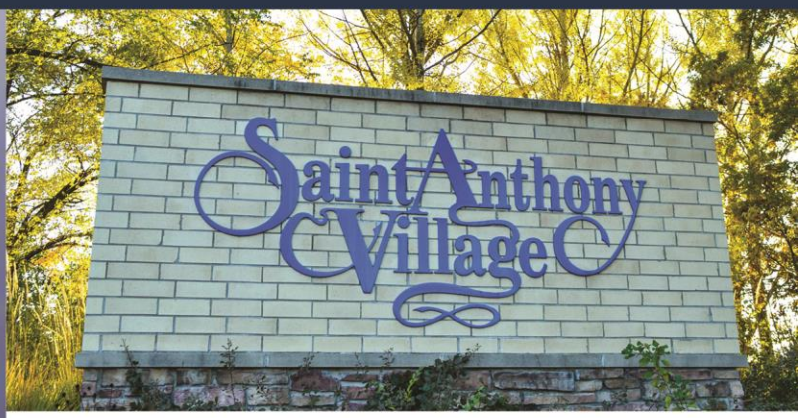
Saint Anthony Village

Energy Action Plan

April 2025



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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 utility serving Saint Anthony Village. 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 B: Xcel Energy's Partners in Energy Planning Process*.

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Alyssa Baguss	Silverwood Park
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Dan Kunitz	Citizens for Sustainability
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This Energy Action Plan was funded by and developed in collaboration with Xcel Energy's Partners in Energy. Partners in Energy shall not be responsible for any content, analysis, or results if Saint Anthony Village has made modifications to the plan.

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SAINT ANTHONY VILLAGE ENERGY ACTION PLAN

The Energy Action Plan was designed by Saint Anthony Village city staff and community members in collaboration with Xcel Energy's Partners in Energy. This plan builds on the city's Climate Plan by offering concrete actions in the energy sector that will help reduce greenhouse gas emissions. It outlines opportunities for the community to save energy and money, increase renewable energy support, and electrify homes and buildings.

Vision

Saint Anthony Village prioritizes energy actions that support residents and businesses to preserve the environment, improve resiliency, and make our community a more sustainable place.

Goal

Saint Anthony Village will reduce energy-related greenhouse gas emissions 80% by 2040.

Energy Action Plan Impacts

Saving energy in homes, buildings, and public spaces.

Saving money community-wide through participation in utility programs.

Increasing renewable energy support to help reduce greenhouse gas emissions.

Equitably serving all residents and businesses with community-based energy actions.

The content of this plan is derived from a series of planning workshops hosted by Xcel Energy's Partners in Energy. Thank you to the Saint Anthony Village Energy Action Team who contributed many hours of service. The team included people from city commissions, Chamber of Commerce Board, faith leaders, parks, schools, sports boosters, and historical society.

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How We Are Going to Get There

The City of Saint Anthony Village with support from Partners in Energy will take actions identified in this plan to achieve our goal. These actions center on three focus areas:

Energy Efficiency

Renewable Energy

Electrification

Strategy Highlights

- Collaborate with businesses, local organizations, and multi-family buildings to encourage participation in energy programs and opportunities.
- Support community members who need it most by sharing energy resources and assistance to lower energy bills.
- Conduct outreach and education campaigns to raise awareness of how to support renewable energy.
- Educate and engage residents on beneficial electrification, the switch from fossil-fuel powered appliances to more efficient electricity-powered appliances.

Get Involved

Visit **savmn.com/205/Sustainability** to read more about the Energy Action Plan and find ways you can get involved.

To learn how you can help Saint Anthony Village achieve our energy goals, please contact Sustainability Coordinator Minette Saulog at **minette.saulog@savmn.com**.

GLOSSARY OF TERMS

4 x 50: Xcel Energy's privacy rule, which requires all data summary statistics to contain at least four premises, with no single premise responsible for more than 50% of the total. Following these rules, if a premise(s) is responsible for more than 50% of the total for that data set, it is/they are removed from the summary.

Beneficial Electrification (BE): The replacement of direct fossil fuel use with electricity that results in either lower costs, reduced emissions, or more effective use of the power grid.

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 carbon-free 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.

Decatherm (Dth): Quantity of energy that is equivalent to ten therms.

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: Energy-saving equipment installed by Xcel Energy or other organization, 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 one million watts.

Premise: A unique combination of service address and meter. For residential customers, this is typically 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 clean, 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 or therm): A unit of natural gas consumption.

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.

INTRODUCTION

The City of Saint Anthony Village is a first-ring suburb located in the heart of the Twin Cities Metropolitan area. With just over 9,300 residents, Saint Anthony Village offers a uniquely small-town feel in the middle of Minnesota's largest urban core. City departments offer full services to residents and the wider community with its own Fire and Police departments, Public Works, Finance, Administration, and two municipal liquor stores. It is also home to the geographically smallest independent school district in Minnesota at only 2.6 square miles, Saint Anthony-New Brighton Schools.

Who are we talking about?

We, Our and **the City** refer to the City of Saint Anthony Village.

Community refers to the broader Saint Anthony Village community, including residents, businesses, and other stakeholders.

Energy Action Team is the group of individuals whose input created our Energy Action Plan.

Energy Action Plan refers to this document for the City of Saint Anthony Village.

Saint Anthony Village offers several city-owned parks as well as Three Rivers Park District's Silverwood Park providing sports, trails, and outdoor recreation opportunities. It is well regarded as a family-friendly community and the City and school district closely collaborate to share spaces for organized sports, along with other amenities like outdoor ice-skating rinks in the winter. With thriving commercial districts at the north and south end of the city, there are abundant options for work and play. Saint Anthony Village takes pride in maintaining high community standards and strives daily to live up to its mission statement: "Promote a high quality of life to those we serve through outstanding city services."

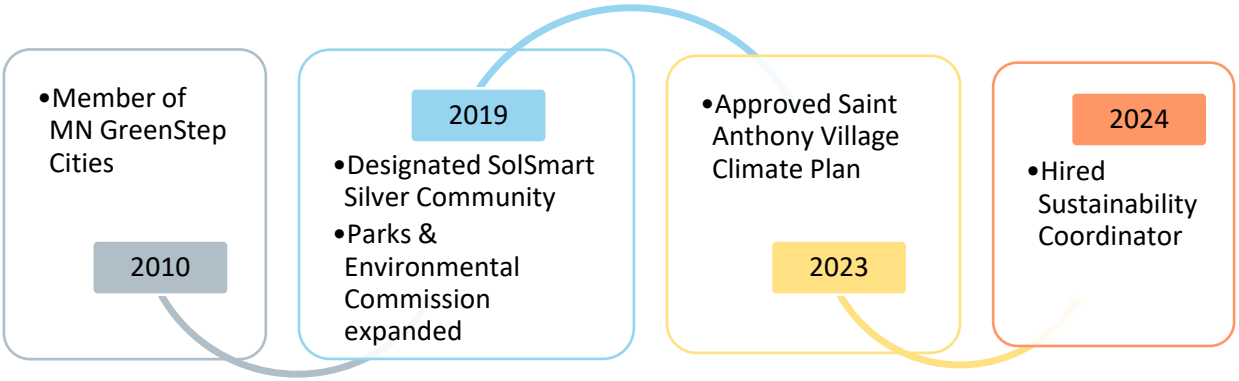
Why an Energy Action Plan

The City has prioritized environmental sustainability for many years. The City currently participates in the B3 Benchmarking Program for City facilities, and has several facilities subscribed to Community Solar Gardens. The City has been a member of the MN GreenStep program since its inception and maintains the highest status as a GreenStep 5 City. Maintaining this status involves annual tracking and reporting energy use with an aim of continuous energy efficiency improvements. We completed a city-wide LED

lighting retrofit, were designated a SolSmart Silver Community in 2019, added two F-150 Lightning EV trucks to the Public Works fleet, and hired a full-time Sustainability Coordinator in 2024.

In 2019, the Parks Commission scope was expanded to include environmental sustainability matters and was renamed the Parks & Environmental Commission. Part of their work is to provide recommendations to the City Council concerning energy and environmental issues. They advocated for a Climate Plan, which was completed in 2023.

Figure 1. Timeline of Saint Anthony Village Sustainability Initiatives



Saint Anthony Village was looking for ways to inform the entire community of the regional and statewide goals of greenhouse gas emissions reductions over the coming decades, while helping build momentum on climate action through progress on the City's Climate Plan. Knowledge of current energy use, as well as options for reduction in energy consumption, energy alternatives and community education are the most pressing issues for the City. This Energy Action Plan provides concrete actions in the energy sector for residents, businesses, and the City to partake in, and offers data analysis and tracking on energy metrics that will help measure success. The energy strategies from the Climate Plan were modified and brought into more detail through this Energy Action Plan to create a roadmap specific to Saint Anthony Village's goals.

About This Plan

The content outlined in this plan was developed collaboratively with a group of stakeholders, referred to as the Energy Action Team, through planning workshops conducted between July and November 2024. The Energy Action Team included representatives from City Commissions, Chamber of Commerce, sustainability groups, churches, sports boosters, historical society, school district, and parks. (See Acknowledgements for full list of participants). Team members coordinated throughout the process to share information and make decisions about this plan.

Figure 2. Partners in Energy Planning Process Components

By the numbers, we engaged: 2 surveys, 3 workshops, 1 webinar, 14 participants, and 6 utility representatives and facilitators. See *Appendix B: Xcel Energy's Partners in Energy Planning Process* for more information about the planning process and Xcel Energy Partners in Energy.

Saint Anthony Village joined more than 40 other Minnesota communities that have developed Energy Action Plans through Xcel Energy's Partners in Energy, an offering that provides resources for community energy planning. Partners in Energy also supports 18 months of plan implementation in the form of marketing and communications, data tracking and analysis, program expertise, and project management.

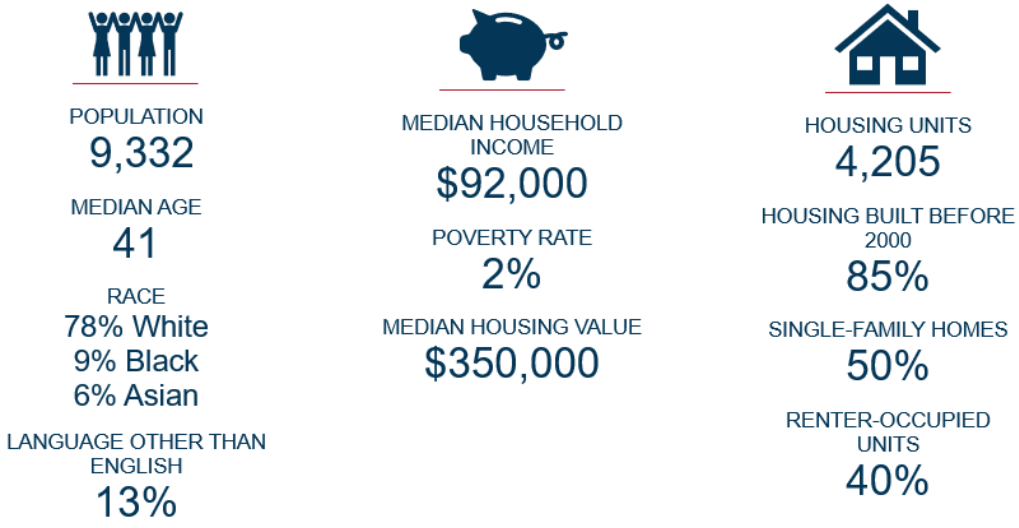
WHERE WE ARE NOW

An integral part of the Partners in Energy planning process is reviewing historical energy data that informs our community's energy baseline. Xcel Energy and CenterPoint Energy provided data on energy use, participation counts, and utility energy conservation program savings for Saint Anthony Village, as detailed in the following sections. See *Appendix C: Baseline Energy Analysis* for a comprehensive picture of Saint Anthony Village's energy data.

