

An Energy Action Plan for The City of Wheat Ridge



Table of Contents

Acknowledgementsii
Executive Summaryiii
Our Targetsiii
Focus Areas & Strategiesiii
Introduction1
Xcel Energy Partners in Energy1
Wheat Ridge Community Background2
The Case for an Energy Action Plan2
Where Are We Now?
Baseline Energy Analysis2
Community Energy Use and Trending2
Energy Efficiency Program Participation5
Renewable Energy Program Participation7
Where Do We Want To Go?7
Focus Areas & Targets7
How Are We Going to Get There?
Focus Area 1: City Facilities
Focus Area 2: Commercial
Focus Area 3: Residential12
How Are We Going to Stay on Course?
Operational Actions and Tracking17
Communications and Reporting17
Changing Course: Corrective Action17
Sharing Progress
Beyond the Plan Horizon
Appendix 1: Glossary of Terms
Appendix 2: Implementation Memorandum of Understanding

Acknowledgements

Thanks to the following organizations and individuals for participating in developing this Energy Action Plan for the City of Wheat Ridge.

Wheat Ridge's Energy Action Planning Team

The planning team was formed from a varied group of city staff, local and regional organizations, local businesses, and committed community members.

- Marianne Schilling, City of Wheat Ridge Assistant to the City Manager
- Bud Starker, City of Wheat Ridge Mayor
- Matt Anderson, City of Wheat Ridge Parks and Rec Analyst
- Sara Spaulding, City of Wheat Ridge PIO/Communications Manager
- Scott Brink, City of Wheat Ridge Public Works Director
- Steve Art, City of Wheat Ridge Economic Development Manager
- Lauren Mikulak, City of Wheat Ridge Planning Manager
- Amy DePierre, Sustainable Wheat Ridge
- Joy Opp, Sustainable Wheat Ridge
- Rob Robinson, Sustainable Wheat Ridge
- Heather Head, Sustainable Wheat Ridge
- April Nowak, Sustainable Wheat Ridge
- Alex Helling, Sustainable Wheat Ridge
- Andy Rasmussen, Sustainable Wheat Ridge
- Eric Wilson, Sustainable Wheat Ridge
- Adam Wylie, Sustainable Wheat Ridge
- Krista Lewis, Localworks Executive Director
- Ralph Habben, Wheat Ridge Chambers Executive Director

Xcel Energy Representatives

- Preston Gibson, Xcel Energy Area Manager, Community and Local Government Affairs
- Channing Evans, Xcel Energy Communications
- David Heuser, Xcel Energy Product Portfolio Manager
- Ellie Troxell, Partners in Energy Facilitator
- Conor Merrigan, Partners in Energy Facilitator

Executive Summary

Xcel Energy Partners in Energy provides communities in Colorado free services to develop an energy plan and assistance with implementing that plan. Each community has its own unique energy needs and priorities, and Partners in Energy tailors its services to complement each community's vision. Wheat Ridge developed this Energy Action Plan through a series of facilitated workshops in fall 2018 that outlines tangible steps to move the community toward its energy efficiency and renewable energy goals. This Plan calls on all members of the community to take part to help the community achieve its energy vision and goals.

Our Targets

The City of Wheat Ridge aims to achieve the following energy goals in 2019-2020:

- Save at least an additional 1 GWh of electricity community-wide
- Increase participation in energy efficiency and renewable program by at least 25%
- Engage an additional 47 businesses above historic levels in energy efficiency and renewable energy programs
- Implement at least 5 energy projects at City of Wheat Ridge facilities

Focus Areas & Strategies

The City of Wheat Ridge's energy action planning team identified strategic initiatives and targets for three focus areas. These focus areas and strategic initiatives are the working elements of the Energy Action Plan to generate concrete actions and impacts. The focus areas and strategies are summarized in Figure 1.

Focus Area 1:	Strategy:
City Facilities	Support energy analysis and benchmarking for all City facilities.
Focus Area 2:	Strategy:
Commercial	Conduct a business energy efficiency campaign.
Focus Area 3:	Strategy:
Residential	Conduct a residential energy campaign including multifamily and renewable energy options.

