

An Energy Action Plan for The City of Hopkins 2024



PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

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 electric utility serving Hopkins. 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 5: Xcel Energy’s Partners in Energy Planning Process.

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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 Hopkins has made modifications to the plan.

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HOPKINS ENERGY ACTION PLAN

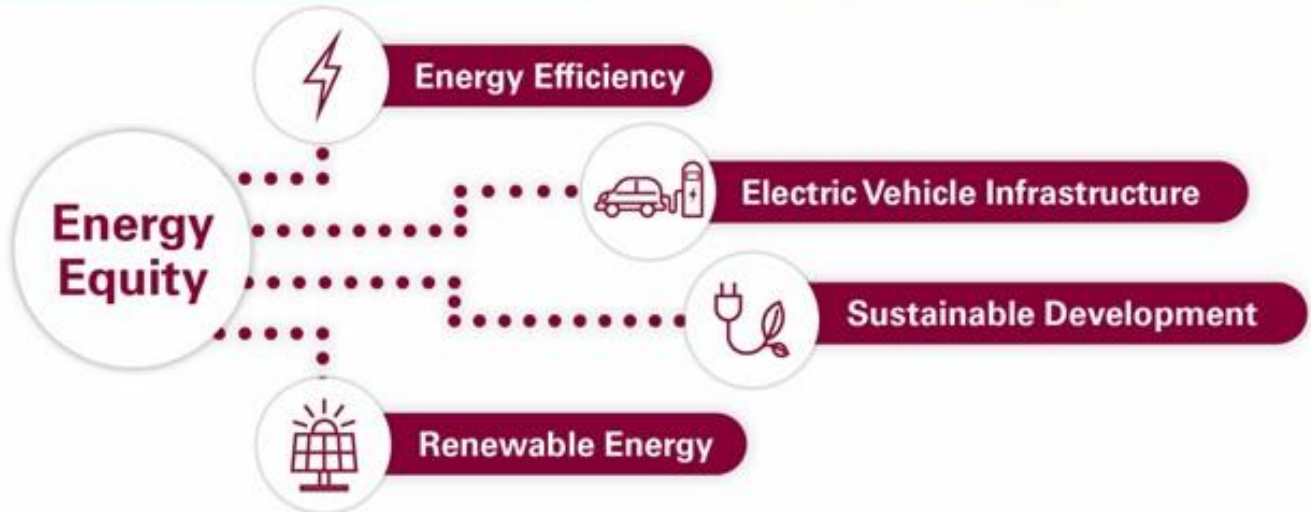
Executive Summary

Community Vision

Hopkins' Energy Action Plan will have a positive effect on residents, businesses, and the environment. The plan will save energy and greenhouse gas emissions through leadership, pragmatic action, and cost-effective solutions. Reflecting the values of the Hopkins community, the plan will create a more equitable, resilient city where residents and businesses have the opportunity to thrive.



Focus Areas



Goal

Hopkins will avoid an additional 40% of energy-related greenhouse gas emissions by 2028 compared to business as usual, saving the community \$1.9 million in the process.

As a stretch goal, the plan aims to avoid an additional 95% of greenhouse gas emissions by 2028, saving the community a total of \$3.5 million.

Energy Costs Avoided

\$3.5 million



2028

CO₂ Emissions Avoided

7,015 MTCO₂e



2028

■ Ambitious Impact ■ Business as Usual



HOPKINS AND XCEL ENERGY ARE PLEASED TO WORK TOGETHER TO ACHIEVE OUR COMMUNITY ENERGY GOALS. 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 HOPKINS ENERGY ACTION TEAM WHO CONTRIBUTED MANY HOURS OF SERVICE TO CREATING OUR VISION, GOALS, AND STRATEGIES FOR THIS PLAN.



PARTNERS IN ENERGY
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Energy Equity

The actions within this Energy Action Plan will be implemented with inclusion and equity at the forefront, to ensure this plan benefits all our community members. We will accomplish this by ensuring intentional engagement with, and support for, our most marginalized community members.

High-Level Strategies

- Develop energy efficiency outreach to residents and businesses to connect them with beneficial programs.
- Create a city-wide plan for EV infrastructure (including non-car EVs).
- Connect large developers to sustainable development programs and energy efficiency education.
- Incentivize energy and sustainability home retrofits including weatherization, renewable energy, and electrification projects.
- Develop a sustainable building policy.
- Grow and promote the Hopkins Climate Solutions fund.

Impact and Results of Plan Implementation

- Avoid 2,008–7,015 MTCO₂e emissions (that's equivalent to removing at least 447 gas-powered cars from the road for a year).
- Save the residents, businesses, and the City of Hopkins \$1.9–\$3.5 million in utility bills through 2028.
- Become a more climate-resilient community.
- Equitably serve residents, businesses, and institutions in sustainable energy action.



GLOSSARY OF TERMS

15 x 15: Xcel Energy’s privacy rule, which required 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) was responsible for more than 15% of the total for that data set, it was/they were removed from the summary. Prior to 2023, Partners in Energy used the 15 x 15 rule, including the baseline data for this plan.

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. This rule is in effect starting in 2023 and will govern all data going forward.

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 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.

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.

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

Energy Efficiency: Using less energy to accomplish the same amount of heating, cooling, or other energy-dependent task. A building that now uses less energy to maintain a given interior temperature (by, for example, upgrading its insulation) has become more energy efficient.

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: Energy savings come 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 (MTCO_{2e}): A unit of measure for greenhouse gas emissions. The unit "CO_{2e}" 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 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.

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 of natural gas consumption.



INTRODUCTION

The City of Hopkins has made great progress toward becoming a sustainable and resilient city through participation in programs such as SolSmart and GreenStep Cities, which have helped it reach solar and other sustainability goals. The City also emphasizes sustainability in its 2040 comprehensive plan by focusing on resilience and clean energy.

Hopkins has already taken on projects to slow climate change impacts such as the extreme heat conditions mapping project and a collaborative project with HOURCAR and Xcel Energy to provide electric vehicle (EV) charger at Dow Towers, and is considering fleet electrification of City vehicles. Hopkins is proud to tout its bikeability, walkability and accessible infrastructure.

Engagement & Outreach Process

The creation of this Energy Action Plan was a six-month process that supported the Hopkins community to characterize its energy use, identify the community's energy-related goals, and develop engaging strategies to guide change toward Hopkins' energy future. Starting in May 2023, the Energy Action Plan was driven by a series of planning workshops held in the community with a planning team committed to representing local energy priorities in collaboration with City of Hopkins and Xcel Energy Partners in Energy. By the numbers, Partners in Energy engaged the community with 3 surveys, 5 workshops and 15 community participants. See Appendix 5: Xcel Energy's Partners in Energy Planning Process for more information.

Why We Want an Energy Action Plan

An Energy Action Plan will advance a community-driven planning process that will establish clear goals to deliver an energy future that reflects the community's values and commitment to sustainability. In the City's Comprehensive Planning process, sustainability was defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. This planning effort is an important step in helping the community meet that definition of sustainability.

This plan establishes a baseline of the community’s current energy use, identifies benchmarks for progress toward defined goals, and helps the community evaluate opportunities to participate in energy-related programs in the future.

All census tracts in the City of Hopkins are defined by the Minnesota Pollution Control Agency as Environmental Justice Areas of Concern,¹ and the City is committed to reducing harm to low-income and BIPOC communities due to environmental injustices. As a community with a lower average annual income than most other urban Hennepin County cities, many households have expressed concern regarding energy and utility costs, especially residents who rent. In Hopkins, 67% of households rent, and just under half of those renters are housing cost-burdened, spending more than 30% of their income on housing.

There is also a great desire to access solar or other energy-powered sustainability products (heat pumps, induction stoves, etc.), but there is a lack of awareness regarding how the products function and whether they are even affordable for those interested. This plan ultimately aims to meet the unique needs of all of Hopkins’ residents and businesses.

¹ Minnesota Pollution Control Agency, “Understanding Environmental Justice in Minnesota”



WHERE WE ARE NOW

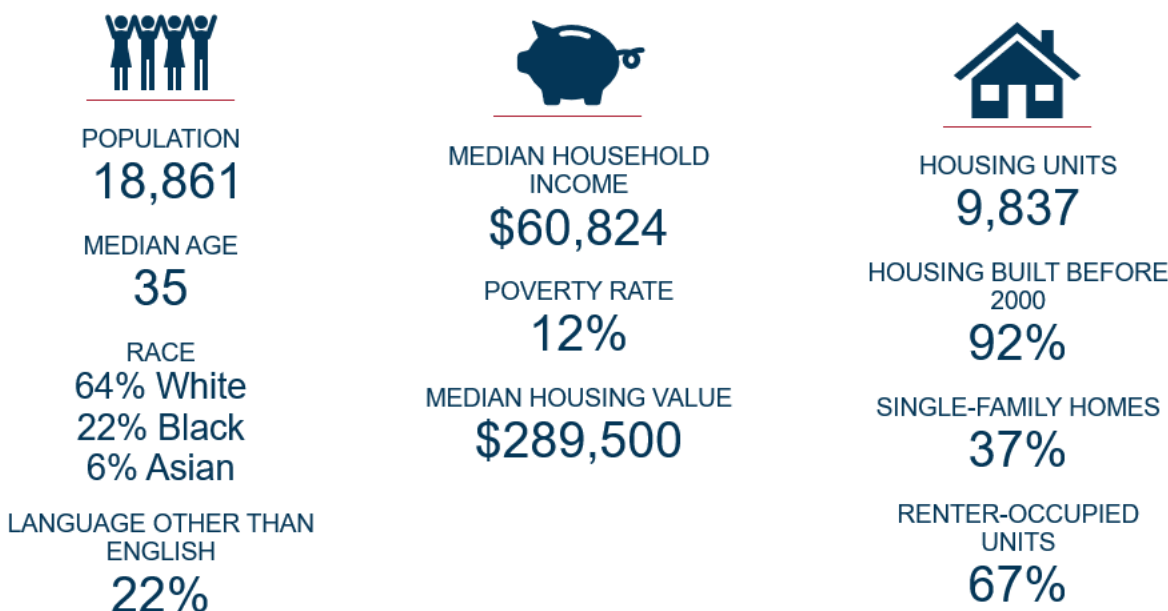
An integral part of the Partners in Energy planning process is reviewing historic energy data to inform Hopkins' community's energy baseline. Xcel Energy and CenterPoint Energy provided data on energy use, participation counts and utility energy conservation program savings for Hopkins, as detailed in the following sections. See Appendix 2: Baseline Energy Analysis for a comprehensive picture of Hopkins' baseline energy data.

Community Demographics

Population

According to the American Community Survey 2021 five-year estimates, Hopkins' population of almost 19,000 residents lived in around 10,000 housing units. Compared to other Twin Cities communities, Hopkins is a more racially and ethnically diverse community in which 36% of residents identify as non-white and 22% speak a language other than English. A poverty rate of 12% and a median household income of \$61,000 make the community less wealthy than some of its peer cities. With 92% of its housing built before 2000, most Hopkins residents live in housing stock with significant opportunity for energy efficiency improvements because of age and older building codes. Additionally, 67% of units in Hopkins are renter-occupied, presenting unique opportunities for energy efficiency measures targeted at renter-occupied units. See Figure 1 for a community demographic profile.

Figure 1. Overview of Hopkins' community demographics²



Energy Use and Savings

Xcel Energy and CenterPoint Energy provided data on energy use as well as participation and energy savings from utility energy conservation programs for the City of Hopkins, as detailed in the following sections. Electricity data from Xcel Energy and natural gas data from CenterPoint Energy was used to create a three-year baseline for Hopkins spanning 2020–2022.

Premises

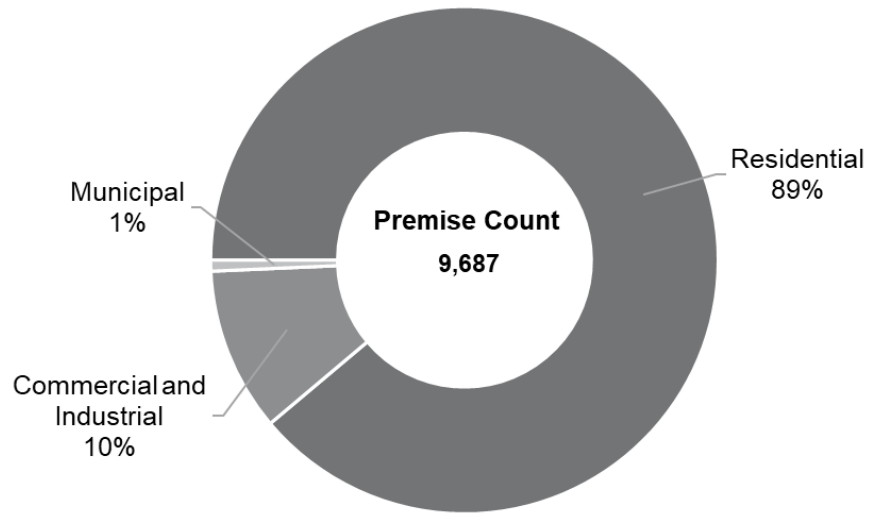
Xcel Energy provides electricity to Hopkins residents and businesses and CenterPoint Energy provides natural gas service. Hopkins consists of 9,663 electric premises, which are a unique combination of service addresses and meters.³ For residential customers, this is the equivalent of an individual house or dwelling unit in a multi-tenant building. For business customers, a premise may be an individual business, or for a larger business, a separately metered portion of the business's load at that address.

