



# An Energy Action Plan for Lake County

April 2023



**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 the majority of Lake County. Partners in Energy is a two-year collaboration to develop and implement a community's energy goals.

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

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# Lake County Energy Action Plan

## About This Plan

Lake County is a mountain community that values connection, conservation, and a culture of equity and inclusion. The community’s unique social fabric, mining history, and reputation for being a recreational destination for visitors from around the world make Lake County a special place to live and work. The creation of this Energy Action Plan was an 8-month process through Xcel Energy’s Partners in Energy program. The Project Management Team, comprised of representatives from Xcel Energy, Partners in Energy, and Cloud City Conservation Center (C4), guided the process and identified community members to include in the planning processes. Through this process, this team defined the community’s energy vision and goal, as well as strategies for achieving that goal.

## Our Vision and Goals

**Vision:** The Lake County community will facilitate an affordable, sustainable future, community safety, and an equitable, thriving economy through energy efficiency, innovation, workforce development, and access to renewable energy.

**Goal:** Increase annual participation in strategically selected energy programs by 200% over the 2021 baseline by the end of 2024.



Residential



Commercial & Industrial






Municipal & Schools



# Our Strategic Priorities

The Team identified 11 strategies necessary to achieve Lake County’s vision and goals:

Focus Areas	Strategies
 <p><b>Residential</b></p>	<ul style="list-style-type: none"> <li>• R-1: Establish a foundational understanding of the benefits of energy efficiency.</li> <li>• R-2: Sign up residents to participate in Home Energy Audits.</li> <li>• R-3: Identify contractors to complete energy improvements identified during audits.</li> <li>• R-4: Conduct a campaign to implement Home Energy Audit recommendations.</li> <li>• R-5: Support County and City compliance with State energy efficiency code requirements.</li> </ul>
 <p><b>Commercial &amp; Industrial</b></p>	<ul style="list-style-type: none"> <li>• C-1: Conduct a small business energy assessment campaign.</li> <li>• C-2: Evaluate options for Green Business Programs.</li> <li>• C-3: Engage qualifying industrial facilities in Strategic Energy Management.</li> </ul>
 <p><b>Municipal &amp; Schools</b></p>	<ul style="list-style-type: none"> <li>• M-1: Partner with the school district to identify energy efficiency and renewable energy opportunities.</li> <li>• M-2: Partner with Lake County Government to identify energy efficiency and renewable energy opportunities.</li> <li>• M-3: Partner with the City of Leadville to identify energy efficiency and renewable energy opportunities.</li> </ul>

## Baseline and Impacts of Plan Implementation

Partners in Energy and C4 have selected specific strategies to implement in Lake County communities, with emphasis on deliberate in-person outreach to both the residential and commercial/industrial sectors. For the selected programs, successful implementation of these strategies would result in the following impacts when compared to 2021 levels<sup>12</sup>:

**107 participants**  
(+202%) in demand-side management programs



**1,193,990 kWh**  
(+2,983%) saved



**10,086 therms** (+151%)  
of natural gas saved



**575 MT CO2e** of  
greenhouse gas emissions avoided



<sup>1</sup>These impacts are quantified in comparison to 2021 levels and should not be interpreted as total community savings. Only participants in energy saving programs will potentially see energy and cost savings. Please see Appendix B for full details on assumptions in these calculations.

<sup>2</sup>The impacts outlined are specific to strategies R-2, R-4, C-1, and C-3, and do not capture the savings that may result from other strategies or participation in programs not intentionally targeted in this plan.

# INTRODUCTION



Lake County is a mountain community that values connection, conservation, and a culture of equity and inclusion. The community's unique social fabric, mining history, and reputation for being a recreational destination for visitors from around the world make Lake County a special place to live and work. The 2018 Lake County Housing Needs Assessment highlighted the need for decreasing housing costs for Lake County residents, due to 2/3 of residents being housing cost burdened (Lake County, CO, 2018). Balancing values with affordability in Lake County is a cross-cutting theme of this plan.

Cloud City Conservation Center (C4) is the leading energy resource in Lake County, operating the Lake County Energy Resource Center, and is the lead community contact for this plan. C4 offers Lake County residents access to resources like Energy Smart Colorado's Bill Pay Assistance and application assistance for programs like Colorado's Affordable Residential Energy (CARE) program, Nonprofit Energy Efficiency Programs (NEEP), and Colorado Low-income Energy Assistance Program (LEAP). These programs address energy efficiency and housing cost burden, and this Energy Action Plan builds upon this foundation to further expand opportunities for residents to increase comfort and save energy. See Appendix D: Glossary of Programs and Resources for more information on the energy opportunities and programs available to Lake County residents.

## **Planning Process**

The creation of this Energy Action Plan was an 8-month process through Xcel Energy's Partners in Energy program. The Project Management Team, comprised of representatives from Xcel Energy, Partners in Energy, and C4, guided the process and identified community members to include in the planning processes. Through a combination of individual conversations and two larger workshops, the Energy Action Team (Team) identified local energy-related strategies and actions informed by current energy use data. At the first workshop, the Team (see Acknowledgements) identified energy and cost savings as the primary objectives of the planning process, with an additional interest in greenhouse gas (GHG) emissions data from the building energy sector. This focus is reflected in the vision, goal, strategies, and targets described later in this plan. Following the workshop, 9 interviews were conducted with community members to refine strategy action plans and establish strategy targets. The Team then attended a final workshop to provide input on the draft plan before it was finalized and sent to C4 for approval.

## **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. 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. C4 applied to Partners in Energy in 2022, joining more than 35 other Colorado communities.

## **Why We Want an Energy Action Plan**

### **Greenhouse Gas Emissions**

In 2021, the State of Colorado released its Greenhouse Gas Pollution Reduction Roadmap, which is considered "the most action-oriented, ambitious and substantive planning process Colorado has ever undertaken on climate leadership, pollution reduction and clean energy transition" (Colorado Energy Office, n.d.). This plan outlines actions that can help Colorado achieve its GHG emissions reduction goals of 26% by 2025, 50% by 2030, and 90% by 2050.

To help the Lake County community do its part to achieve these lofty goals, the C4 board has set a GHG reduction goal of aligning with the State of Colorado and pursuing a 90% reduction of GHG emissions by 2050. The energy sector makes up a large portion of the State's emissions (see Figure 1), so the Lake County community's energy action in the building sector will be vital to achieving this goal.



2020 CO GHG Emissions (MMT CO<sub>2</sub>e, AR5 100-yr GWP)



Figure 1: 2020 Colorado GHG Emissions

### Cost Savings

Due to the high cost of living in Lake County, cost savings were identified as a significant focus throughout the planning process. The area median income in Lake County is \$65,858, compared to \$75,231 on average in Colorado. 2/3 of residents spend more than 30% of their monthly income on expenses related to housing, including rent, mortgage, or energy costs. By increasing participation in energy saving programs in Lake County, the purpose of this plan is to decrease energy use throughout Lake County, saving residents money.

### Long-Term Energy Action in Lake County

This plan is a building block in a longer-term desire for energy action that was identified by stakeholders. Beneficial electrification, vehicle electrification, and renewable were all identified as important to Lake County's energy future, but energy efficiency is identified as the main priority for this Plan. Due to the focus on cost savings for residents and preparing the housing stock for these other areas of energy action, implementation of this Plan will include information on beneficial electrification, transportation electrification, and renewable energy where it makes sense.

## WHERE WE ARE NOW



To better understand what we want Lake County’s energy future to look like, we must understand the existing energy landscape. This section includes an overview of energy use and cost trends in Lake County.

### **Community Demographics**

Lake County has a population of 7,327 people and is approximately 376 square miles (U.S. Census Bureau, 2022). The County seat and largest population center is the City of Leadville, which is home to 2,613 residents. This rural community located in the mountains of Colorado provides a unique opportunity for community outreach and partnership with community organizations throughout the county. 16.4% of Lake County residents speak Spanish, highlighting the importance of Spanish translation for materials developed throughout the implementation period.

As mentioned previously, housing cost burden is a significant concern in Lake County. However, 77.4% of housing units are owner-occupied, presenting an exciting opportunity to work with homeowners directly to make upgrades to their homes and help them save money (U.S. Census Bureau, 2020).

The unemployment rate in Lake County is low, 3.6% compared to the Colorado average of 4.6%. Major employers include Climax Molybdenum, Lake County Government, Lake County Schools, Ski Cooper, St. Vincent Hospital, and Colorado Mountain College.

## Community Energy Data

Lake County is served by two energy providers: Xcel Energy, which provides electricity and natural gas to the majority of the county, and Sangre de Cristo Energy Association, which provides electric service to the Twin Lakes community in Southern Lake County.

An integral part of the Partners in Energy planning process is reviewing historic energy data that informs the community's energy baseline. Xcel Energy provided data on energy use, participation counts, and utility energy conservation program savings for Lake County. Sangre de Cristo Energy Association also provided data for this planning process, which is combined with Xcel Energy data in the following sections, to provide a complete picture of energy in Lake County. See Appendix B: Baseline Energy Analysis for a comprehensive picture of Lake County's baseline energy data.

### Community Energy Use and Costs

In 2021, energy use in Lake County was 596,616 MMBtu, serving 5,118 premises (Figure 2, Figure 3). It should be noted that some commercial or industrial premises were removed from this figure due to privacy regulations.

Residential premises consume the majority of energy in Lake County, and correspondingly make up the majority of premises in the county.

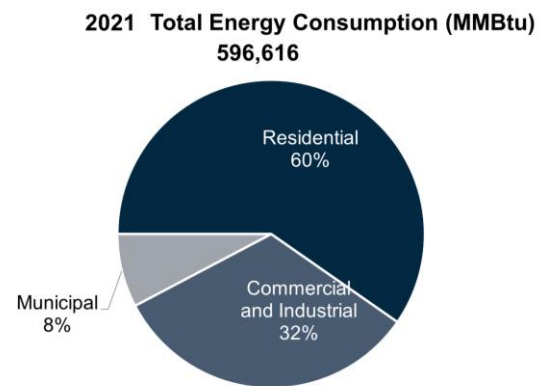


Figure 2: 2021 Total Energy Consumption

There are fewer premises in the commercial sector, with higher per-premise energy consumption. Successful engagement of this sector in energy-efficiency programs could, therefore, result in more overall energy savings per single premise.

Energy costs in 2021 in Lake County were approximately \$8.6 million (Figure 3). The sector breakout for costs aligns with total energy consumption. Decreasing energy consumption via energy efficiency is key to decreasing energy costs.

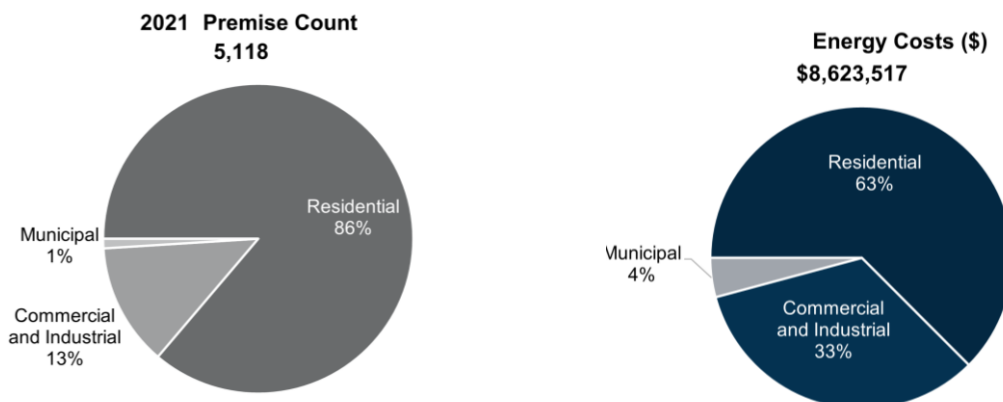


Figure 3: Lake County Premises and Energy Costs.

In all sectors, the majority of energy consumed can be attributed to natural gas consumption. Figure 4 shows the proportion of energy consumption attributed to natural gas and electricity in 2021 for all sectors.

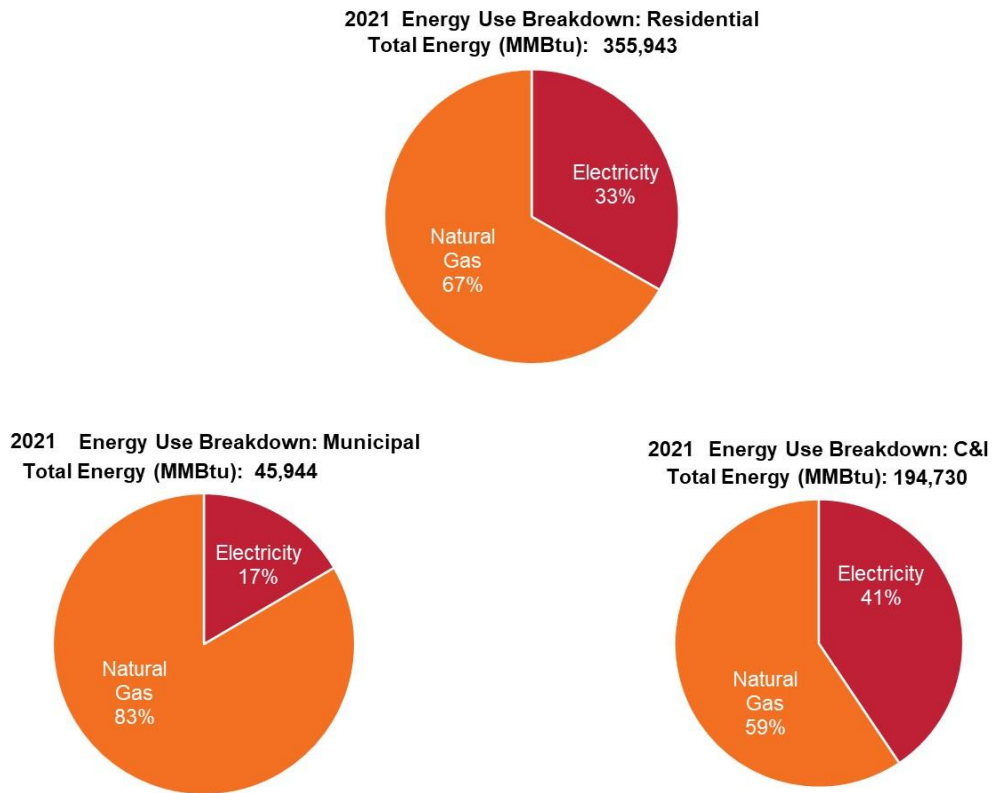


Figure 4: Lake County energy consumption by source and sector

### DSM Program Participation

Demand-Side Management (DSM) programs are opportunities offered by Xcel Energy that provide incentives for energy efficiency and are available in all sectors. For the baseline period in this plan (2019-2021), DSM participation has been relatively steady (Figure 5) with 2021 participation as the year with the most participation at 102 participants. The most popular programs vary each year and differ in each sector. These can be observed in Figure 6.

