops
- 4 community planning workshops took place virtually and in-person
- 190 community energy surveys were completed in English and Spanish
- Faribault had a table at 14 events that engaged more than 100 people

See Appendix C: Xcel Energy's Partners in Energy Planning Process for more information about the planning process and Xcel Energy's Partners in Energy program.



WHERE WE ARE NOW

An integral part of the Partners in Energy planning process is reviewing historic energy data that informs our community's energy baseline. Xcel Energy serves Faribault for both electricity and natural gas, and provided updated data on energy use, participation counts, and utility energy conservation program savings, as detailed in the following sections. See Appendix A: Baseline Energy Analysis for a comprehensive picture of Faribault's baseline energy data, ranging from 2017 to 2021.

Community Demographics

Demographic data from the American Community Survey provides a summary of Faribault, providing context to the city's energy use (**Error! Reference source not found.**). The population of almost 24,000 has a median age of 38. Faribault's median household income of almost \$55,000 is lower compared to Minnesota's statewide household income of \$77,000. Faribault has a higher poverty rate of 16%, compared to the statewide average of 9%. Of the 9,200 housing units, 80% were built before the year 2000 and were subject to outdated energy codes, which presents an opportunity to improve energy efficiency.

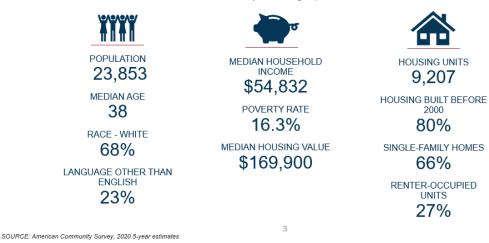


Figure 3. An overview of Faribault's community demographics

Energy Use and Savings

Premises

In 2021, Faribault consisted of 9,953 distinct premises (Figure 4), which are a unique combination of service address and meter.

For residential customers, this is the equivalent of an individual house or dwelling unit in a multi-tenant building. For business customers, it is an individual business, or for a larger business, a separately metered portion of the business's load at that address.² Most premises are residential, while the remaining 14% fall in the commercial and industrial sector.

Energy Consumption

In 2021, the Faribault community consumed 209 million kWh of electricity and 15 million therms of natural gas across all sectors per year. Although the commercial and industrial

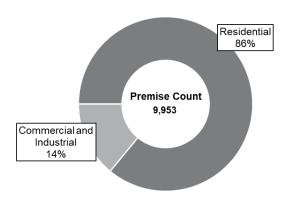


Figure 4. Xcel Energy Premise count by sector, 2021

sector only comprises 14% of premises, it accounts for 63% of total energy consumption (Figure 5). Commercial and industrial premises use significantly more energy on average per premise than residential ones, a pattern typical of cities like Faribault.

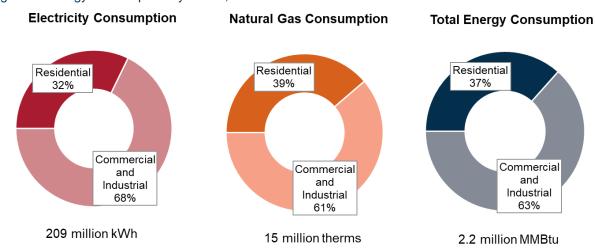


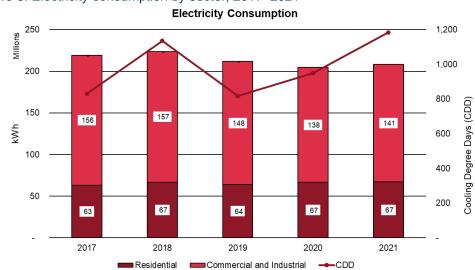
Figure 5. Energy consumption by sector, 2021

² Please refer to *Glossary of Terms* for more detail on energy terms used in this plan.

Total energy consumption was calculated using both electricity and natural gas consumption from Xcel Energy premises converted into British thermal units, a unit of measure that allows electricity and natural gas to be compared based on a common measure of energy potential.

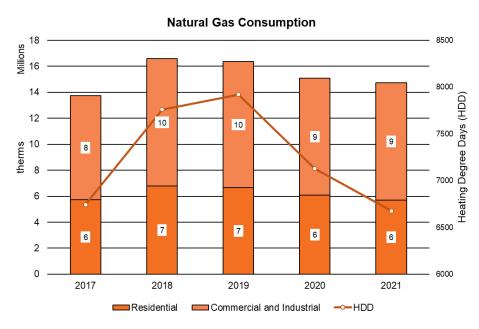
Since 2017, Faribault's total electricity consumption decreased almost 5% (Figure 6). This can be attributed to decreased consumption in the commercial and industrial sector. At the same time, residential electricity consumption increased by 6% from 2017 to 2021. This increase in residential electricity consumption could be due to weather fluctuations, with a higher number of cooling days (as indicated by CDD in Figure 6) each year driving the use of air conditioning.

Faribault's natural gas consumption increased by 7% between 2017 and 2021 due to increased use of natural gas in the commercial and industrial sector (Figure 7). As Figure 5 shows, natural gas use increases during colder years with more heating degree days (HDD on the chart) requiring an increase in space heating.

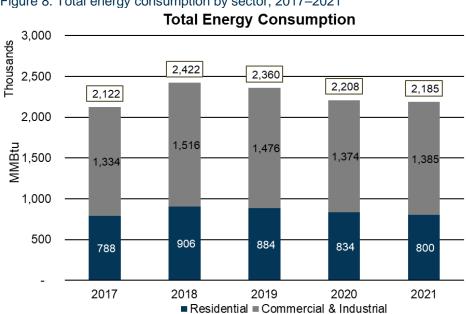








Between 2017 and 2021, Faribault's total energy consumption was highest in 2018 and 2019 and increased almost 3% from the 2017 baseline to 2021, with both residential and commercial and industrial sectors experiencing higher energy consumption overall (Figure 8).





Energy Costs and Energy Burden

During an average year, all premises in Faribault spend an estimated \$32 million on energy for both electricity and natural gas (Figure 9). Most of these costs are paid by the commercial and industrial sector, with total annual average energy costs at \$19.3 million. While costs fluctuate greatly for commercial and industrial premises based on size and industry, on average these premises spend \$14,000 annually. The residential sector spends \$12.2 million annually on energy. An average residential premise spends \$1,400 annually on electricity and natural gas (Table 1).

Figure 9. Average total energy costs by sector, 2017–2021

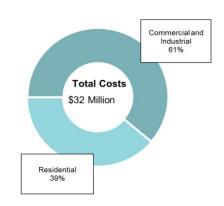
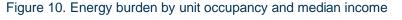
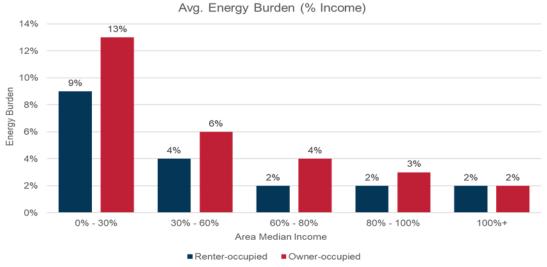


Table 1. Average annual energy costs by sector, 2017–2021

Sector	Average Annual Electricity Costs	Average Annual Natural Gas Costs	Average Annual Cost per Premise
Residential	\$8.4 million	\$3.8 million	\$1,400
Commercial & Industrial	\$14.8 million	\$4.5 million	\$14,000

Energy burden is the percentage of income that residents spend on energy. The energy burden for Faribault residents making 30% or less of the median income is up to 13% of their income.³ Energy burden is higher across every income group for homeowners compared to renters.





