



An Energy Action Plan for Dillon

September 2024



PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

ACKNOWLEDGEMENTS

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

The content of this plan is derived from a series of planning workshops hosted by Xcel Energy's Partners in Energy. Xcel Energy is the main electric and gas utility serving Dillon. Partners in Energy is a two-year collaboration to develop and implement a community's energy goals. For more information about the planning workshops, see [Appendix A](#).

Energy Action Team

<i>Team Member Name</i>	<i>Organization</i>
Jay Beckerman	Bistro North
Kristi D'Agati	Town of Silverthorne
Evan Dawson	Town of Dillon
Narelle Kipple	High Country Conservation Center (HC3)
Kasey Provorse	Energy Smart Colorado
Louis Skowrya	Community member
Vince Valentin	Community member
Nina Waters	Summit County Commissioner

Project Management Team

<i>Team Member Name</i>	<i>Organization</i>
Jonathon Blank	Town of Dillon
Terry Hatfield	Partners in Energy Facilitator
Grace Hood	Partners in Energy Facilitator
Sarah Kaye	Partners in Energy Facilitator
Elizabeth McGary	Xcel Energy
Laura Robinson	Partners in Energy Facilitator
Sofia Troutman	Xcel Energy
Ned West	Town of Dillon

This Energy Action Plan was funded by and developed in collaboration with Xcel Energy's Partners in Energy. Partners in Energy shall not be responsible for any content, analysis, or results if Dillon has made modifications to the plan.

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Town of Dillon Energy Action Plan

About this Plan

This Energy Action Plan was developed through nine months of communitywide collaboration to identify a shared vision for Dillon’s energy future along with specific goals and strategies to move toward that vision.

Starting in November 2023, the Energy Action Plan was driven by a series of planning workshops held in the community with a planning team committed to representing local energy priorities in collaboration with the Town of Dillon and Xcel Energy Partners in Energy. In addition to town representatives, we engaged 14 community members through one community survey and eight stakeholders across three planning workshops.

A key driver in decision making during the planning process was the Town of Dillon’s support of the [Summit Community Climate Action Plan \(PDF\)](#). The plan goal is to reduce greenhouse gas emissions in Summit County 50% by 2030 and 80% by 2050 relative to a 2005 baseline.

Additional considerations for this plan were the unique characteristics of Dillon: It’s a compact community covering just two square miles with 1,064 residents (U.S. Census Bureau, 2020). Dillon has a compact development footprint. About 88% of units are multifamily housing and 12% are single family homes.

Community Energy Vision

Dillon’s vision is for all residents and businesses to have access to affordable renewable energy and energy efficiency opportunities. Efforts pursued by the Town will support the reduction of greenhouse gas emissions and continue to sustain the surrounding natural environment. Dillon will leverage local and regional partnerships when feasible to save money and boost collaboration.

Goals

As mentioned, Dillon town leaders voted to support the Summit Community Climate Action Plan in 2019. There are big opportunities to reduce greenhouse gas emissions, while saving residents and businesses money on energy efficiency efforts.



Building Energy Goal:

The Town of Dillon will increase adoption of energy efficiency programs to 113 participants annually, more than doubling its annual electricity and natural gas savings historically.



Renewable Energy Goal:

The Town of Dillon will get on track to meet the Summit Community Climate Action Plan goal of zero-carbon electricity by 2035 by achieving 57% renewable energy by the end of 2025.

Strategies

Residential Sector (R)

- » **Strategy R-1:** Educate the Community About the Benefits of Energy Efficiency and Renewable Energy
- » **Strategy R-2:** Deliver a Single-Family Energy Efficiency Campaign via Xcel Energy and HC3 Offerings
- » **Strategy R-3:** Conduct a Multifamily Building Efficiency Campaign

Business Sector (B)

- » **Strategy B-1:** Conduct a Business Energy Assessment Campaign
- » **Strategy B-2:** Develop Relationships with Large Businesses for Deeper Savings

Municipal (M)

- » **Strategy M-1:** Make Energy Efficiency Upgrades for Town facilities
- » **Strategy M-2:** Increase Renewable Energy Supply for Municipal Facilities

2023 Energy Profile



Consumed **24.5 million kWh** of electricity



Consumed **1,700,000 therms** of natural gas

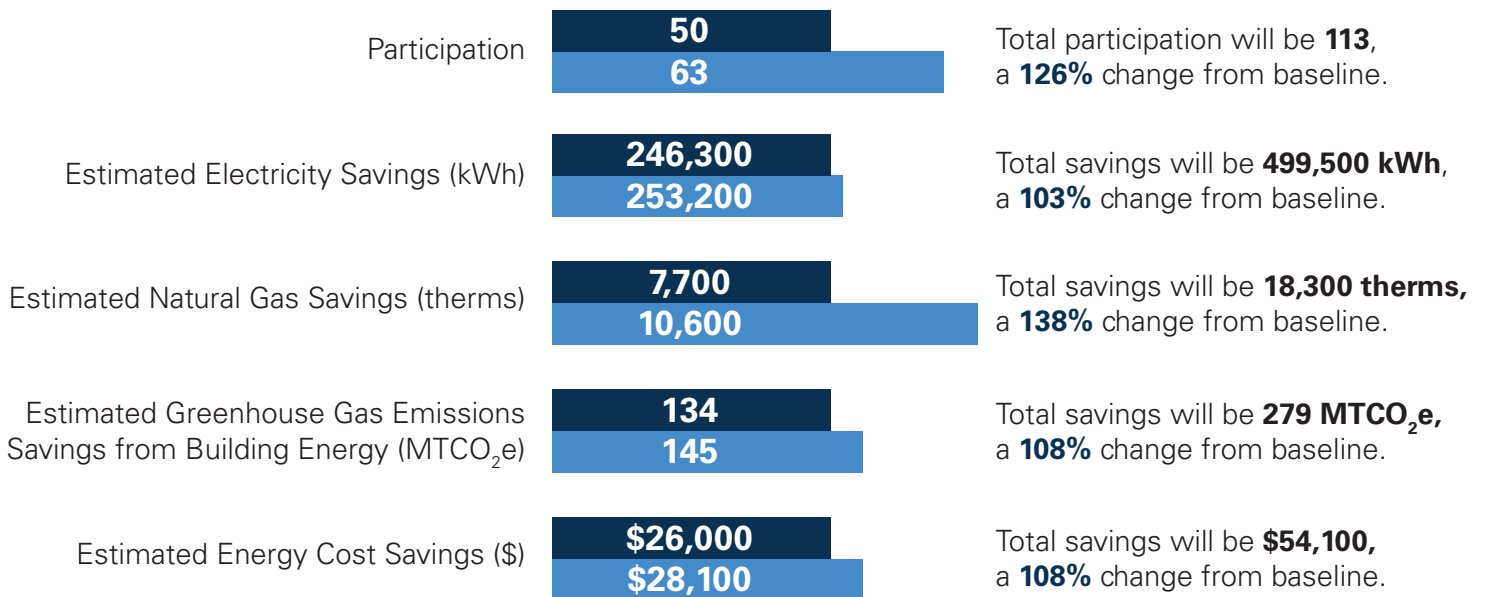


Spent **\$4,100,000** on energy costs

Impact and Results of Plan Implementation

Over the next 18 months, the combined outcomes and strategies outlined in this plan will result in the following impacts:

= Baseline,(18-month) = 18-month Incremental Impact





INTRODUCTION

The Town of Dillon is committed to sustainability and environmental stewardship. In 2019, Dillon participated in the development of the Summit Community Climate Action Plan and is working collaboratively to achieve the greenhouse gas (GHG) goals in the plan. Reducing GHG emissions through the energy sector is one of the plan's main goals.

This Energy Action Plan provides a roadmap to fulfill Dillon's portion of greenhouse gas emissions reductions in the energy sector by increasing energy efficiency, electrification, and renewable energy. The vision, goals, strategies, and outcomes in this plan address the residential, commercial, and municipal sectors in the town.

This Energy Action Plan was developed through a nine-month process to characterize Dillon's energy use, identify Dillon's energy-related goals, and develop engaging strategies to guide change towards an energy future. Starting in November 2023, the Energy Action Plan was driven by a series of planning workshops held in the community with a planning team committed to representing local energy priorities in collaboration with the Town of Dillon and Xcel Energy Partners in Energy. By the numbers, we engaged: 14 community members through one community survey, and eight stakeholders across three planning workshops. See Appendix A for more information about the planning process and Xcel Energy Partners in Energy.



WHERE WE ARE NOW

To inform Dillon's vision, goals, and strategies, the Energy Action Team first explored the town's baseline. This included reviewing Dillon's community characteristics and historic energy data to understand what might present unique barriers or opportunities to energy action. Xcel Energy provided data on energy use, participation counts, and utility energy conservation program savings for Dillon, as detailed in the following sections. See Appendix B for a comprehensive picture of Dillon's baseline energy data. The following sections summarize the findings of this baselining effort.

Dillon is a Small, Slow Growing Mountain Community

Despite outpacing the state of Colorado's population growth (1.5% annually) between 2010-2020 with an average growth rate of 1.8% annually, the Town of Dillon is a small mountain Town that has more recently seen a slow population decline during the study period and a steady premise count over the past three years. Residential premises comprise 79% of total premises, 20% are commercial and industrial premises, with the remaining 1% belonging to municipal premises (Figure 1).

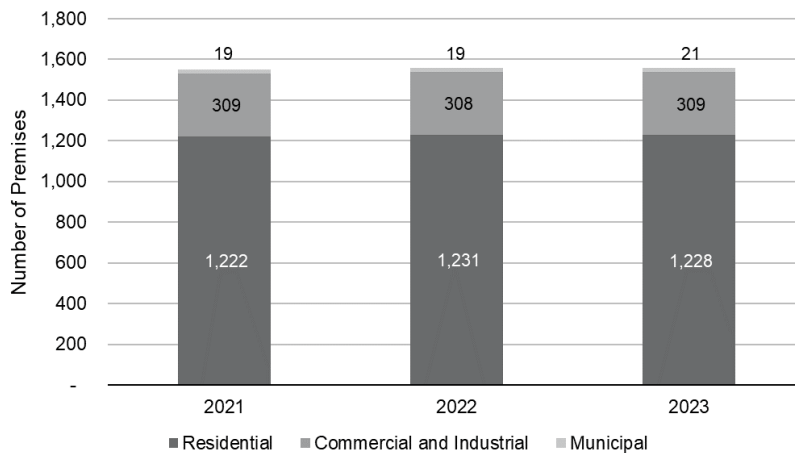


Figure 1. Premise count by sector in Dillon from 2021-2023.

Dillon Has a Significant Portion of Secondary Homeowners

The U.S. Census reports 1,369 housing units in Dillon (U.S. Census Bureau, 2020). Of Dillon’s total housing units, 62% were reported as vacant (U.S. Census Bureau, 2020). Dillon has approximately 360 short-term rental licenses, indicating that a significant portion of vacant homes may belong to secondary homeowners. Even when unoccupied, second homes can use significant energy for heating, to prevent pipes from freezing. There is an opportunity to work with secondary homeowners and short-term rental owners to improve the efficient use of a large portion of Dillon’s housing stock.

Residential properties used 6% more electricity in 2023 than 2022, and natural gas (measured in therms) usage increased by 8% in the same period (Figure 2). Energy assessments are a good opportunity for residents to learn how to decrease energy consumption and increase efficiency by identifying inefficiencies and opportunities for home improvements.

