



An Energy Action Plan for Town of Frisco

DRAFT September 2022



Photos taken by Todd Powell



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 Partners in Energy. Xcel Energy is the main electric and gas utility serving Town of Frisco. Partners in Energy is a two-year collaboration to develop and implement a community's energy goals.

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EXECUTIVE SUMMARY

(Note, this will be designed as a graphically-rich PDF once the plan is final)

Community Vision

The Town of Frisco will protect our vibrant mountain resources by pursuing an equitable, net-zero carbon energy future. The Town will inspire residents, businesses, and visitors to reduce emissions through outreach and leadership in energy efficiency, renewable energy projects, and cost-effective building decarbonization.

Focus Areas

- Residents
- Businesses & Institutions
- Municipal Facilities
- Regional Synergies

Goal

Frisco will align with the latest climate science research and global leadership to reduce GHG emissions from energy consumption 70% by 2030 and 100% by 2050 from 2017 levels.

Strategies

R-1: Educate the Frisco Community About Residential Energy Opportunities.

- R-2: Develop a Home Energy Score Program.
- B-1: Reach Out To Large Businesses To Promote Energy Opportunities.
- B-2: Support Small Business Energy Outreach Efforts.
- M-1: Retrofit Town Facilities To Be More Energy Efficient, Electrify, And Incorporate Solar.
- Regional-1: Develop Regional Workforce to Support Home Energy Assessments, Renewable Energy Adoption, and Electrification.
- Regional-2: Enhance Home Energy Improvement Incentives for Lower- and Middle-Income Households.
- Regional-3: Expand Solarize Summit.

Energy Baseline: 2021

- Emitted 43,026 MTCO₂e of GHG emissions
- Consumed 49,804,129 kWh of electricity and 3,693,957 therms of natural gas
- Spent \$7,005,606 on energy costs

By Implementing Our Plan Strategies, We Will...

- Save 2,055,821 kWh and 160,541 therms of energy
- Increase our renewable energy use to 1,510,198 kWh
- Avoid 2,039 MT CO₂e

INTRODUCTION



Frisco is a town that values being a close-knit mountain community that cherishes history, environment, healthy lifestyle, and a unique sense of place (Town of Frisco, 2019). The 2019 Frisco Community Plan recognized the need for increased affordability while keeping these principles at the forefront of planning efforts.

Frisco sits in Summit County, which has been a leader in clean energy and climate action. The Town of Frisco Energy Action Plan builds upon that work and is closely tied to the 2018 Summit Community Climate Action Plan. This plan set aspirational energy efficiency and renewable energy goals to complement the renewable energy sources Xcel Energy is already adding to the electric grid. Frisco's Energy Action Plan positions Frisco as a leader in Colorado and in Summit County, with a goal that drives the Town toward significant lower greenhouse gas (GHG) emissions.

Planning Process

The creation of this Energy Action Plan was a 7-month process through Xcel Energy's Partners in Energy program (see About Partners in Energy). Through a series of three planning workshops, Frisco identified local energy-related strategies and actions informed by current energy use data and community-scale GHG emissions. The Energy Action Team (see Acknowledgements) identified GHG emissions reduction as the primary objective while also prioritizing equity. This vision is reflected in the goal, strategies, and targets described later in this plan. After the workshop series, the planning team reviewed this planning document before sending it to the Frisco Town Council for approval.

About 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. To continue to innovatively support its communities, Xcel Energy launched Partners in Energy in 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, tools to help implement the plan, and resources designed to help each community stay informed and achieve their outlined goals. Frisco applied to Partners in Energy in 2022, joining more than 40 other Colorado communities.

Frisco's Existing Energy Efforts

This plan builds on Frisco's existing energy and climate efforts, highlighted below.

- Town of Frisco adopted the Summit Sustainable Building Code in 2020, setting standards for construction above and beyond the previously adopted 2018 IECC Building Code.
- Town of Frisco was designated as a SolSmart Silver community, showing Frisco's commitment to promoting solar energy in the community and removing barriers to solar installation.
 - As part of its designation, Town of Frisco implemented a simplified solar permitting process to decrease the soft costs of installing solar and encourage solar development.
- Frisco Town Council approved a resolution in 2019 that commits the community to shift away from fossil fuels and transition to 100% clean, renewable electricity by 2035. As of 2021, 39% of the electricity consumed in the community was renewable.
- Town of Frisco has installed three electric vehicle (EV) charging stations to encourage sustainable, electric transportation options.
- The 2019 Frisco Community Plan includes energy efficiency, renewable energy, and green building sustainability-related strategies.
- Town of Frisco adopted a 100% Renewable Energy Plan in 2019.

High Country Conservation Center's Existing Energy Efforts

High Country Conservation Center (HC3) implements climate and energy programs on behalf of Summit County's communities. This plan is inspired by and supports these existing efforts, including those outlined below.

- The Summit Community Climate Action Plan set ambitious goals for all communities in the county, including Frisco, and set the following energy-related goals:
 - Renewable energy: Reduce emissions from electricity use 100% by 2035.

- Building energy: Reduce emissions from building energy use 21% by 2030 and 36% by 2050.
- Transportation: Reduce emissions from transportation 25% by 2030 and 91% by 2050.
- Overall goal: Reduce GHG emissions in Summit County 50% by 2030 and 80% by 2050.
- Solarize Summit is a countywide program that Frisco residents can use to receive a limited-time discount on solar.
- The Energy Smart Colorado program provides rebates for home energy efficiency improvements households, allowing qualifying Frisco residents to increase their home's comfort and save energy.

WHERE WE ARE NOW



To better understand what we want Frisco's energy future to look like, we must understand the existing energy landscape. This section includes an overview of energy and GHG data trends in Frisco.

Community Energy Data

An integral part of the Partners in Energy planning process is reviewing historic energy data that informs our community's energy baseline, as well as past GHG data and future GHG forecasts. Xcel Energy provided data on energy use, participation counts, and utility energy conservation program savings for Town of Frisco, as detailed in the following sections. HC3 provided data on GHG emissions for Town of Frisco. Appendix B: Baseline Energy Analysis includes a comprehensive picture of Town of Frisco's baseline energy and GHG data, as well as utility energy conservation program participation.

Community Energy Use

Town of Frisco's total overall energy consumption for 2021 was 539,237 MMBtu, as shown in **Error! Reference source not found..** In 2021, 50% of the energy in Frisco was used at residential premises, while 48% was used in commercial and industrial facilities. The final 2% of energy was consumed by Town of Frisco municipal facilities.