Most Hopkins premises are residential (8,613), followed by commercial and industrial (1,007) and finally municipal (63) (Figure 2).

² American Community Survey, 2021 five-year estimates

³ See Glossary of Terms for complete definitions of common energy terms.

Figure 2. Premise count and sector breakdown⁴



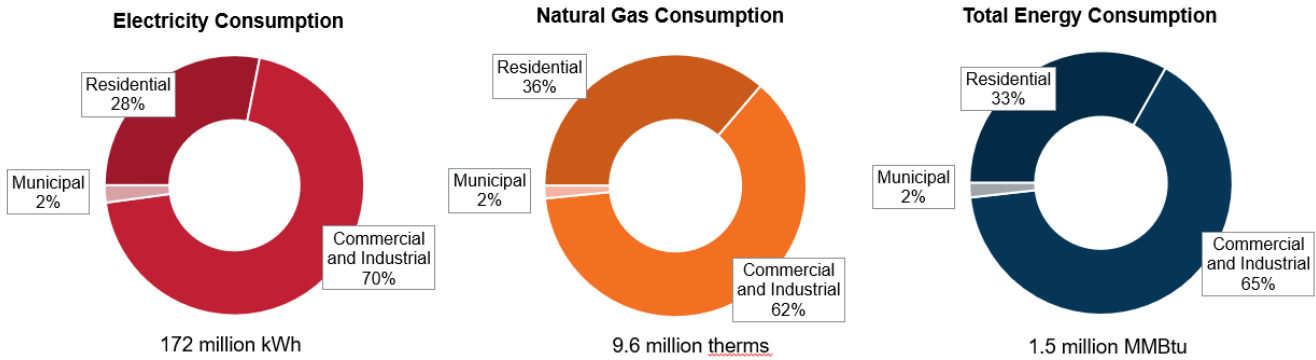
Grid Energy Use

On average, Hopkins consumes 172 million kWh of electricity and 9.6 million therms of natural gas across all sectors per year (Figure 3). Commercial and industrial premises, which represent 10% of all premises, consumed 70% of electricity and 62% of natural gas on average. Comparatively, residences make up 89% of all premises but consumed only 28% of electricity and 36% of natural gas in an average year. Municipal premises represent less than 1% of all premises and consumed 2% of electricity and 2% of natural gas in Hopkins.

To compare electricity and natural gas consumption, total energy consumption was calculated using both electricity and natural gas converted into million British thermal units (MMBtu). Taken together, the commercial industrial customers consumed the most energy in an average year, followed by residents and the municipal sector.

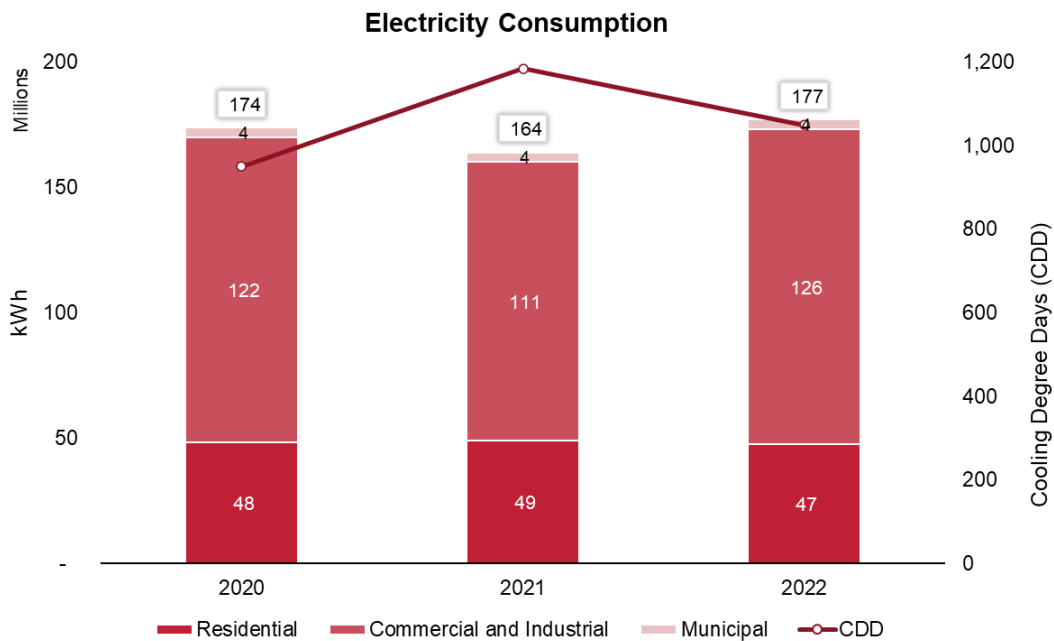
⁴ Xcel Energy, 2022

Figure 3. Residential and commercial and industrial energy consumption⁵



During the three-year baseline period, overall electricity consumption increased by 1.8% (Figure 4). Residential consumption decreased slightly (1.7%) while commercial and industrial consumption increased by 3.4%, leading to a total increase in electricity consumption. Consumption was lowest in 2021, despite having higher cooling degree days (CDD), which indicates a hotter summer and typically a greater need for cooling.

Figure 4. Electricity consumption by sector, 2020–2022⁶

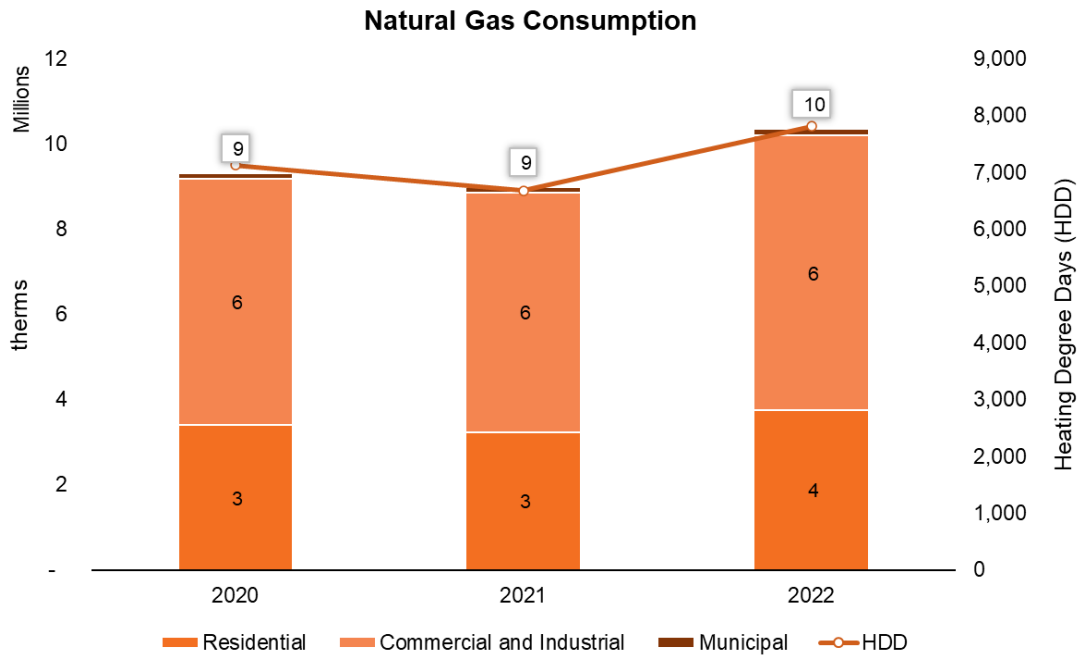


⁵ Xcel Energy, 2020–2022; CenterPoint Energy, 2020–2022

⁶ Xcel Energy, 2020–2022

Natural gas consumption increased across all sectors from 2020–2022, with a total increase of 11.2% (Figure 5). In the residential sector, natural gas consumption increased by 10.2%, and in the commercial and industrial sector, increased by 11.6%. The increase in natural gas consumption in Hopkins correlates with more heating degree days (HDD), which indicate a colder winter and typically a greater need for space heating.

Figure 5. Natural gas consumption by sector, 2020–2022⁷



Energy Costs and Energy Burden

In an average year, Hopkins residents and businesses spend a combined total of \$28 million across all sectors on energy (Figure 6). The average Hopkins residential premise spends \$1,523 on electricity and natural gas each year, while the average commercial and industrial premise spends \$18,482 each year.

⁷ CenterPoint Energy, 2020–2022

Figure 6. Total fuel costs sector breakdown⁸

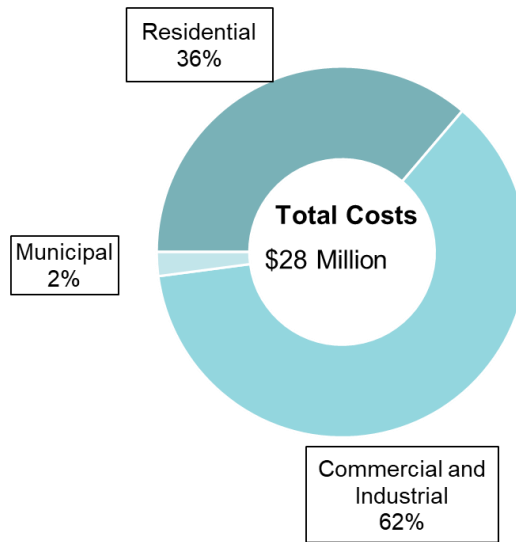


Table 1. Fuel costs by premise, by fuel and by sector⁹

Sector	Electricity Costs	Natural Gas Costs	Costs per Premise
Residential	\$6.5 million	\$3.6 million	\$1,523
Commercial & Industrial	\$13 million	\$4.2 million	\$18,482
Municipal	\$462,000	\$120,000	\$12,899

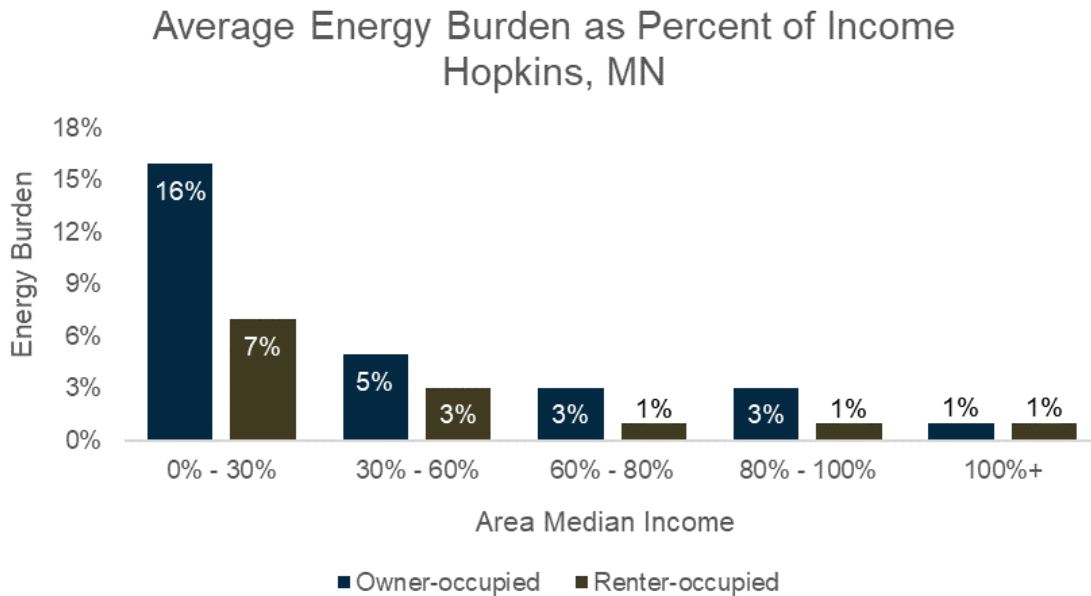
Energy burden is the percentage of total household income spent on annual utility bills (including electric, gas and/or other heating fuels). Homes that are energy inefficient may require greater spending on energy bills, which can increase energy burden. Low-income households may pay a greater proportion of their total income on utility bills, increasing their energy burden. American Council for an Energy Efficiency Economy (ACEEE) considers homes

⁸ Xcel Energy, 2020–2022; CenterPoint Energy, 2020–2022

⁹ Xcel Energy, 2020–2022; CenterPoint Energy, 2020–2022

with an energy burden of 6% or more of their income to be experiencing “high energy burden,” and 10% or more as “severely energy burdened.”¹⁰

Figure 7. Average annual energy burden in Hopkins, plotted against Area Median Income (AMI) and occupancy status¹¹



In Hopkins, baseline energy burden was examined as it correlates with area median income and occupancy status (owner-occupied or renter-occupied housing) (Figure 7). Energy burden was highest for residents with a household income at 0–30% of the total Area Median Income (AMI) living in owner-occupied housing. At 0–30% AMI, energy burden was 16% for residents in owner-occupied housing and 7% for residents in renter-occupied units. As household income increases in Hopkins, energy burden decreases. In all AMI brackets below 100%, energy burden is higher for owner-occupied households than renter-occupied units.