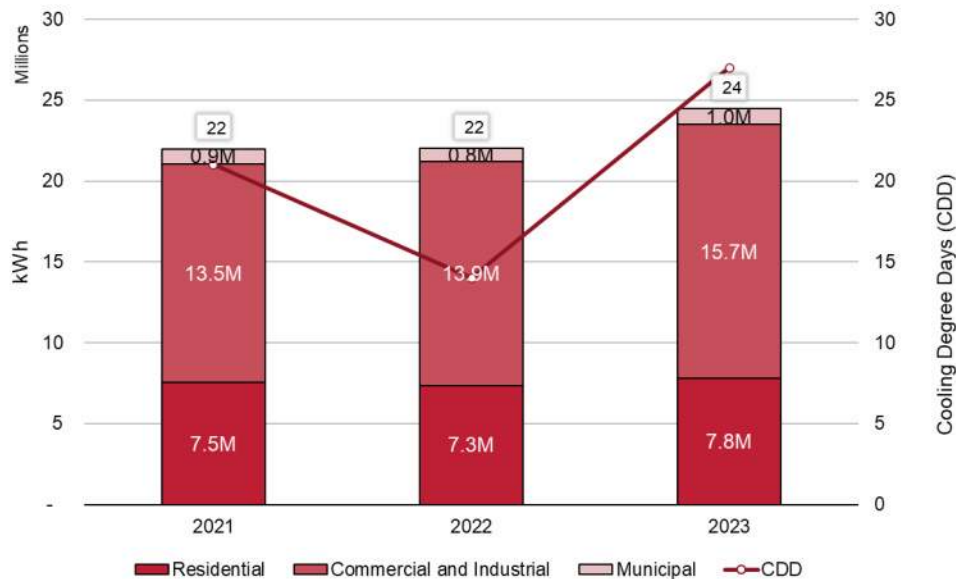


Figure 2. Electricity (kWh) usage by year and cooling degree days (frequency of cooling needs)

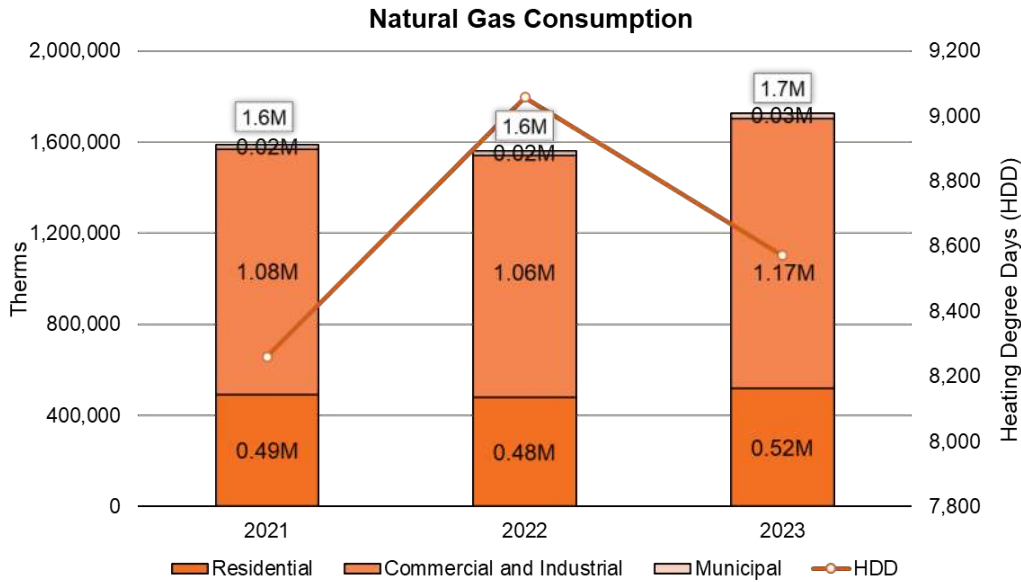


Figure 3. Gas (therm) usage by year and heating degree days (frequency of heating needs)

Large Portion of Dillon’s Housing Stock is Ripe for Weatherization and Upgrades

The most popular decade for building housing in Dillon was the 1970s (489 units) (U.S. Census Bureau, American Community Survey, 2022). The 1980s (226 units) and 1990s (227 units) are nearly tied in their production of housing stock. The 1960s produced 212 units, with the 1950s and 2000s holding the remainder of housing production. With almost all homes built over 20 years ago, there are likely substantial opportunities for weatherization and equipment upgrades.

The residential sector has seen low energy efficiency program participation in the past, with only 12 participants in 2023 (Figure 4). There is much opportunity for homeowners to make appropriate upgrades that can save energy and improve the home’s comfort (Figure 4).

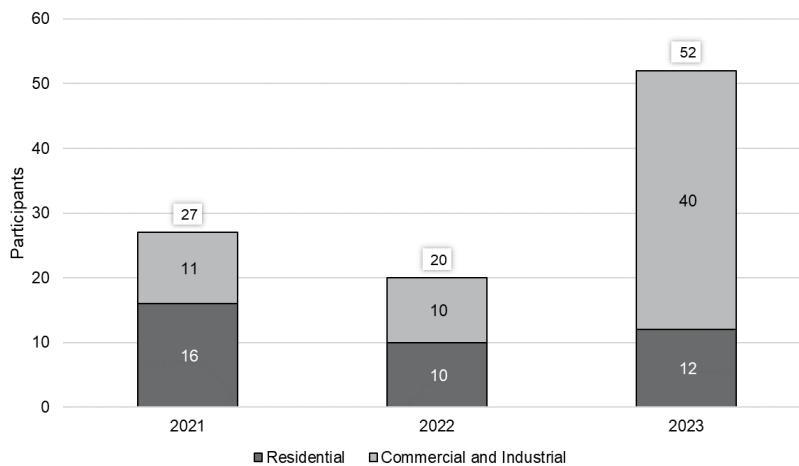


Figure 4. Energy efficiency program participation by sector

The commercial sector saw a large increase in electricity savings in 2022. In large part, this was due to a single building participating in the Energy Design Assistance program offered through Xcel Energy.

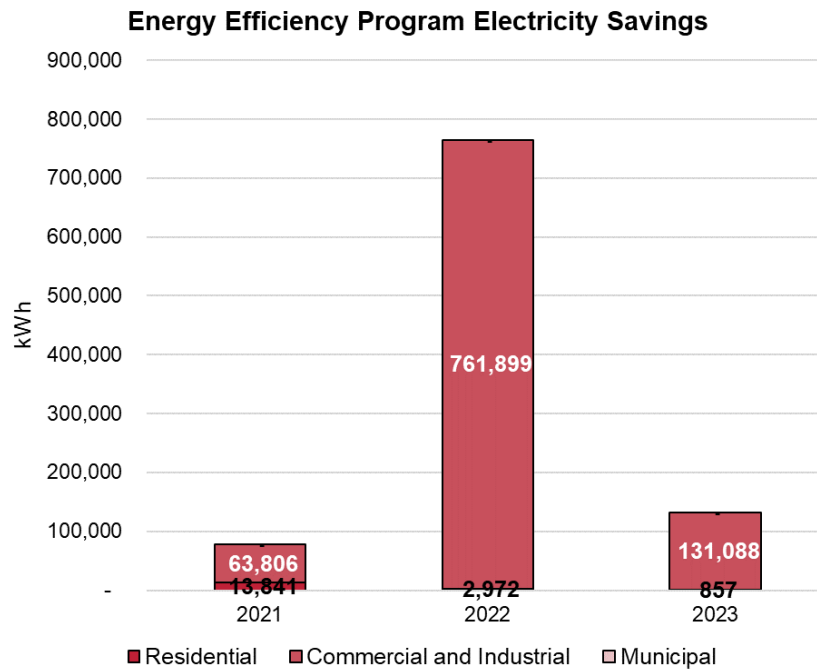


Figure 5. Energy savings from electricity (kWh) program participation

Gas savings in 2022 are also associated with the Energy Design Assistance program.

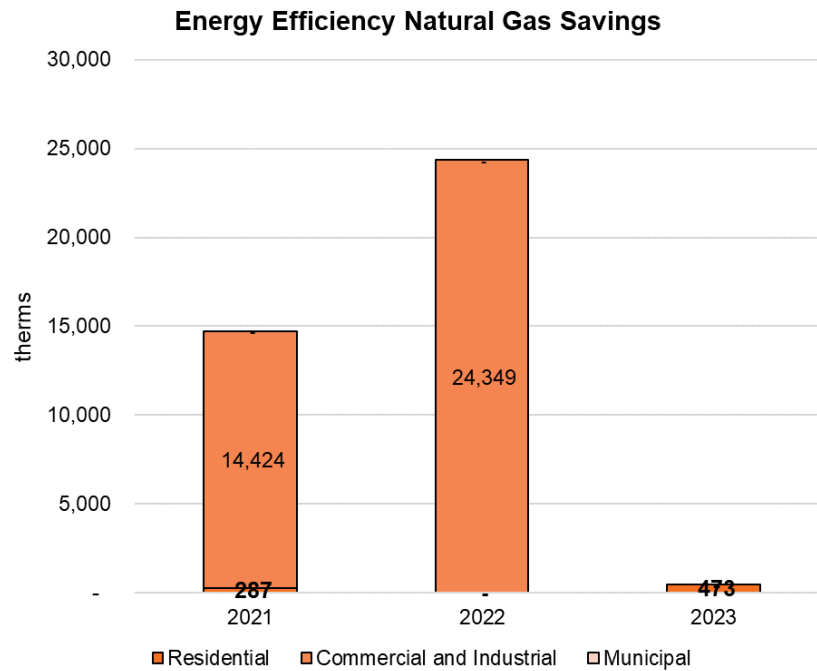


Figure 6. Energy savings from gas (therm) program participation

The Town of Dillon Values Equity

Dillon seeks to advance equity through energy action by connecting with traditionally underserved communities, such as households that have a primary language spoken at home other than English, low-income households, and renters.

Nearly 17% of Dillon residents identify as Hispanic or Latino (U.S. Census Bureau, 2020). An estimated 14% of Dillon residents speak Spanish at home (U.S. Census Bureau, American Community Survey, 2022). Identifying avenues for connecting with Dillon’s Hispanic and Latino community, and offering translation and interpretation to those communities, will be an important component of residential engagement.

The poverty rate for Dillon is 8.2%, which is lower than Colorado’s average of 9.4% (U.S. Census Bureau, American Community Survey, 2022). However, the median household income for Dillon is \$79,972, which is below Colorado’s average median household income of \$89,302 (U.S. Census Bureau, American Community Survey, 2022). Connecting lower-income residents with no and low-cost energy solutions will be an important component of Dillon’s energy strategy.

In Dillon, there are just 167 single-family homes, which represent about 12% of the overall supply (U.S. Census Bureau, American Community Survey, 2022). The remaining housing of 88% falls into the 2–3-unit category and the 4+ unit category. Of Dillon’s occupied housing stock, 45% is renter-occupied, underscoring the importance of working with both property owners and renters to advance Dillon’s energy objectives.

Dillon’s Commercial Sector Offers Opportunities for Sizable Savings

Despite only comprising 20% of total premises, commercial and industrial properties accounted for 69% natural gas use and 64% of electricity use in 2023. Notably, the average use per premise for both electricity and natural gas use was higher than other peer communities identified (Figure 2).