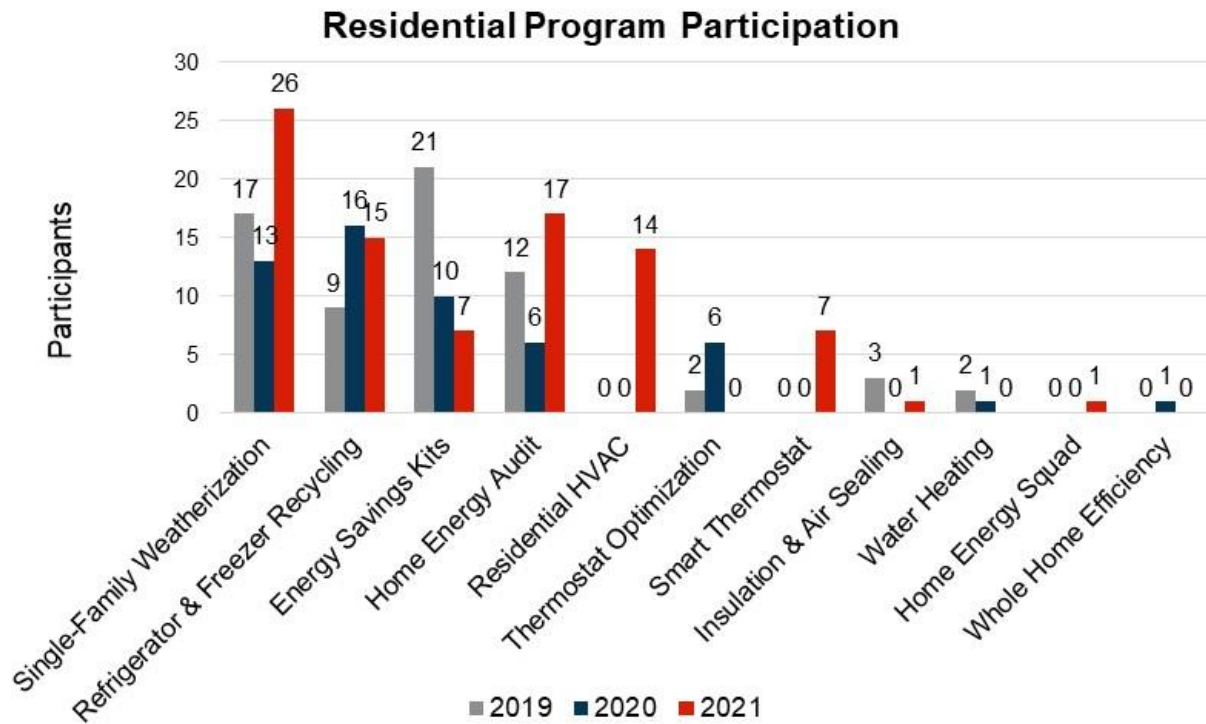


Figure 5: Residential Program Participation: 2019-2021

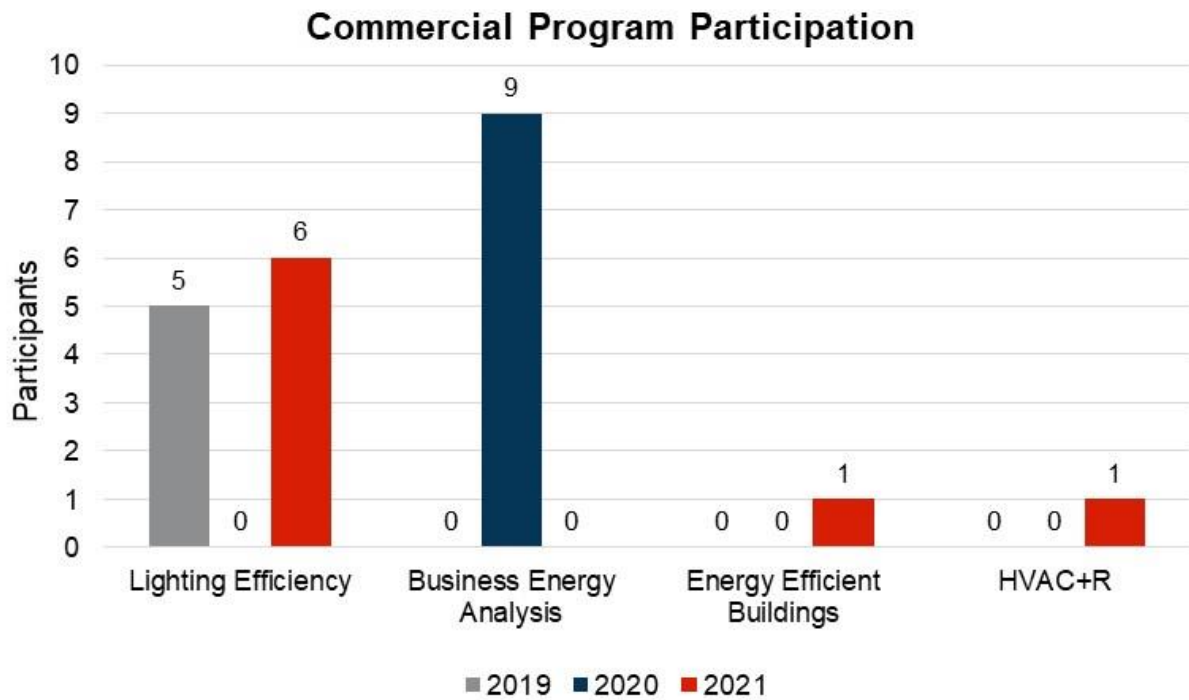


Figure 6: Commercial Program Participation, 2019-2021

# WHERE WE ARE GOING



## Energy Vision Statement

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

**The Lake County community will create an affordable, sustainable future, community safety, and an equitable, thriving economy through energy efficiency, innovation, workforce development, and access to renewable energy.**

## Goal

Working together, the Team set an overarching, measurable goal to guide the energy action planning process.

**Increase annual participation in strategically selected energy programs by 200% over the 2021 baseline by the end of 2024.**

## Focus Areas

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



**Focus Area: Residential:** This focus area takes a phased approach to addressing Lake County’s residential energy needs through a combination of education, outreach, contractor training, and codes support.



**Focus Area: Commercial & Industrial:** This focus area addresses business energy use in Lake County through research opportunities and program participation.



**Focus Area: Municipal & Schools:** This focus area includes strategies that support renewable energy and energy efficiency at the City of Leadville, Lake County, and Lake County school facilities.

These focus areas were chosen to provide a holistic approach to making progress toward the community’s vision.



# HOW WE ARE GOING TO GET THERE



The Team identified 11 strategies necessary to achieve Lake County’s vision and goals:

## **Residential Strategies**

- R-1: Establish a foundational understanding of the benefits of energy efficiency.
- R-2: Sign up residents to participate in Home Energy Audits.
- R-3: Identify contractors to complete energy improvements identified during audits.
- R-4: Conduct a campaign to implement Home Energy Audit recommendations.
- R-5: Support County and City compliance with State energy efficiency code requirements.

## **Commercial & Industrial Strategies**

- C-1: Conduct a small business energy assessment campaign.
- C-2: Evaluate options for Green Business Programs.
- C-3: Engage qualifying industrial facilities in Strategic Energy Management.

## **Municipal & Schools Strategies**

- M-1: Partner with the school district to identify energy efficiency and renewable energy opportunities.
- M-2: Partner with Lake County Government to identify energy efficiency and renewable energy opportunities.
- M-3: Partner with the City of Leadville to identify energy efficiency and renewable energy opportunities.

These strategies are organized by the audience of focus: R strategies stand for residential; C strategies stand for commercial and industrial; and M strategies stand for municipal and school facilities. The following sections provide implementation details for each of the strategies, which are organized by focus area.





## Focus Area: Residential

The residential sector in Lake County was identified as an energy priority because this sector is a major portion of community energy use, as well as a desire to address housing cost burden in the community. This focus area takes a phased approach to addressing Lake County’s residential energy needs through a combination of education, outreach, contractor training, and codes support.

### Strategies

#### R-1: Establish a foundational understanding of the benefits of energy efficiency.

<b>Description</b>
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• Energy education is often a critical first step to supporting residential energy action.</li> <li>• Information about residential energy use, energy efficiency, and resources to support energy efficiency is available, but currently decentralized across multiple providers.</li> <li>• C4 serves as a connection point for residents by sharing energy information and appropriate energy programs.</li> <li>• Messaging should be tailored to different audiences (e.g., local residents, second homeowners).</li> <li>• Spanish translation of materials is a priority.</li> <li>• Include information on renewable energy and beneficial electrification where it makes sense.</li> </ul> <p><b>Overview:</b> This strategy will focus on centralizing energy information and launching a foundational energy education campaign to improve resident understanding of energy use in homes, the benefits of improving the energy efficiency of homes (financial, comfort, and health and safety), as well as quick-win and DIY opportunities for improving efficiency.</p>
<b>Timing</b>
<b>Q2 2023-Q4 2024:</b> This strategy is foundational and should kick off immediately during implementation.
<b>Target Audience</b>
<ul style="list-style-type: none"> <li>• All residents <ul style="list-style-type: none"> <li>○ Renters</li> <li>○ Property owners who are full-time residents</li> <li>○ Income-qualified residents</li> </ul> </li> <li>• Landlords</li> <li>• Second homeowners</li> </ul>
<b>Target Outcomes by End of 2024 Q4</b>
<ul style="list-style-type: none"> <li>• Share energy information through 7 different formats (listed below)</li> <li>• Share 3,000 postcards</li> <li>• Attend 2 in-person events</li> <li>• Interact with 50 community members at in-person events</li> </ul>

Scope Elements	
<b>Develop summary information</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to draft content for a comprehensive overview of available programs and incentives for residential energy efficiency for C4 to use when interacting with residents</li> <li>• <b>Partners in Energy</b> to use comprehensive overview information to inform draft website content for C4</li> <li>• <b>C4</b> to review content</li> <li>• <b>C4</b> to add content to and maintain webpage</li> </ul>
<b>Conduct social media campaign</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to draft and design Facebook content based on webpage content</li> <li>• <b>C4</b> to review and approve content <b>Community partners</b> to distribute content. See Appendix F: Outreach Plan for information on community partners</li> </ul>
<b>Distribute newsletter content</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to coordinate with newsletter partners to draft and design content based on webpage content <ul style="list-style-type: none"> <li>◦ Ensure that content aligns with newsletter revamp</li> </ul> </li> <li>• <b>C4</b> to review and approve content</li> <li>• <b>Community partners</b> (identified in Appendix F: Outreach Plan) to distribute content</li> </ul>
<b>Deliver utility bill inserts</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to design inserts for identified bills including: <ul style="list-style-type: none"> <li>◦ Water bill</li> <li>◦ Sanitation bill</li> <li>◦ Mobile home park rent bill</li> </ul> </li> <li>• <b>C4</b> to review inserts and connect with folks who manage identified bills to ensure inserts meet requirements</li> <li>• <b>Partners in Energy</b> to send inserts to distributors</li> </ul>
<b>Send mailers</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to work with assessor's office to collect addresses of full-time Lake County residents and second homeowners</li> <li>• <b>Partners in Energy</b> to draft and design mailers, which will likely be in the form of postcards</li> <li>• <b>C4</b> to review and approve mailers and ensure they align with and build upon Energy Outreach Colorado grant in order to reach a larger portion of Lake County residents</li> <li>• <b>Partners in Energy</b> to fund and deliver up to 3,000 mailers</li> </ul>
<b>Run newspaper advertisement</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to draft newspaper advertisement</li> <li>• <b>C4</b> to review the advertisement</li> <li>• <b>C4</b> to share with newspaper contacts</li> </ul>

<b>Share a press release</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to draft press release</li> <li>• <b>C4</b> to review the press release</li> <li>• <b>C4</b> to share with newspaper and other contacts</li> <li>• <b>Partners in Energy</b> to support media outlet/contact identification as needed</li> </ul>
<b>Attend in-person events</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to support two community events (e.g., Fair Housing Fair, Earth Day) by providing energy efficiency marketing collateral, specialty LED kits, and attendance of one community facilitator</li> <li>• <b>C4</b> to lead attendance at two community events, including event logistics, set up, and breakdown</li> </ul>
<b>C4 Staffing and Funding Needs</b>	
45 hours of C4 staff time	

**R-2: Sign up residents to participate in Home Energy Audits.**

<b>Description</b>
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• Home energy audits provide essential information to homeowners about energy use in their home and opportunities for energy improvements.</li> <li>• Some home energy audit programs offer no and low-cost actions and direct installation measures to immediately improve energy efficiency in the home.</li> <li>• Receiving a home energy audit is a common prerequisite for receiving utility or C4 funding for improvements.</li> <li>• Xcel Energy can perform a high volume of Home Energy Squad assessments over clustered days in the summer.</li> <li>• Energy Smart Colorado recently certified 3 local energy analysts eligible for work in Lake County.</li> <li>• Energy Smart facilitates reimbursement of analysts serving Sangre de Cristo Electric Association customers in alignment with Xcel Energy analyst rebates.</li> <li>• A consistent pipeline of projects may support local workforce development.</li> <li>• Residential buildings with 5 or more units may qualify for Xcel Energy’s Multifamily Building Efficiency program, a no-cost energy audit program for multifamily buildings.</li> </ul> <p><b>Overview:</b> This strategy will focus on a campaign to organize multiple home energy audits over a two-day period. Consolidating audits may help remove barriers for qualified contractors. It is recommended that visits are conducted in the summer. Consider piloting the effort for one set of dates and expanding the opportunity if the pilot is successful, including exploring opportunities to encourage energy audit work for auditors located in Lake County to develop a continuous pipeline of work for local auditors.</p>
<b>Timing</b>
<b>Q2-Q3 2023:</b> Summer/early fall is an ideal time for energy auditors to conduct audits and will ensure ease of access into the mountains