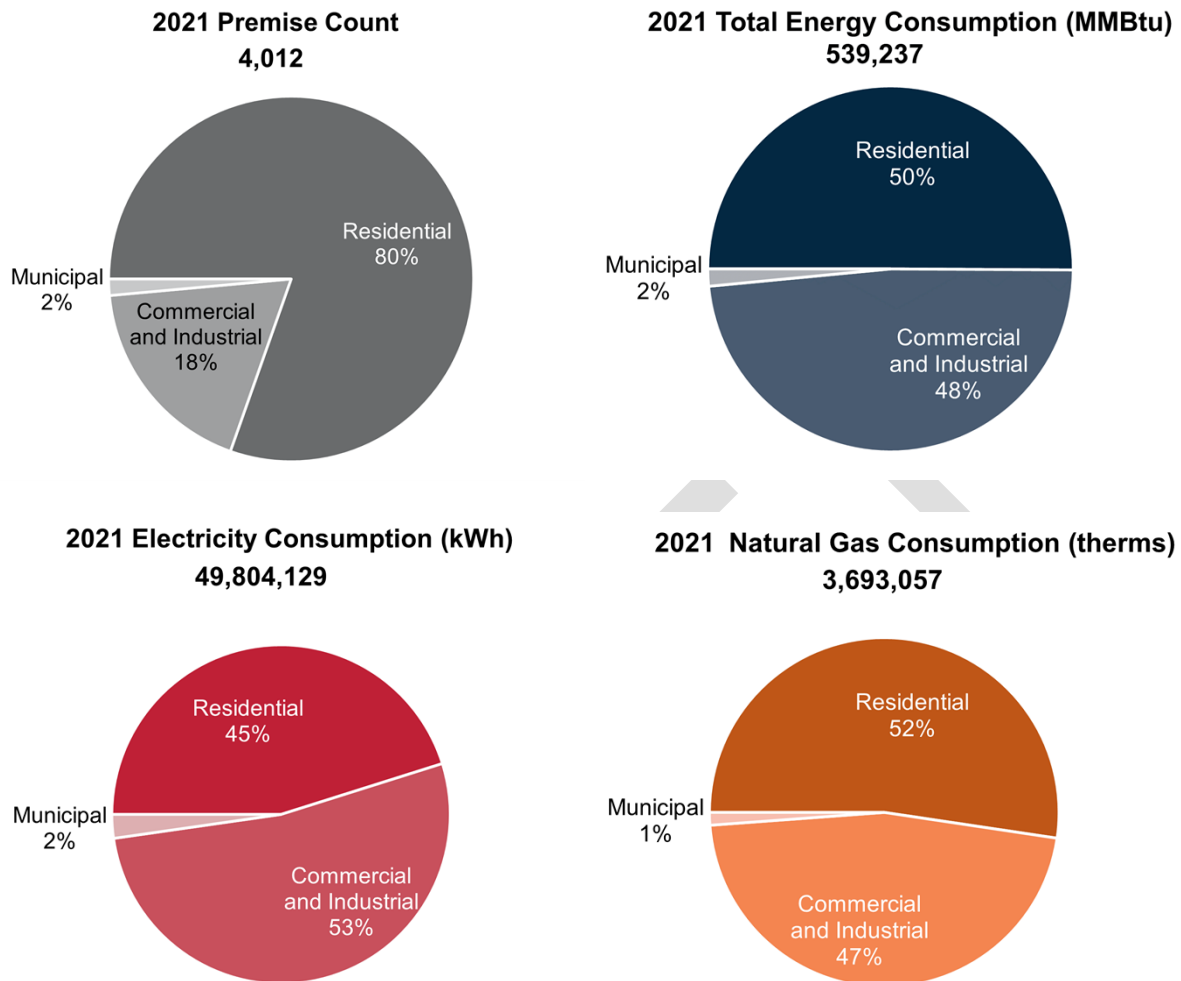


Figure 1: 2021 Community Energy Use and Premise Count by Sector

Though there are significantly more residential premises in Frisco, commercial and industrial properties consumed 47% of natural gas and 53% of electricity in 2021. This is likely related to the type of businesses in Frisco; the three largest businesses are grocery stores, which use a significant amount of electricity for refrigeration and lighting. While energy savings for these large businesses can be significant, there are many small businesses and residential premises that can each be an opportunity for energy action.

Greenhouse Gas Emissions

The Energy Action Team identified GHG emissions reductions as a high priority for the Town Energy Action Plan. Because of this, GHG emissions from the energy sector were analyzed, including emissions from building electricity and natural gas usage. Frisco's 2021 baseline GHG emissions were 43,026 metric tons of carbon dioxide equivalent (MTCO₂e) (Figure 2).

2021 GHG Emissions (MTCO₂e)
43,026

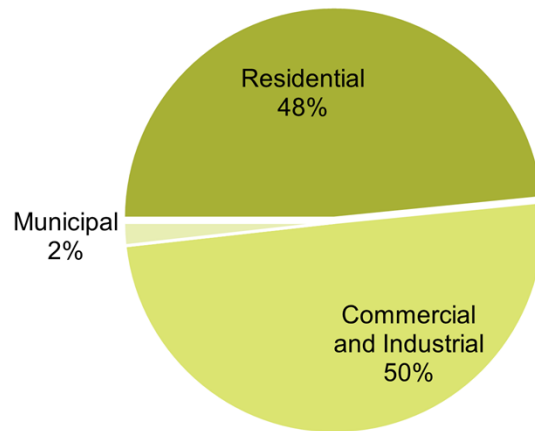


Figure 2: 2021 GHG Emissions

In the future, emissions from electricity use are expected to decrease, due to Xcel Energy's commitment to a cleaner electric grid. Xcel Energy has a goal of 85% lower GHG emissions from electricity by 2030, with a vision of 100% carbon-free electricity emissions by 2050 from a baseline of 2005.

WHERE WE ARE GOING



Vision Statement

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

The Town of Frisco will protect our vibrant mountain resources by pursuing an equitable, net-zero carbon energy future.

The Town will inspire residents, businesses, and visitors to reduce emissions through outreach and leadership in energy efficiency, renewable energy projects, and cost-effective building decarbonization.

Goal

Working together, the Team set an overarching goal to guide the energy action planning process. The Team expressed interest in aligning Town of Frisco with [Science-Based Targets \(SBTs\)](#). These targets are set in alignment with the [Paris Agreement](#) goal of keeping global warming well below 1.5° Celsius, while also prioritizing global emissions equity. This means that countries and cities who are most responsible for current global emissions are responsible with reducing their emissions at a faster rate than those who are still developing their economies. With this information in mind, Town of Frisco's goal is:

Frisco will align with the latest climate science research and global leadership to reduce GHG emissions from energy consumption 70% by 2030 and 100% by 2050 from 2017 levels.

This goal is also demonstrated in comparison to Business as Usual (BAU) emissions¹ in Figure 3 and Table 1. Using a 2017 baseline, Figure 3 illustrates that as of 2022, Frisco is currently behind where it should be to meet its goal. This plan outlines strategies that lay a strong foundation for Frisco to accelerate energy action to drastically reduce emissions and get back on track.

SBT for Frisco Energy GHGs

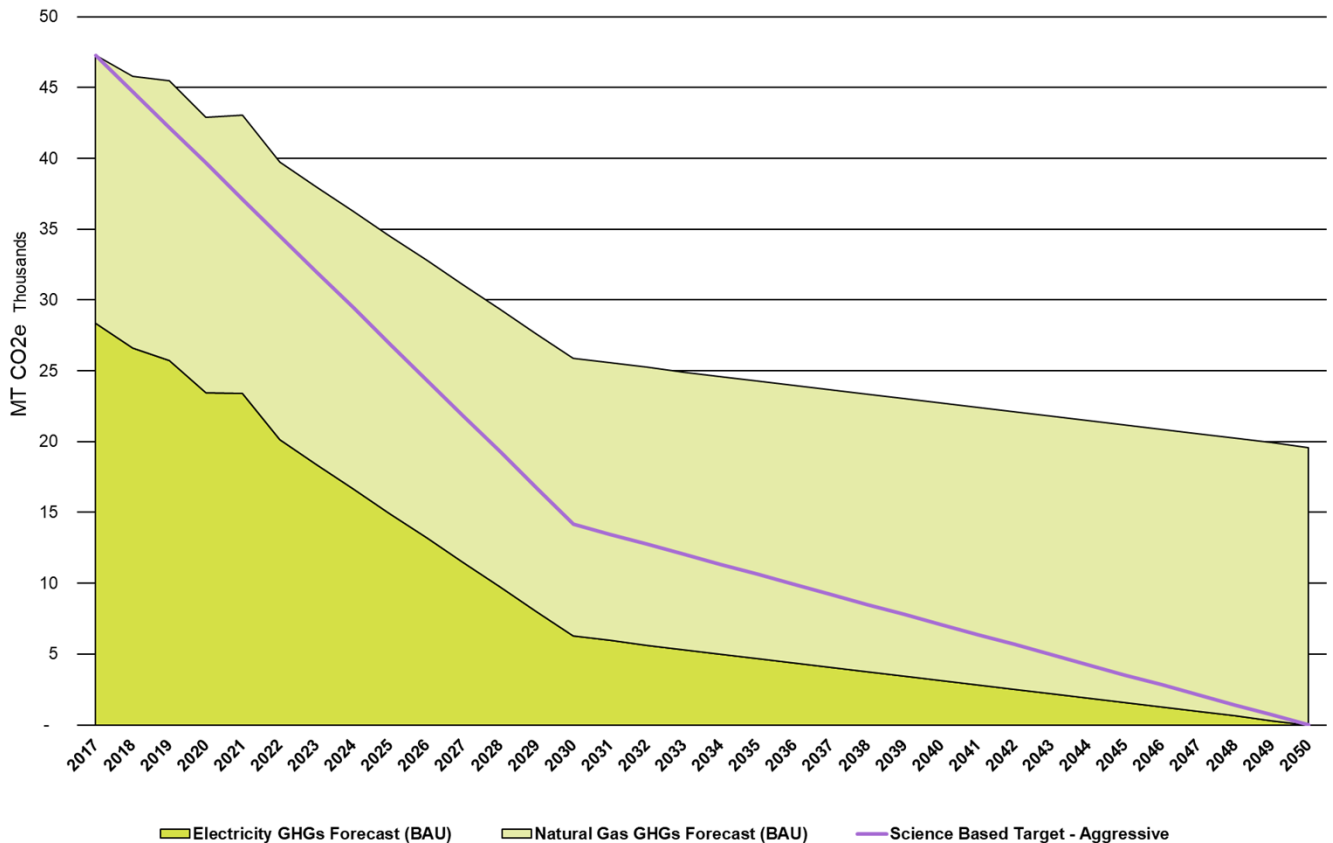


Figure 3: Science-Based Target for Frisco Energy Greenhouse Gas Emissions.

¹ Business As Usual (BAU) projections assume no change in energy consumption from 2021 levels.

Table 1: Frisco Energy GHG Emissions Goal According to Science Based Targets

Year	Energy GHGs (MT CO ₂ e)
2017 (Baseline)	47,274
2030	14,182
2050	0

Focus Areas

To achieve this vision and ambitious goal, the Energy Action Team identified the following focus areas to prioritize strategies and resources.



Focus Area: Residents: This focus area includes strategies that promote energy opportunities to all Frisco residents through policy, incentives, and education.



Focus Area: Businesses & Institutions: This focus area includes strategies for working with both large and small businesses to encourage energy opportunities through education and incentives. B-1: Reach Out To Large Businesses To Promote Energy Opportunities.

Description

The purpose of this strategy is to promote energy efficiency and renewable energy opportunities to large businesses, which often use a significant amount of energy and have rooftop space that is ideal for solar development. Frisco does not want to restrict large businesses; instead, Frisco and Partners in Energy will provide support to the large businesses to align with Frisco's energy goals.

