



# AN ENERGY ACTION PLAN FOR INVER GROVE HEIGHTS

March 2021



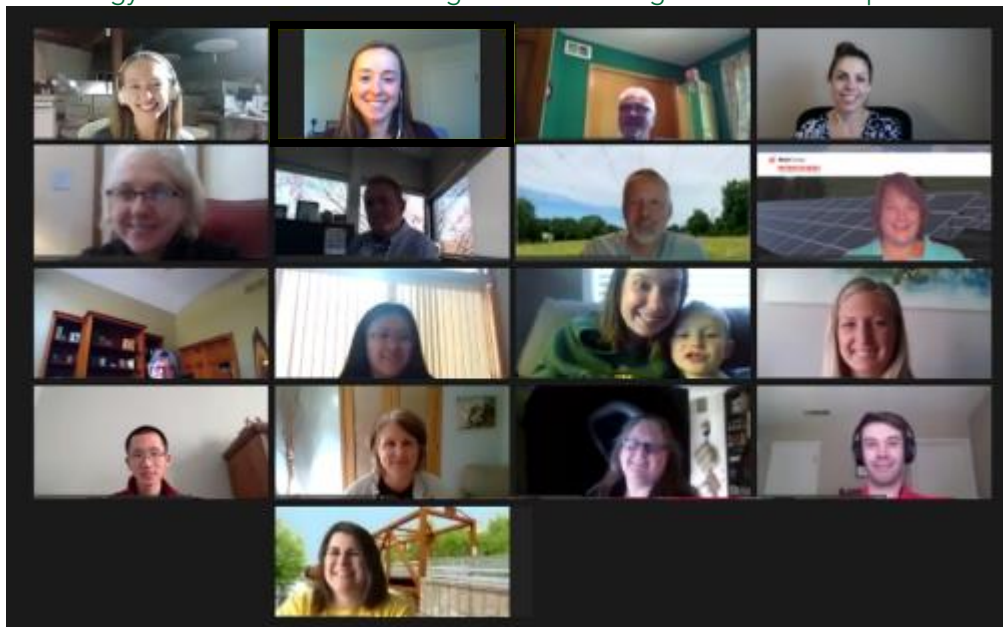
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## ACKNOWLEDGEMENTS

The content of this plan was derived from a series of planning workshops hosted the City of Inver Grove Heights and facilitated by Xcel Energy's Partners in Energy. 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 3*.

Figure 1: The Energy Action Team met over digital conferencing for five workshops to create our plan.



## The Energy Action Team

Thank you to the following community members who contributed many hours of service to developing our Energy Action Plan.

| <b>Team Members and Affiliations</b>  |  |
|---|--|
| <b><i>Municipal Staff, City of Inver Grove Heights</i></b>                      |  |
| Heather Rand  | Director of Community Development and Director of the Economic Development Authority |
| Ally Sutherland   | Environmental Specialist   |
| <b><i>Elected and Appointed City Officials, City of Inver Grove Heights</i></b> |  |
| Sue Gliva   | City Council Member  |
| Annette Maggi   | Planning Commission Chair  |
| Kara Perry  | Former City Council Member   |
| Katherine Teiken  | Environmental Commission Member  |
| Mary T'Kach   | Housing Committee Member   |
| Ted Trenzeluk   | Environmental Commission Chair   |
| <b><i>Business and Nonprofit Community Representatives</i></b>                  |  |
| Charlie Thompson  | Neighbors Inc. CEO and President and Resident  |
| Ben Van Straten   | CHS Inc.   |
| <b><i>School Representatives</i></b>  |  |
| Heather Aune  | ISD 199 Director of Business Services  |
| Quennel Cooper  | ISD 199 Pine Bend Elementary Principal   |
| Randi Goettl  | Inver Hills Community College  |
| Shannon Williams  | Inver Hills Community College  |
| <b><i>Resident Representatives</i></b>  |  |
| Jake Berg   | Resident   |
| Tenzin Dolkar   | Resident   |
| Dawn Gaetke   | Resident   |
| <b><i>Utility Representatives</i></b>   |  |
| Tami Gunderzik  | Program Manager, Xcel Energy's Partners in Energy                                    |
| Ashley Haung  | Marketing Assistant, Xcel Energy's Partners in Energy                                |
| Patrick Mathwig   | Energy Services Representative, Dakota Electric                                      |
| Yvonne Pfeifer  | Community Energy Efficiency Manager, Xcel Energy                                     |
| Jake Sedlacek   | Community Relations Manager, Xcel Energy and Resident                                |
| <b><i>Partners in Energy Facilitators</i></b>                                   |  |
| Marisa Bayer  | Partners in Energy Community Facilitator   |
| Jamie Johnson   | Partners in Energy Community Facilitator   |



This Energy Action Plan was funded by and developed in collaboration with Xcel Energy's Partners in Energy.

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# INVER GROVE HEIGHTS ENERGY ACTION PLAN

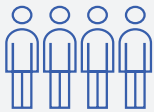
Our Energy Action Plan, approved by the City Council in March 2021, seeks to address and engage our diverse community on energy issues. We will improve economic vitality and sustainability for all who call Inver Grove Heights home.

## Our Vision

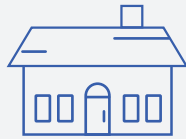
Inver Grove Heights will be an innovative and engaged community where energy choices conserve both our natural and financial resources.

## Our Goals and Impacts

Between 2021 and 2022, we will...



Engage **2,000** residents and **250** businesses, schools, nonprofits, and places of worship.

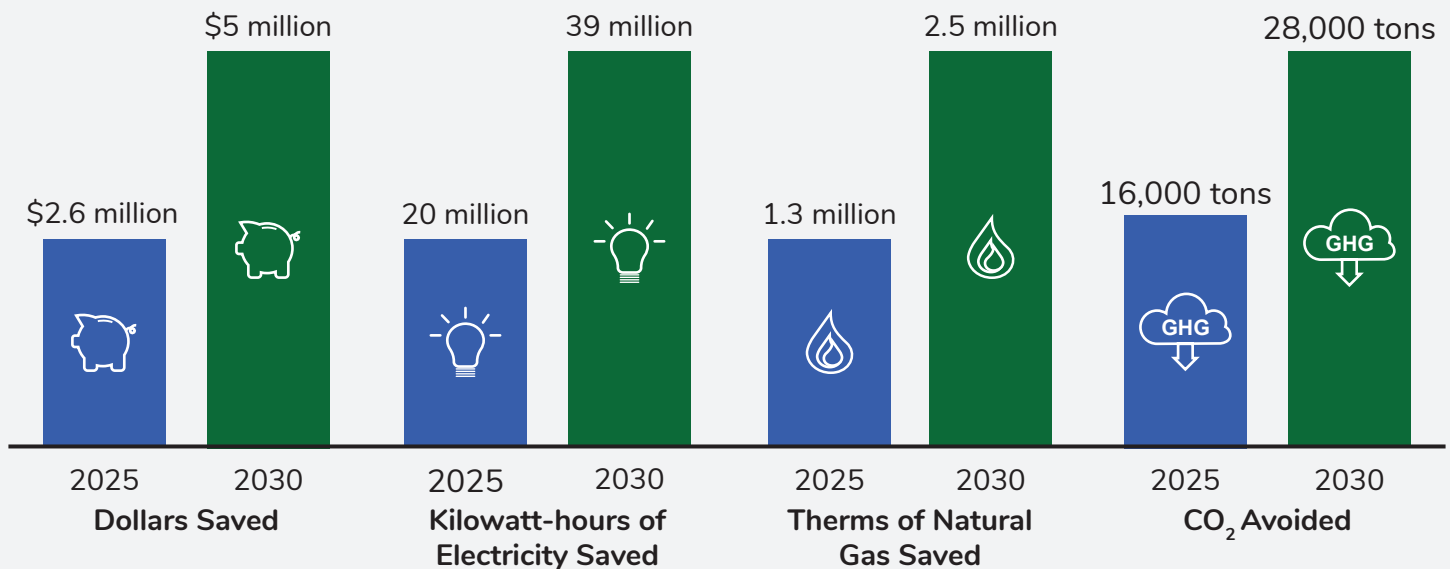


Support **80** under-resourced households with energy costs.



Increase renewable energy support by **250** residents and **12** businesses. Add **10** residential on-site solar installations.

## Estimated Savings and Changes in the Inver Grove Heights Community



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 Inver Grove Heights Energy Action Team who contributed many hours of service to creating our vision, goals, and strategies for this plan.





## How We Are Going to Get There

We've identified three focus areas and 14 strategies to focus our resources and targets to achieve our goals:

### Residential Community Engagement

- Education & outreach to increase energy efficiency among resident.
- Decrease energy burden for underserved households
- Saving energy for multi-family properties
- Education & outreach to increase renewable energy support and adoption among residents
- Longer term: Support efficient transportation options for residents

### Businesses, Schools, Nonprofits, and Places of Worship

- Education & outreach to increase energy efficiency among:
  - Small businesses
  - Industry and large businesses
  - Local schools, nonprofits, and places of worship
- Education & outreach to increase renewable energy support and adoption among businesses
- Longer term: Support efficient transportation options for businesses, schools, nonprofits, and places of worship

### Municipal Leadership

- Demonstrate leadership in sustainability
- Increase energy efficiency in municipal operations
- Explore renewable energy for municipal operations and buildings
- Examine & implement efficient transportation and fleet electrification options



## Get Involved

Visit [ighmn.gov/Energy](https://ighmn.gov/Energy) to read more about our Energy Action Plan and find ways you can support our work.

Please contact Environmental Specialist Ally Sutherland to learn how you can help Inver Grove Heights achieve our energy vision at [asutherland@ighmn.gov](mailto:asutherland@ighmn.gov).







# INTRODUCTION

Inver Grove Heights is a second-ring suburban community, nestled along the banks of the Mississippi River, mixed with developing suburban and rural land. The community is known for its quiet, small-town feel, while being seated only 10 short minutes from downtown Saint Paul and closely connected to neighboring suburban communities. The city is home to residents, commercial and industrial businesses, nonprofits, and K-12 and higher education institutions.

Our energy action plan seeks to address and engage this diverse community on energy issues with the mission to enhance economic vitality and conservation of natural resources in Inver Grove Heights.

## Why the City is Bringing an Energy Action Plan to Our Community

The City of Inver Grove Heights applied to Xcel Energy's Partners in Energy to further the work we have been doing on environmental and sustainability programming, and to connect everyone in the community with the same environmental and financial benefits. The City entered this planning process to develop a community-driven Energy Action Plan that we and our partners may fully embrace.

As the city continues to grow, ensuring development meets the needs of the present and future is a top priority. This includes ensuring access to resources, such as energy, that are reliable and affordable for all community members. Through

### Who are we talking about?

**We, Our, and the City** refer to the City of Inver Grove Heights.

**Community** refers to the broader Inver Grove Heights community.

**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 Inver Grove Heights.

developing and implementing this plan, the City will have the resources available to educate community members on how to reduce their energy costs through practicing energy conservation, use renewable energy, and align with the City's environmental commitments.

The work of this Energy Action Plan builds off past work by the City, including its work in Minnesota's GreenStep Cities program and the energy efficiency work the City is pursuing in its own facilities.

Figure 2: Volunteers help beautify one of Inver Grove Heights' many parks and green spaces.



Our plan is primarily concerned with grid energy use, including electricity and natural gas. It also begins to address the growing area of electric vehicles and works to support related initiatives, including transportation initiatives, in our 2040 Comprehensive Plan.<sup>1</sup>

### **Economic Benefits to Our Community**

The economic benefits of energy efficiency are well-documented and wide-ranging. Perhaps the most direct economic benefit is lowered energy costs from reduced energy use. Typically, when a home or business reduces energy it lowers monthly energy bills, enabling more funds to put back into the local economy. Energy efficiency also stimulates the local economy by supporting local jobs, like construction workers and heating, cooling, and ventilation technicians.<sup>2</sup> In implementing our plan, we will be bringing these economic benefits to our community.

### **Health Benefits to Our Community**

Energy efficiency, renewable energy, and sustainable transportation each drive local health benefits for those who live, work, and visit Inver Grove Heights. Using less energy means burning fewer fossil fuels and reducing air pollution that can be damaging to human health.<sup>3</sup>

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<sup>1</sup> For more information about Inver Grove Heights' 2040 Comprehensive Plan, visit the City's [website](#).

<sup>2</sup> Environmental Protection Agency, Quantifying the Multiple Benefits of Energy Efficiency and Renewable Energy: A Guide for State and Local Governments, 2018 Edition, [https://www.epa.gov/sites/production/files/2018-07/documents/epa\\_slb\\_multiple\\_benefits\\_508.pdf](https://www.epa.gov/sites/production/files/2018-07/documents/epa_slb_multiple_benefits_508.pdf).

<sup>3</sup> *Ibid.*

Our plan will also seek to improve our community's residential and commercial building stock by supporting energy efficiency. In addition to making a building more comfortable and durable, efficiency can also contribute to health and safety benefits in several ways. Increased ventilation can improve indoor air quality by reducing problems with moisture, pollutants, or pathogens. Improving water and space heating systems can reduce the risk of interior hazardous gas leaks. Air sealing and insulation can reduce drafts and ice dams – helping to keep buildings cool in the summer and warm in the winter.

By pursuing efficiency alongside clean and sustainable energy, the actions of this plan will contribute to the physical health and well-being of all who call Inver Grove Heights home.

### **Our Engagement Process**

This Energy Action Plan was created over a seven-month process that helped our community characterize its energy use, identify energy-related goals, and develop engagement strategies to guide us toward our energy future. The following content was created through a series of planning workshops that started in June 2020 and were held digitally over video conferencing with a planning team committed to representing local priorities in collaboration with City of Inver Grove Heights and Xcel Energy's Partners in Energy.

Over five workshops, we engaged 22 community members, including representatives from various City commissions and committees, City Council, local educational institutions, businesses, service organizations, utility representatives, and many residents. See the *Acknowledgements* section for a list of participating Energy Action Team members. See *Appendix 3* for more information about the planning process and Xcel Energy's Partners in Energy.

### **Energy Utilities in Our Community**

Our Energy Action Plan seeks to address how the community uses energy. The City of Inver Grove Heights is served by two utility energy providers: Xcel Energy and Dakota Electric Association (Dakota Electric).<sup>4</sup> This plan includes baseline data for each utility. The action and work of this plan seeks to engage residents served by each of these utilities by connecting community members with their service providers, primarily through outreach and education.

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<sup>4</sup> See [xcelenergy.com](https://www.xcelenergy.com) for more information about Xcel Energy and its programs and services, many of which are addressed in this plan. See [dakotaelectric.com](https://www.dakotaelectric.com) for more information about Dakota Electric Association and its programs and services.



## BASELINE ENERGY DATA, 2017-2019

An integral part of the Partners in Energy planning process is reviewing historic energy data that informs our community's energy baseline. Xcel Energy and Dakota Electric provided data on energy use, participation counts, utility energy conservation program savings, and renewable energy support for Inver Grove Heights from 2017-2019, as detailed in the following section. In addition, we analyzed the American Community Survey and other community data to better understand residents' transportation choices, income, and housing stock. See *Appendix 1* for a more in-depth picture of Inver Grove Heights' energy baseline data.

### Some common energy units & terms

**Kilowatt-hour (kWh)** is a unit of electricity consumption.

**Therm** is a unit of natural gas consumption.

**Premise** is a unique combination of utility service address and meter.

**MTCO<sub>2e</sub>**, or metric tons of carbon dioxide equivalent, is unit of measure for greenhouse gas emissions.

See *Appendix 4: Glossary of Terms* for a glossary of common energy terms used in this plan.

The data we examined for this baseline was broken down into three main sectors:

- **Residential** includes the residents of the Inver Grove Heights community.
- **Commercial and industrial** includes businesses, schools, nonprofits, places of worship, and some multi-family properties.<sup>5</sup>
- **Municipal** refers to buildings and premises owned or operated by the City of Inver Grove Heights.

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<sup>5</sup> Due to 15 x 15 data privacy concerns, one commercial and industrial premise was removed from the data included in the baseline analysis of our plan. See *Appendix 4: Glossary of Terms* for further explanation of 15 x 15.

## Energy Utilities Serving Our Community

Xcel Energy provides electricity and natural gas to most of Inver Grove Heights. Dakota Electric provides electric service to the remaining 10%, serving southwest areas of the community. The data below includes electric data for both Xcel Energy and Dakota Electric unless otherwise noted. See Figure 3 for a breakdown of premises by utility. *Figure* shows a map of electric utility service area. Xcel Energy is the sole utility provider for natural gas in Inver Grove Heights.

Figure 3: Inver Grove Heights Premises by Utility and by Sector, 2019

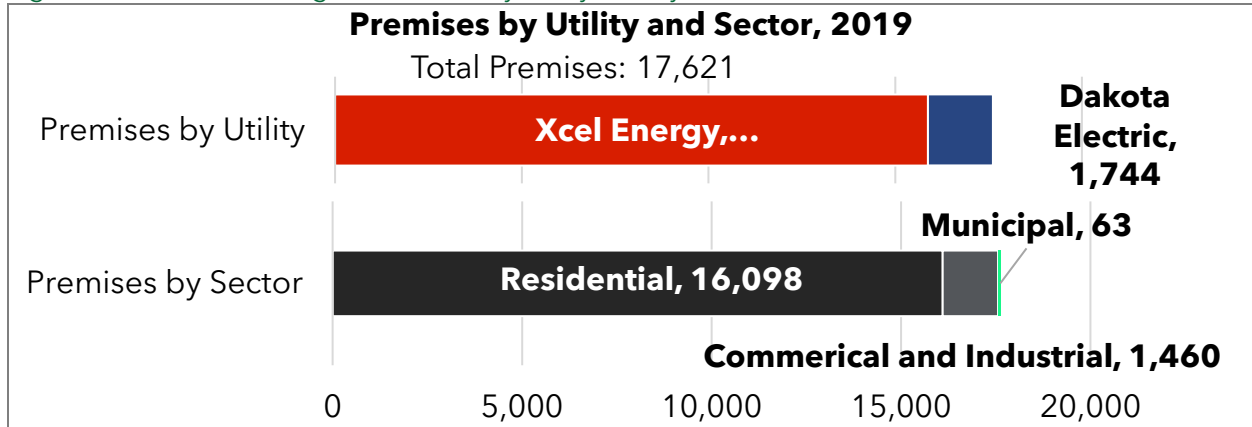
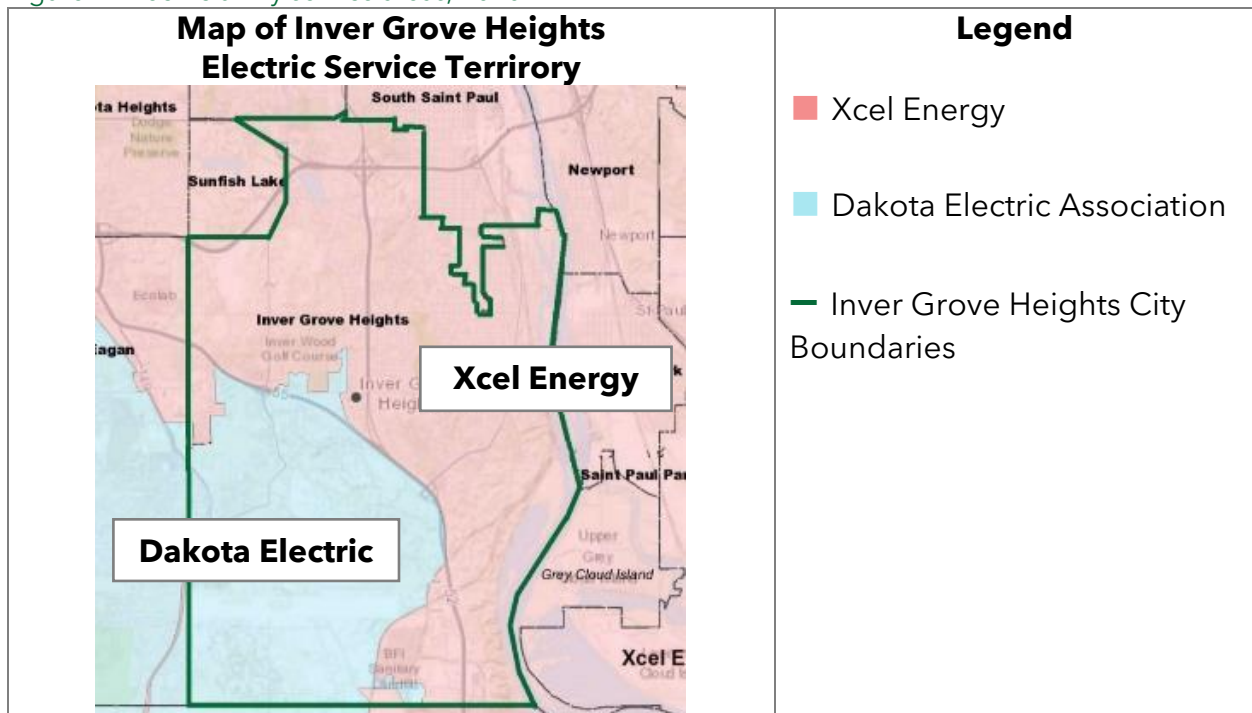