<b>Target Audience</b>	
<ul style="list-style-type: none"> <li>• Single-family homeowners</li> <li>• Landlords of single-family homes</li> <li>• Multifamily building owners</li> </ul>	
<b>Target Outcome by End of 2024 Q4</b>	
<ul style="list-style-type: none"> <li>• Complete 53 home energy audits</li> <li>• 3 participants in Multifamily Building Efficiency program</li> </ul>	
<b>Scope Elements</b>	
<b>Coordinate with qualified contractor to confirm approach and identify dates</b>	<ul style="list-style-type: none"> <li>• <b>C4</b> to determine number of audits to buy down <ul style="list-style-type: none"> <li>◦ <b>Partners in Energy</b> to provide information on costs to inform decision</li> </ul> </li> <li>• <b>Partners in Energy</b> to coordinate with vendor to identify two consecutive days to reserve for visits. Ensure there is one month or longer lead time to promote audits.</li> <li>• <b>C4</b> to provide input on ideal dates and times</li> <li>• <b>C4</b> to establish a work agreement with local auditors to guide energy audit process in Lake County and coordinate with auditors to supplement Xcel Energy vendor visits</li> </ul>
<b>Conduct a door-to-door campaign</b>	<ul style="list-style-type: none"> <li>• <b>C4</b> to help identify ideal neighborhoods for a two-day door to door campaign</li> <li>• <b>Partners in Energy</b> to draft and design supporting collateral and talking points for campaign</li> <li>• <b>C4</b> to approve collateral</li> </ul> <p><i>Optional: C4, youth group, or other local representative attends door-to-door outreach</i></p>
<b>Organize a buy-down promotion</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to develop messaging related to the buy-down for the following channels for single-family homes and multifamily buildings with three or fewer units, in conjunction with strategy R-1: Establish a foundational understanding of the benefits of energy efficiency. <ul style="list-style-type: none"> <li>◦ Utility bill insert</li> <li>◦ Social Media</li> <li>◦ Newsletter</li> <li>◦ Newspaper article</li> </ul> </li> </ul>
<b>Connect multifamily property owners with Xcel Energy resources</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to share Multifamily Building Efficiency program information with Lake County Build a Generation</li> <li>• <b>Lake County Build a Generation</b> to connect multifamily property owners with program information and encourage their participation</li> <li>• <b>Partners in Energy</b> to coordinate with CLEAResult to encourage grouping assessments</li> </ul>
<b>Execute audits</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> and <b>C4</b> to coordinate with auditors to provide reporting on outcome of audits (summarized to protect individual privacy)</li> </ul>

#### C4 Staffing and Funding Needs

- 17-30 hours of C4 staff time
- C4 funding to offset cost of home energy audits

### R-3: Identify contractors to complete energy improvements identified during audits.

#### Description

##### Context:

- A current limitation to residents making energy efficiency improvements in their homes is the lack of energy auditors and Xcel Energy approved contractors within Lake County.
- Contractors also need to be prepared for new requirements for new construction due to updates in local energy codes.
- Contractors should be prepared to work in older homes, which may have lead, asbestos, or wiring problems.
- C4 partners with Energy Smart to maintain a list of eligible contractors.
- A regional approach to contractor engagement could include identifying contractors in neighboring counties, or contractors who live in Lake County but work in other counties.
- Whenever possible, available funding and resources should be pooled to improve the value for local contractors (e.g., state, local, non-profit, and utility incentives).
- Energy analysts can remove barriers to contractors by educating residents on the value of energy improvements.

**Overview:** This strategy focuses on options to address workforce development challenges, including:

- Identifying workforce development funding from the state and federal levels to fund contractors completing Xcel Energy heat pump training and other paid training opportunities.
- Working with existing contractors to register them as approved Xcel Energy vendors so they can apply for project rebates and leverage training opportunities.

#### Timing

**Q2 2023:** Workforce development is foundational to implementing Home Energy Audit recommendations.

#### Target Audience

- Lake County contractors
- Contractors from surrounding counties

#### Target Outcome by End of 2024 Q4

- Build a sufficient Xcel Energy-registered contractor workforce to complete energy efficiency improvements identified in R-4: Conduct a campaign to implement Home Energy Audit recommendations.

Scope Elements	
Work with contractors	<ul style="list-style-type: none"> <li>• <b>C4</b> to identify contractors in Lake County or surrounding counties (e.g., Chaffee County) that work on energy improvements</li> <li>• <b>C4</b> to work with contractors to register them with Xcel Energy</li> <li>• <b>C4</b> to identify funding for contractors to complete heat pump training</li> </ul>
C4 Staffing and Funding Needs	
<ul style="list-style-type: none"> <li>• 30 hours of C4 staff time</li> <li>• Funding for training reimbursement for contractors</li> </ul>	

#### R-4: Conduct a campaign to implement Home Energy Audit recommendations.

Description
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• The majority of homes in Lake County, those built prior to 2018, were built to 2009 or earlier energy efficiency codes. This demonstrates significant opportunities for energy efficiency improvements.</li> <li>• Many contractors in Lake County are not currently registered as Xcel Energy approved vendors, so residents are not receiving utility rebates for improvements.</li> <li>• C4 provides an additional \$300 for improvements, which stack on top of existing utility, state, and federal incentives.</li> <li>• Auditors provide recommendations for energy improvements based on audit findings, so residents are aware of what upgrades are needed for their home.</li> <li>• Programs like Xcel Energy’s Single-Family Weatherization and Multifamily Weatherization provide audits and additional resources to low-income residents.</li> <li>• Energy Smart Colorado offers financing options for residents making energy improvements.</li> <li>• New incentives are becoming available from the federal government. Connecting residents with these resources will be vital.</li> </ul> <p><b>Overview:</b> This strategy focuses on connecting residents who have completed Home Energy Audits with contractors and funding to complete at least one energy action, whether that be participating in a program or making an energy efficiency upgrade in their home. Note, this strategy depends on the ability to secure contractors able to perform upgrades to homes.</p>
Timing
<p><b>Q3 2023:</b> The implementation of recommended home energy projects should occur soon after the completion of home energy audits. Developing a supplemental funding program will be foundational and should be conducted prior to the advertisement of this program.</p>
Target Audience

Residents who participated in Home Energy Audits	
<b>Target Outcome by End of 2024 Q4</b>	
100% of community members who receive an energy audit take a step toward improving their energy efficiency within two years	
<b>Scope Elements</b>	
<b>Identify supplemental funding</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to research funding necessary to cover a portion of project costs and to appropriately incentivize contractors</li> <li>• <b>C4</b> to organize/secure additional funding and adjust programs as needed</li> </ul>
<b>Identify homes that completed a home energy assessment</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> and <b>C4</b> to work with energy assessors to identify premises that completed energy assessments</li> </ul>
<b>Conduct an outreach campaign to residents who completed energy assessments</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to incorporate outreach for this strategy into the outreach plan in strategy R-1: Establish a foundational understanding of the benefits of energy efficiency.</li> </ul>
<b>Organize and implement an improvement campaign</b>	<ul style="list-style-type: none"> <li>• <b>C4</b> to coordinate with contractors to understand project timelines and identify any additional barriers. Frame improvements as an opportunity for off-season work for contractors</li> </ul>
<b>C4 Staffing and Funding Needs</b>	
<ul style="list-style-type: none"> <li>• 20-40 hours of C4 staff time</li> <li>• Funding for additional rebates for community members</li> </ul>	

**R-5: Support County and City compliance with State energy efficiency code requirements.**

<b>Description</b>	
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• The State of Colorado requires updates to energy codes on a regular basis. In order to avoid repercussions from the State, Lake County and the City of Leadville must update energy efficiency codes regularly.</li> <li>• Local workforce needs to be prepared to meet the technical needs for new energy code requirements.</li> <li>• By prioritizing higher energy efficiency standards in new construction, especially in affordable housing stock, the municipalities can prioritize energy affordability for future residents and businesses. Community partners support this approach for more stringent standards to promote long-term affordability and address lifetime costs.</li> <li>• City and County are on the same schedule for code updates to simplify the process.</li> </ul> <p><b>Overview:</b> This strategy will support Lake County and the City of Leadville in preparing for state-required changes to energy codes or going above and beyond state requirements.</p>	
<b>Timing</b>	
Q3-Q4 2024: No immediate time pressures	
<b>Target Audience</b>	
<ul style="list-style-type: none"> <li>• County and City staff</li> <li>• Contractors/Developers</li> </ul>	
<b>Target Outcome by End of 2024 Q4</b>	
Establish a schedule and process for updating energy efficiency codes on a 3-year basis, prior to state deadlines	
<b>Scope Elements</b>	
<b>Connect C4 with Xcel Energy Colorado Energy Codes &amp; Standards Program</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to connect City and County staff with Xcel Energy Colorado Energy Codes &amp; Standards Program</li> </ul>
<b>Connect developers with information and incentives</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> develop resources and compile incentives for C4 and City and County staff with developers to encourage them to go above and beyond minimum code requirements as opportunities arise</li> </ul>
<b>C4 Staffing and Funding Needs</b>	
N/A	





## Focus Area: Commercial & Industrial

Lake County’s commercial and industrial premises are significant energy users. However, this sector has not been a focus for C4’s energy programs in the past. To address this gap, the strategies in this focus area will center largely on information gathering, as well as connecting businesses to Xcel Energy programs to help them save energy and money.

### Strategies

#### C-1: Conduct a small business energy assessment campaign.

Description	
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• Energy assessments are foundational in understanding a business’s energy use and energy efficiency opportunities.</li> <li>• Business Energy Assessments offered through Xcel Energy are low-to-no-cost for eligible businesses and can include direct installation measures that can instantly reduce a business’s energy use.</li> <li>• Ensure improvements align with historic preservation requirements by working with Larry Lucas from the Colorado Mainstreet program and the local Historic Preservation Committee.</li> <li>• 500 businesses subscribe to Leadville Mainstreet e-newsletter.</li> </ul> <p><b>Overview:</b> This strategy focuses on organizing a business energy assessment campaign, to provide interested businesses with access to on-the-spot energy assessments. The information from these energy assessments can then help businesses make energy improvements and can inform C4 about ways to best support businesses.</p>	
Timing	
<p><b>Q3 2023:</b> Summer/early fall is an ideal time for energy assessors to conduct assessments and will ensure ease of access into the mountains.</p>	
Target Audience	
<p>Small businesses</p>	
Target Outcome by End of 2024 Q4	
<p>50 participants in Small Business Energy Assessments</p>	
Scope Elements	
<p><b>Identify target businesses</b></p>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to act as a liaison between C4 and Xcel Energy business energy assessment vendor</li> <li>• <b>C4</b> to identify target businesses, working with contacts at Leadville Mainstreet and Lake County Economic Development Corporation</li> <li>• <b>C4, Leadville Mainstreet, and Lake County Economic Development Corporation</b> to conduct business outreach and confirm business interest</li> </ul>

<p><b>Identify collateral needs</b></p>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to design co-branded collateral connecting the energy assessment campaign to Lake County’s larger energy goals and highlighting the benefits to businesses</li> <li>• <b>C4, Leadville Mainstreet, and Lake County Economic Development Corporation</b> to review and approve collateral</li> </ul>
<p><b>Conduct business assessments</b></p>	<ul style="list-style-type: none"> <li>• <b>Xcel Energy vendor</b> to perform in-person assessments for all identified businesses</li> <li>• <b>Energy Smart Colorado</b> to perform in-person assessments for identified businesses outside of Xcel Energy service territory</li> <li>• <b>C4</b> representative to attend business walks with vendor</li> <li>• <b>Partners in Energy</b> to connect vendor with contact from Colorado Mainstreet program to ensure vendor shares information on all relevant incentives, including incentives for historic buildings, and invite them to attend the business walks</li> <li>• <b>Partners in Energy</b> to coordinate with Xcel Energy vendor to understand assessment impact</li> </ul>
<p><b>C4 Staffing and Funding Needs</b></p>	
<ul style="list-style-type: none"> <li>• 20-30 hours of C4 staff time</li> <li>• C4 funding for business rebates</li> </ul>	

**C-2: Evaluate options for Green Business Programs.**

<p><b>Description</b></p>
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• Green Business Programs often provide technical assistance to businesses, to further their sustainability efforts, and help to celebrate those efforts in the community. Green Business Programs can also provide a valuable peer network, fostering additional learning opportunities for participating businesses.</li> <li>• The State of Colorado recently started the statewide Colorado Green Business Network.</li> <li>• Nonprofits in nearby counties have successful Green Business programs.</li> </ul> <p><b>Overview:</b> This strategy will focus on research into existing Green Business Programs from nearby non-profits, the State of Colorado, and other entities, to determine the benefits for businesses, which type of program is the right fit for Lake County, and any staffing needs for C4 to implement a Green Business Program.</p>
<p><b>Timing</b></p>
<p><b>Q4 2023:</b> There are no major time pressures for this strategy, it is recommended to conduct this strategy during a lull in other strategies.</p>
<p><b>Target Audience</b></p>
<p>C4</p>

<b>Target Outcome by End of 2024 Q4</b>	
Recommend a Green Business Program approach for Lake County.	
<b>Scope Elements</b>	
<b>Research existing programs</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to lead research and summarize findings</li> <li>• <b>C4</b> to review research findings</li> </ul>
<b>C4 Staffing and Funding Needs</b>	
4-6 hours of C4 staff time	

### C-3: Engage qualifying industrial facilities in Strategic Energy Management.

<b>Description</b>	
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• Large industrial facilities use significant amounts of energy to support operational processes. Even one industrial facility taking energy action can have a major impact on the county’s overall energy savings.</li> </ul> <p><b>Overview:</b> This strategy seeks to identify qualifying industrial facilities and encourage their participation in Xcel Energy’s Strategic Energy Management program. The Strategic Energy Management program holistically identifies energy efficiency and demand management opportunities to produce significant, long-term savings.</p>	
<b>Timing</b>	
<p><b>Q2-Q3 2023:</b> The Strategic Energy Management program involves long-term participation. This strategy should be initiated immediately to ensure savings are captured as part of this process.</p>	
<b>Target Audience</b>	
Facilities (or campuses) that consume at least 1 GWh/year	
<b>Target Outcome by End of 2024 Q4</b>	
1 participant in the Strategic Energy Management Program	
<b>Scope Elements</b>	
<b>Connect industrial premises with strategic energy management</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to identify qualifying facilities based on program participation parameters (energy use and energy demand)</li> <li>• <b>Partners in Energy</b> to reach out to qualifying users to gauge initial interest in program participation</li> <li>• <b>Partners in Energy</b> to set up an initial meeting between industrial premises and Strategic Energy Management vendors</li> </ul>
<b>C4 Staffing and Funding Needs</b>	
N/A	



## Focus Area: Municipal & Schools

City, county, and school facilities in Lake County present an exciting opportunity for the municipal and school entities to save energy and money through energy efficiency and renewable energy efforts. The strategies in this focus area address the municipal and school facilities in

Lake County by connecting decision makers to resources from Xcel Energy to make energy improvements.