Figure 1. Focus Areas and Strategies for City of Wheat Ridge's Energy Action Plan.

Introduction

This plan provides documentation of the Xcel Energy Partners in Energy planning process, an overview of the City of Wheat Ridge's demographics and case to pursue a community energy plan, the community's baseline energy use and profile, a summary of the focus areas identified, and the near-term action required to implement the plan. The plan was developed over the course of three workshops held over the course of 2018.

Xcel Energy Partners in Energy

Xcel Energy is the main electric and gas utility serving the City of Wheat Ridge. In the summer of 2014, Xcel Energy launched Partners in Energy to support communities, such as Wheat Ridge, in developing and implementing energy action plans that supplement existing sustainability plans, strategies, and tools. The content of this plan is derived from a series of planning workshops held in the community with an energy action planning team committed to representing local energy priorities, following the process provided by Partners in Energy (Figure 2), and implementing plan strategies.

Partners in Energy will work with the City of Wheat Ridge to coordinate support for implementing the plan and will develop a Memorandum of Understanding that outlines specific support Xcel Energy will provide to help Wheat Ridge deploy its strategies and achieve its goals. Typical resources provided to communities during implementation are summarized in Figure 3.

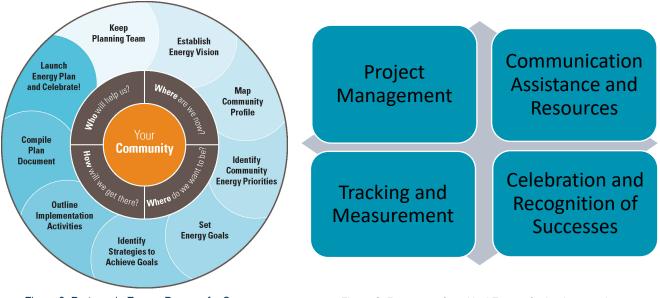


Figure 3. Partners in Energy Process for Success

Figure 2. Resources from Xcel Energy for Implementation

Wheat Ridge Community Background

The City of Wheat Ridge is located centrally in the Denver-metro area and spans 9.6 square-miles in Jefferson County. The community was founded on agriculture and its location along regional travel routes and has grown into a community with modern urban amenities while retaining its small-town character and roots. Today, Wheat Ridge is home to approximately 31,000 residents – making it one of the smallest cities in the Denver-metro area.

The Case for an Energy Action Plan

The City of Wheat Ridge is committed to sustainability. Sustainable Wheat Ridge (formerly Wheat Ridge Environmental Sustainability Committee, WRESC) was established in 2017 with the purpose to involve the community in recommending and prioritizing sustainability goals for the City of Wheat Ridge and community at-large. An action plan was developed in 2018 outlining key actions in six areas: green building and energy efficiency; renewable energy; transportation; solid waste and recycling; water; and communication and engagement. This Energy Action Plan will assist Sustainable Wheat Ridge in establishing a community-wide energy baseline to measure success over time and implement actions in the topic areas of green building and energy efficiency and renewable energy. Together, these plans will enhance the quality of life and strengthen environmental sustainability benefits for the businesses and residents of the City of Wheat Ridge.

Where Are We Now?

Baseline Energy Analysis

An introductory step in the Partners in Energy planning process is to develop a community energy profile. The Partners in Energy team analyzed historical energy data in Wheat Ridge by source (i.e., electricity, natural gas) and sector (i.e., residential, commercial and industrial, municipal). Three years of data (2015-2017) were used for the analysis, and 2017 was established as the baseline year for this plan.

Community Energy Use and Trending

Based on aggregated utility data provided by Xcel Energy, the Wheat Ridge community had 17,209 residential, commercial and industrial, and municipal premises¹ in 2017, summarized in Table 1. This total includes premises served by electricity, natural gas, or both. The majority of premises are residential (85 percent) and account for about 48 percent of the community's total energy consumption in 2017. While the number of commercial and industrial and municipal premises is small compared to the residential sector (15 percent), they account for the remaining 52 percent of the total energy use in the community.

¹ A premise is a unique identifier for the location of electricity or natural gas service. In most cases, it is a facility location.