Greenhouse Gas Emissions

Greenhouse gas emissions were calculated for both electricity and natural gas consumption for all sectors in Hopkins.¹² In 2022, total energy-related greenhouse gas emissions in Hopkins amounted to just over 104,000 metric tons of carbon dioxide equivalent (MTCO₂e), a standard

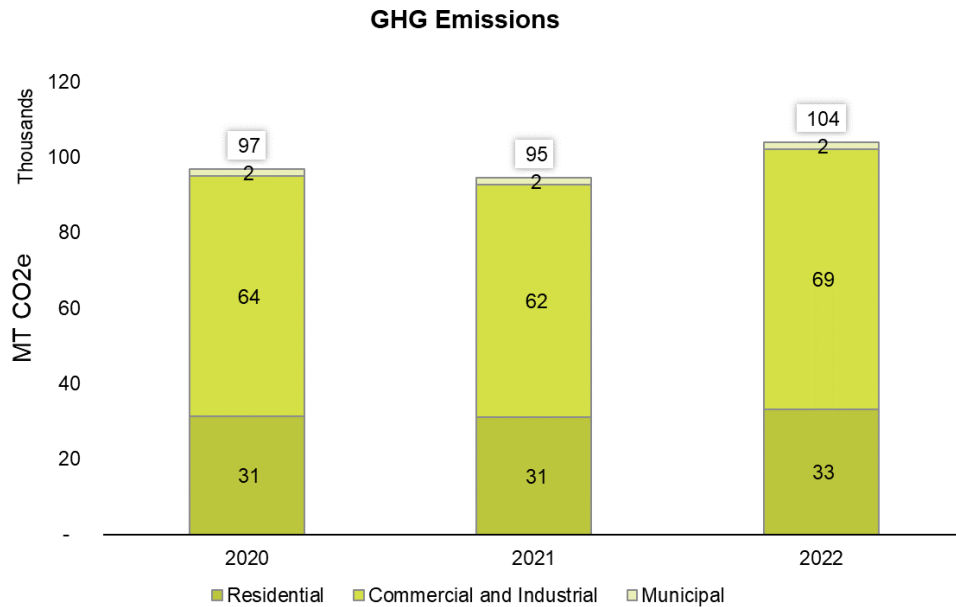
¹⁰ ACEEE: “How High Are Household Energy Burdens?” <https://www.aceee.org/energy-burden>

¹¹ Low-Income Energy Affordability Data (LEAD) Tool, National Renewable Energy Laboratory

¹² Electricity emissions are calculated using Xcel Energy’s preliminary and certified emissions factors for their Upper Midwest Fuel Mix for 2020, 2021 and 2022. Emissions factors used during the planning process to calculate greenhouse gas emissions from electricity consumption may change as Xcel Energy completes third-party verification for its emissions intensities. A universal emissions factor sourced from the EPA was used to calculate natural gas emissions. See Table 15 for the emissions factors used to calculate energy-related emissions in Hopkins.

measure of GHG emissions. Total greenhouse gas emissions increased in Hopkins by 7.4% from 2020 to 2022 (Figure 8). In 2022, residential premises represented 31.8% of the total energy-related greenhouse gas emissions, commercial and industrial premises represented another 66.4% of the total, while the remaining 1.8% of emissions related to municipal premises.

Figure 8. Energy-related greenhouse gas emissions in Hopkins, 2020–2022¹³



Renewable Energy

Hopkins residents and businesses use both subscription programs and on-site options to support renewable energy. In Hopkins, there are more residential participants in Xcel Energy’s renewable offerings than commercial/industrial participants, but commercial/industrial participants subscribe to more electricity (including Community Solar) than residential participants in these offerings (Table 2). Xcel Energy’s Windsource® (which transitioned into Renewable*Connect Flex in 2023) and Renewable*Connect® programs allow residents and businesses to access renewable energy directly from the utility to provide some or all a premise’s electricity from a renewable source. Solar*Rewards Community is a program that gives participants the opportunity to subscribe to a local, third-party community solar garden.

¹³ Xcel Energy, 2020–2022; CenterPoint Energy, 2020–2022

Table 2. Participation in Xcel Energy renewable energy offerings, 2022

	Residential	Commercial & Industrial
Windsorce® & Renewable*Connect®		
Subscriber Count	454	5
Total Annual Electricity Subscribed (kWh)	1,438,066	61,488
Community Solar Gardens - Solar*Rewards® Community		
Subscriber Count	72	45
Total Annual Electricity Subscribed (kWh)	525,831	6,163,925
Total Xcel Energy Subscription Renewable Energy Support		
Subscriber Count	526	50
Total Annual Electricity Subscribed (kWh)	1,963,897	6,225,413
Percent of Sector Xcel Energy Electricity Use ¹⁴	4.1%	4.8%

Residents and businesses also support renewable energy through on-site installations (Table 3). As of 2022, 30 residents and 12 businesses participated in Xcel Energy’s Solar*Rewards® or Net-Metering offerings, where participants install solar panels on-site.

Table 3. Participation in Xcel Energy on-site solar offerings¹⁵

On-site Solar - Solar*Rewards® and Net-Metering	Residential	Commercial & Industrial
Participant Count	30	12
Total Electricity Capacity (kW)	229	692

Energy Efficiency Program Participation and Savings

Xcel Energy and CenterPoint Energy offer energy conservation programs to residents and businesses to help them manage energy consumption at a home or business. Rebates for new equipment, audit programs, and other energy measures are available in addition to load management programs. Participation in these programs can result in energy savings through increased energy efficiency. From 2020 to 2022, participation in Xcel Energy residential and commercial and industrial offerings resulted in an average of 2.3 million kWh saved each year, across all sectors (Table 4). Municipal premises are included in the commercial and industrial aggregations.

¹⁴ Xcel Energy retains the renewable energy credits (REC) for community solar garden subscriptions. The percent reported here is provided to give a sense of the total size of renewable energy subscriptions compared to overall electricity use.

¹⁵ Xcel Energy Community Energy Report for Hopkins, 2022

Table 4. Average participation and electricity savings through Xcel Energy’s energy efficiency offerings, 2020–2022

Sector	Average Annual Participation	Average Electricity Savings (kWh)
Residential	386	104,660
Commercial and Industrial	82	2,215,254
Total	468	2,319,914

CenterPoint Energy’s energy efficiency programs for residents and businesses help them conserve natural gas through program participation. Over the three-year baseline period, residents and businesses saved an average of over 70,000 therms of natural gas each year (Table 5).

Table 5. Average participation and natural gas savings through CenterPoint Energy’s energy efficiency offerings, 2020–2022

Sector	Average Annual Participation	Average Natural Gas Savings (therms)
Residential	1,328	29,748
Commercial and Industrial	84	40,997
Total	1,412	70,745

Residents and businesses in Hopkins saw high levels of participation in select Xcel Energy offerings. Hopkins residents participated the most in Residential Heating and Cooling (Table 6), an offering for residents to receive rebates for upgrading to more efficient equipment, where the sector also saw the highest total electricity savings during the baseline period. However, residents saved the most electricity per participant through the Home Energy Squad, an in-home audit and direct install program that provides personalized home assessments to help residents identify ways to save energy as well as install free low-cost equipment.

Table 6. Average participation and savings from key Xcel Energy residential energy efficiency programs, 2020–2022

Residential Program	Average Annual Participation	Average Electricity Savings (kWh)	Average Savings per Premise (kWh)
Home Energy Savings Program	5	2,331	499
Home Energy Squad ¹⁶	14	15,198	1,060
Residential Heating and Cooling	154	57,373	372
Refrigerator Recycling	29	24,451	834
Residential Saver’s Switch	119	173	2

In the commercial and industrial sector (Table 7), businesses participated the most and saw the highest per-participant electricity savings from Lighting Efficiency; this program offers audits and rebates for businesses to upgrade to more energy efficient lighting.

Table 7. Average participation and savings from key Xcel Energy commercial and industrial energy efficiency programs, 2020–2022

Commercial and Industrial Program	Average Annual Participation	Average Electricity Savings (kWh)	Average Savings per Premise (kWh)
HVAC +R Efficiency	12	210,443	17,063
Lighting Efficiency	22	1,354,605	60,654
Multi-family Building Efficiency	13	127,970	9,844
Small Business Lighting	18	224,119	12,225

Electric Vehicle and Charging Infrastructure

Electric Vehicle and Charging Baseline

The state of Minnesota’s electric vehicle (EV) adoption rate increased by 221% from 2018 to 2020.¹⁷ Technology improvements in charging speed, battery range, and other factors impacted adoption rates according to Minnesota’s Department of Transportation.

Table 8. Electric vehicles by zip code¹⁸

Zip Code	Battery Electric Vehicles (BEV)	Plug-in Hybrid Electric Vehicles (PHEV)
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¹⁶ Home Energy Squad is provided by Xcel Energy and CenterPoint Energy and delivered by CEE

¹⁷ Minnesota Department of Transportation Electric Vehicle Dashboard, 2022

¹⁸ Minnesota Department of Transportation Electric Vehicle Dashboard, 2022

Minnesota also adopted an Electric Vehicle Infrastructure Plan in 2022.

55305	259	78
55343	145	56

There are 538 EVs in the two zip codes associated with the City of Hopkins.

Charging Infrastructure

There are four level 2 public charging stations in convenient locations throughout the city, including the municipal building’s parking ramp and a popular grocer.

Figure 9: Hopkins area public EV charging stations¹⁹



¹⁹ Plug Share, plugshare.com



WHERE WE ARE GOING

Energy Vision Statement

During the planning process, the Energy Action Team created a vision statement for this Energy Action Plan. This statement helped guide the planning process and reflects the intention of the community.

Vision Statement

Hopkins' Energy Action Plan will have a positive effect on residents, businesses, and the environment. The plan will save energy and greenhouse gas emissions through leadership, pragmatic action, and cost-effective solutions. Reflecting the values of the Hopkins community, the plan will create a more equitable, resilient city where residents and businesses have the opportunity to 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 Equity

Renewable
Energy

EV
Infrastructure

Energy
Efficiency

Sustainable
Development

These focus areas were chosen to reflect the distinct character, values, and population of Hopkins, and to both include Hopkins' existing work on energy conservation and broaden that work into new sectors. With new incentives coming to communities from the federal Inflation Reduction Act and new and updated utility programs delivered as part of the state of Minnesota's Energy Conservation and Optimization Act (ECO), the future of energy efficiency will be more affordable to residents. There will also be more opportunities for carbon reduction through beneficial electrification.

Energy Equity

This focus area aims to decrease energy burden and increase access to resources for the City's most vulnerable residents. Rather than siloing this work into a single focus area, it is an overarching intention for all work in this plan.

Renewable Energy

The purpose of this focus area is to increase access to wind and solar energy for residents, businesses and municipal buildings while increasing Hopkins' resilience.

EV Infrastructure

This focus area will promote chargers, electrical upgrades and other infrastructure to increase charging availability for a variety of electric vehicles, including micromobility.

Energy Efficiency

This focus area encompasses all measures to improve the energy efficiency of existing residential and commercial buildings, including single-family homes, multi-family buildings and businesses.

Sustainable Development

Maximizing energy efficiency, renewable energy and electrification opportunities, this focus area's strategies benefit the future buildings of Hopkins.