Figure 4: Electric utility service areas, 2020<sup>6</sup>

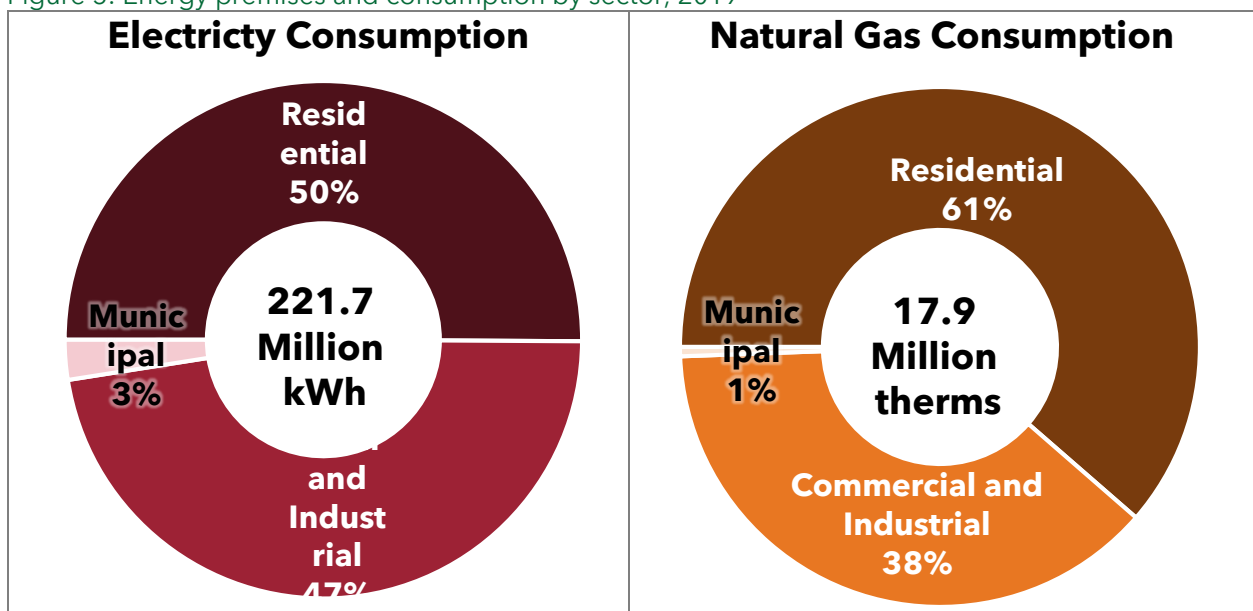


<sup>6</sup> Source: Minnesota Public Utilities Commission, Electric Service Area Maps. Accessed December 30, 2020. <https://mn.gov/puc/utilities/maps/>.

## Grid Energy Use

Overall, residents use slightly more energy than the commercial and industrial sector in the community. Residents consumed 50% of electricity and 61% of natural gas over the baseline period. While electricity has a variety of end uses, in Minnesota, natural gas is primarily used for space heating. Municipal facilities consumed about 2% of energy in the community, and the commercial and industrial sector consumed 48% of electricity and 39% of natural gas over the baseline period. While the commercial and industrial sector consumed less energy in the community than residents, on average, each commercial and industrial property consumed a far greater portion of energy. The commercial and industrial sector makes up about 8% of premises in the community but is responsible for nearly half of all energy consumed.

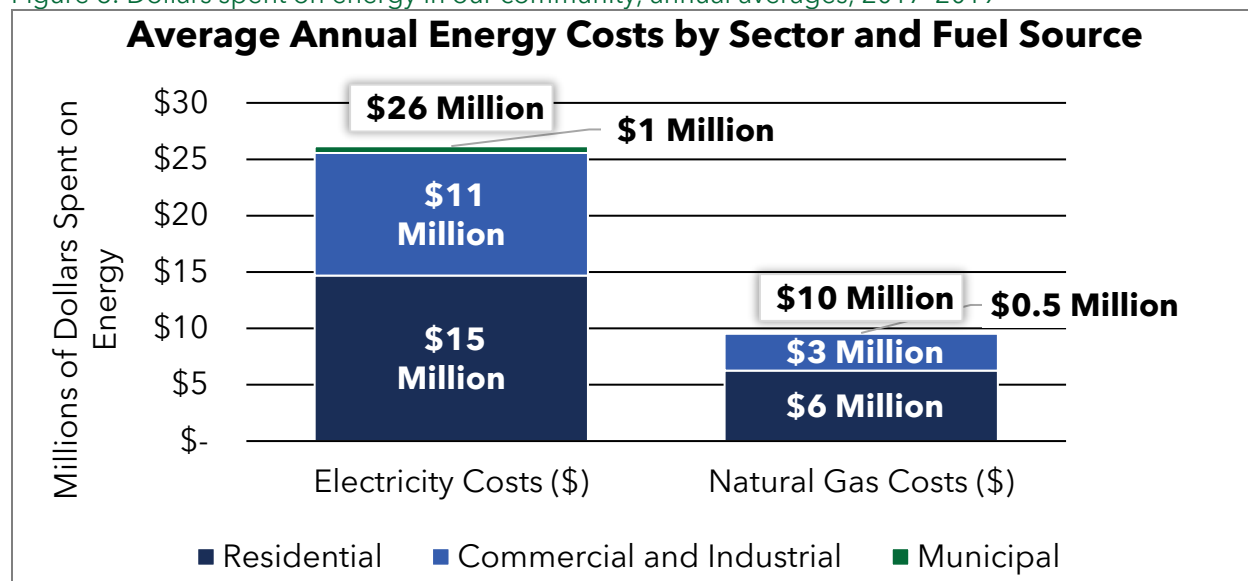
Figure 5: Energy premises and consumption by sector, 2019



## Energy Costs

Across the baseline period, the Inver Grove Heights community spent an estimated \$35.5 million dollars annually on energy costs across both electricity and natural gas. About 75% of all energy costs are for electricity, with the residential sector spending an average of \$15 million a year on electric costs.

Figure 6: Dollars spent on energy in our community, annual averages, 2017-2019



The average residential premise spends about \$1,300 on energy each year – or a little over \$100 per month. While costs fluctuate greatly for commercial and industrial premises based on size and industry, these premises on average spent nearly eight times what residents did on energy, just under \$10,000 each year over the baseline period.

Table 1: Average annual energy costs per premise by sector, 2017-2019

| Customer Type             | Electricity Costs | Natural Gas Costs | Total Costs | Average Monthly Costs |
|---------------------------|-------------------|-------------------|-------------|-----------------------|
| Residential               | \$ 917            | \$ 391            | \$ 1,308    | \$ 109                |
| Commercial and Industrial | \$ 7,523          | \$ 2,264          | \$ 9,787    | \$ 816                |
| Municipal                 | \$ 9,746          | \$ 806            | \$ 10,551   | \$ 879                |

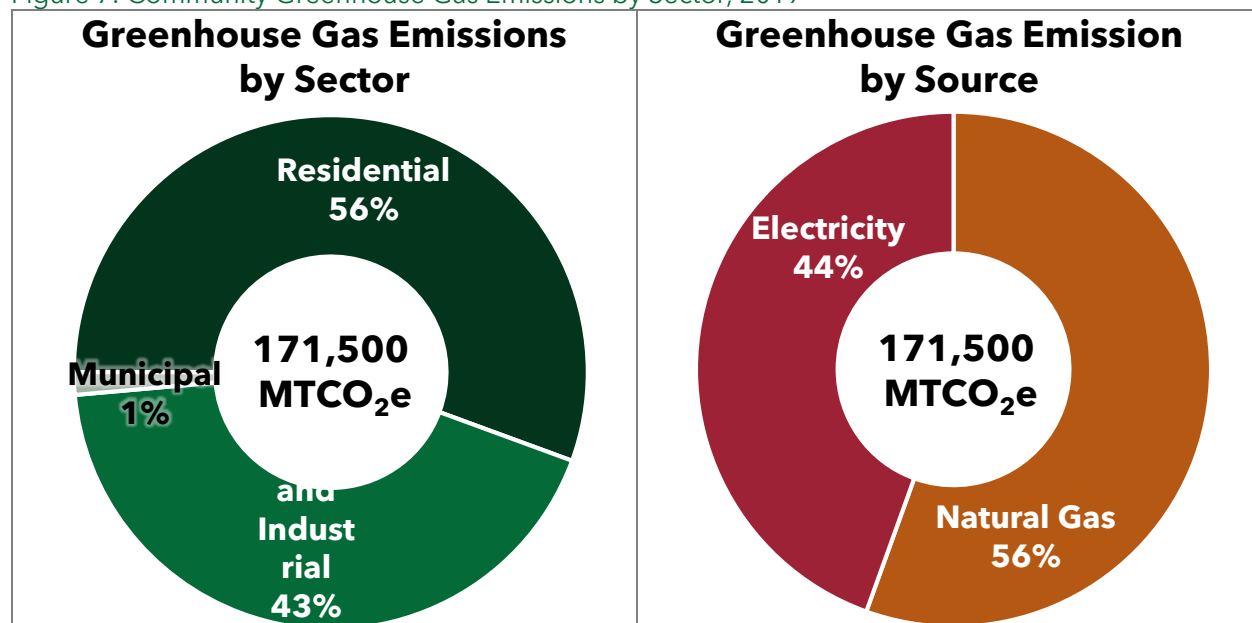
While the average municipal building spends more on energy than the average commercial and industrial building, as a whole, the City is responsible for less than 5% of overall energy costs within the community.

### Greenhouse Gas Emissions

Over the three-year baseline period, the community was responsible for an average of 171,000 MTCO<sub>2e</sub> of emissions annually, which is equivalent to 19.2 million gallons of gasoline consumed.<sup>7</sup> Residents were responsible for a little more than half – about 56% – of community emissions. Breaking down those emissions by source, just over half were from natural gas.

<sup>7</sup> Source: U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

Figure 7: Community Greenhouse Gas Emissions by Sector, 2019



### Renewable Energy

There are many ways that the Inver Grove Heights community supports renewable energy. This includes renewable energy subscriptions, community solar gardens, and on-site solar.

**Renewable energy subscriptions:** The most popular renewable energy programs in Inver Grove Heights are subscriptions. Renewable energy subscriptions are structured so that a customer can subscribe part or all their home’s electricity to renewable energy produced by their utility provider.

**Community solar:** Community solar allows for community members to support the development of solar energy produced and sold off-site by an independent developer.

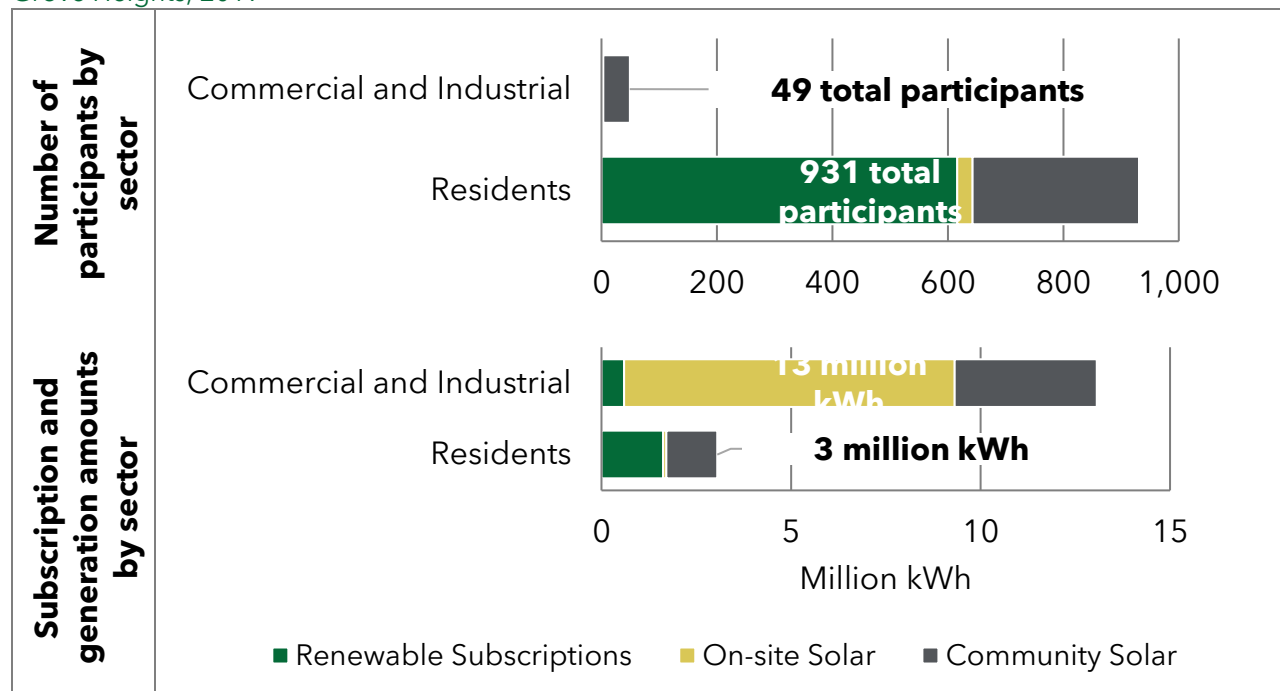
**On-site solar:** Homeowners or business owners may install solar panels on their houses or facilities to power their building.

Both Xcel Energy and Dakota Electric Association offer programs to support resident and businesses to subscribe to, host, or otherwise support renewable energy. Overall, far more residents than businesses and nonprofits support renewable energy in some way – almost 1,000 residents compared to just under 50 businesses. However, businesses and nonprofits are responsible for supporting more renewable energy development and production – about 13 million kWh in 2019 compared to just 3 million kWh for residents. For businesses, most of this production was from on-site solar installations and tracked through participation in Xcel Energy’s Solar\*Rewards®. On the residential side, renewable energy subscription programs



were the most popular. See *Figure 8* below for a breakdown of renewable energy and solar development support in the community.

Figure 8: Participation in and electricity generation for renewable energy and solar programs in Inver Grove Heights, 2019<sup>8</sup>



### Energy Conservation Program Participation and Savings

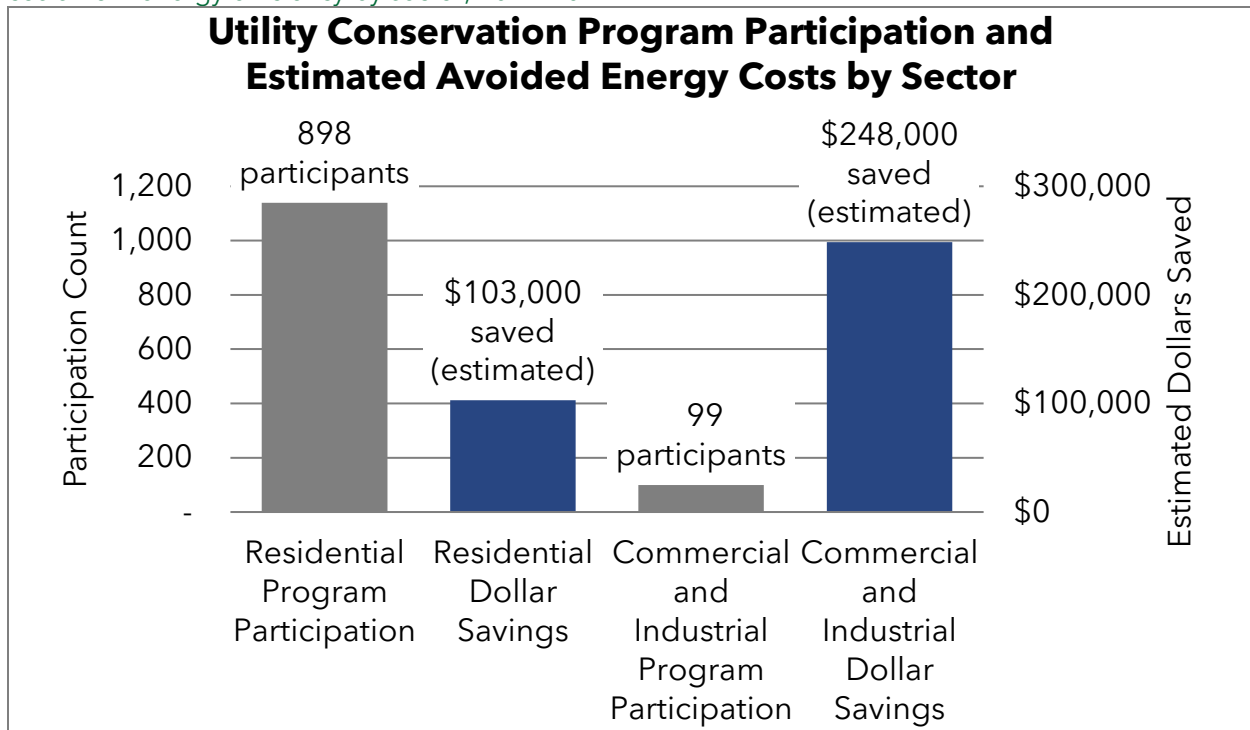
In Minnesota, utilities offer a variety of Conservation Improvement Programs designed to help customers reduce energy use and expenditures. Over the three-year baseline, more than 3,400 residents and 300 businesses participated in these programs from Xcel Energy and Dakota Electric – about 1,100 residents and 100 businesses participated each year. In an average year over the baseline period, the community saved 2.8 million kWh of electricity and 141,000 therms of natural gas. This equates to around \$422,000 in avoided energy costs annually. Through energy conservation, the community also avoided more than 5,300 MTCO<sub>2</sub>e, the equivalent of carbon sequestered by 6,900 acres of forest in one year.<sup>9</sup>

For a breakdown of specific programs and savings for the community, see *Appendix 1*.

<sup>8</sup> Note: “commercial and industrial” in this figure also includes any City of Inver Grove Heights (“municipal”) renewable energy or solar. A more detailed breakdown of customer support and production by program and sector can be found in *Appendix 1*.

<sup>9</sup> Source: U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

Figure 9: Average annual energy conservation program participation and estimated avoided energy costs from energy efficiency by sector, 2017-2019<sup>10</sup>



### Transportation and Electric Vehicles

As of 2019, there were an estimated 70 electric vehicles registered to residents of Inver Grove Heights.<sup>11</sup> As of our plan’s creation, Inver Grove Heights has two public electric vehicle charging stations, located at car dealerships.<sup>12</sup> For public transportation, our community is primarily served by Metro Transit lines 68, 71, and 75.<sup>13</sup> Inver Grove Heights is also served by 79 combined miles of trails and sidewalks that provide recreation and transportation options to the area.<sup>14</sup>

Figure 10: Community members enjoy the many bike trails spread across Inver Grove Heights.



<sup>10</sup> Note: “commercial and industrial” in this figure also includes any City of Inver Grove Heights (“municipal”) program participation and savings.

<sup>11</sup> EV Registrations in MN, Drive Electric Minnesota, Accessed December 2020, <https://www.driveelectricmn.org/vehiclesinmn/>.

<sup>12</sup> Source: PlugShare, accessed December 28, 2020. <https://www.plugshare.com/location/192795>

<sup>13</sup> Metro Transit maintains online updates to route maps and schedules. See <https://www.metrotransit.org/> for more information.