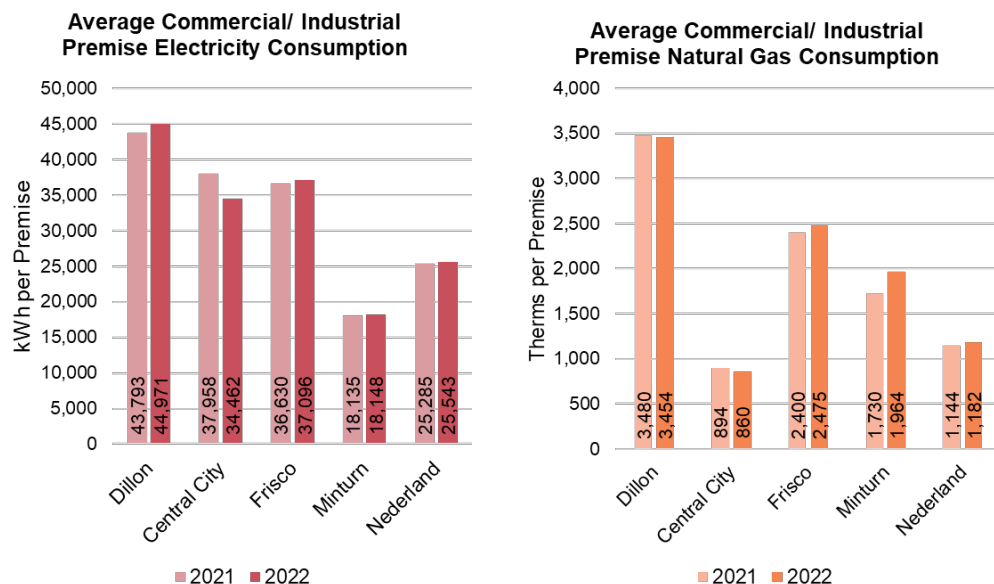


Figure 7. Comparison of average electricity (red) and natural gas use (orange) per premise for the commercial and industrial sector across peer communities from 2021 to 2022.

Dillon has an Opportunity to Build on Renewable Energy Momentum

The Summit Community Climate Action Plan sets ambitious goals to eliminate emissions from electricity use by 2035. Dillon has a prime opportunity to build on the county's momentum by incorporating renewable energy into its municipal facilities and advocating for its adoption throughout the community.

To stay on track with these goals, Dillon aims to boost its annual renewable electricity generation to 1.2 million kWh from programs where customers own the renewable energy credits (RECs) by 2025. Achieving this requires around 50 participants to enroll in Renewable*Connect Flex or install on-site solar systems. Currently, 1% of residents and 6% of businesses participate in renewable energy programs (Figure 6).

Dillon can collaborate with the High Country Conservation Center (HC3) to support the community's shift to renewable energy through rebates and energy assessments for residents and businesses.

However, implementing additional renewable energy in Dillon comes with challenges. Residents highly value their lake views and are concerned that the increased height of rooftop solar panels could obstruct these views. Additionally, the significant number of second homeowners, who may not immediately see the benefits of investing in renewable energy, presents another hurdle.

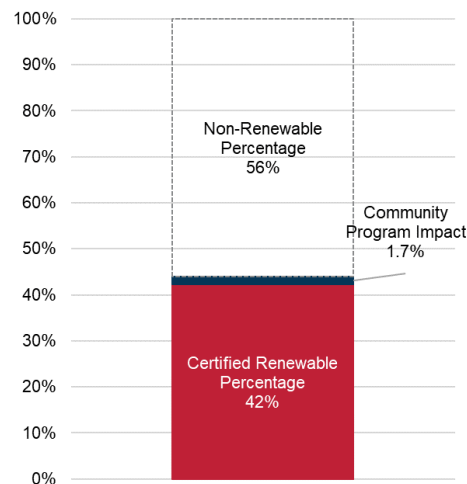


Figure 8. Xcel Energy contributes 42% renewable energy (red) to the electric grid and Dillon contributes 1.7% (blue).



WHERE WE ARE GOING

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

Energy Vision

Dillon's vision is for all residents and businesses to have access to affordable renewable energy and energy efficiency opportunities. Efforts pursued by the Town will support the reduction of greenhouse gas emissions and continue to sustain the surrounding natural environment. Dillon will leverage local and regional partnerships when feasible to save money and boost collaboration.

Focus Areas

To achieve Dillon's energy vision and to address the barriers and opportunities identified during community discussions and planning workshops, the Energy Action Team identified three focus areas to prioritize strategies and resources.



**Municipal
Facilities**



Residential



**Business &
Institutions**

Municipal Facilities: The Town of Dillon is looking to lead by example by making energy improvements to Town facilities while also sharing best practices and resources with the community toward building stronger relationships with residents and businesses.

Residential: Reaching all residents and finding ways to overcome the challenges of engaging with the high proportion of multifamily units as well as out-of-town property owners is a focus of this plan. About 88% of units are multifamily housing and 12% are single family homes (U.S. Census Bureau, American Community Survey, 2022). Town staff are looking to enhance information and resource sharing to enable Dillon residents to plan toward making smart energy decisions for their place of residence.

Business & Institutions: Relationship building is key for the Town of Dillon to reach businesses in a way that limits the burden on businesses to make energy improvements while actively running their operations. Dillon is providing opportunities for businesses and institutions to discover available energy resources and learn from their peers about ways to save energy and reduce emissions.

Goals

As a town in Summit County, the Energy Action Team discussed development of the Town of Dillon’s Energy Action Plan goals in reference to climate action in Summit County regionally. Key goals from the Summit Community Climate Action Plan that influenced the goals set in the Energy Action Plan are highlighted below.

Summit Community Climate Action Plan

The Summit County Board of Commissioners adopted the Summit Community Climate Action Plan (CAP) on April 23, 2019. Relative to a 2005 baseline, the plan sets goals to:

- **GHG Emission Goal:** Reduce GHG in Summit County by 50% by 2030 and 80% by 2050.

The Summit Community Climate Action Plan also establishes renewable energy and building energy goals in support of broader greenhouse gas emission reductions:

- **Renewable Energy Sector Goal:** Reduce emissions from electricity use 100% by 2035.
- **Building Energy Sector Goal:** Reduce emissions from building energy use 21% by 2030 and 36% by 2050.

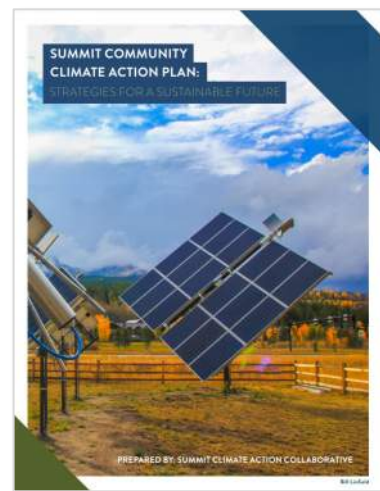


Figure 9 Dillon town leaders supported the Summit Community Climate Action Plan in 2019.

Town of Dillon’s Goals Support Climate Action in Summit County

Renewable Energy

Renewable Energy Goal: The Town of Dillon will get on track to meet the Summit Community Climate Action Plan goal of zero-carbon electricity by 2035 by achieving 57% renewable energy by the end of 2025

Relative to the pace of renewable energy adoption needed to achieve the Summit Community Climate Action Plan renewable energy sector goal, the Town of Dillon has made progress through community action but is currently short of the pace of the County’s goal. In 2022, the

Town of Dillon’s electricity was approximately 44% renewable and by 2025 is projected to be 54% renewable without additional action. To be on pace, an additional 3% of the Town of Dillon’s electricity use would need to be sourced from renewables by the end of 2025. Figure 7 shows the pathway the Town would take to achieve a short-term goal of 57% renewable electricity by the end of 2025. The Town came to consensus that getting back on track toward supporting the County in meeting the 2035 100% renewable electricity goal would be the renewable energy goal for the Energy Action Plan.

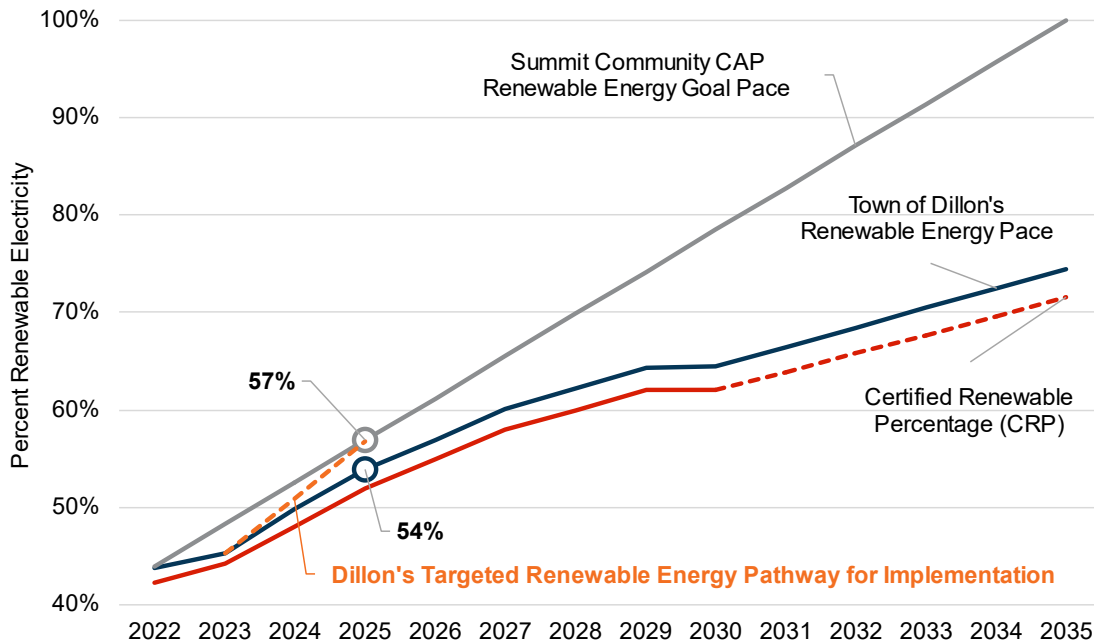


Figure 10. The Town of Dillon's pathway to increase renewable electricity supply

Building Energy

Building Energy Goal: The Town of Dillon will increase adoption of energy efficiency programs to 75 participants annually, more than doubling its annual electricity and natural gas savings historically

Although data were unavailable to establish Dillon’s 2005 building energy use baseline, analysis of the Town’s Xcel Energy data between 2021-2023 aided understanding of the Town’s progress in energy efficiency relative to the pace of the Summit Community Climate Action Plan. Based upon average energy savings per participant in Xcel Energy programs, analysis was completed to estimate the level of energy efficiency program participation needed to achieve Summit County’s building energy goals. Currently, approximately 2% of the Town of Dillon is participating in Xcel Energy’s energy efficiency programs per year, and the pace for Summit County’s building energy goal significantly exceeds the Town of Dillon’s historic participation rate. Because of this discrepancy, the Town of Dillon benchmarked against other mountain communities for levels of participation and settled upon a 6% adoption rate, approximately triple the current participation rate. This level of participation on an annual basis aligns with the highest current annual participation rate across mountain communities that participate in Partners in Energy. See Figure 8 for a chart on the range of participation between Town of

Dillon’s current trajectory, high adoption rate for Partners in Energy mountain communities, and the highest adoption rate for all Partners in Energy communities.