Community Demographics

As of 2022, Saint Anthony Village's population of more than 9,000 residents lived in approximately 4,200 housing units. With similar levels of diversity compared to the Twin Cities metro area, 13% of residents speak a language other than English, 9% of residents identify as multiracial and 6% identify as Asian. The poverty rate of 2% is relatively low, while the median household income of $92,000 is similar to some peer cities. With 85% of housing built before 2000, most Saint Anthony Village residents live in homes with significant opportunity for energy efficiency improvements given the lower energy efficiency standards and general wear and tear on older buildings. Additionally, 40% of units in Saint Anthony Village are renter-occupied, presenting unique opportunities for energy efficiency measures that target renter-occupied units. *Figure 3* displays the community demographic profile.

Figure 3. Overview of Saint Anthony Village community demographics[1]



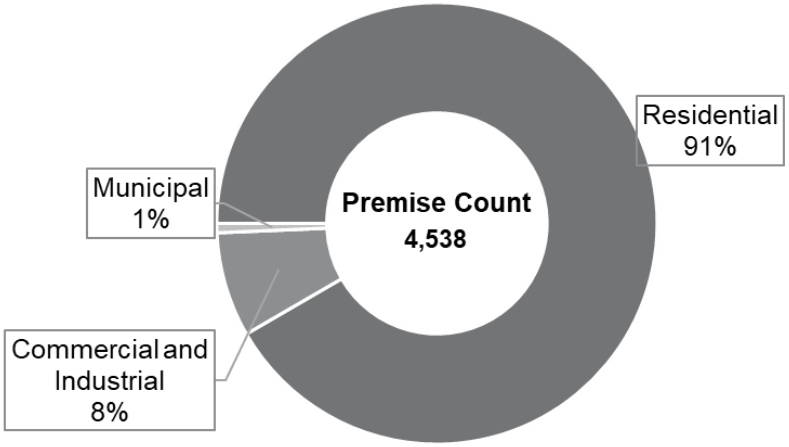
Energy Use and Savings

Premises

Xcel Energy provides electricity to Saint Anthony Village residents and businesses, while natural gas is provided by CenterPoint Energy. In 2023, Saint Anthony Village consisted of 4,538 distinct electric premises, which are a unique combination of service address and meter. For residential customers, this is typically the equivalent of an individual house or a dwelling unit in a multi-tenant building. For business customers, a premise is an individual business, or for a larger business, a separately metered portion of the business' load at that same address. Most Saint Anthony Village premises are residential, with a small number of commercial and industrial premises and a smaller portion of municipal premises rounding out the total (Figure 4).

[1] Source: U.S. Census Bureau American Community Survey, 2022 five-year estimates

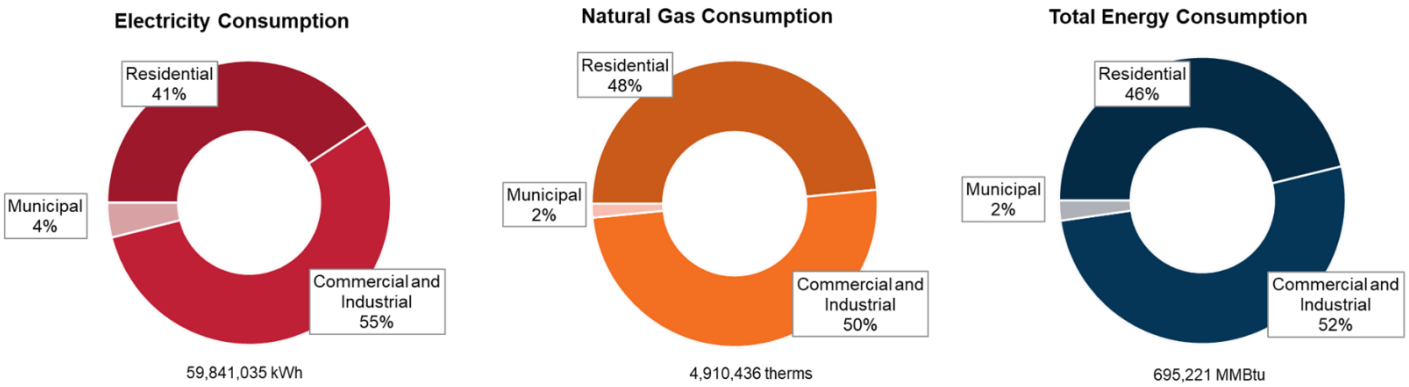
Figure 4. Total premises by sector, 2023



Grid Energy Use

On average during the 2021–2023 baseline period, the Saint Anthony Village community consumed nearly 60 million kWh of electricity and almost 5 million therms of natural gas across all sectors per year (Figure 5). To compare energy use between electricity and natural gas consumption on a common measure of energy savings potential, total energy consumption was calculated using both electricity and natural gas consumption converted into British thermal units (MMBTu). Although the commercial and industrial sector only makes up 8% of premises in Saint Anthony Village, it accounts for over half of total energy consumption. Commercial and industrial premises use significantly more energy on average per premise than residential premises, a typical pattern for cities like Saint Anthony Village.

Figure 5. Average annual energy consumption by sector, 2021-2023



During the three-year baseline period (2021–2023), Saint Anthony Village's overall electricity consumption increased 2.5%. Electricity consumption in the residential sector increased slightly by 0.5% during the three-year baseline, while commercial consumption increased by 4.1% (Figure 6). Saint Anthony Village's natural gas consumption increased by 7.3% overall during the baseline period, driven by a 9.4% increase in the commercial and industrial sector and a 5.2% increase in the residential sector (Figure 7). Total energy consumption during the baseline period varied 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. For example, of the three years considered, Saint Anthony Village's natural gas consumption was at its highest level in 2022, which was also the coldest year with the most heating degree days.

Figure 6. Electricity consumption by sector, 2021–2023

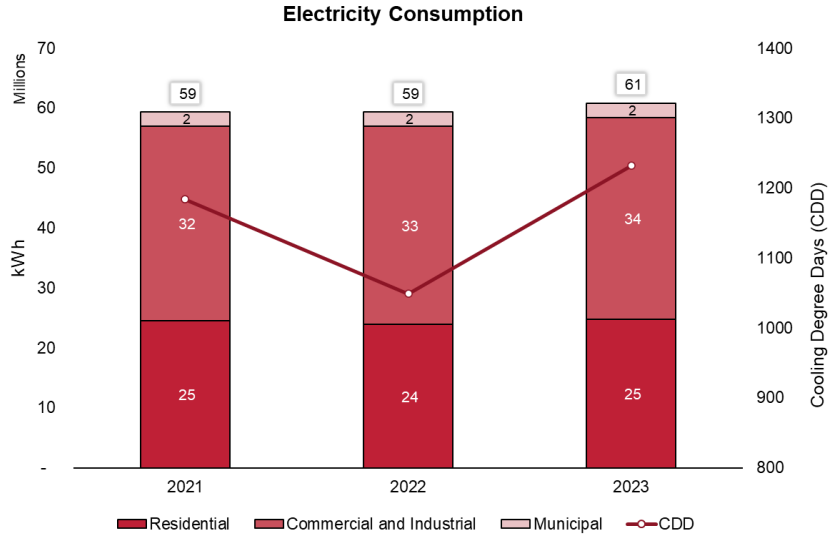
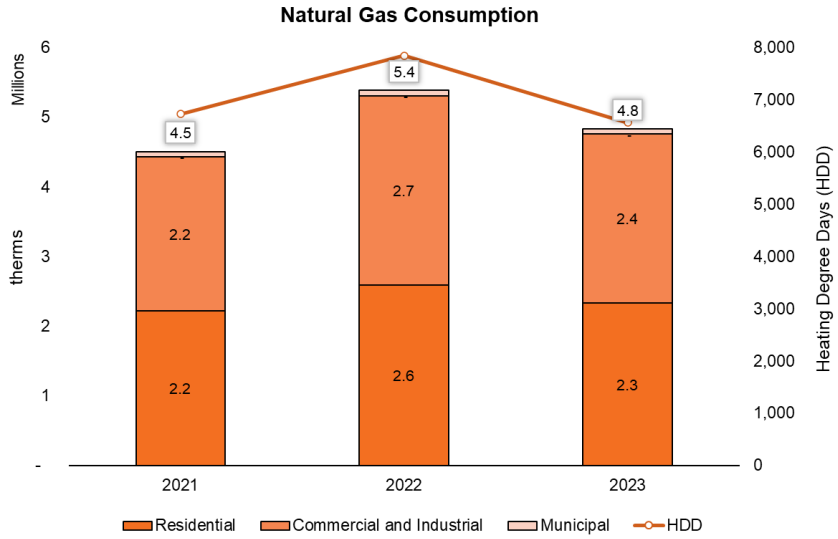


Figure 7. Natural gas consumption by sector, 2021–2023



Energy Costs and Energy Burden

During an average year over the three-year baseline period, Saint Anthony Village spent an estimated $12.7 million on fuel costs for both electricity and natural gas (Figure 8). Not quite half these costs were paid by residents, with total annual average fuel costs at $6.1 million. A residential premise spent an average of $1,493 annually on electricity and natural gas. The commercial sector averaged $6.2 million annually on fuel costs. While costs vary greatly for commercial and industrial premises based on size and industry, on average these premises spent almost $18,000 annually.