Community-Wide Goals

The Energy Action Team set goals during the planning process by deciding which metrics were important to the community, reviewing the energy baseline data to discuss ambition level and feasibility, and constructing a timeline to achieve these goals. Goals are measured against the 2020–2022 baseline period, so the goals are framed in terms of additional savings above and beyond a projected business-as-usual scenario.

Community-Wide Goal

Hopkins will avoid an additional 40% of energy-related greenhouse gas emissions by 2028 compared to business as usual, saving the community \$1.9 million in the process.

As a stretch goal, the plan aims to avoid an additional 95% of greenhouse gas emissions by 2028, saving the community a total of \$3.5 million.

The impact of the community-wide goal will help Hopkins reduce an additional 2,008 MTCO₂e by the end of 2028 compared to business as usual. These energy-related greenhouse gas emissions reductions are from electricity and natural gas use. The figure includes the greenhouse gas emissions avoided from both energy efficiency and renewable energy program participation, and grid decarbonization by the utility (but notably not reduced emissions from the transportation sector). Hopkins’ greenhouse gas avoidance is equivalent to removing 447 passenger vehicles from the road for a year.²⁰

Energy Action Plan Impact

The energy action plan will impact many facets of Hopkins’ energy future: increased utility program participation, reduced greenhouse gas emissions, changes in utility bills and energy savings. Table 9 summarizes the plan impact on these different sectors. Note that “participations” track each time a customer uses a program. For example, one customer who joins a renewable energy subscription program and has an energy efficiency audit of their home would count both as a participant in the efficiency program and a participant in the renewable energy program. For a full look at how these projections are made, see Appendix 2: Baseline Energy Analysis and Appendix 4: Methodology for Measuring Success.

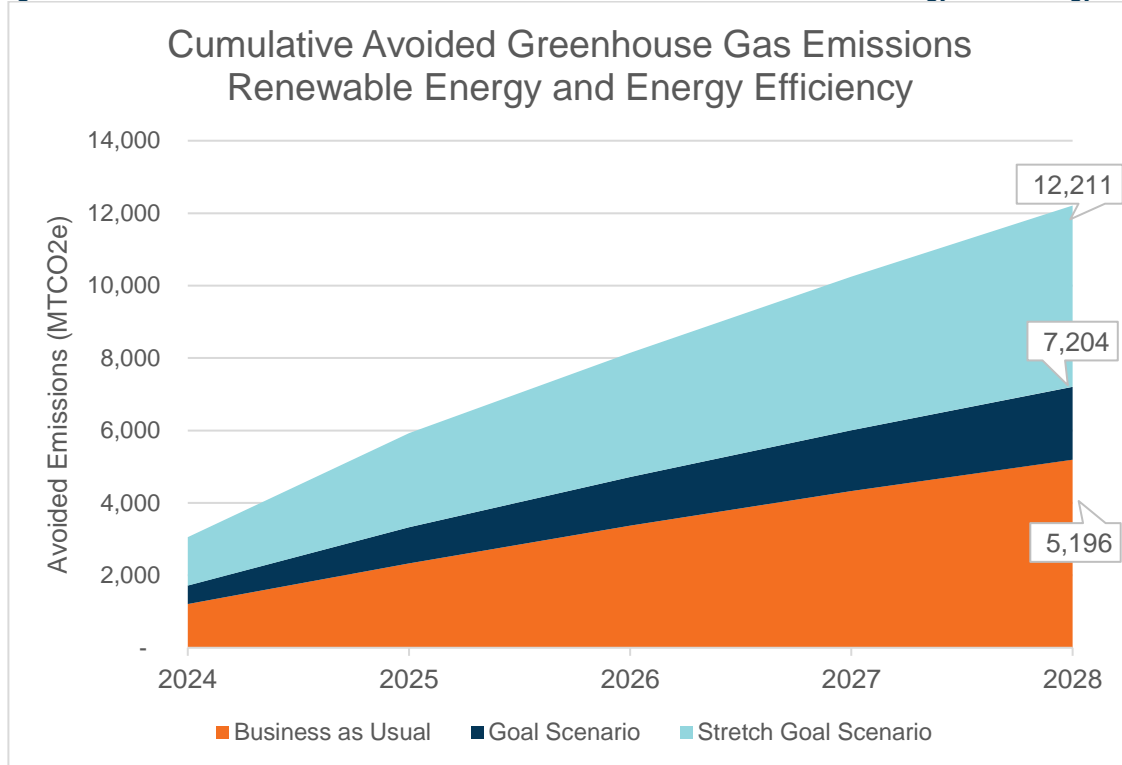
Table 9: Plan Impact Scenarios, 2024–2028

	Business as Usual, 2024–2028	Goal Scenario, 2024–2028	Stretch Goal Scenario, 2024–2028
Participations, Energy Efficiency	3,900	5,300	10,000
Participations, Renewable Energy	460	560	610
Greenhouse Gas Avoided, Energy Efficiency	3,900 MTCO ₂ e	5,700 MTCO ₂ e	10,600 MTCO ₂ e
Greenhouse Gas Reduced, Renewable Energy	1,300 MTCO ₂ e	1,500 MTCO ₂ e	1,600 MTCO ₂ e
Money Saved, Energy Efficiency	\$1.3 million	\$1.9 million	\$3.5 million
Electricity Saved, Energy Efficiency	12 million kWh	17 million kWh	28 million kWh
Natural Gas Saved, Energy Efficiency	350,000 therms	500,000 therms	700,000 therms

²⁰ U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

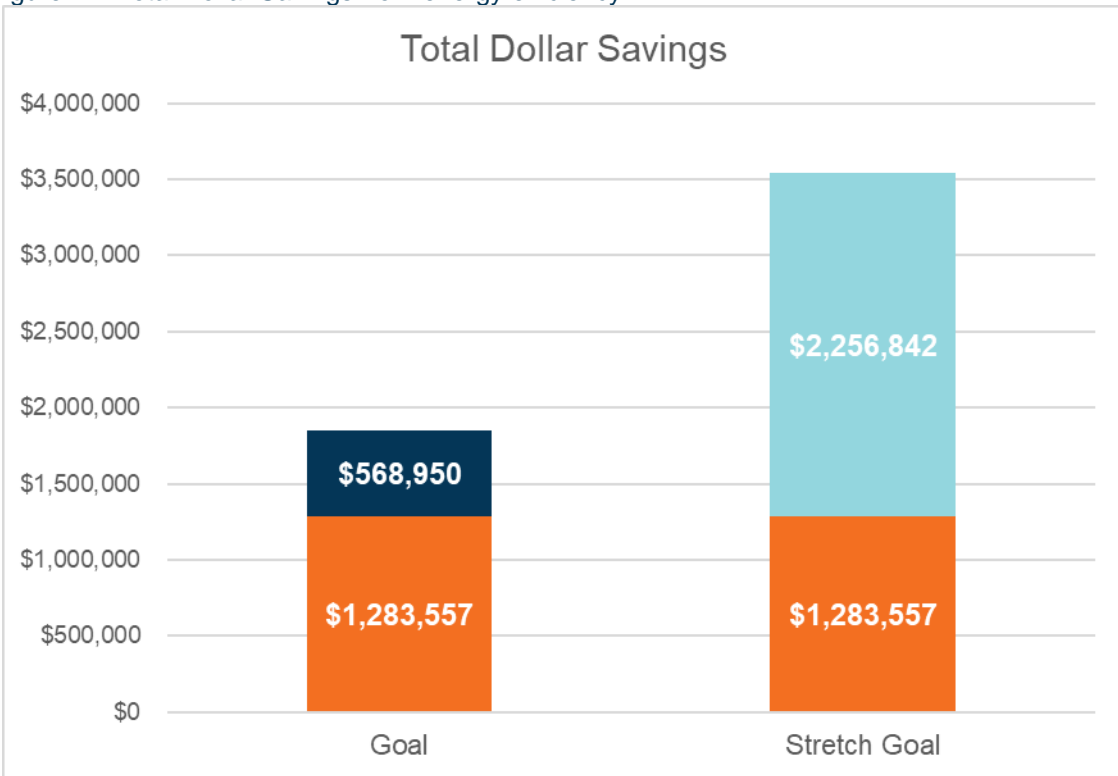
To visualize the greenhouse gas emission reductions from the plan, Figure 10 shows the emissions avoided through business as usual (orange), meeting the goal (dark blue) and meeting the stretch goal (light blue). The business-as-usual scenario shows what would happen if Hopkins participated in energy efficiency and renewable energy programs at the same levels as past years. The team designed the main goal to be reasonable to reach (hence the narrow dark-blue band), with a stretch goal that is more aspirational and represents a large jump in energy savings and emissions reductions.

Figure 10: Cumulative Avoided Greenhouse Gas Emissions – Renewable Energy and Energy Efficiency



Along with reducing emissions, the plan would result in savings on utility bills. Figure 11 shows the savings for Hopkins residents, businesses, and the City under the business-as-usual, goal and stretch goal scenarios. These savings are the result of energy efficiency measures only (renewable energy measures do not necessarily result in dollar savings).

Figure 11: Total Dollar Savings from energy efficiency



For a full discussion of how Partners in Energy makes these projections, see Appendix 4: Methodology for Measuring Success.



HOW WE ARE GOING TO GET THERE

The following section outlines our implementation work plan, including focus areas, strategies and tactics to achieve Hopkins' goals. These initiatives will be led by the City of Hopkins and supported by Partners in Energy, Xcel Energy, the Energy Action Team and other City of Hopkins staff. Each focus area has background information, multiple strategies, and specific tactics describing the actions the plan prescribes. For a more detailed work plan with a timeline and responsibilities, see Appendix 1: Implementation Work Plan.

Umbrella Strategies: Energy Equity and Information Access

Strategy 1: Energy Equity

The actions within this Energy Action Plan will be implemented with inclusion and equity at the forefront, to ensure this plan benefits all Hopkins' community members. The plan will accomplish this by ensuring intentional engagement with, and support for, Hopkins' most marginalized community members. This section will connect equity to each strategy.

Strategy 2: Energy Information Access

The Energy Action Team identified a core need for the Hopkins community to have better access to information about energy efficiency and renewable energy. To meet this need, the City will provide accessible energy information (on Energy Efficiency, Renewable Energy, Sustainable Building and Electric Vehicle infrastructure) and resources through various communication methods, public conversations and web-based resource information hubs to meet the needs of community members.

Focus Area: Energy Efficiency

The Energy Action Team identified energy efficiency as a core way for the Hopkins community to lessen its environmental impact while managing energy costs. Residents, businesses and the City itself can all access tools and strategies to accomplish the same amount of work while using less energy, providing both sustainability and financial benefits. The City also has a part to play: the team envisions the City leading by example to take action on energy. Strategies in this focus area concern existing buildings, while the Sustainable Development focus area includes strategies for future buildings.

Strategy 3: Explore implementing energy efficiency measures in City of Hopkins facilities.

The Energy Action Team believes that the City of Hopkins should lead by example and show its community ways to take energy action. This strategy opens the door for the City to save energy while inspiring other community members to do the same.

Tactics

3A: Conduct energy audits in municipal buildings.

3B: Deliver findings and recommendations from the audits to City Council as appropriate.

Strategy 4: Create an energy efficiency outreach campaign to residents outlining opportunities and resources to save energy, with ample attention to renters.

While many programs exist for Hopkins residents to use energy more efficiently, the Energy Action Team determined that these programs are not very well known. This strategy aims to raise awareness of these opportunities and tailor energy efficiency opportunities to community members. Hopkins has a high proportion of renters, so we wanted this strategy to encompass multi-family buildings and renters as well as single-family residences and homeowners.

Tactics

4A: Develop an engagement plan and calendar outlining messages for various audiences, platforms, and time of year messaging and cadence.

4B: Design and create fliers and messaging highlighting renter-friendly energy efficiency programs.

4C: Work with multi-family building owners/managers to distribute energy efficiency kits.

4D: Promote an energy tip of the week on social media and relevant City communications.

4E: Promote energy assessments as a first step to improving energy efficiency.

4F: Continue City buy-downs for home energy assessments.

4G: Explore a City buy-down of audit programs for small, midsize and large businesses.

Strategy 5: Develop an outreach plan to businesses (including large industry) on energy efficiency best practices, resources and programs.

Ensuring that businesses in the community are made aware of the energy and dollar savings available to them through energy efficiency programs, this strategy aims to reach businesses of all sizes in Hopkins with programs that suit each of their needs and challenges.

Tactics

5A: Present energy efficiency opportunities at local business meetings and events.

5B: Feature case studies of energy actions by businesses in City communications.

5C: Host a tour of businesses that have implemented energy efficiency measures successfully.