³ Department of Energy Low-income Energy Affordability Tool

Greenhouse Gas Emissions

Greenhouse gas emissions are calculated for both electricity and natural gas consumption for all sectors in Faribault.⁴ Faribault's energy-related greenhouse gas emissions in 2021 amount to 138,000 metric tons of carbon dioxide equivalent (MTCO₂e). Like total energy consumption, Faribault's commercial and industrial sector accounts for most energy-related greenhouse gas emissions. Emissions increased from 2017 to 2018 in all sectors, then declined over time, resulting in an 11% decrease from 2017 to 2021 (Figure 11).

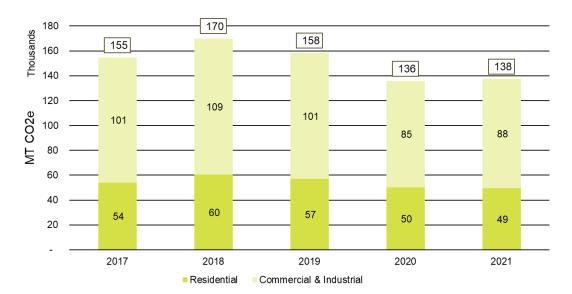


Figure 11. Energy-related greenhouse gas emissions, 2017–2021 GHG Emissions

Renewable Energy

Faribault residents and businesses use subscription programs and on-site options to support renewable energy. In Faribault, most renewable energy program participation is in the residential sector, where 671 residents support renewable energy through subscription programs including Windsource[®], Renewable* Connect[®], and community solar gardens, and 35 residents have on-site solar installations. The commercial/industrial sector supports renewable energy at a lower rate than the residential sector with 77 subscribers and 16 on-site installations, but those subscribers support a much higher amount of renewable electricity, with almost 38 million kWh of electricity subscribed to renewable energy programs.

⁴ Electricity emissions are calculated using Xcel Energy's preliminary and certified emissions factors for their Upper Midwest Fuel Mix. Emissions factors used during the planning process to calculate electricity consumption greenhouse gas emissions may change as Xcel Energy completes third-party verification for its emissions intensities. See *Error! Reference source not found.* for the emissions factors used to calculate Faribault's energy-related emissions.

Table 2. Renewable energy subscriptions and program participation, 2021

Subscription Programs - Windsource & Renewable*Connect	Residential	Commercial / Industrial
Subscriber Count	382	5
Total Annual Electricity Subscribed (kWh)	829,000	3,020,000
Percent of Sector Xcel Energy Electricity Use	1.2%	2.1%
Community Solar Gardens - Solar*Rewards [®] Community		
Subscriber Count	289	72
Total Annual Electricity Subscribed (kWh)	2,705,000	34,813,000
Percent of Sector Xcel Energy Electricity Use	4.0%	24.6%
On-site Solar - Solar*Rewards [®] and Net-Metering		
Participant Count	35	16
Total Electricity Capacity (kW)	452	1,589
Total Xcel Energy Renewable Energy Support⁵		
Subscriber Count	671	77
Total Annual Electricity Subscribed (kWh)	3,534,000	37,876,000

Energy Efficiency Program Participation & Savings

Both residents and commercial/industrial premises participate in efficiency programs from Xcel Energy where they can receive rebates for upgrading equipment, participate in a building audit to understand their energy opportunities, or participate in a rate savings program. Participation in all programs saved an annual average of almost 3.2 million kWh of electricity and 559,000 therms of natural gas (Table 3).

Table 3. Average annual program participation and energy savings by sector, 2017–2021

Sector	Average Annual Participation	Average Annual Energy Savings (kWh)	Average Annual Energy Savings (therms)
Residential	718	160,000	25,600
Commercial/Industrial	86	3,026,000	333,000
Total	804	3,186,000	359,000

Faribault residents and businesses rely on a few key programs from Xcel Energy to help them improve efficiency (Table 4). The Residential Saver's Switch program had the most participants while Residential HVAC resulted in the most savings. The commercial and industrial sector has multiple efficiency programs, with Lighting Efficiency having both the most participants and the most overall energy savings (Table 5).

⁵ Excludes on-site solar due to behind the meter generation.

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Table 4. Average annual	participation and energy	/ savings in top five	residential programs	, 2017–2021

Residential Program	Average Annual Participation	Average Annual Energy Savings (kWh)	Average Annual Energy Savings (therms)
Home Energy Squad	14	21,000	1,070
Low-income Home Energy			
Squad	23	15,600	1,400
Refrigerator Recycling	40	34,200	
Residential HVAC ⁶	187	74,500	20,200
Residential Saver's Switch	370	710	

Table 5. Average annual participation and energy savings in top five commercial and industrial programs, 2017–2021

Commercial/Industrial Program	Average Annual Participation	Average Annual Energy Savings (kWh)	Average Annual Energy Savings (therms)
Lighting Efficiency	23	1,237,000	-
Energy Design Assistance	1	479,100	8,700
Custom Efficiency	3	415,500	258,000
Small Business Lighting	17	306,700	-
Commercial HVAC ⁷	19	269,800	41,500

⁶ The Residential HVAC program consisted of Residential Cooling and Residential Heating until 2021, at which point the two programs were combined and renamed.

⁷ The Commercial HVAC group consisted of consisted of Commercial Refrigeration Efficiency, Cooling, Heating Efficiency, and Motor Efficiency until 2021, at which point the programs were merged and renamed as HVAC+R Efficiency.

Electric Vehicles and Charging Infrastructure

Electric vehicles (EVs) are also of interest to the Faribault community and this Energy Action Plan. According to the Minnesota Department of Transportation, as of December 2021, there are 49 registered EVs in Faribault, which is about 17% of all EVs registered in Rice County, and 36% of rice county residents live in the City of Faribault.⁸ The Faribault community also has four public EV charging stations according to PlugShare, including two Level 2 chargers and two Level 3 Fast Chargers.



Figure 12. Map of Faribault charging stations from the PlugShare Application

⁸ Minnesota Department of Transportation Electric Vehicle Dashboard, <u>https://www.dot.mn.gov/sustainability/electric-vehicle-dashboard.html</u>



WHERE WE ARE GOING

Energy Vision Statement

During the planning process, the Energy Action Team created an energy vision statement using responses from the community energy survey to the question, "What are your hopes for Faribault's energy future?"

This statement guided the planning process and reflects the intention of the community when it comes to implementing this plan.

Faribault is a vibrant, diverse community with equitable access to clean, affordable energy for all residents, businesses, and institutions. We are reducing greenhouse gas emissions through energy efficiency and renewable energy and creating a sustainable future where all can thrive.

Focus Areas

To achieve a community-wide commitment to energy stewardship, the Energy Action Team identified the following focus areas to prioritize strategies and resources.

- Energy Efficiency: Saving energy was the highest priority for both this plan and the previous plan. It was also identified as the first step to the clean energy transition.
- **Renewable Energy:** Faribault is already supporting a large amount of renewable energy through on-site solar, community solar and other utility subscription programs. This focus area was identified as a high priority for the community due to its contribution to the City's health and resiliency.
- **Beneficial Electrification:** It was important to the team to reduce greenhouse gas emissions. The City chose to focus on electrifying homes and buildings that

can be powered by clean energy, while contributing to the health of the people in those buildings. This can be achieved by replacing equipment fueled by natural gas with technology powered by electricity, where a growing percent is produced from carbon-free sources.

• **Transportation:** Transportation is recognized as a large contributor to the community's greenhouse gas emissions. Electrifying the transportation sector and adding transportation alternatives would help make strides toward emissions reductions.

These focus areas were chosen to provide a holistic approach to energy stewardship and to gain a broad range of input from the community during outreach.

Goals

The Energy Action Team set near-term and long-term goals to measure success. These goals will guide the actions of this plan.