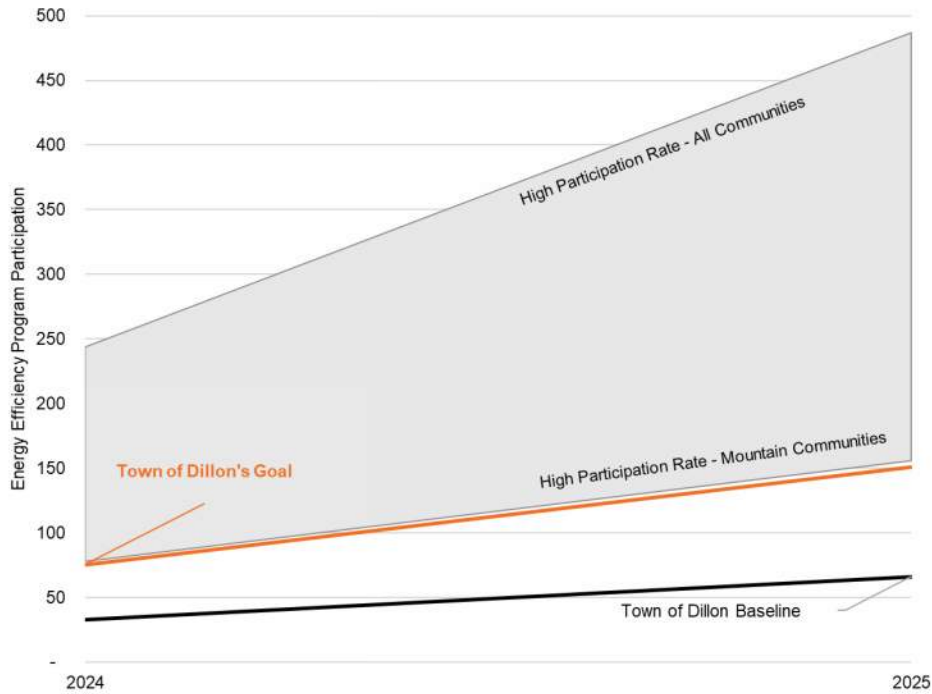


Figure 11. Town of Dillon's goal for energy efficiency program participation, compared to the highest participating Partners in Energy communities

Based on increasing participation rates for the Town of Dillon in energy efficiency programs, the Town set a goal of increasing participation to 75 participants annually, resulting in 333,000 kWh of electricity savings and 12,200 therms in natural gas savings. This increase in energy savings through program participation will contribute toward the Summit Community Climate Action Plan building energy reduction goals.



HOW WE ARE GOING TO GET THERE



Focus Area: Residential

These residential strategies seek to engage Dillon’s full and part-time residents to boost energy efficiency work across single-family and multifamily homes. Efforts include education and campaigns that target single-family and multifamily homes.

Strategy R-1: Educate the Community About the Benefits of Energy Efficiency and Renewable Energy

Description

Many residents (both homeowners and renters) are unaware of the monetary savings offered by energy efficiency. By educating residential homeowners and renters on potential savings opportunities, the Town of Dillon can see reductions in energy usage (both kWh and therms) over time.

In addition to general education, this strategy seeks to promote low-interest financing options to those who have conducted audits in strategy R-2 for efficiency projects.

This strategy will also promote local rebates via HC3’s solarize program and Xcel Energy Renewable*Connect®, Solar*Rewards®, and Solar*Rewards Community®.

Desired Outcomes

- [Outcome combined with R-2] Increase energy efficiency program participation to 50 participants in residential programs during implementation, including Home Energy Squad
- Enroll an additional 35 participants in either Renewable*Connect Flex or installed on-site solar through Net Metering
- Increase participation in HC3 solarize program

Target Audience

- Dillon community including full- and part-time residents
- Dillon single family homeowners
- Dillon condo owners
- Multifamily building owners and renters, some of whom are Hispanic

Scope

- Develop a communications plan organized by target audience (e.g., single-family homeowners, second homeowners, short-term rental owners, multifamily building owners, and renters)
 - Work with Dillon’s Event and Recreation staff to identify event engagement schedule
 - Identify one outreach event where Town of Dillon staff can engage with Hispanic Dillon residents. This event can be identified by working with local organizations to figure out opportunities
- Develop communications materials including:
 - Engage Dillon website content (e.g., ‘energy action plan project page’)
 - Social media content calendar
 - Utility water bill flyer
 - Newsletter content (e.g., Ask Eartha for Summit Daily)
 - Case study highlighting energy efficiency for different sectors (homeowner, short-term rental, multifamily building)
- Share energy efficiency and HC3 solar communication materials through community events including those listed below. Translate materials into Spanish when approaching audience who speaks Spanish as primary language
 - Friday Farmer’s Market: 9:00 am – 2:00 p.m.
 - Monday night free shows at the amphitheater
 - Silverthorne First Fridays
 - Lake Dillon beer fest
 - Holiday lights

Roles and Responsibilities

- Partners in Energy
 - Create communications plan
 - Develop communication materials for review
 - Support Dillon-led engagements with materials such as flyers, post cards/mailers, and giveaways (e.g., LED kits)
 - Provide data on Xcel Energy participation for tracking process
 - Provide Spanish language translation (if needed)
- Town of Dillon
 - Review communications plan
 - Review collateral as developed by Partners in Energy
 - Lead on-the-ground community outreach
- HC3
 - Support development of case study to showcase energy efficiency for multifamily buildings and/or renters

Resources Available to Support

- Xcel Energy Partners in Energy funding provided for printing and some advertising costs
- Xcel Energy Partners in Energy giveaways (e.g. specialty LED kits) provided to support outreach

Strategy R-2: Deliver A Single-Family Energy Efficiency Campaign via Xcel Energy and HC3 Offerings

Description

Summit County residents have access to multiple no- and low-cost home energy efficiency audit options. Xcel Energy's Home Energy Squad® offers reduced-cost energy assessments to Xcel Energy electricity and natural gas customers who live in single-family and townhomes (four or fewer units attached). HC3 delivers reduced-cost home energy assessments to all Summit County residents, in partners with Energy Smart Colorado.

Whether delivered by Xcel Energy or HC3, home energy assessments can help homeowners identify opportunities to improve the efficiency of their homes, whether through weatherization (e.g., insulation and air sealing) or equipment upgrades (e.g., more efficient heating equipment). Both Xcel Energy and HC3 offer rebates to help residents reduce initial costs of energy improvements, which can help improve overall return on investment.

This strategy aims to help Dillon residents connect the steps between home energy assessments and home energy improvements.

Desired Outcomes

- [Outcome combined with R-1] Increase energy efficiency program participation to 50 participants in residential programs during implementation, including Home Energy Squad

Target Audience

- Dillon community including full- and part-time residents
- Dillon single family homeowners, and owners of townhomes in buildings with four or fewer units

Scope

- Building on information developed in R-1, customize informational materials to promote energy assessments, such as:
 - Presentation slides
 - "Leave behind" flyers
 - Door hangers
 - Virtual materials (e.g., social media post, newsletter content)
- Attend annual HOA meeting to deliver presentations and share informational materials
- Work with HC3, which delivers home energy audits, to understand the top three recommendations made to Dillon residents
- Develop materials (e.g., virtual materials, post cards) to promote rebates related to the top three recommendations
- Share promotional materials via established HOA contacts
- Share informational materials about energy assessments and rebates more broadly through communication opportunities identified in R-1

Roles and Responsibilities

- Partners in Energy
 - Lead coordination with HC3 to identify top three recommendations
 - Prepare informational materials to be distributed via HOAs and through communication opportunities identified in R-1
 - Lead presentation of energy action opportunities to HOAs
- Town of Dillon
 - Lead coordination with HOAs
 - Review HOA-specific educational materials
 - Lead distribution of informational materials to HOAs and through communication opportunities identified in R-1

Resources Available to Support

- HC3 free energy coaching
- Xcel Energy reduced-cost Home Energy Squad® energy assessments and HC3 reduced-cost home energy assessments
- HC3 bonus rebates for energy action
- Xcel Energy rebates for weatherization and equipment upgrades
- HC3 Solarize summit

Strategy R-3: Conduct a Multifamily Building Efficiency Campaign

Description

Xcel Energy's Multifamily Building Efficiency program is offered to residential buildings with five or more units that have Xcel Energy natural gas and/or electricity service. This program is offered to building owners at no charge, and provides an assessment of HVAC systems, water heating systems and occupancy sensors. The program also offers direct install of items in individual units like low-flow showerheads.

It's worth noting that it's currently easier to engage multifamily buildings with rentals as compared to multifamily buildings that have condominiums (with individual owners) with Xcel Energy's multifamily program. This is because it's hard to get consensus on upgrade approvals from individual unit owners. This stands in contrast to multifamily rental buildings where one owner can make a decision to make efficiency upgrades for all units.

Desired Outcomes

- Engage with all multifamily properties, with an eye toward messaging that is focused on renters vs owners
- Enroll 3 in the Multifamily Buildings Efficiency program

Target Audience

- Building owners and property managers of residential buildings with five or more units (including townhomes in HOAs and condominiums)
- Renters living in buildings of five or more units

Scope

- Engage with building owners/property managers
 - Identify which of Dillon's 22 multifamily buildings have gone through the Multifamily Building Energy program in the last eight years

- Build a list of contacts for building owners/property managers who have not participated in the Multifamily Building Efficiency program in the last eight years.
 - Develop informational materials to share with building owners/property managers
 - Connect building owners/property managers with informational materials
- Engage with unit homeowners
 - Identify opportunities to connect homeowners with information about energy action such as:
 - Providing information at closing
 - Including information in water bills
 - Develop informational materials summarizing homeowner opportunities for taking energy action (e.g., welcome packet)
 - Connect homeowners with informational materials
- Engage with unit renters
 - Identify opportunities to connect renters with information about energy action
 - Develop informational materials (translate into Spanish if needed) summarizing renter opportunities for taking energy action
 - Connect renters with informational materials

Roles and Responsibilities

- Partners in Energy
 - Work with Xcel Energy to identify multifamily buildings that have participated in the Multifamily Building Efficiency program
 - Lead development of engagement materials targeted to building owners/property managers
 - Lead development of engagement materials targeted to homeowners and renters
 - Lead translation of engagement materials into Spanish, as needed
- Town of Dillon
 - Share list of HOAs with Partners in Energy
 - Lead development of property owner/manager contacts
 - Lead engagement with building owners/property managers
 - Lead distribution of materials to homeowners and renters
- HC3
 - Coordinate with Partners in Energy on free workshops for HOAs to share information about ways to save money on electricity use

Resources Available to Support

- Xcel Energy Multifamily Building Efficiency Program
- HC3 free workshops catered to HOAs to share information about sustainable topics



Focus Area: Business

These business strategies will work to educate Dillon's business owners, launch a successful energy efficiency campaign, and build relationships with specific corporate businesses that are part of larger chains for higher savings.

Strategy B-1: Conduct a Business Energy Assessment Campaign

Description

Businesses and commercial enterprises represent a big opportunity for savings. This strategy seeks to pair energy assessments and follow-on energy resources with businesses.

