THE CITY of Altoona

# Altoona Energy Action Plan

*Draft for City Council Review, September 2023*


Xcel Energy®

PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

# ACKNOWLEDGEMENTS

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

The content of this plan is derived from a series of planning workshops hosted by Xcel Energy's Partners in Energy, a two-year collaboration to develop and implement a community's energy goals. For more information about the planning workshops, see *Appendix 3: Planning Process*.

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# GLOSSARY OF TERMS

**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.

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

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

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

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

**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.

# ALTOONA'S ENERGY ACTION PLAN

Our community Energy Action Plan creates intention, focuses our efforts, and identifies actions to engage our community to benefit municipal properties, new development, small and medium-sized businesses, residents, and rental property owners.

## Our Energy Priorities

- Making homes and businesses more energy efficient
- Reducing the impacts of climate change
- Saving money on energy bills
- Supporting energy burden and under-resourced households

## How We Are Going to Get There

To achieve our community energy goals, everyone in our community will be involved. We developed actionable strategies to reach homeowners, renters, public buildings, and businesses. Strategies include outreach and education, policy development, process updates, and offering funding and incentives to inspire action.

## About this Plan

The City of Altoona teamed up with Xcel Energy's Partners in Energy to engage the broader Altoona community in the conversation about energy efficiency and renewable energy. Community stakeholders committed to representing our community participated in a series of workshops to identify target audiences, create strategies, and prioritize near-term actions. The Altoona City Council approved the Energy Action Plan in September 2023.

For more information about our plan and how to get involved, please visit **www.ci.altoona.wi.us**.

# Energy Actions You Can Take Today

To achieve our energy goals, everyone in our community needs increase their home or building's energy efficiency and support renewable energy.


## Homeowners and Renters

Make your home more energy efficient with a free energy-savings pack from Focus on Energy. Choose the savings pack right for you at **focusonenergy.com/Free**.

## Rental Property Owners and Managers

Reduce energy costs and make your building more comfortable with Focus on Energy's multifamily programs. Contact **homerewards@focusonenergy.com** to talk about opportunities available to you.

## Businesses and Nonprofits

Get a personalized energy report and learn how to save energy with an energy assessment. Xcel Energy customers can contact the Business Solutions Center at **bsc@xcelenergy.com**. Eau Claire Energy Cooperative customers can visit **ecec.com.**

## Everyone in Altoona

Take advantage of Wisconsin's renewable energy power with subscription programs or on-site solar to lower your carbon footprint. Xcel Energy customers can visit **xcelenergy.com/Renewables**. Eau Claire Energy Cooperative customers can visit **ecec.com**.

## Learn More!

Read our Energy Action Plan and connect with more energy resources at **www.ci.altoona.wi.us**.

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


# INTRODUCTION

The City of Altoona teamed up with Xcel Energy's Partners in Energy and a planning team representing Altoona to create an energy vision to make homes and businesses more energy efficient, saving money on energy bills and reducing the impacts of climate change. This Energy Action Plan builds on the City's 2022 Comprehensive Plan, which identifies climate action, social equity and economic vitality as a lens for the City's work. Throughout this process and into implementation, these three planning lenses will anchor the implementation team in achieving in Altoona's energy vision.

*Figure 1: Altoona's Comprehensive Plan Planning Lenses*


*Proactive and urgent action to mitigate climate change and improve the community's resiliency to the impacts of an ever-changing climate.*

*Striving to achieve social equity through creating equitable access and quality of services and opportunities, addressing disparities in health, wealth, and safety outcomes, and the engagement and inclusion of all residents.*

*Maintaining fiscal sustainability through efficient, responsible, and informed public investments, service improvements, and enhancement of quality of life amenities.*

## Why an Energy Action Plan?

The 2022 Comprehensive Plan is the vision for Altoona and its residents. It serves as a guiding document for City leaders, institutions, and community members to shape Altoona into the community it hopes to be for the next 20 years and beyond. The Comprehensive Plan identifies strategies to address climate change and increase resiliency but does not list specific strategies and tactics to increase building energy efficiency and add new renewable energy support. Altoona's Energy Action Plan creates intention and focuses efforts, ensuring all residents and businesses benefit from increased energy efficiency and renewable energy, which can reduce energy bill costs and the negative impacts of climate change.

**Who are we talking about?**

**The City** is the City of Altoona.

**We** and **our** refer to the Altoona community as a whole.

**Energy Action Team** is the group of individuals whose input created this plan.

**Energy Action Plan** and **the Plan** refer to this document.

### Building on Existing Sustainability Initiatives

The City of Altoona has completed separate sustainability initiatives, creating a solid foundation for this Energy Action Plan. These initiatives include:

- The 25x25 Plan, which looks at City Infrastructure for energy efficiency, showing that city buildings are mostly in good shape. Altoona is making efficiency improvements, including installing soft start pumps to wells and upgrading lighting to LEDs.
- The City purchases solar shares from Eau Claire Energy Cooperative for its electricity consumption.
- The City applied for and received Energy Innovation Grants from the Public Service Commission, including grants to source more energy from solar and to study microgrid feasibility in the East Hill Neighborhood with Eau Claire Energy Cooperative and Dairyland Power Cooperative.
- Working toward investments in electric vehicles and charging stations.

In addition, a state-wide clean energy plan was developed in April 2022 by the Office of Sustainability and Clean Energy. The Wisconsin Clean Energy Plan (CEP) includes four key pathways to create momentum: accelerate clean energy technology deployment, maximize energy efficiency, modernize buildings and industry, and innovate transportation.[1] This Energy Action Plan creates community-focused energy efficiency and renewable energy strategies, helping Altoona work toward a clean energy future.

### Opportunities for Major Renovations and New Development

The majority of Altoona's housing was built before 2000, creating an opportunity to increase resiliency and value in existing homes and businesses with strategies that incentivize energy efficiency and renewable energy investments. The East Hill Neighborhood, an 80-acre development site, is a prime location to balance growth opportunities while facilitating

[1] State of Wisconsin Clean Energy Plan, https://osce.wi.gov/pages/cleanenergyplan.aspx

sustainability initiatives from Altoona's 2022 Comprehensive plan.[2] As outlined in the East Hill Neighborhood Residential Development Plan, this new development can benefit from distributed energy generation, such as solar panels, geothermal and electric vehicle charging, more energy efficient and resilient homes and businesses, and resilient energy systems like microgrids.[3] As new development occurs in the East Hill Neighborhood, these buildings will likely be served by Eau Claire Energy Cooperative for electric service.

## Plan Engagement & Development Process

To create this plan, Altoona engaged a variety of stakeholders from the community, including representatives from the City of Altoona, City Council, the School District, local employers and energy utilities. This group comprises Altoona's Energy Action Team (see *Acknowledgements*). These stakeholders participated in planning workshops and surveys to identify Altoona's energy priorities, create focus areas, and develop and refine energy action strategies. A summary of the planning process can be found in *Appendix 3: Planning Process*.

### Community Energy Survey

In addition to input from the Energy Action Team, Altoona wanted to collect broader input from residents and worked with the Partners in Energy facilitation team to create a community-wide energy survey. This survey was promoted on City communication channels and at the Public Library. Respondents provided insights into what they think about energy efficiency and renewable energy, including what would motivate them to take action and what barriers they've faced when considering projects. The insights from these surveys are summarized in *Achieving Altoona's Energy Future*, with full survey results in *Appendix 4: Community Energy Survey Results*.

[2] City of Altoona East Neighborhood Residential Development Plan, https://www.ci.altoona.wi.us/webfiles/fnitools/documents/east_hill_neighborhood_development_plan.pdf

[3] The City of Altoona received a 2022 Office of Energy Innovation grant to complete a microgrid feasibility study for the East Hill Neighborhood, which will be completed during the implementation phase of this plan.

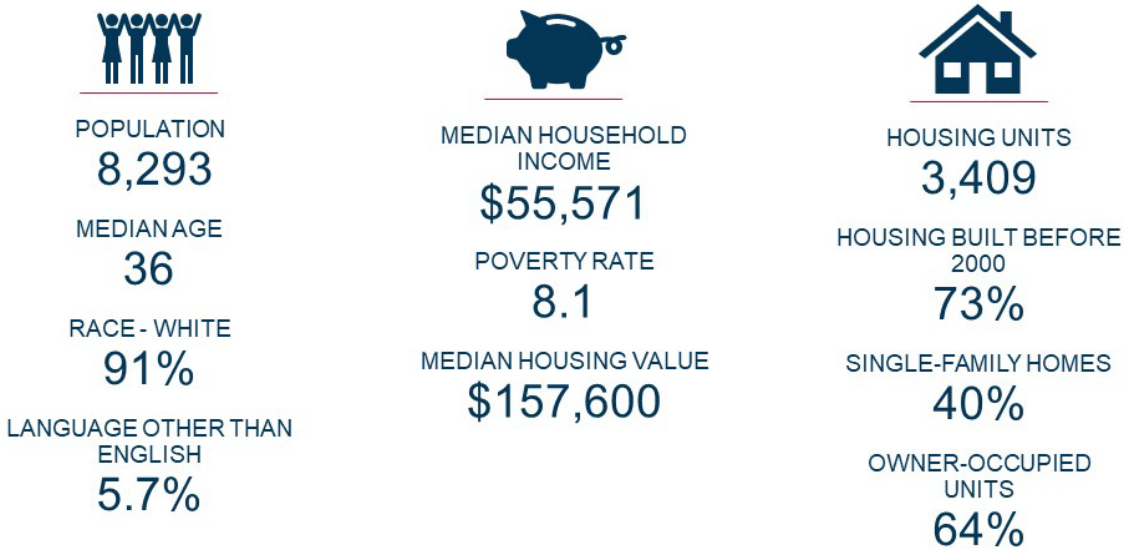
# WHERE WE ARE NOW

An integral part of the Partners in Energy planning process is reviewing community demographics and historical energy use patterns to ensure data-driven decisions for focus areas and strategies.

## Community Demographics

Data from Altoona's Comprehensive Plan and the U.S. Census Bureau American Community Survey informed the team about Altoona's community makeup, helping the Energy Action Team better understand the community's characteristics.

*Figure 2: Altoona Quick Facts*




*Source: 2022 City of Altoona Comprehensive Plan Appendix A and American Community Survey, 2020 5-year estimates*

Altoona's population has steadily grown over the last 20 years, with just over 8,000 residents as of 2020 (a 24% increase from 2000). Data indicates that these new residents are younger, with a median age of 36 compared to a median age of 38 in 2010. Most Altoona residents are White

(91%) but the population has increasingly diversified since 2000 when 96% of the population was White. Altoona has seen the largest change in racial demographics among new residents who identify as Asian or Two or More Races.

The number of housing units and count of households has grown since 2000. New development and community investment in recent years has increased the median housing value to $157,600 and median gross rent to $778. Owner-occupied units have stayed consistent over the last 20 years, with 64% of units being owner-occupied. As Altoona has grown over the past 20 years, multi-family properties constitute most new development (50%). The Comprehensive Plan noted this growth in multi-family development can be attributed to "policy shifts, the region's demand for alternative housing, rising housing costs, and state and national trends of expanding multi-family dwelling construction."