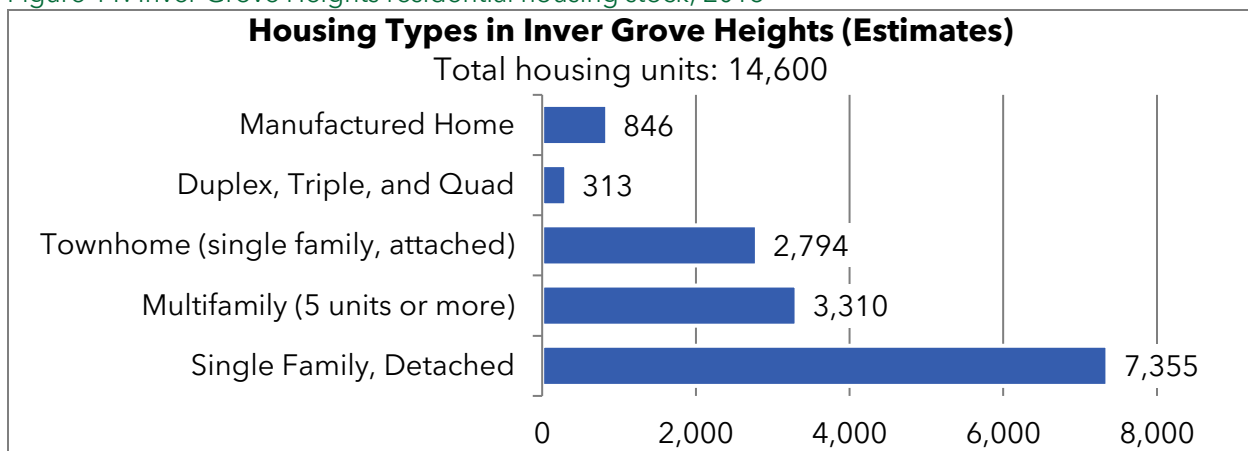
<sup>14</sup> City of Inver Grove Heights 2040 Comprehensive Plan, page 6-146. <https://www.ighmn.gov/DocumentCenter/View/8284/IGH-2040-Comp-Plan>.

## Diverse Housing Stock

Inver Grove Heights' housing stock is overall quite diverse, consisting of a wide range and number of housing types. While about half of homes are single-family detached homes, multi-family homes – including both large multi-family buildings and two-to-four-unit homes – make up another quarter of the housing stock. Townhomes make up 20% of the community's housing stock. An estimated 6% of homes are manufactured homes. Understanding our housing stock is important, since our utilities have programs available that target certain home types.

About 35% of housing units in Inver Grove Heights are renter-occupied.<sup>15</sup>

Figure 11: Inver Grove Heights residential housing stock, 2018<sup>16</sup>



## Energy Burden

Energy burden is the percentage of gross household income spent on energy costs.<sup>17</sup> While high energy burden can occur across most incomes, it is the most prevalent among low-income households. Average energy burden in Inver Grove Heights is estimated to be quite low – only about 2%, however, it may be much greater for lower-income households.<sup>18</sup> Figure 12 shows geographic concentration of these households in Inver Grove Heights who may be experiencing greater energy burden. The map shows the percentage of households living below 50% of the state median income. For Inver Grove Heights, most of these households are concentrated in the north and east portions of the community.

<sup>15</sup> Source: Metropolitan Council Community Profile Data, City of Inver Grove Heights 2018. <https://stats.metroc.state.mn.us/profile/>

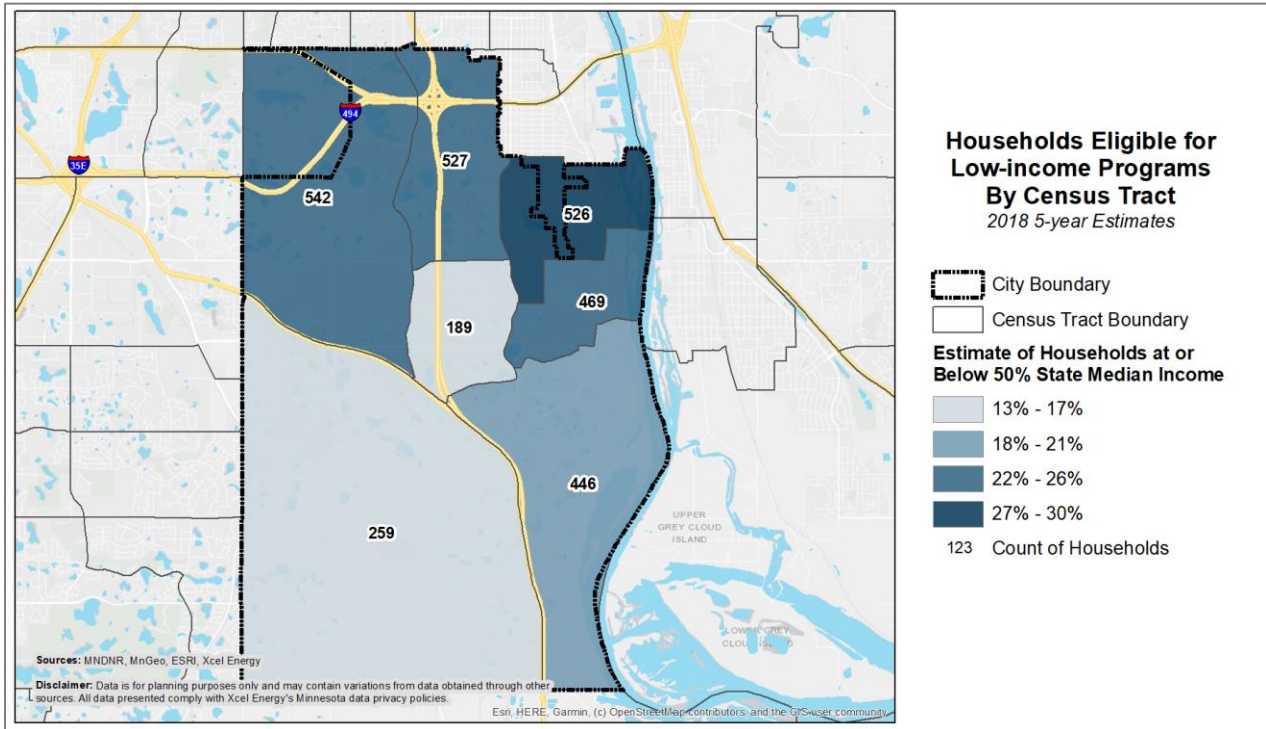
<sup>16</sup> *Ibid.*

<sup>17</sup> Source: <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>

<sup>18</sup> Source: U.S. Department of Energy, Low-Income Energy Affordability Data (LEAD Tool). <https://www.energy.gov/eere/slsc/maps/lead-tool>.

Our plan seeks to support these residents with resources, especially resources that are free for income-qualifying households. Households with incomes below 50% of the state median income qualify for resources to help lower energy use and bills.

Figure 12: Percentage of households estimated to be eligible from income-qualifying programs, 2018<sup>19</sup>



<sup>19</sup> Darker tracts contain a higher percentage of households eligible for free programs. Households with incomes below 50% of the state median income area eligible for free energy programs and utility support. This figure maps out the estimate percent and number of households eligible for such programs by census tract. Source: American Community Survey, 2018, City of Inver Grove Heights.



## **OUR ENERGY FUTURE, 2021 AND BEYOND**

### **Energy Vision Statement**

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

This statement helped guide the planning process and reflects our intention for the community's future:

**Inver Grove Heights will be an innovative and engaged community where energy choices conserve both our natural and financial resources.**

### **Goals**

The Energy Action Team set goals during the planning process by reviewing the community's energy baseline data and discussing priorities and feasibility of potential goals. Based on group discussions, the team selected goal values above and beyond what was accomplished in the baseline period. We will measure our success against the following goals, which will guide the actions of this plan.

## Our Goals

### Between 2021 & 2022, we will...



Engage an estimated 2,000 residents and 250 businesses, schools, nonprofits, and places of worship across our community through utility programs



Support 80 under-resourced households with energy costs



Add 250 new residential and 12 new commercial renewable energy subscribers or community solar garden supporters



Support 10 residential on-site solar installations

### By 2025, we will cumulatively...



Save an estimated \$2.6 million



Save 20 million kWh of electricity & 1.3 million therms of natural gas



Avoid an estimated 16,000 MTCO<sub>2</sub>e\*

\* Equivalent to the carbon sequestered by 21,000 acres of U.S. forests in one year.<sup>20</sup>

### By 2030, we will cumulatively...



Save an estimated \$5 million



Save 39 million kWh of electricity & 2.5 million therms of natural gas



Avoid an estimated 28,000 MTCO<sub>2</sub>e\*

\*Equivalent to the carbon sequestered by 37,000 acres of U.S. forests in one year.<sup>21</sup>

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

<sup>21</sup> *Ibid.*

### Visualizing our Success

The following visuals demonstrate the estimated impacts included over the 10-year course of these goals. These include estimated cost savings from energy conservation efforts for both natural gas and electricity, as well as greenhouse gas savings from energy conservation and renewable energy.

Figure 13: Estimated cumulative dollars of avoided costs over the goal period, 2021-2030

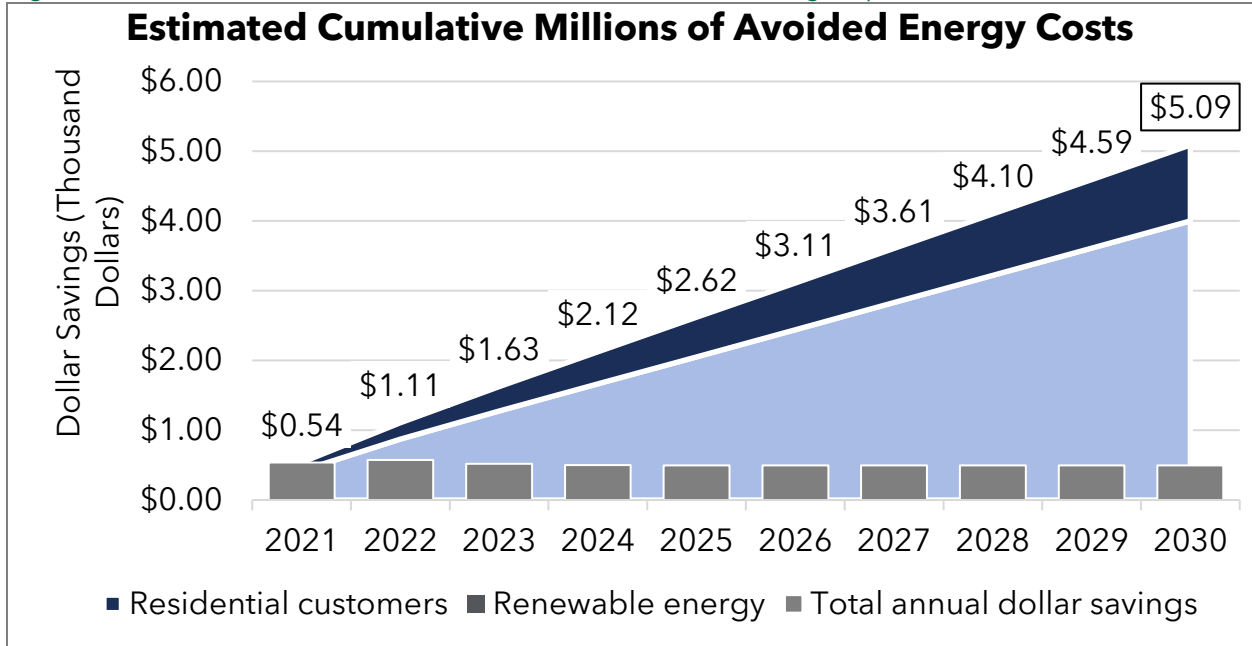
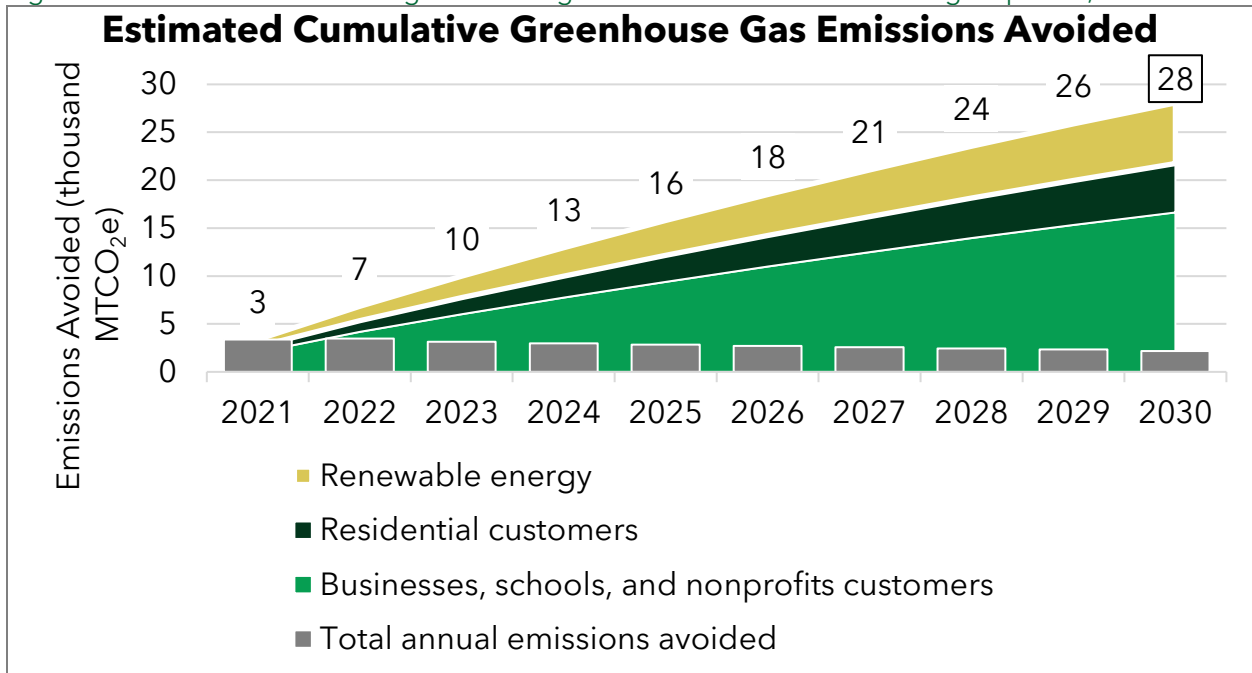


Figure 14: Estimated cumulative greenhouse gas emissions avoided over the goal period, 2021-2030



## Our Stretch Goals

In addition to our main goals, the energy action team decided to establish a set of stretch goals that will guide our efforts if we are on track to *meet or exceed our main goals* listed on the previous pages.

Our stretch goals are as follows:

### **Between 2021 & 2022, we will...**

- Engage an estimated 2,150 residents and 300 businesses, schools, nonprofits, and places of worship across our community
- Support 100 under-resourced households with energy costs
- Add 300 new residential and 15 new commercial renewable energy subscribers or community solar garden supporters
- Support 12 residential on-site solar installations

### **By 2030, we will cumulatively...**

- Save an estimated \$5.5 million
- Save 41 million kWh of electricity & 2.7 million therms of natural gas
- Avoid an estimated 30,000 MTCO<sub>2</sub>e\*

\*Equivalent to the carbon sequestered by 39,000 acres of U.S. forests in one year.<sup>22</sup>

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<sup>22</sup> Source: U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.





## IMPLEMENTATION WORK PLAN

The following section outlines the work plan for Inver Grove Heights Energy Action Plan efforts, including focus areas, strategies, tactics, and targets.

These initiatives will be led by the City of Inver Grove Heights Community Development Department and will be supported in partnership with other municipal divisions, including Communications, Public Works, Operations and Maintenance, and Finance.

Xcel Energy's Partners in Energy and Inver Grove Heights Energy Action Team will also be important

contributors to the implementation our Energy Action Plan. Partners in Energy facilitators will provide project management, data reporting, and marketing support. The Energy Action Team will be involved by serving as our community champions—serving as connectors to their network to champion our energy vision and goals. Additional detail on how Partners in Energy and the Energy Action Team will be involved can be found in the section *Support and Commitments*.

### Defining terms we use in the work plan:

**Focus area** refers to the broad areas that this plan is choosing to focus on.

**Target audiences** are the more specific groups or individuals that may be prioritized in a strategy.

**Strategies** are broad plans meant to guide action.

**Tactics** are more specific actions carefully planned to achieve the strategies.

**Targets** are benchmarks that are meant to guide work and demonstrate progress toward goals.

## Our 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.

These focus areas were chosen to approach energy stewardship holistically, covering a broad swath of the community. More specific target audiences are also outlined within each strategy.



Residential Community Engagement



Businesses, Schools, Nonprofits,  
and Places of Worship



Municipal Leadership

## Focus Area: Residential Community Engagement

### Why is this a priority?

More than 35,000 people call Inver Grove Heights home. According to the American Community Survey, approximately 76% of residents are white, 12% are Hispanic or Latinx, 4% are Black or African American, and 5% are Asian; and approximately 15% of residents speak a language other than English at home.



Energy burden, which measures the amount of monthly income that goes toward energy bills, is relatively low – with an average burden of 2% – but the American Community Survey reports that 28% of Inver Grove Heights households experience housing cost burden, meaning more than 30% of their income is being spent on mortgage or rent.

This plan aims to work with residents across the community to help them to save energy and money using a broad outreach campaign with a clear call to action and messaging that will resonate with them.

### Strategies

The following strategies are aimed at engaging Inver Grove Heights residential community on energy issues. Actions, details and partners for each of these are included below.

- A. Education & outreach to increase energy efficiency among residents
- B. Decrease energy burden for under-resourced households
- C. Provide targeted education & outreach to multi-family properties and senior living facilities to increase energy efficiency
- D. Education & outreach to increase renewable energy support and adoption among residents
- E. Support efficient transportation options

Figure 15: Our plan seeks to engage all those who call Inver Grove Heights home.



*Near-term strategies*

**A: Education & outreach to increase energy efficiency among residents**

**Target Audience: All Inver Grove Heights residents**

**Tactic 1:** Education and outreach campaign around the benefits and how-tos of energy efficiency for homes

Lead Implementer: City of Inver Grove Heights  
Support: Partners in Energy

**Actions, Details, and Partners**

- Use messaging that works for Inver Grove Heights residents, such as “cost savings”
- Promote available online tools to monitor household energy use, including My Energy and Dakota Electric’s smart meters
- Work with City communications department to create an “Energy Savings Corner” of the City’s quarterly newsletter
- Create and share videos highlighting energy efficiency opportunities and how-tos
- Communicate return on investment for energy efficiency for homes and how rebates offset costs
- Consider strategies to target the largest energy users in the community (e.g., targeted mail to census tracts with highest per-premise residential energy use)
- Establish outreach channels to residents on rebates and opportunities beyond contractors

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 2:** Create a step-by-step guide to walk residents through home energy efficiency

Lead Implementer: Partners in Energy  
Support: City of Inver Grove Heights

**Actions, Details, and Partners**

- Provide educational materials about energy efficiency to new residents using a variety of communication channels including social media, City website, and City newsletters
- Gather and share testimonials from families that have taken action to encourage other families to do the same

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 3:** Consider City-sponsored financial incentives for energy efficiency

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy; energy efficiency program implementers

**Actions, Details, and Partners**

- Consider and evaluate the following options to support reducing barriers to energy efficiency among residents:
  - Buying down up to 100 Home Energy Squad visits annually to \$50 for all residents
  - Buying down the cost of Home Energy Squad visits for those between 50% and 100% of state median income to reach households that don't qualify for the free visits but for whom the \$70-\$100 is cost prohibitive
  - Offering bonus rebates for those who follow through on recommendations from Home Energy Squad visits

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 4:** Design competitive ways to generate excitement amongst neighbors about saving energy

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy

**Actions, Details, and Partners**

- Examine effective ways to generate competition among residents in the community
- Develop recognition strategies such as Green Awards for residents

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 5:** Host and publish annual community engagement opportunities to collect community feedback on energy related needs

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy

**Actions, Details, and Partners**

- Create and promote additional energy surveys, considering promoting in languages other than English, based on community composition
- Work with local community partners & service organizations to survey or gather information about how to continue engaging the community
- Run community workshops to gather input, especially in locations easily accessible for those who may be under-resourced. Consider if translation is needed at these.