5D: Develop a packet to distribute to building owners that communicates energy savings benefits and opportunities.

5E: Promote energy audits for all Hopkins buildings and businesses through City and Hopkins Business and Civic Association communications and by exploring incentives, requirements or connecting program resources.

5F: Explore the creation of a City-lead sustainable business recognition program

Strategy 6: Continue to grow and promote the Hopkins' Climate Solutions Fund.

The energy action team celebrated the existing work that Hopkins is doing to make our city greener, so the team wanted to recognize and amplify the Hopkins' Climate Solutions Fund (HCSF). The HCSF offers incentives to residents and businesses to accelerate our transition to cleaner and more efficient energy. Continuing the work of this program is an opportunity for the City to move toward both its climate and energy goals.

Tactics

6A: Explore additional funds and grants available to grow the HCSF program.

6B: Engage the community in opportunities to improve the program as it is implemented.

6C: Engage contractors and trade groups with the program.

Strategy 7: Incentivize energy and sustainability home retrofits including weatherization, renewable energy and electrification projects.

This strategy connects residents with existing programs and incentives to take energy action in their homes. It recognizes that making homes more energy efficient, switching to renewable energy and switching from fossil fuel to electric energy are interlocking ways to avoid household greenhouse gas emissions.

Tactics

7A: Continue to include community/home needs as a core element of Hopkins Climate Solutions Fund.

7B: Connect homeowners and contractors to resources and information for small-scale projects in homes through City communications and partnerships.

7C: Commit City staff to stay current on regulatory changes and seek funding opportunities for residential improvements.

Focus Area: Sustainable Development

Significant new construction projects are underway in Hopkins, with more in the pipeline. The Energy Action Team wanted to ensure that new construction projects considered energy efficiency and renewable energy as they were designed and built, resulting in the creation of this Sustainable Development focus area. Since many of these projects will be rental housing, this is an area where the plan can reach Hopkins' significant renter population. For example, increased energy efficiency in a multi-family building could result in lower energy costs for tenants.

Strategy 8: Connect large developers to sustainable development programs and educational opportunities.

Large building developments represent opportunities for large energy savings. This strategy aims to make large developers aware of programs that can reduce the energy use of their buildings, connect them with renewable energy and potentially lower the operating costs of their projects.

Tactics

8A: Host informational event with local developers on opportunities to incorporate sustainable practices.

8B: Leverage City permitting processes and internal and external City relationships to share messaging with local developers.

Strategy 9: Develop a sustainable building policy for the city.

By establishing an overall framework for building efficiency and energy use in Hopkins, a sustainable building policy could significantly impact the Hopkins community's energy use. This strategy recognizes and supports the work Hopkins continues to do to develop and implement that policy framework.

Tactics

9A: Consult with other cities with sustainable building policies to gain insight on processes, best practices and challenges.

9B: Develop parameters of the potential policy around what buildings will be included and what targets and compliance could look like — present this to stakeholders for feedback.

9C: Account for needs and challenges of renters.

Focus Area: Renewable Energy

As part of its commitment to avoid greenhouse gas emissions, the Energy Action Team wanted to increase the availability of renewable energy to the Hopkins community. Table 10 shows that some Hopkins residents and businesses already access renewable energy through utility subscription program and on-site solar, but there are significant opportunities to increase participation in these programs.

Table 10: Renewable Energy Program Use in Hopkins, 2020–2022

Xcel Energy	Residential	Commercial & Industrial
Subscription Programs - Windsource® & Renewable*Connect®		
Subscriber Count	682	5
Total Annual Electricity Subscribed (kWh)	2,100,000	83,000
Community Solar Gardens - Solar*Rewards Community®		
Subscriber Count	71	44
Total Annual Electricity Subscribed (kWh)	525,199	6,155,922
On-site Solar - Solar*Rewards® and Net-Metering		
Subscriber Count	47	20
Total Electricity Capacity (kW)	331	4,628

Strategy 10: Explore feasibility of converting City of Hopkins operations to renewable energy.

Hopkins can lead by example by reviewing the possibility of running its own facilities with renewable energy. This strategy doesn't commit the City to using 100% renewables, only to consider the programs and changes it would need to implement to do so.

Tactics

10A: Review solar programs available for municipal premises.

10B: Consult solar suitability resources.

10C: Review budgetary and other considerations.

10D: Present to Council when appropriate.

Strategy 11: Launch a renewable energy program outreach campaign to residents using City and partner organization communications, with particular attention to renters.

Residents in Hopkins can access renewable energy through subscription programs and on-site infrastructure, often for less cost and inconvenience than they would expect. The Energy Action Team wants to make sure residents can make informed choices about renewable energy and will leverage connections to community organizations to promote these programs. Renters are highlighted in this strategy to balance the usual narrow focus on homeowners.

Tactics

11A: Promote subscription programs to renters, multi-family building tenants and other community members who may not have access to on-site renewable energy options.

11B: Use mapping to identify outreach opportunities.

11C: Promote on-site renewable options to homeowners and new home buyers.

Strategy 12: Develop a packet for businesses that features renewable energy information, resources and programs.

Businesses have a unique set of challenges in accessing renewable energy, but also a unique set of opportunities. This strategy aims to standardize an easy-to-circulate set of programs that could help them switch to renewables.

Tactics

12A: Distribute packet of information to building owners, businesses, other City departments and partner organizations that work in industry spaces.

Strategy 13: Explore hosting a large municipal solar array for community use/subscription.

As part of its leadership on renewable energy, Hopkins can explore creating a solar installation specifically for its residents and businesses to use. This strategy will consider the financing model and site for a potential installation and will build on lessons learned in other cities that host such arrays.

Tactics

13A: Consider the use of community solar gardens in open parking lots, multi-family buildings and the landfill.

13B: Consult with other communities who host municipal solar gardens to gain lessons learned and best practices for implementation to present to City Council for consideration.

Focus Area: Electric Vehicle Infrastructure

The Energy Action Team identified electric vehicles as an opportunity to move away from fossil fuels and reduce Hopkins' greenhouse gas emissions. The team wanted to promote EV cars and trucks as well as micro-mobility EVs like e-bikes, e-scooters and electric golfcarts, along with the charging infrastructure that will support these modes of transit. The team pointed out that Hopkins' relative density and existing bike paths make it a good fit for micro-mobility EVs.

Strategy 14: Provide EV charging educational materials and resource guides to large multi-family building owners/managers.

The Energy Action Team identified a gap in EV charging infrastructure for renters in multi-family buildings. These renters often can't access charging at home. This strategy addresses this gap by sharing information about charging programs with multi-family building owners and managers.

Tactics

14A: Develop a packet of information aimed at property owners that lays out best practices, benefits, and guides users to resources for EV charging.

14B: Develop building and owner list for mail, email and direct call outreach. Map existing relationships or contacts with other City departments or community partners.

Strategy 15: Host an e-bike, e-scooter and EV test drive event.

While EVs are becoming more common, many Hopkins community members still don't have any direct experience with them. This strategy will connect EV users with individuals who are curious about using them for their business or for general use.

Tactics

15A: Partner with EV Ride and Drive organizers, dealerships and utility programs.

15B: Create local EV ambassadors from resident enthusiasts. Feature resident stories in outreach.

Strategy 16: Create city-wide plan for EV infrastructure (including non-car EVs).

Hopkins can demonstrate its leadership in sustainability by creating a comprehensive plan to address EV charging infrastructure. Many resources exist to support this work. Including non-car EVs like e-bikes, e-scooters and electric golf carts will make the plan suitable to the widest variety of residents.

Tactics

16A: Develop EV micro-mobility opportunities and partnerships.

16B: Continue to work with EV Smart Cities to develop EV Plan.

16C: Connect micro-mobility to existing safe streets initiatives.

16D: Collect community input and feedback on plan contents.

16E: Explore fleet electrification options for City vehicles.



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.

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.

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 the plan needs to adjust course.

Project Management and Tracking

Partners in Energy will host regular project management check-in calls with the City Lead to ensure the plan stays on course to achieve its 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 Commitment

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

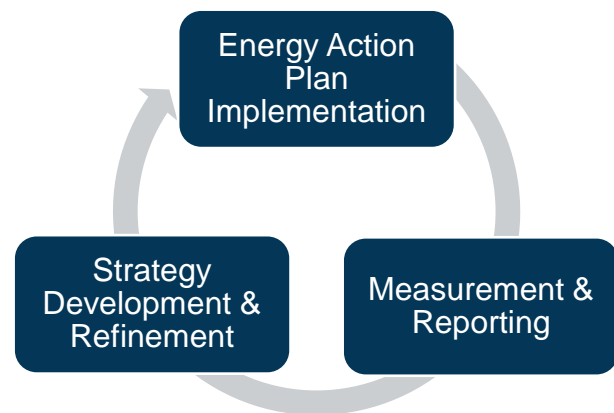


Figure 12. Actions and Tracking

City of Hopkins

The City of Hopkins will provide a primary point of contact for implementation and will assign members to attend regular project management check-ins. The City commits to leveraging existing communication channels and community connections to promote the Energy Action Plan. In addition, the City of Hopkins will lead strategies specific to City-owned buildings.

Energy Action Team

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

Xcel Energy

In addition to data reporting, project management and implementation tracking, Xcel Energy commits to supporting the first 18 months of implementation, including marketing and communications support and program expertise. Xcel Energy will also provide a dedicated community facilitator to serve as a primary point of contact. Partners in Energy digital resources, including webinars, community portal and community events, will be available to the Hopkins team. After the first 18 months of implementation, Xcel Energy will continue to provide ad hoc support and data to the Hopkins team.

APPENDIX 1: IMPLEMENTATION WORK PLAN

This appendix gives additional details for each strategy, including the implementation team, tasks, timeline and goals. This appendix will serve as a work plan for the City of Hopkins, the Energy Action Team and Partners in Energy.

Core Strategies: Energy Equity and Information Access									
Strategy	Tactic	Lead	Support	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '25	Q3 '25
Strategy 1: The actions within this Energy Action Plan will be implemented with inclusion and equity at the forefront, to ensure this plan benefits all community members. The plan will accomplish this by ensuring intentional engagement with, and support for, Hopkins' most marginalized community members.		PiE	City						
Strategy 2: The City will provide accessible energy information (on energy efficiency, renewable energy, sustainable building and electric vehicle infrastructure) and resources through varying communication methods, public conversations and web-based resource information hubs to meet the needs of community members.		PiE	City						

Focus Area: Energy Efficiency									
Strategy	Tactic	Lead	Support	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '25	Q3 '25
Strategy 3: Explore implementing energy efficiency measures in City of Hopkins facilities.	3A: Conduct energy audits in municipal buildings.	PiE	City						
	3B: Deliver findings and recommendations from the audits to City Council as appropriate.	City	PiE						
Strategy 4: Create an energy efficiency outreach campaign to residents outlining opportunities and resources to save energy, with ample attention to renters.	4A: Develop an engagement plan and calendar outlining messages for various audiences, platforms, and time of year messaging and cadence.	PiE	City						
	4B: Design and create fliers and messaging highlighting renter-friendly energy efficiency programs.	PiE	City						
	4C: Work with multi-family building owners/managers to distribute energy efficiency kits.	PiE	City						
	4D: Promote an energy tip of the week on social media and relevant City communications.	PiE	City						

	4E: Promote energy assessments as a first step to increasing energy efficiency.	PiE	City						
	4F: Continue City buy-downs for home energy assessments.	PiE	City						
	4G: Explore a City buy-down of audit programs for small, midsize and large businesses.	PiE	City						
Strategy 5: Develop an outreach plan to businesses (including large industry) on energy efficiency best practices, resources and programs.	5A: Present energy efficiency opportunities at local business meetings and events.	PiE	City						
	5B: Feature case studies of energy actions by businesses in City communications.	PiE	City						
	5C: Host a tour of businesses that have implemented energy efficiency measures successfully.	PiE	City						
	5D: Develop a packet to distribute to building owners that communicates energy savings benefits and opportunities.	PiE	City						
	5E: Promote energy audits for all Hopkins buildings and businesses through City and Hopkins Business and Civic Association communications and by exploring incentive, requirements or connecting program resources.	PiE	City						
	5F: Explore the creation of a City-led sustainable business recognition program.	City	PiE						