## Energy Baseline

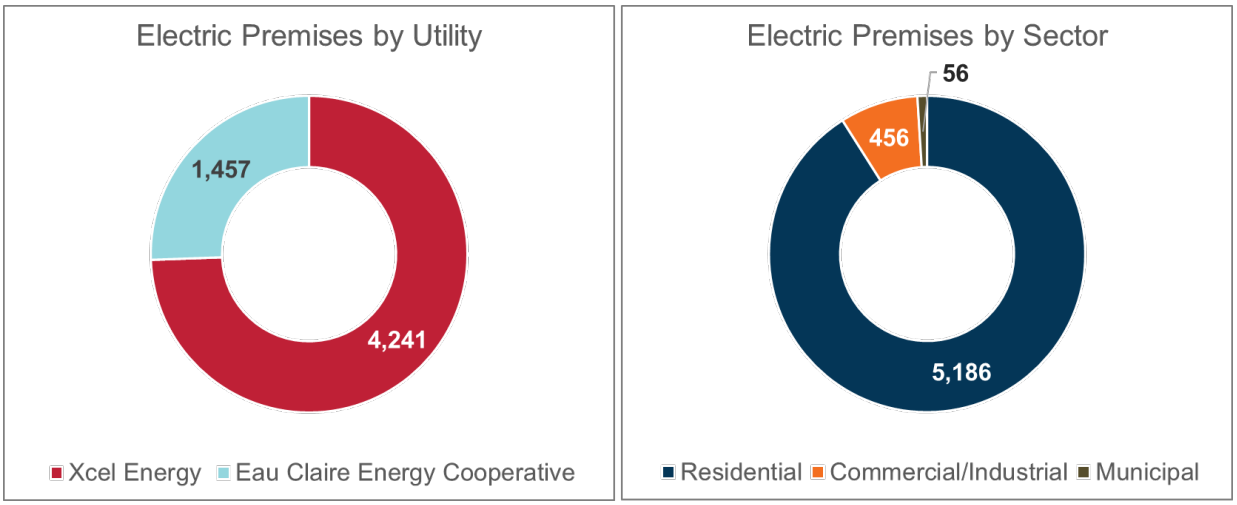
Xcel Energy, Altoona's electric and natural gas provider, provided data on energy use and utility program participation. Eau Claire Energy Cooperative, Altoona's other electricity provider, also provided premise and consumption data. Data was also provided by Xcel Energy and Eau Claire Energy Cooperative for their customers' participation in Focus on Energy, Wisconsin's statewide energy efficiency and renewable energy program.

Data from Xcel Energy and Focus on Energy was provided for 2019–2021. Eau Claire Energy Cooperative provided data for 2020–2021. This data was used to create Altoona's baseline to understand energy consumption, costs, greenhouse gas emissions and savings trends. See *Appendix 5: Baseline Energy Data* for a comprehensive overview of the baseline energy data.

### Energy Premises

As of 2021, there are 5,698 premises in Altoona, which are unique combinations of service address and meter. In Altoona, most premises are residential (5,186), followed by commercial and industrial (456) and municipal (56). When examining premises served by utility for electricity, Xcel Energy serves 75% of premises in the community, with the remainder served by Eau Claire Energy Cooperative. Xcel Energy serves all Altoona customers for natural gas.

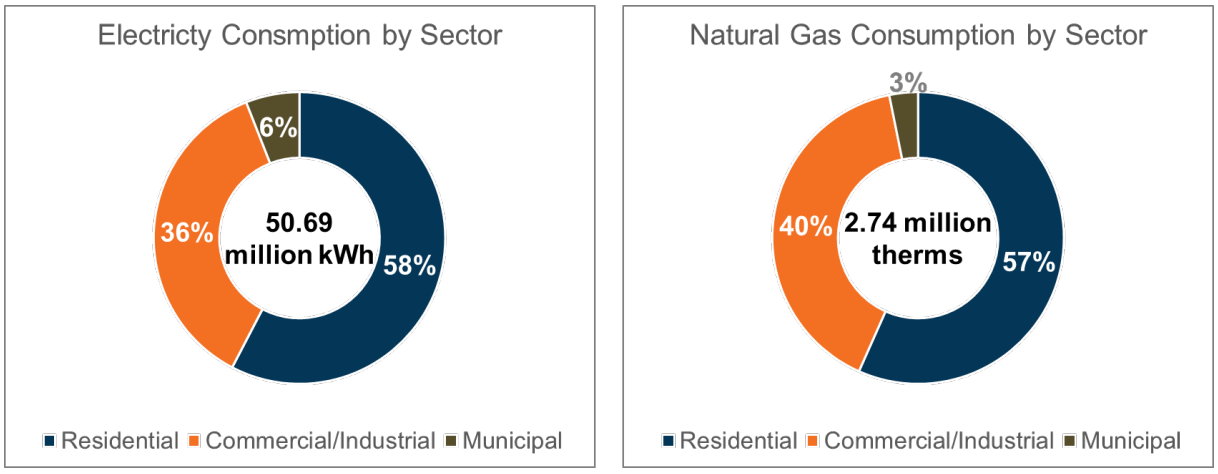
*Figure 3: Electric Premises by Utility Provider and by Sector, 2021*



## Energy Use

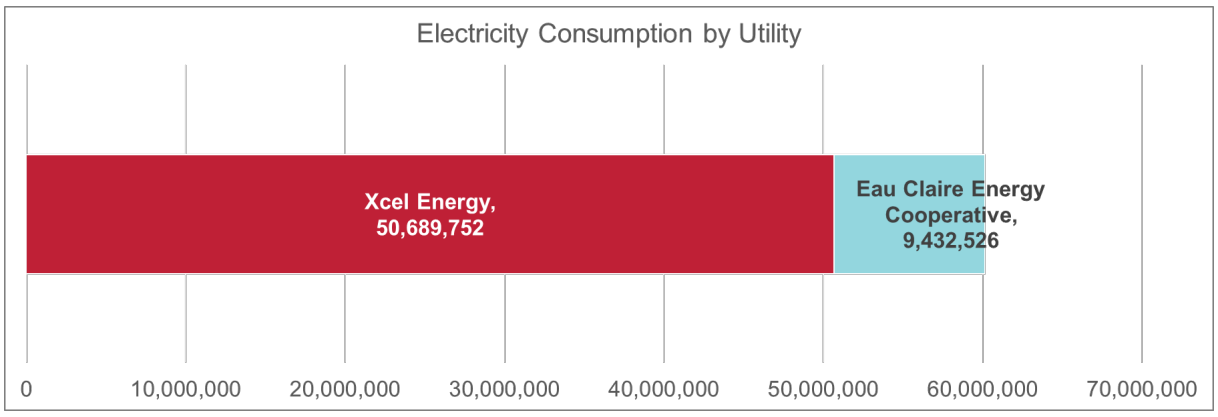
To understand energy consumption trends, the Energy Action Team looked at electricity and natural gas consumption by sector over the three-year baseline period. In 2021, Altoona consumed 50.69 million kwh of electricity and 2.75 million therms of natural gas. The residential sector consumed the most electricity (58%) and natural gas (57%), which aligns with the proportion of premises by sector, where the residential sector makes up most premises. However, even though the commercial/industrial sector only comprises 8% of premises, they consumed 36% of total electricity and 40% of natural gas.

*Figure 4: Electricity and Natural Gas Consumption by Sector, 2021*




When looking at electricity consumption by utility, 84% of electricity is provided by Xcel Energy, with the remainder provided by Eau Claire Energy Cooperative.

*Figure 5: Electricity Consumption by Utility Provider, 2021*




## Energy Costs & Burden

Altoona spent more than $8.8 million on energy in 2021. Based on the data provided, the residential sector spends the most on energy costs, noting that commercial/industrial electricity costs were unavailable from Eau Claire Energy Cooperative, so this sector's energy costs are likely higher than reported. Looking closer at the residential sector and costs by utility providers, Xcel Energy electric customers spend more than Eau Claire Energy Cooperative customers. In

an average year, it's estimated that Altoona residents spend $771 on electricity and $344 on natural gas.

*Table 1: Energy Costs by Sector, 2021*

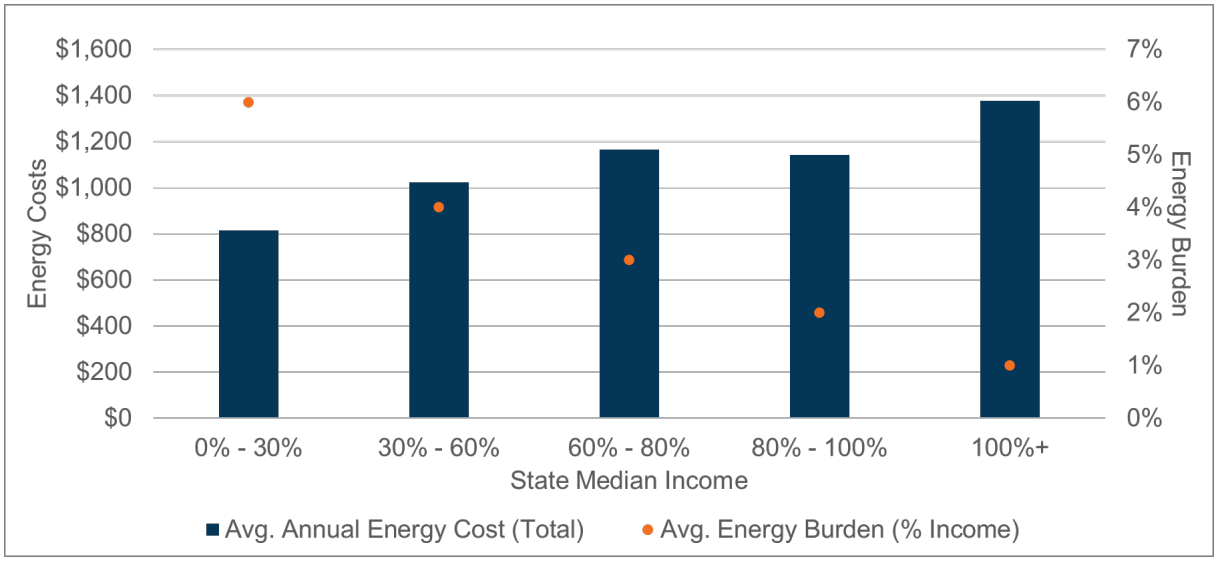
| | Electricity | Natural Gas |
|---|---|---|
| Residential | $4,038,106 | $1,462,225 |
| Commercial/Industrial[4] | $1,958,215 | $859,016 |
| Municipal | $408,852 | $73,741 |
| **Total** | **$6,405,173** | **$2,394,982** |

*Table 2: Residential Per Premises Costs, 2020–2021*

| | Average Per Premise Energy Costs |
|---|---|
| Xcel Energy - Electricity Costs | $820 |
| Eau Claire Energy Cooperative - Electricity Costs | $722 |
| Xcel Energy - Natural Gas Costs | $344 |

Energy burden, a measure of how much of a household's income goes toward energy costs, was also reviewed by the Energy Action Team. Energy burden is calculated as a percent of income spent on energy costs. According to Department of Energy's Low-income Energy Affordability Tool, Altoona's average energy burden is 2%, but for Altoona's lowest income residents, this energy burden can be as high as 6% (*Figure 6*).

*Figure 6: Energy Costs and Energy Burden by State Median Income*

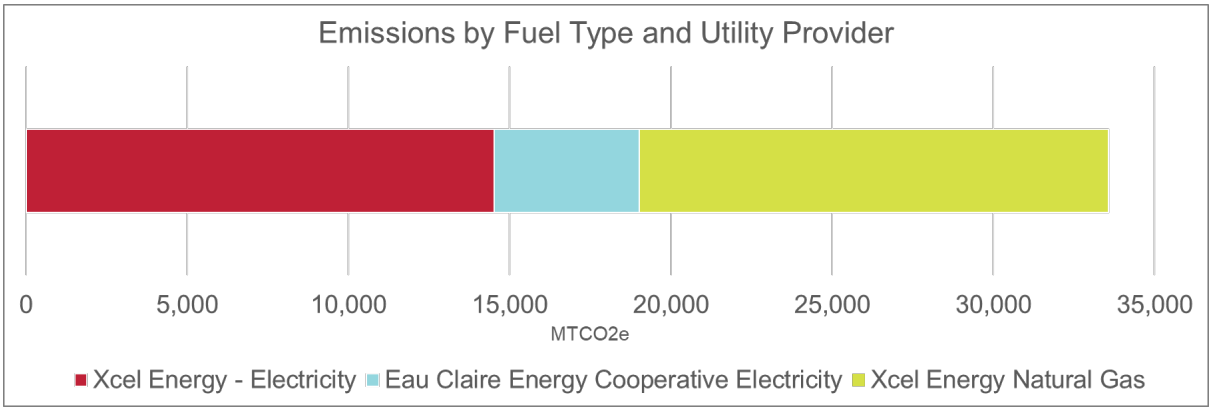



[4] Commercial and industrial electricity costs unavailable from Eau Claire Energy Cooperative. Data includes Xcel Energy electricity costs only.