Figure 8. Total average annual energy costs by sector, 2021–2023

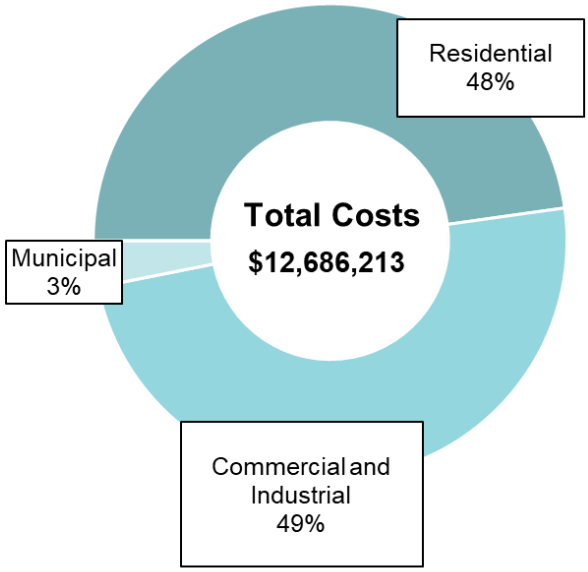
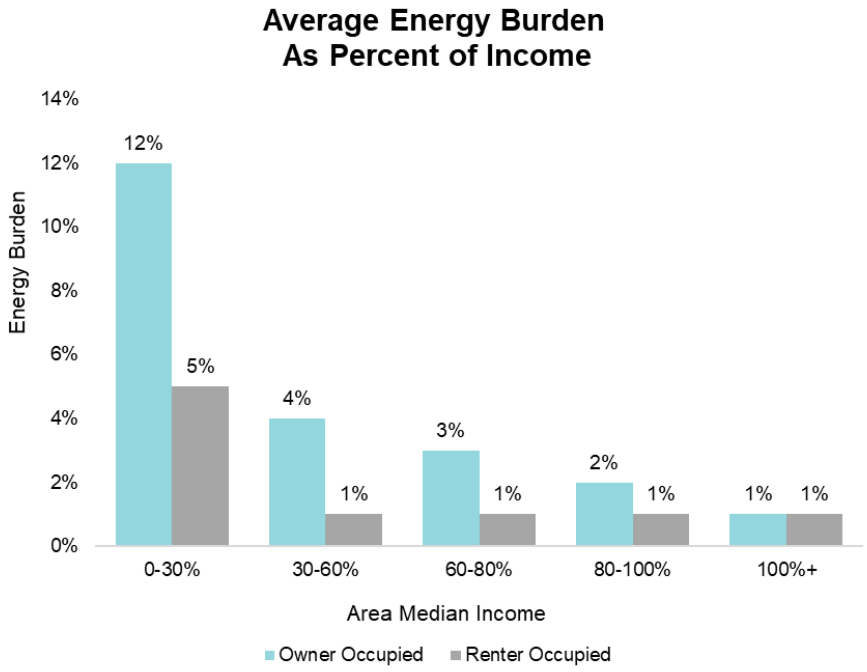


Table 1. Average annual fuel costs by sector and fuel type, 2021–2023

Sector	Annual Electricity Costs	Annual Natural Gas Costs	Annual Cost per Premise
Residential	$3,444,886	$2,617,306	$1,493
Commercial & Industrial	$4,274,067	$1,953,500	$17,999
Municipal	$325,574	$70,880	$12,789
Total	$8,044,527	$4,641,686	

Energy burden is the percentage of income that community members spend on energy. A high energy burden is defined as spending greater than 6% of income on energy, while a severe energy burden is greater than 10% of income.[3] The group of Saint Anthony Village residents with the greatest energy burden are those who own their homes and make 30% or less of the area median income. This group spends an average of 12% of their income on energy costs (Figure 9). The household data in *Figure 10* show that 4% of Saint Anthony Village residents fall into this category. As a point of reference, 49% of Saint Anthony Village residents are homeowners who make more than the area median income, a group with a 1% energy burden.

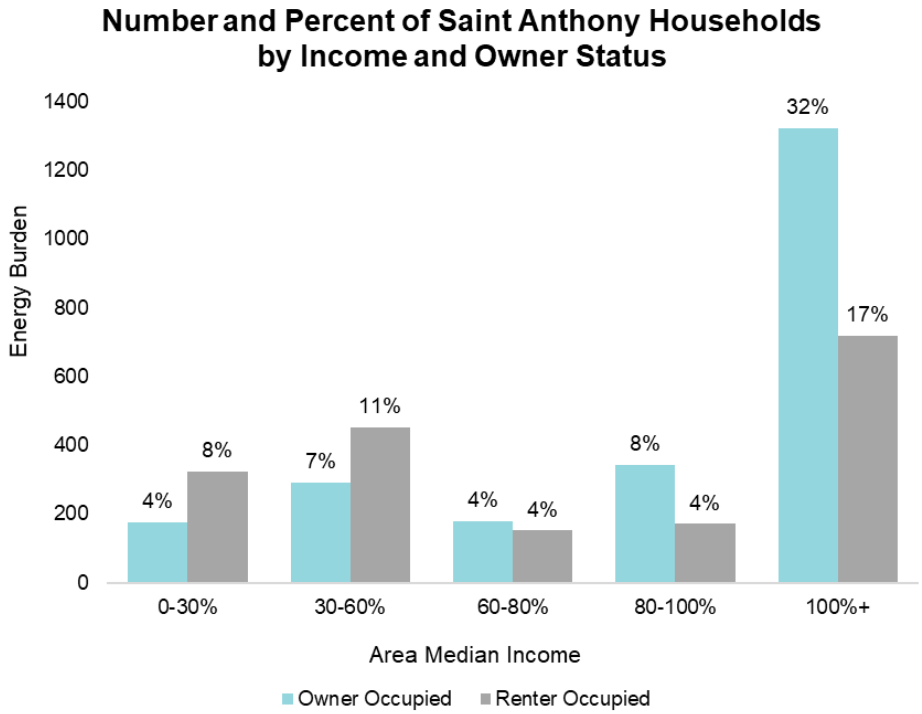
Figure 9. Energy burden by income and owner status[2]



[2] Source: Department of Energy Low-Income Energy Affordability Data Tool

[3] APPRISE (Applied Public Policy Research Institute for Study and Evaluation). 2005. LIHEAP Energy Burden Evaluation Study. Washington, DC: HHS (Department of Health and Human Services). www.acf.hhs.gov/sites/default/files/ocs/comm_liheap_ energyburdenstudy_apprise.pdf.

Figure 10. Household count by income and owner status[4]



Greenhouse Gas Emissions

Greenhouse gas emissions are calculated for both electricity and natural gas consumption for all sectors in Saint Anthony Village (Figure 11). Saint Anthony Village's energy-related greenhouse gas emissions in 2023 amounted to 41,000 metric tons of carbon dioxide equivalent (MTCO2e). Saint Anthony Village's residential sector accounts for 46% of energy-related greenhouse gas emissions. Emissions in 2021 and 2023 are very similar, with a 9% increase in 2022 associated with the greater natural gas use in a colder winter. *Figure 12* breaks down the 2023 energy-related emissions by sector and fuel type. The largest proportion of emissions (32%) comes from natural gas in the commercial sector, and in total, the commercial sector generated 53% of Saint Anthony Village's energy-related greenhouse emissions while the residential sector generated 45% of the emissions. Natural gas consumption made up the largest proportion of total emissions, adding up to 62% of all energy-related emissions. The proportion of energy-related emissions from natural gas is expected to increase over time as grid decarbonization results in cleaner electricity.

[4] Source: Department of Energy Low-Income Energy Affordability Data Tool.

Figure 11. Energy-related greenhouse gas emissions, 2021–2023

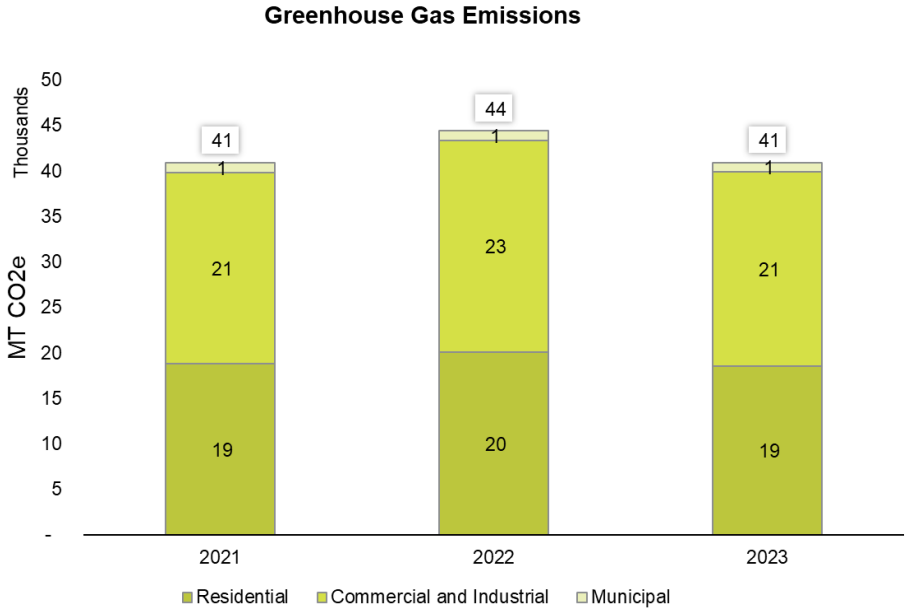
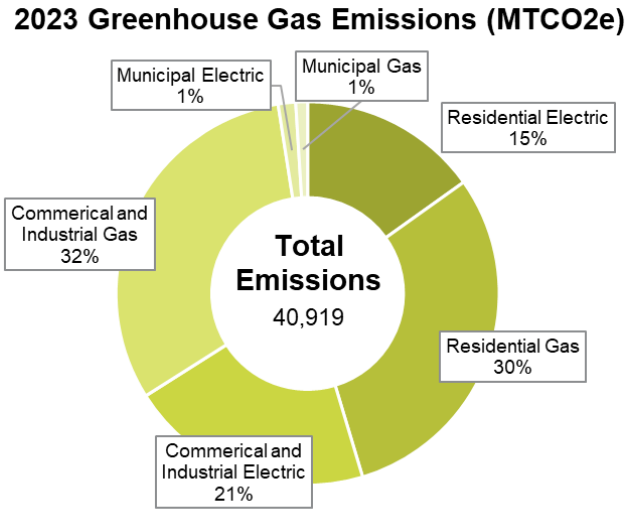


Figure 12. Energy-related greenhouse gas emissions by sector and fuel type, 2023



Renewable Energy

Saint Anthony Village residents and businesses use subscription programs and on-site options to support renewable energy (Table 2 and Table 3). In Saint Anthony, most renewable energy support is in the residential sector, where 351 residents receive renewable energy through subscription programs for a combined total of over 1.5 million kWh, equivalent to taking 240 gas-powered cars off the road for a year, 57 residents have on-site solar installations. Fewer commercial and industrial customers participate in renewable energy offerings than residential customers, with 13 renewable energy program subscribers totaling nearly 733,000 kWh and 9 on-site installations. Overall, there is potential to increase renewable energy use in Saint Anthony Village, with the energy generated through renewable energy subscriptions making up only about 3.7% of the community's electricity consumption. This total excludes generation from on-site solar because those installations are on the customer's side of the utility meter.