Desired Outcomes

- Engage with all businesses in Dillon to build relationships
- Enroll 50 businesses in a business energy assessment and encourage recipients of an assessment to implement recommended upgrades
- Enroll an additional 15 participants in a renewable energy program over current level

Target Audience

- Dillon's small- & medium-sized businesses

Scope

- Develop and share website content and flyers in support of business energy assessments
 - Utilize the Town of Dillon website to host a business resource page
 - Provide updates using the Engage Dillon platform
- Identify key stakeholders to collaborate with, including Town of Dillon
 - For small businesses, potential organizations and channels include:
 - Summit Chamber of Commerce
 - Town Council for the Town of Dillon
 - Northwest Colorado Small Business Development
- Plan a business energy assessment approach for summertime to include:
 - Initial virtual outreach to businesses with information about business energy assessments ahead of in-person engagement
 - The Town of Dillon and HC3 may be able to provide select contact information for businesses to support this engagement. If virtual engagement is not available, physical mailers or flyers may be made available.
 - As part of initial outreach and engagement, select business events as hosted by Summit Chamber of Commerce, Northwest Colorado Small Business Development, or HC3 could serve as opportunities to spread word.
 - An in-person informational walk around a commercial area of Dillon to reinforce the initial virtual messaging and obtain sign-ups from businesses for energy assessments

- The initial informational walk should be coordinated to allow for flexibility for businesses who desire an on-the-spot assessments
- Coordination with Town staff, Xcel Energy, HC3 and CLEARResult to determine appropriate timing and approach
- From an equitable engagement perspective, Spanish-speaking personnel should be included in the informational walk and as well as on business energy assessments for those who sign up
 - HC3 is pursuing a grant for hiring Spanish speaking personnel in support of energy assessments
- Plan a series of days, depending on the level of interest, where business energy assessments are completed, following the approach that was determined previously
- Create and collect business contacts to follow-up with after assessments as desired. Utilize the Town of Dillon Economic Advisory Committee for coordination as needed
 - Determine the approach to follow-up with businesses after assessments to encourage implementation of recommendations
- Collect feedback on usefulness of this approach both from a staff resources perspective and from the business community and determine next steps
 - Determine whether this approach could be repeated on a regular basis

Roles and Responsibilities

- Partners in Energy
 - Lead development of website and marketing content
 - Lead formulating a campaign approach for business energy assessment outreach and engagement
- Town of Dillon
 - Lead identifying key business and business organization stakeholders to collaborate with
 - Support by participating in business energy assessment informational and audit walks
 - Support by reviewing website and marketing content, and updating website as needed
- CLEARResult & HC3
 - Support by collaborating on the business energy assessment approach
 - Lead performing energy assessments
 - Support by participating in business energy assessment informational and audit walks

Resources Available to Support

- HC3 Resource Wise Business Program
- Xcel Energy Business Energy Assessments
- Xcel Energy business rebates and incentive programs

Strategy B-2: Develop Relationships with Large Businesses for Deeper Savings

Description

Large commercial efforts offer one of the largest opportunities for energy savings. The Town of Dillon is interested in forging relationships with larger businesses in the Town for various reasons, including for energy action. This strategy seeks to target specific companies with advising, rebate/incentive programs and other funding resources to implement energy efficiency upgrades and further renewable energy supply.

Desired Outcomes

- Engage with all large businesses in Dillon to build relationships
- Research those large businesses attached to corporate chains (e.g. REI, Kroger, Petco, Super 8, Panera, Alpine Bank, Christy Sports) to understand any zero emissions goals; Identify potential partnering opportunities for Dillon

Target Audience

- Larger businesses in the Town of Dillon

Scope

- Take stock of large businesses in Dillon and existing relationships with larger businesses
 - Bring together key Town of Dillon staff and other Energy Action Team members to collect contact information for larger businesses, in the same contact list location as Strategy B-1
- Compile and add website resources targeted to larger businesses to the Town's website
 - Discuss with Town of Dillon permitting and licensing departments what level of contact information is currently being collected
- Identify key community communications channels or events that may reach larger businesses
 - Present at and network with businesses at large business meetings on resources to help reduce energy and increase renewable energy supply
 - Develop outreach materials to engage virtually through the key community communications channels
- Establish and host business advising sessions
 - Partner with an existing event, and potentially use Dillon's Town Hall to host sessions with large businesses
 - Create an invite list of vendors and businesses to come to a business advising session
 - Include Xcel Energy and High Country Conservation business advisors to come for one-on-one help
 - Include State of Colorado representatives from the Colorado Energy Office to discuss funding mechanisms
 - Design programming for the event series and collateral for promoting the event
 - Determine topics and agendas for future series
 - Design a flyer that could be printed and used virtually for outreach
 - Design a communications plan for the event series to get the word out about content, resources, and dates
 - Host the event
 - Collect additional contact information from participants in the event

- Provide a feedback survey to participants for use in planning future events
 - Determine with what frequency the Town of Dillon may be interested in repeating this type of event in the future
- Identify a business champion in the Town of Dillon that would be interested in further opportunities for broader business outreach in the Town
 - Encourage the business champion to perform a deeper energy audit (a “Targeted Building Assessment”)
 - Document the business champion’s previous energy efficiency or renewable energy efforts with their property and convert the effort into a success story for use in outreach with other large businesses in Dillon
- Develop a presentation to engage with key employees of large businesses on energy opportunities
 - Include Xcel Energy’s Area Manager or key account manager, Town staff, and key business staff involved in facilities, operations, or sustainability-related departments
 - Include a summary of the success story from the business champion, upcoming events in the Town related to business energy efforts, updates in funding opportunities through federal/state or other channels, etc. in the content of the presentation. Have ample opportunity for open conversation about opportunities within the business that Xcel Energy advisors could evaluate
- Research large businesses attached to corporate chains
 - Explore any zero emissions goals and how corporate plans might intersect with Energy Action Plan goals

Roles and Responsibilities

- Partners in Energy
 - Lead development of website content, marketing materials, event plans and content, and promotional outreach for events
 - Support collection of large business contacts and communications channels
- Town of Dillon
 - Lead collection of large business contacts and existing relationships, adding developed content to the Town website, and identification of communications channels
 - Support planning and implementation of events and presentations
- Xcel Energy and HC3
 - Participate in event planning efforts and attend events

Resources Available to Support

- Partners in Energy funding for event support and materials
- HC3 Resource Wise Business Program
- Xcel Energy Business Energy Assessments
- Xcel Energy business rebates



Focus Area: Municipal

The Town of Dillon has an opportunity to lead by example by advancing energy efficiency and renewable energy in its municipal facilities. This focus area identifies how Dillon will demonstrate energy action leadership and realize energy cost savings at these facilities.

Municipal facilities are often energy intensive and can benefit from energy reduction strategies and renewable energy. The average annual energy use for a Town of Dillon facility is 46,300 kWh and 1,100 therms. Dillon has already identified potential opportunities for energy savings by replacing old solar panels, and making upgrades to the water plant, and improve efficiencies at the amphitheater. This Energy Action Plan will provide the actions needed to move forward with energy efficiency upgrades and increase renewable energy use.

Strategy M-1: Make Energy Efficiency Upgrades for Town Facilities

Description

Energy audits can help identify cost-effective energy efficiency projects that will result in energy and cost savings. The Town of Dillon has identified the need for energy audits of Town facilities. Energy assessments can help identify energy efficiency projects that will result in energy and cost savings. This strategy involves completing assessments for municipal facilities and reviewing assessment results to develop recommendations to address opportunities identified.

Desired Outcomes

- Perform energy assessments on three municipal facilities
- Implement two recommendations in the facilities

Target Audience

- Municipal facilities

Scope

- Partners in Energy will connect Dillon staff with appropriate Xcel Energy staff to arrange energy assessments
- Identify needed efficiency upgrades through energy audits
- Prioritize energy efficiency upgrade recommendations
- Develop recommendations for funding to present to the Town Council

Roles and Responsibilities

- Town of Dillon
 - Lead assessments process and development of recommendations for project funding
- Xcel Energy and Partners in Energy
 - Xcel Energy Account Manager to support audit and large improvement projects, and the development of recommendations
 - Partners in Energy to support coordination between Xcel Energy and the Town of Dillon, in addition to identifying additional relevant federal or state resources like the Inflation Reduction Act or state grants

Resources Available to Support

- Xcel Energy Business Energy Assessments and HC3 free business assessments
- HC3 free energy consultation
- Xcel Energy rebates and HC3 energy rebates
- Town budget to fund projects (TBD)

Strategy M-2: Increase Renewable Energy Supply for Municipal Facilities

Description

The Town of Dillon embraced renewable energy in the past and installed solar panels on the roof of its Town Hall. Those panels have reached their end of life and solar technology has advanced considerably since installation. The Town would like to be seen as a leader in the community by assessing opportunities for on-site solar, exploring wind energy options, and covering non-renewable electricity with renewable energy subscriptions in either Renewable*Connect Flex or Net Metering.

Desired Outcomes

- Identify opportunities to install on-site solar panels on Town facilities, on-site wind (e.g. helical turbines) or subscribe to renewable energy programs
- Explore options for wind energy production
- Explore options for installing water turbines

Target Audience

- Town of Dillon facilities

Scope

- Determine renewable energy priorities to inform on-site or subscription options for municipal facilities
- Evaluate Dillon municipal buildings to determine feasibility of on-site solar projects, utilizing outside contractors where appropriate
- Review and present a recommended pathway for the Town of Dillon to increase renewable energy
- Prepare budget requests based on feasibility assessment outcomes
- Provide support in helping the Town implement recommendations made by the renewable energy pathway

Roles and Responsibilities

- Partners in Energy
 - Support coordination between Xcel Energy and the Town of Dillon
- Town of Dillon
 - Lead assessments process and development of recommendations for project funding
- Xcel Energy Account Manager
 - Support assessment process and the development of recommendations

Resources Available to Support

- Xcel Energy renewable energy programs
 - Renewable*Connect Flex
 - Solar net metering
- Funding opportunities through federal and state programs

Energy Action Plan Impact

Over the next 18 months, the combined outcomes and strategies outlined in this plan will result in the following impacts:

Table 1. 18-Month Energy Action Plan Impact

Metric	Baseline ¹ (18-month)	18-month Incremental Impact	Total
Participation	50	63	113
Estimated Electricity Savings (kWh)	246,300	253,200	499,500
Estimated Natural Gas Savings (therms)	7,700	10,600	18,300
Estimated Greenhouse Gas Emissions Savings from Building Energy (MTCO ₂ e)	134	145	279
Estimated Energy Cost Savings (\$)	\$26,000	\$28,100	\$54,100

¹ Based on the three-year average of energy efficiency program participation between the years 2021-2023. It is expanded to 18 months and values are rounded to match the timeframe of an 18-month Partners in Energy implementation period.



HOW WE STAY ON COURSE

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

Data and Reporting

Partners in Energy will provide biannual progress reports with metrics of success and overall progress towards goals for Xcel Energy rebates and programs. These reports will be available publicly and shared with both the community and Energy Action Team.

If available, ad-hoc participation reports for specific Xcel Energy programs (e.g., Home Energy Squad) can be provided to measure success of campaigns and to determine if we need to change course.