Sector	Premise Count	Total Energy Use (MMBtu)	Energy Use/ Premise (MMBtu)
Residential	14,630	1,130,000	77
Commercial and Industrial	2,517	1,056,000	420
Municipal	62	156,000	257
Total	17,209	2.2 million*	

Table 1. Wheat Ridge Premises and Total Energy Use (2017 baseline)

In 2017, approximately 212 million kWh (equivalent to 212 gigawatt-hours, GWh) of electricity and 14.8 million therms of natural gas were consumed by the residential, commercial and industrial, and municipal sectors in Wheat Ridge. The commercial and industrial sector consumed the majority of electricity, accounting for 116 million kWh (55 percent). The residential sector consumed 91.5 million kWh (45 percent) and the municipal sector consumed the remaining 4.2 million kWh (2 percent).

Unlike electricity, natural gas was primarily consumed by the residential sector, accounting for 8.17 million therms (55 percent). The commercial and industrial sector consumed 6.59 million therms (45 percent) and the municipal sector consumed the remaining 67,700 therms (less than 1 percent). Relative electricity and natural gas consumed by sector is shown in Figure 4.

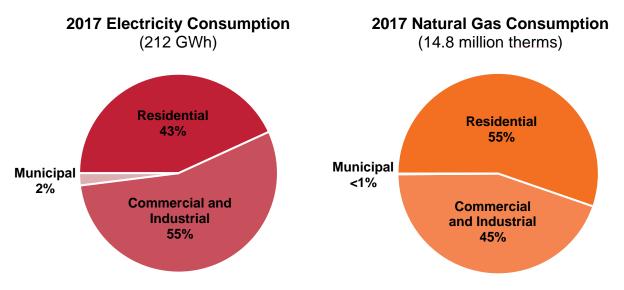
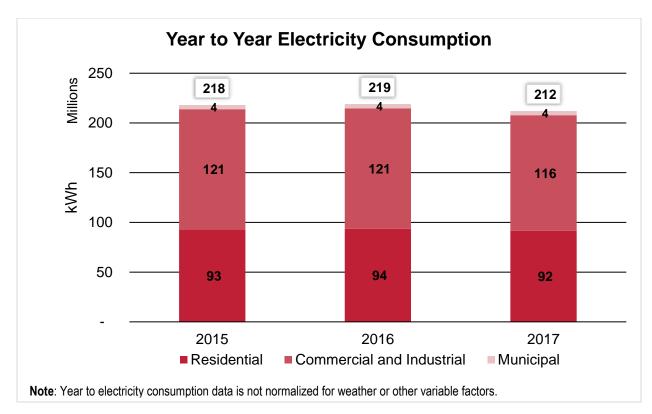


Figure 4. Electricity and Natural Gas Consumption by Sector (2017 baseline).

Electricity use in Wheat Ridge across sectors has seen a modest decrease of 2.7 percent from 2015 to 2017 (Figure 5). Over the same period, natural gas across sectors has declined by 6.3 percent (Figure 6). These declines could be attributed to energy efficiency and could also be the result of weather conditions, as the number of both heating degree days (HDD) and cooling degree days (CDD) also decreased over this time. HDD are the measure of how cold the temperature was on a given day or during a period of days. CDD are the measure of how warm the temperature was on a given day or during a period of days. Table 2 summarizes HDD and CDD from 2015 to 2017.





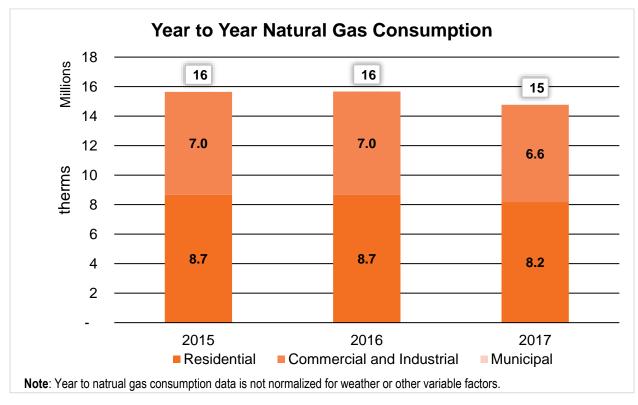


Figure 6. Year-to-Year Natural Gas Consumption by Sector (2015-2017).