Table 2. Xcel Energy subscription renewable energy program support, 2023

Renewable*Connect® & Renewable*Connect Flex®[5]	Residential	Commercial & Industrial	Total
Subscriber Count	273	0	273
Total Annual Electricity Subscribed (kWh)	1,024,075	0	1,024,075
Community Solar Gardens – Solar*Rewards® Community			
Subscriber Count	78	13	91
Total Annual Electricity Subscribed (kWh)	505,065	732,983	1,238,048
Total Xcel Energy Subscription Renewable Energy Support			
Subscriber Count	351	13	364
Total Annual Electricity Subscribed (kWh)	1,529,140	732,983	2,262,123
Percent of Sector Xcel Energy Electricity Use	6.2%	3.4%	3.7%

Table 3. Xcel Energy on-site solar program support, 2023[6]

On-site Solar – Solar*Rewards® and Net-Metering	Residential	Commercial & Industrial	Total
Participant Count	57	9	66
Total Electricity Capacity (kW)	491	190	681

[5] The Windsource® program is now called Renewable*Connect Flex®.

[6] Source: Xcel Energy Community Energy Report for Saint Anthony Village, 2023

Energy Efficiency Program Participation and Savings

Both residential and commercial and industrial premises participate in Xcel Energy and CenterPoint Energy's efficiency programs where they can receive rebates for upgrading equipment, arrange a building audit to understand their efficiency opportunities or manage their demand through rate savings programs. Participation in these programs results in energy savings for participants. Saint Anthony Village residents and commercial and industrial premises saved an annual average of 662,000 kWh and 74,000 therms during the baseline period by participating in CenterPoint Energy and Xcel Energy's efficiency programs.

Table 4. Average annual Xcel Energy program participation and energy savings, 2021–2023

Program Sector	Average Annual Participation	Average Electricity Savings (kWh)
Residential	254	53,409
Low-Income	10	5,059
Commercial & Industrial	25	603,022
Total	**289**	**661,490**

Table 5. Average annual CenterPoint Energy program participation and energy savings, 2021–2023[7]

Program Sector	Average Annual Participation	Average Natural Gas Savings (therms)
Residential	134	17,311
Low-Income	3	427
Commercial & Industrial	29	56,366
Total	**167**	**74,104**

[7] Home Energy Squad is a program jointly offered by Xcel Energy and CenterPoint Energy. Data in this table excludes Home Energy Squad participation to avoid double counting participants included in Table 4, but therms savings from Home Energy Squad are included here. Participation and savings data exclude DIY energy efficiency kits, home energy reports and school kits from the residential sector, and code compliance, training and education and benchmarking from the commercial sector.

Saint Anthony Village residents and businesses rely on a few key programs from Xcel Energy to help them improve efficiency (Table 6 and Table 7). The Residential Heating and Cooling rebate program, where residents receive rebates for upgrading to more efficient equipment, had the most participants and resulted in the most savings, but programs like Refrigerator Recycling, a recycling rebate program, and Home Energy Squad, a home energy assessment with some equipment installation, also resulted in significant savings. In the commercial and industrial sector, the Lighting Efficiency and Small Business Lighting programs that offer audits and rebates for businesses to upgrade to more energy efficient lighting had the most participants and highest savings. Energy Design Assistance and HVAC+R Efficiency had lower participation but significant savings. Participation and savings data from 2021–2023 for all Xcel Energy and CenterPoint programs are provided in *Appendix C: Baseline Energy Analysis.*

Table 6. Average annual participation in top Xcel Energy residential programs, 2021–2023

Residential Program	Average Annual Participation	Average Electricity Savings (kWh)
Residential Heat	94	33,664
Refrigerator Recycling	14	10,637
Home Energy Squad	14	7,446
Smart Thermostat	61	1,405
Insulation Rebate	2	211

Table 7. Average annual participation in top Xcel Energy commercial and industrial programs, 2021–2023

Commercial Program	Average Annual Participation	Average Electricity Savings (kWh)
Energy Design Assistance	1	409,927
Lighting Efficiency	10	111,642
Small Business Lighting	2	51,393
HVAC+R Efficiency	3	17,271
Fluid System Optimization[8]	.3	9,746

[8] This program had one participant in the three-year baseline period, which shows up in the table as .3 average annual participations but is included in the table because of the relatively high amount of electricity savings.

Popular Xcel Energy Energy Efficiency Programs

- **Home Energy Squad:** A residential energy assessment program from Xcel Energy that includes a home energy audit and installation of energy efficient materials.
- **Residential Heating & Cooling:** A rebate program for residential customers who purchase high-efficiency heating and cooling equipment.
- **Refrigerator Recycling:** Xcel Energy will recycle a customer's old, inefficient refrigerator, and they receive a rebate.
- **HVAC+R:** A rebate program where businesses can earn rebates from Xcel Energy on high-efficiency heating, ventilation, air-conditioning, refrigeration, and more.
- **Small Business Lighting:** A free lighting and HVAC assessment program for small and medium-sized business customers.
- **Lighting Efficiency:** Business customers can earn rebates from Xcel Energy for purchasing and installing LED lighting fixtures, bulbs, and control systems.

WHERE WE ARE GOING

Building on the Saint Anthony Village Climate Plan

Saint Anthony Village adopted a Climate Plan in 2023 that includes four areas of focus: Water, Waste, Energy, and Transportation, all of which have education, community, or policy actions associated with them. To align efforts across both the Climate Plan and the Energy Action Plan, the planning team used the energy-specific goal and focus areas from the Climate Plan for the Energy Action Plan. The team reviewed the strategies from the Climate Plan and used them as a guide to form the strategies in the Energy Action Plan. To read more about the Climate Plan, you can visit the Saint Anthony Village website: www.savmn.com/632/Climate-Plan.

Energy Vision

During the planning process, the Energy Action Team created a vision statement for this Energy Action Plan.

Vision

Saint Anthony Village prioritizes energy actions that support residents and businesses to preserve the environment, improve resiliency, and make our community a more sustainable place.

Focus Areas

The Saint Anthony Village Climate Plan outlined three areas of focus in the energy section, which are also the focus areas for this Energy Action Plan.

Energy Efficiency

Improve efficiency of homes, businesses, and public facilities in Saint Anthony Village.

Renewable Energy

Increase support of renewable energy in Saint Anthony Village.

Electrification

Increase the adoption of electric appliances and equipment in homes and buildings in Saint Anthony Village.

Goal

The Saint Anthony Village Climate Plan set a goal for its energy focus area that we will use to measure success for this Energy Action Plan.

Goal

Saint Anthony Village will reduce energy-related greenhouse gas emissions 80% by 2040 compared to a 2005 baseline.

Table 8. Details on years used to track progress toward the goal

Year	Where is it from?	Why are we using it?
2005	Baseline year from Saint Anthony Village's Climate Plan based on the Regional Indicators Initiative greenhouse gas emissions data.	This data is used to measure past progress.
2021-2023	Baseline years for the Energy Action Plan based on utility data.	This data is used to measure progress going forward.
2030	Energy Action Plan goal year to act as a benchmark for tracking progress.	There is confidence in the data to track the metrics out to 5 years with current programs, measures, and rebates offered by the utilities.
2040	Saint Anthony Village's Climate Plan goal year.	We want to use the same goal for the Energy Action Plan to remain consistent.

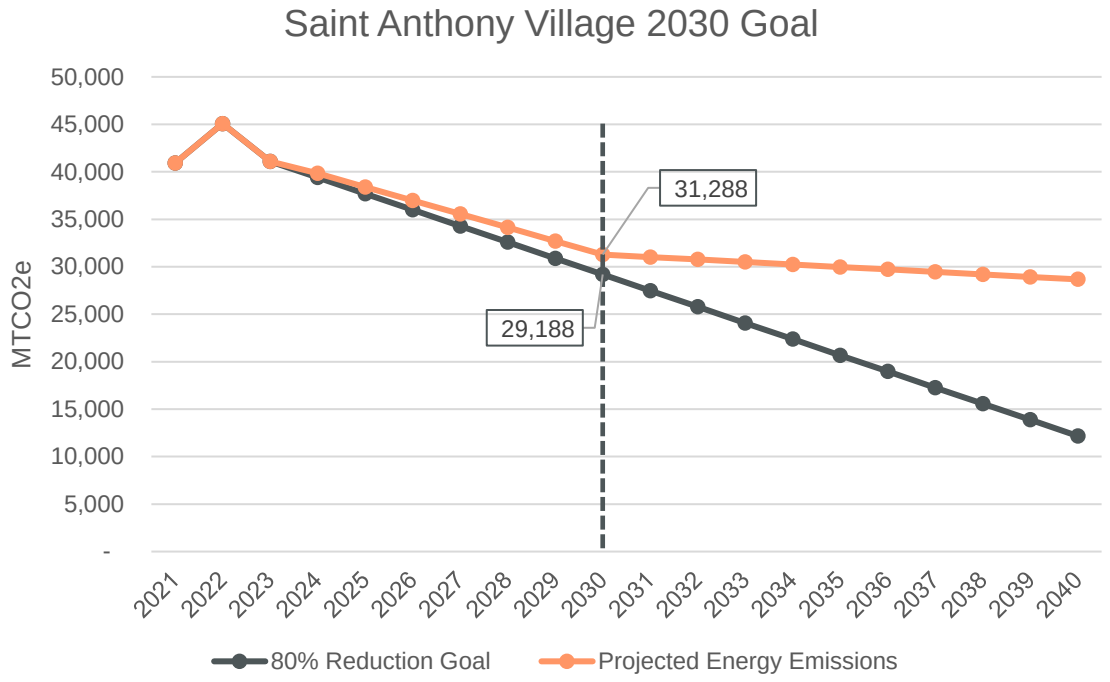
The Climate Plan used data from the Regional Indicators Initiative[9] to track greenhouse gas emissions from the baseline of 2005. In 2005, Saint Anthony Village energy-related greenhouse gas emissions were around 61,000 metric tons, with 63% coming from electricity consumption. By 2023, total energy emissions were lower with a total of 41,000 metric tons of emissions, 38% of which originated from electricity. This decrease in energy emissions was largely due to Xcel Energy's grid decarbonization over time, making electricity less carbon intensive. Over time, emissions from natural gas will become a larger proportion of all energy-related emissions. By 2040, Saint Anthony Village's energy-related emissions would be around 12,000 metric tons if we reach the goal set forward in the Climate Plan.

For the purposes of the Energy Action Plan, Partners in Energy modeled where Saint Anthony Village should be by 2030 to be on track to reach the 2040 goal. The year 2030 was used as a benchmark to track progress, then we will reassess new programs, measures, and rebates that become available to support the next 10 years to 2040.

The Energy Action Plan uses a data baseline of 2021–2023. If Saint Anthony Village were to continue to hold energy consumption constant at the baseline levels of 2021–2023, the City would see a reduction in energy emissions depicted by the orange line in *Figure 13*. These projected reductions are mostly due to electrical grid decarbonization. The gray line is a linear model of the goal and shows the gap that needs to be addressed by 2030 and 2040. The dotted line is noting where the emissions will be in 2030. There is a small gap that needs to be addressed to reach the 2030 target, and the actions outlined in the Energy Action Plan will set Saint Anthony Village up for success to reach the target of 29,188 $MTCO_2e$.