### Strategies

#### M-1: Partner with the school district to identify energy efficiency and renewable energy opportunities.

Description
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>The Lake County School District is exploring adding a solar array for the high school. The project is currently being led by a student.</li> <li>The 2019 Facility Master Plan is being updated, expected to be completed by May or June 2023. The current priority is ensuring that the schools are functional and safe for students and staff.</li> </ul> <p><b>Overview:</b> This strategy focuses on completing energy assessments for school facilities, then monitoring funding from federal, state, and local resources to determine what the school district is eligible for. This funding can then be used to make the improvements recommended from the assessments, or to add renewable energy infrastructure to school-owned properties.</p>
Timing
Q1-Q2 2024
Target Audience
<ul style="list-style-type: none"> <li>School staff</li> <li>School Board</li> </ul>
Target Outcome by End of 2024 Q4
<ul style="list-style-type: none"> <li>Complete energy assessments for major school facilities</li> <li>Support the school district in implementing “low hanging fruit” improvements identified in energy assessments by increasing participation in Xcel Energy programs</li> </ul>

Scope Elements	
Connect schools with energy assessments	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to connect school staff with the Xcel Energy Business Energy Assessment program</li> <li>• <b>School staff</b> to select which assessments are appropriate and work with Xcel Energy to complete the assessments</li> </ul>
Support schools in completing energy improvements	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to monitor funding opportunities for improvements recommended from energy assessments and Facility Master Plan, as well as renewable energy projects</li> <li>• <b>School staff</b> to lead improvements and renewable energy projects</li> </ul>
School Staffing and Funding Needs	
<ul style="list-style-type: none"> <li>• Costs for energy assessments if more detailed audits are desired</li> <li>• Costs for energy improvements</li> </ul>	

**M-2: Partner with Lake County Government to identify energy efficiency and renewable energy opportunities.**

Description
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>• Budget cycles are done on an annual basis, with the majority of preparation for the following year’s budget happening in Q3.</li> <li>• County facilities are 50-70 years old and are in need of repairs and improvements.</li> <li>• The majority of County facilities are in Xcel Energy service territory.</li> <li>• County staff has completed a preliminary facilities assessment, and County leadership is interested in developing a strategic approach to and identifying funding for improvements.</li> <li>• County is exploring options for renovation of the existing court building or development of a new justice center, as well as infrastructure expansion to support commercial and industrial new development around the airport.</li> </ul> <p><b>Overview:</b> Lake County will complete energy audits for County facilities to gain an understanding of the current efficiency of the buildings and the opportunities for energy efficiency improvements. By utilizing Xcel Energy energy audits, the County will receive no- or low-cost audits and on-the-spot upgrades from auditors, as well as a list of recommended improvements.</p>
Timing
<b>Q3 2023-Q4 2024</b>
Target Audience
<ul style="list-style-type: none"> <li>• County staff and commissioners</li> <li>• County budget decisionmakers</li> </ul>

Target Outcome by End of 2024 Q4	
<ul style="list-style-type: none"> <li>Complete energy assessments of County facilities and implement energy improvements at County facilities</li> </ul>	
Scope Elements	
<b>Connect County facility with energy assessments</b>	<ul style="list-style-type: none"> <li><b>Partners in Energy</b> to connect County staff with Xcel Energy Account Manager, who can provide information on energy audit options</li> <li><b>County representative</b> to determine the appropriate audits for the facilities and work with Xcel Energy to complete energy audits</li> </ul>
<b>Support County in completing energy improvements</b>	<ul style="list-style-type: none"> <li><b>Partners in Energy</b> to monitor funding opportunities for improvements recommended from energy audits and renewable energy projects</li> <li><b>County staff</b> to complete improvements and renewable energy projects and make budget requests for additional improvements as needed</li> </ul>
County Staffing and Funding Needs	
<ul style="list-style-type: none"> <li>Funding for energy audits if more detailed audits are desired</li> <li>Funding for energy improvements</li> <li>Funding for sustainability and energy support from C4 for County facilities</li> </ul>	

**M-3: Partner with the City of Leadville to identify energy efficiency and renewable energy opportunities.**

Description
<p><b>Context:</b></p> <ul style="list-style-type: none"> <li>The budget cycle begins in September and is approved in December for the following year.</li> <li>The City is interested in exploring solar options for the new all-electric Southern Fire Station.</li> <li>City Hall has opportunities for energy improvements, including developing a long-term boiler replacement strategy, replacing single-pane windows, and adding insulation.</li> </ul> <p><b>Overview:</b> In order to address energy efficiency needs in City of Leadville facilities, the City will complete energy audits to identify areas of opportunity. By utilizing Xcel Energy energy audits, the City will receive no- and low-cost audits and on-the-spot upgrades from auditors, as well as a list of recommended improvements. Then, depending on the recommendations from the audits, the City will make energy improvements to the facilities.</p>
Timing
<b>Q3 2023-Q4 2024</b>
Target Audience

<ul style="list-style-type: none"> <li>• City staff</li> <li>• Budget decisionmakers</li> </ul>	
<b>Target Outcome by End of 2024 Q4</b>	
Complete energy assessments of City facilities and implement energy improvements at City facilities.	
<b>Scope Elements</b>	
<b>Connect municipal facilities with energy assessments</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to connect city staff with Xcel Energy Account Manager, who can provide information on energy audit options</li> <li>• <b>City staff</b> to determine the appropriate audits for the facilities and work with Xcel Energy to complete energy audits</li> </ul>
<b>Support municipality in completing energy improvements</b>	<ul style="list-style-type: none"> <li>• <b>Partners in Energy</b> to monitor funding opportunities for improvements recommended from energy audits and renewable energy projects and provide list of rebates and incentives for the improvements</li> <li>• <b>City staff</b> to complete improvements recommended from audits and renewable energy projects, including making budget requests to fund improvements as needed</li> </ul>
<b>City Staffing and Funding Needs</b>	
<ul style="list-style-type: none"> <li>• Costs for energy audits if more detailed audits are desired</li> <li>• Costs for energy improvements</li> </ul>	

## Energy Action Plan Impact

The table below outlines the participation, kilowatt hour, and therm savings associated with the strategies in this plan.

Table 1: Energy Action Plan Impact

Sector	Program Name	Metric	2021 Baseline	Implementation Impact
Residential programs	Home Energy Audits	DSM Program Participation	21	50
		kWh Savings	0	0
		Therm Savings	0	0
	Multifamily Buildings	DSM Program Participation	0	3
		kWh Savings	0	33897
		Therm Savings	0	927
	Single-Family Weatherization	DSM Program Participation	26	50
		kWh Savings	15800	28915
		Therm Savings	6695	14957
	Sector Total	DSM Program Participation	47	103
kWh Savings		15800	62812	
Therm Savings		6695	15884	
Commercial and Industrial programs	Small Business Solutions	DSM Program Participation	6	50
		kWh Savings	24225	425400
		Therm Savings	0	0
	Strategic Energy Management	DSM Program Participation	0	1
		kWh Savings	0	744069
		Therm Savings	0	0
	Sector Total	DSM Program Participation	6	51
		kWh Savings	24225	1169469
		Therm Savings	0	0
Total	DSM Program Participation	53	154	
	kWh Savings	40025	1232281	
	Therm Savings	6695	15884	
	GHGs Avoided (MTCO <sub>2e</sub> )	54	671	



## 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 Team formed to create this plan will support implementation by serving as liaisons to the rest of the community and attending applicable check-in calls. Implementation will be supported by monthly project management team calls that will include representatives from C4, Partners in Energy, and Xcel Energy, with additional quarterly calls with other Team members as needed. Team commitments are more clearly outlined in each strategy. A summary of the roles and timeline of the plan strategies is provided in Table 2: Summary of Strategy Roles and Tentative Timeline.

Table 2: Summary of Strategy Roles and Tentative Timeline

		Tentative Timeline						
TASK	LEAD	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Beyond
<b>R-1: Establish a foundational understanding of the benefits of energy efficiency.</b>								
Collateral development	Partners in Energy							
Collateral review and distribution	C4							
Event attendance lead	C4							
Event attendance support	Partners in Energy							
<b>R-2: Sign up residents to participate in Home Energy Audits.</b>								
Buy-down coordination	C4							
Vendor coordination	Partners in Energy							
Local auditor coordination	C4							
Neighborhood identification	C4							
Collateral development	Partners in Energy							
Collateral Review	C4							
Door-to-door outreach lead	Partners in Energy							
Door-to-door outreach support	C4 or other local representative (optional)							
Multifamily information sharing	Partners in Energy							
Multifamily contact	Lake County Build a Generation							
Audit implementation	Vendor Local auditors							
<b>R-3: Identify contractors to complete energy improvements identified during audits.</b>								
Contractor identification	C4							
Contractor registration with Xcel Energy	C4							
Funding identification	C4							
<b>R-4: Conduct a campaign to implement Home Energy Audit recommendations.</b>								
Funding research	Partners in Energy							

Funding organization	C4							
Vendor coordination	Partners in Energy							
Outreach coordination	Partners in Energy							
Contractor coordination	C4							
<b>R-5: Support County and City compliance with State energy efficiency code requirements.</b>								
Codes Team connection	Partners in Energy							
Additional support	Partners in Energy							
Developer resources	Partners in Energy							
<b>C-1 Conduct a small business energy assessment campaign.</b>								
Vendor coordination	Partners in Energy							
Business identification	C4 Leadville Mainstreet							
Initial business outreach	C4 Leadville Mainstreet							
Collateral development	Partners in Energy							
Collateral review and distribution	C4 Leadville Mainstreet							
Assessment completion	Vendor							
<b>C-2: Evaluate options for Green Business programs.</b>								
Program research	Partners in Energy							
Research review	C4							
<b>C-3: Engage qualifying industrial facilities in Strategic Energy Management</b>								
Premise identification	Partners in Energy							
Meeting outreach and coordination	Partners in Energy							
<b>M-1: Partner with the school district to identify energy efficiency and renewable energy opportunities.</b>								
Energy assessor introduction	Partners in Energy							
Energy assessment coordination	School staff							
Funding research	Partners in Energy							
Improvement coordination	School staff							
<b>M-2: Partner with Lake County Government to identify energy efficiency and renewable energy opportunities.</b>								

Energy assessor introduction	Partners in Energy							
Energy assessment coordination	County staff							
Funding research	Partners in Energy							
Improvement coordination	County staff							
<b>M-3: Partner with the City of Leadville to identify energy efficiency and renewable energy opportunities.</b>								
Energy assessor introduction	Partners in Energy							
Energy assessment coordination	City staff							
Funding research	Partners in Energy							
Improvement coordination	City staff							

## APPENDIX A: WORKS CITED

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- U.S. Census Bureau. (2020). *S2504: Physical Housing Characteristics for Occupied Housing Units*. Retrieved from American Community Survey: <https://data.census.gov/table?q=lake+county+co+housing&tid=ACSST5Y2020.S2504>
- U.S. Census Bureau. (2022). *Lake County, Colorado*. Retrieved from Quick Facts: <https://www.census.gov/quickfacts/lakecountycolorado>

## APPENDIX B: BASELINE ENERGY ANALYSIS



Data was provided by both Xcel Energy and Sangre de Cristo Electric Association for all Lake County premises for 2019–2021. Xcel Energy provides electric and natural gas service to the majority of the county, and Sangre de Cristo Electric Association provides electric service to a portion of the county. The data helped the Energy Action Team understand Lake County’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

In 2021, there were 5,118 total premises in Lake County. The majority of premises in Lake County are residential, followed by commercial, then municipal (Figure 7). The high number of residential premises, as well as C4’s existing work in the residential sector laying the groundwork for outreach to that sector, the strategies in this plan are focused on the residential sector, with additional, lighter support available for the commercial and municipal sectors.

In the three years of data that were included in the baseline analysis, residential and commercial premises increased slightly, demonstrating moderate growth in the county (Figure 8).

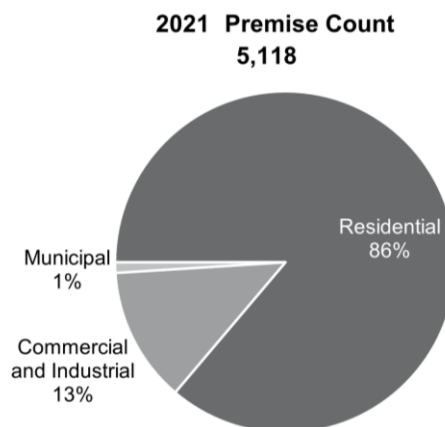


Figure 7: Lake County Premises by Sector

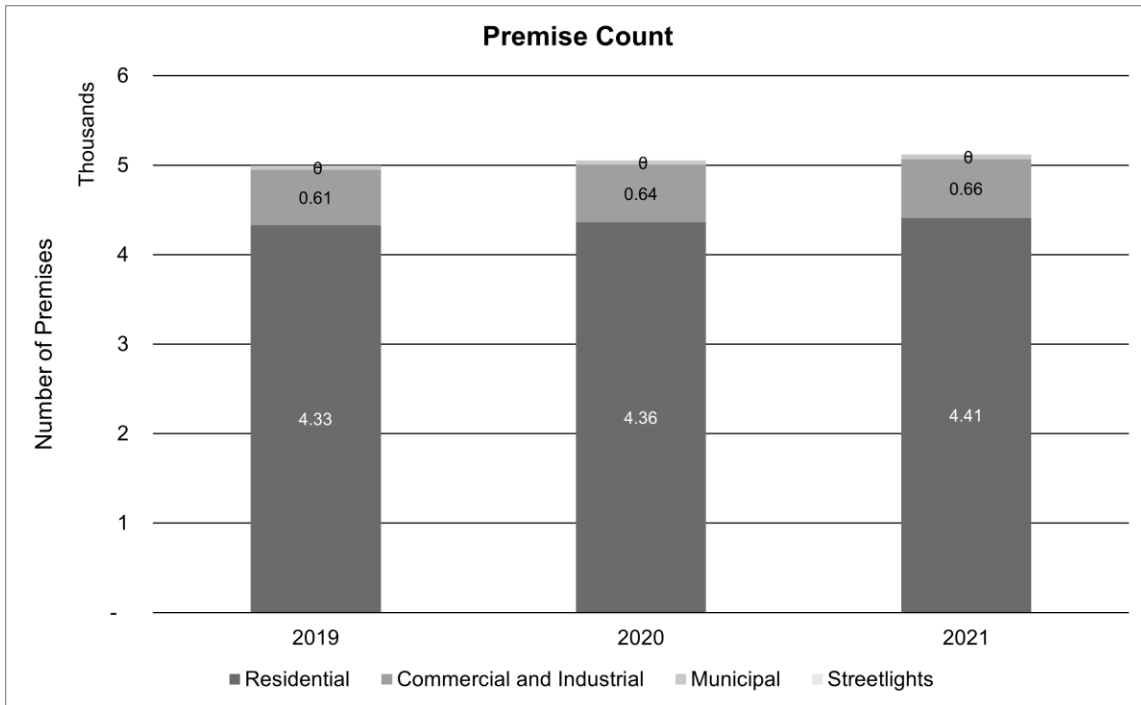
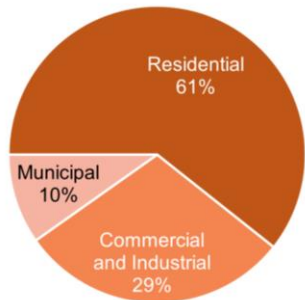


Figure 8: Premise Count, 2019-2021

### Electricity and Natural Gas Consumption and Trends by Sector

Total energy consumption in Lake County in 2021 was 598,616 MMBtu, with 60,085,779 kWh of electricity and 3,916,034 therms of natural gas consumed (Figure 9). Compared to the premise split, energy consumption trends show more usage by the commercial and industrial sectors, with the majority of use still in the residential sector. This data demonstrates that commercial and industrial users are using more energy per premise on average than residential premises, presenting an opportunity for reducing energy intensity in the commercial and industrial sectors.