	Table 2. Heating and Coo	ling Degree Days Summary.	
Annual Degree Days ²	2015	2016	2017
HDD	4291	4209	3966
CDD	1514	1502	1454

The Wheat Ridge community spent an estimated \$27.7 million in total energy costs (electricity and natural gas) in 2017. Per residential premise, this amounts to an average of \$925 spent annually, or a monthly energy cost of \$77. A commercial and industrial premise spent an average of \$5,474 spent annually, or a monthly energy cost of \$456. Finally, a municipal premise spent an average of \$6,451, equivalent to a monthly energy cost of \$538. Across all sectors, the majority of energy costs are spent on electricity. Figure 7 shows the cost per premise in 2017 for electricity and natural gas.

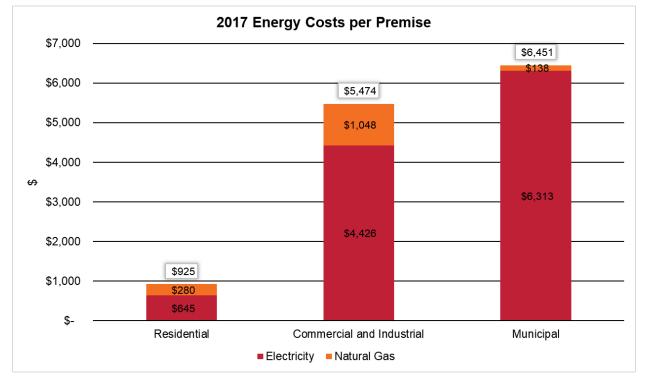


Figure 7. Energy Cost per Premise (2017 baseline)

Energy Efficiency Program Participation

Baseline data gathered in this planning process includes historic Xcel Energy demand-side-management (DSM) rebate program participation counts and actual energy savings for Wheat Ridge. These data provide a snapshot of what types of programs Wheat Ridge residents and businesses are using and to what degree. On average 3.4 percent of residents and 3.7 percent of businesses have historically participated in a DSM program. Figure 8 and Figure 9 summarize the residential and commercial and industrial program participation for three historic years, 2015 through 2017.

² Heating Degree Days (HDD) is the number of degrees that a given day's average temperature is below 60°F and for which buildings need to be heated. Cooling Degree Days (CDD) is the number of degrees that a given day's average temperature is above 60°F and for which buildings need to be cooled.

In 2017, residents saved nearly 351,300 kWh and 19,600 therms by participating in a rebate program. This equates to an average annual rebate of \$73 per participating residential premise. In comparison, businesses saved 1.1 million kWh and 2,100 therms by participating in a rebate program for an average annual rebate of \$872 per participating commercial and industrial premise.

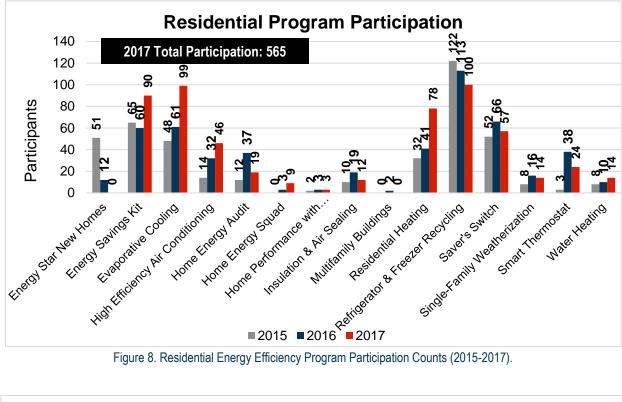


Figure 8. Residential Energy Efficiency Program Participation Counts (2015-2017).