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**B: Decrease energy burden for under-resourced households**

**Target Audience: Households who spend the greatest portion of income on energy costs**

**Tactic 1:** Identify community partners to assist in outreach to under-resourced populations in Inver Grove Heights

Lead Implementer: City of Inver Grove Heights

Support: Energy Action Team; Partners in Energy

**Actions, Details, and Partners**

- Find and communicate with service and community-based organizations that could act as trusted messengers to under-resourced communities in Inver Grove Heights
- Possible Partners:
  - Neighbors Inc. connection (leverage team member connection)
  - Dakota County resources
    - Three Rivers Community Action Partnership
    - Dakota County CDA
    - Public libraries
    - Scott Carver Dakota County Community Action
  - Manufactured home park managers
  - Existing City relationships

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 2:** Work with community partners to sign up eligible under-resourced households for free Home Energy Squad visits

Lead Implementer: Partners in Energy

Support: City of Inver Grove Heights; energy efficiency program implementers

**Actions, Details, and Partners**

- Develop outreach materials
- Identify if outreach should be done in languages other than English & create materials if needed, with Partners in Energy support for material translation

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 3:** Target Inver Grove Heights community members with higher energy burden, such as manufactured home communities, to help residents save money on energy bills

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy; community partners

**Actions, Details, and Partners**

- Work with community partners including manufactured home park members and managers to conduct outreach to these residents
- Engage owners of older homes to help reduce their energy bills and upkeep housing stock
- Consider ways to compensate partners for support

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 4:** Distribute information about energy savings to organizations that serve under-resourced populations, such as at local food shelves

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy; community partners

**Actions, Details, and Partners**

- Identify local organizations that support under-resourced populations
- Coordinate with partners to design effective outreach materials and methods, considering translation as needed
- Distribute information through existing communication channels

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 5:** Consider partnering with home finance providers in the area and region who offer financing for under-resourced households

Lead Implementer: City of Inver Grove Heights  
 Support: Local financing providers; Partners in Energy

**Actions, Details, and Partners**

- Identify and coordinate with home finance providers to determine the best methods for providing low-interest financing opportunities and support for under-resourced households

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**C. Save energy in multi-family properties**

**Target Audience: Multi-family property landlords, property owners, and tenants**

**Tactic 1:** Conduct one-on-one outreach to multi-family properties in Inver Grove Heights to encourage them to sign up for an energy program

Lead Implementer: City of Inver Grove Heights  
 Support: Partners in Energy; Energy Action Team; energy efficiency program implementers

**Actions, Details, and Partners**

- Continue developing a multi-family inventory for the City to communicate with property manager and owners using the Low Income Rental Classification list as a starting point
- Work with existing contacts from multi-family recycling outreach to target property owners
- Encourage energy efficiency for new multi-family properties, including efficiency in design and electric vehicle-ready development
- Ensure that senior living and congregate care are included, with materials and outreach targeted toward these buildings

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|



**Tactic 2:** Educate renters about energy and cost saving opportunities unique to being a property renter

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy; local landlords, property owners, and property managers

**Actions, Details, and Partners**

- Identify unique savings opportunities for property renters, including behavior change
- Customize materials created for residential outreach to fit the needs of renters and multi-family residents
- Work with existing communication channels, including landlords and property managers to distribute information

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 3:** Recognition for efficient multi-family buildings in Inver Grove Heights

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy

**Actions, Details, and Partners**

- Consider the most effective ways to recognize efficient multi-family properties
- Engage the River Heights Chamber of Commerce

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

## D: Education & outreach to increase renewable energy support and adoption among residents

| Target Audience: All Inver Grove Heights residents   |            |            |            |            |            |            |            |        |            |            |            |            |            |            |            |            |        |
|--|------------|------------|------------|------------|------------|------------|------------|--------|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| <p><b>Tactic 1:</b> Outreach campaign to increase participation in renewable energy subscription programs</p> <p>Lead Implementer: City of Inver Grove Heights<br/>Support: Partners in Energy; Energy Action Team</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>• Create messaging highlighting the benefits</li> <li>• Gather and share testimonials from families that have taken action, encouraging others to join in</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1"> <tr> <td>Q1<br/>2021</td> <td>Q2<br/>2021</td> <td>Q3<br/>2021</td> <td>Q4<br/>2021</td> <td>Q1<br/>2022</td> <td>Q2<br/>2022</td> <td>Q3<br/>2022</td> <td>Q4<br/>2022</td> <td>2023 +</td> </tr> </table>  |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021   | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |
| <p><b>Tactic 2:</b> Create a checklist of the on-site solar process for residents</p> <p>Lead Implementer: Partners in Energy<br/>Support: City of Inver Grove Heights</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>• Explore messaging that works for Inver Grove heights residents, like dollar savings</li> <li>• Use existing resources and share along existing networks</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1"> <tr> <td>Q1<br/>2021</td> <td>Q2<br/>2021</td> <td>Q3<br/>2021</td> <td>Q4<br/>2021</td> <td>Q1<br/>2022</td> <td>Q2<br/>2022</td> <td>Q3<br/>2022</td> <td>Q4<br/>2022</td> <td>2023 +</td> </tr> </table>  |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021   | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |
| <p><b>Tactic 3:</b> Consider feasibility and opportunities to support or initiate solar garden development and on-side solar group buys for residents as a cost-saving opportunity</p> <p>Lead Implementer: City of Inver Grove Heights<br/>Support: Partners in Energy</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>• Follow examples of peer communities that have implemented this tactic in their communities</li> <li>• Explore ways to support lower-income families with renewable energy access as an energy cost-saving measure</li> </ul> <p><b>Timeline</b></p> <table border="1"> <tr> <td>Q1<br/>2021</td> <td>Q2<br/>2021</td> <td>Q3<br/>2021</td> <td>Q4<br/>2021</td> <td>Q1<br/>2022</td> <td>Q2<br/>2022</td> <td>Q3<br/>2022</td> <td>Q4<br/>2022</td> <td>2023 +</td> </tr> </table> |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021   | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |

*Longer-term strategy*

**E: Support efficient transportation options for residents**

|   |
|---|
| <b>Target Audience: All Inver Grove Heights residents</b>   |
| Tactic 1: Education & outreach to inform residents about the benefits of electric vehicles  |
| Tactic 2: Encourage electric vehicle-ready development through the City’s development review process, especially for multi-family housing                           |
| Tactic 3: Continue to follow through on the transit recommendations of Inver Grove Heights’ 2040 Comprehensive Plan, supporting initiatives with outreach as needed |
| Tactic 4: Partner with Xcel Energy’s dealership contact to encourage local dealerships to stock electric vehicles   |
| <b>Suggested Timeline</b>   |
| Most work on this strategy will occur in 2023 and beyond.   |

**Targets**

Through the strategies listed above, this plan hopes to meet the following targets. These targets will contribute to the vision and overall residential goals.

Across 2021 and 2022 combined, we hope to engage our residential community to achieve the following goals:

- ✓ 200 homes receive a home energy assessment or direct-install visit to jump-start energy savings
- ✓ 90 homes are served by programs specifically targeted toward income-qualifying households
- ✓ 180 new home construction or renovation projects complete a utility new home efficiency program
- ✓ 6 multi-family buildings complete an energy assessment
- ✓ 260 new residents supporting renewable energy

## Focus Area: Businesses, Schools, Nonprofits, and Places of Worship

### Why is this a priority?

Inver Grove Heights is home to a mix of small and large commercial and industrial businesses, nonprofits, places of worship, K-12 and higher-education institutions.



More than 10,000 people are employed in the city, with the top industries in 2019 including retail trade, healthcare and social assistance, education services, manufacturing, and food services. There are also a variety of faith-based organizations and service providers in our community, with 16 places of worship identified during the baseline analysis.

This focus area includes all these buildings, plus their occupants and users, to help them save money on energy bills, identify the best return on investment projects, and make their buildings more comfortable for occupants and users.

### Strategies

The following strategies aim to engage Inver Grove Heights businesses, schools, nonprofits, and places of worship on energy issues. Actions, details and partners for each of these are included below.

- A. Education & outreach to increase energy efficiency among industry and large businesses
- B. Education & outreach to increase energy efficiency among small businesses
- C. Education & outreach to increase energy efficiency among local schools, nonprofits, and places of worship
- D. Education & outreach to increase renewable energy adoption and support among businesses and institutions
- E. Support efficient transportation options for businesses, schools, nonprofits, and places of worship

Figure 16: Our community is home to many businesses, schools, nonprofits, and places of worship.



*Near-term strategies*

**A: Education & outreach to increase energy efficiency among industry and large businesses**

| Target Audience: Inver Grove Heights largest businesses and industries  |            |            |            |            |            |            |            |        |            |            |            |            |            |            |            |            |        |
|---|------------|------------|------------|------------|------------|------------|------------|--------|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| <p><b>Tactic 1:</b> Create peer-sharing opportunities</p> <p>Lead Implementer: City of Inver Grove Heights<br/>Support: local industrial and business leaders</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>• Work with communications staff to create an energy opportunities and information page on our website that links to grant opportunities and things of that nature. Business can sign up for email list serve updates</li> <li>• Gather and share testimonials from large businesses that have done energy efficiency work</li> <li>• Engage local business leaders like CHS to share their energy efficiency journeys</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #f2f2f2;">Q1<br/>2021</td> <td style="background-color: #f2f2f2;">Q2<br/>2021</td> <td style="background-color: #f2f2f2;">Q3<br/>2021</td> <td style="background-color: #f2f2f2;">Q4<br/>2021</td> <td style="background-color: #f2f2f2;">Q1<br/>2022</td> <td style="background-color: #f2f2f2;">Q2<br/>2022</td> <td style="background-color: #f2f2f2;">Q3<br/>2022</td> <td style="background-color: #f2f2f2;">Q4<br/>2022</td> <td style="background-color: #f2f2f2;">2023 +</td> </tr> </table> |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021  | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |
| <p><b>Tactic 2:</b> Develop a recognition program to reward those who have taken action</p> <p>Lead Implementer: Inver Grove Heights<br/>Support: Partners in Energy</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>• Research best practices for creating a recognition programs</li> <li>• Establish a recognition category for large businesses and industry</li> <li>• Promote success stories and testimonials of completed energy efficiency projects</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #f2f2f2;">Q1<br/>2021</td> <td style="background-color: #f2f2f2;">Q2<br/>2021</td> <td style="background-color: #f2f2f2;">Q3<br/>2021</td> <td style="background-color: #f2f2f2;">Q4<br/>2021</td> <td style="background-color: #f2f2f2;">Q1<br/>2022</td> <td style="background-color: #f2f2f2;">Q2<br/>2022</td> <td style="background-color: #f2f2f2;">Q3<br/>2022</td> <td style="background-color: #f2f2f2;">Q4<br/>2022</td> <td style="background-color: #f2f2f2;">2023 +</td> </tr> </table>   |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021  | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |
| <p><b>Tactic 3:</b> Create and share a guide for forming Green Teams at businesses</p> <p>Lead Implementer: Partners in Energy<br/>Support: City of Inver Grove Heights, local businesses</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>• Work with local businesses to distribute a guide for forming Green Teams</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="background-color: #f2f2f2;">Q1<br/>2021</td> <td style="background-color: #f2f2f2;">Q2<br/>2021</td> <td style="background-color: #f2f2f2;">Q3<br/>2021</td> <td style="background-color: #f2f2f2;">Q4<br/>2021</td> <td style="background-color: #f2f2f2;">Q1<br/>2022</td> <td style="background-color: #f2f2f2;">Q2<br/>2022</td> <td style="background-color: #f2f2f2;">Q3<br/>2022</td> <td style="background-color: #f2f2f2;">Q4<br/>2022</td> <td style="background-color: #f2f2f2;">2023 +</td> </tr> </table>   |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021  | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |

**Tactic 4:** Host and publish annual community engagement opportunities to collect community feedback on energy related needs.

Lead Implementer: City of Inver Grove Heights  
Support: Partners in Energy

**Actions, Details, and Partners**

- Create and promote additional energy surveys, considering promoting in languages other than English, based on community composition
- Work with local community partners & service organizations to survey or gather information about how to continue engaging the community
- Run community workshops to gather input.

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**B: Education & outreach to increase energy efficiency among small businesses**

**Target Audience: Inver Grove Heights small businesses**

**Tactic 1:** Educate small business on the benefits and how-tos of energy efficiency, such as through an educational campaign

Lead Implementer: City of Inver Grove Heights  
Support: Partners in Energy

**Actions, Details, and Partners**

- Share information about energy efficiency using communication channels identified, including the River Heights Chamber of Commerce
- Use messaging that works for Inver Grove Heights businesses, like dollar savings and ROI
- Share testimonials and case studies highlighting businesses that have taken action
- Partner with local nonprofits and community partners to support these efforts
- Use concise and consistent communication

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 2:** Create peer-sharing opportunities for small businesses

Lead Implementer: Inver Grove Heights

Support: Partners in Energy; River Heights Chamber of Commerce

**Actions, Details, and Partners**

- Work with River Heights Chamber to host events highlighting businesses that have implemented energy efficiency actions and technologies
- Present on energy-related topics at monthly River Heights Chamber member meetings

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 3:** Conduct outreach through the local Chamber of Commerce & door-to-door outreach in Inver Grove Heights commercial areas to encourage businesses to complete an energy efficiency action

Lead Implementer: Partners in Energy, City of Inver Grove Heights

Support: Energy efficiency organizations and program implementers, volunteers

**Actions, Details, and Partners**

- Determine most effective geographical areas to target based on business makeup
- Identify local partners and volunteers to support outreach
- Collect testimonials from businesses to encourage others to take action

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 4:** Develop a recognition program to reward those who have taken action

Lead Implementer: Inver Grove Heights

Support: Partners in Energy

**Actions, Details, and Partners**

- Research best practices for creating a recognition program
- Establish a recognition category for small businesses
- Promote success stories and testimonials of completed energy efficiency projects

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 5:** Conduct targeted outreach to landlords that rent commercial property to small businesses in the Inver Grove Heights community

Lead Implementer: City of Inver Grove Heights  
 Support: Partners in Energy

**Actions, Details, and Partners**

- Determine effective messaging and design outreach materials
- Identify communication channels to commercial property landlords

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 6:** Host and publish annual community engagement opportunities to collect community feedback on energy related needs.

Lead Implementer: City of Inver Grove Heights  
 Support: Partners in Energy

**Actions, Details, and Partners**

- Create and promote additional energy surveys, considering promoting in languages other than English, based on community composition
- Work with local community partners & service organizations to survey or gather information about how to continue engaging the community
- Run community workshops to gather input, especially encouraging input from small businesses owned by under-resourced groups. Consider if translation is needed at these.

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|



## C: Education & outreach to increase energy efficiency among local schools, nonprofits, and places of worship

| Target Audience: local schools, nonprofits, and places of worship   |            |            |            |            |            |            |            |        |            |            |            |            |            |            |            |            |        |
|---|------------|------------|------------|------------|------------|------------|------------|--------|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| <p><b>Tactic 1:</b> Create peer-sharing opportunities</p> <p>Lead Implementer: City of Inver Grove Heights<br/>Support: Partners in Energy</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>Work with River Heights Chamber to host coffee events highlighting those that have implemented energy efficiency actions and technologies</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1"> <tr> <td>Q1<br/>2021</td> <td>Q2<br/>2021</td> <td>Q3<br/>2021</td> <td>Q4<br/>2021</td> <td>Q1<br/>2022</td> <td>Q2<br/>2022</td> <td>Q3<br/>2022</td> <td>Q4<br/>2022</td> <td>2023 +</td> </tr> </table>   |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021  | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |
| <p><b>Tactic 2:</b> Educate local schools, nonprofits, and places of worship on the benefits and how-tos of energy efficiency, such as through an educational campaign</p> <p>Lead Implementer: Partners in Energy<br/>Support: City of Inver Grove Heights</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>Develop materials specific to communicating with organizational boards</li> <li>Use messaging that works to communicate benefits to Inver Grove Heights schools, nonprofits, and places of worship, like dollar savings, return on investment, and triple bottom line (people, planet, profit)</li> <li>Emphasize the equity and community components of taking action on energy (i.e., reducing greenhouse gas emissions)</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1"> <tr> <td>Q1<br/>2021</td> <td>Q2<br/>2021</td> <td>Q3<br/>2021</td> <td>Q4<br/>2021</td> <td>Q1<br/>2022</td> <td>Q2<br/>2022</td> <td>Q3<br/>2022</td> <td>Q4<br/>2022</td> <td>2023 +</td> </tr> </table> |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021  | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |
| <p><b>Tactic 3:</b> Develop a recognition program to reward those who have taken action</p> <p>Lead Implementer: City of Inver Grove Heights<br/>Support: Partners in Energy</p> <p><b>Actions, Details, and Partners</b></p> <ul style="list-style-type: none"> <li>Research best practices for creating a recognition program</li> <li>Establish a recognition category for local schools, nonprofits, and places of worship</li> <li>Promote success stories and testimonials of completed energy efficiency projects</li> </ul> <p><b>Suggested Timeline</b></p> <table border="1"> <tr> <td>Q1<br/>2021</td> <td>Q2<br/>2021</td> <td>Q3<br/>2021</td> <td>Q4<br/>2021</td> <td>Q1<br/>2022</td> <td>Q2<br/>2022</td> <td>Q3<br/>2022</td> <td>Q4<br/>2022</td> <td>2023 +</td> </tr> </table>   |            |            |            |            |            |            |            |        | Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
| Q1<br>2021  | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |            |            |            |            |            |            |            |            |        |

**Tactic 4:** Host and publish annual community engagement opportunities to collect community feedback on energy related needs.

Lead Implementer: City of Inver Grove Heights  
Support: Partners in Energy

**Actions, Details, and Partners**

- Create and promote additional energy surveys, considering promoting in languages other than English, based on community composition
- Work with local community partners & service organizations to survey or gather information about how to continue engaging the community
- Run community workshops to gather input. Consider if translation is needed at these

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**D: Education & outreach to increase renewable energy adoption and community solar garden support among businesses and institutions**

**Target Audience: All businesses and institutions**

**Tactic 1:** Use communication channels like the Chamber of Commerce newsletter to share the benefits of renewable energy and community solar gardens

Lead Implementer: City of Inver Grove Heights  
Support: Partners in Energy

**Actions, Details, and Partners**

- Include messaging around cost savings and the environmental benefits

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 2:** Create and share a checklist of the on-site solar process for businesses

Lead Implementer: Partners in Energy  
Support: City of Inver Grove Heights

**Actions, Details, and Partners**

- Communicate potential economic and environmental benefits

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 3:** Share information about hosting community solar gardens with businesses with viable rooftop space or sites

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy

**Actions, Details, and Partners**

- Determine which sites may prove viable from a solar potential and grid capacity standpoint using available tools
- Conduct outreach through existing communication channels

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

**Tactic 4:** Host and publish annual community engagement opportunities to collect community feedback on energy related needs.

Lead Implementer: City of Inver Grove Heights

Support: Partners in Energy

**Actions, Details, and Partners**

- Create and promote additional energy surveys, considering promoting in languages other than English, based on community composition
- Work with local community partners & service organizations to survey or gather information about how to continue engaging the community
- Run community workshops to gather input. Consider if translation is needed at these.