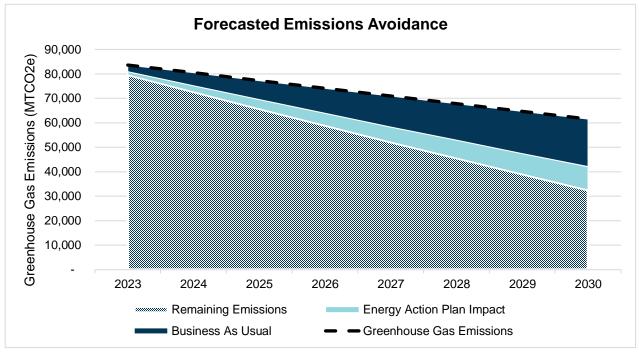
Community-wide Goal

Faribault will avoid an additional 50% of energy-related greenhouse gas emissions by 2030 compared to business as usual, while saving the community energy and money.

In other measures, this goal equates to the following:

- By reaching this goal, the City estimates Faribault will avoid spending an additional \$5.6 million on energy bills through increased energy efficiency.
- Achieving this goal will be equivalent to saving 33.9 million kWh of electricity and 4.4 million therms of natural gas by 2030.
- 50% equates to 28,992 MTCO2e cumulatively avoided by 2030.





The Energy Action Team set short-term targets to reach the 2030 goal. Since increased program participation resulted in higher energy savings, annual targets for some popular utility programs are listed in Table 7, with annual savings targets listed in Table 6.

Faribault can reach these annual savings targets through a variety of programs and targets, so the program targets are provided as a sample only.

Business as Usual			Energy Actio	on Plan Target
	Commercial/		Commercial/	
	Residential	Industrial	Residential	Industrial
Electricity Savings (kWh)	159,710	3,025,950	212,416	4,024,510
Natural Gas Savings (therms)	25,640	333,390	51,279	500,090
Participation	718	86	1,352	125

	Residential	Commercial/Industrial
Total Participation	1,352	125
Sample Program Targets	 36 Home Energy Squad visits 8 Insulation rebates 351 Heating & Cooling rebates 21 Water Heater rebates 	 28 HVAC+R rebates 36 Lighting rebates 3 Multi-family Building Efficiency participants 4 Business Energy Assessment visits



HOW WE ARE GOING TO GET THERE

Considerations for all Focus Area activities

As the community and Energy Action Team planned the actions of this plan, the following considerations stood out from individual focus areas and should be applied to all work within this plan.

Equity: Be equitable in the implementation and intended outcomes of these strategies by translating materials where possible. Be deliberate with the means of communication to reach audiences equitably and build relationships within the community by attending community events and conversations.

Access: Build an approachable, updated, living resource hub of energy information relevant to the Faribault community that is easily accessed.

Our Business Community: Continue to be a business-friendly community when asking businesses to take energy actions.

Informed: Keep apprised of and continue to update information available for all energy resources, including emerging technologies as they become relevant, available and financially accessible. These can include geothermal energy, ground source and air source heat pumps, HVAC rooftop unit heat-pumps, and electric vehicle changing incentives and programs.

Leadership and Recognition: Lead by example as a municipality and recognize the efforts of residents and businesses as they help reach this plan's goals through the following strategies.

Environmental impact: When promoting land and resource use, avoid doing more harm to that resource. For example, consider the full life cycle of products versus enduse.

Timelines: Each strategy has been given a color-coded timeline. That timeline includes near-, medium- and long-term timeframes. Partners in Energy offers support through an 18-month implementation period that supports the community's funding and capacity limitations. The work of these strategies will continue beyond these timelines to achieve the 2030 goal.

Near-term 1 - 6 months from plan adoption

Medium-term 6 - 12 months from plan adoption Long-term 12 - 24 months from plan adoption

Focus Area: Energy Efficiency

Strategy 1: Create a targeted outreach campaign encouraging energy assessments for homes and businesses.

As energy efficiency is the primary way to save energy, and it is difficult for audiences to act without advice or direction, energy assessments are



a low to no-cost option for residents or businesses to learn about their energy use and inefficiencies. It will also indicate where they have the most potential for return on investment with energy projects.

Actions:	Partnerships/Resources:
 Address barriers for residents such as cost, timing, language, and awareness and increase Home Energy Squad or other home energy assessment participation by promoting free visits and partnering with trusted messengers to reach underrepresented or hard to reach community members. 	Growing up Healthy, Healthy Communities Initiative, school groups, higher education, senior center, community events
 Showcase residents and businesses that undergo an energy assessment on the City's energy resource hub. 	City communications
 Conduct outreach to Faribault's business community through assessment program implementers and the Chamber of Commerce. Include case studies and incentive information in communications. 	Chamber of Commerce, Faribault Futures, community events
 Conduct a door-to-door campaign to small businesses to encourage energy assessments. 	Energy Action Team, City Council Members, Mayor, Energy Smart, utility assessment programs
Communication:	Events, radio, weekly tips in Faribault Daily News/Weekly Shopper
Timeline: 1–6 Months	

Strategy 2: Consider the development of an efficient building policy that sets standards for building projects that obtain city incentives.

Grid reliability will also rely on Faribault's buildings to be efficient. Setting some standard for projects that apply for city incentives can increase efficient building stock, and therefore help grid reliability.

Actions:	Partnerships/Resources:
 Connect with other communities who have building standard policies and review costs and benefits. 	Community and Economic Development and Engineering departments
 Write conclusions and recommendations to be reviewed by city staff, council, and public. 	Community and Economic Development and Chamber of Commerce.
Communication:	City, Chamber of Commerce and elected official communications
Timeline: 12–24 Months	

Strategy 3: Engage multi-family building property owners and managers to take efficiency measures.

Faribault's multi-family buildings constitute a large part of the housing community and significantly impact energy savings. These efficiency measures can be taken in existing buildings and new construction. Faribault has done outreach to multi-family building owners in the past and can build on those efforts and relationships.

Actions:	Partnerships/Resources:
 Create a targeted outreach campaign to older, existing multi-family building owners and property managers to increase energy efficiency and engage in efficiency programs. 	Community and Economic Development and Engineering departments
 Conduct multi-family building trainings on energy efficiency options for developers, building owners, operations and management staff. 	Xcel Energy's Multi-family Building Efficiency program, local HVAC and weatherization experts
5) Lead by example through a City partnership with the Housing Redevelopment Authority to develop a plan to replace existing appliances with energy- efficient models.	Xcel Energy, Housing and Redevelopment, Partners in Energy, HUD, Community and Econ. Development Dept.
Communication:	City, Chamber of Commerce and elected official communications
Timeline: 6–12 Months	

Strategy 4: Promote energy efficiency in new construction and building retrofits.

As buildings are re-purposed or built, there is an opportunity to implement energy efficiency measures. Getting involved with those projects will require partnerships and communications to help promote these measures early in the design phase of a project.

Actions:	Partnerships/Resources:
 Educate designers, contractors, etc. with a guide to resources for energy efficient buildings. 	Community and Economic Development and Engineering departments, existing guides
 Review and modify City code where applicable to require or incentivize more efficient buildings. 	Other community examples, Community and Economic Development department
 Encourage new technologies like motion lighting or efficient appliances/electronics through educational pieces. 	Lighting consultants and utility programs
 Promote city rebates, incentives and recognition for efficient buildings. 	City webpage, Chamber of Commerce
Communication:	Chamber of Commerce, city permitting, elected official communications, social media
Timeline: 12–24 Months	

Strategy 5: Create education and awareness campaigns to encourage behavior change and promote energy efficiency programs to residents.

To reach audiences who may not be able to do an energy assessment, or to reach populations that want to start with small steps or are renting their homes, behavior change campaigns can provide a first step to home energy efficiency.

Actions:	Partnerships/Resources:
 Attend community events with business and resident energy resources and tips to encourage energy efficiency actions. 	Parks and Recreation department, Nature Center, senior center, schools, Downtown Business Association
 Create a weekly energy tip/action and promote them throughout the community. 	Energy Hub, weekly shopper, Faribault Daily News, social media, utility bill inserts, radio
Communication:	City website and communications, press, community boards
Timeline: 1–6 Months	

Strategy 6: Partner with schools, governmental and community organizations to act as trusted messengers of information and use existing programs to increase energy efficiency.