## Greenhouse Gas Emissions

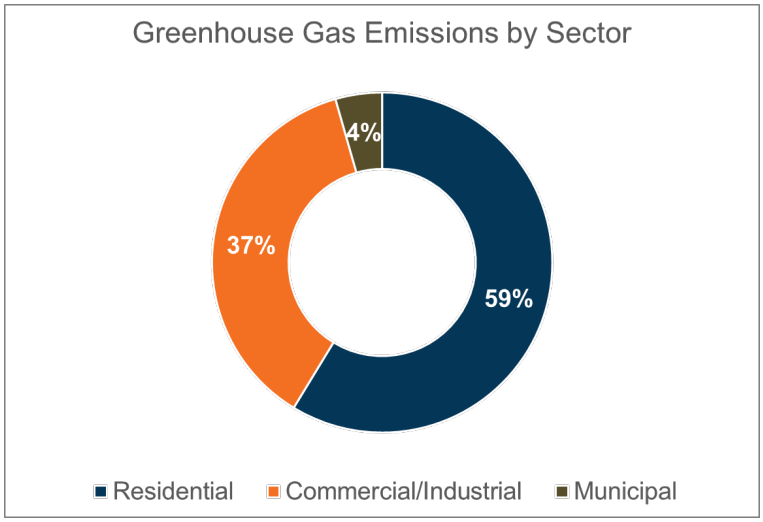
In 2021, Altoona's Xcel Energy electricity and natural gas consumption resulted in 33,360 metric tons of carbon dioxide equivalent (MTCO2e). Emissions from Altoona's consumption of Xcel Energy's electricity and natural gas represent 87% of Altoona's total greenhouse gas emissions. To contextualize Altoona's 2021 greenhouse gas emissions, 33,360 MTCO2e is equivalent to 7,423 gasoline-powered passenger vehicles driven for one year.[5]

*Figure 7: Emissions by Fuel Type and Utility Provider, 2021*




Looking at Altoona's emissions by sector, the residential sector, which consumes the most electricity and natural gas, also emitted the most greenhouse gas in 2021. As Xcel Energy increases its carbon-free energy generation, greenhouse gas emissions from grid electricity consumption will decrease.[6]

*Figure 8: Greenhouse Gas Emissions by Sector, 2021*



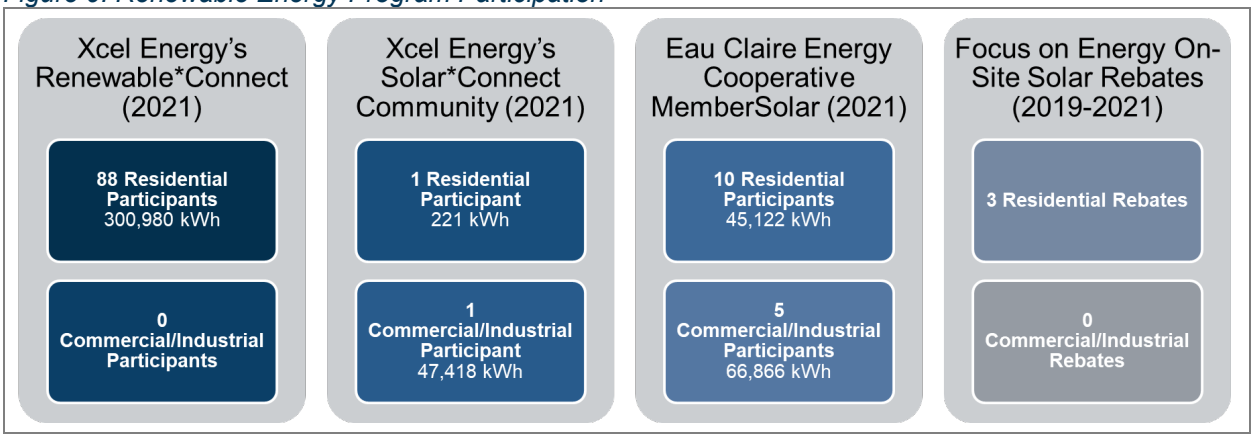

[5] U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

[6] Xcel Energy's Upper Midwest Energy Plan, https://www.xcelenergy.com/company/rates_and_regulations/resource_plan_overview/upper_midwest_energy_plan

## Renewable Energy

Local renewable energy use is a result of both customer subscription programs and on-site solar photovoltaic systems. In 2021, 89 residential premises and one commercial and industrial premise subscribed to an Xcel Energy renewable energy program, and 10 residents and 5 commercial/industrial premises subscribed to Eau Claire Energy Cooperative's subscription program MemberSolar. Of the commercial/industrial premises, four of those are the City of Altoona who is an active participant in MemberSolar. On-site solar PV installations were less popular, with only three incentives paid for photovoltaic systems by Focus on Energy from 2019 to 2021.

*Figure 9: Renewable Energy Program Participation*




## Energy Efficiency Program Participation & Savings

Xcel Energy, Eau Claire Energy Cooperative and Focus on Energy offer programs to Altoona residents and businesses to increase energy savings at their homes or buildings. Rebates for new equipment, audit programs, and discounted and no-cost energy measures are available in addition to load management programs.

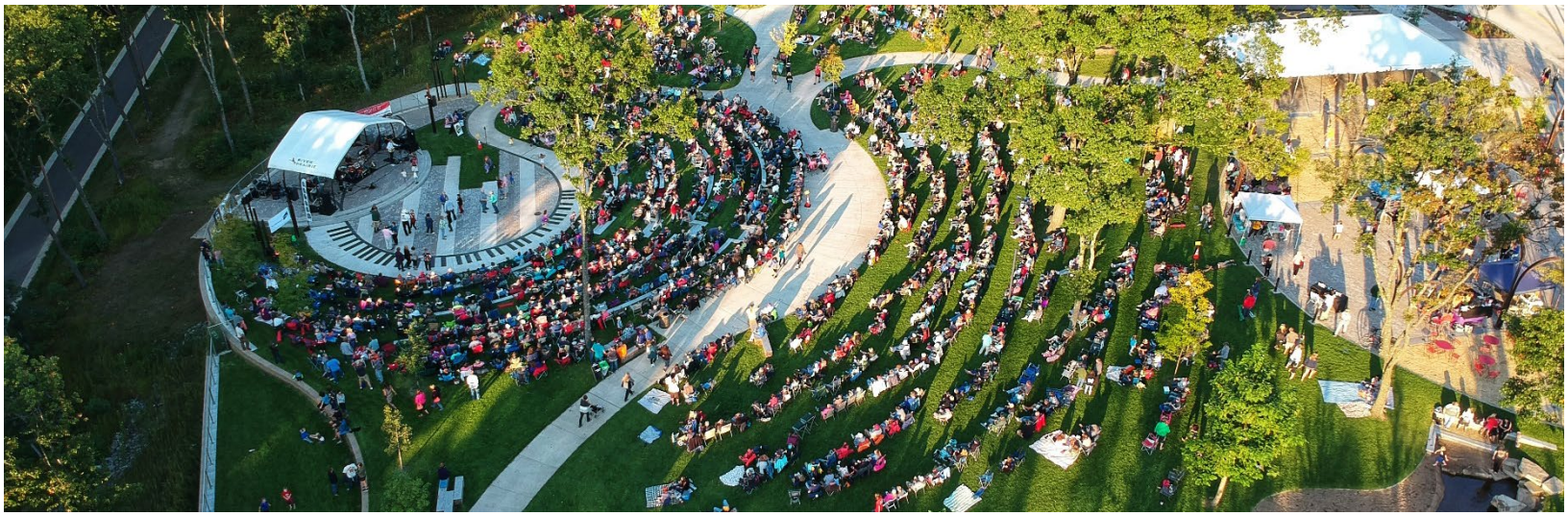
From 2019 to 2021, more than 2,100 Altoona residents and businesses participated in Focus on Energy programs, resulting in $246,000 in incentives from Focus on Energy. Residents participated at a higher rate than businesses, accounting for 98% of all Focus on Energy measures between 2019 and 2021. This higher rate in participation in the residential sector also resulted in higher total energy savings and incentives paid.

In addition to the incentives paid by Focus on Energy, Xcel Energy and Eau Claire Energy Cooperative offer bonus incentives for certain Focus on Energy rebates and programs, resulting in $62,500 in bonus incentives paid in Altoona over the baseline period.[7]

[7] Bonus incentive value representative of Xcel Energy customers only. Eau Claire Energy Cooperative bonus incentive data included in incentives paid values.

*Table 3: Focus on Energy and Bonus Incentive Participation, 2019–2021*

| | Total |
|---|---|
| Residential Measures | 2,077 |
| Residential Electricity Savings (kWh) | 548,540 |
| Residential Natural Gas Savings (therm) | 37,195 |
| Residential Incentives Paid ($) | 218,537 |
| Business Measures | 53 |
| Business Electricity Savings (kWh) | 295,898 |
| Business Natural Gas Savings (therm) | 12,250 |
| Business Incentives Paid ($) | 27,896 |
| Residential Bonus Incentives ($) | $51,443 |
| Business Bonus Incentives ($) | $11,102 |



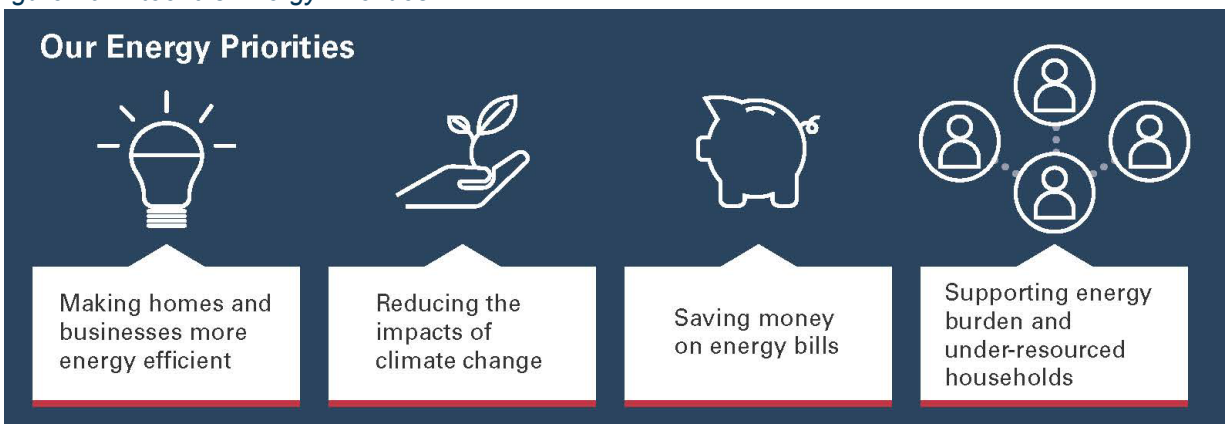
# ACHIEVING ALTOONA'S ENERGY FUTURE

This section outlines the priorities, focus areas and strategies to chart the course to achieving Altoona's energy future.

## Energy Priorities

During the planning process, Altoona's Energy Action Team identified several energy priorities that are important to the Altoona community.

*Figure 10: Altoona's Energy Priorities*




## Focus Areas

Five focus areas identified by the Energy Action Team will guide implementation of this plan:

- **Municipal**, impacting municipal buildings and fleet vehicles
- **New development**, focusing on new development and major renovation projects for all building types
- **Small and medium-sized businesses**
- **Residents**, including both homeowners and renters
- **Rental property owners**, including single-family and multi-family rental properties

Throughout this work is a focus on reducing energy burden for Altoona residents, which will impact the residential and rental property owner focus areas.

## Strategies by Focus Area

The Altoona Energy Action Team developed and refined strategies to engage their focus areas, noting high-priority strategies for near-term implementation and strategies that are still important but better suited for long-term implementation. Near-term strategies include education and awareness campaigns about energy efficiency and renewable energy basics, and policy and process updates to simplify efficiency and renewable energy upgrades. Near-term strategies are identified here with an asterisk (*) and more detail is included in *Appendix 1: 2023–2025 Implementation Work Plan.*

### Municipal Focus Area

#### Policy and Process

- Achieve SolSmart designation to lower the barriers to on-site solar installations. *
- Benchmark municipal building energy consumption in EnergyStar Portfolio Manager. *
- Update purchasing policy to prioritize energy efficiency equipment and electric vehicles when replacing aging assets.
- Create reporting structure for Energy Action Plan updates, including regular updates to the City Council and community. *

#### Assessments and Studies

- Conduct energy audits for municipal buildings, prioritizing high-energy users and building on 25x25 plan. *
- Complete fleet study for municipal fleet to identify opportunities for fleet electrification with Xcel Energy's fleet study program.
- Complete solar suitability analysis for municipal properties to identify candidates for on-site solar installations.