**Suggested Timeline**

|            |            |            |            |            |            |            |            |        |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|
| Q1<br>2021 | Q2<br>2021 | Q3<br>2021 | Q4<br>2021 | Q1<br>2022 | Q2<br>2022 | Q3<br>2022 | Q4<br>2022 | 2023 + |
|------------|------------|------------|------------|------------|------------|------------|------------|--------|

*Longer-term strategy*

**E. Support efficient transportation options for businesses, schools, nonprofits, and places of worship**

|   |
|---|
| <b>Target Audience: All Inver Grove Heights businesses, schools, nonprofits, and places of worship</b>  |
| Tactic 1: Work with large employers in the community to host ride-and-drive or electric vehicle showcase events   |
| Tactic 2: Encourage electric vehicle-ready development through the City’s development review process, especially for multi-family housing or new large business development |
| Tactic 3: Share information about fleet study opportunities for local businesses and institutions with vehicle fleets   |
| Tactic 4: Continue to follow through on the transit recommendations of Inver Grove Heights’ 2040 Comprehensive Plan, supporting initiatives with outreach as needed         |
| <b>Suggested Timeline</b>   |
| Most work on this strategy will occur in 2023 and beyond.   |

**Targets**

Through the strategies listed above, this plan hopes to meet the following targets. These targets will contribute to the vision and overall goals related to businesses and other organizations.

Across 2021 and 2022 combined, we hope to engage our businesses, schools, nonprofits, and places of worship to achieve the following goals:

- ✓ 95 small business energy assessments for lighting, HVAC, or commercial refrigeration equipment
- ✓ 7 new construction projects that use a program to increase efficiency
- ✓ 5 larger businesses complete a Commercial Streamlined Assessment or recommissioning
- ✓ 12 new businesses, schools, nonprofits, and places of worship supporting renewable energy

## Focus Area: Municipal Leadership

### Why is this a priority?

Our plan will position Inver Grove Heights as a leader in energy and sustainability. The City of Inver Grove Heights will seek to complement that leadership by building on existing activities and demonstrating a commitment to energy stewardship and taking action in municipal operations.

In 2016, the City of Inver Grove Heights joined the Minnesota GreenStep Cities program, by resolution, to make a formal commitment to pursuing environmental and sustainability initiatives. This free and voluntary program provides technical assistance for over 175 Best Practices actions to help cities achieve their sustainability and quality-of-life goals. The city has been committed to participating in this program and related program's such as Dakota County's Community Waste Abatement grant program, which demonstrates to residents, businesses and city employees that the City of Inver Grove Heights is committed to the environmental, economic and social stewardship of our community.

Environmental programs supported by partner agencies provide the city resources to improve city operations that would otherwise be unavailable to staff or require an excessive amount of staff resources. Through partnership, the city can easily access research and information on best practices, technical assistance implementing best practices, free electronic and printed resources for community members, grant resources, a large and well-connected network of peers or assistance organizations, and more.

The City is committed to implementing the actions identified in this plan to increase energy and costs savings in our buildings, resulting in responsible management of taxpayer dollars and demonstrating leadership in sustainability in our community and region. Strategies in this focus area include all city-owned buildings and fleet, and internal city policies and initiatives.



### ***What is the City already doing?***

*The City is building off years of work on sustainability initiatives. Here's a highlight of some of our accomplishments:*

Achieved Step 4 in the Minnesota GreenStep Cities program in 2020.

Participated in Cities Charging Ahead in 2019 to focus on electric vehicle readiness.

Installed a geothermal energy system in City Hall in 2012.

Supported the development of renewable energy with a rooftop solar array on City Hall and the Veteran's Memorial Community Center in 2017.

Subscribed a portion of the City's electricity to community solar in 2016.

## Strategies

The following strategies aim to position the City of Inver Grove Heights as a community and regional leader in sustainability and energy efficiency. We will be building off the work the City has already undertaken in sustainability and energy. Details for each of these are included below.

- A. Demonstrate leadership in sustainability
- B. Increase energy efficiency in municipal operations and buildings
- C. Explore renewable energy for municipal operations and buildings
- D. Examine and implement efficient transportation and fleet electrification

Because the City has already been working on energy and sustainability initiatives, the tactics in this section are broken out into two categories:

**Ongoing City initiatives that already exist:** Actions that have already begun but will continue to be supported by this plan

**New Initiatives for this plan:** Ideas generated through this plan that will be supported by the City and partners

Figure 17: Inver Grove Heights' City Hall. This building uses a ground-source heat pump (geothermal) to meet energy needs.



*Near-term strategies*

**A. Demonstrate leadership in sustainability**

| Ongoing City initiatives that already exist  |
|--|
| Demonstrate sustainable leadership by promoting prior and current sustainability actions on City website, newsletter |
| Continue reporting metrics for GreenStep Cities  |
| Promote low-impact development and water conservation practices  |

| New initiatives for this plan   |
|---|
| <ul style="list-style-type: none"><li>• <b>Tactic 1:</b> Showcase the city’s journey related to energy efficiency, renewable energy and sustainability through demonstrating past progress as well as greenhouse gas and cost impacts</li><li>• <b>Tactic 2:</b> Highlight clean energy projects completed by the city, residents and businesses through written case studies, social media posts, tours, etc.</li><li>• <b>Tactic 3:</b> Provide education to developers on grants available for clean energy projects, energy efficiency projects, water conservation projects, etc.</li><li>• <b>Tactic 4:</b> Educate City Council, leadership, and commissions about Energy Action Plan goals and strategies and initiate call to action for support</li><li>• <b>Tactic 5:</b> Update City code as needed to make develop standards friendly for renewable energy use and development</li><li>• <b>Tactic 6:</b> Establish an internal Green Team including representatives of City divisions such as community development, finance, fleet management, parks and operations and maintenance to guide municipal sustainability efforts</li><li>• <b>Tactic 7:</b> Create an environmental purchasing policy</li><li>• <b>Tactic 8:</b> Continue to make progress towards GreenStep City goals related to energy conservation, renewable energy and collection of baseline and annual reporting metrics.</li></ul> |
| <b>Suggested Timeline</b>   |
| Work on these initiatives will begin in 2021  |

## B. Increase energy efficiency in municipal operations and buildings

### Ongoing City initiatives that already exist

Prioritizing energy efficiency opportunities in municipal facilities (McKinstry study, recommissioning)

Continue engaging operations and maintenance supervisor on prioritizing energy efficiency in City facilities

Using B3 Benchmarking data (entered data and review in future)

Partnering with City facilities and operations staff to integrate utility programs and rebates into purchasing process

Embarking on a three-year sustainable operations study for municipal buildings

Hiring and training an operations and maintenance supervisor

### New initiatives for this plan

- **Tactic 1:** Educate employees and other building occupants about recommended sustainable behaviors at municipal facilities
- **Tactic 2:** Explore cost-effective options to maximize efficiency and sustainability in major municipal development and construction projects

#### Suggested Timeline

Work on these initiatives will begin in late 2021

## C. Explore renewable energy on solar opportunities for municipal operations and buildings

### Ongoing City initiatives that already exist

Continuing to support existing renewable energy and solar contracts and systems covering municipal operations, including a geothermal system, a rooftop solar installation, and a community solar garden.

### New initiatives for this plan

- **Tactic 1:** Explore renewable energy options, including on-site and subscription programs, to cover municipal operations
- **Tactic 2:** Examine municipal properties for opportunities to host solar gardens, including community solar gardens, following the best practices of peer communities

#### Suggested Timeline

Work on these initiatives will begin in 2021



## D. Explore efficient transportation and fleet electrification options for the municipal vehicle fleet

### Ongoing City initiatives that already exist

Prioritize fleet electrification for City-owned vehicles based on FleetCarma study completed in 2019

Promote City walkability and public transportation – wayfinding map; new website maps, trails, and sidewalks; park master plan 2021/trail gap study

### New initiatives for this plan

- **Tactic 1:** Consider right-sizing or down-sizing the city fleet with vehicles that are more fuel efficient and an optimal size for their intended functions (GreenStep Cities Best Practice #13.2)
- **Tactic 2:** Consider purchasing alternative fuel vehicles, such as electric vehicles, during fleet vehicle replacement process (GreenStep Cities Best Practice #13.2)
  - Review FleetCarma analysis for vehicle replacement recommendations
  - Replace high-use light-duty vehicles with electric vehicles
- **Tactic 3:** Seek and apply for grant funding opportunities for electric vehicle charging infrastructure for public or fleet use
- **Tactic 4:** Host ride-and-drive education events for staff, residents, and businesses
- **Tactic 5:** Educate staff on efficient use of city fleet vehicles, such as carpooling, video conferencing, and no idling when feasible (GreenStep Cities Best Practice #13.3)

### Suggested Timeline

Work on these initiatives will begin in 2021

## Targets

Through the strategies listed above, this plan hopes to meet the following targets. These targets will contribute to the vision and overall municipal goals.

To measure progress towards these targets, one of the first actions the City of Inver Grove Heights will take will be to establish baselines from which to assess progress. Meeting the targets will mean demonstrating annual increases in the specific areas beyond the baselines.

- ✓ Increase energy efficient at City facilities
- ✓ Increase the number of municipal community solar garden subscriptions
- ✓ Increase the amount of renewable energy used by City facilities
- ✓ Increase fuel efficiency of vehicle fleet
- ✓ Increase the amount of alternative fuel vehicles in the fleet



## MEASURING SUCCESS

### Energy Action Plan Impacts – Near Term

The combined targets and strategies outlined in this plan will save our community an estimated over \$1.3 million dollars in the near term.

Table 2: Estimated near-term impact of implementation of this plan, 2021 and 2022 combined.

| <b>Cumulative Savings</b>               | <b>Business as Usual</b>  | <b>Our Impacts</b>             |
|---|---------------------------|--------------------------------|
| Electricity Savings                     | 7 million kWh             | <b>8.5 million kWh</b>         |
| Natural Gas Savings                     | 490,000 therms            | <b>536,000 therms</b>          |
| Estimated Dollar Savings <sup>23</sup>  | \$0.95 million            | <b>\$1.35 million</b>          |
| Greenhouse Gas Emissions Avoided        | 5,800 MTCO <sub>2</sub> e | <b>6,800 MTCO<sub>2</sub>e</b> |
| Community Members Engaged <sup>24</sup> | 1,800 community members   | <b>3,500 community members</b> |
| Renewable Energy Support <sup>25</sup>  | 980 community members     | <b>1,252 community members</b> |

<sup>23</sup> Includes avoided costs through Xcel Energy conservation program participation. For further details on how we measure costs savings, see *Appendix 2: Methodology for Measuring Success*.

<sup>24</sup> Includes residents engaged through Xcel Energy conservation programs, renewable energy programs, and other outreach by the City. For further details, see *Appendix 2: Methodology for Measuring Success*. Saver's Switch is not included in business as usual projections.

<sup>25</sup> Includes Xcel Energy's Windsource® and Renewable\*Connect® Solar\*Rewards® (on-site solar); Solar\*Rewards Community (community solar gardens); and Dakota Electric's Wellspring.

# HOW WILL OUR ACTIONS IMPACT THE COMMUNITY?

Achieving our financial goals, we can save up to \$1.3 million dollars, which is equivalent to...



The energy bills of over 1,000 homes for a year

The City's energy costs for two years



Achieving our climate & air quality goals, we can avoid 6,800 MTCO<sub>2</sub>, which is like...



1.5 wind turbines producing electricity for a year

Taking 1,500 vehicles off the road for a year



Planting 112,000 trees

Impacts for 2021 & 2022, combined.

### Near-term Impacts for Residents

Successful implementation of the near-term strategies of our plan will engage more than 2,200 residents in energy efficiency and almost 1,200 in renewable energy. Residents will save an estimated \$230,000 and help our community avoid the equivalent of 2,800 metric tons of carbon dioxide over this two-year period.

Table 3: Estimated near-term impacts for residents, 2021 and 2022 combined.

| <b>Cumulative Savings</b>               | <b>Our Impacts</b>             |
|---|--------------------------------|
| Electricity Savings                     | <b>1 million kWh</b>           |
| Natural Gas Savings                     | <b>163,000 therms</b>          |
| Estimated Dollar Savings <sup>26</sup>  | <b>\$230,000</b>               |
| Greenhouse Gas Emissions Avoided        | <b>2,580 MTCO<sub>2</sub>e</b> |
| Community Members Engaged <sup>27</sup> | <b>2,280 community members</b> |
| Renewable Energy Support <sup>28</sup>  | <b>1,188 community members</b> |

### Near-term Impacts for Businesses, Schools, Nonprofits, and Places of Worship

Successful implementation of the near-term strategies of our plan will engage more than 250 businesses, schools, nonprofits, and places of workshop in energy efficiency and 60 in renewable energy. These groups will cumulatively save an estimated \$874,000 and help our community avoid the equivalent of 4,600 metric tons of carbon dioxide over this two-year period.

Table 4: Estimated near-term impacts for businesses, schools, nonprofits, and places of worship, 2021 and 2022 combined.

| <b>Cumulative Savings</b>               | <b>Our Impacts</b>             |
|---|--------------------------------|
| Electricity Savings                     | <b>3.9 million kWh</b>         |
| Natural Gas Savings                     | <b>373,000 therms</b>          |
| Estimated Dollar Savings <sup>29</sup>  | <b>\$874,000</b>               |
| Greenhouse Gas Emissions Avoided        | <b>4,600 MTCO<sub>2</sub>e</b> |
| Community Members Engaged <sup>30</sup> | <b>250 community members</b>   |
| Renewable Energy Support <sup>31</sup>  | <b>60 community members</b>    |

<sup>26</sup> Includes avoided costs through Xcel Energy conservation program participation. For further details on how we measure costs savings, see *Appendix 2*.

<sup>27</sup> Includes residents engaged through Xcel Energy conservation programs, renewable energy programs, and other outreach by the City. For further details, see *Appendix 2*.

<sup>28</sup> Includes Xcel Energy's Windsource® and Renewable\*Connect® Solar\*Rewards® (on-site solar); Solar\*Rewards Community (community solar gardens); and Dakota Electric's Wellspring.

<sup>29</sup> Includes avoided costs through Xcel Energy conservation program participation. For further details on how we measure costs savings, see *Appendix 2*.

<sup>30</sup> Includes residents engaged through Xcel Energy conservation programs, renewable energy programs, and other outreach by the City. For further details, see *Appendix 2*.

<sup>31</sup> Includes Xcel Energy's Windsource® and Renewable\*Connect® Solar\*Rewards® (on-site solar); Solar\*Rewards Community (community solar gardens); and Dakota Electric's Wellspring.

## Long-Term Impacts

Energy and energy efficiency will remain important for our community into the future, beyond the initial implementation of the near-term objectives of our plan. Below are estimates what these long-term impacts will look like, based on the goals of our plan. Major changes to the energy landscape or to the long-term strategies of this plan may affect these impacts.

Our long-term impacts are articulated in our community goals:

### By 2025, we will cumulatively...



Save \$2.6 million



Save 20 million kWh of electricity & 1.3 million therms of natural gas



Avoid an estimated 16,000 MTCO<sub>2</sub>e\*

\* Equivalent to the carbon sequestered by 21,000 acres of U.S. forests in one year.<sup>32</sup>

### By 2030, we will cumulatively...



Save \$5 million



Save 39 million kWh of electricity & 2.5 million therms of natural gas



Avoid an estimated 28,000 MTCO<sub>2</sub>e\*

\*Equivalent to the carbon sequestered by 37,000 acres of U.S. forests in one year.<sup>33</sup>

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<sup>32</sup> Source: U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

<sup>33</sup> Source: U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.



## SUPPORT AND COMMITMENTS

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

#### Data from Xcel Energy

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 whether we need to change course.

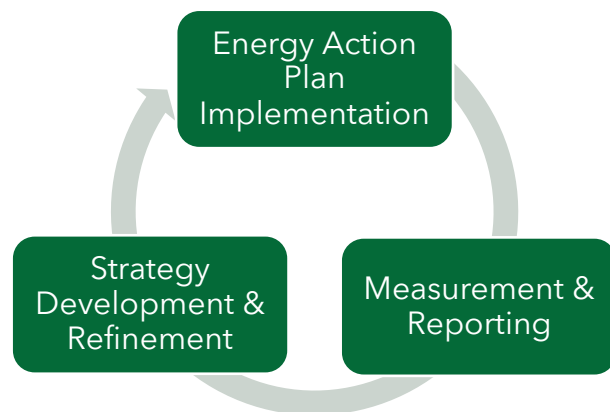
#### Data from Dakota Electric Association

Dakota Electric was involved in the planning process and has agreed to provide electricity consumption and program participation data directly to the City of Inver Grove Heights when requested to help the City measure progress toward goals.

#### Regular Reporting

Regular reporting on the success of implementation will be important to generate enthusiasm about our Energy Action Plan, and to keep the City and Energy Action

Figure 18: Actions and Tracking



Team accountable. Progress reports will include data from Xcel Energy and Dakota Electric Association, plus implementation highlights. Reports will be given to the Environmental Commission and City Council with the support of Community Development staff.

## **Project Management and Tracking**

Partners in Energy will host regular project management check-in calls with staff to ensure we stay on course to achieve our goals.

If necessary, an implementation check-in meeting with the Energy Action Team can be convened to assess progress toward goals and discuss strategy refinement at the midpoint of implementation.

## **Other Commitment and Engagements**

### **Energy Action Team Commitment**

The Energy Action Team formed to create this plan will support implementation by serving as community connectors to their networks, promoting our energy vision, encouraging participation in programs and outreach campaigns, and sharing success stories. When available, Energy Action Team members will serve as partners, experts, and leaders in strategies targeting residents, businesses, schools, nonprofits, and places of worship. Partners in Energy facilitators and the City of Inver Grove Heights may invite Energy Action Team leaders to project management calls or other check-in meetings to ensure strategies are implemented successfully.

### **Xcel Energy's Commitment**

In addition to data reporting, project management, and implementation tracking, Xcel Energy commits to 18 months of implementation support, including marketing and communications support and program expertise. They will also provide a dedicated community facilitator to serve as a primary point of contact. Partners in Energy digital resources, including office hours, community portal, and community events will also be available to the Inver Grove Heights team.

### **Continuing Engagement**

The City of Inver Grove Heights will continue to engage its community members on these topics after this plan is adopted by City Council. Ideas for community engagement are outlined in the Implementation Work Plan.

### **Long-Term Strategies**

Strategies identified as long-term will need additional review, including identifying resources and implementation leads. The City of Inver Grove Heights and the Energy Action Team will reconvene at a later date to further specify these long-term strategies as new funding and technology innovations become available.



## APPENDIX 1: BASELINE ENERGY DATA ANALYSIS, 2017-2019

Data was provided by Xcel Energy and Dakota Electric for all Inver Grove Heights premises for 2017-2019. Xcel Energy provides electric and natural gas service to the community, and Dakota Electric provides electric service to the Inver Grove Heights community. The data helped the Energy Action Team understand Inver Grove Heights' 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

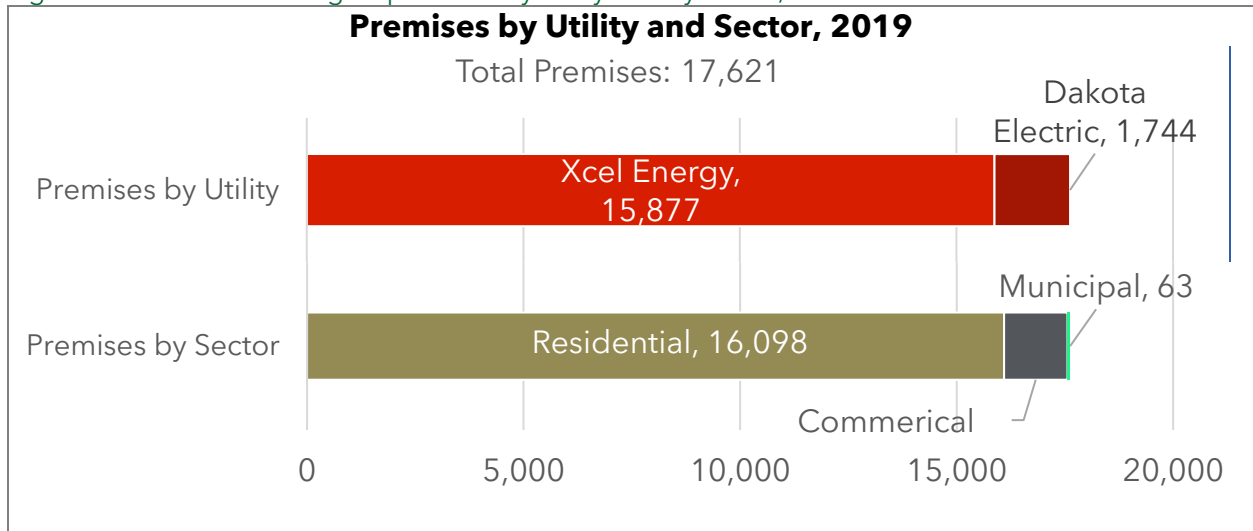
Both Xcel Energy and Dakota Electric provide electric service to Inver Grove Heights. Xcel Energy is the community's only utility natural gas provider. The chart below demonstrates a breakdown of utility premises by utility and by customer type.<sup>34</sup> As shown in the chart, most premises in Inver Grove Heights are residential, and the majority are served by Xcel Energy for electricity.