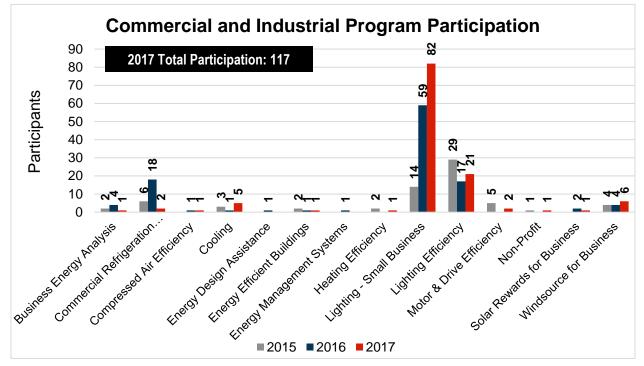


Figure 9. Commercial and Industrial Energy Efficiency Program Participation Counts (2015-2017).

Renewable Energy Program Participation

Various renewable energy programs are available to the Wheat Ridge community. In 2017, 515 residents and 18 commercial and industrial businesses newly subscribed to Xcel Energy's Windsource® program or installed solar on-site through Xcel Energy's Solar*Rewards® program. In total, this equates to about 3.2 percent of eligible premises in Wheat Ridge that participated in an available renewable energy program that year. Table 3 summarizes renewable energy program participation in 2017.

Table 3. Renewable Energy Program Participation 2017 Summary

Program	2017 Participants/ New Applicants
Residential	
Windsource® for Residences	503
On-site Solar (Solar*Rewards®)	12
On-site Solar (Non-Solar*Rewards®)	23
Business	
Windsource® for Business	6
On-site Solar (Solar*Rewards®)	1

Where Do We Want To Go?

Focus Areas & Targets

The Wheat Ridge energy action team chose to focus on the following three areas based on the needs of the community: City Facilities, Commercial, and Residential. Across focus areas the community aims to save at least an additional 1 GWh of electricity over the implementation period in 2019-2020.

Focus Area 1: City Facilities

Target: Implement at least 5 energy projects at City of Wheat Ridge facilities.

<u>Impact</u>: Achieving this target could save the City an estimated 80,000 kWh of electricity and 400 therms of natural gas with estimated annual cost savings of \$5,200.

Focus Area 2: Commercial

<u>Target:</u> Engage an additional 47 businesses above historic levels in energy efficiency and renewable energy programs.

<u>Impact</u>: Achieving this target could save the Wheat Ridge business community 774,000 kWh of electricity and 7,500 therms of natural gas with estimated annual cost savings of \$54,000.

Focus Area 3: Residential

Targets:

- Increase participation 25% in residential programs (72 new households).
- Engage 25 households in Xcel Energy's Home Energy Squad® visits.
- Increase participation in Xcel Energy renewable programs by 100 premises.

<u>Impact:</u> Achieving these targets could save participating residents 93,000 kWh of electricity and 5,000 therms of natural gas with estimated cost savings of \$12,800.

How Are We Going to Get There?

To achieve the community of Wheat Ridge's energy-related sustainability goals, the energy action team proposed the following focus areas: municipal, commercial, and residential. Each focus area begins with a summary of why it was selected as a priority and supporting information about the focus area. Next, detailed strategies are organized for each focus area. Each strategy includes a general description and numeric targets to achieve over the implementation period (18-month).

Focus Area 1: City Facilities

Table 4. City Facilities Focus Area Strategy

Strategy: Support City Energy Analysis & Benchmarking

Description

Support energy benchmarking and audits for City facilities as well as review completed projects within the last 12 months. Evaluate completed audits and implement efficiency measures identified in City facilities. Pursue rebates for the identified and eligible completed projects.

Targets

Participate in the following Xcel Energy programs:

- Business Energy Analysis for up to 3 City facilities
- Energy Benchmarking for selected high energy using City facilities
- Implement at least 2 new Lighting Efficiency projects
- Implement at least 2 new Lighting Small Business projects
- Implement 1 new Recommissioning project

Scope

- Determine personnel to lead
 - Potential interim lead until Facility Manager is hired
- Identify and enroll a pilot building into Xcel Energy's Energy Benchmarking Program
- Review past audits and energy analyses
- Review 2017 Internal Sustainability Plan
- Identify "low hanging fruit"
- Coordinate with Energy Performance Contracting effort
- Enroll remaining high energy using facilities into Xcel Energy Benchmarking Program
- Analyze data to identify buildings with opportunities for specific Xcel Energy programs
- Implement projects as identified
- Inform Council as needed