Creating messaging alongside community partners who may know the unique needs and communication methods of their networks will provide residents with energy information from trusted allies in the community, addressing energy needs more effectively.

Actions:	Partnerships/Resources:
 Share Xcel Energy student toolkit with teachers and students to encourage behavior change at home. 	Xcel Energy, K-12 schools, Partners in Energy
 Share EmPowered Schools information with school districts. 	EmPowered Schools, K-12 schools
 Review GreenSteps Schools criteria and help in the pursuit of energy initiatives. 	GreenSteps, K-12 schools
 Recruit for a student internship to help perform basic energy assessments or guide residents toward utility programs. 	Higher education or high school group
 Develop energy-related library programming such as educational events on home energy efficiency, renewable energy and utility programs. 	Library, community education
 Create and distribute communications pieces that include education around energy for teachers and students. 	K-12 schools and higher education
Communication:	School and library direct communications
Timeline: 1–6 Months	

Strategy 7: Increase access to energy and utility data to renters and buyers.

Knowledge of energy efficiency of a property or knowing the cost of an average utility bill can be a useful tool prior to entering into agreements when renting or buying homes.

Actions:	Partnerships/Resources:
 Explore and consider a time of sale energy disclosure or energy audit for properties prior to selling a home or prior to renting to new tenants. 	Peer communities, City departments, commissions and council, realtor and property owner groups.
Communication:	City communications
Timeline: 6–12 Months	

Strategy 8: Create a tool library resource to support energy efficiency projects at home.

Reach community members who want to do projects and learn more about their home or business energy use. A tool library could help residents and business owners access tools that aren't readily available or are expensive to purchase.

Actions:	Partnerships/Resources:
 Acquire and create a collection of tools including an infrared camera, kilowatt meter, LED kits, and a guide or set of directions on how to use the tools to find inefficiencies and next steps to take. 	Xcel Energy, library, Partners in Energy, local hardware stores
 Partner with energy library programming to promote and encourage use of this kit. 	Library, Partners in Energy
Communication:	City web page, social media, video media, paper, library communications
Timeline: 6–12 Months	

Strategy 9: Encourage energy efficient, affordable "missing middle" housing development by creating and communicating resources for retrofits of existing buildings and development of those properties.

Faribault is not unique in its position having a significant amount of single-family and multi-family housing stock and fewer "missing middle" housing, which includes duplexes, stacked and courtyard complexes, townhouses, and smaller multi-unit buildings in walkable neighborhoods. Encouraging this type of housing through energy efficiency incentives can grow that area of the housing community.

Actions:	Partnerships/Resources:
 Work with City departments to identify housing stock and contacts to conduct outreach to existing buildings on available incentives. 	City staff and Partners in Energy
 Create a city/stacked incentive program that encourages developers to build missing middle properties. 	Use other community examples and work with city council/commissions
 Review and update city code to reduce barriers to constructing missing middle housing. 	Use other community examples and work with city council/commissions
Communication:	On-on-one outreach
Timeline: 12–24 Months	

Strategy 10: Use passive energy strategies to reduce heat island effects that will bolster other energy strategies.

Faribault can make strides in reducing energy use (particularly during warm months) through measures that help reduce the urban heat island effects. This strategy can bolster the impact of the other energy efficiency strategies.

Actions:	Partnerships/Resources:
 Consider green infrastructure and removal of unnecessary pavement or pavement alternatives when implementing or renovating projects. 	Partners in Energy, Planning and Parks and Recreation departments
 Consider light-colored pavement and roofs when building or renovating roofed structures, streets or paths. 	Development, business associations
 Review and update city code to reduce barriers to impervious surfaces. 	City council and commissions
4) Plant trees for shade where possible.	Parks and Recreation department
Communication:	Internal to City departments
Timeline: 1–6 Months	

Focus Area: Renewable Energy

Strategy 1: Remove barriers for residents to access community solar or other renewable energy subscription offerings.

Alternatives to on-site solar exist for community members or businesses who lease or cannot install solar on their properties. Education is needed to show other available options for participation in renewable energy.

Actions:	Partnerships/Resources:
 Educate residents on community solar subscription opportunities through information sharing on the City website. 	City communications, Partners in Energy
 Create easily accessible videos and infographics for understanding subscription options. 	Partners in Energy and city communications
 Partner with civic and social service organizations to develop and share incentives to renewable energy options for multi-family building residents and low-income residents. 	Community Action Center, senior center, library
 Launch a renewable energy subscription campaign for residents to access clean energy without on-site installations. 	Faith organizations, community education, Partners in Energy
Communication:	City communications, press release, social media
Timeline: 6–12 Months	

Strategy 2: Build partnerships with organizations that can support outreach to encourage renewable energy participation by businesses.

Organizations that act as a trusted resource can help shape messaging and communicate with their networks to promote renewable energy options. These partnerships can also lead to further sustainability messaging for future campaigns.

Actions:	Partnerships/Resources:
 Host or partner with a contractor's event to share renewable energy benefits, resources and incentives. 	Library, business associations, solar installers, community solar, Xcel Energy, Partners in Energy
 Showcase businesses that have adopted renewable energy by creating case studies and articles and recognize them through City communications. 	Partners in Energy, business association
Communication:	Social Media, direct email campaign
Timeline: 6–12 Months	



Strategy 3: Create targeted outreach campaigns encouraging large buildings to adopt renewable energy practices.

Using solar suitability mapping and identifying large buildings that could host a large solar array can benefit the business or building itself, as well as make a large advance toward greenhouse gas emissions avoided.

Actions:	Partnerships/Resources:
 Create an outreach campaign for renters and property owners to engage in renewable energy programs. 	Housing department, Xcel Energy, local solar companies
 Create incentives for multi-family buildings to adopt renewable energy practices while avoiding placing the cost burden on residents. 	Planning department, City Council
 Lead by example on municipal owned buildings and properties (e.g., parking lots and streetlights). 	City Council, solar companies, building staff, development, planning
 Create a targeted outreach campaign for businesses to support renewable energy, including information on funding available for on- site solar projects. 	Downtown business association, Faribault Futures, Xcel Energy, Chamber of Commerce
 Help schools access on-site renewable energy projects and funding. 	Higher education and K-12 schools
Communication:	City communications, press release, social media
Timeline: 12–24 Months	

Strategy 4: Help renewable installers to consider additional sustainability efforts when installing large solar arrays.

Additional sustainability efforts might include incorporating pollinator habitat or native grasses for water infiltration and carbon sequestration. This would provide dual purpose for the resources used.

Actions:	Partnerships/Resources:
 Recognize efforts of solar installers who make additional sustainability actions to installations and include these actions on the Energy Hub. 	Solar companies
Communication:	City communications
Timeline: 12–24 Months	

Focus Area: Transportation

Strategy 1: Increase access to EV education and resources.

As new incentives are rolled out and EV ownership is expected to increase significantly by 2030, education on available incentives and charging options will inform community members on the adoption of an electric vehicle.

Actions:	Partnerships/Resources:
 Promote available information, resources and financing opportunities through the City's Energy Hub (such as IRA funds and other incentives). 	City communications
2) Host ride and drive events.	Drive Electric MN, Xcel Energy, Parks and Recreation department, community events
3) Share educational materials at events.	Rice County Fair, Concerts in the Park, International Fest, Heritage Days
Communication:	City communications, Faribault Daily News
Timeline: 6–12 Months	

Strategy 2: Increase convenient charging availability.

Best placement and other installation plans for public EV charging will help the adoption of electric vehicles, make visiting area businesses more attractive, and aid in accessible charging infrastructure.