#### Capital Investment

- Initiate energy savings projects, leveraging energy audit and benchmarking data. *
- Electrify fleet vehicles based on fleet study recommendations.
- Pursue on-site solar installations based on solar suitability recommendations.

### New Development Focus Area

#### Outreach and Education

- Update permitting materials with information on efficiency and renewable energy programs. *

#### Policy and Process

- Update development review process to encourage developers to use sustainable design standards. *

#### Funding and Incentives

- Update renovation assistance financing program to incentivize sustainable new construction.

### Small and Medium-Sized Business Focus Area

#### Outreach and Education

- Create and maintain new energy resources webpage for businesses with information and resources for energy efficiency and renewable energy. *

- Host energy information sessions for businesses to learn more about energy efficiency programs. *
- Create a sustainable business program to recognize businesses that take action to be more energy efficient and support renewable energy.

### Funding and Incentives

- Create incentive program to increase energy efficiency in businesses, such as a revolving loan or bonus rebate program. *

## Resident Focus Area

### Outreach and Education

- Create and maintain new energy resources webpage for residents with information and resources for energy efficiency and renewable energy. *
- Conduct in-person outreach at community events to promote energy efficiency and renewable energy.
- Update social media and City communication channels with energy efficiency and renewable energy. *
- Host energy workshops where experts present on ways to save energy and support renewable energy. *

### Energy Burden

- Connect residents to energy assistance and other programs to help reduce energy burden.
- Promote free energy-savings packs through digital and print media. *
- Partner with local service providers and nonprofits to connect energy burdened households with energy assistance resources.

### Funding and Incentives

- Create incentive program to increase energy efficiency in new and existing buildings, such as a revolving loan or bonus rebate program. *
- Connect Energy Action Plan priorities with affordable housing programs to improve efficiency in new and existing affordable housing.

## Rental Property Owner Focus Area

### Outreach and Education

- Create and maintain new energy resources webpage for rental property owners.
- Distribute information materials to rental property owners to distribute to tenants about tenant energy savings actions. *
- Conduct targeted outreach to multi-family building owners to promote energy efficiency programs.

### Energy Burden

- Conduct targeted outreach to affordable housing buildings to connect tenants to energy assistance and other programs to help reduce energy burden.
- Promote free energy-savings packs for tenants to help make energy improvements in rental units. *

## Resources to Ensure Success

### Trusted Messengers and Communication Channels

The Altoona community energy survey identified several trusted messengers and communication channels for learning more about energy efficiency and renewable energy. Energy utilities, like Xcel Energy and Eau Claire Energy Cooperative, and the City of Altoona are the most trusted sources for information about energy-related topics. This positions the City of Altoona and the Partners in Energy program for success when it comes to outreach and education for priority strategies. Other trusted messengers include friends, family and contractors.

To stay informed about what's happening in Altoona, the City of Altoona communication channels are the most common source. This includes the City newsletter, social media and website. These will be important channels to leverage during implementation. In addition to City-owned channels, word of mouth, local bulletin boards and local radio stations are other popular channels to get information.

### Barriers and Benefits to Motivate Action

The community energy survey also provided valuable insight regarding the key barriers and benefits that will motivate residents to be more energy efficient and support renewable energy. Residents are motivated to become more energy efficient and support renewable energy when there is opportunity to lower energy bills and improve their home's comfort and value, and when it's good for the environment. The cost of the improvement is the most common reason why a resident will not take action. Residents also lack knowledge about where to start, and are often concerned that new equipment might not work as well, preventing follow-through on efficiency and renewable energy upgrades. This information will be valuable during implementation to frame messaging and market outreach materials to ensure that Altoona leverages motivations and provides resources to overcome barriers.

### Community Assets

Several community assets were identified by the Energy Action Team during the workshop process. A community asset is anything that improves the quality of life in Altoona. These assets will be valuable for the implementation team to reach new audiences, share information and refine messaging.

- Public library and programming
- River Prairie
- Parkland
- New development
- Walkability and connectivity
- Engaged population
- Strong school system
- Investment in long-term planning and vision
- Fiscally sound
- Affordable housing fund from TIF Districts
- Neighborly, welcoming and friendly people
- Hiking and walking trails
- Growing business community
- Good balance of commercial, industrial and residential
- Chippewa Valley and local region
- Active partnerships with region
- Well connected to larger region for vehicle transportation
- Nice and clean community
- Prideful homeowners and well-maintained homes
- Appreciation for public art
- Community facilities
- Local magazines and local TV

- Communication channels from the City, including City Facebook page, utility billing and weekly e-news blast
- Local care closet and food pantry
- Good access to medical care
- City staff
- Lions Club
- Parks programming and events
- Container park

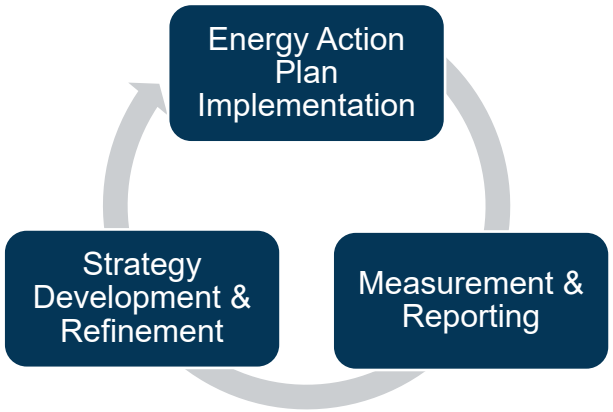
*Figure 11: Community Assets Graphic*

# HOW WE STAY ON COURSE

This Energy Action Plan is a living document. Focus areas and strategies will be assessed and refined as needed based on progress toward goals and community and staff capacity.

Implementing the strategies outlined in this plan will require leadership and collaboration among the City of Altoona, members of Energy Action Team, community representatives, Focus on Energy, Eau Claire Energy Cooperative and Xcel Energy.

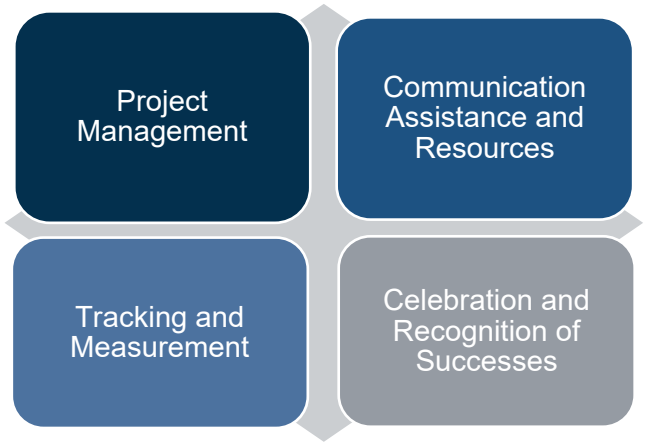
*Figure 12: Actions and Tracking*




## Implementation Support from Partners in Energy

Xcel Energy's Partners in Energy commits to 18 months of implementation support, including marketing and communications support and program expertise. It 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 network events, will also be available to the Altoona team.

*Figure 13: Partners in Energy Implementation Resources*




Xcel Energy will also leverage its communication channels to promote programs and resources, as well as leverage staff

expertise to connect the City of Altoona and Altoona Xcel Energy customers with the right resources.

### Data and Reporting

Partners in Energy will provide biannual progress reports with success metrics and the overall progress toward Xcel Energy and Focus on Energy's goals during the first phase of implementation. These reports will include program participation, energy savings by sector and energy consumption by sector for Xcel Energy customers. If available, ad-hoc participation reports for specific programs will be provided to measure success of campaigns and determine whether we need to change course.

### Project Management and Tracking

Partners in Energy will host regular project management check-in calls with City staff to ensure that we stay on course to achieve our strategies for the first 18 months of implementation. In addition, Partners in Energy facilitators will support the Energy Action Team and community connectors with one-on-one outreach to facilitate strategy implementation.

## Implementation Support from the City of Altoona

The City of Altoona will provide a primary point of contact for implementation and will assign staff members to attend regular project management check-ins. The City commits to leveraging existing communication channels and community connections for outreach and engagement strategies. In addition, the City will be the primary lead on near-term strategies, integrating energy messaging and objectives into work already underway or planned. This includes planned updates to the zoning code and continued implementation of the Comprehensive Plan.

## Implementation Support from the Community and Energy Action Team

The Energy Action Team formed to create this plan will support implementation by serving as community connectors to their networks and will promote our energy vision, encourage participation in programs and outreach campaigns, and share success stories. When available, the Energy Action Team will serve as partners and leaders in strategies, including those that target residents and small and medium-sized businesses. The City of Altoona team will gather input from the Energy Action Team and broader community when new ideas or processes are brought forward to ensure strategies remain community-driven.

### Community Connectors

Community connectors — individuals and organizations who will champion the Energy Action Plan — are an important resource for implementation success. A community connector uses their network of contacts to share and champion calls to action and advocate the Energy Action Plan strategies. Community connectors include those represented on the Energy Action Team and other community members.

# APPENDIX 1: 2023–2025 IMPLEMENTATION WORK PLAN

This appendix summarizes the implementation plan for near-term strategies, which will be implemented over the next 18 months with direct support from Xcel Energy's Partners in Energy. Medium- and long-term strategies will need a separate work plan to identify implementation lead, support, and timeline.

Strategies are included from all focus areas, identified in the first column as municipal (MUNI), new development (DEV), small and medium-sized business (SMB), resident (RES), and rental property owner (RPO). The second column indicates the subcategory for the type of strategy, including policy and process (PP), assessment and studies (AS), capital investment (CI), outreach and education (OE), funding and incentives (FI), and energy burden (EB).

| | | | | | 2023 | | 2024 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Focus Area** | **Type** | **Strategy** | **Implementation Lead** | **Implementation Support** | **Q3** | **Q4** | **Q1** | **Q2** | **Q3** | **Q4** |
| MUNI | PP | Achieve SolSmart designation to lower the barriers to on-site solar installations. | City Staff | Partners in Energy SolSmart | X | X | | | | |
| MUNI | PP | Benchmark municipal building energy consumption in EnergyStar Portfolio Manager. | City Staff | Xcel Energy | | X | X | | | |
| MUNI | PP | Create reporting structure for Energy Action Plan updates, including regular updates to the City Council and community. | City Staff | Partners in Energy | | | X | X | | |
| MUNI | AS | Conduct energy audits for municipal buildings, prioritizing high-energy users, building on 25x25 plan. | City Staff | Xcel Energy Focus on Energy | | | X | X | | |
| MUNI | CI | Initiate energy savings projects, leveraging energy audit and benchmarking data. | City Staff | Xcel Energy Focus on Energy | | | | X | X | X |
| DEV | OE | Update permitting materials with information on efficiency and renewable energy programs. | City Staff | Partners in Energy | | X | X | | | |
| DEV | PP | Update development review process to encourage developers to use sustainable design standards. | City Staff | Partners in Energy | | | X | X | | |
| SMB | OE | Create and maintain new energy resources webpage for businesses with information and resources for energy efficiency and renewable energy. | City Staff | Partners in Energy | X | X | | | | |
| SMB | OE | Host energy information sessions for businesses to learn more about energy efficiency programs. | City Staff | Partners in Energy Focus on Energy | | | X | X | X | |

| Focus Area | Type | Strategy | Implementation Lead | Implementation Support | 2023 | | 2024 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| SMB | FI | Create incentive program to increase energy efficiency in businesses, such as a revolving loan or bonus rebate program. | City staff | | | | | | X | X |
| RES | OE | Update social media and City communication channels with energy efficiency and renewable energy. | City Staff | Partners in Energy | X | X | X | X | X | X |
| RES | OE | Host energy workshops where experts present on ways to save energy and support renewable energy. | City Staff | Partners in Energy<br>Focus on Energy | | | X | X | X | |
| RES | EB | Promote free energy-savings packs through digital and print media. | City Staff | Partners in Energy<br>Focus on Energy | X | X | | X | X | |
| RES | FI | Create incentive program to increase energy efficiency in new and existing buildings, such as a revolving loan or bonus rebate program. | City Staff | Partners in Energy | | | | | | X |
| RPO | OE | Distribute information materials to rental property owners to distribute to tenants about tenant energy-savings actions. | City Staff | Partners in Energy<br>Focus on Energy | | | | X | X | |
| RPO | EB | Promote free energy-savings packs for tenants to help make energy improvements in rental units. | City Staff | Partners in Energy<br>Focus on Energy | | X | X | | X | X |

# APPENDIX 2: TRACKING SUCCESS

As part of implementation support, Partners in Energy will provide biannual progress reports from Xcel Energy for energy consumption, program participation and savings data during the first phase of implementation. Data will also be requested from Focus on Energy on measure counts, energy savings and incentives paid.