Target Audience

- Large businesses (e.g., Walmart, Whole Foods, Safeway)

Target Outcome by End of 2024

- 3 large businesses are engaged and informed of energy opportunities
 - 1 large business participating in an energy-saving or renewable energy program

Scope and Timeline

2022 Q4	<ul style="list-style-type: none"> • Inventory large businesses and coordinate with their Xcel Energy account manager and Town Staff to understand past energy efforts. • Prioritize which businesses to focus outreach efforts on first.
2023	<ul style="list-style-type: none"> • Conduct direct outreach to prioritized businesses, focusing on large savings opportunities like refrigeration for grocery stores.
2024	<ul style="list-style-type: none"> • Follow up with prioritized businesses.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none"> • Lead business inventory and outreach.
Town Residents and Partners	<ul style="list-style-type: none"> • Support outreach by providing contacts and facilitating connections.
Xcel Energy	<ul style="list-style-type: none"> • Coordinate with Xcel Energy account managers.

Partners in Energy	
Resource Considerations	
<ul style="list-style-type: none"> Town staff time required for outreach. 	
B-2: Support Small Business Energy Outreach Efforts.	
Description	
<p>The purpose of this strategy is to encourage new business participation in HC3's Resource Wise program and celebrate existing participants. The Resource Wise program include on-site assessments with energy experts to help businesses identify energy saving and renewable energy opportunities and resources.</p>	
Target Audience	
<ul style="list-style-type: none"> Small businesses 	
Target Outcome by End of 2024 Q2	
<ul style="list-style-type: none"> All businesses are engaged with and informed of energy opportunities. <ul style="list-style-type: none"> 25 participants in Xcel Energy Business Energy Analysis 25 participants in Xcel Energy Small Business Solutions 20 new participants in Xcel Energy Windsource® 	
Scope and Timeline	
2022 Q4	<ul style="list-style-type: none"> Develop an outreach plan to promote Resource Wise that outlines key messages, communication channels, roles, and timeline. <ul style="list-style-type: none"> Reference the Partners in Energy Small & Medium Business Toolkit for examples from other communities, sector-specific energy data, and other resources. Include plans for a celebratory event that highlights participating businesses (e.g., business bingo). Include plans for a business walk to recruit new businesses to join, using the celebratory event as an incentive. Develop collateral according to outreach plan. Explore options for the Town to further encourage participation in Resource Wise, including policies that prioritize procurement of services from local Resource Wise businesses that are owned by people from historically underserved populations, such as Minority and Women-Owned Small Businesses.
2023	<ul style="list-style-type: none"> Launch outreach. Track progress.

2024	<ul style="list-style-type: none"> Evaluate results.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none"> Review outreach plan and collateral. Co-lead outreach with HC3. Provide participation results for tracking progress.
Town Residents and Partners	<ul style="list-style-type: none"> HC3 to support outreach plan and collateral, and to co-lead outreach with the Town.
Xcel Energy Partners in Energy	<ul style="list-style-type: none"> Develop outreach plan and collateral. Support outreach. Track progress.

Resource Considerations

- Town staff time required for outreach planning, collateral review, conducting outreach, and tracking results.
- Partners in Energy budget provided for printing and some advertising costs.
- Partners in Energy giveaways provided to support outreach.

Focus Area: Municipal Facilities: This focus area includes strategies that encourage energy opportunities specifically for municipal facilities, focusing on both retrofits and new construction.



Regional Synergies: HC3 is leading a variety of impactful energy efforts throughout the county, including in Frisco. This focus area supports those existing efforts by expanding and building upon them and outlining Town of Frisco's specific role.

These focus areas were chosen to provide a holistic approach to energy stewardship in Frisco by capitalizing on the sectors that currently use the most energy and building on existing regional energy efforts.

HOW WE ARE GOING TO GET THERE



The planning team identified 8 strategies necessary to achieve Frisco’s vision and goals:

- R-1: Educate the Frisco Community About Residential Energy Opportunities
- R-2: Develop a Home Energy Score Program.
- B-1: Reach Out To Large Businesses To Promote Energy Opportunities.
- B-2: Support Small Business Energy Outreach Efforts.
- M-1: Retrofit Town Facilities To Be More Energy Efficient, Electrify, And Incorporate Solar.
- Regional-1: Develop Regional Workforce to Support Home Energy Assessments, Renewable Energy Adoption, and Electrification.
- Regional-2: Enhance Home Energy Improvement Incentives for Lower- and Middle-Income Households.
- Regional-3: Expand Solarize Summit.

These strategies are organized by the audience of focus: R strategies are residential, B strategies are business and institutions, and M strategies are for municipal facilities. The following sections provide implementation details for each of the strategies, which are organized by focus area.



Focus Area: Residents

Overview

This focus area includes strategies to encourage renewable energy, energy efficiency, and electrification in residential buildings throughout Frisco. As of 2021, Frisco is home to 2,902 residents (Colorado Department of Local Affairs, 2022). The median household income is lower than the Colorado state average and 31% of Frisco residents are housing cost burdened, emphasizing the need to help residents save money by saving energy (United States Census Bureau, 2020).

Home energy improvements can decrease energy bills from 5 to 30%, saving cost-burdened Frisco residents money. In addition to decreasing energy costs, electrification of home appliances provides indoor air quality benefits by decreasing the amount of particulate matter from fuel combustion in a home (RMI, 2020). These direct benefits can help Frisco residents live more comfortable, healthier lives. Education and new policy could encourage owners and renters of all homes in Frisco to participate in available energy opportunities.

Strategies

R-1: Educate the Frisco Community About Residential Energy Opportunities.

Description

Several no- and low-cost opportunities for residents to save energy and money are available with changes to behaviors and through Xcel Energy and HC3 home audit programs, energy efficient and electrification equipment rebates, renewable energy programs, and other incentives. Additionally, subscription and rooftop solar programs are available for residents to increase the use of renewable energy. The purpose of this strategy is to educate Frisco residents about these opportunities and encourage participation in energy programs through a town-wide education effort.

Target Audience

- Residents (owners and renters)
- Second homeowners

Target Outcome by End of 2024 Q2

- 10 multifamily properties are engaged with and informed of weatherization and efficiency opportunities
 - 7 participants in the Xcel Energy Multifamily Buildings program
- All residents are engaged with and informed of efficiency opportunities
 - 140 participants in Xcel Energy residential energy programs
- All residents are engaged with and informed of renewable energy opportunities
 - 100 new participants in Xcel Energy Windsource®
 - 20 new participants in Xcel Energy Net Metering Solar

Scope and Timeline

2022 Q4	<ul style="list-style-type: none"> • Develop an outreach plan that outlines key messages, communication channels, roles, and timeline tailored for each target audience. • In coordination with HC3, work with resident volunteers to do energy assessments and improvements, including electrification installations and document their experience and results to inform outreach materials with local stories and data.
2023	<ul style="list-style-type: none"> • Develop collateral according to communications plan. <ul style="list-style-type: none"> ◦ Incorporate resident volunteer stories as possible. • Launch outreach. <ul style="list-style-type: none"> ◦ Conduct outreach at the Concert in the Park Series. • Track progress.
2024	<ul style="list-style-type: none"> • Evaluate 2021 results and adjust the outreach plan as necessary. • Continue outreach. • Track progress.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none"> • Review outreach plan and collateral. • Lead outreach. • Provide participation results for tracking progress.
Town Residents and Partners	<ul style="list-style-type: none"> • HC3 to review outreach plan and support outreach. • Resident volunteers to share their home energy assessment stories for outreach materials.
Xcel Energy Partners in Energy	<ul style="list-style-type: none"> • Develop outreach plan and collateral. • Support outreach. • Track progress.

Required Resources

- Town staff time required for outreach planning, collateral review, conducting outreach, and tracking results.
- Partners in Energy budget provided for printing and some advertising costs.
- Partners in Energy giveaways (e.g., Specialty LED Kits) provided to support outreach.

R-2: Develop a Home Energy Score Program.

Description

During a home's time of sale, or the transition of a home to become a rental property, there is an opportunity to understand and improve the home's energy performance. Currently, Town of Frisco is not directly involved in the process of buying a home

within the Town, which means that this strategy will require developing a process, similar to requiring inspections, for home energy assessments at time of sale.

This strategy will involve working with home inspectors and other real estate industry representatives to pilot an approach that provides a home energy assessment during the time of home sale or lease, based on best practices from similar transparency programs in other municipalities. Using the pilot results, Frisco can then determine how to expand the program through a town-wide policy.

Target Audience

- Town of Frisco property owners and prospective buyers
- Real estate industry

Target Outcome by End of 2024 Q2

- 50 participants in HC3 home energy audits

Scope and Timeline

2022 Q4	<ul style="list-style-type: none">• Research best practices for home energy score policies.
2023	<ul style="list-style-type: none">• Engage stakeholders (e.g., property owners, residents, home inspectors, home energy assessment providers) to inform pilot program development.• Conduct pilot program and analyze results.<ul style="list-style-type: none">○
2024	<ul style="list-style-type: none">• Use lessons learned from the pilot program to inform development of a home energy score policy.<ul style="list-style-type: none">○ Coordinate with any other regional efforts related to home energy scores at the time of sale or lease.• Draft policy implementation plan that includes staffing considerations for enforcement and outreach.<ul style="list-style-type: none">○ Include development of any new processes or supporting documents.○ Include schedule for a phased implementation to give realtors and Town staff time to plan for changes.• Submit policy for adoption.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none">• Lead stakeholder engagement.• Lead policy development, adoption, and implementation.
Town Residents	<ul style="list-style-type: none">• HC3 to support stakeholder engagement.

and Partners	<ul style="list-style-type: none"> • HC3 to support policy development, adoption, and implementation, including coordinating with home energy assessment providers.
Xcel Energy Partners in Energy	<ul style="list-style-type: none"> • Research best practices. • Support stakeholder engagement.