Project Management

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

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

Energy Action Team Commitment

The Energy Action Team formed to create this plan will support implementation by attending implementation check-in meetings as scheduled, and by providing connections to community organizations as needed.

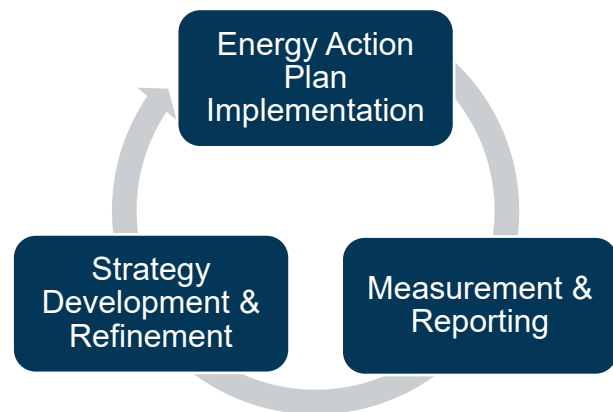


Figure 12. Actions and Tracking

Tracking and Reporting

Partners in Energy will provide biannual (twice-a-year) progress reports using Xcel Energy data. Combined with other metrics provided by the Energy Action Team, regular tracking toward targets will be provided (Table 2). Progress reports will be shared with the Town of Dillon to demonstrate Dillon’s progress.

Table 2: 18-Month Implementation Targets Tracking Summary

Strategy	Metric	Baseline	Target	Data Source
R-1: Educate the Community About the Benefits of Energy Efficiency and Renewable Energy	Participation in Xcel Energy residential energy efficiency programs & HC3s assessments	13	50	Partners in Energy & HC3
R-1: Educate the Community About the Benefits of Energy Efficiency and Renewable Energy	Participation in Xcel Energy residential renewable energy programs and HC3’s Solarize program	52	87	Partners in Energy & HC3
R-2: Deliver A Single-Family Energy Efficiency Campaign via Xcel Energy and HC3 Offerings	(Included in R-1) Participation in Xcel Energy’s Home Energy Squad & Home Energy Audit program & HC3s assessments	5	33	Partners in Energy & HC3
R-3: Conduct a Multifamily Building Efficiency Campaign	Number of multifamily properties engaged with in Dillon	0	22	Partners in Energy
R-3: Conduct a Multifamily Building Efficiency Campaign	Participation in Xcel Energy’s Multifamily Buildings Program	1	3	Partners in Energy
B-1: Conduct a Business Energy Assessment Campaign	Participation in Xcel Energy commercial energy efficiency programs & HC3 assessments	20	58	Partners in Energy
B-1: Conduct a Business Energy Assessment Campaign	Participation in Xcel Energy business energy assessment programs & HC3s assessments	16	50	Partners in Energy
B-1: Conduct a Business Energy Assessment Campaign	Participation in Xcel Energy commercial renewable energy programs	9	24	Partners in Energy
B-1: Conduct a Business Energy Assessment Campaign	Number of small-medium businesses engaged with in Dillon	0	15	Partners in Energy
B-2: Develop Relationships with Large Businesses for Deeper Savings	Number of large businesses engaged with in Dillon	0	3	Partners in Energy
M-1: Make Energy Efficiency Upgrades for Town Facilities	Participation in Xcel Energy municipal energy assessment programs and energy efficiency programs	0 assessments 0 upgrades	3 assessments 2 upgrades	Partners in Energy
M-2: Increase Renewable Energy Supply for Municipal Facilities	Completion of a feasibility renewable energy assessment	0	1	Partners in Energy



APPENDIX A: XCEL ENERGY'S PARTNERS IN ENERGY PLANNING PROCESS

About Xcel Energy's Partners in Energy

Xcel Energy is an electric and natural gas utility that provides the energy that powers millions of homes and businesses across eight Western and Midwestern states. Each community Xcel Energy serves has its own unique priorities and vision for its energy future. The energy landscape is dynamically changing with communities leading the way in setting energy and sustainability goals. To continue to innovatively support their communities, Xcel Energy launched Partners in Energy in the summer of 2014 as a collaborative resource with tailored services to complement each community's vision. The program offerings include support to develop an energy action plan or electric vehicle plan, tools to help implement the plan and deliver results, and resources designed to help each community stay informed and achieve their outlined goals.

Plan Development Process

The content of this plan is derived from a series of three planning workshops held in the community with a planning team committed to representing local energy priorities and implementing plan strategies.

Workshop 1

This three-hour event was held in person. The Energy Action Team discussed Dillon's energy use and other community characteristics, such as Dillon's dense multifamily housing.



Figure 13 Participants in Workshop 1 of Dillon's Energy Action Plan discuss details during a brainstorming exercise.

Equity considerations were also top of mind, including the fact that 17% of the Town's population is Latino, and 14% of residents speak Spanish at home.

When responding to the prompt "What does equity mean in our community," participants said that they wanted all community members to have affordable, accessible access to basic services, and Town programs. Additional comments touched on basic needs being met, affordable, safe, comfortable housing, and access to affordable food.

In terms of engaging Latinos, participants noted that Dillon doesn't receive job applicants from the Hispanic population. Another workshop participant suggested using trusted sources to spread the message with reluctant populations.

Other suggestions included:

- Silverthorne hired a bilingual employee for support.
- Small French population – 3rd language
- Program delivery in Spanish helps with consistency
- Farmers Market – a good place for engagement, Friday evenings

Dillon's Energy Action Team got to weigh in on how ambitious the energy action goals should be in the plan, in addition to providing early feedback on Focus Areas and Strategies.

When thinking about the level of ambition for the goal, three workshop participants wanted an ambitious goal. One participant wanted an ambitious goal but wanted it to be conservative leaning. Another wanted an ambitious goal but for it to be aspirational leaning.

For focus areas, multifamily homes were the most popular item followed by an emphasis on businesses, and government facilities. Here are the full results:

- Multifamily Homes: 5 votes
- Large Businesses / Industrial: 4 votes
- Local Government Facilities: 2 votes
- Developers & Contractors: 2 votes
- Income Qualified Homes: 1 vote
- Small Businesses: 1 vote
- Institutional (Hospital, School): 1 vote
- Single Family Homes: 1 vote
- Other: 0 votes

In terms of strategies to implement over the next two years, the most popular topic areas were as follows:

- Energy Efficiency: 5 votes
- Renewable Energy: 4 votes
- Building Electrification: 1 vote
- Electric Vehicles: 1 vote
- Other: 1 vote (battery backup)

Workshop 2

At this two-hour virtual event the group discussed draft goals and conducted strategy brainstorming.

Goals

According to Xcel Energy data, Dillon currently has 1% residential program participation and 6.2% commercial participation. Energy Action Team members discussed the difficulty of engaging multifamily complexes in energy efficiency conversations in Summit County and Dillon. For program participation, Energy Action Team members decided to adopt the proposed annual goal, increasing participation rates from 1% to 6%. This would change the average baseline from 2% to 6%.

Dillon currently has a Certified Renewable Percentage (CPR) annual growth rate in percent renewable energy at 2% per year – 42.3% total in 2022.

To get on track with the Summit Community goal by end of 2025, the renewable CAP would need to grow from 370,000 to 1.2 million kWh. Partners in Energy recommends focusing on Renewable*Connect Flex or Net Metering to for the Town of Dillon to meet this renewable energy goal.

Strategies

Strategy Notes: New strategies or points added are in red. “*” Indicates preferred strategy according to votes.

- Municipal facilities
- *Participate in Xcel Energy’s **commercial** streamlined assessment program
 - *Invest in priority energy projects based on assessment outcomes
 - **Budget for municipal investment**
 - *Increase the renewable energy supply for municipal facilities
 - **Leverage scale with the County and other Towns. E.g. landfill, vehicle fleets, etc.**
 - Public works - water turbines in the water pipes
- Residential – single family & multifamily
 - *Educate the community about energy efficiency
 - **Coordinate with State of Colorado priorities**
 - **Build a set of case examples that show cost benefit analysis. Explain how incentives and paybacks aren’t that far out.**
 - *Build a successful Home Energy Squad campaign – Vince (Energy Action Team member) mentioned difficulty getting an auditor in Dillon. (moved from standalone strategy to underneath “education”)
 - Coordinate with implementer and homeowners’ associations.
 - Currently Dillon funds rebates to residents participating in HC3s Energy Smart Colorado program. These can be bundled with Xcel Energy rebates.
 - In 2024, there were four participants, one of which has implemented an energy efficiency project via HC3.
 - Conduct an Xcel Energy Multifamily Building Efficiency Program campaign in summer.
 - **Partner with HC3’s Resource Wise Commercial program to bundle rebates**
 - ***Push HC3 Solarize Summit Program**
- Large business and industrial
 - *Conduct a business energy assessment campaign
 - Start small – small businesses
 - Town of Frisco found success with business walks including Town rep, HC3 and Xcel Energy
 - **Coordinate with State of CO rebates initiatives**
 - Resource Wise \$1,000 rebate for HOA and commercial projects
 - *Develop relationships with large businesses for deeper energy savings
 - *Determine company policies and encourage them to encourage property managers – Town can spearhead

Workshop 3

During this two-hour virtual workshop, the group discussed finalized the energy and renewable goals, discussed community survey results, and finalized strategies.

Goals

For energy efficiency, the group agreed to strive for an increase of 75 participants annually in programs across the business and residential programs. This could translate into 333,000 kWh and 12,200 Therms savings.

For renewable energy, the group agreed to strive for 1.2 million kWh renewables from a baseline of 370,000.

Strategies

The Energy Action Team brainstormed approaches for strategies in the Residential, Business, and Municipal strategies. See Workshop 3 notes for a full accounting of the discussion.

APPENDIX B: BASELINE ENERGY ANALYSIS



Data was provided by Xcel Energy for all Town of Dillon premises for 2021-2023. Xcel Energy provides electric and natural gas services to the community. The data helped the Energy Action Team understand Dillon’s energy use and opportunities for energy conservation and renewable energy. Data included in this section establishes a baseline against which progress toward goals will be compared to in the future.

Electricity and Natural Gas Premises

The Town of Dillon is a small mountain town that has seen a slow population decline during the study period and a steady premise count over the past three years. Residential premises comprise 79% of the total premises, 20% are commercial and industrial premises, with the remaining 1% belonging to municipal premises.