The following section defines Xcel Energy baseline values against which progress is measured. All progress will be tracked against the baseline year (2021) or the three-year baseline average (2019–2021) where noted. If requested, Partners in Energy will support City of Altoona requesting the same information from Eau Claire Energy Cooperative.

*Table 4: Electric Premises by Sector, 2021*

| Sector | Count |
|---|---|
| Residential | 3,749 |
| Commercial/Industrial | 436 |
| Municipal | 56 |
| **Total** | **4,241** |

*Table 5: Average Electricity Consumption by Sector, 2019–2021*

| Sector | Electricity Consumption (kWh) |
|---|---|
| Residential | 25,743,400 |
| Commercial/Industrial | 20,354,505 |
| Municipal | 3,512,302 |
| **Total** | **49,610,207** |

*Table 6: Average Natural Gas Consumption by Sector, 2019–2021*

| Sector | Natural Gas Consumption (therms) |
|---|---|
| Residential | 1,607,318 |
| Commercial/Industrial | 1,125,771 |
| Municipal | 89,622 |
| **Total** | **2,822,710** |

*Table 7: Average Greenhouse Gas Emissions by Sector, 2019–2021*

| Sector | Greenhouse Gas Emissions (MTCO2e) |
|---|---|
| Residential | 16,200 |
| Commercial/Industrial | 12,052 |
| Municipal | 1,525 |
| **Total** | **29,777** |

*Table 8: Xcel Energy Renewable*Connect Participation by Sector, 2021*

| Sector | Renewable*Connect Subscribers | Electricity Subscribed (kWh) |
|---|---|---|
| Residential | 88 | 300,981 |
| Commercial/Industrial | 0 | 0 |
| **Total** | **88** | **300,981** |

*Table 9: Average Focus on Energy Program Participation by Sector, 2019–2021*

| Sector | Measures | Electricity Saved (kWh) | Natural Gas Saved (therms) | Incentives Paid |
|---|---|---|---|---|
| Residential | 634 | 163,035 | 12,398 | $60,651 |
| Commercial/Industrial | 15 | 89,429 | 4,083 | $8,894 |
| **Total** | **649** | **252,464** | **16,482** | **$69,545** |

*Table 10: Xcel Energy Bonus Incentives Paid by Sector, 2019–2021*

| Sector | Bonus Incentives Paid |
|---|---|
| Residential | $17,148 |
| Commercial/Industrial | $3,701 |
| **Total** | **$20,848** |

# APPENDIX 3: 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 and communities lead 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 offers support to develop an energy action plan or electric vehicle plan, tools to help implement the plan and deliver results, and resources designed to help each community stay informed and achieve their outlined goals.


*Partners in Energy Process for Success*

## Plan Development Process

The content of this plan is derived from a series of planning workshops hosted in-person with a planning team committed to representing Altoona's energy priorities and implementing plan strategies. City of Altoona actively recruited a diverse group of stakeholders. A summary of the planning process can be found in below.

### December 2022 – January 2023

Partners in Energy facilitators hosted a kick-off meeting with the City of Altoona and Xcel Energy teams, understanding Altoona's objectives for the planning process and target timeline. As part of the kick-off meeting, the team discussed who should be on the energy action team. After this meeting, City of Altoona staff recruited the Energy Action Team, and Partners in Energy facilitators started the baseline data intake process. To prepare for workshop 1, Partners in Energy worked with the City team to create and share a community-wide energy survey to better understand how residents think about energy. The responses from this survey informed strategy development and will inform implementation messaging.

### February – April 2023

Prior to the workshop series, the Energy Action Team completed pre-workshop surveys to provide input on Altoona's energy priorities, potential focus areas and community connections. Partners in Energy hosted two in-person workshops with the Altoona Energy Action Team. At the first workshop, the team became acquainted with the Partners in Energy program; reviewed baseline energy data from Xcel Energy, Eau Claire Energy Cooperative, and Focus on Energy; identified barriers and benefits for Altoona's energy priorities; and voted on focus areas for achieving Altoona's energy vision. At the second workshop, the team met with workshop guests to understand energy efficiency and renewable energy opportunities from the utilities and Focus

on Energy; identified Altoona's unique community assets; and reviewed and prioritized strategies.

*Altoona Energy Action Team at Workshop 1.*

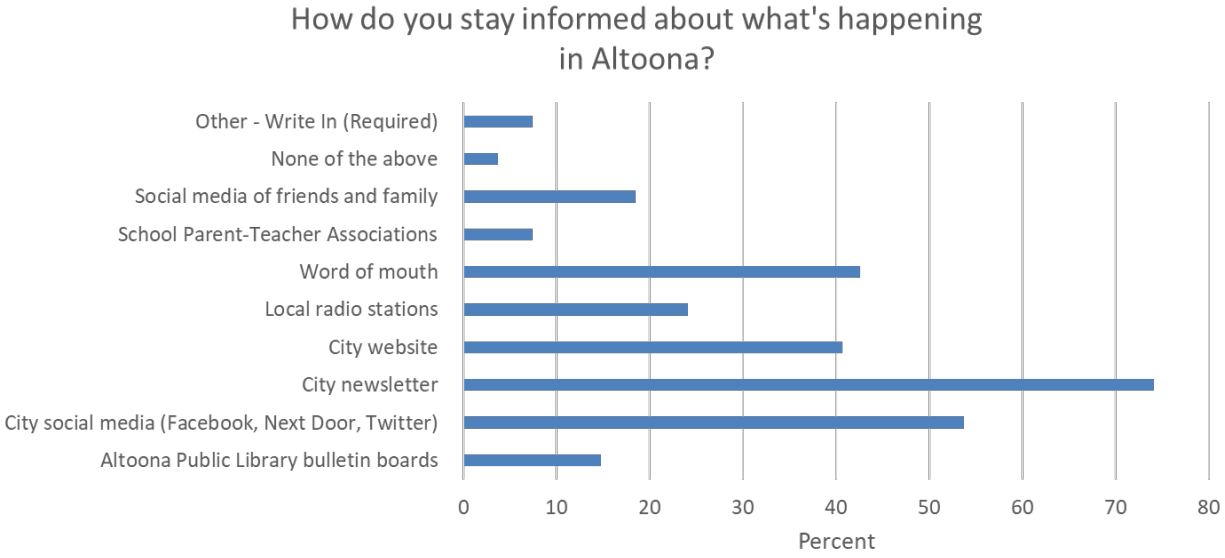

**May – July 2023**

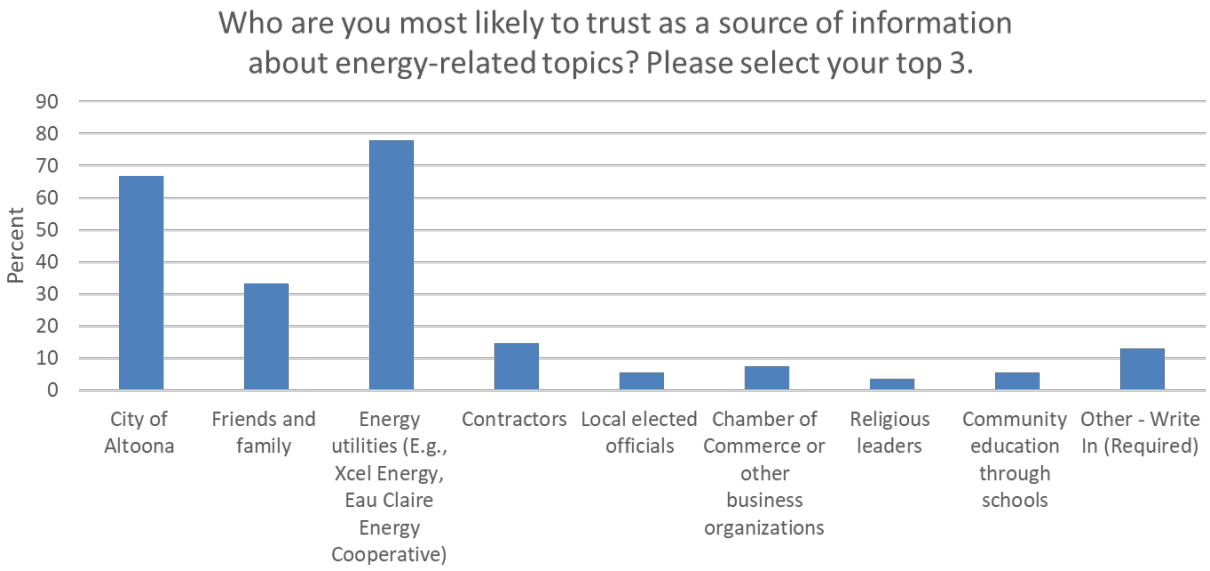
Partners in Energy facilitators drafted the Energy Action Plan, working closely with the City of Altoona team to ensure the plan represented their vision and community. Xcel Energy and the Energy Action Team had the opportunity to review and comment on the plan, including identifying opportunities for how they want to be involved during implementation.

# APPENDIX 4: COMMUNITY ENERGY SURVEY RESULTS

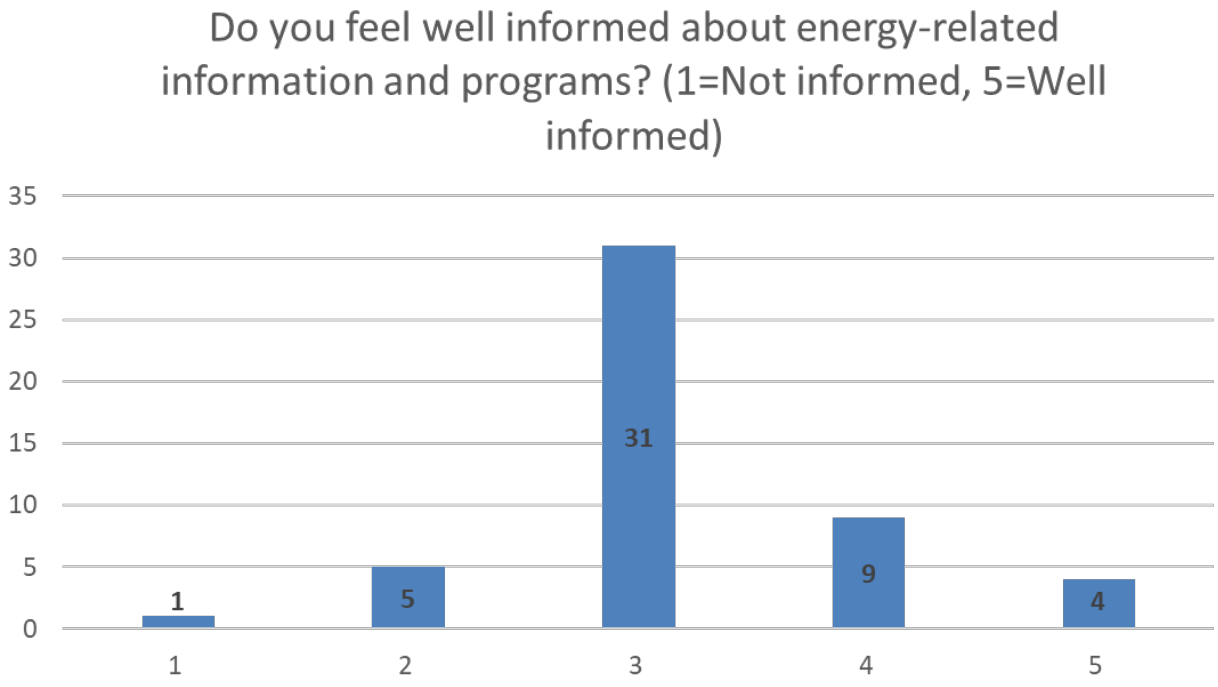
Sixty-four people responded to Altoona's community energy survey. The survey was hosted by Partners in Energy on Alchemer and promoted using a QR code on flyers at the Altoona Public Library and City Hall, posted on the City's Facebook page and website, and shared via the City e-news blast. The following section summarizes survey responses from Alchemer.