Actions:	Partnerships/Resources:
 Explore increasing public charging stations in downtown Faribault as a draw for business. 	Xcel Energy, business associations, Chamber of Commerce
 Develop a site plan and prioritize sites for public chargers to access funding as it becomes available. 	Planning department, MnDOT charging infrastructure guides
 Include charging guidelines/requirements for multi- family buildings and explore charging infrastructure ordinances in new development and retrofits of multi-family buildings. 	Community examples of best practices and policies, City Council
Communication:	City communications
Timeline: 6–12 Months	



Strategy 3: Partner with the utility to ensure reliability in the grid as EV adoptions increase.

Being in close contact with the utility as electric vehicle charging increases will ensure grid reliability as charging is added to public and private locations.

Actions:	Partnerships/Resources:
 Establish a contact person at the utility who can share information at a regular cadence on grid pressures and intake information on City plans or campaigns. 	Xcel Energy
Communication:	Internal
Timeline: 1–6 Months	

Strategy 4: Access and promote funding and opportunities for electrification of fleet vehicles.

When replacement is needed for fleets such as public transit, school busses, commercial vehicles, e-bikes, municipal fleets, postal vehicles, etc. the City, residents, and business owners can assess whether an EV makes economic sense. Help those organizations keep apprised of incentives and resources for those updates.

Actions:	Partnerships/Resources:
 Keep the City website up to date on funding changes or updates to programs while establishing relationships with organizational fleet managers to keep them apprised of resources. 	Xcel Energy, business associations, municipal fleet manager
Communication:	Internal
Timeline: 6–12 Months	

Strategy 5: Support low-income communities in electric transportation by removing barriers to access.

Faribault's under-resourced community members should be kept apprised of electric vehicle options. Initial resources should include new incentives and low-maintenance costs of EV ownership.

Actions:	Partnerships/Resources:
 Create a resource guide (digital and printable) for accessing federal and state dollars for EV adoption, e-bikes, and other electric transportation equipment 	Xcel Energy, Partners in Energy
Communication:	City communications
Timeline: 12–24 Months	

Strategy 6: Support the development of a complete network of active transportation infrastructure.

Faribault can aid the energy strategies and add to the greenhouse gas reduction goals of this plan by removing vehicle transportation by adding alternative transportation methods.

Actions:	Partnerships/Resources:
 Support the creation of more walking and biking infrastructure. 	Transportation and Planning departments
 Support the addition of options to the public transit network (e.g., trains, electric bikes, etc.). 	Transportation and Planning departments
Communication:	City communications
Timeline: 1–6 Months	

Focus Area: Beneficial Electrification

Strategy 1: Create an education and outreach campaign to share the possibilities of home appliance electrification and qualified contractors.



As incentives and resources become available to homeowners and landlords, the City can help inform the public of those resources and the benefits of electrifying their properties.

Actions:	Partnerships/Resources:
 Develop a school campaign to include in science courses. 	Higher education, K-12 schools, Xcel Energy, Empowered Schools
 Host community center and library educational sessions. 	Transportation and Planning departments
 Use and promote existing organizations' educational resources and preferred contractor lists. 	ASHP Collaborative, MN Geothermal Heat Pump Association
Communication:	City communications
Timeline: 1–6 Months	

Strategy 2: Incorporate beneficial electrification into new construction recommendations/requirements and promote existing programs and incentives.

As new homes and businesses are built, contractors or builders will be informed about available incentives and best practices to install electric HVAC and appliances.

Actions:	Partnerships/Resources:				
 Create recommendation packets to distribute to local builders, remodelers, and large construction projects. 	Chamber of Commerce, Partners in Energy, Xcel Energy				
 Explore requirements for electric appliances and bring recommendations to City Council. 	Other community examples of policy or ordinance				
Communication:	City communications				
Timeline: 12–24 Months					

Strategy 3: Support contractor trainings and education on new electrification technologies.

The workforce will be informed of new technology transitions, options, available incentives and installation best practices.

Actions:	Partnerships/Resources:
 Partner with the MN Air Source Heat Pump Collaborative and other workforce training programs to conduct workshops for contractors. 	ASHP Collaborative, Chamber of Commerce, Partners in Energy, Xcel Energy
Communication:	City communications, Chamber of Commerce network
Timeline: 12–24 Months	

Strategy 4: Electrify parks maintenance equipment.

As equipment is replaced in Faribault's parks maintenance selection, electric options will be considered to reduce costs of fuel and maintenance.

Actions:	Partnerships/Resources:
 Identify procurement processes and update language for considering or requiring electric equipment when replacement is needed for mowers, trimmers, etc. 	Parks and Recreation department
Communication:	Internal communications
Timeline: 6–12 Months	



HOW WE STAY ON COURSE

This Energy Action Plan is a living document. Goals and strategies will be assessed and refined as needed based on data and community staff capacity.

Xcel Energy Support

Data and Reporting

Partners in Energy will provide biannual progress reports with metrics of success and overall progress toward goals for Xcel Energy rebates and programs. These reports will be available publicly and shared with both the community and Energy Action Team.



Figure 15. Actions and tracking

If available, ad-hoc participation reports for specific Xcel Energy programs (e.g., Home Energy Squad) can be provided to measure success of campaigns and to determine if we need to change course.

Project Management and Tracking

Partners in Energy will host regular project management check-in calls with staff to ensure we stay on course to achieve our strategies. If necessary, an implementation check-in meeting with the Energy Action Team can be convened to assess progress toward goals and discuss strategy refinement.

Energy Action Team and Community Commitment

The Energy Action Team formed to create this plan will support implementation by ensuring this document reflects the voices of the community and by helping implement the strategies that each team member was passionate about.

The community members who filled out surveys or responded to community listening boards have requested updates on the progress of the plan and the actions taken along the way. They have started a communication list for Faribault community members who are interested in the community's energy future.

The City of Faribault is committed to the municipal strategies in this plan and to working alongside the broader community to implement other strategies. The City is also committed to continue to build partnerships to continue to save the community money and energy.



APPENDIX A: BASELINE ENERGY ANALYSIS

Data was provided by Xcel Energy for all Faribault premises for 2017–2021. Xcel Energy provides electric and natural gas service to the community. The data helped the Energy Action Team understand Faribault's energy use and identify opportunities for energy conservation and renewable energy. Data included in this section establishes a baseline against which progress toward goals will be compared in the future.

Electricity and Natural Gas Premises

Most Faribault premises are residential. Of the 9,953 distinct premises in Faribault in 2021, 86% (8,558) are residential, while commercial and industrial buildings represent 14% (1,395).

Table 8. Premise count by sector, 2021

Sector	Premise Count	Percent of Premises
Residential	8,558	86%
Commercial and Industrial	1,395	14%
Total	9,953	100%

Electricity and Natural Gas Consumption and Trends by Sector

On average from 2017-2021, the Faribault community consumed 214 million kWh of electricity and 15.3 million therms of natural gas across all sectors per year (Table 9). Total energy consumption increased by over the baseline period by 3%, which can be attributed to an increase in natural gas consumption in the commercial and industrial sector, as well as an increase in electricity consumption in the residential sector (Table 10). During the same period, electricity consumption in the commercial and industrial sector decreased by 9%.