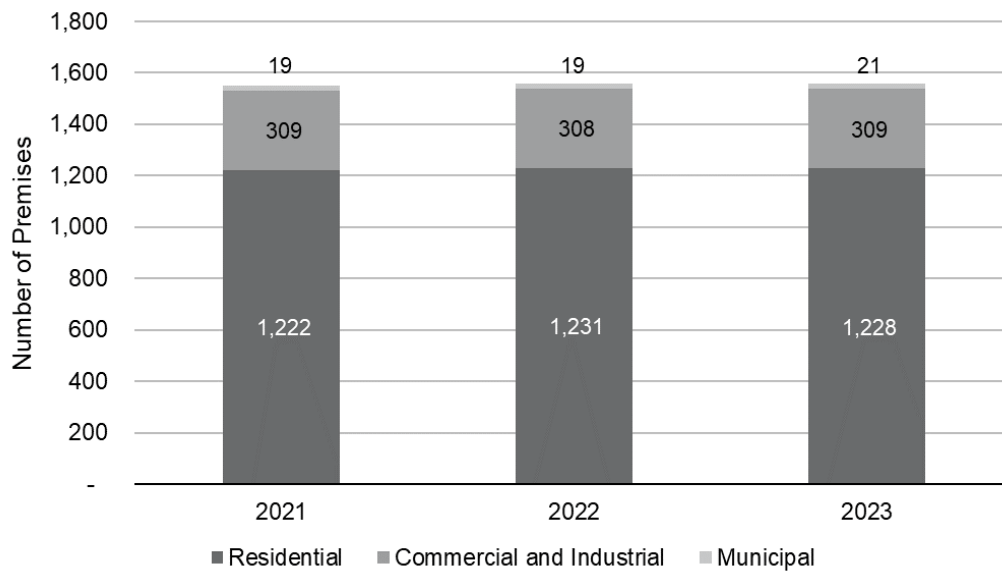


Figure 14. Premise count in Dillon broken into residential, commercial & industrial, and municipal sectors

Electricity and Natural Gas Consumption and Trends by Sector

Electricity and natural gas use data was provided by Xcel Energy between 2021-2023. Residential and municipal electricity consumption declined slightly between 2021 and 2022, then all sectors increased energy consumption in 2023. A contributing factor could be the increase in cooling degree days, which may increase the use of air conditioning, especially in the commercial sector.

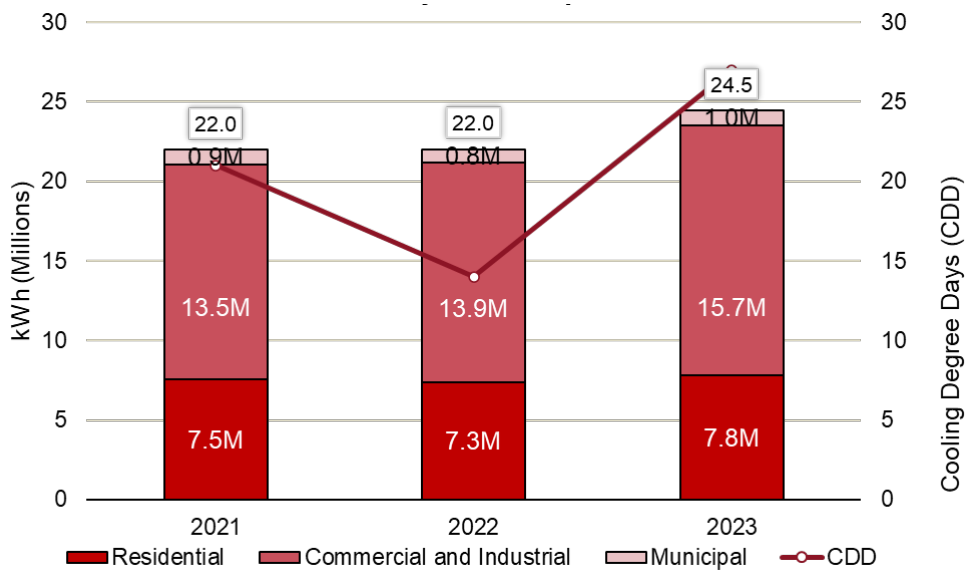


Figure 15. Electricity (kWh) usage in Dillon and cooling degree days (CDD, a measure of cooling need)

Gas consumption followed similar trends, with a decrease in 2022 followed by an increase in all sectors in 2023. There is no correlation between heating degree days and gas use, as expected. It is thought that the persistent cold throughout the winter doesn't allow for periods of decreased heating use.

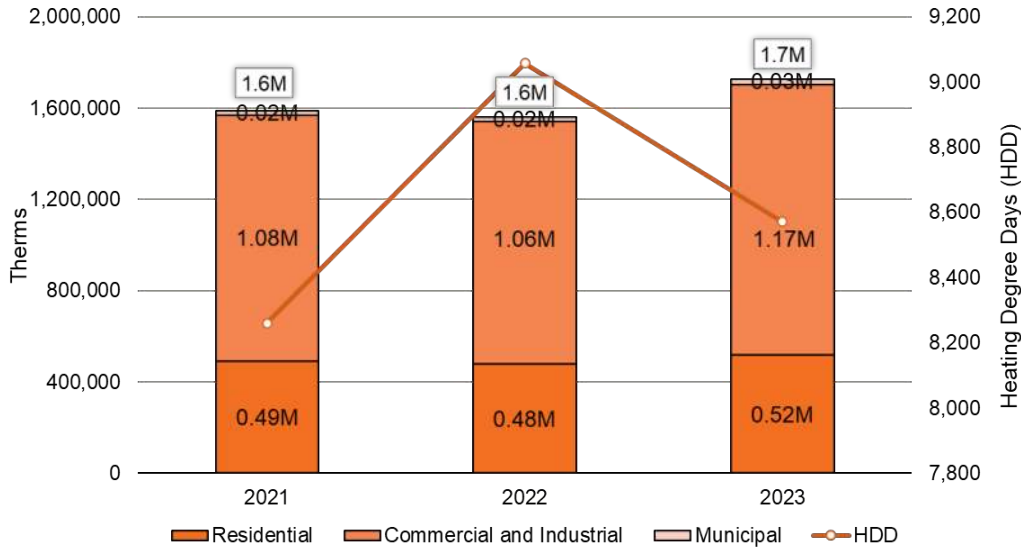


Figure 16. Gas (therms) usage in Dillon and heating degree days (HDD, a measure of heating need)

Greenhouse Gas Emissions and Trends

Building electricity and gas usage in Dillon contributed to nearly 19,000 metric tons of carbon dioxide equivalent (MTCO_{2e}) in 2023. This is equivalent to emissions of 4,516 gasoline passenger vehicles driven for one year (EPA, 2024).

The commercial sector contributes to the highest emission levels, which is consistent with commercial's higher energy use. Energy consumption-related emissions declined in Xcel Energy territory in Dillon over the last three years largely due to "greening of the grid" or the process of adding more renewable energy supply into the Xcel Energy source fuel mix to support electricity generation.

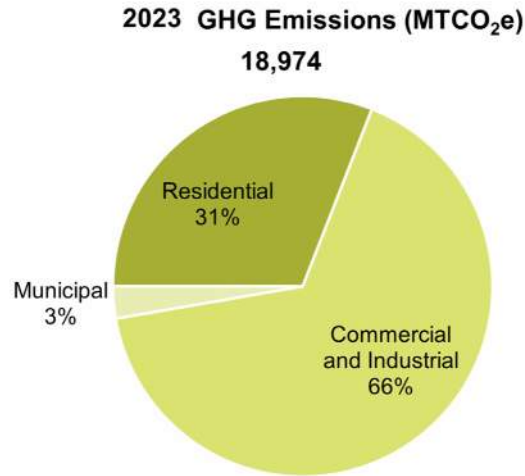


Figure 17. GHG emissions by sector in 2023

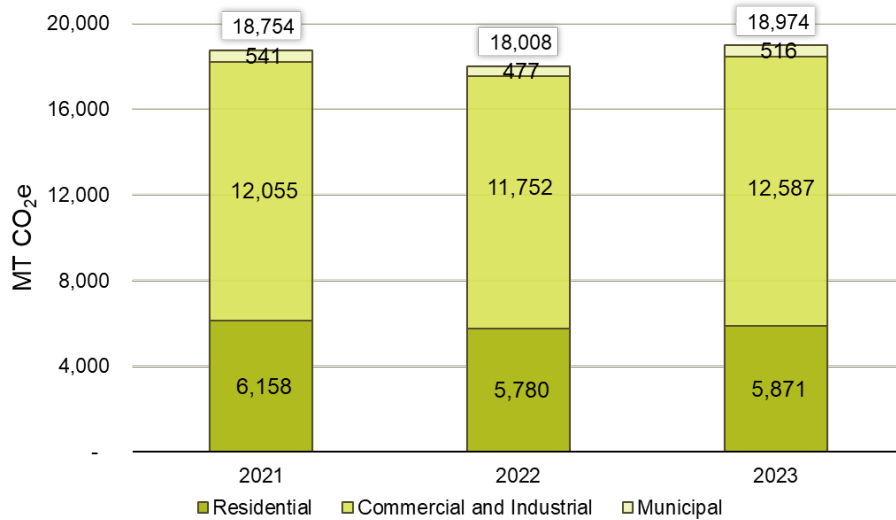


Figure 18. GHG emissions by sector and year

Energy Costs

Energy costs in Dillon are distributed across the sectors, similar to energy use and GHG emissions, with commercial and industrial making up nearly two-thirds of the overall \$4.1 million spent on energy in 2023.

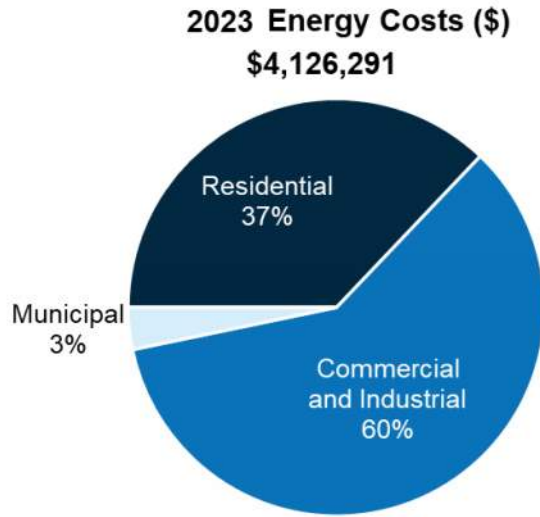


Figure 19. Energy costs by sector in 2023

While total municipal energy cost is only three percent of total energy costs, municipal cost per premise is significant, at \$6,381 per premise. The majority of these costs are contributed to electricity use.

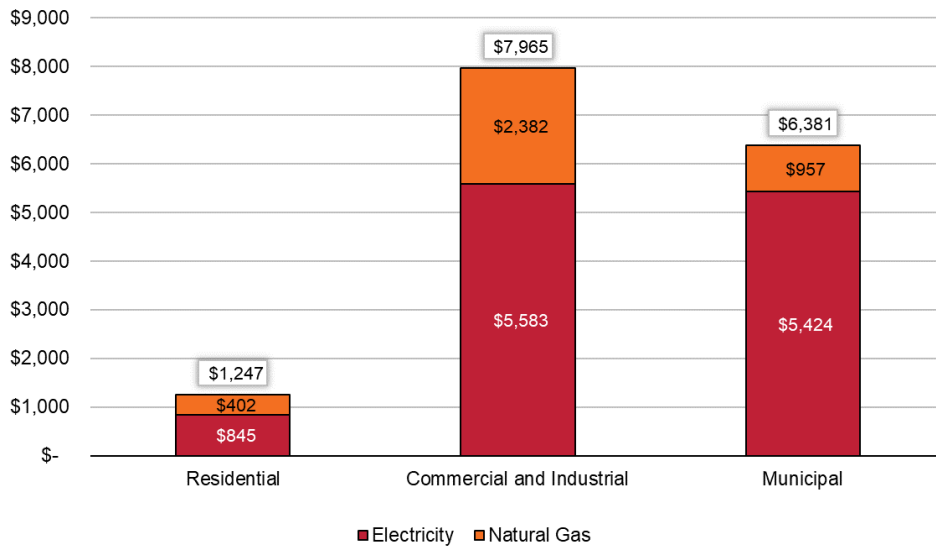


Figure 20. Energy costs per premise in 2023 for electricity and gas

Energy costs have risen each year across all sectors, despite the dip in energy useage in 2022.