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<sup>34</sup> See *Appendix 4: Glossary of Terms* for more information on what each customer type entails.



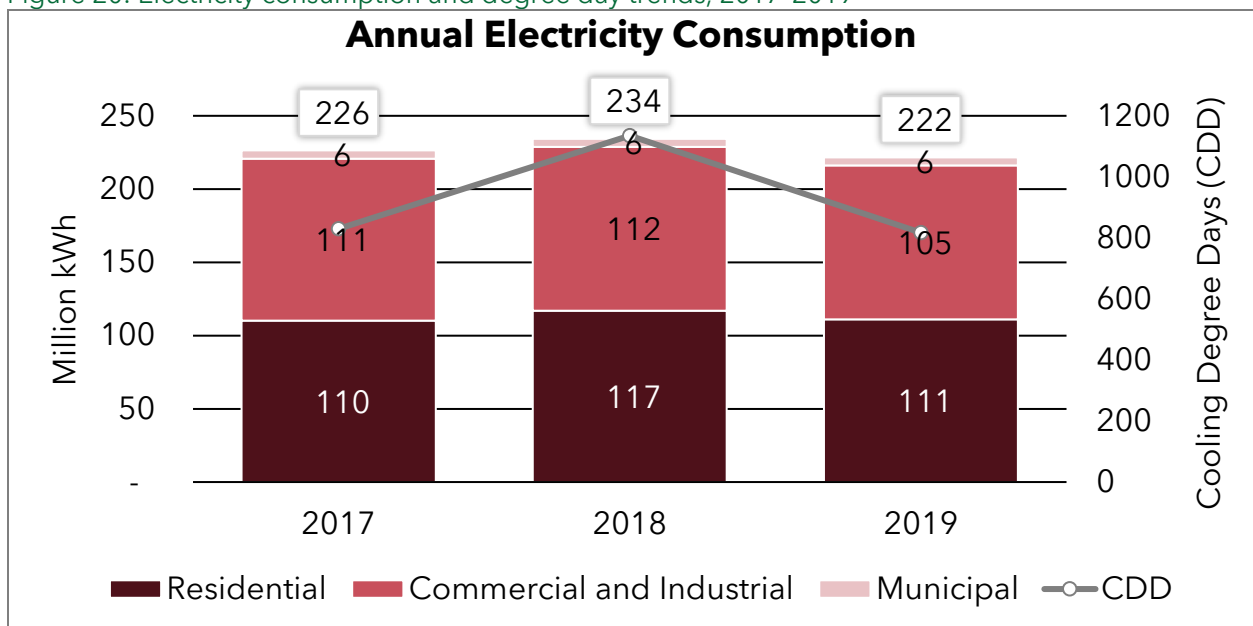
Figure 19: Inver Grove Heights premises by utility and by sector, 2019



### Electricity Consumption Trends

On average, Inver Grove Heights consumes 227.4 million kWh and spends \$26.2 million on electricity across all sectors each year. Electricity consumption over the three-year baseline has remained relatively consistent, with a slight increase 2017 to 2018, which aligns with an increase in cooling degree days and the need to air condition homes and businesses.

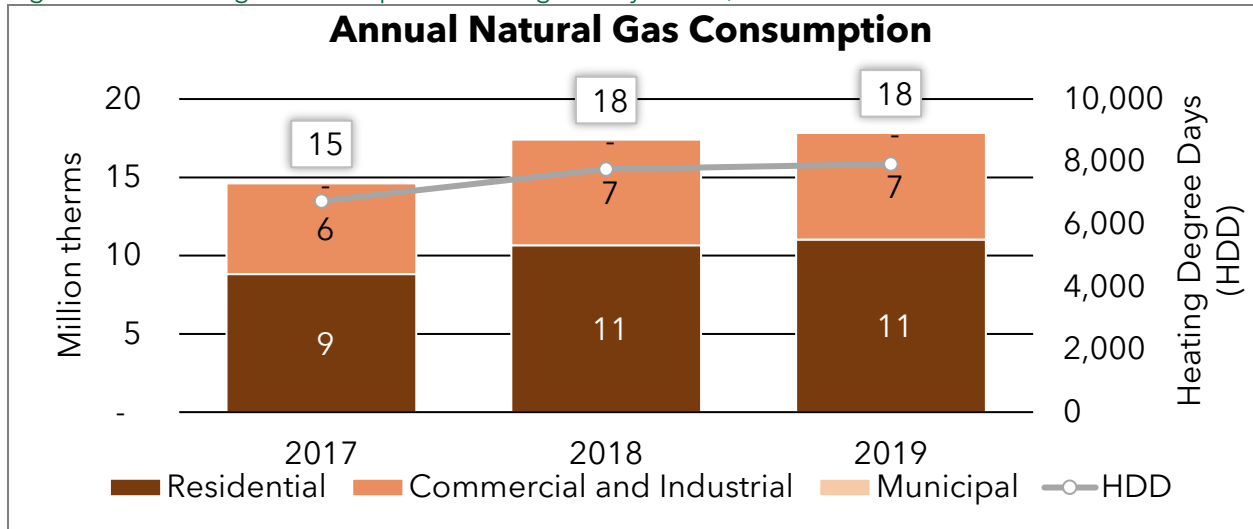
Figure 20: Electricity consumption and degree day trends, 2017-2019



## Natural Gas Consumption Trends

On average, Inver Grove Heights consumes 16.7 million therms and spends \$9.6 million on natural gas across all sectors per year. Natural gas consumption over the three-year baseline has increased, which aligns with an increase in heating degree days and the need to heat homes and businesses.

Figure 21: Natural gas consumption and degree day trends, 2017-2019

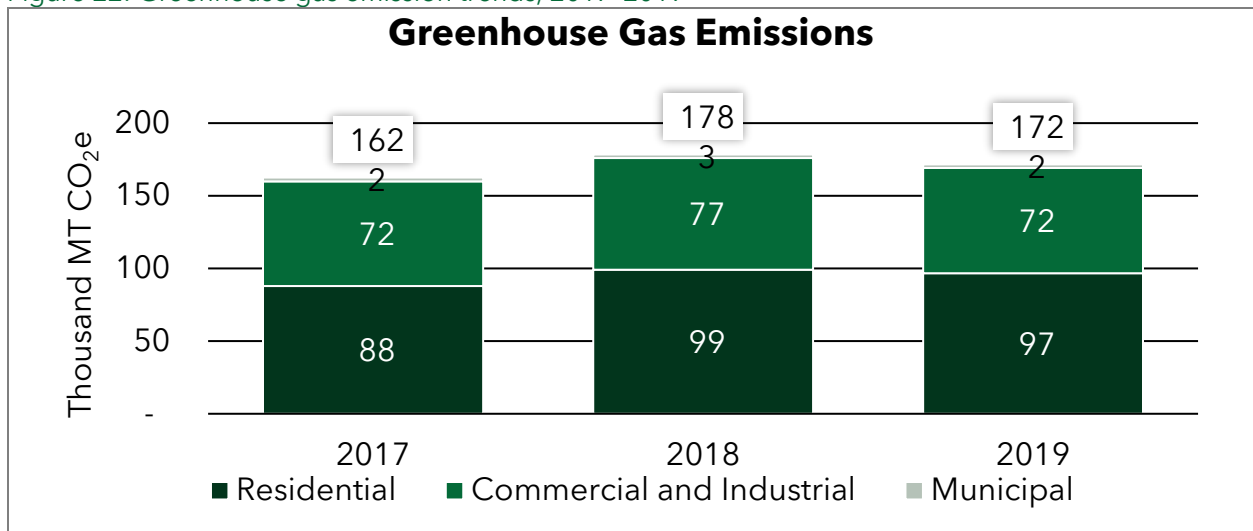


## Greenhouse Gas Emissions and Trends

From 2017 through 2019, greenhouse gas emissions averaged 50,300 MTCO<sub>2</sub>e. To put that into perspective, that is the equivalent the emissions from 10,867 passenger vehicles driven for one year, or about 55.4 million pounds of coal burned.<sup>35</sup>

<sup>35</sup> U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

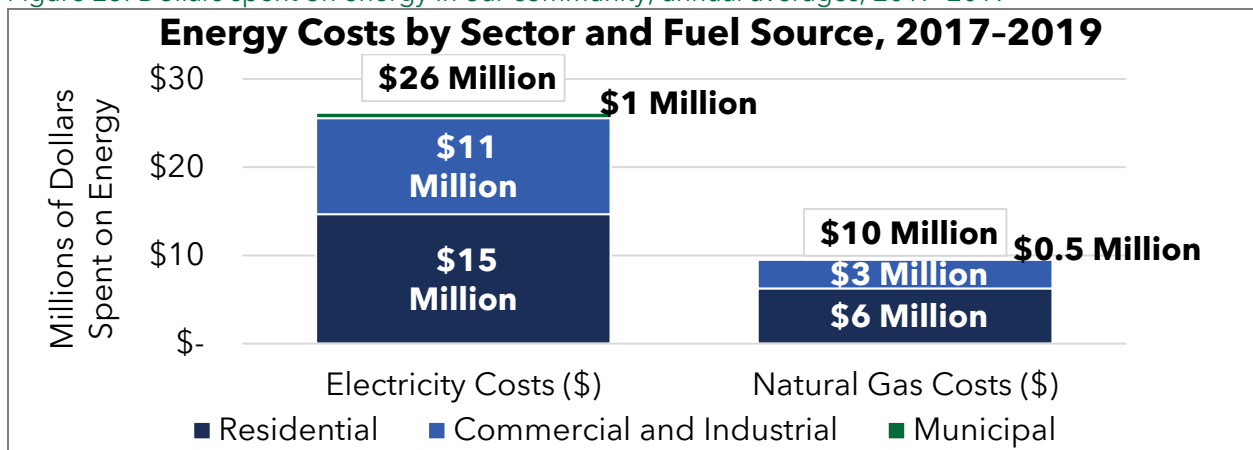
Figure 22: Greenhouse gas emission trends, 2017-2019



### Energy Costs

Across the baseline period, the Inver Grove Heights community spent an estimated \$35.5 million dollars annually on energy costs across both electricity and natural gas. Most of that spending was on electricity – about three-quarters.

Figure 23: Dollars spent on energy in our community, annual averages, 2017-2019



The average residential premises spend about \$1,300 on energy each year – or a little over \$100 per month. While costs fluctuate greatly for commercial and industrial premises based on size and industry, these premises on average spent nearly eight times what residents did on energy, just under \$10,000 each year over the baseline period.

Table 5: Average annual energy costs per premise by sector, 2017-2019

| Customer Type             | Electricity Costs | Natural Gas Costs | Total Costs | Average Monthly Costs |
|---------------------------|-------------------|-------------------|-------------|-----------------------|
| Residential               | \$ 917            | \$ 391            | \$ 1,308    | \$ 109                |
| Commercial and Industrial | \$ 7,523          | \$ 2,264          | \$ 9,787    | \$ 816                |
| Municipal                 | \$ 9,746          | \$ 806            | \$ 10,551   | \$ 879                |

### Program Participation and Savings

In Minnesota, utilities offer an array of Conservation Improvement Programs designed to help customers reduce energy use and expenditures. Below, the historic savings for these programs are shown for each of the utilities serving Inver Grove Heights.

#### *Residential Program Participation and Savings*

Over the three-year baseline period, energy savings for residents in Inver Grove Heights averaged around 0.6% of energy use – or about 0.4% of electricity use in the community and 0.7% of natural gas use. Almost 90% of these savings were from Xcel Energy customers. The most popular programs were rebates for heating and cooling equipment – see *Table 6*.

Table 6: Xcel Energy residential conservation program participation counts and savings, 2017-2019

| Xcel Energy Program             | 2017  |               |                 | 2018  |               |                 | 2019  |               |                 |
|---------------------------------|-------|---------------|-----------------|-------|---------------|-----------------|-------|---------------|-----------------|
|                                 | Count | Savings (kWh) | Savings (therm) | Count | Savings (kWh) | Savings (therm) | Count | Savings (kWh) | Savings (therm) |
| Efficient New Home Construction | 65    | 40,941        | 12,682          | 114   | 109,837       | 27,238          | 79    | 130,732       | 28,296          |
| Home Energy Audit               | 40    | –             | –               | 46    | –             | –               | 58    | –             | –               |
| Home Energy Savings Program     | 7     | 1,212         | 562             | 17    | 5,313         | –               | 26    | 9,960         | 750             |
| Home Energy Squad               | 23    | 32,812        | 1,574           | 26    | 29,373        | 1,614           | 37    | 38,588        | 1,786           |
| Insulation Rebate               | 14    | 4,973         | 2,710           | 17    | 2,420         | 4,993           | 15    | 2,268         | 4,332           |
| Low-Income Home Energy Squad    | 3     | 1,333         | 151             | 13    | 12,915        | 802             | 9     | 6,383         | 338             |
| Residential Cooling             | 201   | 63,056        | –               | 282   | 79,460        | –               | 228   | 59,182        | –               |
| Residential Heating             | 228   | 110,134       | 32,533          | 293   | 139,891       | 40,380          | 242   | 114,916       | 35,992          |
| Refrigerator Recycling          | 60    | 48,126        | –               | 73    | 55,230        | –               | 65    | 51,448        | –               |
| Residential Saver's Switch      | 192   | 392           | –               | 309   | 623           | –               | 222   | 446           | –               |
| Smart Thermostat                | 43    | 105           | 56              | 52    | 1,322         | 1,316           | 31    | 2,289         | 1,190           |
| Water Heater Rebate             | 35    | –             | 1,159           | 35    | –             | 1,180           | 29    | –             | 1,262           |
| Whole Home Efficiency           | 1     | –             | 154             | –     | –             | –               | 1     | 792           | 185             |
| <b>Total</b>                    | 912   | 303,084       | 51,581          | 1,277 | 436,384       | 77,523          | 1,042 | 417,004       | 74,131          |

Table 7: Dakota Electric residential conservation program participation counts and savings, 2017-2019

| Dakota Electric Program               | 2017  |               | 2018  |               | 2019  |               |
|---------------------------------------|-------|---------------|-------|---------------|-------|---------------|
|                                       | Count | Savings (kWh) | Count | Savings (kWh) | Count | Savings (kWh) |
| Recycled Fridge/Freezer               | 15    | 15,219        | 17    | 16,996        | 13    | 13,336        |
| Residential Air Conditioning Programs | 33    | 14,936        | 31    | 14,523        | 40    | 19,160        |
| Residential Heat Pumps                | 1     | 3,555         | 1     | 11,742        | 1     | 3,555         |
| Energy Star Dehumidifier              | 5     | 2,175         | 7     | 3,480         | 7     | 3,045         |
| Residential Equipment – Other         | –     | –             | 4     | 8,400         | –     | –             |
| Income-Qualified Programs             | –     | –             | –     | –             | 8     | 5,919         |
| LED Lights and Holiday Lights         | 1,769 | 78,100        | 1,177 | 52,671        | 334   | 15,030        |
| EV Charger Install                    | 1     | –             | 1     | –             | 5     | –             |
| <b>Total</b>                          | 1,824 | 113,985       | 1,239 | 107,812       | 408   | 60,045        |

### **Commercial & Industrial Program Participation and Savings**

Commercial and Industrial premises in Inver Grove Heights saved far more energy over the baseline period than residents saved. In total, they saved an average of 2.4

million kWh and 74,000 therms over the baseline period – or about 2% of total sector use for each of the respective fuel sources. The most popular programs were lighting efficiency programs, followed by heating equipment rebates. Over 97% of savings were from customers served by Xcel Energy.

Table 8: Xcel Energy commercial and industrial conservation program participation counts and savings, 2017-2019<sup>36</sup>

| Xcel Energy Program         | 2017      |                  |                 | 2018      |                  |                 | 2019      |                  |                 |
|-----------------------------|-----------|------------------|-----------------|-----------|------------------|-----------------|-----------|------------------|-----------------|
|                             | Count     | Savings (kWh)    | Savings (therm) | Count     | Savings (kWh)    | Savings (therm) | Count     | Savings (kWh)    | Savings (therm) |
| Cooling                     | 2         | 394              | –               | 6         | 2,256            | –               | 6         | 11,105           | –               |
| Custom Efficiency           | 2         | 318,831          | 673             | 1         | –                | 47,697          | 2         | 84,065           | 5,003           |
| Efficiency Controls         | –         | –                | –               | 2         | 67,318           | 2,447           | –         | –                | –               |
| Electric Rate Savings       | 3         | -21,683          | –               | 1         | -212             | –               | –         | –                | –               |
| Energy Design Assistance    | –         | –                | –               | –         | –                | –               | 2         | 21,028           | 126,660         |
| Energy Efficient Buildings  | –         | –                | –               | –         | –                | –               | 2         | 92,599           | -8              |
| Fluid System Optimization   | –         | –                | –               | 2         | 36,170           | –               | 4         | 226,703          | –               |
| Foodservice Equipment       | –         | –                | –               | –         | –                | –               | 1         | –                | 5,319           |
| Heating Efficiency          | 36        | 1,261            | 14,144          | 9         | 1,687            | 9,698           | 13        | 2,522            | 9,048           |
| Lighting Efficiency         | 25        | 1,166,788        | –               | 32        | 1,407,091        | –               | 38        | 815,286          | –               |
| Motor Efficiency            | 2         | 83,763           | –               | 4         | 320,687          | –               | 1         | 10,466           | –               |
| Saver's Switch for Business | –         | –                | –               | 3         | 30               | –               | 1         | 2                | –               |
| Small Business Lighting     | 39        | 939,400          | –               | 27        | 657,049          | –               | 22        | 657,827          | –               |
| Turn Key Services           | 2         | –                | –               | –         | –                | –               | 2         | –                | –               |
| <b>Total</b>                | <b>70</b> | <b>1,549,354</b> | <b>14,817</b>   | <b>57</b> | <b>1,834,997</b> | <b>59,842</b>   | <b>69</b> | <b>1,263,774</b> | <b>146,022</b>  |

<sup>36</sup> Note: “commercial and industrial” in this table also includes any City of Inver Grove Heights (“municipal”) participation and savings

Table 9: Dakota Electric commercial and industrial conservation program participation counts and savings, 2017-2019

| Dakota Electric Program      | 2017  |               | 2018  |               | 2019  |               |
|------------------------------|-------|---------------|-------|---------------|-------|---------------|
|                              | Count | Savings (kWh) | Count | Savings (kWh) | Count | Savings (kWh) |
| Commercial Lighting          | –     | –             | –     | –             | 6     | 162,231       |
| Commercial HVAC              | –     | –             | –     | –             | 1     | 1,458         |
| Commercial Motors and Drives | –     | –             | –     | –             | 1     | 10,879        |
| <b>Total</b>                 | 0     | 0             | 0     | 0             | 8     | 174,568       |

### Renewable Energy Support

Far more residents than commercial and industrial premises support renewable energy in Inver Grove Heights – nearly 20 times as many, or just under 1,000 premises. Xcel Energy’s Windsource was the most popular program, followed by community solar. Commercial and industrial customers were responsible for supporting the most renewable energy generation through on-site solar rewards or off-site community solar gardens, supporting 13 million kWh of renewable electricity generation in 2019 overall.

Table 10: Total support for renewable energy in Inver Grove Heights, 2019

| Total Renewable Energy Support <sup>37</sup> | Residential <sup>38</sup> | Commercial & Industrial <sup>39</sup> |
|--|---------------------------|---------------------------------------|
| Subscriber Count                             | 931                       | 49                                    |
| Total Annual Electricity Subscribed (kWh)    | 3,054,133                 | 13,066,858                            |

<sup>37</sup> Includes both programs where the customer can and cannot claim the Renewable Energy Credits for the energy. See Table 11 for program-specific details.