Sector	Electricity Consumption (kWh)	Natural Gas Consumption (Therms)	Total Energy Consumption (MMBtu)	Percent of Total Energy Consumption
Residential	65,597,249	6,187,004	842,518	37%
Commercial and Industrial	148,012,439	9,119,306	1,416,949	63%
Total	213,609,688	15,306,310	2,259,467	100%

Table 9. Average annual energy consumption by sector by fuel type, 2017–2021

Table 10. Annual energy consumption by sector by fuel type, 2017–2021

	Fuel Type	Residential	Commercial and Industrial	Total
2	Electric (kWh)	63,367,144	155,915,550	219,282,694
201	Natural Gas (therm)	5,722,761	8,019,140	13,741,901
7	Total (MMBtu)	788,485	1,333,898	2,122,383
ω	Electric (kWh)	66,844,111	156,897,927	223,742,038
0	Natural Gas (therm)	6,775,128	9,805,872	16,581,000
Ñ	Total (MMBtu)	905,585	1,515,923	2,421,508
6	Electric (kWh)	63,965,767	147,850,556	211,816,323
201	Natural Gas (therm)	6,658,740	9,710,553	16,369,293
2	Total (MMBtu)	884,125	1,475,521	2,359,647
0	Electric (kWh)	66,628,789	138,058,609	204,687,398
2020	Natural Gas (therm)	6,068,915	9,030,378	15,099,293
7	Total (MMBtu)	834,229	1,374,094	2,208,323
-	Electric (kWh)	67,180,435	141,339,551	208,519,986
2021	Natural Gas (therm)	5,709,478	9,030,585	14,740,063
2	Total (MMBtu)	800,167	1,385,309	2,185,476

Total energy consumption during the baseline period showed variation in each sector consistent with variation in weather. Hotter summers (those with more cooling degree days) and colder winters (those with more heating degree days) had higher energy consumption.

Table 11. Cooling degree and heating degree days, 2017–2021

	2017	2018	2019	2020	2021
Cooling Degree Days	830	1,135	817	950	1,184
Heating Degree Days	6,743	7,760	7,921	7,128	6,678

Greenhouse Gas Emissions and Trends

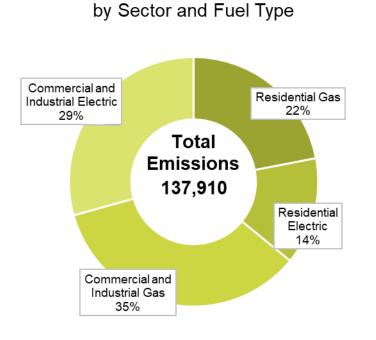
Faribault's overall greenhouse gas (GHG) emissions increased from 2017 to 2018, and declined from 2018–2020, then grew slightly by 1.7% from 2020–2021. Overall, GHG emissions are 11% lower in 2021 compared to 2017 levels.

Customer Type	2017	2018	2019	2020	2021
Residential	53,998	60,425	56,955	50,281	49,529
Commercial and Industrial	100,693	109,474	101,498	85,374	88,380
Total Emissions	154,691	169,899	158,453	135,655	137,910

In 2021, the residential sector generated 36% of Faribault's energy-related greenhouse emissions and the commercial sector generated 64% of the emissions. Natural gas consumption made up the largest proportion of emissions for both the residential and commercial sectors (Figure 16).

Figure 16. Energy-related greenhouse gas emissions by sector and fuel type, 2021

2021 GHG Emissions (MTCO2E)



To calculate Faribault's energy-related emissions, preliminary and certified emissions factors from Xcel Energy's Upper Midwest Fuel Mix and a standard emissions factor for natural gas emissions were used (Table 13). As Xcel Energy completes third-party verification, the emissions factors used during the planning process to estimate greenhouse gas emissions may change.

Table 13. Emissions factors	s used to calculate ene	rav-related areenhouse	gas emissions, 2017-2021
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Fuel Type	2017	2018	2019	2020	2021
Electricity Emissions Factor (Ibs/MWh)	822	807	745	598	631
Natural Gas Emissions Factor (MTCO2e/Dth)	0.053071	0.053071	0.053071	0.053071	0.053071

Energy Costs

In total, Faribault premises spent an annual average of \$31.5 million on energy during the baseline period. Faribault residential premises made up 39% of that spending, while commercial premises made up the remaining 61%. Commercial and industrial premises spent more overall, and their average annual cost per premise was greater (\$14,027) than the average cost for residential premises (\$1,432). Table 15 shows the energy costs by year for 2017–2021 by sector and fuel type.

Customer Type	Average Annual Electricity Costs	Average Annual Natural Gas Costs	Average Annual Total Costs	Average Annual Cost per Premise
Residential	\$8,408,174	\$3,814,248	\$12,222,422	\$1,432
Commercial and Industrial	\$14,785,939	\$4,514,551	\$19,300,491	\$14,027
Total	\$23,194,113	\$8,328,799	\$31,522,913	

Table 14. Average annual energy costs by sector and fuel type, 2017–2021
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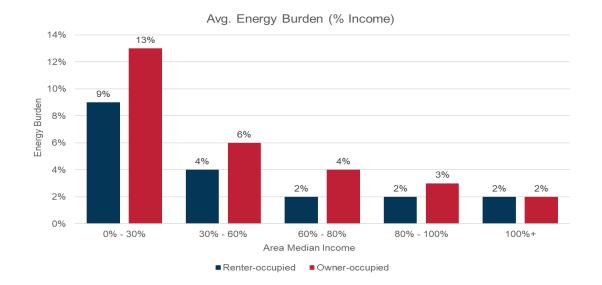
Table 15. Annual energy costs by sector and fuel type, 2017–2021

Sector	Year	Annual Electricity Costs	Annual Natural Gas Costs	Annual Total Costs	Annual Cost per Premise
	2017	\$7,861,040	\$3,581,415	\$11,442,455	\$1,343
	2018	\$8,775,704	\$4,176,942	\$12,952,646	\$1,515
Residential	2019	\$8,113,356	\$4,101,794	\$12,215,150	\$1,427
	2020	\$8,577,229	\$3,422,387	\$11,999,616	\$1,403
	2021	\$8,713,541	\$3,788,702	\$12,502,243	\$1,461
	2017	\$15,125,860	\$4,005,169	\$19,131,029	\$13,843
Commercial and Industrial	2018	\$15,571,055	\$4,871,435	\$20,442,490	\$14,602
	2019	\$14,514,878	\$4,731,585	\$19,246,463	\$13,906
	2020	\$13,588,281	\$3,889,638	\$17,477,919	\$12,767
	2021	\$15,129,622	\$5,074,930	\$20,204,552	\$14,484

Energy Burden

Energy burden is the percentage of income that residents spend on energy, and in Faribault it is greatest for owner-occupied homes with owners making 30% or less of the median income. This group of residents spends up to 13% of their income on energy costs. ⁹ Notably, energy burden is higher across every income group for homeowners rather than renters.

⁹ Department of Energy LEAD Tool comparison





Program Participation and Savings

Faribault already has a significant number of participants in energy efficiency programs from Xcel Energy, resulting in energy savings for residents and commercial premises. While fewer commercial premises participate, their participation results in larger savings per premise. Participation in these commercial programs saved an annual average of 3,185,660 kWh of electricity and 359,030 therms of natural gas.

Annual program participation counts, and electricity and natural gas savings are shown in Table 16 and Table 17. Savings values noted with an em dash (–) are not applicable, meaning there are no electricity or natural savings associated with that program.