Resource Considerations

- Town staff time required for stakeholder engagement and policy development, adoption, and implementation.
- Partners in Energy budget provided to support stakeholder engagement and incentives for participation in pilot program.



Focus Area: Businesses & Institutions

Overview

The Businesses & Institutions focus area provides opportunities for Frisco to engage with commercial energy customers on efficiency, electrification, and renewable energy. Commercial energy use makes up 48% of Frisco's total energy consumption. By promoting programs and incentives that help businesses and institutions take energy action, Frisco can reduce GHG emissions from commercial energy use, while providing businesses with significant cost savings.

As of 2022, there are over 400 businesses registered with Town of Frisco, including small local businesses, home-based businesses, small chains, and large grocery store chains. Due to Frisco's size, large businesses have a significant impact on overall energy consumption. By engaging with just one large business, Town of Frisco could greatly reduce overall energy consumption and emissions.

Strategies

B-1: Reach Out To Large Businesses To Promote Energy Opportunities.

Description

The purpose of this strategy is to promote energy efficiency and renewable energy opportunities to large businesses, which often use a significant amount of energy and have rooftop space that is ideal for solar development. Frisco does not want to restrict large businesses; instead, Frisco and Partners in Energy will provide support to the large businesses to align with Frisco's energy goals.

Target Audience

- Large businesses (e.g., Walmart, Whole Foods, Safeway)

Target Outcome by End of 2024

- 3 large businesses are engaged and informed of energy opportunities
 - 1 large business participating in an energy-saving or renewable energy program

Scope and Timeline

2022 Q4	<ul style="list-style-type: none"> • Inventory large businesses and coordinate with their Xcel Energy account manager and Town Staff to understand past energy efforts. • Prioritize which businesses to focus outreach efforts on first.
2023	<ul style="list-style-type: none"> • Conduct direct outreach to prioritized businesses, focusing on large savings opportunities like refrigeration for grocery stores.
2024	<ul style="list-style-type: none"> • Follow up with prioritized businesses.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none"> • Lead business inventory and outreach.
Town Residents and Partners	<ul style="list-style-type: none"> • Support outreach by providing contacts and facilitating connections.
Xcel Energy Partners in Energy	<ul style="list-style-type: none"> • Coordinate with Xcel Energy account managers.

Resource Considerations

- Town staff time required for outreach.

B-2: Support Small Business Energy Outreach Efforts.

Description

The purpose of this strategy is to encourage new business participation in HC3's Resource Wise program and celebrate existing participants. The Resource Wise program include on-site assessments with energy experts to help businesses identify energy saving and renewable energy opportunities and resources.

Target Audience

- Small businesses

Target Outcome by End of 2024 Q2

- All businesses are engaged with and informed of energy opportunities.
 - 25 participants in Xcel Energy Business Energy Analysis
 - 25 participants in Xcel Energy Small Business Solutions
 - 20 new participants in Xcel Energy Windsource®

Scope and Timeline

2022 Q4	<ul style="list-style-type: none"> • Develop an outreach plan to promote Resource Wise that outlines key messages, communication channels, roles, and timeline. <ul style="list-style-type: none"> ○ Reference the Partners in Energy Small & Medium Business Toolkit for examples from other communities, sector-specific energy data, and other resources. ○ Include plans for a celebratory event that highlights participating businesses (e.g., business bingo). ○ Include plans for a business walk to recruit new businesses to join, using the celebratory event as an incentive. • Develop collateral according to outreach plan. • Explore options for the Town to further encourage participation in Resource Wise, including policies that prioritize procurement of services from local Resource Wise businesses that are owned by people from historically underserved populations, such as Minority and Women-Owned Small Businesses.
2023	<ul style="list-style-type: none"> • Launch outreach. • Track progress.
2024	<ul style="list-style-type: none"> • Evaluate results.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none"> • Review outreach plan and collateral. • Co-lead outreach with HC3. • Provide participation results for tracking progress.
Town Residents and Partners	<ul style="list-style-type: none"> • HC3 to support outreach plan and collateral, and to co-lead outreach with the Town.
Xcel Energy Partners in Energy	<ul style="list-style-type: none"> • Develop outreach plan and collateral. • Support outreach. • Track progress.

Resource Considerations

- Town staff time required for outreach planning, collateral review, conducting outreach, and tracking results.
- Partners in Energy budget provided for printing and some advertising costs.
- Partners in Energy giveaways provided to support outreach.



Focus Area: Municipal Facilities

Overview

To lead by example, Town of Frisco will increase energy efficiency, renewable energy, and electrification in municipal facilities. Taking these actions to decrease GHG emissions from municipal facilities will demonstrate to residents and businesses that net-zero energy consumption is possible in Frisco and help dissuade doubts about energy action in cooler climates, while also saving the Town money. By seeing the benefits of energy action at municipal facilities, residents, businesses, and visitors in Frisco will be encouraged to take action, as well.

Strategies

M-1: Retrofit Town Facilities To Be More Energy Efficient, Electrify, And Incorporate Solar.

Description

The Town of Frisco has already taken steps to be a leader in energy action. In May 2019, the Town passed a resolution to reach 100% renewable energy by 2035 and the Town included a rooftop solar installation on the Public Works facility in the 2023 capital budget. This purpose of this strategy is to enable the Town of Frisco to continue leading by example by making Town facilities more energy efficient, adding rooftop solar, and identifying ways to use Town facilities as labs for innovation by testing newer technologies including heat pumps. This strategy includes adopting a policy to support Town Council's high priority goal of net-zero Town facilities and exploring opportunities to leverage Energy Performance Contracting (EPC), which is a creative model for funding and implementing capital improvement upgrades by using future cost savings to fund projects. The [Colorado Energy Office provides free support](#) for local governments to enter into an EPC and incorporate energy improvements into facilities with little or no upfront capital.

Target Audience

- Town facilities

Target Outcome by End of 2024 Q2

- Implement an Energy Performance Contract
- Adopt an all-electric policy for new Town facilities

Scope and Timeline

2022 Q4	<ul style="list-style-type: none">• Incorporate energy efficiency opportunities into existing improvement plans, including envelope upgrades in the Town Hall plan.• Connect with other communities that have leveraged EPC and the Colorado Energy Office to understand opportunities and challenges.
2023	<ul style="list-style-type: none">• Present EPC research findings to Town Council for review and possible approval.• Pending Council approval, work with the state to enter into and implement EPC.• Adopt Town policy requiring all-electric systems in new construction or major redevelopment of Town facilities.
2024	<ul style="list-style-type: none">• Continue implementation of EPC.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none">• Incorporate energy efficiency opportunities into existing plans.• Coordinate with Colorado Energy Office to enter into an EPC.• Lead policy development and adoption.
Town Residents and Partners	<ul style="list-style-type: none">• HC3 to connect Frisco with other communities that have leveraged EPC.
Xcel Energy Partners in Energy	<ul style="list-style-type: none">• Support EPC research and participation.

Required Resources

- Town staff time required to coordinate EPC and policy adoption.
- Town capital budget has already been allocated for solar on the Public Works facility.



Regional Synergies

Overview

Summit County's communities are acting boldly to decrease energy use, increase renewables, and electrify buildings. By working with HC3 to expand existing efforts, Town of Frisco can reap exponential benefits. For more information about energy action initiatives, go to High Country Conservation Center's Existing Energy Efforts.

In addition to these efforts, HC3 is working with the Family and Intercultural Resource Center to develop a Climate Equity Plan. This plan will further support for underserved communities throughout Frisco and Summit County.

Strategies

Regional-1: Develop Regional Workforce to Support Home Energy Assessments, Renewable Energy Adoption, and Electrification.

Description

Energy-related workforce development provides training and resources to jobseekers and leads to energy savings for local community members. This regional effort is designed to expand workforce development programs to support home energy assessments and prepare for the transition to building electrification necessary to meet Frisco's greenhouse gas emissions goals.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none">Promote new workforce development opportunities to residents.
Town Residents and Partners	<ul style="list-style-type: none">HC3 to coordinate with Energy Smart Partners to lead workforce development efforts, including the inventory of existing efforts, researching best practices, and conducting stakeholder outreach.
Xcel Energy Partners in Energy	<ul style="list-style-type: none">Explore opportunities to support regional effort, building off experiences in other communities (see Partners in Energy Workforce Development Toolkit)

Required Resources

- Town staff time required to support stakeholder outreach.
- Partners in Energy budget provided to support initiative (e.g., refreshments for trainings, incentives for attending trainings, advertising).

Regional-2: Enhance Home Energy Improvement Incentives for Lower- and Middle-Income Households.