<sup>38</sup> Includes all Dakota Electric programs for which sector is unknown. Over 92% of Dakota Electric’s premises in Inver Grove Heights are residential, so this assumes that the renewable energy subscribers are primarily residential.

<sup>39</sup> Note: “commercial and industrial” in this figure also includes any City of Inver Grove Heights (“municipal”) renewable energy support.

Table 11: Support for renewable energy in Inver Grove Heights by program, 2019

| Renewable Energy or Solar Program    |   | Residential | Commercial & Industrial <sup>40</sup> |
|--------------------------------------|---|-------------|---------------------------------------|
| Off-site / Subscription              | <b>Xcel Energy Windsource®</b>                                  |             |                                       |
|                                      | Subscriber Count  | 577         | 1                                     |
|                                      | Total Annual Electricity Subscribed (kWh)                       | 1,377,254   | 600,000                               |
|                                      | Percentage of Sector Electricity Use                            | 1.5%        | 0.6%                                  |
|                                      | <b>Xcel Energy Renewable*Connect®</b>                           |             |                                       |
|                                      | Subscriber Count  | 12          | –                                     |
|                                      | Total Annual Electricity Subscribed (kWh)                       | 78,986      | –                                     |
|                                      | Percentage of Sector Electricity Use                            | 0.1%        | –                                     |
|                                      | <b>Dakota Electric Wellspring®<sup>41</sup></b>                 |             |                                       |
|                                      | Subscriber Count  |             | 27                                    |
|                                      | Total Annual Electricity Produced (kWh)                         |             | 173,000                               |
|                                      | Percentage of Sector Electricity Use                            |             | 0.2%                                  |
|                                      | <b>Xcel Energy Solar*Rewards Community® (Community Solar)**</b> |             |                                       |
|                                      | Subscriber Count  | 288         | 46                                    |
|                                      | Total Annual Electricity Produced (kWh)                         | 1,339,332   | 3,749,879                             |
| Percentage of Sector Electricity Use | 1%  | 4%          |                                       |
| On-site                              | <b>Xcel Energy Solar*Rewards®**</b>                             |             |                                       |
|                                      | Installation Count  | 24          | 2                                     |
|                                      | Total Annual Electricity Produced (kWh)                         | 85,561      | 8,716,979                             |
|                                      | Percentage of Sector Electricity Use                            | 0.1%        | 8.2%                                  |
|                                      | <b>Dakota Solar Rebate**</b>                                    |             |                                       |
| Installation Count                   |   | 3           |                                       |

\*\*Indicates a program where the customer does not retain the renewable energy credits. Energy produced or credited through these programs cannot be classified as renewable electricity.

<sup>40</sup> Note: “commercial and industrial” in this figure also includes any City of Inver Grove Heights (“municipal”) renewable energy support.

<sup>41</sup> Numbers for Wellspring are for all customers, including residents and nonresidents.





## APPENDIX 2: METHODOLOGY FOR MEASURING SUCCESS

The following section defines the ways that we will be measuring progress towards our goals and targets, including the Xcel Energy and Dakota Electric program(s) that were part of the baseline.

As part of implementation support, Partners in Energy will provide biannual progress reports for Xcel Energy participation and savings data. Goals are measured using projected savings impacts from achieving the targets of this plan. The assumptions that were used in modeling these goals are outlined below.

### Community Goals

The goals of this plan are nonbinding and are designed to guide our implementation efforts and help measure our success.

The City established the following goals:

#### **Between 2021 & 2022, we will...**

- Engage an estimated 2,000 residents and 250 businesses, schools, nonprofits, and places of worship across our community
- Support 80 under-resourced households with energy costs
- Add 250 new residential and 12 new commercial renewable energy subscribers or community solar garden supporters
- Support 10 residential on-site solar installations

#### **By 2025, we will cumulatively...**

- Save an estimated \$2.6 million
- Save 20 million kWh of electricity & 1.3 million therms of natural gas
- Avoid an estimated 16,000 MTCO<sub>2e</sub>

**By 2030, we will cumulatively...**

- Save an estimated \$5 million
- Save 39 million kWh of electricity & 2.5 million therms of natural gas
- Avoid an estimated 28,000 MTCO<sub>2e</sub>

***How to Measure***

The following table outlines how to measure various aspects of the goals outlined above and articulated elsewhere in this plan. This includes details of what programs and activities may be included and any assumptions used to measure the goals.

Xcel Energy data will be provided through Partners in Energy. Dakota Electric data will be provided directly to the community by the utility.

| <i>Timeline</i>   | <i>How to measure</i>   |
|---|---|
| Between 2021 & 2022   | January 2021 to December 2022   |
| Goal  | How to Measure  |
| Engage an estimated 2,000 residents and 250 businesses, schools, nonprofits, and places of worship across our community | Participation in all utility energy Conservation Improvement Programs from Xcel Energy and Dakota Electric  |
| Support 80 under-resourced households with energy costs   | Participation in utility programs targeted toward income-qualifying households, including: <ul style="list-style-type: none"> <li>• Low Income Home Energy Squad</li> <li>• Home Energy Savings Program</li> </ul>  |
| Add 250 new residential and 12 new commercial renewable energy subscribers or community solar garden supporters         | Participation in renewable energy subscription programs, including: <ul style="list-style-type: none"> <li>• Xcel Energy’s Windsource</li> <li>• Xcel Energy’s, Renewable*Connect</li> <li>• Dakota Electric’s Wellspring</li> </ul> As well as participation in Xcel Energy’s community solar program, Solar*Rewards Community |
| Support 10 residential on-site solar installations.   | Participation in on-site renewable energy programs, including: <ul style="list-style-type: none"> <li>• Xcel Energy’s Solar*Rewards.</li> <li>• Dakota Electric’s Solar Rebates</li> </ul> Other on-site solar as documented by the City  |

| <b>Timeline</b>  | <b>How to measure</b>   |
|--|---|
| By 2025  | January 2021 to December 2025   |
| By 2035  | January 2021 to December 2030   |
| <b>Goal</b>  | <b>How to Measure</b>   |
| <ul style="list-style-type: none"> <li>• Save an estimated \$2.6 million (2025)</li> <li>• Save an estimated \$5 million (2030)</li> </ul>   | Dollar savings are estimated based on the energy savings listed below and an estimated average cost of energy by source and sector. See “Metric: Costs” below for more details.   |
| <ul style="list-style-type: none"> <li>• Save 20 million kWh of electricity &amp; 1.3 million therms of natural gas (2025)</li> <li>• Save 39 million kWh of electricity &amp; 2.5 million therms of natural gas (2030)</li> </ul> | Energy savings are based on savings from participation in utility programs as reported by the utilities. See “Metric: Energy Savings” below for more details.   |
| <ul style="list-style-type: none"> <li>• Avoid an estimated 16,000 MTCO<sub>2e</sub> (2025)</li> <li>• Avoid an estimated 28,000 MTCO<sub>2e</sub> (2030)</li> </ul>   | Greenhouse gas emissions avoided are estimated based on future projected emissions for energy from the electricity grid and from natural gas. Xcel Energy’s emission factors were used for all energy. See “Metric: Greenhouse Gas Emissions Avoided” below for more details. |

***Metric: Costs***

All costs and dollar savings estimates are based on Xcel Energy averages for the baseline period. Changes in the costs of electricity and natural gas may impact the dollars saved, and therefore also this plan’s impact. Costs in this goal do not account for delivered fuels, costs or savings from renewable energy, or demand charges for commercial customers.

Table 12: Cost assumptions for the goals, by customer and fuel type

| <b>Customer</b>              | <b>Residential</b> | <b>Commercial &amp; Industrial</b> |
|------------------------------|--------------------|------------------------------------|
| Electricity, Dollars per kWh | \$0.113            | \$0.087                            |
| Natural Gas, Dollars per kWh | \$0.09             | \$0.5                              |

Table 13 outlines which sectors we assumed savings would be sourced from.

Table 13: Cumulative estimated dollars saved (\$) by sector by goal years 2025 and 2030

| <b>Estimated Dollars Saved by Sector</b> | <b>By 2025</b> | <b>By 2030</b> |
|--|----------------|----------------|
| Residential Energy Efficiency            | \$564,942      | \$1,088,947    |
| Business Energy Efficiency               | \$2,053,183    | \$3,998,908    |
| Total Estimated Dollars Saved            | \$2,618,125    | \$5,087,855    |

**Metric: Energy Savings**

Energy savings are provided by utilities based on participation in programs. Our goals hope to achieve the following savings by sector and utility.

Table 14: Cumulative estimated energy savings by sector by goal years 2025 and 2030

| <b>Estimated Energy Saved by Sector</b>                     | <b>By 2025</b> | <b>By 2030</b> |
|---|----------------|----------------|
| <b>Xcel Energy Program Savings</b>                          |                |                |
| <b>Electric (kWh)</b>                                       |                |                |
| Residential Energy Efficiency                               | 2,266,238      | 4,331,803      |
| Business Energy Efficiency                                  | 17,388,365     | 33,719,516     |
| Total Estimated Electricity Saved                           | 19,654,603     | 38,051,319     |
| <b>Natural Gas (therms)</b>                                 |                |                |
| Residential Energy Efficiency                               | 395,772        | 766,180        |
| Business Energy Efficiency                                  | 904,166        | 1,782,051      |
| Total Estimated Natural Gas Saved                           | 1,299,938      | 2,548,231      |
| <b>Dakota Electric Program Savings</b>                      |                |                |
| Residential Energy Efficiency                               | 211,522        | 423,043        |
| Business Energy Efficiency                                  | 90,128         | 180,257        |
| Total Estimated Electricity Saved                           | 301,650        | 603,300        |
| <b>Total Goal Electricity Saved, All Utilities (kWh)</b>    | 20 million     | 39 million     |
| <b>Total Goal Natural Gas Saved, All Utilities (therms)</b> | 1.3 million    | 2.5 million    |

**Metric: Greenhouse Gas Emissions Avoided**

To estimate avoided emissions, projections of emissions factors were applied to the electricity savings. Avoided emissions for these goal years are based off Xcel Energy’s 2019 Carbon Emissions Reporting,<sup>42</sup> as well as Xcel Energy’s electricity carbon goals of an 80% reduction in emissions by 2030 and a 100% reduction in emissions by

<sup>42</sup> Energy and Carbon Emissions Reporting 2019 Summary by Xcel Energy. <https://www.xcelenergy.com/staticfiles/xcel-responsive/Environment/Carbon/Xcel-Energy-Carbon-Dioxide-Emission-Intensities.pdf>.

2050.<sup>43</sup> Differences between projections based on these goals and the actual emissions will impact progress toward the specific carbon estimates articulated for this plan.

The goal for greenhouse gas emissions avoided also included emissions avoided with renewable energy. Carbon impacts for renewable energy are only counted for renewable energy programs where the customer retains the Renewable Energy Credits (RECs). This includes Xcel Energy’s Windsource and Renewable\*Connect. The following table outlines the assumptions for renewable energy.

Table 15: Cumulative estimated greenhouse gas emissions avoided (MTCO<sub>2</sub>e) by sector by goal years 2022 and 2030

| Estimated Emissions Avoided by Sector  | By 2025 | By 2030 |
|--|---------|---------|
| Residential Energy Efficiency          | 2,752   | 5,077   |
| Business Energy Efficiency             | 9,396   | 16,648  |
| Renewable Energy <sup>44</sup>         | 3,640   | 6,339   |
| Total Greenhouse Gas Emissions Avoided | 15,787  | 28,064  |

Greenhouse gas emissions avoided from other energy and non-energy sources, including transportation, are not measured in our plan.

### Focus Area Targets

In addition to the overarching goals, this plan established targets in each focus area. Targets outline a framework and direction of how the community can contribute toward the bigger goals.

#### ***Focus Area: Residential Community Engagement***

**Targets:** Across 2021 and 2022 combined, we hope to engage our residential community to achieve the following:

- ✓ 200 homes receive a home energy assessment or direct-install visit to jump-start energy savings
- ✓ 90 homes are served by programs specifically targeted toward income-qualifying households
- ✓ 180 new home construction or renovation projects complete a utility new home efficiency program
- ✓ 6 multi-family buildings complete an energy assessment
- ✓ 260 new residents supporting renewable energy

<sup>43</sup> Xcel Energy’s Clean Energy Goals. [https://www.xcelenergy.com/carbon\\_free\\_2050](https://www.xcelenergy.com/carbon_free_2050).

<sup>44</sup> Includes only energy efficiency from renewable energy from Xcel Energy’s Windsource and Renewable\*Connect. This only includes residential participation because commercial participation is targeted to only include programs where the customer does not retain the RECs.

The following table outlines the targets that the community hopes to achieve for energy efficiency programs.

| <b><i>Target Identified<br/>(Total, 2021-2022)</i></b>  | <b><i>What's Included</i></b>  | <b><i>How It's Measured</i></b>                             |
|---|--|---|
| 200 homes receive a home energy assessment or direct-install visit to jump-start energy savings | Xcel Energy's Home Energy Squad, home energy audits, including those from Dakota Electric  | Counts of program participation                             |
| 90 homes are served by programs specifically targeted toward income-qualifying households       | Xcel Energy's Low-Income Home Energy Squad, Home Energy Savings Program, Dakota Electric's low-income programs, others as requested                  |   |
| 180 new home construction or renovation projects complete a utility new home efficiency program | Xcel Energy's Efficient New Home Construction  |   |
| 6 multi-family buildings complete an energy assessment  | Xcel Energy's Multi-Family Building Efficiency Program, others targeted toward multi-family buildings as requested                                   |   |
| 260 new residents supporting renewable energy   | Participation in any renewable energy or community solar program. Other renewable energy as documented by the City. Measured from the 2019 baseline. | Counts of program participation or City permitting records. |

Partners in Energy will be responsible for tracking and reporting participation from Xcel Energy. The City of Inver Grove Heights will be responsible for tracking programs from other utilities or providers.

***Focus Area: Businesses, Schools, Nonprofits, and Places of Worship***

**Targets:** By 2022, we will strive to engage the following numbers of businesses, schools, nonprofits, and places of worship:<sup>45</sup>

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<sup>45</sup> Business engagement will be measured by number of engagements and program participation, rather than by unique businesses or buildings reached.

- ✓ 95 small business energy assessments for lighting, HVAC, or commercial refrigeration equipment
- ✓ 7 new construction projects that use a program to increase efficiency
- ✓ 5 larger businesses completing a Commercial Streamlined Assessment or recommissioning
- ✓ 12 new businesses, schools, nonprofits, and places of worship supporting renewable energy

| <b><i>Target Identified<br/>(Total, 2021-2022)</i></b>   | <b><i>What's Included</i></b>  | <b><i>How It's Measured</i></b>                             |
|--|--|---|
| 95 small business energy assessments for lighting, HVAC, or commercial refrigeration equipment | Xcel Energy's Commercial Refrigeration Efficiency program, One-Stop Efficiency Shop, and other small-business-focused programs, including Energy Smart <sup>46</sup> | Counts of program participation                             |
| 7 new construction projects that use a program to increase efficiency                          | Xcel Energy's Energy Efficiency Buildings and Energy Design Assistance Programs, other programs from Dakota Electric as requested                                    |   |
| 5 larger businesses completing a Commercial Streamlined Assessment or recommissioning          | Xcel Energy's Commercial Streamlined Assessment and Recommissioning, other programs as requested   |   |
| 12 new businesses, schools, nonprofits, and places of worship supporting renewable energy      | Participation in any renewable energy or community solar program. Other renewable energy as documented by the City. Measured from the 2019 baseline                  | Counts of program participation or City permitting records. |

***Focus Area: Municipal Leadership***

The City established the following targets. As part of this plan's implementation, the City will work to establish baselines against which to measure progress.

- ✓ Increase energy efficient at City facilities

<sup>46</sup> Energy Smart is a program through the Minnesota Chamber of Commerce available to all utility customers. <https://www.mnchamber.com/your-opportunity/energy-smart>.

- ✓ Increase the number of municipal community solar garden subscriptions
- ✓ Increase the amount of renewable energy used by City facilities
- ✓ Increase fuel efficiency of vehicle fleet
- ✓ Increase the amount of alternative fuel vehicles in the fleet

### **Measuring our Stretch Goals**

Our plan established stretch goals to work towards if we are on track to meet or exceed our main goals listed above. The metrics of these goals are the same as those listed above, only with higher values. Our stretch goals can be found on *page 18*.





## APPENDIX 3: XCEL ENERGY'S PARTNERS IN ENERGY PLANNING PROCESS

### About Xcel Energy's Partners in Energy

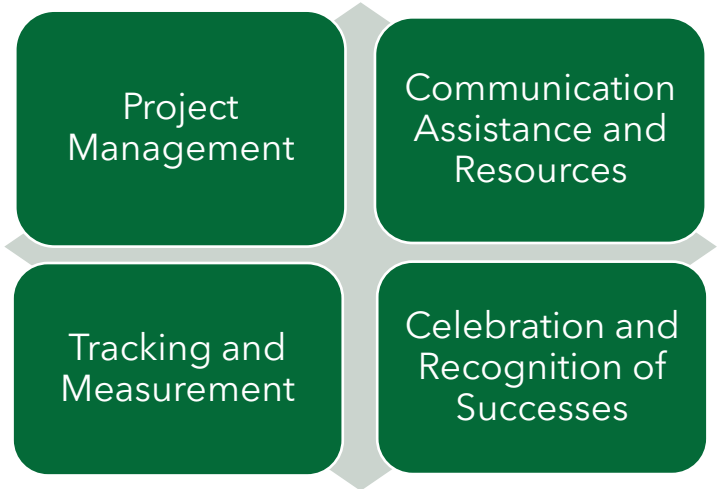
Xcel Energy is an electric and natural gas utility that provides the energy that powers millions of homes and businesses across eight western and midwestern states. Each community Xcel Energy serves has its own unique priorities and vision for its energy future. The energy landscape is dynamically changing, 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 workshops with a planning team committed to representing local priorities and implementing plan strategies.



Partners in Energy Process for Success

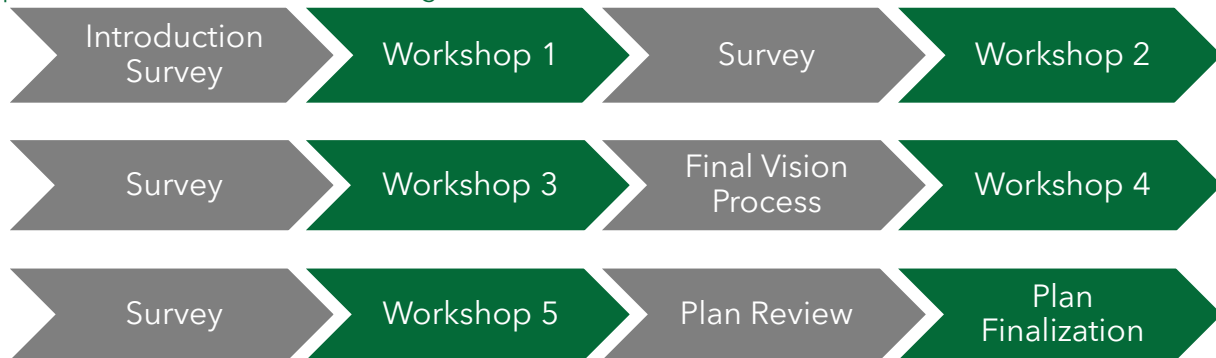


Resources from Xcel Energy for Implementation

### Partners in Energy Engagement Process

The engagement process included both a series of five workshops, all hosted online through video conferencing, as well as multiple surveys and assignments between workshops.

Figure 24: A visualization of the engagement steps throughout the planning process. Workshops and plan finalization are shown in dark green.



### Introduction Survey

July 2020

Before kicking off the planning process, the Energy Action Team completed an introduction survey, which both provided background on the Partners in Energy process and gathered input from the team.

In the survey, Energy Action Team members were asked to share a little bit about themselves, prioritize energy issues for the community, and react to a draft energy vision statement.