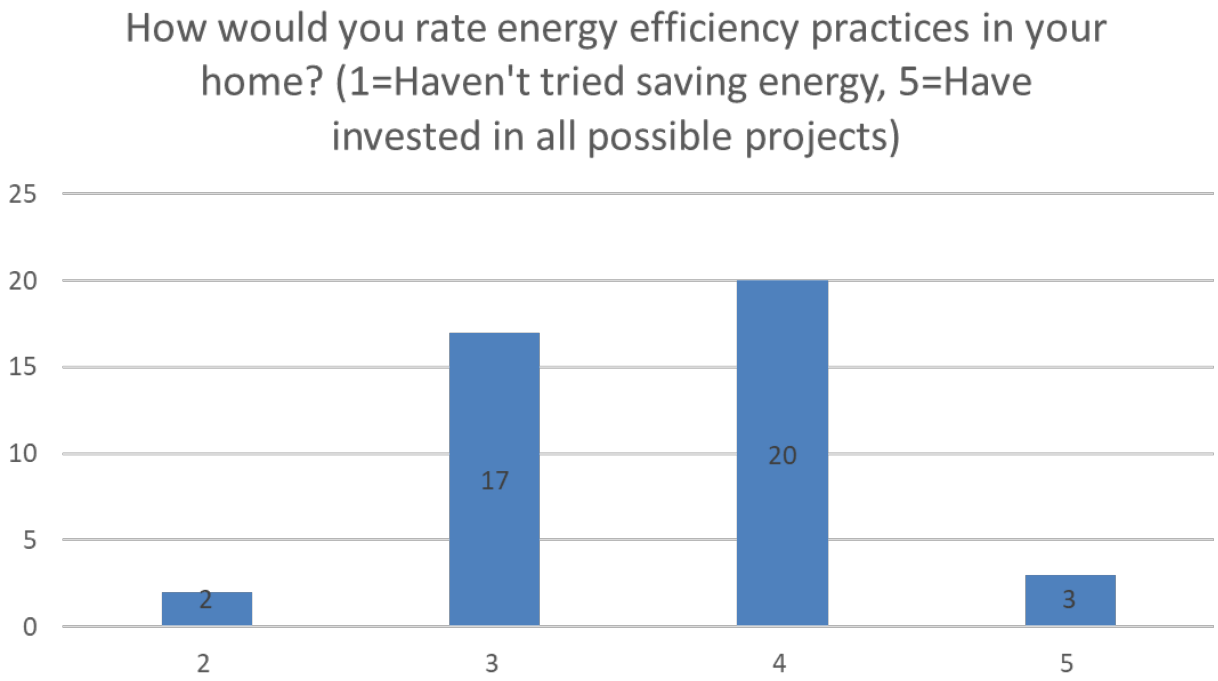
## Communication Channels and Trusted Messengers