Description

Energy programs for low-income households in Frisco—including existing options like bill pay assistance and free weatherization services—are available through the Northwest Colorado Council of Governments (NWCCOG) and Xcel Energy. HC3 is working on an effort to provide enhanced rebates for lower- and middle-income households (80-100% area median income) who don't qualify for existing programs to make energy improvements in their homes. Other opportunities to incentivize home energy improvements for lower- and middle-income households include creative financing (e.g., special assessments on property tax bills).

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none">• Lead budget request to help fund rebates.• Promote enhanced rebates to residents.• Explore financing mechanisms as incentives through Town processes that could then be shared with the region.
Town Residents and Partners	<ul style="list-style-type: none">• HC3 to lead rebate program development and tracking progress.
Xcel Energy Partners in Energy	<ul style="list-style-type: none">• Support outreach to promote enhanced rebates.• Support research on financing mechanisms and other incentive options.

Resource Considerations

- Town staff time required for outreach.
- Partners in Energy budget provided to support outreach (e.g., printing, advertising).

Regional-3: Expand Solarize Summit.

Description

Through HC3, Frisco residents can receive a limited-availability discount on solar-panel installations through Solarize Summit. In 2020, 10 Frisco residents participated and in 2021, 7 Frisco residents participated. Because this program rapidly sells out, HC3 is exploring opportunities to expand the program.

Roles and Responsibilities

Town Staff	<ul style="list-style-type: none"> • Lead residential outreach efforts to collect feedback to understand demand for program expansion and to promote any new incentives. • Lead budget request, if applicable.
Town Residents and Partners	<ul style="list-style-type: none"> • HC3 to assess past participation, support outreach, and implement program expansion.
Xcel Energy Partners in Energy	<ul style="list-style-type: none"> • Develop collateral to support outreach.

Resource Considerations

- Town staff time required for outreach and budget request.
- Partners in Energy budget provided to support outreach (e.g., printing).

Energy Action Plan Impact

Over the next 18 months, the combined targets and strategies outlined in this plan will result in the following savings (Table 2).

Table 2: Energy Action Plan Impact

Metric	2021 Baseline	Implementation Impact (2023 Q1-2024 Q4)
DSM Program Participation	132	199
DSM Electricity Savings (kWh)	147,923	2,055,322
DSM Natural Gas Savings (therms)	4,126	162,173
Renewable Electricity (kWh)	1,202,908	1,510,198
Greenhouse Gas Emissions Savings (MTCO₂e)	657	2,054

HOW WE STAY ON COURSE



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

Energy Action Team

The Energy Action Team formed to create this plan will support implementation by attending applicable implementation check-in calls and serving as liaisons to the rest of the community. Quarterly check-in calls will be used for strategy implementation coordination and discussion on progress toward goals, supported by monthly project management team calls. Energy Action Team commitments are more clearly outlined in each strategy. A summary of the roles and timeline of the plan strategies are provided in Table 3.

Table 3: Summary of Strategy Roles and Tentative Timeline²

		Tentative Timeline							
		Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Beyond
TASK	LEAD								
R-1: Educate the Frisco Community about Residential Energy Opportunities									
Outreach Planning	Partners in Energy								
Collateral Development	Partners in Energy								
Outreach Plan Implementation	Town Sustainability and Communications Staff								
R-2: Develop a Home Energy Score Program									
Policy Research	Partners in Energy								
Stakeholder Engagement	Town of Frisco Sustainability and Community Development								
Pilot Program and Analysis	Town of Frisco Sustainability and Community Development								
Policy Drafting, Adoption, and Implementation	Town of Frisco Sustainability and Community Development								
B-1: Reach Out to Large Businesses to Promote Energy Opportunities									
Large Business Inventory and Prioritization	Town Sustainability Staff and HC3								
Collateral Development	Partners in Energy								
Outreach Implementation	Town Sustainability Staff and HC3								

² Additional strategy implementation will be led by HC3

B-2: Support Small Business Energy Outreach Efforts									
Outreach Plan Development	Partners in Energy								
Collateral Development	Partners in Energy								
Outreach Implementation	Town Sustainability Staff and HC3								
M-1: Retrofit Town Facilities to be More Energy Efficient, Electrify, and Incorporate Solar									
Update Existing Improvement Plans	Town Buildings Staff								
EPC Research	Partners in Energy								
EPC Finalization and Implementation	Town Buildings Staff								
Electrification Policy Development	Town Buildings Staff								

Data and Reporting

Partners in Energy will provide biannual progress reports with metrics of success and overall progress toward plan goals (Table 4) and targets (Table 5).

Table 4: Goals Tracking Summary

Goal	2021 GHGs	2030 Goal	2050 Goal
Frisco will reduce GHG emissions from energy consumption 70% by 2030, and 100% by 2050 from 2017 levels, in alignment with Science Based Targets.	43,026 MTCO ₂ e	14,181 MTCO ₂ e	0 MTCO ₂ e

Table 5: Targets Tracking Summary

Targets for Implementation Period (2023Q1-2024Q2)	2021 Baseline
Engage with 10 multifamily properties on weatherization and efficiency opportunities resulting in: <ul style="list-style-type: none"> 7 participants in Xcel Energy Multifamily Buildings 	<ul style="list-style-type: none"> 0 participants in Multifamily Buildings Program
Engage with all Frisco residents and inform about efficiency opportunities resulting in: <ul style="list-style-type: none"> 50 participants in HC3 home energy audits 140 participants in other Xcel Energy residential energy efficiency programs 	<ul style="list-style-type: none"> 25 participants in HC3 Home Energy Audits 103 participants in Xcel Energy residential energy programs
Engage with all Frisco residents and inform of renewable energy opportunities resulting in: <ul style="list-style-type: none"> 100 new participants in Xcel Energy Windsource® 20 new participants in Xcel Energy Net Metering Solar 	<ul style="list-style-type: none"> 144 participants in Xcel Energy Windsource® 30 participants in in Xcel Energy Net Metering Solar
Engage 3 large businesses and inform of energy opportunities. <ul style="list-style-type: none"> 1 large business participating in an energy-saving or renewable energy program 	<ul style="list-style-type: none"> 0 large business participants
Engage and inform all business of energy opportunities resulting in: <ul style="list-style-type: none"> 25 participants in Xcel Energy Business Energy Assessments 25 participants in Xcel Energy Small Business Solutions 20 new participants in Xcel Energy Windsource® 	<ul style="list-style-type: none"> 0 participants in Xcel Energy Business Energy Assessments 12 participants in Xcel Energy Small Business Solutions 9 participants in Xcel Energy Windsource®

APPENDIX A: WORKS CITED

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APPENDIX B: BASELINE ENERGY ANALYSIS



Data was provided by Xcel Energy for all Town of Frisco premises for 2019–2021. Xcel Energy provides electric and natural gas service to the community. This data helped the Energy Action Team understand Frisco’s energy use and opportunities for energy conservation, renewable energy, and electrification. Data included in this section establishes a baseline against which progress toward goals will be compared in the future.

Electricity and Natural Gas Premises

As of 2021, there were 4,012 total premises in the town, with the vast majority, 3,226, being residential (**Error! Reference source not found.**). There are 728 commercial premises, and municipal facilities made up the remaining 58. Frisco’s majority residential premises provide abundant opportunities for energy action at home. Residential energy programs facilitated by both Summit County and Xcel Energy can provide residents with financial and energy savings.

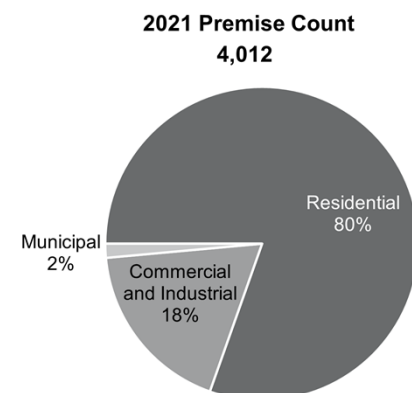


Figure 4: 2021 Premise Count

Electricity and Natural Gas Consumption and Trends by Sector

From 2019-2021, energy use in Frisco remained fairly consistent for both electricity and natural gas in all sectors, with slight (1.5% for electric and .8% for natural gas) decreases in use over that time period. For this reason, 2021 was used as a representative baseline year.

Though there are significantly more residential premises than commercial and industrial (C&I) in Frisco, C&I premises consume over 50% of electricity, and just under 50% of natural gas (Figure 5). This shows great opportunity for energy action in C&I premises and is discussed further in Community Energy Use.