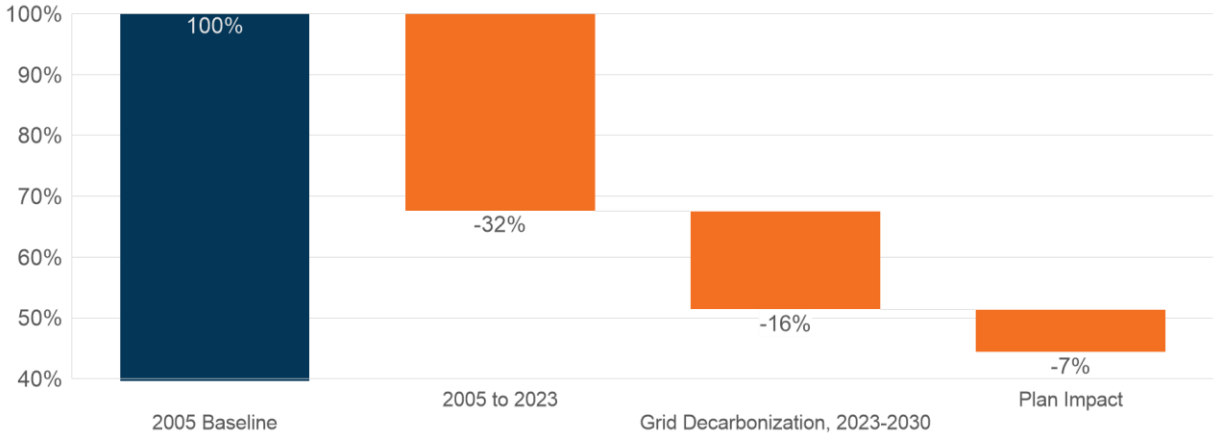
[9] https://www.regionalindicatorsmn.com/city-summary

Figure 13. Projected emissions from energy consumption in Saint Anthony Village based on Energy Action Plan baseline years of 2021–2023



To reach the 2030 goal, the impact on greenhouse gas emissions reductions come from a few sources. Since the Climate Plan's baseline period of 2005, Saint Anthony Village has already reduced energy-related greenhouse gas emissions by 32%. Looking forward from this Energy Action Plan's baseline period of 2021–2023, it is estimated that there will be a 16% reduction in greenhouse gas emissions from grid decarbonization. In addition, the impact of the actions in this plan will account for 7% of the 2030 goal (Figure 14).

Figure 14. Sources of impact on energy-related greenhouse gas emissions reduction goal by 2030



Partners in Energy created annual targets by focus area to help Saint Anthony Village measure progress toward the 2030 goal. The emissions reductions for the goal period are measured from the energy saved by energy efficiency and renewable energy program participation. Electrification will play a larger role in the 2030–2040 period.

Table 9 displays the different metrics we will use to measure progress in each focus area. The Energy Efficiency focus area will track progress by measuring energy savings in kWh and therms from residents and businesses participating in utility programs. The Renewable Energy focus area will track progress by measuring participation in utility renewable energy subscription programs, community solar garden programs, and counts of on-site solar installations. The Electrification focus area will track progress by measuring participation in utility rebate programs for electric equipment. Combined, these annual targets will put Saint Anthony Village on a path to achieve the Climate Plan goal.

Table 9. Focus Area metrics

Focus Area	Metric
Energy Efficiency	• Energy savings from utility program participation
Renewable Energy	• Community solar garden participation • Green power purchase program participation • On-site solar installations
Electrification	• Electrification program participation

Focus Area Goals

Residential Energy Efficiency

- Increase residential energy efficiency savings by 75%, resulting in 2.1 million kWh and 652,000 therms saved from 2025–2030

Commercial Energy Efficiency

- Increase commercial energy efficiency savings by 50%, resulting in 19 million kWh and 1.8 million therms saved from 2025–2030

Renewable Energy

- Increase residential participation in Xcel Energy renewable energy programs by 3% annually
- Increase commercial participation in Xcel Energy renewable energy programs by three participants annually

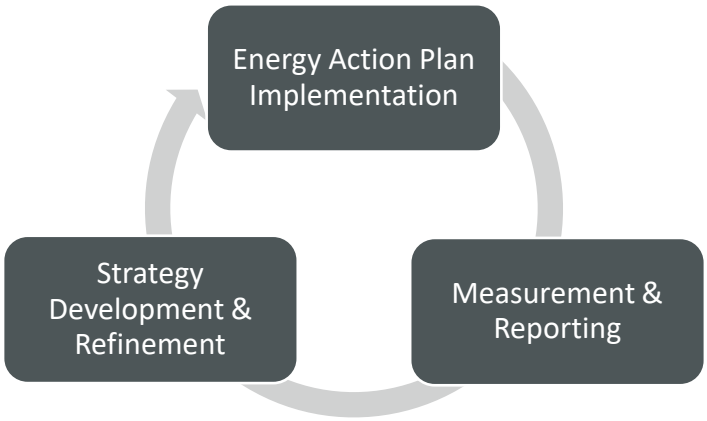
Electrification

- 10 residential participants annually in Xcel Energy electrification programs

HOW WE STAY ON COURSE

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

Figure 15: Cycle of Implementation, Measurement and Reporting, and Strategy Development



It will be important that strategies are evaluated and updated throughout implementation to reflect advancements in technology and new offerings from government entities and Xcel Energy. Throughout the planning process, we worked to build relationships between City staff and Xcel Energy staff that will foster the collaboration and cooperation required to successfully navigate the changing energy landscape.

Project Management and Tracking Progress

Partners in Energy will host regular project management check-in calls with staff for 18 months to ensure we stay on course to achieve our strategies. 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. If available, ad hoc participation reports for specific Xcel Energy programs can be provided to measure the success of campaigns and to determine if we need to change course. While CenterPoint Energy data was included during the planning process, Saint Anthony Village can work with CenterPoint Energy directly if they would like to receive natural gas usage data during the implementation process.

Roles & Responsibilities

Implementing the strategies outlined in this plan will require leadership and collaboration among the City of Saint Anthony Village, members of the Energy Action Team, community representatives, and Xcel Energy.

City of Saint Anthony Village

The City of Saint Anthony Village will provide a primary point of contact for implementation and will assign staff to attend regular project management check-ins. The City commits to leverage existing communication channels and community connections to promote the Energy Action Plan. In addition, the City of Saint Anthony Village will lead strategies specific to City-owned buildings. Many strategies in this plan overlap with the Saint Anthony Village Climate Plan. The City will coordinate the action items between both plans when necessary.

Energy Action Team

The Energy Action Team formed to create this plan will support implementation by serving as ambassadors to their networks, promoting Saint Anthony Village's energy vision, encouraging participation in programs and outreach campaigns, and sharing success stories. When relevant, members will serve as partners in implementing strategies. Energy Action Team members may be invited to project management calls or other check-in meetings to ensure strategies are implemented successfully.

Xcel Energy

Xcel Energy will provide data reporting, project management, marketing and communications support, and program expertise for the first 18 months of implementation. Xcel Energy will also provide a dedicated community facilitator to serve as a primary point of contact. Partners in Energy offers digital resources including webinars, e-newsletters, and an online portal, as well as events throughout the year. After the first 18 months of implementation, Xcel Energy will continue to provide ad hoc support and data to St Anthony Village if desired.

CenterPoint Energy

When requested by the community, CenterPoint Energy will provide program and energy resources and outreach support during implementation. They will share their energy expertise and data when requested.

HOW WE ARE GOING TO GET THERE

To achieve the community's energy vision and goal, the Energy Action Team identified a set of strategies to support implementation. The following section outlines our implementation plan, including strategies, tactics, and resources to help achieve our goal. These initiatives will be led by the City of Saint Anthony Village and supported by Partners in Energy, Xcel Energy, the Energy Action Team, and other utilities. Each focus area has background information, four strategies, and specific tactics describing the actions. For a more detailed work plan with a timeline, see *Appendix A: Work Plan.*

Core Strategies

The Energy Action Team identified strategies that encompass all focus areas. These are the Core Strategies.

Core Strategy 1: Create an energy resource hub on the City website for sharing resources and information on energy efficiency, renewable energy, and electrification.

Core Strategy 2: Create a recognition program for residents and businesses to take action on energy efficiency, renewable energy, and electrification.

Focus Area: Energy Efficiency

Why is this a priority?

The first step to energy action is making a home or building more energy efficient. Many people in the Saint Anthony Village community care about the environment, but don't necessarily connect their personal energy use to environmental impacts. These strategies will raise awareness of the many programs and rebates offered by utilities to help residents and businesses conserve energy, as well as save money. The Commercial and Industrial sector accounts for 52% of total energy consumption in Saint Anthony Village. Because of the large amount of energy used by businesses, there will be substantial impact on energy savings from engaging businesses. Business owners can also benefit from energy efficiency measures, and it will be important to convey the return on investment for completing projects.

Who are the target audiences?

This focus area targets people who live in Saint Anthony Village such as homeowners, renters, retirees, seniors, multilingual families, and manufactured homeowners and renters. It also targets small- and medium-sized businesses and those that may need more customized support.

Strategy 1: Create a campaign to promote the Home Energy Squad to residents.

Actions	Resources/Partners
1A: Create outreach materials like flyers and door hangers to mail and drop door-to-door to older homes.	➢ Citizens for Sustainability ➢ Village Notes ➢ Silverwood Park ➢ Library
1B: Table at community and City events, promote in City communications (e-newsletters, social media) to share audits as the first step to energy efficiency.	

Strategy 2: Create a campaign to promote building energy assessments to businesses.

Actions	Resources/Partners
2A: Leverage Chamber of Commerce communication channels and meetings to share energy resources.	➢ Chamber of Commerce ➢ Rotary ➢ Economic Development Dept.
2B: Partner with business groups to share resources and identify champions in the business community to highlight as success stories for marketing.	
2C: Go door-to-door to businesses to inform about energy efficiency assessments and recommendations for projects.	

Strategy 3: Share energy efficiency resources, funding, and programs to help residents reduce energy use, including those experiencing high energy burden.

Actions	Resources/Partners
3A: Provide City Sustainability staff as connection for people to ask questions and find information on energy resources.	➢ Food shelf ➢ Senior living facilities ➢ Library ➢ Faith communities ➢ Silverwood Park ➢ Citizens Utility Board ➢ Student Green Team and Ecology Club ➢ Kiwanis ➢ Northeast Voyagers
3B: Find grants and funding sources to support free or reduced home energy audits.	
3C: Cultivate partnerships with local organizations, food shelves, libraries, schools, and parks to share energy efficiency resources with the public. Use joint communication channels and events to share resources.	

Strategy 4: Communicate with rental property managers about energy efficiency improvement opportunities for facilities and residents.	
Actions	**Resources/Partners**
4A: Reach out to multi-family building owners and managers, retail spaces, nonprofits, and senior living facilities to promote energy assessments and offer resources like energy kits, lighting sensors, lowering energy bills, and energy education.	➢ Building managers ➢ Property owners ➢ Finance and code official city staff
4B: Send mailers and utility bill inserts sharing energy information and translate materials into other languages when appropriate.	
4C: Include energy resources and information in property license renewal channels.	