Program		2017	2018	2019 2017	2021	2021
	Count	4	7	2	0	0
Efficient New Home	Savings (kWh)	2,751	5,380	2,561	0	0
Construction	Savings (therms)	1,003	1,225	158	0	0
	Count	32	76	43	4	4
Home Energy Audit	Savings (kWh)	_	_	-	_	_
	Savings (therms)	_	_	_	_	_
	Count	1	13	9	0	1
Home Energy Savings	Savings (kWh)	0	1,828	2,262	0	158
Program	Savings (therms)	29	0	2,195	0	0
	Count	24	24	13	6	5
Home Energy Squad	Savings (kWh)	30,228	35,996	18,550	12,634	7,639
35 1	Savings (therms)	2,009	1,791	956	421	173
	Count	0	4	4	5	4
Insulation Rebate	Savings (kWh)	0	511	1,028	1,311	4,633
	Savings (therms)	0	980	1,833	2,343	776
	Count	11	74	3	24	2
Low-Income Home Energy	Savings (kWh)	10,546	48,375	2,575	13,663	2,938
Squad	Savings (therms)	746	4,560	177	1,354	136
	Count	0	73	0	0	0
Multi-Family Energy Savings Program	Savings (kWh)	0	42,211	0	0	0
	Savings (therms)	- 1	_	_	_	_
	Count	26	53	50	30	43
Refrigerator Recycling	Savings (kWh)	28,695	44,815	46,903	21,577	28,888
	Savings (therms)	-	-	-	-	-
Desidential Heating and	Count	148	190	167	186	243
Residential Heating and Cooling	Savings (kWh)	61,793	78,930	73,116	94,961	63,600
Cooling	Savings (therms)	15,018	19,767	14,395	18,794	33,044
	Count	474	279	295	589	214
Residential Saver's Switch	Savings (kWh)	970	564	594	1,193	228
	Savings (therms)		-		_	_
	Count	10	15	6	4	53
Smart Thermostat	Savings (kWh)	64	552	274	532	2,531
	Savings (therms)	57	564	140	280	1,420
	Count	20	9	11	4	0
Water Heater Rebate	Savings (kWh)	-	-	-	-	-
	Savings (therms)	916	297	475	165	0
	Count	750	817	603	852	569
Total	Savings (kWh)	135,047	259,162	147,863	145,871	110,615
	Savings (therms)	19,778	29,184	20,329	23,357	35,549

Table 16. Annual residential sector efficiency program participation and savings, 2017–2021

Program		2017	2018	2019	2020	2021
	Count	3	2	5	1	3
Custom Efficiency	Savings (kWh)	138,406	129,722	1,808,906	0	445
	Savings (therms)	0	2,477	651	1,289,051	0
	Count	2	0	0	0	0
Efficiency	Savings (kWh)	284,439	0	0	0	0
Controls	Savings (therms)	30,874	0	0	0	0
	Count	6	10	6	1	11
Electric Rate	Savings (kWh)	9,151	12,603	4,637	-1,239	-21,399
Savings	Savings (therms)					
-	Count	0	3	0	4	0
Energy Design	Savings (kWh)	0	320,162	0	2,075,377	0
Assistance	Savings (therms)	0	24,066	0	19,340	0
	Count	2	0	0	0	0
Energy Efficient	Savings (kWh)	122,327	0	0	0	0
Buildings	Savings (therms)	1,012	0	0	0	0
	Count	4	2	0	2	0
Fluid System	Savings (kWh)	507,208	116,506	0	204,373	0
Optimization	Savings (therms)	0	0	0	0	0
	Count	0	2	1	1	2
Foodservice	Savings (kWh)	0	3,171	0	0	22,454
Equipment	Savings (therms)	0	20,109	4,049	274	3,174
	Count	15	23	23	21	14
HVAC +R Efficiency	Savings (kWh)	257,918	164,625	552,540	91,666	282,286
	Savings (therms)	9,054	1,454	10,645	181,826	4,689
	Count	20	22	25	25	24
Lighting Efficiency	Savings (kWh)	545,017	1,269,918	1,490,293	1,081,187	1,799,263
	Savings (therms)		-		-	
Multi-Family	Count	1	0	3	1	2
Building	Savings (kWh)	4,610	0	21,487	0	2,029
Efficiency	Savings (therms)	899	0	1,982	0	0
*	Count	0	0	0	0	1
Peak Partner Rewards	Savings (kWh)	0	0	0	0	167
	Savings (therms)	-	-		-	-
	Count	0	4	4	0	0
Recommissioning	Savings (kWh)	0	0	293,750	0	0
	Savings (therms)	0	0	60,941	0	0
	Count	2	0	3	1	10
Saver's Switch for Business	Savings (kWh)	58	0	53	27	43
	Savings (therms)					+3
Small Business	Count	22	22	17	10	12
	Savings (kWh)	650,179	315,562	215,546	158,849	193,346
Lighting	Savings (therms)	0.00,179	515,502	213,340	130,049	133,340
Smort		0	0		10	9
Smart Thermostats for	Count	0	0	0	138	1,934
	Savings (kWh)					
Business	Savings (therms)	0	0	0	0	385

¹⁰ In 2021, Commercial Refrigeration Efficiency, Cooling, Heating Efficiency and Motor Efficiency were merged in 2021 and renamed as HVAC+R Efficiency.

Program		2017	2018	2019	2020	2021
	Count	0	2	4	0	4
Turn Key Services	Savings (kWh)	—	_	_	_	—
	Savings (therms)	-	-	-	-	—
	Count	77	92	91	77	92
Total	Savings (kWh)	2,519,313	2,332,269	4,387,212	3,610,378	2,280,568
	Savings (therms)	41,839	48,106	78,268	1,490,491	8,248

Renewable Energy Support

There is support for renewable energy in Faribault with almost 700 residential premises subscribing to Xcel Energy renewable programs. These premises subscribe a total of 3,534,000 kWh of their electricity to renewable sources, the equivalent of taking 340 gas-powered cars off the road for a year.¹¹ Commercial and industrial premises also subscribe to Xcel Energy's renewable programs, with 77 subscribers subscribing a total of 37,876,000 kWh of electricity to renewable programs.

Table 18. Renewable energy subscriptions and program participation, 2021

Subscription Programs - Windsource & Renewable*Connect	Residential	Commercial/ Industrial			
Subscriber Count	382	5			
Total Annual Electricity Subscribed (kWh)	829,000	3,020,000			
Percent of Sector Xcel Energy Electricity Use	1.23%	2.1%			
Community Solar Gardens - Solar*Rewards Community					
Subscriber Count	289	72			
Total Annual Electricity Subscribed (kWh)	2,705,000	34,813,000			
Percent of Sector Xcel Energy Electricity Use	4.0%	24.6%			
On-site Solar - Solar*Rewards and Net-Metering					
Subscriber Count	35	16			
Total Electricity Capacity (kW)	452	1,589			
Total Xcel Energy Renewable Energy Support ¹²					
Subscriber Count	671	77			
Total Annual Electricity Subscribed (kWh)	3,534,000	37,876,000			

¹¹ https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

¹² Excludes on-site solar due to behind the meter generation.

Community Maps

Using American Community Survey data, maps by census tracts were created to give context for the geographical distribution of key population and housing characteristics. Data include estimated counts of households eligible for low-income programs, renter-occupied units, and multi-family unit buildings.

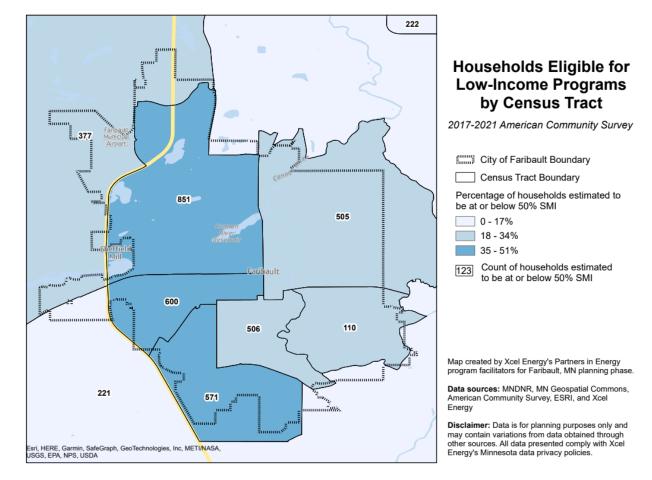


Figure 18. Faribault households eligible for low-income programs by census tract, 2017–2021