2021 Natural Gas Consumption (therms)  
3,916,034



2021 Electricity Consumption (kWh)  
60,085,779

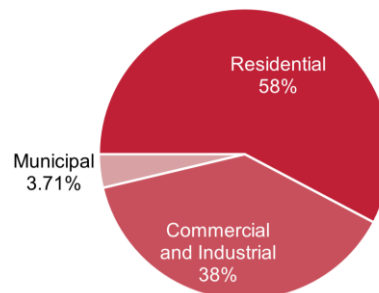


Figure 9: Natural Gas and Electricity Consumption

Electricity consumption has slightly increased in the last three years, while natural gas consumption has decreased (Figure 10). Decreased natural gas consumption in all three sectors is consistent with the number of annual heating degree days. Overall energy use has decreased slightly over the time period analyzed, with most of the energy decrease coming from the commercial and industrial sectors.

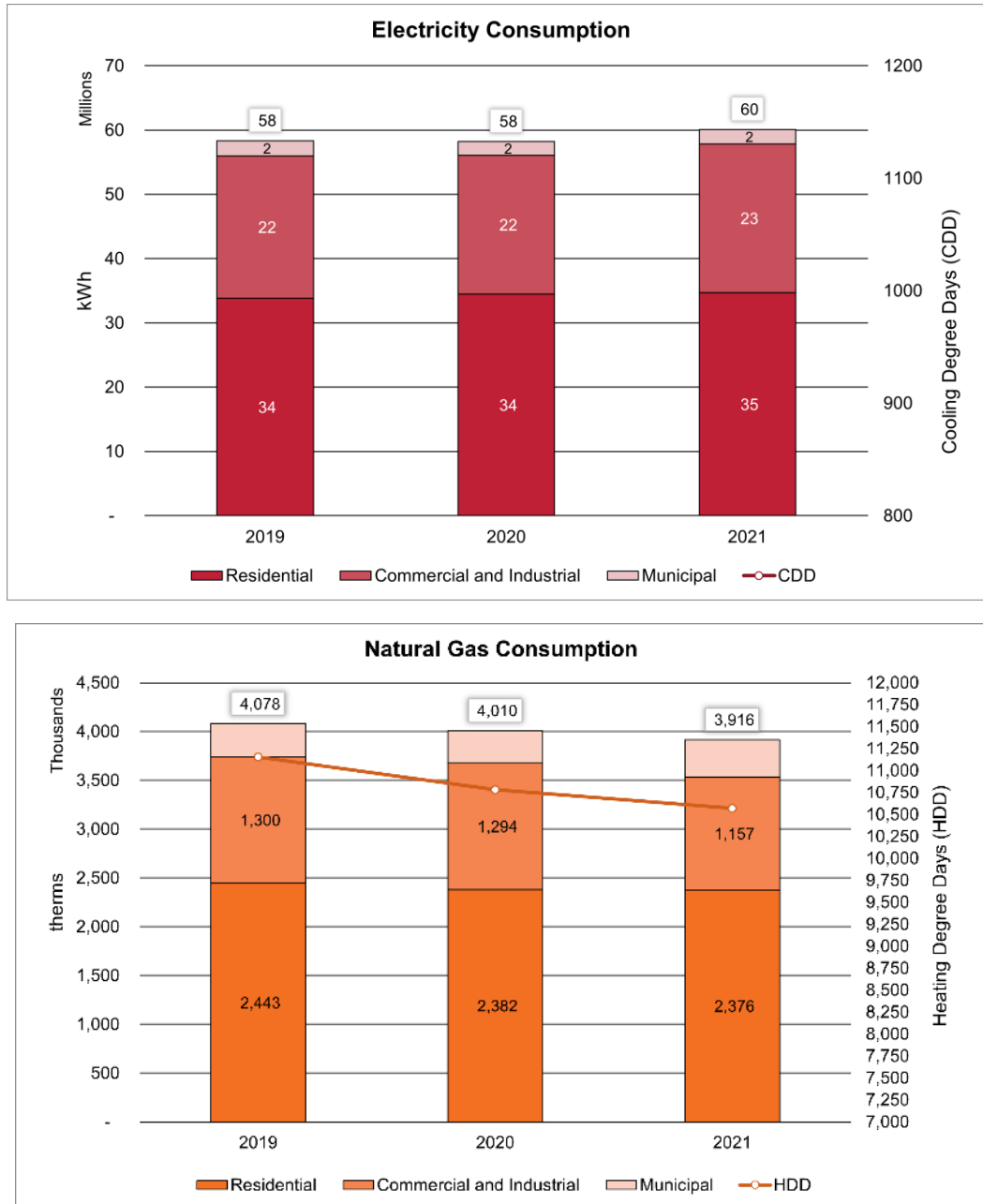


Figure 10: Electricity and Natural Gas Consumption, 2019-2021



## Greenhouse Gas Emissions and Trends

Greenhouse gas emissions from the building energy sector in Lake County totaled more than 49,000 MTCO<sub>2</sub>e in 2021 (Figure 11). Greenhouse gas emissions by sector align with energy use by sector, with the largest portion of emissions being from the residential sector, followed by the commercial and industrial sectors, then by municipal. Over the three years analyzed, emissions decreased slightly, in accordance with the slight decrease in energy consumption.

## Energy Costs

In 2021, Lake County residents, businesses, and municipalities spent \$8,623,517 on energy costs (Figure 12). Figure 13 illustrates that municipal facilities spent the most on energy per premise in 2021, while premises in the residential sector spent the least. 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.

2021 GHG Emissions (MTCO<sub>2</sub>e)  
49,063

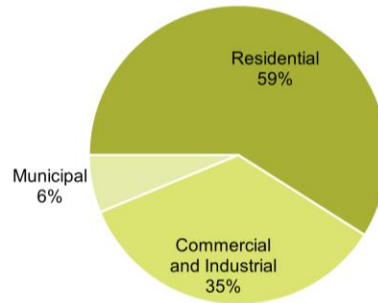


Figure 11: GHG Emissions, 2021

2021 Energy Costs (\$)  
\$8,623,517

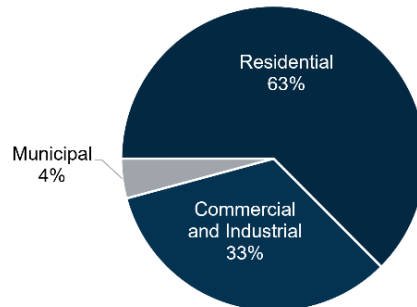


Figure 12: Energy Costs, 2021

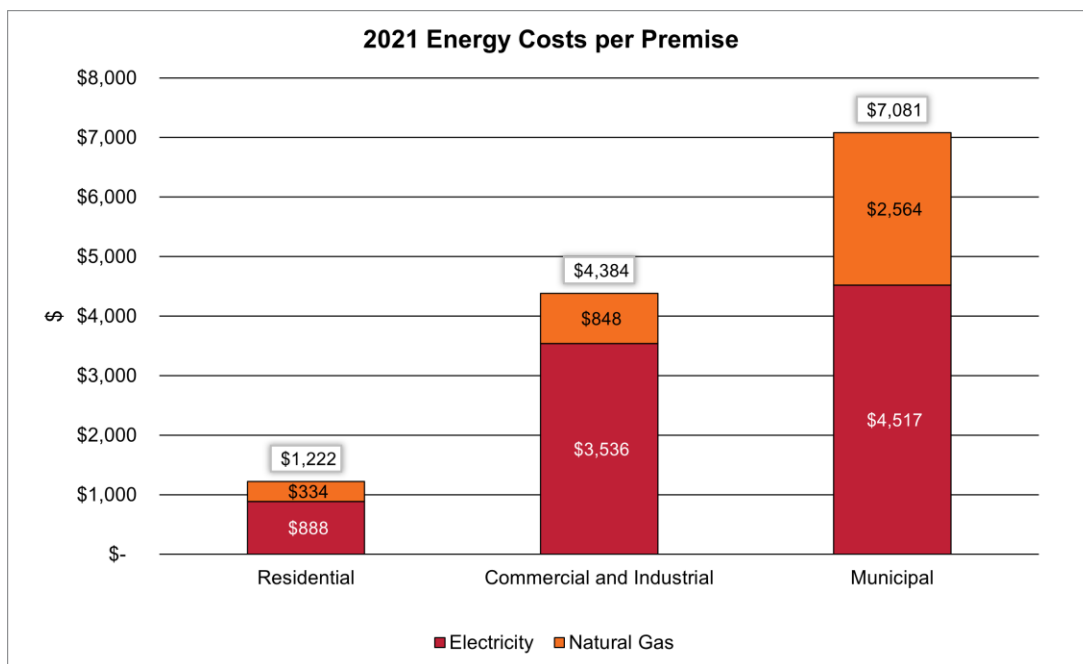


Figure 13, Energy Costs per Premise, 2021

## Program Participation and Savings

Participation in Xcel Energy efficiency programs can be tied to cost savings from energy action. In 2021, 88 Lake County residents and 15 businesses participated in Xcel Energy demand side management (DSM) programs (Figure 14). The estimated resulting cost savings were a total of \$7,496 for residential participants and \$28,942 for business participants. The DSM cost savings graph in Figure 14 further demonstrates the variability between participation and cost savings – participation in certain programs results in more cost savings than other programs. To help Lake County residents and businesses save money, strategies will focus on increasing participation in programs with low upfront costs and high expected energy and financial savings.

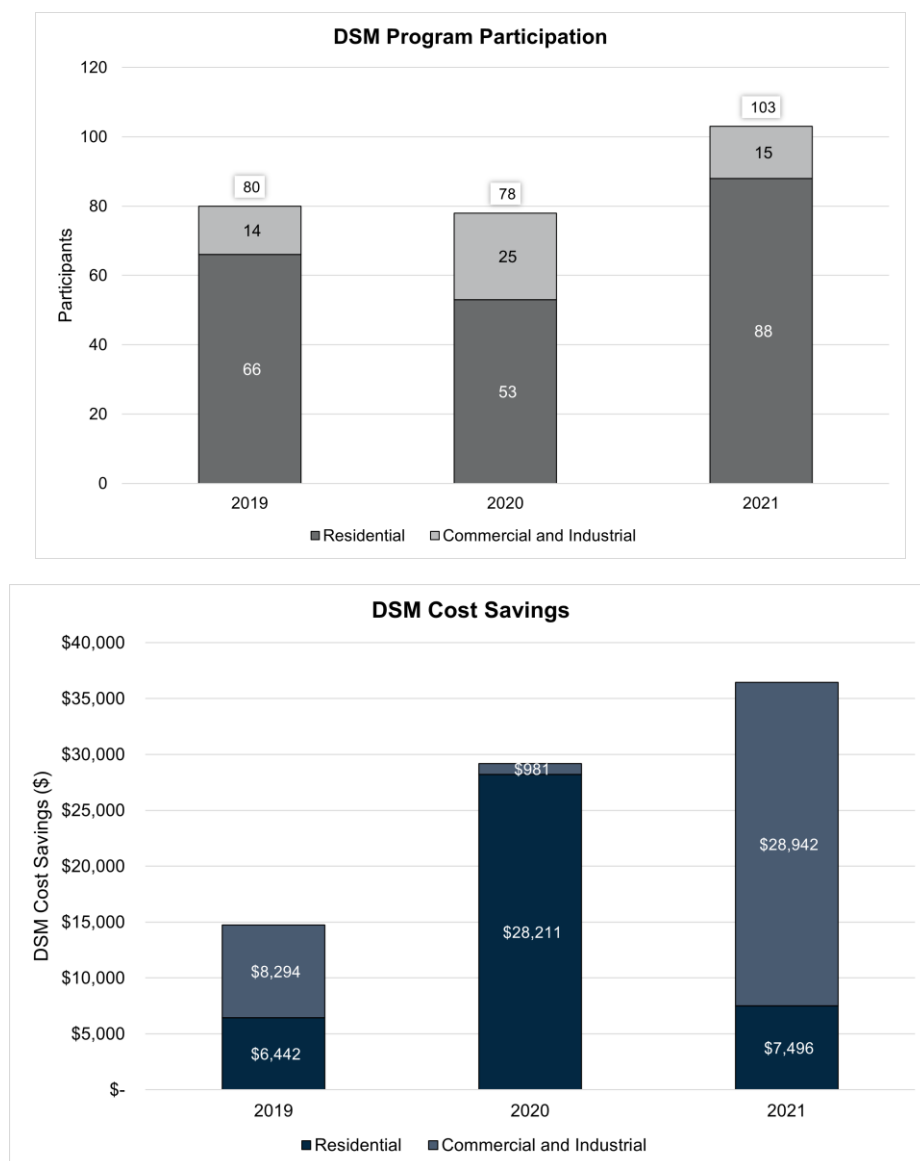


Figure 14: DSM Program Participation and Cost Savings, 2019-2021



Program participation is also a great way to understand what programs residents and businesses are already utilizing, and which can be promoted further to increase participation. The program participation shown in Figure 15 and Figure 16 demonstrates only a small portion of the programs available from Xcel Energy. By increasing participation in these and other programs, residents and businesses can save even more energy and money.