Focus Area: Renewable Energy

Why is this a priority?

To achieve Saint Anthony Village's goal of lowering greenhouse gas emissions, the community will need to increase renewable energy support. Xcel Energy offers on-site solar programs and renewable energy subscription programs that enable homeowners, renters, and businesses to source their electricity from wind and solar. There are also community solar gardens that are operated by a third-party company that allow the customer to receive credits on their monthly utility bill for the solar energy that the subscription contributes to the grid. There is an opportunity to educate the public about these programs to increase renewable energy support, and share details about the funding from the Inflation Reduction Act as additional incentives to complete renewable energy projects.

Who are the target audiences?

This focus area will increase participation in renewable energy programs for residents, businesses, and the municipal sector. The City of Saint Anthony Village has a community solar garden subscription and is in the process of getting on-site solar on a public building through a grant. They will act as a leader and share their story to encourage the community to do the same.

Strategy 5: Create a targeted campaign for residents to partake in utility renewable energy subscription programs and community solar gardens.	
Actions	**Resources/Partners**
5A: Use Partners in Energy mapping tools and data to identify where people have not opted in yet and target those areas.	➢ Citizens for Sustainability ➢ CERTs ➢ Community Solar Garden companies ➢ Solar suitability app
5B: Create a guide that shares available programs and renewable options, and best practices for homeowners and renters to select programs that fit their needs.	

5C: Communicate via newsletter, social media, event tabling, and mailed materials to encourage support for renewables.	➢ Village Notes
5D: Use current events in messaging and existing celebrations, like Earth Day, to align campaign with people's desires to take action for the environment.	

Strategy 6: Create campaigns to increase renewable energy support for businesses and multi-family building owners.

Actions	Resources/Partners
6A: Find and create lists of property owners and managers of businesses and multi-family buildings.	➢ Chamber of Commerce ➢ Property owners and managers ➢ Business Associations
6B: Partner with Chamber of Commerce to communicate with businesses about renewable energy opportunities through presentations at meetings, success stories, and newsletter content.	
6C: Include messaging on environmental impacts and how renewables can help reach sustainability goals and drive customer support.	

Strategy 7: Promote information regarding on-site solar including funding, utility rebates, city permitting requirements, and information on installers.

Actions	Resources/Partners
7A: Share federal, state, and utility incentives for residents and businesses to support on-site solar installations.	➢ CERTs ➢ Inflation Reduction Act ➢ Solar companies
7B: Include on-site solar information in potential City welcome packet when a new resident moves to Saint Anthony Village.	

Strategy 8: Explore solar panel installation on municipal facilities.

Actions	Resources/Partners
8A: Seek funding from government programs and integrate implementation costs into the annual budget.	➢ Inflation Reduction Act ➢ MPCA
8B: Lead by example by sharing municipal solar projects as demonstrations and educational initiatives.	

Focus Area: Electrification

Why is this a priority?

Natural gas consumption greatly impacts Saint Anthony Village's greenhouse gas emissions. Saint Anthony Village's natural gas consumption increased by 7.3% over the baseline period of 2021–2023. To reach the 2040 greenhouse gas emissions reduction goal, it will be important to transition away from fossil fuel-powered appliances to more efficient electric appliances.

Beneficial electrification is the replacement of direct fossil fuel use that results in either lower costs, reduced emissions or more effective use of the power grid. In practice, this means replacing fossil fuel-powered appliances like gas water heaters and HVAC equipment with more efficient versions that run on electricity. As Xcel Energy sources more of the electrical grid's energy from renewables and as more people support renewable energy, powering appliances with electricity will become an important way to avoid greenhouse gas emissions and reach our goal.

Who are the target audiences?

Most of the opportunities for beneficial electrification reside in the residential sector, so residents and multi-family building owners and property managers are the target audiences.

Strategy 9: Share educational materials on new and emerging electric appliance alternatives and EV chargers to residents.

Actions	Resources/Partners
9A: Promote funding and utility rebates to electrify appliances like air and ground source heat pumps, water heaters, clothes dryers, and electric yard tools.	➢ Silverwood Park ➢ Library ➢ City movie nights ➢ Chamber of Commerce ➢ Village Notes ➢ Student Green Team and Ecology Club ➢ Boy and Girl Scouts ➢ Kiwanis ➢ Northeast Voyagers
9B: Share information at events, local businesses, City website and communication channels, and include in rental license renewals and permitting processes.	
9C: Create a fridge magnet of new appliance options and programs for replacement to distribute to residents.	

Strategy 10: Evaluate the condition of existing City equipment and develop a predicted replacement schedule and funding.

Actions	Resources/Partners
10A: Work with City departments to incorporate electric appliance alternatives and fleet electrification into the purchasing plan and account for changes in equipment cost in financial planning.	➢ Parks and Environmental Commissioners ➢ Utility rebates ➢ Inflation Reduction Act
10B: Utilize grants and available rebates for alternative outdoor power equipment.	

10C: Convene group of local government entities to share electrification practices.	

Strategy 11: Facilitate peer-to-peer learning from residents who have implemented electrification measures to those interested.

Actions	Resources/Partners
11A: Create an event or incorporate sharing into existing events for community members to learn about personal experiences transitioning to electric appliances.	➢ Citizens for Sustainability ➢ Village Notes ➢ Student Green Team and Ecology Club ➢ Boy and Girl Scouts ➢ Kiwanis ➢ Northeast Voyagers
11B: Create and share testimonials via City communication channels to inspire others to transition.	

Strategy 12: Create targeted campaigns for homes heated with natural gas and electrically heated homes to switch to air source heat pumps (ASHPs).

Actions	Resources/Partners
12A: Use mapping tools and data to identify homes heated with natural gas and electrically heated homes.	➢ Air Source Heat Pump Collaborative ➢ U.S. Census
12B: Create a postcard to send to residents in census group blocks that have a high proportion of electrically heated homes about the benefits of ASHPs.	
12C: Create a postcard to send to residents that heat with natural gas about the benefits of ASHPs.	

Community Resources for Implementation

For successful implementation, the Energy Action Team identified community resources in Saint Anthony Village that can support the strategies.

Schools	Kwanis Club	Chamber of Commerce	Faith communities	Mobile Home Parks
Apartments and Senior Living Facilitites	Sports boosters	Parks groups	Citizens for Sustainability	Green Team at High School
Boy Scouts/Girl Scouts	Sister City in Finland	Village Fest	Night to Unite	Fire/Police/ Public Works
Cub Foods Community Rooms	Municipal liquor stores	Village People Facebook group	Community Center	Village Notes Newsletter
Silverwood Park	Walkable hubs	Northeaster Newsletter	Committed citizenry	

APPENDIX A: WORK PLAN

Focus Area: Energy Efficiency									
Strategy	**Tactics**	**Lead**	**Support**	**Q2 2025**	**Q3 2025**	**Q4 2025**	**Q1 2026**	**Q2 2026**	**Q3 2026**
Strategy 1: Create a campaign to promote the Home Energy Squad to residents.	1A: Create outreach materials like flyers and door hangers to mail and drop door-to-door to older homes.	PiE	City, Citizens for Sustainability						
	1B: Table at community and City events, promote in City communications (e-newsletters, social media) to share audits as the first step to energy efficiency.	City, Citizens for Sustainability, PEC	PiE						
Strategy 2: Create a campaign to promote building energy assessments to businesses.	2A: Use Chamber of Commerce communication channels and meetings to share energy resources.	PiE	City, Chamber of Commerce						
	2B: Partner with business groups to share resources and identify champions in the business community to highlight as success stories for marketing.	City, Chamber of Commerce	PiE						
	2C: Go door-to-door to businesses to share about energy efficiency assessments and recommendations for projects.	City, PEC	PiE						
Strategy 3: Share energy efficiency resources, funding, and programs to help residents reduce energy use, including low-income residents.	3A: Provide City Sustainability staff as connection for people to ask questions and find information on energy resources.	City	PiE						
	3B: Find grants and funding sources to help provide free or reduced home energy audits.	PiE	City						
	3C: Cultivate partnerships with local organizations, food shelves, libraries, schools, and parks to share energy efficiency resources with the public. Use joint communication channels and events to share resources.	City	PiE						
Strategy 4: Communicate with rental property managers about energy efficiency improvement opportunities for facilities and residents.	4A: Reach out to multi-family building owners and managers, retail spaces, nonprofits, and senior living facilities to promote energy assessments and offer resources like energy kits, lighting sensors, lowering energy bills, and energy education.	PiE	City						

Strategy	Tactics	Lead	Support	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026
	4B: Send mailers and utility bill inserts sharing energy information and translate materials into other languages when appropriate.	PiE	City						
	4C: Include energy resources and information in property license renewal channels.	City, Finance and Code Official City Staff	PiE						

Focus Area: Renewable Energy									
Strategy	**Tactics**	**Lead**	**Support**	**Q2 2025**	**Q3 2025**	**Q4 2025**	**Q1 2026**	**Q2 2026**	**Q3 2026**
Strategy 5: Create a targeted campaign for residents to partake in utility renewable energy subscription programs and community solar gardens.	5A: Use Partners in Energy mapping tools and data to identify where people have not opted in yet and target those areas.	PiE	City						
	5B: Create a guide that shares available programs and renewable options, and best practices for homeowners and renters to select programs that fit their needs.	PiE	City						
	5C: Communicate via newsletter, social media, event tabling, and mailed materials to encourage support for renewables.	PiE	City, Citizens for Sustainability						
	5D: Use current events in messaging and existing celebrations, like Earth Day, to align campaign with people's desires to take action for the environment.	PiE	City, PEC						
Strategy 6: Create campaigns to increase renewable energy support for businesses and multi-family building owners.	6A: Find and create lists of property owners and managers of businesses and multifamily buildings.	City	PiE						
	6B: Partner with Chamber of Commerce to communicate with businesses about renewable energy opportunities through presentations at meetings, success stories, and newsletter content.	City, Chamber of Commerce	PiE						
	6C: Include messaging on environmental impacts and how renewables can help reach sustainability goals and drive customer support.	PiE	City						
Strategy 7: Promote information regarding on-site solar including funding, utility rebates, city permitting requirements, and information on installers.	7A: Share federal, state, and utility incentives for residents and businesses to support on-site solar installations.	PiE	City						
	7B: Include on-site solar information in City welcome packet when a new resident moves to St. Anthony Village.	City	PiE						

Strategy	Tactics	Lead	Support	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026
Strategy 8: Explore solar panel installation on municipal facilities.	8A: Seek funding from government programs and integrate implementation costs into the annual budget.	City	PiE						
	8B: Lead by example by sharing municipal solar projects as demonstrations and educational initiatives.	City	PiE						