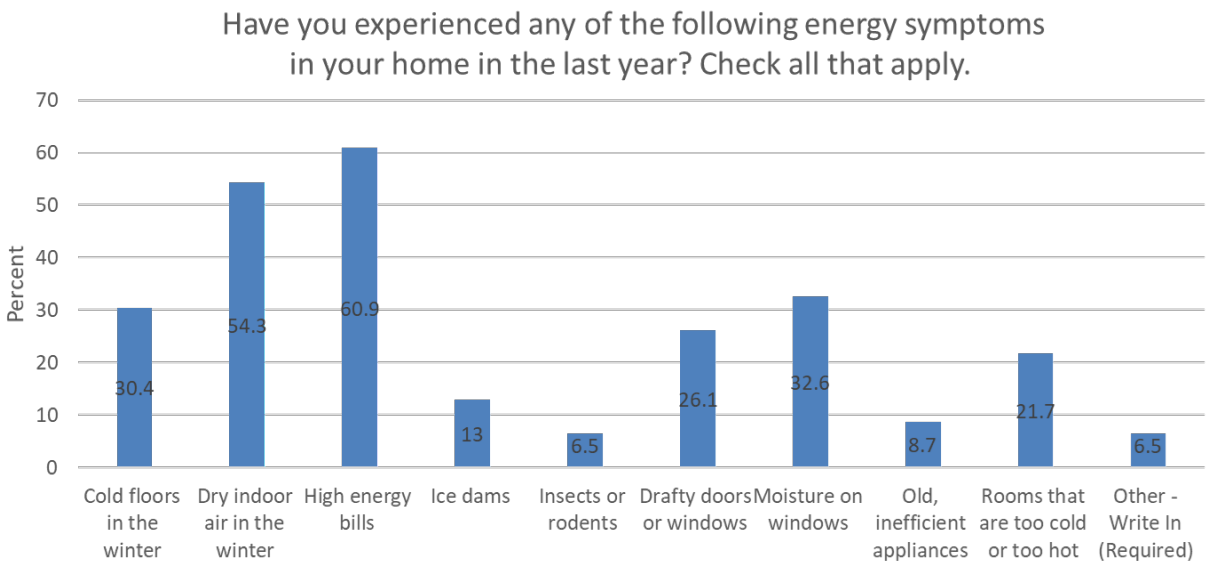


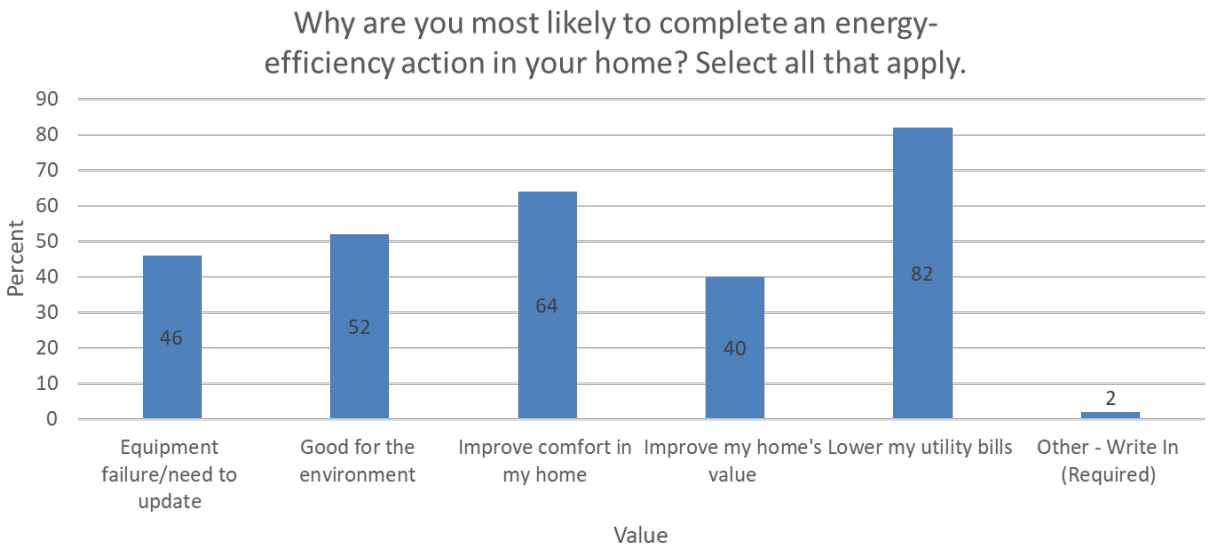



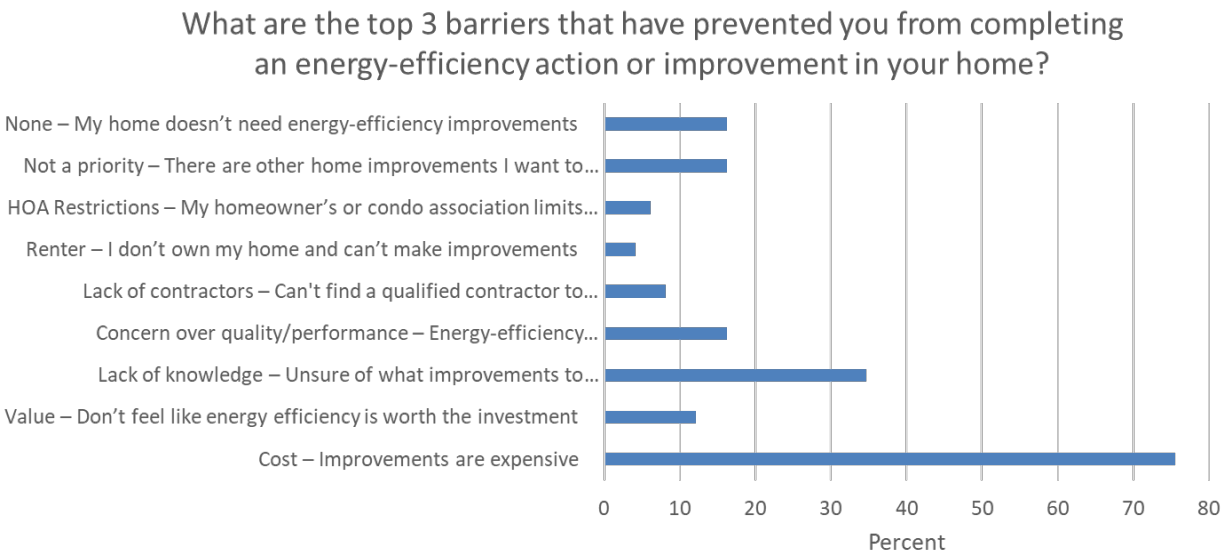
## Energy Efficiency Questions

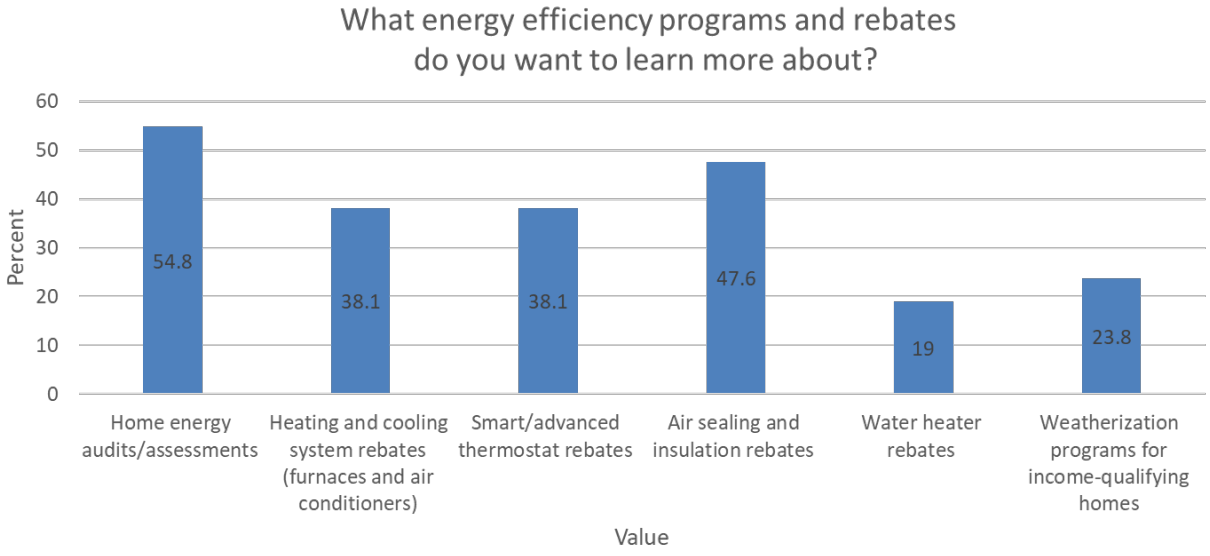


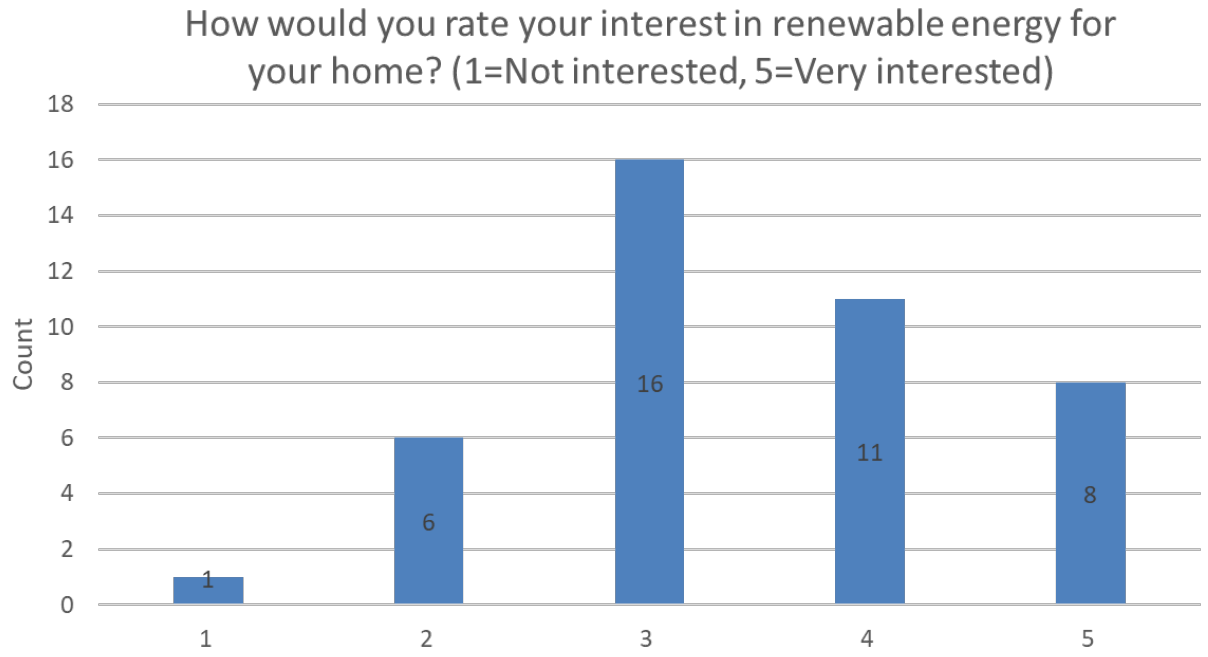

Have you experienced any of the following energy symptoms in your home in the last year? Check all that apply.
Percent
70
60
50
40
30
20
10
0
30.4
54.3
60.9
13
6.5
26.1
32.6
8.7
21.7
6.5
Cold floors in the winter
Dry indoor air in the winter
High energy bills
Ice dams
Insects or rodents
Drafty doors or windows
Moisture on windows
Old, inefficient appliances
Rooms that are too cold or too hot
Other - Write In (Required)

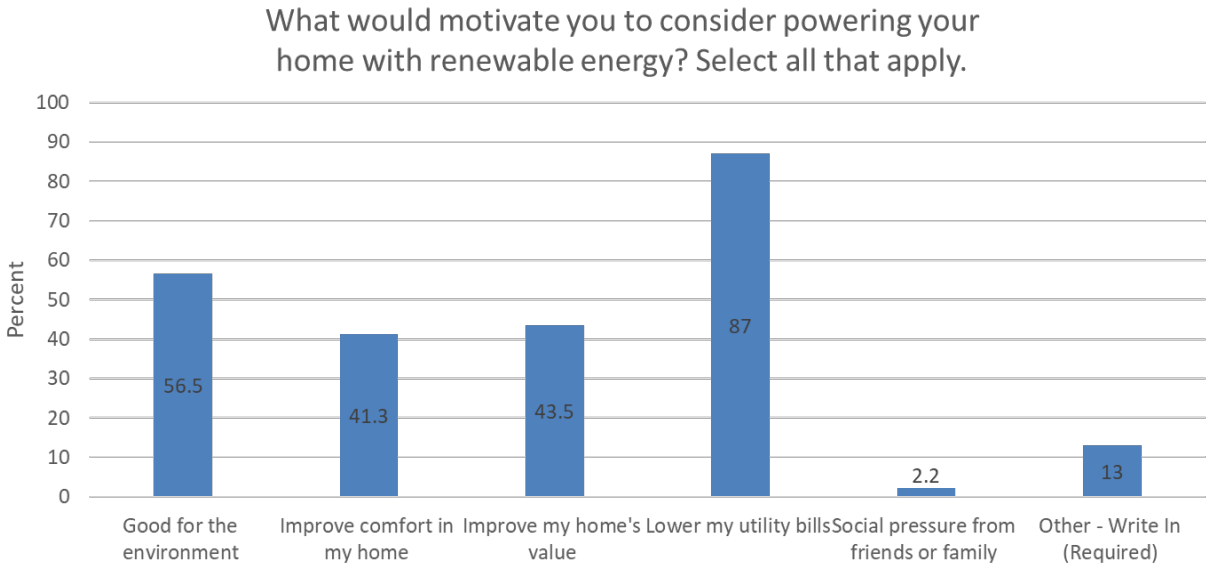

Why are you most likely to complete an energy-efficiency action in your home? Select all that apply.
Percent
90
80
70
60
50
40
30
20
10
0
46
52
64
40
82
2
Equipment failure/need to update
Good for the environment
Improve comfort in my home
Improve my home's value
Lower my utility bills
Other - Write In (Required)
Value

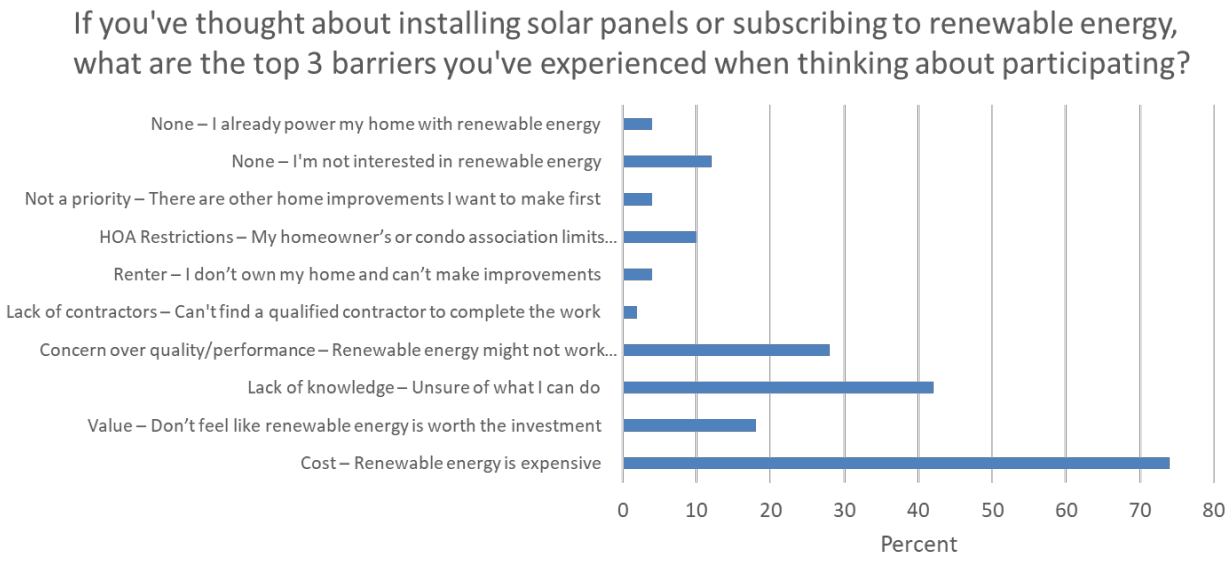

What are the top 3 barriers that have prevented you from completing an energy-efficiency action or improvement in your home?
None – My home doesn't need energy-efficiency improvements
Not a priority – There are other home improvements I want to...
HOA Restrictions – My homeowner's or condo association limits...
Renter – I don't own my home and can't make improvements
Lack of contractors – Can't find a qualified contractor to...
Concern over quality/performance – Energy-efficiency...
Lack of knowledge – Unsure of what improvements to...
Value – Don't feel like energy efficiency is worth the investment
Cost – Improvements are expensive
0
10
20
30
40
50
60
70
80
Percent

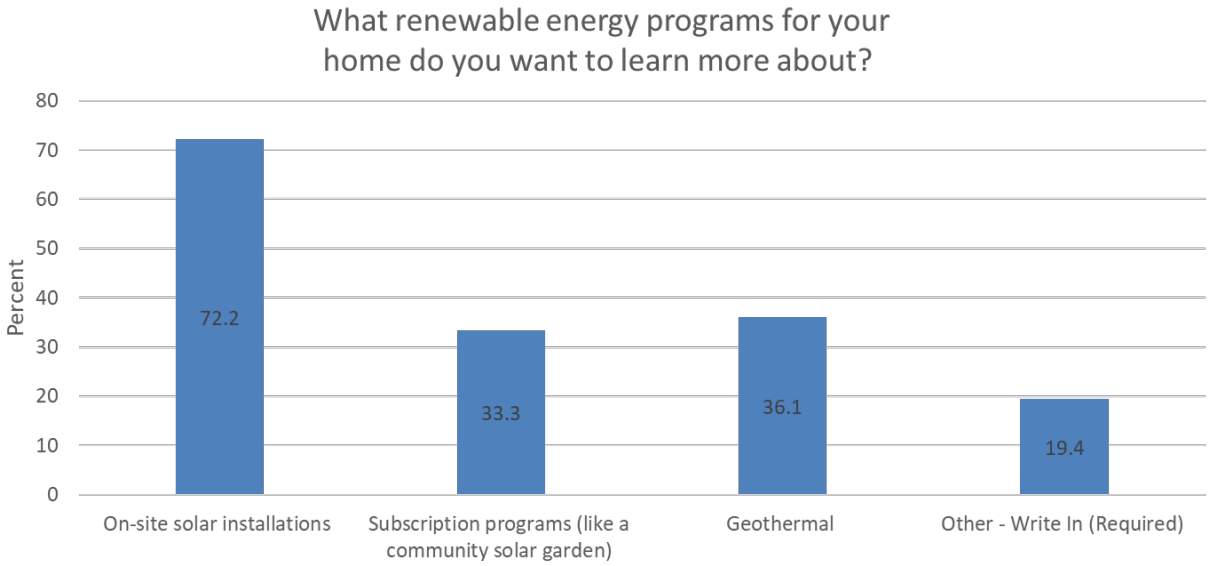

What energy efficiency programs and rebates do you want to learn more about?
60
50
40
30
20
10
0
Percent
54.8
38.1
38.1
47.6
19
23.8
Home energy audits/assessments
Heating and cooling system rebates (furnaces and air conditioners)
Smart/advanced thermostat rebates
Air sealing and insulation rebates
Water heater rebates
Weatherization programs for income-qualifying homes
Value

## Renewable Energy Questions




If you've thought about installing solar panels or subscribing to renewable energy, what are the top 3 barriers you've experienced when thinking about participating?
None – I already power my home with renewable energy
None – I'm not interested in renewable energy
Not a priority – There are other home improvements I want to make first
HOA Restrictions – My homeowner's or condo association limits...
Renter – I don't own my home and can't make improvements
Lack of contractors – Can't find a qualified contractor to complete the work
Concern over quality/performance – Renewable energy might not work...
Lack of knowledge – Unsure of what I can do
Value – Don't feel like renewable energy is worth the investment
Cost – Renewable energy is expensive
0
10
20
30
40
50
60
70
80
Percent


What renewable energy programs for your home do you want to learn more about?
Percent
80
70
60
50
40
30
20
10
0
72.2
33.3
36.1
19.4
On-site solar installations
Subscription programs (like a community solar garden)
Geothermal
Other - Write In (Required)

# APPENDIX 5: BASELINE ENERGY DATA

This appendix includes data from Xcel Energy, Eau Claire Energy Cooperative and Focus on Energy to establish a community energy baseline. Xcel Energy, Altoona's electric and natural gas service provider, provided 2019–2021 consumption and program participation data for all customers in Altoona. Focus on Energy, the statewide provider of energy efficiency programs in Wisconsin, provided 2019–2021 program participation, energy savings and incentives data for Xcel Energy customers in Altoona. Eau Claire Energy Cooperative, Altoona's other electricity provider, provided 2020–2021 consumption data and 2019–2021 Focus on Energy program participation data for all Eau Claire Energy Cooperative customers in Altoona.