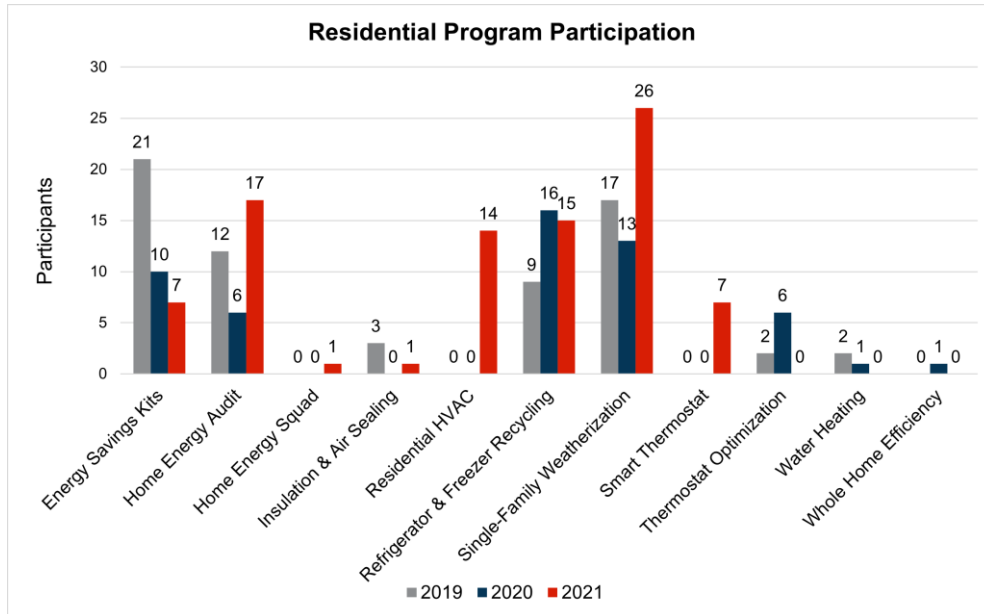


Figure 15: Residential Program Participation, 2019-2021

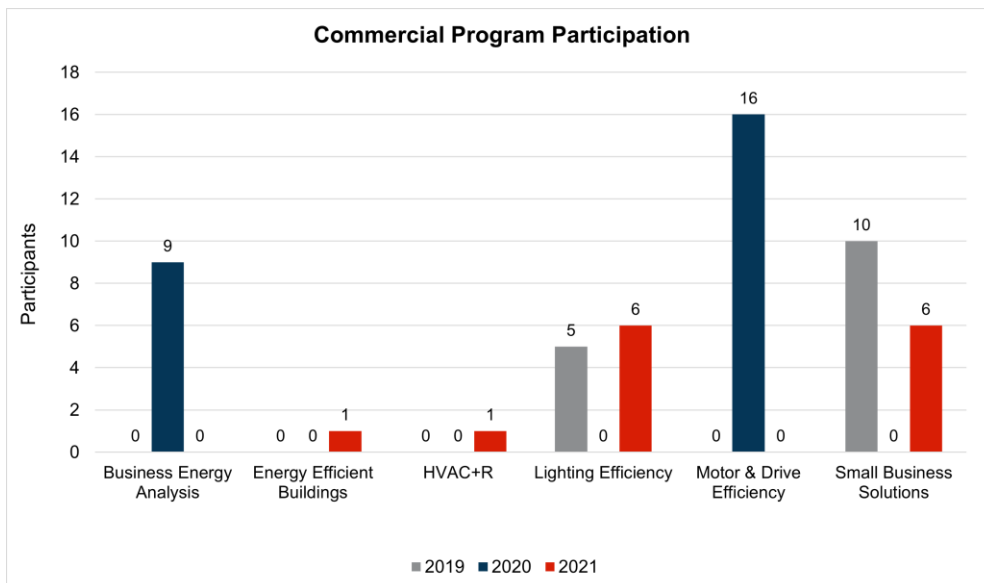


Figure 16: Commercial Program Participation, 2019-2021

*Sangre de Cristo Electric Association did not provide program participation data for this planning process.*

### Renewable Energy

Participation in renewable energy programs is a metric that directly decreases greenhouse gas emissions in the Lake County community. Since C4’s GHG goal aligns with the State of Colorado’s goal of reducing GHG emissions 80%, onsite and subscription renewable energy will be an important component in achieving this goal. Xcel Energy offers a variety of renewable energy programs for customers to participate in.

Windsor<sup>®</sup> is one option available to residents and businesses to offset their electricity use with renewable energy that is not generated onsite. This voluntary program had a significant amount of participation in Lake County, with the majority of participation from the residential sector (Figure 17).

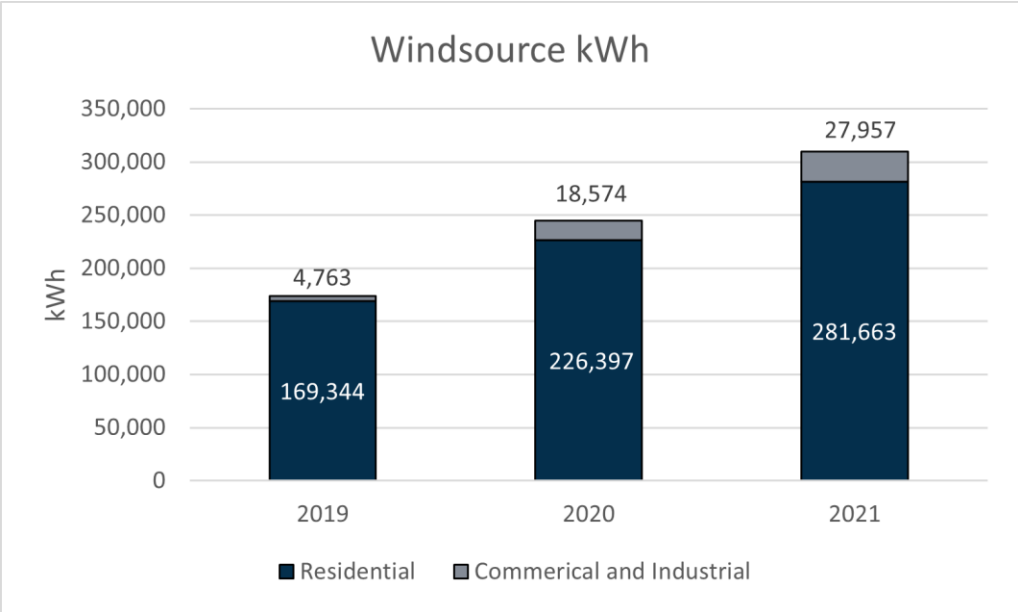


Figure 17: Windsor kWh Subscribed in Lake County, 2019-2021

Renewable\*Connect is another voluntary renewable energy program available to Lake County residents that has received significant residential participation in the past (Figure 18). Though this program is currently fully subscribed, Renewable\*Connect is a great opportunity for residents and businesses to get their electricity from renewable sources.

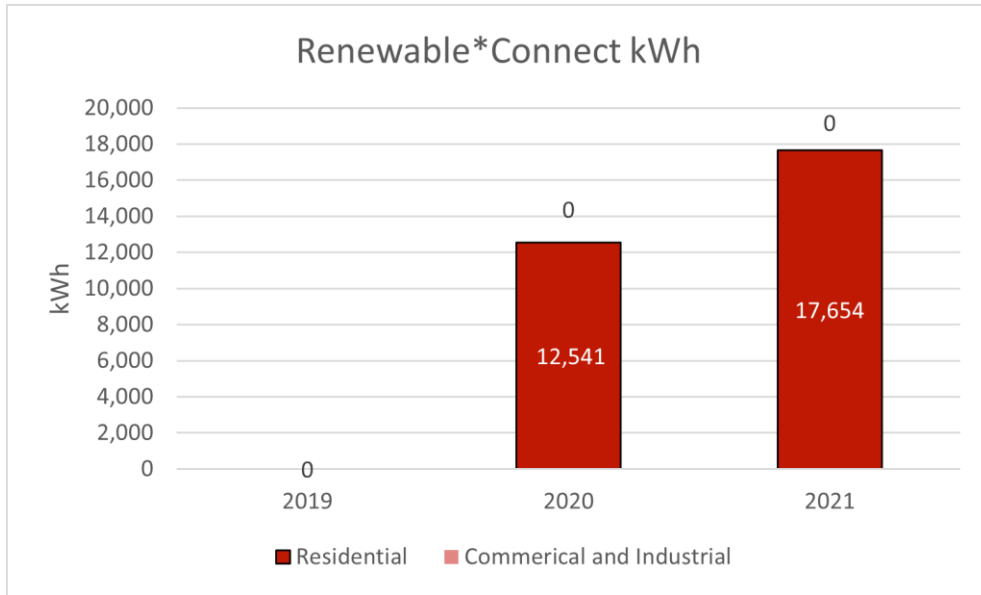


Figure 18: Renewable\*Connect kWh Subscribed in Lake County, 2019-2021

For residents and businesses who choose to add solar to their home or business, net metering and Solar\*Rewards are great options. Residential premises make up the majority of the non-Solar\*Rewards net-metered solar in Lake County, while commercial and industrial premises make up the majority of Solar\*Rewards solar installations (Figure 19, Figure 20).

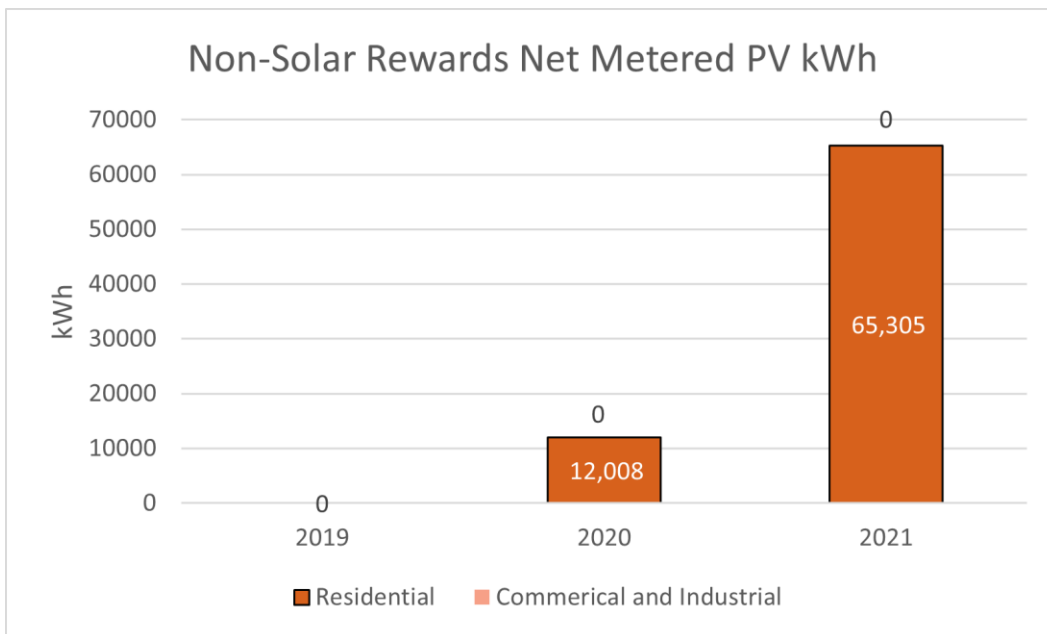


Figure 19: Non-Solar\*Rewards Net-Metered PV kWh, 2019-2021

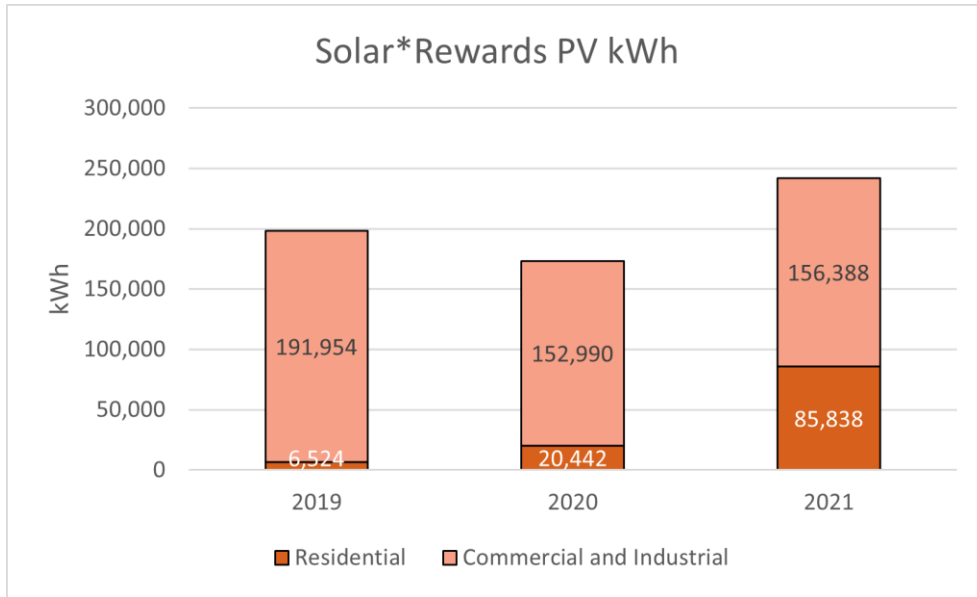


Figure 20: Solar\*Rewards kWh, 2019-2021

Subscriptions to community solar gardens were also a very popular option, especially for Commercial and Industrial energy users (Figure 21). This program allows residents and businesses to receive credits on their utility bill for the solar energy that their solar garden subscription generates at solar gardens in the same county or an adjacent county. Solar gardens encourage local renewable energy development and are a great option to support GHG emissions reduction goals.

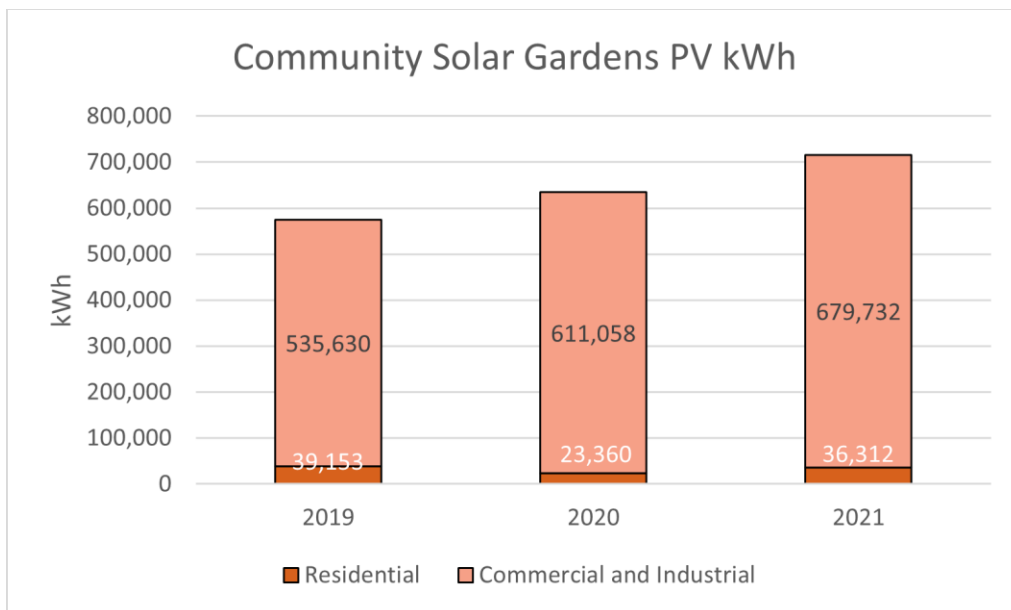


Figure 21: Community Solar Gardens kWh subscribed, 2019-2021

## **EAP Impact Calculation Assumptions**

The following assumptions were made in the calculation of the impacts of the strategies in this document:

- All targets in listed strategies are exactly met.