### ***Workshop 1***

*July 22, 2020*

Inver Grove Heights first planning workshop was centered around establishing a groundwork for the plan through data and a shared energy vision. The team received an introduction to the Partners in Energy planning process, gained an understanding of Inver Grove Heights through data, learned about how their community uses and saves energy, and discussed a shared energy vision for this process.

### ***Survey and preparation for Workshop 2***

*August 2020*

In preparation for the second workshop, the energy action team reviewed a revised version of the vision statement and provided input on a selection of draft focus areas.

### ***Workshop 2***

*September 1, 2020*

Inver Grove Heights' second planning workshop resulted in the team prioritizing near-term and long-term focus areas. After learning about energy opportunities for different focus areas, the team brainstormed community assets and voted on near-term focus areas for the plan.

### ***Survey and preparation for Workshop 3***

*October 2020*

Before Workshop 3, the team completed a survey to provide feedback on a draft vision statement, identify goal metrics that would resonate with the community, share their preferred time horizon and ambition level, and finalize focus areas.

### ***Workshop 3***

*October 6, 2020*

At Workshop 3, the Energy Action Team finalized their focus areas and vision statement. They also brainstormed communication channels to support implementation, worked in small groups to identify barriers and benefits to taking action for each focus area group, and discussed preferred goal metrics.

### ***Final vision process***

*October–November 2020*

A small group of Energy Action Team members volunteered to workshop the vision statement to create a short, concise statement. This small group worked separately from the workshop process to create Inver Grove Heights vision statement.

#### ***Workshop 4***

*November 17, 2020*

The Energy Action Team spent the majority of the fourth workshop in small groups, refining strategies and tactics for each focus area. In addition, the group reacted to different goal scenarios, including an achievable and an ambitious scenario, to help refine their community-wide goal.

#### ***Survey and preparation for final workshop***

*December 2020*

In preparation for the final workshop, the Energy Action Team completed an online survey to provide feedback on strategies, tactics, and targets discussed at Workshop 4. This was an opportunity for team members to give feedback on strategies not discussed in their small group and an opportunity to contribute more to the strategies and tactics they had already discussed.

#### ***Workshop 5***

*January 6, 2021*

At the final workshop, the Energy Action Team reviewed the status of the Energy Action Plan and their role during the review process. The Energy Action Team prioritized strategies for implementation to help identify what strategies should be tackled first. The team also discussed implementation support opportunities, defining what success would look for them. Finally, the workshop wrapped up by generating excitement for the plan and the transition to implementation in 2021.

#### ***Plan Review***

*February 2021*

Before the plan was finalized, the Energy Action Team had a chance to review the plan and provide input.

#### ***Plan Finalization***

*February-March 2021*

The final plan was presented to Inver Grove Heights' Environment Commission and to City Council prior to approval. City staff and the Xcel Energy Partners in Energy team presented to Environment Commission on February 25, 2021, and to the City Council on March 1, 2021.



## APPENDIX 4: GLOSSARY OF TERMS

**15 x 15:** Xcel Energy’s privacy rule, which require 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 is responsible for more than 15% of the total for that data set, it is are removed from the summary.

**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.

**Conservation Improvement Programs (CIP):** Portfolio of approved utility energy efficiency and demand management programs. Minnesota electric utilities have a

goal of saving 1.5% of their total energy sales each year via customer conservation efforts. Minnesota natural gas utilities have a goal of saving 0.5% of their total energy sales each year via customer conservation efforts.

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

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

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

**Energy Cost Savings:** Estimated dollar equivalency to energy savings estimates. Sometimes referred to as “avoided energy costs,” energy cost savings are the estimated dollars you would not spend on energy bills based on energy savings from a permanent change that results in using less energy.

**Energy Reduction:** The result of behavior changes that cause less energy to be used. For example, setting the thermostat lower *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 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 both electricity and natural gas consumption to be combined.

**Metric Tons of Carbon Dioxide Equivalent (MTCO<sub>2e</sub>):** A unit of measure for greenhouse gas emissions. The unit "CO<sub>2e</sub>" represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO<sub>2</sub>), 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 identifier for the location of electricity or natural gas service. In most cases it is a facility location. There can be multiple premises per building, and multiple premises per individual debtor.

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

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

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

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

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

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

**Therm (thm):** A unit 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.

# **APPENDIX 5: IMPLEMENTATION MEMORANDUM OF UNDERSTANDING**



## **Memorandum of Understanding Phase 2 – Plan Implementation**

Mayor Tom Bartholomew  
City of Inver Grove Heights  
8150 Barbara Avenue  
Inver Grove Heights, MN 55077

The intent of this Memorandum of Understanding is to recognize the achievement of Inver Grove Heights in developing an Energy Action Plan. Northern States Power Company doing business as Xcel Energy, through its Partners in Energy offering, has supported the development of this Energy Action Plan. This document outlines how the City of Inver Grove Heights and Xcel Energy will continue to work together to implement this Energy Action Plan. The term of this joint support, as defined in this document, will extend from April 1, 2021 through December 31, 2022.

### **Xcel Energy will support the City of Inver Grove Heights in achieving the goals of its Energy Action Plan in the following ways:**

#### **Residential Community Engagement**

- A. Education and outreach to increase energy efficiency among residents*
- Create content for outreach campaign, including social media, newsletter copy, flyers and postcards, talking points and scripts, and copy or media for short videos.
  - Incorporate city branding into materials and facilitate review by city and Xcel Energy communications.
  - Identify Xcel Energy programs and energy saving behaviors to promote in materials.
  - Create content and develop testimonials for efficiency guide for both print and online versions.
  - Connect City staff with Home Energy Squad<sup>®</sup> representatives to facilitate buy-down if City chooses to do this.
  - Connect City staff with other Partners in Energy communities for best practices.
  - Create surveys, content, or workshop preparations for annual engagement opportunities for feedback. Support with translation of materials, as needed.
  - Support recognition program with decal and sharing best practices from other Partners in Energy communities.
- B. Decrease energy burden for under-resourced households*
- Support outreach to partner organizations with talking points.
  - Design outreach materials promoting resources and programs targeted to under-resourced and high-energy burden households.
  - Support the translation of promotional materials if identified as a need to reach target audiences.

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- C. Provide targeted education & outreach to multi-family properties and senior living facilities to increase energy efficiency*
  - Create outreach script for multi-family property management engagement, including overview flyer.
  - Design overview flyers to target different types of buildings, such as senior and affordable.
  - Create renter energy savings tips to engage renters.
  - Support recognition program with decal and sharing best practices from other Partners in Energy communities.
- D. Education & outreach to increase renewable energy support and adoption among residents*
  - Identify renewable energy programs for Inver Grove Heights and guides for how to enroll in each program based on resident goals.
  - Create outreach materials identify renewable energy opportunities and programs.
  - Work with City staff to identify permitting and land use guidelines for on-site solar to document in guide.
  - Share best practices and connect City staff to peer communities to examine opportunities for community solar gardens or solar group buys.
- E. Support efficient transportation options for businesses, schools, nonprofits, and places of worship*
  - Create outreach materials aimed at reducing barriers to electric vehicle ownership and development.
  - Share information about electric-vehicle ready development that can be used in development review process.
  - Connect city staff with resources, including Xcel Energy staff who can help promote electric vehicles.

Support funded by Xcel Energy for this strategy is not to exceed 145 hours. These hours will include those provided through the Partners in Energy team from Center for Energy and Environment and do not include support provided by Xcel Energy internal program staff.

**Businesses, Schools, Nonprofits, and Places of Worship**

- A. Education & outreach to increase energy efficiency among industry and large businesses*
  - Create flyers and postcards to distribute at peer-sharing events.
  - Create recognition decal or other material.
  - Connect team with Partners in Energy communities who have recognition programs.
  - Create testimonials and case studies to include in recognition program.
  - Create guide for forming green teams with copy and design support.
  - Create outreach scripts for volunteers.

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- Create surveys or content for annual engagement opportunities for feedback. Provide translation support if identified as an effective way to gather more community output.
  - Support recognition program with decal and sharing best practices from other Partners in Energy communities.
- B. Education & outreach to increase energy efficiency among small businesses*
- Update designed materials from strategy A with small business messaging and programs.
  - Help design outreach campaign with multiple touch points for small businesses, such as a door-to-door campaign in commercial areas of the community.
  - Create outreach scripts and talking points for events, 1:1 outreach, and other small business engagement.
  - Create surveys or content for annual engagement opportunities for feedback. Provide translation support if identified as an effective way to gather more community output.
  - Support recognition program with decal and sharing best practices from other Partners in Energy communities.
- C. Education & outreach to increase energy efficiency among local schools, nonprofits, and places of worship*
- Update designed materials from strategy A to include messaging for schools, nonprofits, and places of worship.
  - Identify Xcel Energy and Dakota Electric programs targeted to this audience.
  - Create campaign with multiple touch points.
  - Create surveys or content for annual engagement opportunities for feedback. Provide translation support if identified as an effective way to gather more community output.
  - Support recognition program with decal and sharing best practices from other Partners in Energy communities.
- D. Education & outreach to increase renewable energy adoption and support among businesses and institutions*
- Identify Xcel Energy and Dakota Electric renewable energy programs.
  - Create guides on how to sign up for different programs.
  - Connect City with other communities, utility contacts, and other renewable energy experts to discuss hosting community solar on-site.
- E. Support efficient transportation options for businesses, schools, nonprofits, and places of worship*
- Create outreach materials aimed at reducing barriers to electric vehicle ownership and development.
  - Share information about electric-vehicle ready development that can be used in development review process.

Connect city staff with resources, including Xcel Energy staff who can help promote electric vehicles. Support funded by Xcel Energy for this strategy is not to exceed 135 hours. These

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hours will include those provided through the Partners in Energy team from Center for Energy and Environment and do not include support provided by Xcel Energy internal program staff.

**Municipal Leadership**

- A. *Demonstrate leadership in sustainability*
  - Connect City with Xcel Energy and Dakota Electric account managers and program managers, and with Partners in Energy Communities for peer-sharing.
  - Support GreenSteps and SolSmart designation activities.
  - Write case studies about projects completed at City facilities to showcase leadership.
  - Share New Construction Toolkit and create materials for development review.
- B. *Increase energy efficiency in municipal operations and buildings*
  - Connect City with Xcel Energy and Dakota Electric account managers and program managers for upgrades.
  - Identify energy saving behaviors for employees and building occupants.
- C. *Explore renewable energy for municipal operations and buildings*
  - Connect City with Xcel Energy and Dakota Electric account managers and program managers about renewable energy options.
  - Connect City with Partners in Energy Communities for peer-sharing.
  - Provide information on best practices for municipal renewable energy development.
- D. *Examine and implement efficient transportation and fleet electrification*
  - Connect City with resources for ride and drive events.
  - Connect City with Xcel Energy and Dakota Electric account managers and program managers about EV resources.
  - Connect City with Partners in Energy Communities for peer-sharing.

Support funded by Xcel Energy for this strategy is not to exceed 45 hours. These hours will include those provided through the Partners in Energy team from Center for Energy and Environment and do not include support provided by Xcel Energy internal program staff.

**Project Management and Reimbursed Expenses**

- A. Provide presentation content outlining Partners in Energy process, identified focus areas and goals, and benefits to community to be presented to Council as part of update process.
- B. Facilitate regular check-in meetings, track and report energy impacts and activities (process annual data from Xcel Energy) and help coordinate implementation kick-off activities.
- C. Provide up to \$2,500 for reimbursed expenses related to printing and distribution of co-branded marketing materials, venue fees, food, and other related needs associated with outreach and education. Xcel Energy funding will not be provided for the purchase of alcohol.

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- D. Support funded by Xcel Energy for this strategy is not to exceed 105 hours. These hours will include those provided through the Partners in Energy team from Center for Energy and Environment and do not include support provided by Xcel Energy internal program staff.

**City of Inver Grove Heights commits to supporting the Energy Action Plan to the best of its ability by:**

Achieving the energy savings impacts outlined in the energy action plan and shown in the table below:

| (2021 – 2022)   | Electricity Savings<br>(in kWh) | Natural Gas Savings<br>(in therms) |
|---|---------------------------------|------------------------------------|
| <b>Baseline Historic Energy Savings</b>                               | 6,053,200                       | 452,600                            |
| <b>Incremental Plan Energy Savings</b>                                | 1,643,500                       | 61,700                             |
| <b>Total Plan Energy Savings<br/>(baseline + plan energy savings)</b> | <b>7,696,700</b>                | <b>514,300</b>                     |

Performing the coordination, tracking, and outreach duties as outlined in the Energy Action Plan that include but are not limited to the following:

**Residential Community Engagement**

- A. *Education and outreach to increase energy efficiency among residents*
  - Leverage communication channels to promote and share calls to action and materials created by Partners in Energy.
  - Create Energy Savings Corner for newsletter.
  - Promote tools and resources on communication channels and with partner networks.
  - Support creation of videos and other flyers by reviewing content and providing communications support to host and publish content.
  - Collect testimonials from residents to feature in outreach.
  - Develop a green recognition program for residents, including eligibility requirements and structure for awarding recognition to residents.
  - Host annual engagement opportunities to collect feedback on energy related needs, such as surveys, open houses, or workshops.
- B. *Decrease energy burden for under-resourced households*
  - Establish partnerships with service organizations and leverage existing relationships to garner support for the Energy Action Plan and to support under-resourced households.
  - Share outreach materials with partner organizations.

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- Leverage relationships with manufactured home parks to conduct outreach about resources.
  - Leverage community channels to share messaging and resources.
  - Identify and coordinate home financing options to offer low-interest financing opportunities.
- C. Provide targeted education & outreach to multi-family properties and senior living facilities to increase energy efficiency*
- Create list of multi-family buildings in Inver Grove Heights using city and public data.
  - Leverage recycling outreach relationships to share energy efficiency program materials.
  - Work with existing communication channels and property managers to share renter energy savings tips.
  - Develop recognition program for multi-family buildings, including eligibility and structure for recognition.
- D. Education & outreach to increase renewable energy support and adoption among residents*
- Leverage communication channels to promote and share calls to action and materials created by Partners in Energy.
  - Explore opportunities for on-site solar gardens by connecting with peer communities and utility experts.

**Businesses, Schools, Nonprofits, and Places of Worship**

- A. Education & outreach to increase energy efficiency among industry and large businesses*
- Create dedicated webpage to host information about energy opportunities for businesses.
  - Research best practices for recognition programs and establish a large business category.
  - Gather testimonials from businesses to share with outreach.
  - Leverage city relationships and communication channels to share outreach materials.
  - Identify volunteers and champions to help with 1:1 outreach.
  - Host annual engagement opportunities to collect feedback on energy related needs, such as surveys, open houses, or workshops.
- B. Education & outreach to increase energy efficiency among small businesses*
- Leverage city relationships and communication channels to share outreach materials, including Chamber of Commerce relationships.
  - Identify civic organizations and other groups to help share outreach materials and garner support for the Energy Action Plan.
  - Gather testimonials from businesses to share with outreach.
  - Identify opportunities to speak at Chamber events to co-host energy-specific event.

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- Identify volunteers and champions to help with 1:1 outreach to small businesses.
  - Establish recognition process for small businesses to accompany other recognition programs.
  - Use city relationships and other public sources to identify buildings that are owned by commercial property groups to facilitate direct engagement with decision makers.
  - Host annual engagement opportunities to collect feedback on energy related needs, such as surveys, open houses, or workshops.
- C. Education & outreach to increase energy efficiency among local schools, nonprofits, and places of worship*
- Partner with Chamber to create peer-sharing events about energy.
  - Leverage city relationships and communication channels to share outreach materials.
  - Establish recognition process for schools, nonprofits, and places of worship to accompany other recognition programs.
  - Host annual engagement opportunities to collect feedback on energy related needs, such as surveys, open houses, or workshops.
- D. Education & outreach to increase renewable energy adoption and support among businesses and institutions*
- Leverage city relationships with external partners, plus city-based communication channels to share outreach materials.
  - Help identify sites that may serve as good sites for community solar gardens.
  - Host annual engagement opportunities to collect feedback on energy related needs, such as surveys, open houses, or workshops.

**Municipal Leadership**

- A. Demonstrate leadership in sustainability*
- Showcase the city's journey related to energy efficiency, renewable energy and sustainability through demonstrating past progress as well as greenhouse gas and cost impacts.
  - Highlight clean energy projects completed by the city, residents and businesses through written case studies, social media posts, tours, etc.
  - Provide education to developers on grants available for clean energy projects, energy efficiency projects, water conservation projects, etc.
  - Educate City Council, leadership, and commissions about Energy Action Plan goals and strategies and initiate call to action for support.
  - Update City code as needed to make develop standards friendly for renewable energy use and development.
  - Establish an internal Green Team including representatives of City divisions such as community development, finance, fleet management, parks and operations and maintenance to guide municipal sustainability efforts.
  - Create an environmental purchasing policy.

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- Continue to make progress towards GreenStep City goals related to energy conversation, renewable energy and collection of baseline and annual reporting metrics.
- B. Increase energy efficiency in municipal operations and buildings**
  - Educate employees and other building occupants about recommended sustainable behaviors at municipal facilities.
  - Explore cost-effective options to maximize efficiency and sustainability in major municipal development and construction projects.
- C. Explore renewable energy for municipal operations and buildings**
  - Explore renewable energy options, including on-site and subscription programs, to cover municipal operations.
  - Examine municipal properties for opportunities to host solar gardens, including community solar gardens, following the best practices of peer communities.
- D. Examine and implement efficient transportation and fleet electrification**
  - Consider right-sizing or down-sizing the city fleet with vehicles that are more fuel efficient and an optimal size for their intended functions (GreenStep Cities Best Practice #13.2).
  - Consider purchasing alternative fuel vehicles, such as electric vehicles, during fleet vehicle replacement process (GreenStep Cities Best Practice #13.2).
  - Review FleetCarma analysis for vehicle replacement recommendations.
  - Replace high-use light-duty vehicles with electric vehicles.
  - Seek and apply for grant funding opportunities for electric vehicle charging infrastructure for public or fleet use.
  - Host ride-and-drive education events for staff, residents, and businesses.
  - Educate staff on efficient use of city fleet vehicles, such as carpooling, video conferencing, and no idling when feasible (GreenStep Cities Best Practice #13.3).

**Project Management**

- Participate in coordination and tracking of scheduled check-ins, activities, and events.
- Provide Xcel Energy an opportunity to review marketing materials to assure accuracy when they incorporate the Xcel Energy logo or reference any of Xcel Energy's products or services.
- Share the plan document, supporting work documents, collateral, and implementation results from the Energy Action Plan with the public. The experience, successes, and lessons learned from this community will inform others looking at similar or expanded initiatives.
- Share progress on upcoming sustainability planning as it relates to activities outlined in the Energy Action Plan.

**Legal Applicability and Waiver**

This is a voluntary agreement and not intended to be legally binding for either party. This Memorandum of Understanding has no impact, nor does it alter or modify any existing



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Franchise Agreement or other existing agreements between Xcel Energy and Inver Grove Heights. Parties agree that this Memorandum of Understanding is to memorialize the intent of the Parties regarding Partners in Energy but does not create a legal agreement between the Parties. It is agreed by the Parties that nothing in this Memorandum of Understanding will be deemed or construed as creating a joint venture, trust, partnership, or any other legal relationship among the Parties. This Memorandum of Understanding is for the benefit of the Parties and does not create third party rights. Nothing in this Memorandum of Understanding constitutes a waiver of Inver Grove Heights ordinances, Inver Grove Heights regulatory jurisdiction, or Minnesota's utility regulatory jurisdiction.

**Single Points of Contact**

All communications pertaining to this agreement shall be directed to Ally Sutherland on behalf of Inver Grove Heights and Tami Gunderzik on behalf of Xcel Energy.

Xcel Energy is excited about this opportunity to support Inver Grove Heights in advancing its goals. The resources outlined above and provided through Partners in Energy are provided as a part of our commitment to the communities we serve and Xcel Energy's support of energy efficiency and renewable energy as important resources to meet your future energy needs.

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For Inver Grove Heights:

For Xcel Energy:

Signature:   
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Signature:   
\_\_\_\_\_

Name: Tom Bartholomew

Name: John Marshall

Title:  
Mayor

Title:  
Director of Community Relations

Date:  
March 8, 2021

Date:  
March 11, 2021