Strategy 6: Continue to grow and promote the Hopkins' Climate Solutions Fund.	6A: Explore additional funds and grants available to grow the HCSF program.	City	PiE						
	6B: Engage the community in opportunities for improving the program as it is implemented.	City	PiE						
	6C: Engage contractors and trade groups in the program.	City	PiE						
Strategy 7: Incentivize energy and sustainability home retrofits including weatherization, renewable energy and electrification projects.	7A: Continue to include community/home needs as a core element of Hopkins Climate Solutions Fund	City	PiE						
	7B: Connect homeowners and contractors to resources and information for small-scale projects in homes through City communications and partnerships.	PiE	City						
	7C: Commit City staff to staying current on regulatory changes and seeking funding opportunities for residential improvements.	City	PiE						

Focus Area: Sustainable Development									
Strategy	Tactic	Lead	Support	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '25	Q3 '25
Strategy 8: Connect large developers to sustainable development programs and educational opportunities.	8A: Host informational event with local developers on opportunities to incorporate sustainable practices.	City	PiE						
	8B: Leverage City permitting processes and internal and external City relationships to share messaging with local developers.	PiE	City						
Strategy 9: Develop a City sustainable building policy.	9A: Consult other cities with sustainable building policies to gain insight on processes, best practices and challenges.	City	PiE						
	9B: Develop parameters for the potential policy around what buildings will be included and what targets and compliance could look like to get feedback from stakeholders.	City	PiE						
	9C: Account for needs and challenges of renters.	PiE	City						

Focus Area: Renewable Energy									
Strategy	Tactic	Lead	Support	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '25	Q3 '25
Strategy 10: Explore feasibility of converting City of Hopkins operations to renewable energy.	10A: Review solar programs available for municipal premises.	PiE	City						
	10B: Consult solar suitability resources.	PiE	City						
	10C: Review budgetary and other considerations.	City	PiE						
	10D: Present to Council when appropriate.	City	PiE						
Strategy 11: Launch a renewable energy program outreach campaign to residents using City and partner organization communications, with particular attention to renters.	11A: Promote subscription programs to renters, multi-family building tenants and other community members who may not have access to on-site renewable energy options.	PiE	City						
	11B: Use mapping to identify outreach opportunities.	PiE	City						
	11C: Promote on-site renewable options to homeowners and new home buyers.	PiE	City						

<p>Strategy 12: Explore hosting a large municipal solar array for community use/subscription.</p>	<p>12A: Consider the use of community solar gardens in open parking lots, multi-family buildings, and the landfill.</p>	<p>City</p>	<p>PiE</p>						
	<p>12B: Consult with other communities who host municipal solar gardens to gain lessons learned and best practices for implementation to present to City Council for consideration.</p>	<p>PiE</p>	<p>City</p>						

Focus Area: Electric Vehicle Infrastructure									
Strategy	Tactic	Lead	Support	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '25	Q3 '25
Strategy 13: Provide EV charging educational materials and resource guides to large multi-family building owners/managers.	13A: Develop a packet of information aimed at property owners that lays out best practices and benefits, and guides users to resources for EV charging.	City	PiE						
	13B: Develop building and owner list for mail, email and direct call outreach. Map existing relationships or contacts with other City departments or community.	City	PiE						
Strategy 14: Host an e-bike, e-scooter and EV test drive event.	14A: Partner with EV Ride and Drive organizers, dealerships and utility programs.	City	PiE						
	14B: Create local EV ambassadors from resident enthusiasts. Feature resident stories in outreach.	PiE	City						
Strategy 15: Create city-wide plan for EV infrastructure (including non-car EVs).	15A: Develop EV micro-mobility opportunities and partnerships.	City	PiE						
	15B: Continue to work with EV Smart Cities to develop EV Plan.	City	PiE						
	15C: Connect micro-mobility to existing safe streets initiatives.	City	PiE						
	15D: Get community input and feedback on EV plan contents.	City	PiE						
	15E: Explore fleet electrification options for City vehicles.	PiE	City						



APPENDIX 2: BASELINE ENERGY ANALYSIS

Data was provided by Xcel Energy for all Hopkins premises for 2020–2022. Xcel Energy provides electric and natural gas service to the community. This data helped the Energy Action Team understand Hopkins’ 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 and Natural Gas Premises

Most Hopkins premises are residential. Of the 9,694 distinct premises in Hopkins in 2022, 89% (8,581) are residential, 10% (1,007) are commercial and industrial and the remaining 1% are municipal (74).

Table 11. Premise counts by sector, 2020–2022²¹

Sector	2020	2021	2022	Average
Residential	8,567	8,564	8,613	8,581
Commercial & Industrial	1,010	1,007	1,007	1,008
Municipal	67	67	67	67
Total	9,644	9,638	9,687	9,656

²¹ Xcel Energy, 2020–2022

Electricity and Natural Gas Consumption and Trends by Sector

On average, the Hopkins community consumes 171 million kWh of electricity and 9.6 million therms of natural gas across all sectors per year. Total energy consumption increased by 7.5% over the baseline period, which can be attributed to a large increase of 11.2% in natural gas consumption and a more modest increase in electric consumption.

Table 12. Annual energy consumption by sector and fuel type, 2020–2022²²

Fuel Type	Sector	2020	2021	2022	Average
Electricity (kWh)	Residential	48,297,701	48,970,894	47,487,215	48,251,937
	Commercial & Industrial	121,670,129	111,330,535	125,774,939	119,591,868
	Municipal	3,773,328	3,463,026	3,590,747	3,609,034
	Total	173,741,158	163,764,455	176,852,901	171,452,838
Natural Gas (therm)	Residential	3,405,721	3,238,190	3,754,360	3,466,090
	Commercial & Industrial	5,768,356	5,617,107	6,439,539	5,941,667
	Municipal	144,359	136,210	164,193	148,254
	Total	9,318,436	8,991,507	10,358,092	9,556,012
Total (MMBtu)	Residential	505,364	490,908	537,462	511,245
	Commercial & Industrial	991,974	941,570	1,073,098	1,002,214
	Municipal	27,310	25,437	28,671	27,139
	Total	1,524,648	1,457,915	1,639,231	1,540,598

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, Hopkins' natural gas consumption was at its highest level in 2022 which was also the coldest year with the most heating degree days.

Table 13. Cooling degree and heating degree days, 2020–2022²³

	2020	2021	2022
Cooling Degree Days	950	1,184	1,049
Heating Degree Days	7,128	6,678	7,812

²² Xcel Energy, 2020–2022

²³ [National Centers for Environmental Information, Local Climatological Data](#)

Greenhouse Gas Emissions and Trends

Hopkins' overall greenhouse gas emissions increased from 2020–2022, growing by over 7%. To calculate Hopkins' 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. As Xcel Energy completes third-party verification, the emissions factors used during the planning process to estimate greenhouse gas emissions (Table 15) may change slightly.

Table 14. Energy-related greenhouse gas emissions in MTCO₂e, 2020–2022²⁴

Fuel Type	Sector	2020	2021	2022	Average
Electricity	Residential	13,188	14,016	13,183	13,462
	Commercial & Industrial	33,224	31,865	34,915	33,335
	Municipal	1,030	991	997	1,006
	Total	47,443	46,873	49,095	47,803
Natural Gas	Residential	18,075	17,185	19,925	18,395
	Commercial & Industrial	30,613	29,811	34,175	31,533
	Municipal	766	723	871	787
	Total	49,454	47,719	54,971	50,715
Total	Residential	31,263	31,202	33,107	31,857
	Commercial & Industrial	63,837	61,676	69,091	64,868
	Municipal	1,796	1,714	1,868	1,793
Total		96,897	94,591	104,066	98,518

Table 15. Emissions factors used to calculate energy-related greenhouse gas emissions, 2020–2022²⁵

Fuel Type	2020	2021	2022
Electricity Emissions Factor (lbs/MWh)	602	631	612
Natural Gas Emissions Factor (MTCO ₂ e/Dth)	0.05307	0.05307	0.05307

Energy Costs

In total, Hopkins premises spent an estimated annual average of \$27.9 million on fuel costs during the baseline period. Hopkins commercial and industrial premises made up over 60% of that spending (\$17.2 million or 62%), while residential premises made up 36% (\$10.1 million). A small fraction of the spending was from municipal premises. Residential premises spent an

²⁴ Xcel Energy, 2020–2022

²⁵ [Xcel Energy 2022. Carbon Dioxide Emission Intensities.](#)

annual average of \$1,179 per premise on fuel costs. Commercial premises spent much more per premise on energy with an annual average of \$17,089 per premise.

Fuel Type	Sector	2020	2021	2022	Average	Average Annual Cost Per Premise
Electricity	Residential	\$6,258,314	\$6,368,825	\$6,909,596	\$6,512,245	\$759
	Commercial & Industrial	\$11,723,590	\$11,860,379	\$15,415,979	\$12,999,983	\$12,897
	Municipal	\$430,460	\$430,764	\$510,792	\$457,339	\$6,180
	Total	\$18,412,364	\$18,659,968	\$22,836,367	\$19,969,566	-
Natural Gas	Residential	\$2,882,709	\$3,295,770	\$4,642,698	\$3,607,059	\$764
	Commercial & Industrial	\$3,120,490	\$3,822,375	\$5,735,119	\$4,225,995	\$5,583
	Municipal	\$91,105	\$109,148	\$160,275	\$120,176	\$6,009
	Total	\$6,094,304	\$7,227,293	\$10,538,092	\$7,953,230	-
Total	Residential	\$9,141,023	\$9,664,595	\$11,552,294	\$10,119,304	\$1,523
	Commercial & Industrial	\$14,844,080	\$15,682,754	\$21,151,098	\$17,225,977	\$18,479
	Municipal	\$521,565	\$539,912	\$671,067	\$577,515	\$12,189
Total		\$24,506,668	\$25,887,261	\$33,374,459	\$27,922,796	-

Energy Burden

Energy burden is the percentage of income that residents spend on energy. Hopkins residents who own their homes and make 30% or less of the median area income spend up to 16% of their income on energy costs. Notably, energy burden is higher across every income group for homeowners rather than renters.

Table 16. Energy burden by unit occupancy and median income²⁶

Energy Burden		
Percent of Area Median Income	Own	Rent
0–30%	16%	7%
30–60%	5%	3%
60–80%	3%	1%

²⁶ Low-Income Energy Affordability Data (LEAD) Tool, National Renewable Energy Laboratory

80-100%	3%	1%
100% +	1%	1%

Program Participation and Savings

Hopkins 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 premises. Participation in residential programs saved an average of 104,660 kWh and 29,748 therms each year during the baseline period. While fewer commercial premises participate, their participation results in larger savings per premise. In total, participation in commercial programs saved an annual average of 2,215,254 kWh and 40,997 therms over the baseline period.

To avoid double counting jointly offered utility programs, only the participant counts from Xcel Energy reports are included for those programs.

Table 17. Annual Xcel Energy residential sector efficiency program participation and savings, 2020–2022

Residential Sector Program	2020		2021		2022	
	Count	Savings (kWh)	Count	Savings (kWh)	Count	Savings (kWh)
Efficient New Home Construction	2	2,727	0	0	1	1,424
Home Energy Audit	0	-	6	-	19	-
Home Energy Savings Program	4	2,864	6	1,996	4	2,132
Home Energy Squad	14	21,258	10	11,527	19	12,808
Insulation Rebate	0	0	0	0	1	176
Low-Income Home Energy Squad	2	1,367	0	0	1	88
Multi-Family Energy Savings Program	0	0	0	0	27	5,608
Refrigerator Recycling	32	24,113	30	23,462	26	25,778
Residential HVAC	197	92,273	148	53,164	118	26,683
Residential Saver's Switch	128	266	141	149	89	103
Smart Thermostat	2	266	61	2,470	71	1,278
Total	381	145,134	402	92,768	376	76,078

Table 18. Annual Xcel Energy commercial/industrial sector efficiency program participation and savings, 2020–2022

Commercial/Industrial Sector Program	2020		2021		2022	
	Count	Savings (kWh)	Count	Savings (kWh)	Count	Savings (kWh)
Custom Efficiency	1	9,986	0	0	0	0
Efficiency Controls	1	513,976	0	0	0	0
Electric Rate Savings	0	0	6	-59,118	4	477
Energy Design Assistance	1	279,072	0	0	0	0
Fluid System Optimization	3	130,681	0	0	1	10,372
HVAC+R Efficiency	11	181,065	8	207,579	18	242,686
Lighting Efficiency	16	211,332	20	1,271,410	31	2,581,072
Multi-Family Building Efficiency	14	3,578	7	190,107	18	190,226
Peak Partner Rewards	0	-	6	-	4	-
Recommissioning	0	0	1	8,833	0	0
Saver's Switch for Business	3	6	11	53	4	13
Small Business Lighting	17	236,895	23	248,274	15	187,187
Turn Key Services	0	-	1	-	1	-
Total	67	1,566,591	83	1,867,138	96	3,212,033

Table 19. Participation and natural gas savings for select CenterPoint Energy efficiency programs by sector, 2020–2022.