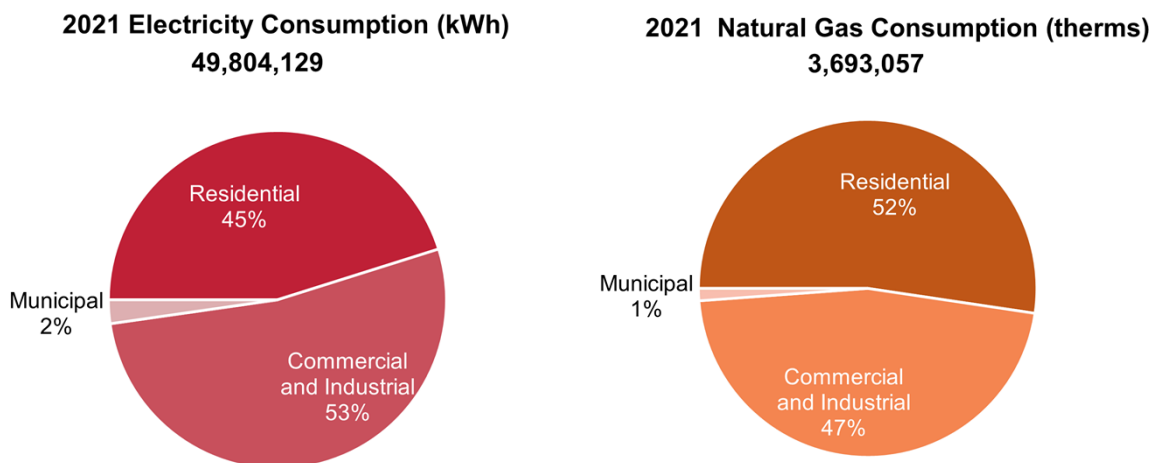


Figure 5: 2021 Electricity and Natural Gas Consumption

Greenhouse Gas Emissions and Trends

In 2021, building energy use in Frisco contributed 43,026 MTCO₂e of GHG emissions to the atmosphere (Figure 6). Of those emissions, 48% were from residential energy use, 50% were from commercial energy use, and 2% were from municipal energy use. From 2019-2021 GHG emissions in Frisco declined slightly, due to decreases in both electricity and natural gas use in the C&I and municipal sectors, as well as decreasing electricity emission factors from Xcel Energy adding cleaner electricity generation sources to the grid (Figure 7). Decreased consumption in 2020 and 2021 aligns with closures related to COVID-19; as facilities reopen more permanently through 2022 and onward, it is possible that consumption and emissions will return closer to 2019 levels.

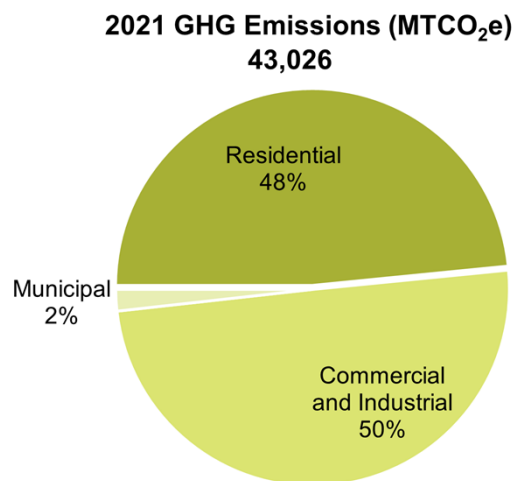


Figure 6: 2021 GHG Emissions

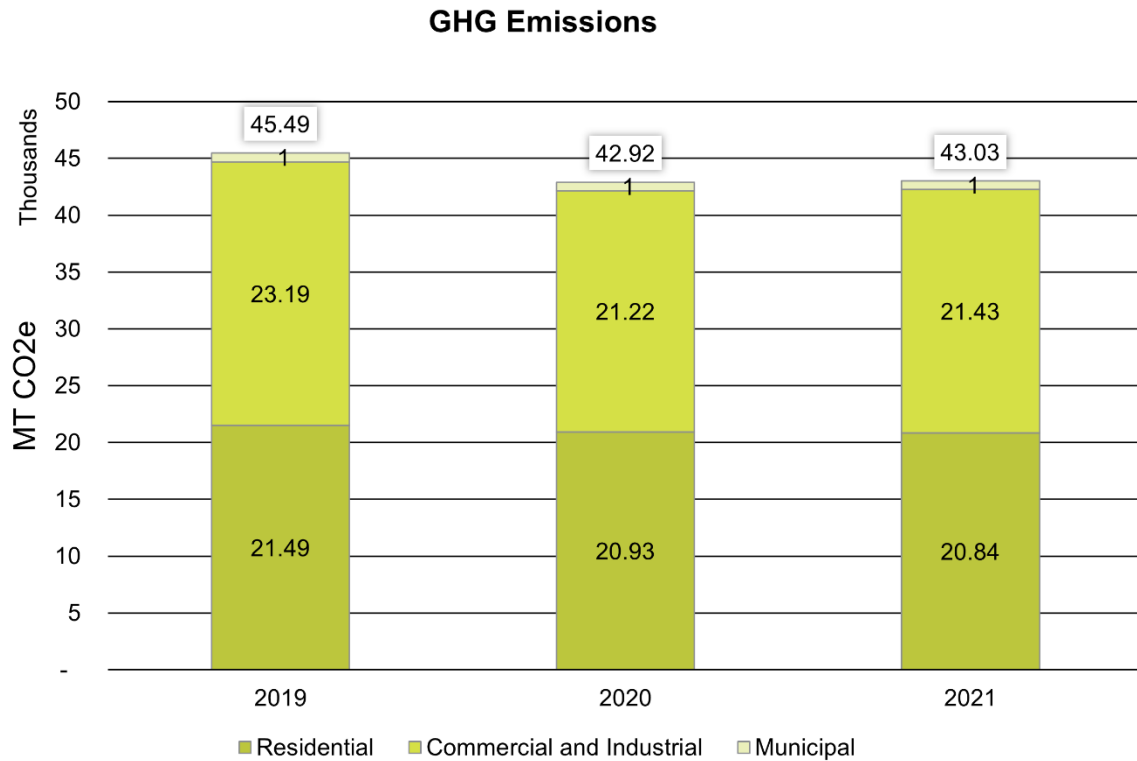


Figure 7: 2019-2021 GHG Emissions

Energy Costs

Total energy costs for Town of Frisco in 2021 was \$7,005,606. As shown in Figure 8, residential premises pay slightly more than C&I, which aligns with overall energy usage trends in Frisco. Figure 9 shows the variability of energy costs annually in all sectors. Energy costs change depending on a variety of factors; financial savings from strategies outlined in this plan are based on average energy cost savings from specific actions and Xcel Energy energy conservation programs.

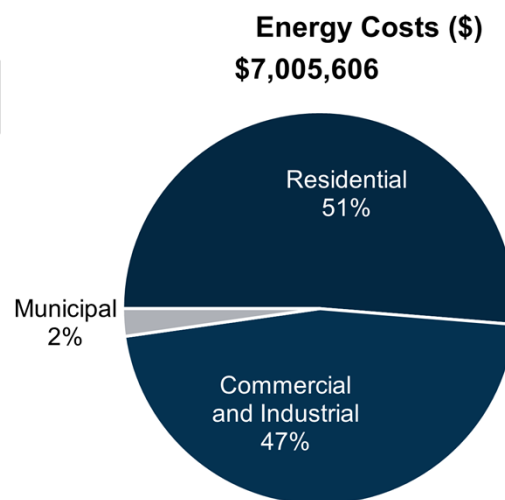


Figure 8: 2021 Energy Costs

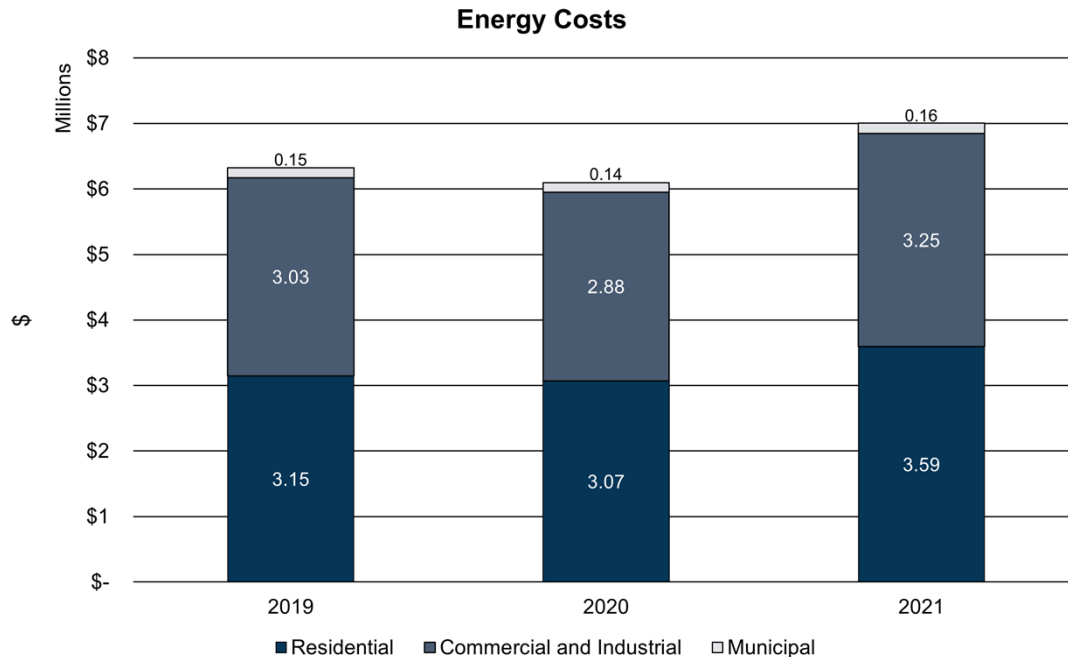


Figure 9: 2019-2021 Energy Costs

Program Participation and Savings

Participation in Xcel Energy efficiency programs can be tied to cost savings from energy action. In 2021, 103 Frisco residents and 29 Frisco businesses participated in an Xcel Energy program. Due to the programs participated in, C&I customers saved a total of \$10,155 and Residential participants saved \$5,221 (Figure 10).