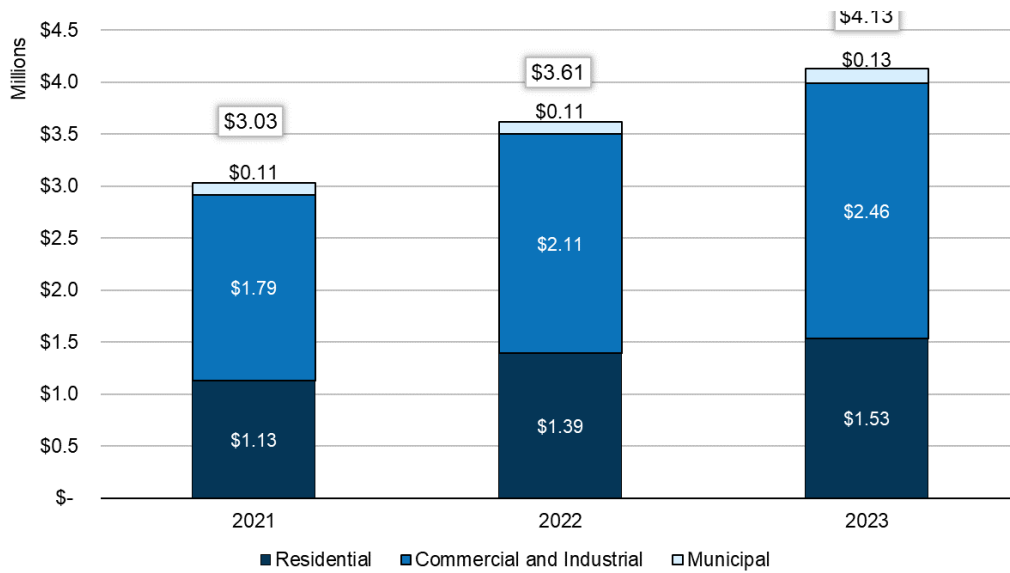


Figure 21. Total energy costs per year by sector

Participation and Savings

Over the last three years, participation in energy efficiency programs has fluctuated, with 2023 having the highest participation rates. Energy savings in both gas and electricity have been highest in the commercial & industrial sectors for each of the three years, which is not uncommon. These sectors have the highest potential for energy savings when participating in energy savings programs and upgrading to energy efficient equipment.

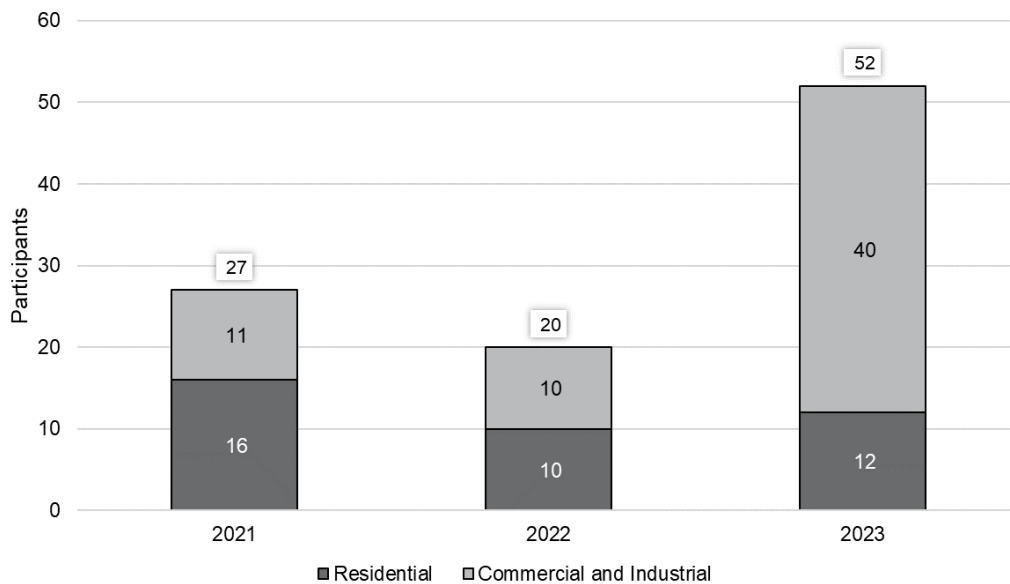


Figure 22. Energy efficiency program participation

The number of participants does not always correlate to energy savings. In 2022, one commercial premise participated in the Energy Design Assistance program offered by Xcel Energy, which contributed to significant electricity and gas savings in that year. Other top energy savings programs include Small Business Solutions, Lighting Efficiency, and HVAC+R.

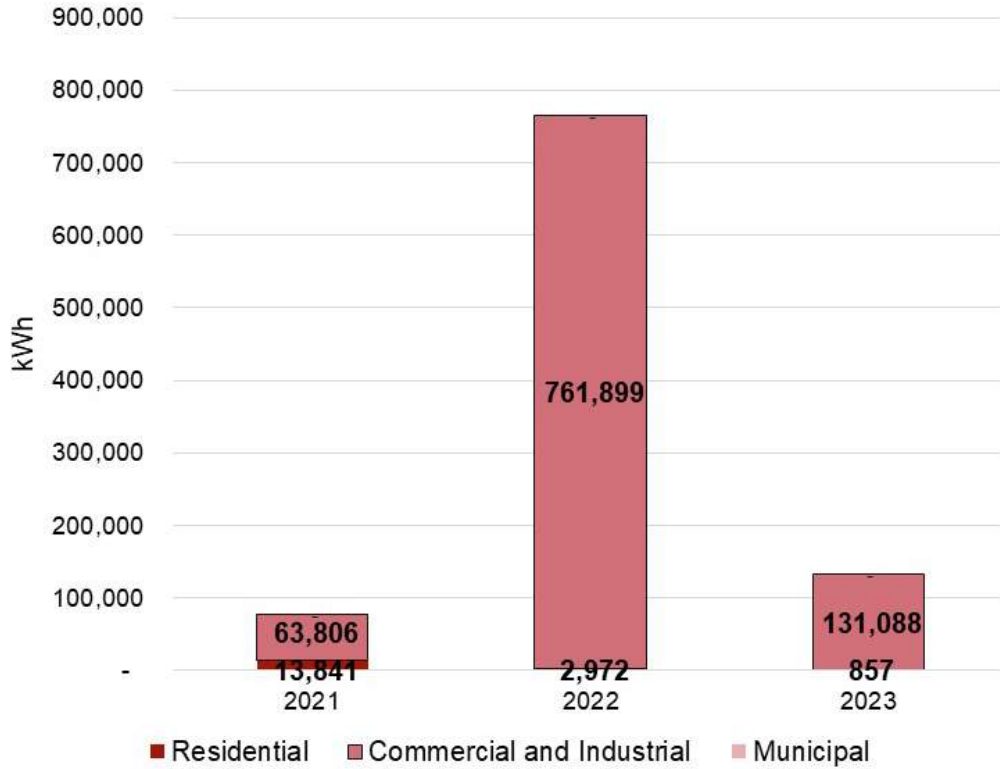


Figure 23. Electricity savings through program participation

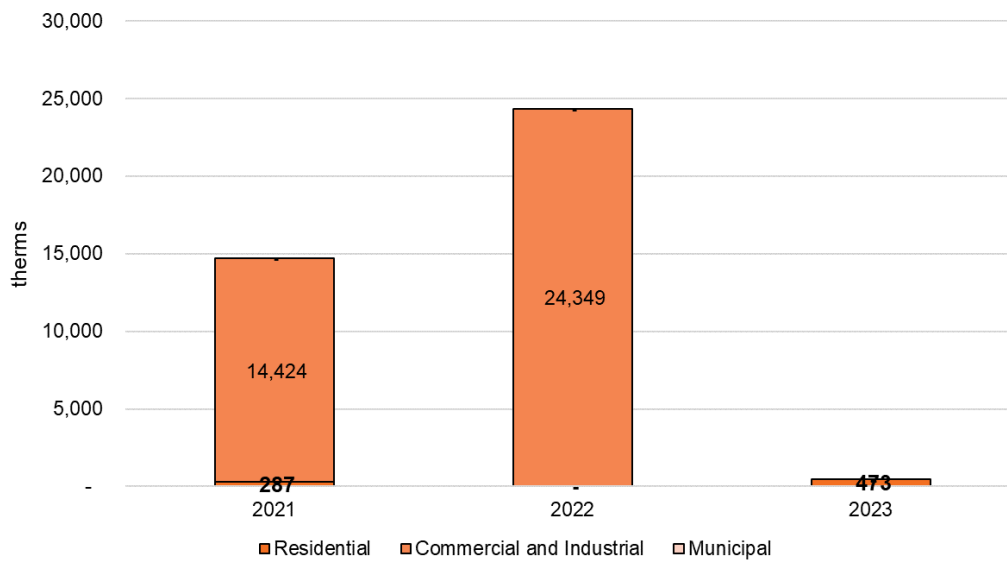


Figure 24. Gas savings through program participation

APPENDIX C: STRATEGY LIBRARY

This appendix provides initial detail gathered during the planning process on a longer-term strategy to add battery backup power to a selected Town-owned facility with a solar array, adding resiliency to their energy needs. Per discussion with the Town, this strategy is not one for immediate implementation of the Energy Action Plan. The Town may consider implementing this strategy at a later date using these draft strategy details.

Focus Area: Municipal

During the planning process, the Town of Dillon discussed frequent power outages at Town Hall and expressed a desire to explore battery back-up that could be attached to Town solar panels. Given the 18-month timeline of Energy Action Plan implementation and the significant cost of batteries in 2024, the project management team decided that this would not be a priority for implementation. However, the following items could be explored at a later date.

Strategy M-3: Add Battery Storage to a Town Facility Solar Array

Description

Dillon Town Hall has the potential to become a Resilience Hub and offer energy resilience during natural disasters or power interruptions. Adding battery backup that stores energy generated from Town Hall solar panels could offer significant benefit to the Town to limit interruption of Town operations and offer a powered physical space for the community to gather in the event of a power outage affecting areas of the Town of Dillon.

Desired Outcomes

- Install one battery backup system at a Town facility

Target Audience

- Town of Dillon staff for implementation at Town Hall

Scope

- During the energy assessment of Town facilities, Dillon staff can identify its interest in adding backup battery power.
 - Electricity demand and monthly usage by Town Hall analyzed during the energy assessment can inform battery sizing and purchase options.
- Work with Dillon's Xcel Energy Area Manager to identify and help navigate Town staff through appropriate programs and opportunities for implementation of a battery storage project.
 - If Partners in Energy has wrapped up implementation support at the time a battery storage project is explored, Partners in Energy is available to consider providing targeted graduate support for the strategy.

Roles and Responsibilities

- Xcel Energy and Partners in Energy
 - Respond to Dillon requests with support as needed.
- Town of Dillon
 - Lead battery storage discussions with both Xcel Energy and Partners in Energy.

Resources Available to Support

- Xcel Energy Renewable Battery Connect program



APPENDIX D: 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.

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.

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

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

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

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

Energy 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.

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

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

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

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

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

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

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

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

Therm (thm or therm): A unit of natural gas consumption.

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