Sector	2020		2021		2022	
	Count	Savings (therms)	Count	Savings (therms)	Count	Savings (therms)
Residential	350	31,459	224	27,825	175	28,665
Income-Qualified	8	935	2	42	7	318
Commercial and Industrial	76	48,553	52	31,388	55	43,049
Total	434	80,947	278	59,256	237	72,032

Renewable Energy Support

There is support for renewable energy in Hopkins with 526 residential premises and 50 commercial and industrial premises subscribing to Xcel Energy renewable programs. These premises receive a total of 1.9 million kWh and 6.2 million kWh of their electricity from renewable sources, respectively. While the commercial and industrial sector has fewer subscribers to renewable programs, these customers subscribe a larger amount. Additionally, 30 residential premises and 12 commercial premises have on-site solar generation.

Table 20. Participation in Xcel Energy renewable energy offerings

	Residential	Commercial & Industrial
Windsor[®] & Renewable*Connect[®]		
Subscriber Count	454	5
Total Annual Electricity Subscribed (kWh)	1,438,066	61,488
Community Solar Gardens - Solar*Rewards[®] Community		
Subscriber Count	72	45
Total Annual Electricity Subscribed (kWh)	525,831	6,163,925
Total Xcel Energy Subscription Renewable Energy Support		
Subscriber Count	526	50
Total Annual Electricity Subscribed (kWh)	1,963,897	6,225,413
Percent of Sector Electricity Use ²⁷	4.1%	4.8%

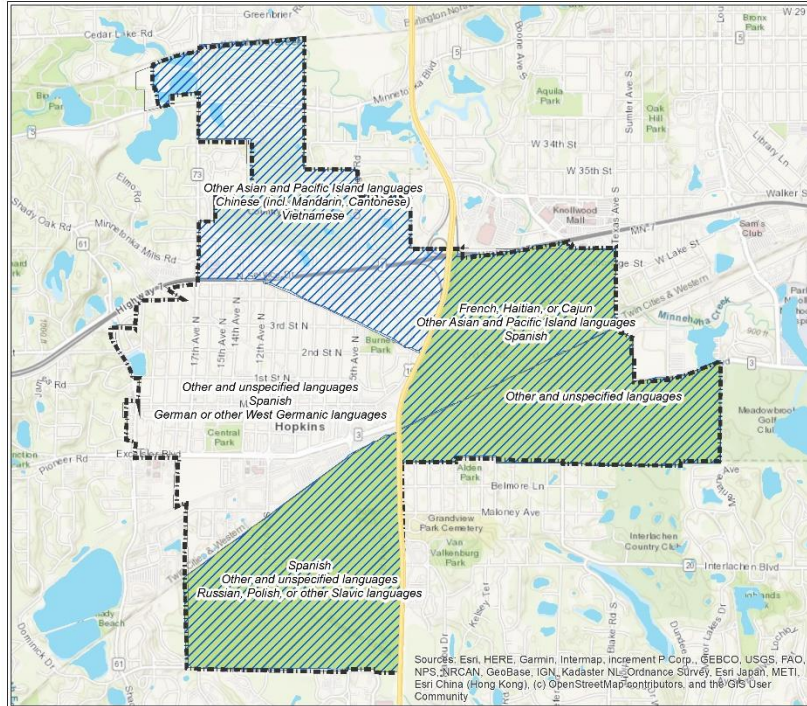
Table 21. Participation in Xcel Energy on-site solar offerings in 2022²⁸

On-site Solar - Solar*Rewards[®] and Net-Metering	Residential	Commercial & Industrial
Participant Count	30	12
Total Electricity Capacity (kW)	229	692

²⁷ The percent reported here is provided to give a sense of the total size of renewable energy subscriptions compared to overall electricity use. Because Xcel Energy owns the renewable energy credits (REC) for community solar garden subscriptions, the City is not able to claim this portion of renewable energy generation.

²⁸ Xcel Energy Community Energy Report for Hopkins, 2022

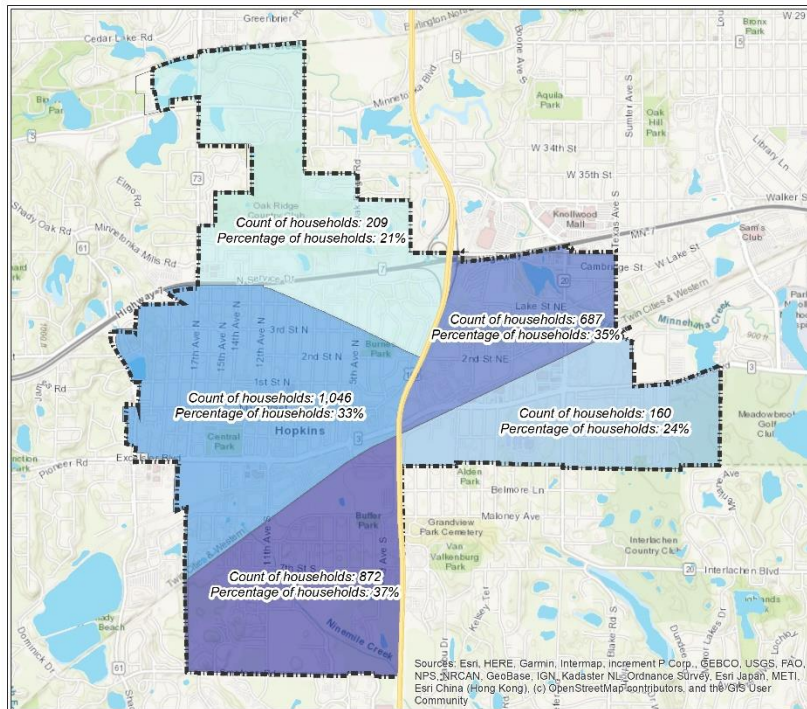
APPENDIX 3: COMMUNITY ENERGY MAPS



Map created by Xcel Energy's Partners in Energy program facilitators.

Data Layer Sources: MN Department of Natural Resources, MN Pollution Control Agency, MN Geospatial Commons, American Community Survey, ESRI, and Xcel Energy

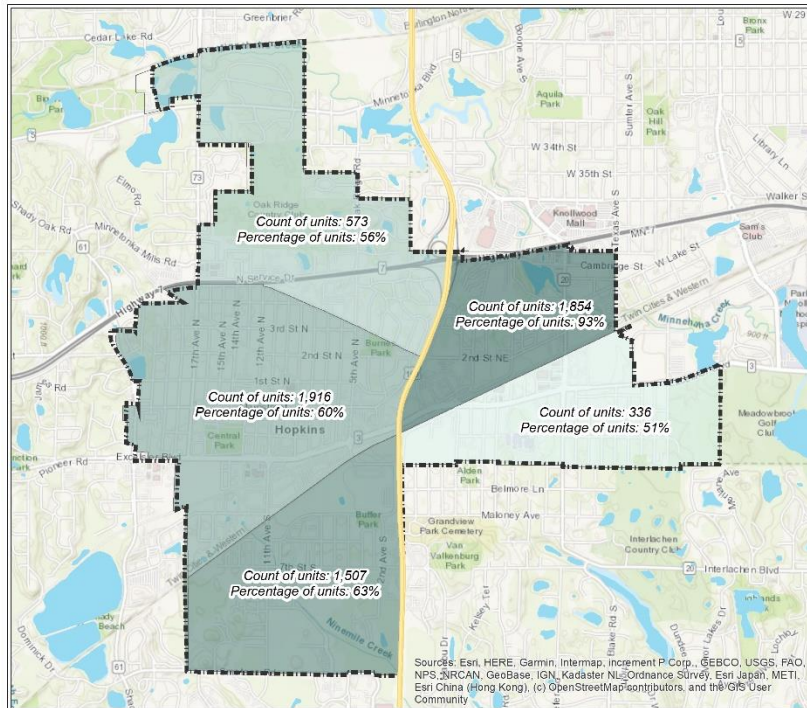
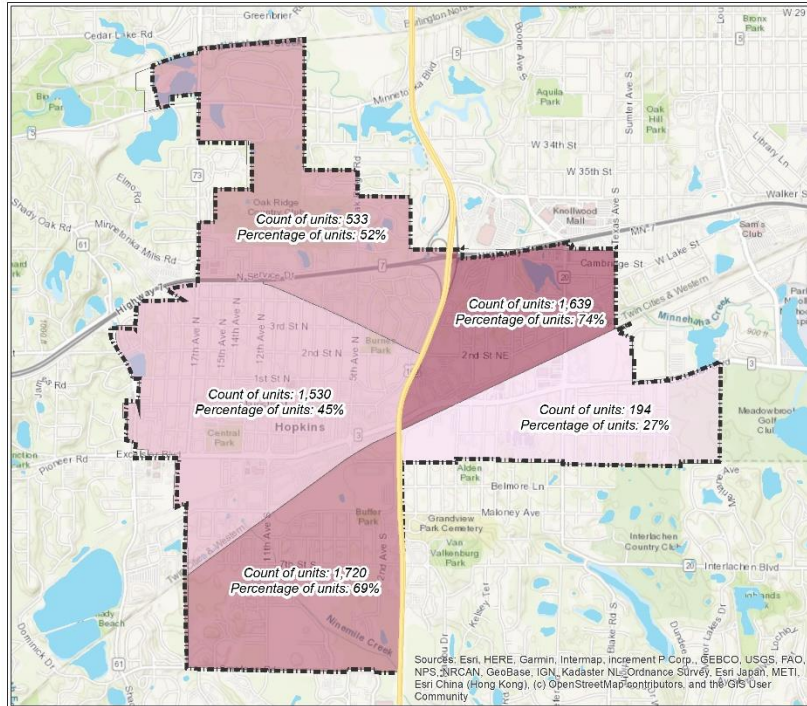
Disclaimer: Data is for planning purposes only and may contain variations of data obtained through other sources. Energy data presented complies with Xcel Energy's data privacy policies.

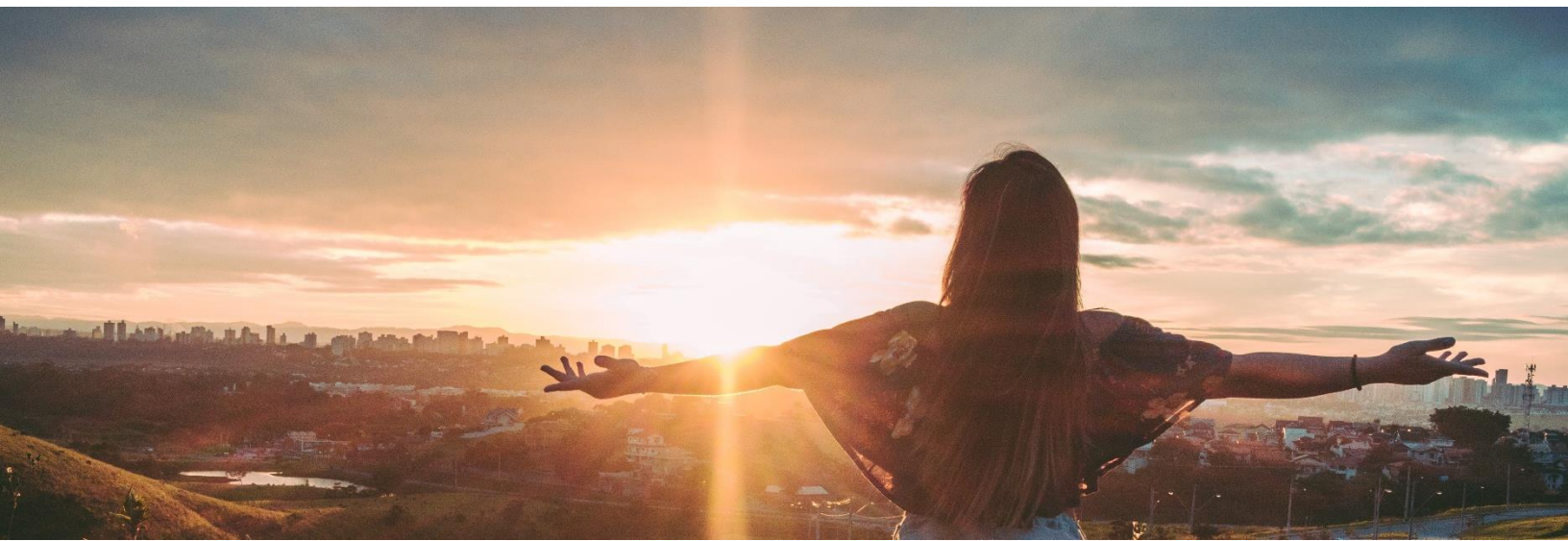


Map created by Xcel Energy's Partners in Energy program facilitators.