### **R-2 Assumptions:**

Data for average savings per participant in the Multifamily Buildings program were derived from the average energy savings per participant in this program between 2019 and 2021 in communities in Colorado that participate in Partners in Energy.

### **R-4 Assumptions**

Residents that participate in follow-up actions in Home Energy Audits (Strategies R-2 and R-4) are assumed to participate in the Single-Family Weatherization program from Xcel Energy as their follow-up action

Data for average savings per participant in the Single-Family Weatherization program were derived from the average energy savings per participant in this program between 2019 and 2021 for participants in Lake County, Colorado.

### **C-1 Assumptions**

Businesses receiving audits in this strategy were assumed to participate in the Small Business Solutions program from Xcel Energy.

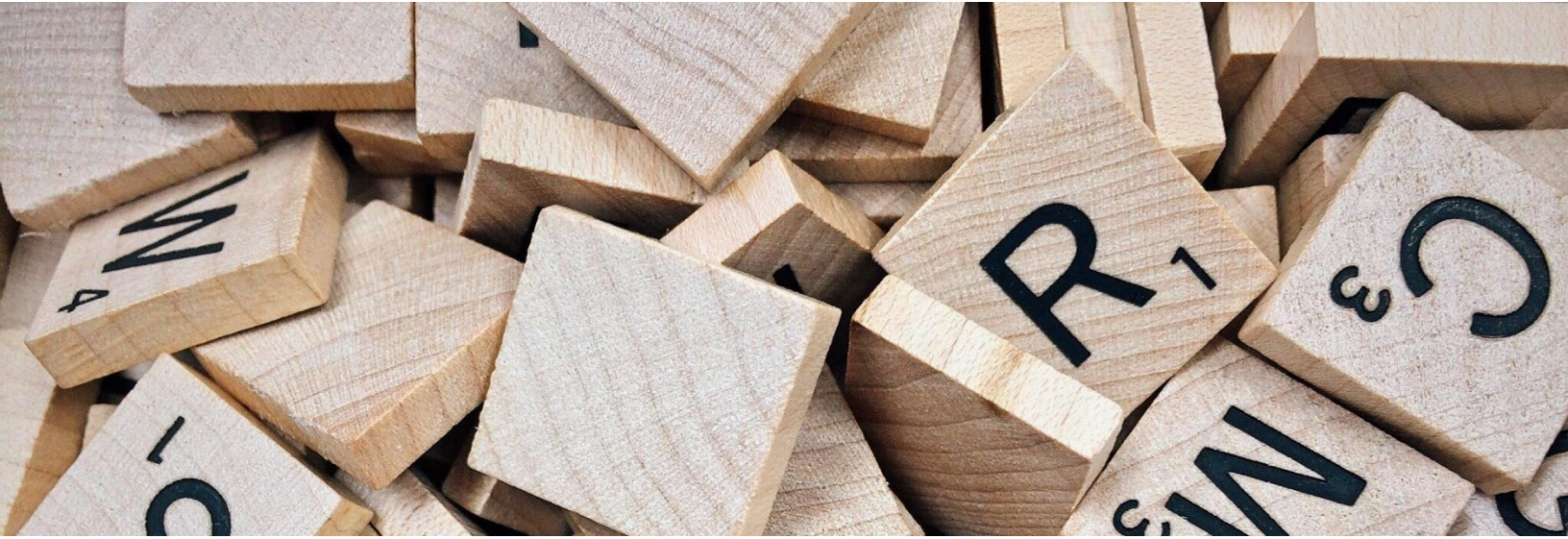
Data for average savings per participant in Small Business Solutions were derived from the average energy savings per participant in this program between 2019 and 2021 for participants in Lake County, Colorado.

### **C-3 Assumptions**

Data for average savings per participant in Strategic Energy Management were derived from the average energy savings per participant in this program between 2019 and 2021 for communities in Colorado that participate in Partners in Energy



## 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.

**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<sub>2e</sub>):** A unit of measure for greenhouse gas emissions. The unit "CO<sub>2e</sub>" represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO<sub>2</sub>), based on the global warming potential (GWP) of the gas.

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

**Premise:** A unique 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.

# APPENDIX D: GLOSSARY OF PROGRAMS AND RESOURCES

The table below is an example of a living document that will be created for C4 to reference when talking to community members about energy opportunities and will continually be updated throughout implementation as energy programs and resources change and to include local rebates and rebates from other utility providers.

Name	Details	Requirements
<a href="#"><u>Colorado Affordable Residential Energy Program (CARE)</u></a>	Installs FREE energy efficiency upgrades to reduce the home energy bills of income-qualifying households in participating counties.	Income qualification (80% of area median income) OR qualify automatically when receiving other assistance
<a href="#"><u>Low-Income Energy Assistance Program (LEAP)</u></a>	Covers a portion of your heating costs Available November 1- April 30 annually	Income qualification (60% of area median income)
<a href="#"><u>Weatherization Assistance Program (WAP)</u></a>	Provides free energy conservation services to eligible households, both owner-occupied and renters.	Income qualification (60% of area median income) OR qualify automatically when receiving other assistance
Xcel Energy Insulation Rebates	<ul style="list-style-type: none"> <li>• Air sealing: 30% of project cost up to \$200</li> <li>• Attic insulation: 30% of project cost up to \$400</li> <li>• Wall insulation: 30% of project cost up to \$350</li> </ul>	Must be a natural gas heating or electric heating customer Project must meet the following requirements: <ul style="list-style-type: none"> <li>• Air sealing – Reduce NACH50 by at least 20%</li> <li>• Attic insulation – pre-job r-value or less than 15 and a post-just r-value of 49 or greater</li> <li>• Wall insulation – Pre-job must be an empty wall cavity and post-job r-value of 13 or greater</li> </ul>
<a href="#"><u>Xcel Energy HVAC Rebates</u></a>	<ul style="list-style-type: none"> <li>• Natural gas furnace with a 95% AFUE efficiency: \$300 rebate</li> <li>• Natural gas boiler with a 95% AFUE efficiency: \$250</li> <li>• Natural gas boiler with a 95% AFUE efficiency and sidearm water heater: \$350</li> </ul>	Have a qualifying 95% efficiency furnace or boiler equipment installed by a contractor

[Xcel Energy Heat Pump Rebate](#)

- High Efficiency ASHP: \$800
- Cold Climate ASHP: \$1,000
- GSHP Replacing Electric Resistance Heat: \$300/ton, up to \$1,500
- GSHP Replacing Natural Gas Heat or Heating & Cooling: \$400/ton, up to \$2,000
- High Efficiency MSHP: \$500
- Cold Climate MSHP: \$600

Heat pump must be installed by an Xcel Energy registered contractor  
See website for additional requirements

[Xcel Energy Multifamily Buildings Program](#)

Multifamily property owners and managers can work with Xcel Energy to identify energy-saving opportunities through a free onsite assessment, then receive a report reviewing assessment finding and opportunities for energy efficiency improvements.

Must own a multifamily property with 5 or more units

[Xcel Energy Windsource®](#)

Residents can power their homes with wind energy through the one of the nation's largest voluntary renewable energy programs.

[C4 Improvement Rebate](#)

Energy improvement rebates of 50% of the total project cost, up to \$300 per household

Energy audit must be completed prior to project in order to receive rebate

## APPENDIX E: INTERVIEW SUMMARIES

The strategies in this plan were informed by individual interviews with nine Energy Action Team members who have specific roles in strategy implementation. This section outlines the notes on those conversations by strategies and explains how certain pathways were selected based on those conversations. For the considerations that were not included in this plan, this section outlines potential next steps and options to explore in the future.

### R-1

- Communication Channels
  - Leverage monthly email/text communications from the Housing Coalition/Lake County Build a Generation to share out general resources and information
  - The Senior Center can be a successful partner
  - Utility flyers are helpful since C4 is trusted in the community
- Event support/attendance
  - Explore opportunity to attend or support Fair Housing Fair (October 14)
- Messaging
  - Even in low-income households, there is an awareness of impact on energy in environment and just didn't have the tools to deal with it
    - People struggling economically make the connection with the environment
    - Not all about survival, but also playing a positive role in community
    - Want to be recognized for contribution their making
  - Small, but diverse community, outreach needs to cast a wide net
    - Parents who want healthy indoor air quality
    - “My house is my castle and want to make it the best”
    - Early adopters/eco-friendly
- Target audience
  - Explore including multifamily outreach
    - Kristi reached out to property managers for Paper Grand, Eagle’s Nest, and Mount Massive Manor to gauge interest in program participation
  - Until 2022, County and City were on 2009 energy code, so even new homes could use support
    - Might be a better target since will have fewer complex issues (e.g., lead, wiring, etc.)
    - Not just leaky homes, but homes that are too tight without proper ventilation
  - C4 helps provide utility bill assistance through Energy Smart Colorado
    - Can also help pay for upgrades
    - Folks receiving bill assistance should be target for energy assistance
  - Assessor data can provide breakout of local homeowner addresses to inform post card campaign to ensure information being shared with target audience

- Can provide different information for second home or vacation rental owners

## R-2

- Barriers
  - Amount of dilapidated housing is severe
    - Provide a heads up to auditors that they might see some housing where the reality of getting them where they need to be might not be feasible
    - E.g., inconsistent water/sewer services - don't want to give false hope to folks who are living in houses closer to being inhabitable
  - Concerns about Home Energy Squad's involvement
    - Felt like Home Energy Squad was poorly conceived of to serve the mountain community
      - Sending quick fix contractors from the Front Range up to Leadville
      - Community members don't trust people from Denver
      - Believes it would have been better to support existing auditors from mountain region
    - People are dismissive of Xcel Energy when seeing messaging that doesn't resonate (e.g., cooling and time of use)
  - Danger that you alienate folks in the workforce pipeline to do energy audits by choosing to go with Home Energy Squad
    - 30-40 assessments would be great news if it can be done - an assessment typically takes 4-7 hours including paperwork and home visits
      - 5 hours each means 150 hours for 30 assessments
    - Auditors are getting trained and they need work
  - A program can get a bad reputation if not delivering solutions
    - Help people with solutions to the extent possible, but don't want to over promise
  - Hard to pin people down to just a period of two days
    - Never heard of short bursts of audits working in the mountains
    - Slow process getting people signed up means it may be difficult to get people to commit
  - C4 previously hosted trainings for energy assessors, but the trainings alone weren't sufficient
    - Auditors need mentorship
    - Need BPI resource
      - Had a BPI training center in Leadville but it is now gone
- Opportunities/Recommendations
  - Develop a list of which contractors have worked with C4 Energy Smart Colorado in the past, especially as we potentially see less new construction due to rising interest rates
  - Need to market audits locally in order to have a steady pipeline of work for auditors

- Since blower door tests are required in energy codes for new construction, that's a good way for auditors to make money in addition to these audits
    - Home Energy Squad is lower cost and has availability to do audits
  - Existing Efforts
    - Energy Smart certified 16 analysts in 2022
      - 2-3 could be available in Lake County
        - Need to finalize paperwork and equipment
        - Energy Smart has a template agreement which frames the work and the expectations for the analyst and outlines the framework for payment
        - Assessors will be Xcel Energy approved - one already is and the two others are working on Xcel Energy qualifications
    - Energy Smart reimburses analysts for a portion of their training. They are then expected to fulfill agreement to perform audits in the communities where they indicated availability
    - Energy Smart tends to serve just above income qualification requirements to cover gaps not covered by Weatherization Assistance and CARE program
      - Income qualified applicants are performed to NWCCOG to perform for 80% and under AMI
      - Many communities have created incentives/rebates/structure to bring the cost down for customers
    -
  - Energy Smart has contact with Sangre de Cristo to match what Xcel Energy offers for Sangre de Cristo customers
    - \$200 reimbursement for assessment and \$5 for direct installs (pipe wrap, water heater blanket, and LED bulbs) and additional reimbursement for mileage if more than 15 miles outside of territory

### R-3

- Workforce Barriers
  - Work force development is never going to be successful by sticking only in Lake County
  - Contractors in Eagle and Summit counties are used to charging and getting paid more for their efforts
  - Heat pump installers have a hard time retaining employees, so they can't add additional work at the moment
  - Need contractors who are really knowledgeable about older housing stock (lead/asbestos/faulty wiring)
    - Can't just blow insulation without addressing those other issues
    - Look at the house as a system and explore deep energy retrofits
    - Difficult and risky work
      - Make sure the contractor lead certified through EPA
- Existing Efforts



- Northwest Colorado Council of Governments (NWCCOG) started private market service that helps contractors fill in work when not doing CARE or DOE Weatherization Assistance Program (WAP)
  - WAP is run out of NWCCOG
- Opportunities/Recommendations
  - With current tax credits, Energy Smart rebates, Xcel Energy rebates, and C4 rebates, there is an opportunity to package these for contractors and improve the value proposition
  - Know that there are some heat pump contractors locally. These existing contractors need to understand the value proposition of getting registered so residents can access Xcel Energy rebates
  - Leverage contractors in Chaffee County
  - For companies that work in Summit/Eagle counties, identify employees that live in Lake County and propose commute savings by doing work in Lake County
  - Regional approach and tap into existing work force development efforts in place
    - NWCCOG has a new workforce training center in Gypsum
    - Workforce efforts from Energy Smart Colorado
  - Help contractors feel valued and feel like they are contributing to their community
    - “Let us tell your story and highlight your work”
  - Focus on reliability and making it easy for the contractor
    - Pave the way for the homeowner (coaching and explaining the nuance during the audit) so the contractor doesn't have to sell the project
  - Need a good program, need a good marketing effort, and need good implementers
    - Contractor that could package a lot of jobs
  - Small list of contractors on Energy Smart Website
    - C4 can update this list as they learn of contractors
- History
  - 2013-2016 boom was credited to relationships built with contractors helping them understand benefits of programs and helping them get signed up
    - \$300 rebates weren't enough to entice contractors to do the paperwork and participate in any Xcel Energy trainings
  - Constant building and rebuilding of relationships

#### R-4

- Incentives for improvements
  - Energy Smart has a page specific to business and residential rebates
    - Can access Xcel Energy and can also apply directly for rebates through Energy Smart's website

#### R-5

- Barriers

- Was difficult last time the County and City updated codes
- There is currently no annual process for code updates
- Concerns about contractors having the right knowledge and training to meet the new IECC requirements
- 
- Opportunities
  - Connecting to Xcel Energy Codes team
    - Preference to make the connection and let them run with it
    - Priority is meeting state deadlines for code updates
  - Residents are supportive of encouraging elected officials to take more proactive and forward thinking approach to energy efficient code adoption; consider framing strategy from perspective of "long term affordability" and "lifetime cost savings" to get ahead of upfront cost concerns
  - Provide information for contractors who are interested in going above and beyond, since the code is the minimum requirement
- Existing efforts
  - Kristi is currently working with community members to encourage a new development to abide by 2021 IECC codes ('community benefit')
  - County received a DOLA grant to do energy modeling for justice center all electric