Partners in Energy was able to separate municipal premises from the commercial/industrial sector, so those are represented distinctly in this plan. Because of data privacy concerns and data availability, Eau Claire Energy Cooperative was unable to separate municipal premises.

## Premises

In 2021, there were 4,241 Xcel Energy premises and 1,457 Eau Claire Energy Cooperative premises, resulting in 5,698 premises total. Most premises in Altoona are residential, representing 58% of all premises in the community.

*Table 11: Xcel Energy Premises by Sector, 2021*

| Sector | Count |
|---|---|
| Residential | 3,749 |
| Commercial/Industrial | 436 |
| Municipal | 56 |
| **Total** | **4,241** |

*Table 12: Eau Claire Energy Cooperative Premises by Sector, 2021*

| Sector | Count |
|---|---|
| Residential | 1,437 |
| Commercial/Industrial | 20 |
| Municipal | n/a |
| **Total** | **1,457** |

## Electricity and Natural Gas Consumption

Consumption data was provided by both Xcel Energy and Eau Claire Energy Cooperative by sector, noting that 2019 consumption data from Eau Claire Energy Cooperative was unavailable.

Xcel Energy electricity consumption stayed relatively flat but did increase slightly in 2021 compared to 2020 (*Table 13*). Electricity consumption from Eau Claire Energy Cooperative increased by 12.8% from 2020 to 2021 (*Table 14*). Natural gas consumption decreased over the three-year baseline, with a 3% decrease from 2020 to 2021 *(Table 15*). Weather, population growth, economic impacts and public health factors can all contribute to changes in consumption.

*Table 13: Xcel Energy Electricity Consumption by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | 24,943,533 | 25,685,482 | 26,601,185 |
| Commercial/Industrial | 20,434,408 | 20,122,374 | 20,506,733 |
| Municipal | 3,528,108 | 3,426,965 | 3,581,834 |
| **Total** | **48,906,049** | **49,234,821** | **50,689,752** |
| **Year-Over-Year Change** | **–** | **0.7%** | **3.0%** |

*Table 14: Eau Claire Energy Cooperative Electricity Consumption by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | n/a | 7,189,428 | 8,054,295 |
| Commercial/Industrial | n/a | 1,176,097 | 1,378,231 |
| Municipal | n/a | n/a | n/a |
| **Total** | **n/a** | **8,365,525** | **9,432,526** |
| **Year-Over-Year Change** | **n/a** | **n/a** | **12.8%** |

*Table 15: Xcel Energy Natural Gas Consumption by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | 1,709,819 | 1,559,582 | 1,552,553 |
| Commercial/Industrial | 1,188,437 | 1,088,010 | 1,100,865 |
| Municipal | 99,083 | 82,757 | 87,025 |
| **Total** | **2,997,339** | **2,730,349** | **2,740,443** |
| **Year-Over-Year Change** | **–** | **-8.9%** | **0.4%** |

## Energy Costs

In addition to consumption data, Xcel Energy and Eau Claire Energy Cooperative provided electric and natural gas revenue data. Eau Claire Energy Cooperative was unable to provide energy cost data for the commercial/industrial sector for the baseline period so only residential sector data is reported for 2020 and 2021.

Energy cost trends reflect similar trends to consumption, but at larger year-over-year percentage changes. For example, while Xcel Energy electricity consumption increased 3% from 2020 to 2021, electricity costs increased 7.2% for the same time period (*Table 16*). Similarly, natural gas consumption increased less than a half percent from 2020 to 2021, but natural gas costs increased 44.1% (*Table 18*). Changes in energy costs can be attributed to changing electric and natural gas rates from the utilities.

*Table 16: Xcel Energy Electricity Costs by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | $2,772,177 | $2,848,737 | $3,071,591 |
| Commercial/Industrial | $1,881,148 | $1,846,442 | $1,958,215 |
| Municipal | $391,199 | $378,535 | $408,852 |
| **Total** | **$5,044,524** | **$5,073,714** | **$5,438,658** |
| **Year-Over-Year Change** | **–** | **0.6%** | **7.2%** |

*Table 17: Eau Claire Energy Cooperative Electricity Costs by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | n/a | $862,731 | $966,515 |
| Commercial/Industrial | n/a | n/a | n/a |
| Municipal | n/a | n/a | n/a |
| **Total** | **n/a** | **$8,365,525** | **$9,432,526** |
| **Year-Over-Year Change** | **n/a** | **n/a** | **12.8%** |

*Table 18: Xcel Energy Natural Gas Costs by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | $1,253,287 | $1,035,404 | $1,462,225 |
| Commercial/Industrial | $708,332 | $580,199 | $859,016 |
| Municipal | $60,664 | $45,920 | $73,741 |
| **Total** | **$2,022,283** | **$1,661,523** | **$2,394,982** |
| **Year-Over-Year Change** | **–** | **-17.8%** | **44.1%** |

## Greenhouse Gas Emissions

Electricity and natural gas consumption result in energy-related greenhouse gas emissions. Emissions are influenced by trends in consumption and grid decarbonization. Xcel Energy is increasing carbon-free generation sources as part of its electricity fuel mix, resulting in lower emissions from electricity consumption.[8]

In 2021, emissions from Xcel Energy electric and natural gas consumption resulted in 29,052 MTCO2e and emissions from Eau Claire Energy Cooperative electric consumption resulted in 6,602 MTCO2e. Year-over-year changes in greenhouse gas emissions for natural gas emissions align with consumption trends (*Table 21*), but emissions from Xcel Energy electric consumption decreased overall from 2019 to 2021 (*Table 19*), even though consumption increased slightly.

*Table 19: Xcel Energy Electricity Greenhouse Gas Emissions by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | 8,429 | 6,967 | 7,614 |
| Commercial/Industrial | 6,905 | 5,458 | 5,869 |
| Municipal | 1,192 | 930 | 1,025 |
| **Total** | **16,526** | **13,355** | **14,508** |
| **Year-Over-Year Change** | **–** | **-19.2%** | **8.6%** |

*Table 20: Eau Claire Energy Cooperative Electricity Greenhouse Gas Emissions by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | n/a | 5,032 | 5,637 |
| Commercial/Industrial | n/a | 823 | 965 |
| Municipal | n/a | n/a | n/a |
| **Total** | **n/a** | **5,855** | **6,602** |
| **Year-Over-Year Change** | **n/a** | **n/a** | **12.8%** |

[8] Xcel Energy's Upper Midwest Energy Plan, https://www.xcelenergy.com/company/rates_and_regulations/resource_plan_overview/upper_midwest_energy_plan

*Table 21: Xcel Energy Natural Gas Greenhouse Gas Emissions by Sector, 2019–2021*

| Sector | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | 9,074 | 8,277 | 8,240 |
| Commercial/Industrial | 6,307 | 5,774 | 5,842 |
| Municipal | 526 | 439 | 462 |
| **Total** | **15,907** | **14,490** | **14,544** |
| **Year-Over-Year Change** | **–** | **-8.9%** | **0.4%** |

*Table 22. Emissions factors used to calculate energy-related greenhouse gas emissions, 2019–2021*

| Utility | Fuel Type | Metric | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **Xcel Energy** | Electricity | lbs/MWh | 745 | 598 | 631 |
| **Eau Claire Energy Cooperative** | Electricity | lbs/kWh | n/a | 1.543 | 1.543 |
| **Xcel Energy** | Natural Gas | MTCO2e/Dth | 0.053071 | 0.053071 | 0.053071 |

## Program Participation and Savings

Focus on Energy is the statewide efficiency program in Wisconsin, offering audit and equipment rebate programs for a variety of sectors. Both Xcel Energy and Eau Claire Energy Cooperative provided Focus on Energy participation and savings data for their customers.

In total, 2,077 residential measures and 53 business measures were installed over the baseline period through participation in Focus on Energy's programs, resulting in $246,433 in incentives paid. Xcel Energy also offers bonus rebates for certain customers who participate in Focus on Energy programs, resulting in an additional $62,545 paid to Altoona's residents and businesses (*Table 25*).

*Table 23: Xcel Energy Focus on Energy Residential Program Participation and Savings, 2019–2021*

| | 2019 | 2020 | 2021 | Total | Average |
|---|---|---|---|---|---|
| Residential Measures | 322 | 775 | 804 | **1,901** | **634** |
| Residential Electricity Savings (kWh) | 86,582 | 208,982 | 193,540 | **489,104** | **163,035** |
| Residential Natural Gas Savings (therm) | 8,143 | 13,307 | 15,745 | **37,195** | **12,398** |
| Residential Incentives Paid ($) | $41,400 | $60,312 | $80,240 | **$181,952** | **$60,651** |

*Table 24: Xcel Energy Focus on Energy Business Program Participation and Savings, 2019–2021*

| | 2019 | 2020 | 2021 | Total | Average |
|---|---|---|---|---|---|
| Business Measures | 27 | 11 | 8 | **46** | **15** |
| Business Electricity Savings (kWh) | 79,572 | 89,713 | 99,002 | **268,287** | **89,429** |
| Business Natural Gas Savings (therm) | 4,319 | 5,059 | 2,872 | **12,250** | **4,083** |
| Business Incentives Paid ($) | $11,603 | $8,308 | $6,772 | **$26,683** | **$8,894** |

*Table 25: Xcel Energy Bonus Incentives by Sector, 2019–2021*

| | 2019 | 2020 | 2021 |
|---|---|---|---|
| Residential | $19,260 | $16,948 | $15,235 |
| Business | $3,451 | $3,654 | $3,997 |
| **Total** | **$22,711** | **$20,602** | **$19,232** |

*Table 26: Eau Claire Energy Cooperative Focus on Energy Residential Program Participation and Savings, 2019–2021*

| | 2019 | 2020 | 2021 | Total | Average |
|---|---|---|---|---|---|
| Residential Measures | 127 | 25 | 24 | **176** | **59** |
| Residential Electricity Savings (kWh) | 12,097 | 5,728 | 41,611 | **59,436** | **19,812** |
| Residential Incentives Paid ($) | $5,788 | $5,600 | $25,197 | **$36,585** | **$12,195** |

*Table 27: Eau Claire Energy Cooperative Focus on Energy Business Program Participation and Savings, 2019–2021*

| | 2019 | 2020 | 2021 | Total | Average |
|---|---|---|---|---|---|
| Business Measures | 3 | 4 | 0 | **7** | **2** |
| Business Electricity Savings (kWh) | 11,708 | 15,903 | 0 | **27,611** | **9,204** |
| Business Incentives Paid ($) | $710 | $503 | $0 | **$1,213** | **$404** |

## Renewable Energy Support

Xcel Energy offers renewable energy programs in the form of subscription and on-site installations. Focus on Energy also offers rebates for on-site solar installations. Xcel Energy's current subscription programs are Renewable*Connect and Solar*Connect Community. In Altoona, currently only residential customers participate in the Renewable*Connect program, though the program is available to all sectors (*Table 28*). Solar*Connect Community has participation from both sectors but is much lower compared to Renewable*Connect (*Table 29*). The Solar*Connect Community program is currently fully subscribed and not accepting new participants. Eau Claire Energy Cooperative also offers a subscription program, MemberSolar, with 10 residential participants and 5 commercial/industrial participants. Of the five commercial/industrial participants, four are municipal, resulting in the City of Altoona subscribing approximately 66,000 kWh to MemberSolar in 2021.

*Table 28: Xcel Energy Renewable*Connect Participation by Sector, 2021*

| Sector | Renewable*Connect Subscribers | Electricity Subscribed (kWh) |
|---|---|---|
| Residential | 88 | 300,981 |
| Commercial/Industrial | 0 | 0 |
| **Total** | **88** | **300,981** |

*Table 29: Xcel Energy Solar*Connect Community Participation by Sector, 2021*

| Sector | Solar*Connect Community Subscribers | Electricity Subscribed (kWh) |
|---|---|---|
| Residential | 1 | 221 |
| Commercial/Industrial | 1 | 47,418 |
| **Total** | **2** | **47,639** |

*Table 30: Eau Claire Energy Cooperative MemberSolar Participation by Sector, 2021*

| Sector | MemberSolar Participants | Electricity Subscribed (kWh) |
|---|---|---|
| Residential | 10 | 45,122 |
| Commercial/Industrial | 5 | 66,866 |
| **Total** | **15** | **111,988** |

# APPENDIX 6: IMPLEMENTATION MEMORANDUM OF UNDERSTANDING

To be inserted once executed.