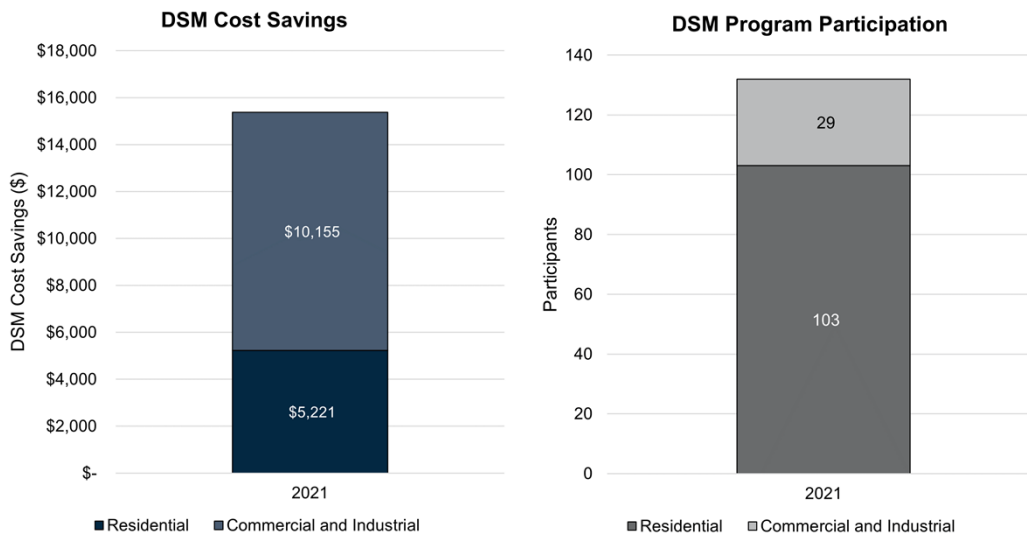


Figure 10: DSM Program Participation and Cost Savings

Table 6 and Table 7 show the top five programs from the residential and commercial sectors, respectively, that reduce GHG emissions. These totals are based on average participation and savings from 2019-2021. These GHG savings can be capitalized on by

promoting these programs. This also provides insight into the underutilized programs that can be tapped for additional GHG savings.

Table 6: Top 5 GHG-Reducing Residential Efficiency Programs

Program	Participants	Electricity Savings kWh	Electricity MTCO2e	Natural Gas Savings	Natural Gas GHG MTCO2e	Total MTCO2e	MT CO2e/ Participant
Home Performance with ENERGY STAR	2.3	9,925.7	5.0	343.0	1.8	6.8	1.9
Insulation & Air Sealing	4.7	7,093.3	3.2	577.0	3.1	6.3	1.1
Refrigerator & Freezer Recycling	13.7	11,830.3	5.7	-	-	5.7	0.4
Residential HVAC	8.0	860.7	0.4	371.7	2.0	2.4	0.1
Home Energy Squad	3.3	4,134.7	1.9	83.7	0.4	2.3	0.6

Table 7: Top 5 GHG-Reducing Commercial Efficiency Programs

Program	Participants	Electricity Savings kWh	Electricity MTCO2e	Natural Gas Savings	Natural Gas GHG MTCO2e	Total MTCO2e	MT CO2e/ Participant
Lighting Efficiency	7.3	126,014.0	60.9	-	-	60.9	9.6
Small Business Solutions	7.0	77,228.7	37.2	307.7	1.6	38.8	7.9
Heating Efficiency	1.0	-	-	1,830.7	9.7	9.7	9.7
Commercial Refrigeration Efficiency	0.7	6,978.7	3.6	-	-	3.6	1.8
Energy Efficient Buildings	0.3	7,142.3	3.4	-	-	3.4	3.4

In addition to GHG savings, program participation is a great way to understand which programs are being utilized by residents.

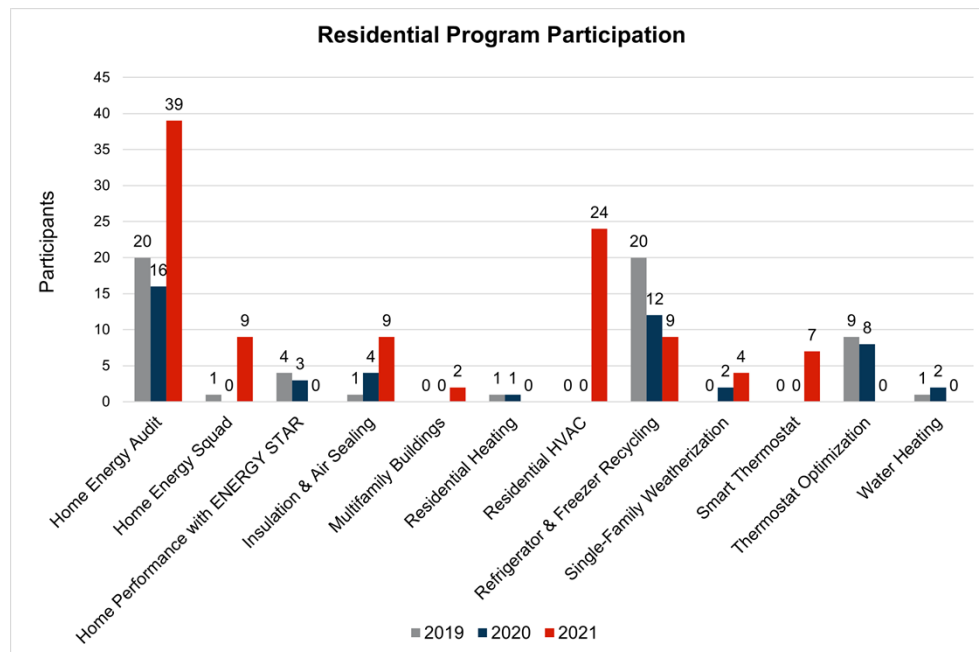


Figure 11: Residential Program Participation

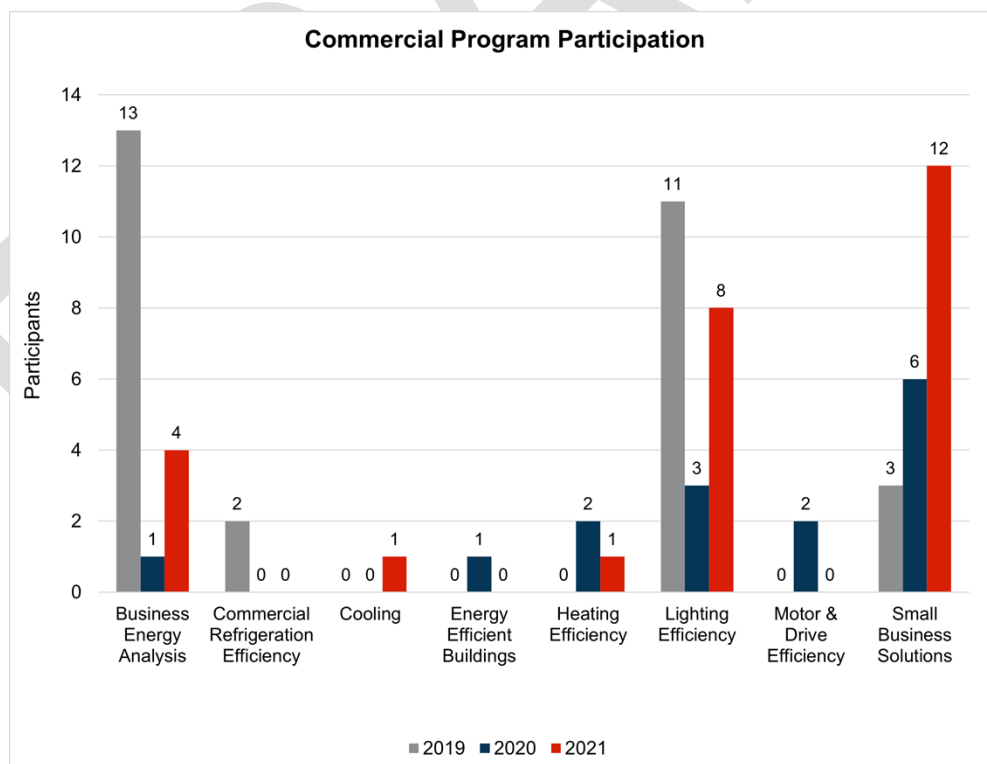


Figure 12: Commercial Program Participation

Renewable Energy Support

Renewable energy is a key component of any community's strategy to reduce GHGs. This is particularly true for Frisco, where drastic GHG emissions reductions are required to meet the community's SBT. Since the goal of this plan focuses on GHG reduction, it is important to highlight programs in which the customer can claim the Renewable Energy Credit (REC) associated with the energy produced or purchased. Therefore, the renewable energy-related strategies in this plan will focus on Xcel Energy's renewable programs where the customer retains RECs: Renewable*Connect, Windsource®, and Net-Metered Solar. Although customers should not be dissuaded from participating in other programs such as Solar Rewards, there should be more emphasis on the REC-retaining programs.

Currently Renewable*Connect is fully subscribed. Although there will be another round available soon, this has not been finalized by Xcel Energy, and outreach efforts in the short-term should therefore be focused on Windsource® and net-metered solar projects.