Responsible Parties

- Lead/organizer: City of Wheat Ridge
- City staff representatives
 - Facility Manager (when hired)
 - o Assistant City Manager

- Building specific personnel (e.g., Rec Center, etc.)
- EMT
- Xcel Energy representatives
 - o Account Manager
 - Partners in Energy
 - Xcel Communications
 - Other Xcel Energy staff as needed

Timeline

Q1 2019

- ID project manager or champion
- Re-engage employee representatives
- Review 2017 Internal Sustainability Plan
- Get updates from departments
- Prioritize premises
- ID high energy users
- ID low hanging fruit
- Connect with Xcel Energy Account Manager
- Enter first building into Xcel Energy Energy Benchmarking Program

Q2 2019

- Review past audits completed
- Help Facility Manager integrate energy reporting and analysis into their processes
- Ensure alignment with Energy Performance Contracting efforts
- Enter other buildings into Xcel Energy Energy Benchmarking Program
- Identify buildings with best potential for energy savings and to participate in an audit
- Analyze data from Energy Benchmarking Program and provide recommendations for specific buildings to participate in an audit or other program
- Share information on Xcel Energy renewable energy programs

Q3 2019

- Schedule audits or tune-ups within first 6 months of implementation period
- Review audit reports and select recommendations to implement in municipal facilities over the next five years
- Implement lighting projects and other building energy improvements
- Participate in limited time renewable programs or DSM programs that make sense for the City of Wheat Ridge

Q4 2019

• Continue working with strategy team to identify and implement opportunities

Q1-Q2 2020

• Continue working with strategy team to identify and implement opportunities

Funding

• Staff time

- Xcel Energy program rebates and incentives
- Budget requests/ supplemental
- Grants (TBD)

Partners

- Xcel Energy
- Partners in Energy community leads
- Colorado Energy Office
- Contractors

Outreach Channels

- City Council
- City Website
- Localworks

Measurement

- Map benchmarked City facilities
- Number of buildings benchmarked
- Number of audits analyzed
- Number of audits completed
- Number of Xcel Energy programs participated in
- Energy savings (as applicable
- Cost savings where feasible

Focus Area 2: Commercial

Table 5. Commercial Focus Area Strategy 1

Strategy: Conduct a Business Energy Efficiency Campaign

Description

Existing business energy efficiency campaign to increase participation in energy efficiency programs for small and medium-sized businesses.

Targets

Engage at least 47 additional businesses (50% more than historic average participation - 135 total) to take advantage of Xcel Energy energy efficiency programs and rebates.

Scope

- Work to determine viability and, if viable, proceed with adding to annual business awards one or more green or energy efficient building category(ies)
- Plan and execute a specific outreach effort along 38th or other designated corridor
- Outreach to businesses in general (email, newsletter, event)
- Hold a Localworks event
- Tour successful business(es) to demonstrate
- Investigate a restaurant energy efficiency campaign and implement if deemed feasible
- Work on a direct outreach to larger energy users in Wheat Ridge and engage in energy efficiency and renewable energy efforts as much as possible

- Reach out and determine via IFMA is a good channel to reach large business facility managers, engage and share information
- Work with any major construction projects to ensure they are aware of energy saving opportunities

Responsible Parties

- Lead/organizer: ?
- Wheat Ridge Chamber of Commerce
- Localworks
- City staff

Timeline

Q1 2019

- Establish calendar of activities
- Ask for permits from city (new and renovations) for New Construction efforts
- Investigate viability/feasibility of various efforts

Q2 2019

- Outreach to large businesses
- Outreach to small businesses
- Event 1

Q3 2019

- Nominate and prep green business(es) for award if desired
- Event 2

Q4 2019

Business awards

Q1-Q2 2020

• Continue to pursue per strategy team direction

Funding

To be determined.

Partners

- Developer of the Crossing (Evergreen DevCo)
- Business associations
- Kiwanis
- Wazzee
- Xcel Energy
- Urban renewal authority
- IFMA

Outreach Channels

- City of Wheat Ridge website
- City publications

- Chamber
- Case study of a business
- Business associations
- Business section in local publications

Measurement

- Number of businesses contacted
- Number of businesses engaged in outreach
- Number of businesses participating in events

Focus Area 3: Residential

Figure 10. Residential Focus Area Strategy 1

Strategy 1: Conduct a Residential Energy Efficiency Campaign Description

Build awareness and increase participation in available energy efficiency programs and renewable energy options through an outreach campaign for single-family residential households with a focus on promoting Xcel Energy's Home Energy Squad®.