## C-1

- Mainstreet Program
  - One of 40 in Colorado
  - Leadville at top of list for historic leadership
  - Program has busy and less busy periods
  - Been involved since 2021
  - More focused on city than county
- Fiber broadband expansion
  - Was important to business retention
  - Experience in marketing and communications
    - 500 businesses on e-newsletter
    - Decent engagement rate with the newsletter
  - Good connections with Lake County business cornerstones
- Desire to frame the City and County as being "business friendly" and provide technical assistance to businesses
- Barriers to business development in Lake County
  - Aging community
  - Out of the way
  - Old properties
  - Desire to preserve unique history, and share with the rest of the world
- Recommendations:
  - Community coffee every Wednesday morning, at CMC
    - Everyone discusses what they're working on
    - Many different community members attend

- Businesses, non-profits, governments Board of County Commissioners, police
      - Good way to share information and promote programs
  - Should get introduced to Larry Lucas, DOLA Architect
    - And another person who has info on historic tax credits
    - Share information on monetary incentives for the businesses he works with
    - Ensure that Business Energy Walk on the spot improvements are aligned with historic building requirements
  - Need to be thoughtful about how to approach businesses
    - Include tangible recommendations
    - Show the steps and benefits of programs clearly
- A lot of businesses operate out of homes

## M-1

- Existing facilities:
  - Lake County HS was just remodeled in 2012
  - Elementary school work is in progress
    - If schools receive grant funding, would add grades 5-6 to the building
  - Other building
    - Cloud City Alternative High School
    - Administrative facilities
    - Preschool
  - All school facilities are within Xcel Energy territory
- Status on Facilities Master Plan
  - Plan completed in 2019
  - Working on an update to the Plan
- Community wants schools to stay involved in building where pool was previously housed - intermediate school
  - That way it is more guaranteed that the building remains
  - Idea is to have it as more of a community center, library, aquatic center
  - Would be a large building for only a total of 200 students due to declining enrollment
- Heated sidewalks
  - Uses more gas energy, but decreases the amount of falls from ice on sidewalks
- Solar?
  - Have a student that is very interested and is working with C4
    - Tasked with trying to look for grants, pricing, anything useful for a solar array for the high school
  - Serious interest in this
  - Likely need funding
- Have looked at electric buses
  - Encouraged by suppliers to wait a year or two for things to improve via maintenance
  - Do not have qualified mechanics in the area

- Also current models available do not fit in their existing bus barn
  - Would need smaller buses
  - Or need to expand existing bus barn
- Have had previous convos with Xcel Energy to see if site has electric capacity for charging the buses
  - Would have to follow up since COO left
  - Likely would need to make improvements
- Would probably keep some diesel buses in fleet due to travel for sports, etc.
  - Longest regular route is to Twin Lakes, about a 40-mile round trip
- Audits
  - New school has had some design information
  - Not aware of audits done in last 4 years other than what is in the master plan
  - Re-assessing priorities based off usage during the master-plan dust-off process
- What would be helpful?
  - Capacity and help with improvement prioritization
  - Financial support (locating grants the school would be eligible for)
  - Solar
    - Intermediate building, even if it becomes a community center, could probably benefit from a solar array
    - Concerned about insurance cost of solar panels
      - Hail
      - May eat into savings
    - If solar is large enough, could help with conversion to electric heating and water heating
- Equipment upgrades
  - Updating lighting at facilities as available
- Timing of upgrades
  - There are only 3 or so weeks a year (in July) when no people are in the building
- Lots of incentives coming from the federal government for electric school buses and renewable energy projects

## M-2

- County facilities
  - Focused on trying to get handle on county facility deferred maintenance/backlog
    - A lot of buildings were built between 1950-1970
  - Don't have facilities assessment or master plan
    - Currently being undertaken by public works
    - Identifying oldest boilers, window replacement costs, etc.
    - Figure out if it make sense to renovate or need to redevelop
  - Significant building renovations or construction coming up

- Have been in contact with EEB program to build new Justice Center
  - Hit a wall due to inflation/price escalation
  - Will collect bids for new building in September to see if contractor bids come down 20-30%
- No major renovation planned for this year
- Facilities assessment is on the list for next year
  - Interested in learning about operations/utility costs and ROI estimates
- Airport is on septic and County wants to activate nearby land for commercial/industrial
  - Option for adding electric/natural gas and sewer service to the airport
  - Want to explore whether natural gas is required or if the airport can be all electric
- Opportunities for support
  - Compiling grant opportunity options
  - Supporting facilities master planning through energy audits
    - All major facilities are in Xcel Energy territory
    - Good option while prices are so high, could loop in grant opportunities
- Budget cycle
  - Calendar year
    - Budget needs to be submitted to the state by mid-December
      - Preliminary emails already out for next year's budget
      - Midyear budget check to start identifying projects for next year
      - Then series of work session July-September and piecing it all together in October

### **M-3**

- City facilities
  - City hall lost heat in the Fall due to the boiler going out. Looking to replace boiler
    - Fixed temporarily
    - Got contractor that replaced boiler in county building to give quote
    - Want information on incentives, rebates, checklist for what to look for in new equipment
    - Cannot run space heaters due to electric capacity, so they have to send people home
      - Many people come to City Hall to do business, work from home is not preferable
    - Not sure if in budget for 2023
      - Some \$ set aside for improvements
  - 1904 Building, single pane windows, likely poor insulation
    - Lots of low hanging fruit for audits
  - Interested in getting audits for all buildings

- Also interested in learnings from other municipalities in mountain towns that Partners in Energy has worked with
  - Want a prioritized list of projects based on audit results
  -
- Renewable Energy
  - Have been talks around a solar farm/garden locally
    - Council was interested in the idea, but the company was not a good fit
  - Just built a new fire station
    - All electric
    - Interested in putting solar on the property (solar farm exists in adjacent property)
    - Worried about cost of all electric
    - Partners in Energy will figure out what support can be offered
- Barriers
  - Not sure where to start on some of these things
  - Very busy
- Opportunities
  - There are many low hanging fruit, since not much has been done yet
  - Laurie is a good contact person for implementation
- Budget cycle
  - Start in September
  - Approved in December for following year
  - Fiscal year and calendar year align

## General

- Plan Ambition
  - Really restricted by funding. Many competing resources for funding within county
  - This makes extra funding and incentives even more important
  - Struggle to get volunteers for local events, locals are busy with all of their commitments
    - How to feasibly take on big ideas with limited people
  - What can we offer that doesn't require a lot of people's time or money
  - Concerned about community becoming unsustainable to live in
    - Want to benefit the people that live and work there
- Greenhouse gas emissions and goal
  - Questioning whether it is helpful to have a greenhouse gas goal vs just getting things done if we know what to do?
  - C4 board has been pushing on greenhouse gas emissions reductions
- Consider how to most effectively utilize stakeholder expertise in implementation
- Grid question: Xcel Energy has done some modeling for Summit County to understand what would happen if electrify/add EVs and currently no concerns with the current pace
  - Concern that individual homeowners run into big costs when they trigger transformer not being up to speed

- 1200 people in the City - is there a way to do those upgrades with a comprehensive plan and not sticking it to the marginal household

## APPENDIX F: OUTREACH PLAN

This appendix includes the current draft of the outreach plan developed for communications with Lake County residents and businesses. During implementation, this outreach plan will be used to organize outreach activities and adjusted to fit the changing needs of the Lake County community.

### Lake County Community Communications Plan for Residents

The purpose of a communication plan is to support the strategic objectives of Lake County's Energy Action Plan through organized communication for residential outreach. This is in direct support of these strategies over the next 18 months:

- R-1: Establish a foundational understanding of the benefits of energy efficiency
- R-2: Sign up residents to participate in Home Energy Audits
- R-4: Conduct a campaign to implement Home Energy Audit recommendations

#### Target Audience(s)

- Lake County homeowners
- Lake County renters
- Income-qualified residents
- Second homeowners

#### Key Messages

- Streamlined messaging for postcards
  - Consider a home energy audit and call C4 to schedule
    - Then C4 can direct to a home energy audit for those who are SDCEA customers or who live in multifamily residences or mobile homes, or to Home Energy Squad for Xcel Energy single family residents
  - Provide quick times for efficiency
  - Want more information on rebates and energy assistance programs? Call C4
- General efficiency information
  - Energy use in homes
  - Benefits of energy efficiency
    - Save money
    - Save energy
    - Increase comfort
    - Improve health
    - Take pride in your home/community
  - Quick efficiency tips
    - LED bulbs
    - Weather stripping
    - Faucet aerators
  - What can residents in mobile homes and renters do?
    - Quick tips
- Home Energy Audits



- Sign up for an energy audit on identified date
- Cost savings for energy audits during a buy-down period
  - Example: Cloud City Conservation Center and Xcel Energy are sponsoring home energy audits, a \$150 value that is FREE to you
- Improvement Recommendations
  - Available incentives based on recommended improvements
  - X improvement can save x amount of energy
- Information for second homeowners
  - Benefits
    - Save energy
    - Save money
    - improve your property
      - Efficient homes can sell for more
  - Encourage energy efficiency improvements and participation in renewable energy programs
- Positive examples from successful energy improvements completed by community members

### Outreach Channels

Channel	Details	Relevant Strategies
<b>C4 Webpage</b>	<ul style="list-style-type: none"> <li>● C4 manages energy webpage</li> <li>● Update webpage with important information</li> <li>● Other collateral will link to the webpage</li> </ul>	<ul style="list-style-type: none"> <li>● R-1</li> <li>● R-2</li> <li>● R-4</li> </ul>
<b>Social Media Campaign</b>	<ul style="list-style-type: none"> <li>● Post content to C4 social media</li> <li>● Other community partners share as appropriate               <ul style="list-style-type: none"> <li>○ Colorado Mountain College (CMC) Leadville</li> <li>○ Lake County Library</li> <li>○ Lake County Community Fund</li> <li>○ Lake County Housing Coalition</li> <li>○ Full Circle</li> <li>○ Build a Generation</li> <li>○ Senior Center</li> <li>○ City of Leadville</li> <li>○ City of Leadville Planning and Development</li> <li>○ Lake County Planning and Development</li> <li>○ Get Outdoors Leadville</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● R-1</li> <li>● R-2</li> <li>● R-4</li> </ul>

Channel	Details	Relevant Strategies
<b>Newsletters</b>	<ul style="list-style-type: none"> <li>• Community newsletters               <ul style="list-style-type: none"> <li>○ C4</li> <li>○ CMC Leadville</li> <li>○ Lake County Library</li> <li>○ Lake County Community Fund</li> <li>○ Lake County Housing Coalition</li> <li>○ Full Circle</li> <li>○ Build a Generation</li> <li>○ Senior Center</li> <li>○ City of Leadville</li> <li>○ City of Leadville Planning and Development</li> <li>○ Lake County Planning and Development</li> <li>○ Get Outdoors Leadville</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• R-1</li> <li>• R-2</li> <li>• R-4</li> </ul>
<b>Utility Bill Flyers</b>	<ul style="list-style-type: none"> <li>• Distribute information through the sanitation bill, water bill, and mobile home park rent bills</li> <li>• For each bill, highlight efficiency improvements that can be made on the spot, benefits of energy efficiency, and direct folks to C4 for information on programs and audits</li> </ul>	<ul style="list-style-type: none"> <li>• R-1 – general efficiency information</li> <li>• R-2 – energy audit information</li> </ul>
<b>Mailers</b>	<ul style="list-style-type: none"> <li>• Align with and build upon C4’s Energy Outreach Colorado grant in order to reach a larger portion of Lake County residents</li> <li>• Design one postcard that speaks to all of C4’s energy efforts to avoid confusion               <ul style="list-style-type: none"> <li>○ Direct folks to call C4 and they will walk them through eligibility requirements for low-income programs, whether they qualify for Home Energy Squad or Home Energy Audits, and what additional programs or rebates they could be eligible for</li> </ul> </li> <li>• Design a second postcard aimed at second homeowners and the benefits and improvements that are relevant to them</li> </ul>	<ul style="list-style-type: none"> <li>• R-1 – general efficiency information</li> <li>• R-2 – energy audit information</li> <li>• R-4 – follow up with addresses that had audits</li> </ul>
<b>Newspaper Advertisements</b>	<ul style="list-style-type: none"> <li>• Energy audit information and benefits</li> <li>• Direct folks to C4 to sign up for Home Energy Squad or a Home Energy Audit</li> </ul>	<ul style="list-style-type: none"> <li>• R-2 – energy audit information</li> </ul>

Channel	Details	Relevant Strategies
<b>Press Release</b>	<ul style="list-style-type: none"> <li>• Energy audit information and benefits</li> <li>• Direct folks to C4 to sign up for Home Energy Squad or a Home Energy Audit</li> </ul>	<ul style="list-style-type: none"> <li>• R-2 – energy audit information</li> </ul>
<b>Flyers</b>	<ul style="list-style-type: none"> <li>• Hang up in common areas throughout community to share the dates of energy audits and direct folks to C4 for information on energy programs</li> </ul>	<ul style="list-style-type: none"> <li>• R-2 – energy audit information</li> </ul>

## Lake County Community Communications Plan for Businesses

Strategies:

- C-1: Conduct a small business energy assessment campaign

### Target Audience(s)

- Small businesses in Lake County
- Leadville Mainstreet Businesses

### Key Messages

- Efficiency benefits
  - Save money
  - Save energy
  - Increase comfort
  - Set your business apart by showing commitment to sustainability
- Get a free energy audit
  - Audit benefits:
    - Understand your energy use
    - Get on the spot improvements
    - Learn other steps to take and about available incentives
- Programs to highlight:
  - Small Business Solutions
- Frame energy efficiency as a business retention effort

### Outreach Channels

Channel	Details	Relevant Strategies
<b>Community Coffee</b>	<ul style="list-style-type: none"> <li>• Wednesdays at CMC</li> <li>• Opportunity for Partners in Energy to attend or provide Nancy with information to share</li> </ul>	<ul style="list-style-type: none"> <li>• C-1 - share information on business walks</li> </ul>
<b>Leadville Mainstreet Newsletter</b>	<ul style="list-style-type: none"> <li>• Newsletter goes to 500 businesses</li> <li>• Share information with businesses on assessments/business walks, programs, and rebates</li> </ul>	<ul style="list-style-type: none"> <li>• C-1 - share information on business walks</li> </ul>

## Evaluation/success measures

- Partners in Energy will automatically track and report progress through the biannual data dashboards ([example](#)), which track:
  - Program participation
    - Number of premises that participate in Xcel Energy programs
  - Energy use/savings
- C4 Tracking:
  - Social media
    - Number of posts
  - Flyers distributed at events
    - Number of flyers distributed
  - Newsletter
    - Number of recipients
    - Number of clicks
  - Events
    - Number of community members we interact with