In the residential sector, we can observe that REC-retaining renewables have been somewhat variable in the last three years, in terms of their impact on GHGs (Figure 13). The Town will focus on promoting Windsource® subscriptions in outreach campaigns, as well as installation in new net-metered solar via incentives provided by HC3's Solarize program.

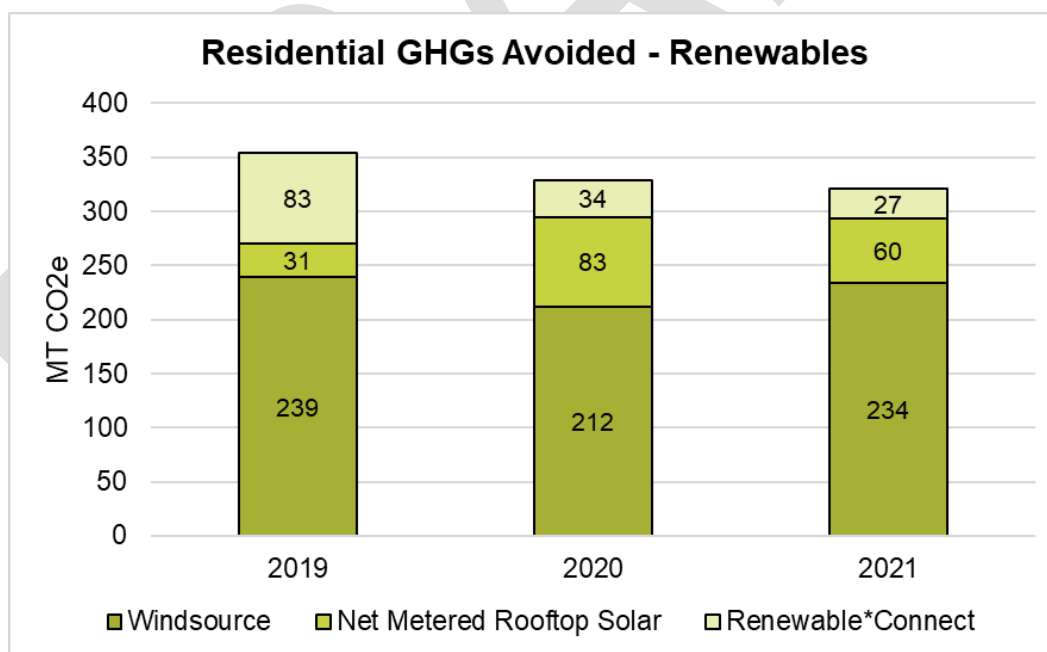


Figure 13: Residential GHGs Avoided Through Xcel Energy Renewable Programs

In the commercial sector, the GHG impact of these renewable energy program subscriptions has declined over the last three years (Figure 14). To meet its goals, the Town will focus on increasing Windsource® subscriptions, as well as meeting directly

with businesses who have large rooftops to promote net-metered rooftop solar at a larger scale.

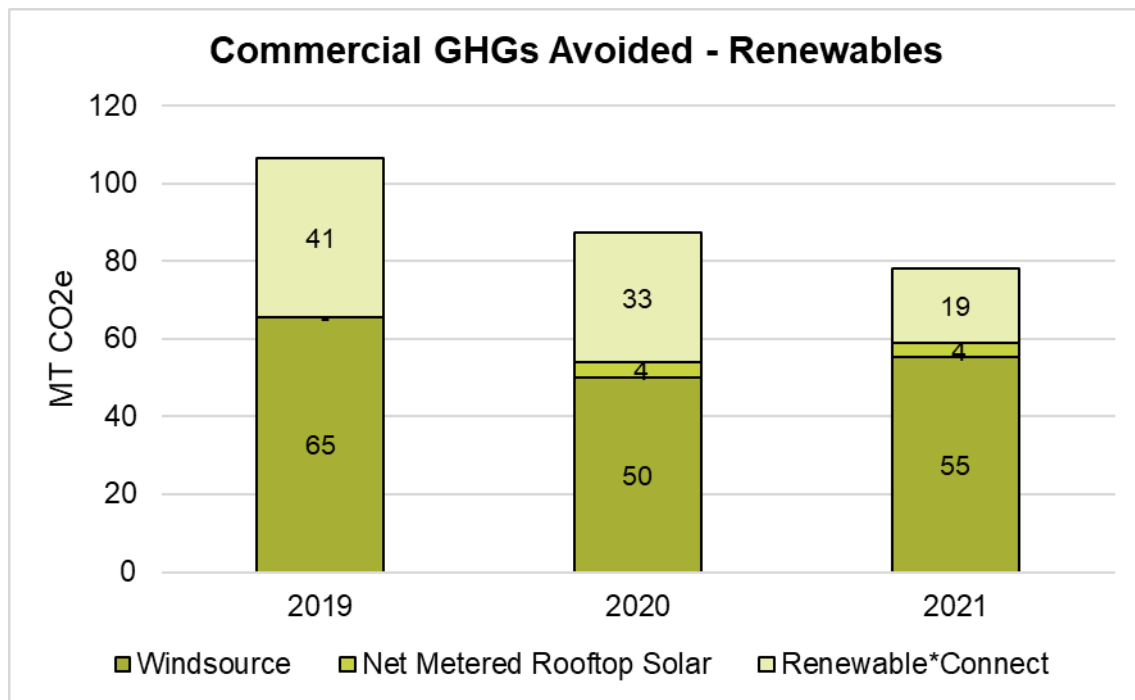


Figure 14: Commercial GHGs Avoided Through Xcel Energy Renewable Programs
Municipal facilities will lead the way, when possible, by subscribing to Windsource® and proposing net-metered rooftop solar. In the past three years, emissions avoided from the town's municipal Renewable*Connect subscriptions have decreased, demonstrating the need for participation in other renewable energy opportunities (Figure 15).

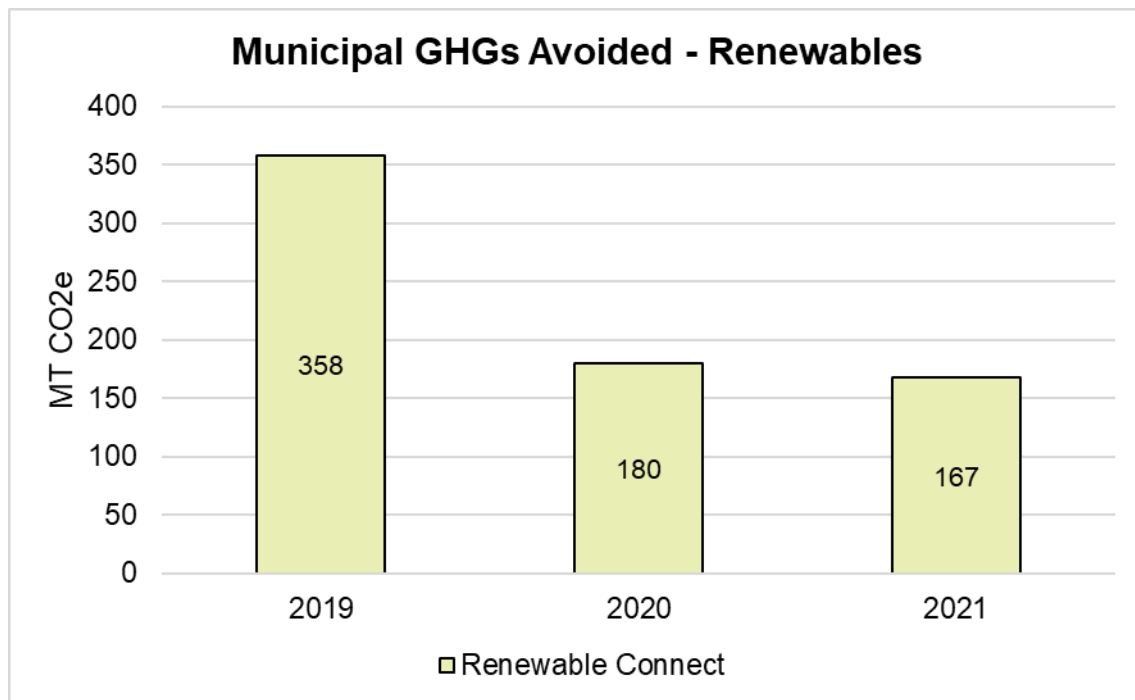


Figure 15: Municipal GHGs Avoided Through Xcel Energy Renewable Programs

APPENDIX C: GLOSSARY OF TERMS



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

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.

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.

Electrification: the process of replacing technologies that use fossil fuels (coal, oil, and natural gas) with technologies that use electricity as a source of energy.

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

Energy Reduction: The result of behavior changes that cause less energy to be used. For example, setting the thermostat to a lower temperature *reduces* the energy used in your home during the winter. Since energy reductions can be easily reversed, they are not accounted for when calculating changes in energy usage.

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

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

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

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

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

Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}): A unit of measure for greenhouse gas emissions. The unit "CO_{2e}" represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO₂), based on the global warming potential (GWP) of the gas.

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

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

Renewable Energy Certificate (REC): For every megawatt-hour of clean, renewable electricity generation, a renewable energy certificate (REC) is created. A REC embodies all 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.