Focus Area: Electrification

Strategy	Tactics	Lead	Support	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026
Strategy 9: Share educational materials on new and emerging electric appliance alternatives and EV chargers to residents.	9A: Promote funding and utility rebates to electrify appliances like air and ground source heat pumps, water heaters, clothes dryers, and electric yard tools.	PiE	City						
	9B: Share information at events, local businesses, City website and communication channels, and include in rental license renewals and permitting processes.	City	PiE, PEC, Citizens for Sustainability, Chamber of Commerce						
	9C: Create a fridge magnet of new appliance options and programs for replacement to distribute to residents.	PiE	City						
Strategy 10: Evaluate the condition of existing City equipment and develop a predicted replacement schedule and funding.	10A: Work with City departments to incorporate electric appliance alternatives and fleet electrification into the purchasing plan and account for changes in equipment cost in financial planning.	City	PiE						
	10B: Utilize grants for alternative outdoor power equipment.	City	PiE						
	10C: Convene group of local government entities to share electrification practices.	PiE	City						
Strategy 11: Facilitate peer-to-peer learning from residents who have implemented electrification measures to those interested.	11A: Create an event or incorporate sharing into existing events for community members to learn about personal experiences transitioning to electric appliances.	PiE	City, Citizens for Sustainability						
	11B: Create and share testimonials via City communication channels to inspire others to transition.	PiE	City						
Strategy 12: Create targeted campaigns for homes heated with natural gas and electrically heated homes to switch to air source heat pumps (ASHPs).	12A: Use mapping tools and data to identify homes heated with natural gas and electrically heated homes.	PiE	City						
	12B: Create a postcard to send to residents in census group blocks that have high proportion of electrically heated homes about the benefits of ASHPs.	PiE	City						

	12C: Create a postcard to send to residents that heat with natural gas about the benefits of ASHPs.	PiE	City							

APPENDIX B: 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 held in the community with a planning team committed to representing local energy priorities and implementing plan strategies. The engagement process, which ran from July 2024 to November 2024, included three workshops and one virtual presentation. The planning process built on the Saint Anthony Village Climate Plan, which was created through a separate process and was adopted by the City in 2023.

Workshop 1: What should Saint Anthony Village's energy future look like?
July 2024

Figure 16: Energy Action Team members get to know each other in an icebreaker at the start of the workshop

The Energy Action Team learned about Saint Anthony Village's energy baseline. They also reviewed Saint Anthony Village's existing energy and sustainability initiatives, including the Climate Plan. Building on the Climate Plan, the team worked within three focus areas to brainstorm community assets that could help the plan be successful. They also drafted a vision statement to describe their community's energy future.

Virtual Meeting: What utility programs are available in Saint Anthony Village?
September 2024

At this virtual presentation, team members learned information about the utility programs available to Saint Anthony Village residents and businesses. Energy efficiency programs included energy audits for homes and businesses, equipment rebates for high-efficiency appliances and commercial equipment, lighting assessments for businesses, and many more. Renewable energy programs included subscription-based programs and on-site programs that require equipment installation. Team members asked questions and considered which programs would suit their community best.

Workshop 2: How will Saint Anthony Village take action to reach its energy and climate goals?

September 2024

Figure 17: Team members learn how Saint Anthony Village can reach its greenhouse gas emissions reduction goal

The Energy Action Team reviewed a model for how Saint Anthony Village could meet the greenhouse gas emissions reduction goal. They brainstormed benefits of taking energy action, as well as barriers to taking energy action in the Saint Anthony Village community. They reviewed the strategies from the Climate Plan and added, refined, and prioritized strategies for the Energy Action Plan.

Workshop 3: How will the community carry out energy action in Saint Anthony Village? November 2024

Figure 18: Team members work together to update a strategy

The Energy Action Team reviewed the strategies they drafted in the previous workshop, voting on the ones that were a) most exciting, b) the highest priority and c) could be removed from the plan. After discussing the results, team members planned the actions for specific strategies, identifying interested parties, champions and small steps for accomplishing each of them. The team discussed the planning process and celebrated their accomplishment.

APPENDIX C: BASELINE ENERGY ANALYSIS

Data was provided by Xcel Energy and CenterPoint Energy for all Saint Anthony Village premises for 2021–2023. Xcel Energy provides electric service to the community, while CenterPoint Energy provides natural gas service. The data helped the Energy Action Team understand Saint Anthony Village's energy use and 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 Premises

Most Saint Anthony Village premises are residential. Of the 4,538 distinct electricity premises in Saint Anthony Village in 2023, 92% (4,159) are residential, 7.7% (348) are commercial and industrial, and the remaining 0.7% are municipal buildings (31). The number of natural gas premises is lower than electricity premises since multi-family buildings tend to be individually metered for electricity but metered at the building level for natural gas. In 2023, the total number of natural gas premises in Saint Anthony Village was 3,273.

Table 10. Electricity premise counts by sector, 2021–2023

Sector	2021	2022	2023	Average
Residential	3,857	4,162	4,159	4,059
Commercial & Industrial	342	348	348	346
Municipal	31	31	31	31
Total	**4,230**	**4,541**	**4,538**	**4,436**

Electricity and Natural Gas Consumption and Trends by Sector

On average, the Saint Anthony Village community consumes 60 million kWh of electricity and 4.9 million therms of natural gas across all sectors per year. Total energy consumption increased by 6% over the baseline period, which can be attributed to an increase of 7.3% in natural gas consumption and a 2.5% increase in electricity consumption.

Table 11. Total energy consumption by sector and fuel type, 2021–2023

Fuel Type	Sector	2021	2022	2023	Average
Electricity (kWh)	Residential	24,588,343	23,885,916	24,710,972	24,395,077
	Commercial & Industrial	32,403,883	33,142,307	33,718,933	33,088,374
	Municipal	2,365,040	2,301,769	2,405,943	2,357,584
	Total	59,357,266	59,329,992	60,835,848	59,841,035
Natural Gas (therm)	Residential	2,215,182	2,590,973	2,329,435	2,378,530
	Commercial & Industrial	2,220,277	2,717,325	2,428,696	2,455,433
	Municipal	70,775	81,962	76,683	76,473
	Total	4,506,234	5,390,260	4,834,814	4,910,436
Total (MMBtu)	Residential	305,414	340,596	317,257	321,089
	Commercial & Industrial	332,590	384,814	357,919	358,441
	Municipal	15,147	16,050	15,877	15,691
	Total	653,150	741,460	691,053	695,221

Total energy consumption during the baseline period varied 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. For example, of the three years considered, Saint Anthony Village's natural gas consumption was at its highest level in 2022, which was also the coldest year with the most heating degree days.

Table 12. Cooling degree and heating degree days, 2021–2023

	2021	2022	2023
Cooling Degree Days	1,184	1,049	1,232
Heating Degree Days	6,731	7,849	6,565

Greenhouse Gas Emissions and Trends

Saint Anthony Village's overall energy-related greenhouse gas emissions remained steady from 2021–2023. However, a disaggregation by fuel type shows electricity emissions decreased by 10.2% while natural gas emissions increased by 7.3% during this time. To calculate Saint Anthony Village's energy-related emissions, an emissions factor is used. This emissions factor describes the amount of CO2 emitted per unit of energy (Table 14). Specifically, the certified emissions factors from Xcel Energy's Upper Midwest Fuel Mix and a standard emissions factor for natural gas emissions were used. As Xcel Energy completes third-party verification, the emissions factors used during the planning process to estimate greenhouse gas emissions may change slightly.

Table 13. Energy-related greenhouse gas emissions in MTCO2e, 2021–2023

Fuel Type	Sector	2021	2022	2023	Average
Electricity	Residential	7,038	6,360	6,198	6,532
	Commercial & Industrial	9,275	8,825	8,458	8,852
	Municipal	677	613	604	631
	Total	16,989	15,797	15,260	16,016
Natural Gas	Residential	11,756	13,751	12,363	12,623
	Commercial & Industrial	11,783	14,421	12,889	13,031
	Municipal	376	435	407	406
	Total	23,915	28,607	25,659	26,060
Total	Residential	18,794	20,110	18,561	19,155
	Commercial & Industrial	21,058	23,246	21,347	21,884
	Municipal	1,053	1,048	1,010	1,037
Total		**40,904**	**44,404**	**40,919**	**42,076**

Table 14. Emissions factors used to calculate energy-related greenhouse gas emissions, 2021–2023[10]

Fuel Type	2021	2022	2023
Electricity Emissions Factor (lbs/MWh)	631	587	553
Natural Gas Emissions Factor (MTCO2e/Dth)	0.05307	0.05307	0.05307

[10] Xcel Energy 2022. Carbon Dioxide Emission Intensities.

Energy Costs

In total, Saint Anthony Village premises spent an annual average of $12.7 million on energy during the baseline period. Saint Anthony Village residential premises made up almost half of that spending ($6.1 million or 49%), while commercial and industrial premises made up most of the other half. A small fraction of the spending was from municipal premises. Residential premises spent an annual average of $1,488 per premise on fuel costs. Commercial premises spent much more per premise on energy, with an annual average of $17,675 per premise.

Table 15. Annual energy costs by sector and fuel type, 2021–2023

Fuel Type	Sector	2021	2022	2023	Average	Average Annual Cost Per Premise
Electricity	Residential	$3,172,264	$3,426,112	$3,736,283	$3,444,886	$849
	Commercial & Industrial	$3,795,258	$4,452,379	$4,574,563	$4,274,067	$12,353
	Municipal	$302,540	$327,900	$346,282	$325,574	$10,502
	Total	$7,270,062	$8,206,391	$8,657,128	$8,044,527	
Natural Gas	Residential	$2,049,090	$2,996,264	$2,806,563	$2,617,306	$645
	Commercial & Industrial	$1,462,939	$2,345,649	$2,051,913	$1,953,500	$5,646
	Municipal	$54,417	$80,190	$78,033	$70,880	$2,286
	Total	$3,566,446	$5,422,103	$4,936,509	$4,641,686	
Total	Residential	$5,221,354	$6,422,376	$6,542,846	$6,062,192	$1,493
	Commercial & Industrial	$5,258,197	$6,798,028	$6,626,476	$6,227,567	$17,999
	Municipal	$356,957	$408,090	$424,315	$396,454	$12,789
Total		**$10,836,508**	**$13,628,494**	**$13,593,637**	**$12,686,213**	

Energy Burden

Energy burden is the percentage of income that residents spend on energy. Saint Anthony Village residents who own their homes and make 30% or less of the median area income spend up to 12% of their income on energy costs. This group comprises 177 households, 4% of the total households in the city. Notably, energy burden is higher across almost every income group for homeowners than renters.

Table 16. Energy burden by unit occupancy and median income[11]

	Energy Burden		Household Count	
Percent of Area Median Income	**Own**	**Rent**	**Own**	**Rent**
0–30%	12%	5%	177	324
30–60%	4%	1%	292	453
60–80%	3%	1%	179	152
80–100%	2%	1%	342	171
100%+	1%	1%	1322	718
Total	**2.5%**	**1.7%**	**2312**	**1818**

Program Participation and Savings

Saint Anthony Village already has a significant number of participants in energy efficiency programs from Xcel Energy and CenterPoint Energy, resulting in energy savings for residents and commercial customers. While fewer commercial and industrial premises participated during the baseline period, their participation resulted in larger savings per premise. In total, participation in these commercial programs saved an annual average of 603,022 kWh and 56,366 therms, while participation in residential programs saved an annual average of 58,468 kWh and 17,739 therms.