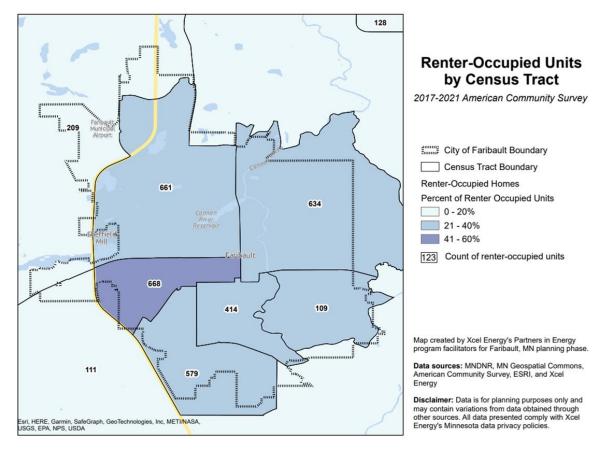


Figure 19. Faribault renter-occupied units by census tract, 2017-2021

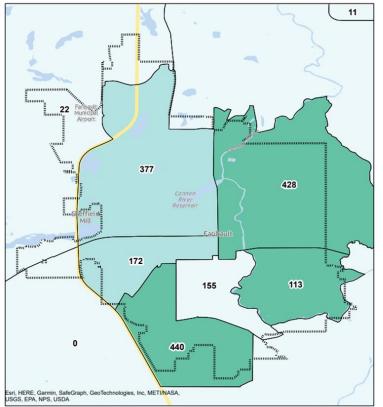
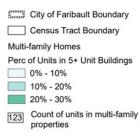


Figure 20. Faribault multi-family unit buildings by census tract, 2017-2022

Multi-Family Unit Buildings (5+ Unit Buildings) by Census Tract

2017-2021 American Community Survey



Map created by Xcel Energy's Partners in Energy program facilitators for Faribault, MN planning phase.

Data sources: MNDNR, MN Geospatial Commons, American Community Survey, ESRI, and Xcel Energy

Disclaimer: Data is for planning purposes only and may contain variations from data obtained through other sources. All data presented comply with Xcel Energy's Minnesota data privacy policies.



APPENDIX B: METHODOLOGY FOR MEASURING SUCCESS

As part of implementation support, Partners in Energy will provide biannual progress reports for Xcel Energy participation and savings data for Faribault. All goals will be measured against Faribault's business as usual scenario, which averages data from a three-year baseline of 2019–2021 unless otherwise noted.

The following section defines the values against which progress is measured, including Xcel Energy programs included in the assumptions.

Community-wide Goal

• Faribault will avoid an additional 50% of energy-related greenhouse gas emissions by 2030 compared to business as usual, while saving the community energy and money.

This goal is measured against a business as usual (BAU) savings scenario based on the three-year baseline. The community-wide goal will be measured comparing cumulative energy savings, greenhouse gas emissions and estimated dollars saved for electricity and natural gas savings for all sectors between 2023 and 2030 against the estimated BAU value for the same period.

First-year savings data provided by Xcel Energy for current and future energy efficiency programs will be used to calculate electricity and natural gas savings. Partners in Energy facilitators will use energy savings by sector and fuel type to calculate estimated dollars saved in the community using sector specific rate assumptions. To calculate greenhouse gas emissions, Partners in Energy facilitators will use preliminary and certified emissions factors from Xcel Energy's Upper Midwest Fuel Mix.

Table 19. Cumulative savings scenarios

	Cumulative 2030 BAU Scenario	Cumulative 2030 Goal Scenario
Electricity Savings (kWh)	25,485,277	33,895,418
Natural Gas Savings (therms)	2,872,238	4,410,915
Total Energy Savings (MMBtu)	374,180	556,743
Greenhouse Gas Emission Savings (MTCO2e)	19,441	28,992
Dollar Savings	\$3,969,058	\$5,644,853

Annual Energy Savings and Participation Targets

To meet Faribault's 2030 goal, the community will need to increase Xcel Energy program participation, saving more electricity and natural gas annually than the BAU scenario. Table 20 identifies the annual participation and energy savings targets needed to stay on track to meet the 2030 goal compared to the BAU scenario, assuming a linear increase to reach their 2030 goal. Participation includes Xcel Energy's current and future energy efficiency programs for residential and commercial/industrial customers and excludes renewable energy programs.

Table 20. Annual energy savings and participation targets

	Annual BAU Scenario	Annual Goal Scenario
Residential Participation	718	1,352
Commercial/Industrial Participation	86	125
Electricity Savings (kWh)	3,185,660	4,236,927
Natural Gas Savings (therms)	359,030	551,364
Total Energy Savings (MMBtu)	46,772	69,593



APPENDIX C: XCEL ENERGY'S PARTNERS IN ENERGY PLANNING PROCESS

About Xcel Energy's Partners in Energy

Xcel Energy is an electric and natural gas utility that provides the energy that powers millions of homes and businesses across eight Western and Midwestern states. Each community Xcel Energy serves has its own unique priorities and vision for its energy future. The energy landscape is dynamically changing with communities leading the way in setting energy and sustainability goals. To continue to innovatively support their communities, Xcel Energy launched Partners in Energy in the summer of 2014 as a collaborative resource with tailored services to complement each community's vision. The program offerings include support to develop an energy action plan or electric vehicle plan, tools to help implement the plan and deliver results, and resources designed to help each community stay informed and achieve their outlined goals.

Plan Development Process

The content of this plan is derived from a series of planning workshops, surveys, community input boards and event tabling held in the community with a planning team committed to representing local energy priorities and implementing plan strategies and interested community members.

Community Engagement

Community input was a priority of the City of Faribault in the energy planning process.

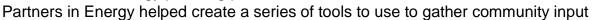


Figure 21. Partners in Energy Resources for Success



including listening boards, community surveys in English, Somali and Spanish languages, tabling tools, and interview questions.

Workshops

There were four workshops during the planning process that also combined input from the broader community. Two of these workshops were intended to include more community members that may only be able to come to one workshop. These workshops were promoted through the local paper, city website, and community email lists. One of these workshops was held virtually to hear from people who may not be able to travel, and one of them was held at the Faribault Community Center where dinner was provided in a family friendly atmosphere.

Community Energy Survey

The community energy survey reached over 170 people during the planning process and asked questions that helped inform the strategies of this plan and ensure we were reaching audiences that were diverse and representative of the Faribault community.

Examples Survey Questions and Responses

The following section includes examples of questions asked in the community energy survey.

Figure 22: Chart of responses to the question, "When thinking about energy, what is important to you and your family?"

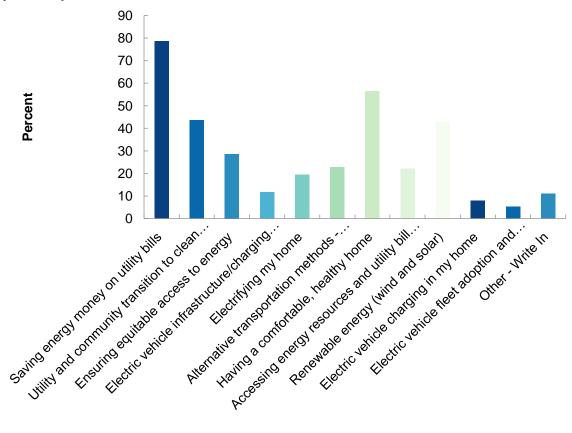


Figure 23: Word cloud image of responses to the question, "How would you describe yourself as a part of the Faribault community?"

american autism baha'i bi biological booster broke business caregiver citizen class coach color community daughter deaf developer disabled driven educator elderly employed energy exchange faith family father female future gen government grandmother health hispanic home homeowner husband immigrant kid latina latino leader lgbtq lgbtqia living love married member mentor middle minority mother needed neighbor newer organizer overtaxed Owner parent parish park people person poc practical property queer residential responder retired rights rotarian rural school senior single social stand student taxpayer teacher term trans understand unemployed unique upper volunteer wife wish worker working young

APPENDIX D: IMPLEMENTATION MEMORANDUM OF UNDERSTANDING