Data Layer Sources: MN Department of Natural Resources, MN Pollution Control Agency, MN Geospatial Commons, American Community Survey, ESRI, and Xcel Energy

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





APPENDIX 4: 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 Hopkins. All goals will be measured against Hopkins' three-year baseline of 2020–2022 data unless otherwise noted.

The following section outlines how to measure various aspects of the goals outlined in this Energy Action Plan, including details of which programs and activities may be included and any assumptions used to measure the goals.

Community-Wide Goal

- Hopkins will avoid an additional 40% of energy-related greenhouse gas emissions over baseline by 2028, saving the community \$1.9 million in the process.
- As a stretch goal, the plan aims to avoid an additional 95% of greenhouse gas emissions over baseline by 2028, saving the community \$3.5 million in the process.

Assumptions

This goal assumes that Xcel Energy's and CenterPoint Energy's demand side management program participation will continue business as usual (BAU) for the duration of the goal period.

This goal assumes a BAU savings scenario based on the three-year baseline. The community-wide goal will be measured comparing cumulative greenhouse gas emissions, estimated dollars saved and MMBtu equivalencies for electricity and natural gas savings for all sectors between early 2024 and 2028 against the estimated BAU value for the same time period. This goal includes current and future Xcel Energy and CenterPoint Energy efficiency programs and measures the first-year savings data provided by the utilities.

The community-wide goal assumes an annual participation increase in Xcel Energy's energy efficiency programs due to the impact of the Energy Action Plan and additional resources from Xcel Energy, the City of Hopkins and the community. An increase in program participation may

lead to increased annual energy savings, through which Hopkins community members can avoid energy costs and greenhouse gas emissions.

How to Measure

Energy Savings

The community-wide goal will be measured by comparing cumulative electricity and natural gas savings over 2024–2028 for all sectors against projected BAU savings during the same period. This goal includes all Xcel Energy and select CenterPoint Energy demand side management programs available to every sector and measures the first-year savings data provided by the utilities. Table 22 outlines the assumptions for energy savings in Hopkins.

Table 22. Hopkins target energy savings through 2028

Energy Efficiency Savings	2028 BAU Scenario	2028 Goal Scenario	2028 Stretch Goal Scenario
Xcel Energy DSM program participation, all sectors	2,342	2,963	5,213
CenterPoint Energy DSM program participation, all sectors	1,582	2,373	4,745
kWh savings	11,599,570	16,582,058	28,088,231
Therm savings	353,725	530,588	707,451
MMBtu savings	74,950	109,637	127,004

To avoid double counting jointly offered utility programs, only the participant counts from Xcel Energy reports will be included for those programs.

Avoided Energy Costs

Avoided energy costs are estimated using per kWh (electricity) and per therm (natural gas) rates, specific to fuel type and sector. These rates are applied to energy savings realized through energy efficiency program participation.

Table 23. Xcel Energy and CenterPoint Energy utility rates, 2021

Energy Cost	Rate per kWh	Rate per therm
Residential premise rate	\$0.113	\$.091
Commercial/Industrial premise rate	\$0.087	\$.06119

Using these residential and commercial and industrial energy rates, total cost avoidance is calculated from projected energy savings in Hopkins. These estimates include savings from both Xcel Energy and CenterPoint Energy programs.

Table 24. Hopkins energy savings targets through 2028

Energy Cost Avoidance by Utility	2028 BAU Scenario	2028 Goal Scenario	2028 Stretch Goal Scenario	
Xcel Energy	Residential	\$59,133	\$81,209	\$174,877
	Commercial/Industrial	\$963,635	\$1,380,116	\$2,530,997
CenterPoint Energy	Residential	\$135,355	\$203,033	\$433,138
	Commercial/Industrial	\$125,434	\$188,150	\$401,388
Total	All sectors	\$1,283,557	\$1,852,508	\$3,540,399

Greenhouse Gas Emissions Avoided

Projected greenhouse gas emissions avoided include cumulative emissions avoided from participation in Xcel Energy and CenterPoint Energy programs, as well as cumulative emissions avoided with renewable energy programs where the customers retain the Renewable Energy Credits. To estimate avoided greenhouse gas emissions, projected emissions factors were applied to the electricity and natural gas first-year savings estimates, as well as renewable electricity generated, for both the BAU and goal scenarios.

Table 25. Hopkins target greenhouse gas emissions avoided through 2028

Estimated Emissions Avoided by Program (MTCO ₂ e)	2028 BAU Scenario	2028 Goal Scenario	2028 Stretch Goal Scenario
DSM programs	3,878	5,718	10,634
Renewable energy	1,318	1,486	1,577
Total MTCO ₂ e avoided	5,196	7,204	12,211

Preliminary and certified emissions factors were obtained for Xcel Energy’s Upper Midwest Fuel Mix for electricity, while greenhouse gas emissions per therm were determined using an equivalency from the Environmental Protection Agency,²⁹ representing natural gas burned as fuel.

Focus Area Goals

Energy Efficiency

2028 Targets

This goal will be measured by comparing actual program participation against the BAU scenario. Progress will be measured from April 2024 through December 2028. Total

²⁹ Greenhouse Gases Equivalencies Calculator - Calculations and References. <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>

participation targets are based on current Xcel Energy and CenterPoint Energy programs. For programs jointly offered by the utilities, participation counts will be included from Xcel Energy to avoid double counting. If new programs are offered by Xcel Energy and CenterPoint Energy, these programs will be included in this calculation at the discretion of the Hopkins team and Partners in Energy facilitators.

Sector targets for program participation in Xcel Energy program offerings are included in the Table 26.

Table 26. Xcel Energy program participation targets through 2028

Xcel Energy Efficiency Program Participation	2028 BAU Scenario	2028 Goal Scenario	2028 Stretch Goal Scenario
Residential participants	1,932	2,408	4,248
Commercial and industrial participants	410	555	964

Sector targets for program participation in CenterPoint Energy offerings are included in Table 27.

Table 27. CenterPoint Energy program participation targets through 2028

CenterPoint Energy Efficiency Program Participation	2028 BAU Scenario	2028 Goal Scenario	2028 Stretch Goal Scenario
Residential participants	1,277	1,915	3,830
Commercial and industrial participants	305	458	915

Sustainable Development

To measure success in the Sustainable Development focus area, the City of Hopkins aims to inform five developers of sustainable development program opportunities, reach 200 Hopkins residents and/or businesses with campaigns for home retrofits, and pass a sustainable building policy well before 2028.

Renewable Energy

2028 Targets

As of their 2022 baseline, Hopkins had 454 residential and 5 commercial and industrial subscribers to Xcel Energy's renewable energy subscription program.

This focus area aims to engage a total of 554 residents and 10 businesses in Xcel Energy's renewable energy subscription program offerings by 2028. In the 2028 goal scenario, the 10 business subscribers would subscribe at least 50% of their electricity needs to the renewable energy subscription program. In the 2028 stretch goal scenario, the aim is to have a total of 604 residential subscribers and 10 business subscribers who subscribe 100% of their annual electricity consumption to the program.

Table 28. Xcel Energy renewable energy program participation targets through 2028

Renewable Energy Subscribers	2028 BAU Scenario	2028 Goal Scenario	2028 Stretch Goal Scenario
Residential	454	554	604
Commercial and industrial	5	10 (at 50% of kWh subscribed)	10 (at 100% of kWh subscribed)
Total	459	564	614

The program included in this goal currently includes Renewable*Connect Flex, where the subscriber retains the Renewable Energy Credit (REC).

Electric Vehicle Infrastructure

This focus area will be considered a success if the City of Hopkins can host two EV test drive events, connect with ten multi-family building owners/managers and adopt a city-wide plan for EV infrastructure before 2028.



APPENDIX 5: 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.



Partners in Energy Process for Success



Resources from Xcel Energy for Implementation

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. Along with community members and City staff, the workshops were attended by Xcel Energy and CenterPoint energy representatives. The workshops took place from May 2023 through October 2023.

Figure 13: Hopkins Energy Action Team members with Xcel Energy and CenterPoint Energy representatives and a Partners in Energy facilitator



Workshop 1

May 18, 2023

The Energy Action Team learned about Partners in Energy and got acquainted with other team members. Energy data from Xcel Energy and CenterPoint Energy were shared to help the team understand Hopkins' baseline energy use. After brainstorming what the future of energy action could look like in Hopkins, the team considered a vision for the Energy Action Plan.

Figure 14: Team members gather to connect and learn about Hopkins' energy use



Workshop 2:

June 29, 2023

The Energy Action Team received answers to their follow-up questions from the data presented in Workshop 1 and discussed focus areas they would like to pursue in Hopkins. They learned about utility programs for residents and businesses and how historic participation in these programs could help model their goals. They learned about the different elements of goal setting and continued to discuss the vision and focus areas.

Figure 15: Team members brainstorm focus areas as a Partners in Energy facilitator guides the discussion



Figure 16: A team member votes on how best to express Hopkins' energy goals



Workshop 3

August 10, 2023

The Energy Action Team finalized the elements of the goal, noting the metrics, timeline, ambition and approach, and had a final discussion of the vision statement. They defined the language and priorities of the focus areas. Team members then had a wide-ranging brainstorm about the strategies they would like to see in the plan.

Figure 17: Strategy brainstorm for one focus area



Workshop 4

September 21, 2023

The Energy Action Team reviewed data models of different goal scenarios and decided to include both a standard and stretch goal in the plan. Team members completed a guided activity to identify community assets and communication resources that could support energy initiatives in Hopkins, then considered the barriers and benefits for specific strategies to help finalize the action steps included in the plan.

Figure 18: Team members review potential strategies in small groups

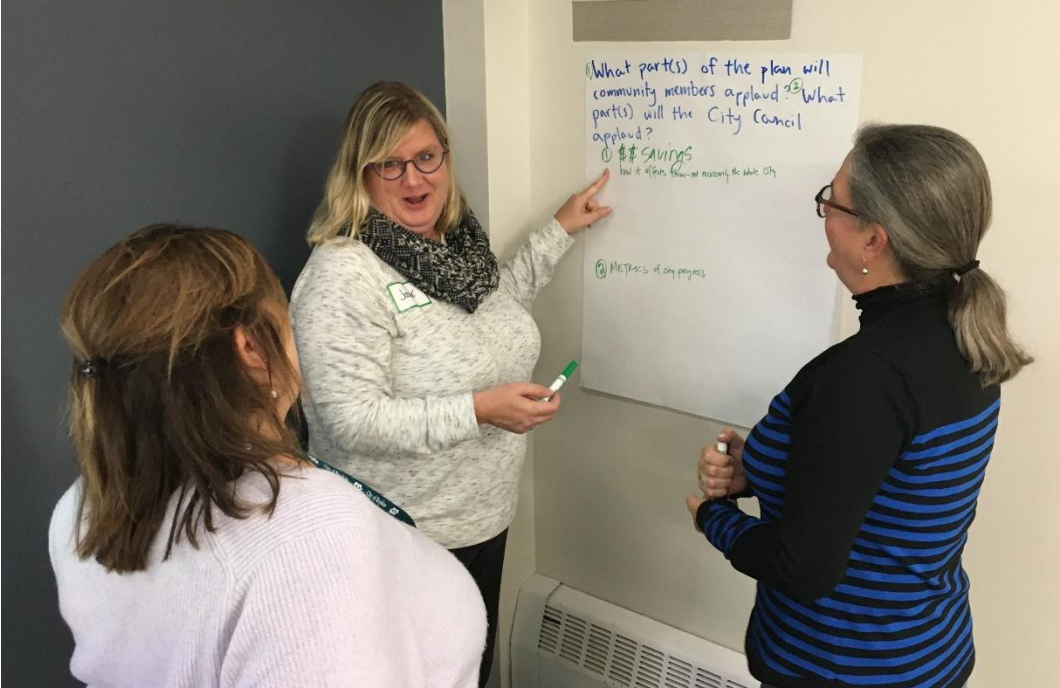


Workshop 5

October 26, 2023

The goal language and metrics were presented and finalized. The Energy Action Team reviewed the draft strategies for each focus area, adjusting and giving feedback to finalize them. They reviewed the components of the Energy Action Plan that they had created and completed small-group activity to celebrate their successes in the planning process and brainstorm how best to launch the plan in the community.

Figure 19: Team members consider how the community will receive the plan



APPENDIX 6: IMPLEMENTATION MEMORANDUM OF UNDERSTANDING