Home Energy Squad is a residential program jointly offered by Xcel Energy and CenterPoint Energy, and Xcel Energy also maintains a separate program designation for income-qualified residents. *Table 17,*

Table 18*,* and *Table 20* show the Home Energy Squad participation and energy savings for Xcel Energy and CenterPoint Energy separately. The Home Energy Squad participation counts for Xcel Energy and CenterPoint Energy are not unique residents, and in most cases overlap; however, the electricity savings are exclusive to Xcel Energy and the gas savings to CenterPoint Energy.

[11] Source: Department of Energy Low-Income Energy Affordability Data Tool

Table 17. Annual Xcel Energy residential energy efficiency program participation and savings, 2021–2023

Residential Program	2021		2022		2023	
	Count	Savings (kWh)	Count	Savings (kWh)	Count	Savings (kWh)
Home Energy Audit	11	0	17	0	27	0
Home Energy Squad[12]	11	6,496	14	8,422	18	7,419
HomeSmart	6	0	6	0	5	0
Insulation Rebate	1	132	1	40	3	461
Refrigerator Recycling	15	11,680	8	6,013	18	14,218
Residential HVAC	149	54,513	78	21,706	56	24,772
Residential Saver's Switch	92	96	3	3	39	41
Smart Thermostat	48	2,097	49	850	87	1,268
Total	**333**	**75,014**	**176**	**37,034**	**253**	**48,179**

Table 18. Annual Xcel Energy income-qualified energy efficiency program participation and savings, 2021–2023

Income-Qualified Program	2021		2022		2023	
	Count	Savings (kWh)	Count	Savings (kWh)	Count	Savings (kWh)
Home Energy Savings Program	9	4,067	9	3,956	7	3,027
Low-Income Home Energy Squad[13]	1	2,180	1	1,604	2	342
Total	**10**	**6,247**	**10**	**5,560**	**9**	**3,369**

[12] Home Energy Squad is a program jointly provided by Xcel Energy and CenterPoint Energy. See *Table 20* for the CenterPoint Energy data.

[13] Low-Income Home Energy Squad is a program jointly provided by Xcel Energy and CenterPoint Energy, though CenterPoint Energy does not have a separate program distinction for income-qualified residents. See *Table 20* for the CenterPoint Energy data.

Table 19. Annual Xcel Energy business energy efficiency program participation and savings, 2021–2023

Business Program	2021		2022		2023	
	Count	Savings (kWh)	Count	Savings (kWh)	Count	Savings (kWh)
Electric Rate Savings	6	-7,770	0	0	0	0
HVAC+R Efficiency	5	49,783	4	2,030	0	0
Lighting Efficiency	9	115,025	10	128,863	11	91,039
Multi-Family Building Efficiency	2	99	2	9,094	2	4,886
Small Business Lighting	1	41,568	5	103,513	1	9,098
Smart Thermostat for Businesses	2	929	3	27	4	1,846
Energy Design Assistance	0	0	0	0	2	1,229,781
Fluid System Optimization	0	0	0	0	1	29,237
Saver's Switch for Business	0	0	0	0	6	18
Total	**25**	**199,634**	**24**	**243,527**	**27**	**1,365,905**

Table 20. Annual CenterPoint Energy residential energy efficiency program participation and savings, 2021–2023[14]

Residential Program	2021		2022		2023	
	Count	Savings (therms)	Count	Savings (therms)	Count	Savings (therms)
Home Efficiency Rebates	151	17,868	96	12,475	109	13,771
Home Energy Squad[15]	17	728	2	59	26	1,150
Home Insulation Rebates	12	1,750	4	456	29	3,629
New Home Construction Rebates	2	48	0	0	0	0
Total	**166**	**20,415**	**103**	**13,235**	**144**	**19,566**

Table 21. Annual CenterPoint Energy income-qualified energy efficiency program participation and savings, 2021–2023

Income-Qualified Program	2021		2022		2023	
	Count	Savings (therms)	Count	Savings (therms)	Count	Savings (therms)
Low-Income Free Heating System Tune-Up	1	21	0	0	1	21
Low-Income Multi-Family Housing Rebates	0	0	0	0	1	593
Low-Income Weatherization	0	0	3	245	4	402
Total	**1**	**21**	**3**	**245**	**6**	**1,016**

[14] The CenterPoint Energy programs DIY Efficiency, Home Energy Reports and School Kits are excluded from this table.

[15] Home Energy Squad is a program jointly provided by Xcel Energy and CenterPoint Energy. See *Table 17* for the Xcel Energy data.

Table 22. Annual CenterPoint Energy business energy efficiency program participation and savings, 2021–2023[16]

Commercial Sector Programs	2021		2022		2023	
	Count	Savings (kWh)	Count	Savings (kWh)	Count	Savings (kWh)
C&I Audit Services (Natural Gas Energy Analysis and Steam Trap Audits)	2	1,258	0	0	1	0
C&I Heating and Water Heating Rebates	4	11,682	10	14,669	43	19,931
Commercial Foodservice Equipment Rebates	0	0	1	722	6	2,166
Energy Design Assistance	0	0	0	0	2	95,210
Multi-Family Building Efficiency	7	25	2	4,463	9	18,971
Total	13	12,965	13	19,854	61	136,278

Renewable Energy Support

There is support for renewable energy in Saint Anthony Village with 351 residential premises and 13 commercial/industrial premises subscribing to Xcel Energy renewable programs. These premises respectively receive a total of 1.5 million kWh and 733,000 kWh of their electricity from renewable sources. Furthermore, 57 residential premises and 9 commercial premises have on-site solar generation.

[16] The CenterPoint Energy programs Code Compliance, Training and Education, and Benchmarking are excluded from this table.

Table 23. Xcel Energy subscription renewable energy program support, 2023

Renewable*Connect® & Renewable*Connect Flex®[17]	Residential	Commercial & Industrial	Total
Subscriber Count	273	0	273
Total Annual Electricity Subscribed (kWh)	1,024,075	0	1,024,075
Community Solar Gardens – Solar*Rewards® Community			
Subscriber Count	78	13	91
Total Annual Electricity Subscribed (kWh)	505,065	732,983	1,238,048
Total Xcel Energy Subscription Renewable Energy Support			
Subscriber Count	351	13	364
Total Annual Electricity Subscribed (kWh)	1,529,140	732,983	2,262,123
Percent of Sector Xcel Energy Electricity Use	6.2%	3.4%	3.7%

Table 24. Xcel Energy on-site solar program support, 2023[18]

On-site Solar – Solar*Rewards® and Net-Metering	Residential	Commercial & Industrial	Total
Participant Count	57	9	66
Total Electricity Capacity (kW)	491	190	681

[17] The Windsource® program is now called Renewable*Connect Flex®.

[18] Source: Xcel Energy Community Energy Report for Saint Anthony Village, 2023

APPENDIX D: 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 Saint Anthony Village. All goals will be measured against Saint Anthony Village's three-year baseline of 2021–2023 data unless otherwise noted.

The following section defines the three-year baseline against which progress is measured, including Xcel Energy and CenterPoint Energy program(s) included in the baseline.

The savings for residential and commercial energy efficiency are modeled to persist beyond the year of installation. For example, if an energy efficient furnace that results in energy savings is installed in one year, we count the savings for the installation year as well as for succeeding years. For the purposes of this Energy Action Plan, the first year of implementation is equivalent to year one for energy efficiency, and savings accumulate from that point forward.

Community-wide Goal

The goal is from Saint Anthony Village's Climate Plan.[19]

Saint Anthony Village will reduce energy-related greenhouse gas emissions 80% by 2040 compared to a 2005 baseline.

[19] Saint Anthony Village Climate Plan, 2023

Focus Area Goals

Residential Energy Efficiency

- Increase residential energy efficiency savings by 75%, resulting in 2.1 million kWh and 652,000 therms saved from 2025–2030

Table 25. Residential sector annual targets and goal totals

Utility	Average Annual Business as Usual Participation[20]	Annual Participation Target	2025–2030 Energy Action Plan Energy Savings	2025–2030 Energy Action Plan GHG Savings (MT CO_2e)
Xcel Energy	258	452	2,148,687 kWh	273
CenterPoint Energy	138	241	651,895 therms	2,412

Commercial Energy Efficiency

- Increase commercial energy efficiency savings by 50%, resulting in 19 million kWh and 1.8 million therms saved from 2025–2030

Table 26. Commercial sector annual targets and goal totals

Utility	Average Annual Business as Usual Participation[21]	Annual Participation Target	2025–2030 Energy Action Plan Energy Savings	2025–2030 Energy Action Plan GHG Savings (MT CO_2e)
Xcel Energy	25	38	18,995,193 kWh	3,460
CenterPoint Energy	29	44	1,775,519 therms	9,423

Renewable Energy

- Increase residential participation in Xcel Energy renewable energy programs by 3% annually
- Increase commercial participation in Xcel Energy renewable energy programs by three participants annually

This goal will measure program participation by residents and businesses in Xcel Energy's renewable subscription programs. The programs currently offered by Xcel Energy are Renewable*Connect Flex, Solar*Rewards Community, Solar*Rewards, and Net Metering. Total participation targets by sector are shown in *Table 27*. Renewable energy kWh are aggregated from participation in community solar

[20] Average annual residential participation is measured over the three-year baseline period of 2021–2023.
[21] Average annual commercial participation is measured over the three-year baseline period of 2021–2023.

gardens, Renewable*Connect, and Renewable*Connect Flex (formerly Windsource). Electricity generated from on-site solar is not included in this total because the data is not available. Greenhouse gas emissions avoided only include participants in Renewable*Connect and Renewable*Connect Flex (formerly Windsource), where customers retain the renewable energy certificate (REC). In the baseline period, there were no business subscribers to Renewable*Connect or Renewable*Connect Flex. We do not include any business subscribers to these programs in the model, which is why there are no projected greenhouse gases avoided in the business sector.

Table 27. Renewable energy goal totals

Sector	2030 Business as Usual Participation[22]	2030 Energy Action Plan Participation	2025–2030 Energy Action Plan Renewable Energy kWh	2025–2030 Energy Action Plan Renewable Energy GHG Avoided (MT CO_2e)
Residential	401	476	9,287,202 kWh	988
Commercial	22	40	5,125,188 kWh	0

Electrification

- 10 residential participants annually in Xcel Energy electrification programs

Because the electrification programs from Xcel Energy were new in 2024, there is no historical data, so the Energy Action Team set an initial annual target of 10 residential participants. The electrification programs from Xcel Energy include rebates that replace home heating equipment that only comes from natural gas with an electric alternative, such as an air or ground source heat pump and rebates that replace natural gas water heaters with a heat pump water heater. The secondary fuel source for air source heat pumps can be either natural gas or electricity, which is triggered when temperatures drop below a certain setpoint.

[22] This assumes that 2023 participation remains the same through 2030.