Targets

- Increase participation 25% in residential programs (72 new households)
- Engage 25 households in Xcel Energy's Home Energy Squad visits
- Increase participation in Xcel Energy renewable programs by 100 premises
- Deploy at least 3 communications outreach campaigns during the 18-month implementation period

Scope

- Determine calendar of events and staffing needs
 - Potential City of Wheat Ridge events include:
 - Carnation Festival
 - Harvest Festival
 - 50th Anniversary celebrations
 - National Night Out
 - TLC Clean Up Days (in partnership with Wheat Ridge Police)
 - Potential Localworks events include:
 - Criterium (est. 600 attendees)
 - MidMod Home Tour (est. 600 attendees)
 - Friday Night Live Movies (est. 700 attendees per)
 - Ridge Fest (est. 3,000 attendees)
 - Holiday Celebration (est. 800-1,000 attendees)
- Define targeted messaging for single family homeowners
- Coordinate Xcel Energy and City messaging and program information with all event opportunities
- Develop event collateral materials and tabling details
- Train event volunteers

0

• Attend and canvas events with informational collateral

- Determine coordinated monthly communications plan to leverage City of Wheat Ridge print, digital, and social media channels to share information
- Develop library of video segments, testimonials, graphics, and information to use for campaigns
- Develop communications campaign details (e.g., delivery approach)
- Launch campaign and track metrics

Responsible Parties

- Lead/organizer: City of Wheat Ridge
 - Assistant to the City Manager
 - o Communications Manager
- City of Wheat Ridge
 - o Share Partners in Energy information at all planned events
 - Help identify which events might be most beneficial to have more of a formal/increased presence
- Sustainable Wheat Ridge representatives (at least 3-4)
 - o Share Partners in Energy information at all planned events
 - Lead or support tabling at high-priority events
 - Support campaign development and deployment
 - o Help spread the campaign on social media profiles and other outreach channels
- Xcel Energy Partners in Energy
 - Lead material development
 - o Support outreach at a targeted number of activities
 - o Coordinate list of activities with company sponsorship team

Timeline

Q1 2019

- Begin development of campaign (including videos, photos, informational pieces, etc.)
- Determine final event list and staff needs
- Determine funds and process for offering Home Energy Squad grant
- Introduce educational campaign and get processes in place
- Develop event materials and begin volunteer training

Q2 2019

- Begin planning for events including applying for summer event participation
- Complete volunteer training
- Attend events
- Finalize campaign logistics

Q3 2019

- Attend events
- Launch campaign 1
- Plan campaign 2

Q4 2019

• Launch campaign 2

• Plan campaign 3

Q1-Q2 2020

• Launch campaign 3

Resources

- Volunteer training and/or speaking points (e.g., City Communications staff, Sustainable Wheat Ridge members)
- Tabling materials (e.g., tablecloths, collateral flyers/brochures, LEDs or other giveaways, eyecatching display)
- Simple graphics, photos, or video segments for posts (e.g., Home Energy Squad visit)
- Sustainable Wheat Ridge Home Energy Squad funding

Partners

- City staff
- Sustainable Wheat Ridge
- Localworks
- Wheat Ridge Police Department
- Energy Outreach Colorado

Outreach Channels

- Active Adult Center
- City social media channels (e.g., NextDoor, Facebook, Twitter)
- City Newsletter
- YourHub

Measurement

- Number of contacts made
- Number of materials distributed
- Enrollment for programs at/following community events
- Social media reach (i.e., number of people who see content)
- Social media impressions (i.e., number of times content is displayed)

Strategy 2: Multifamily Engagement

Description

Support energy efficiency upgrades in multifamily properties.

Targets

- Engage 6 additional multifamily properties in Xcel Energy's following programs:
 - o 2 Multifamily Weatherization
 - o 4 new Multifamily Buildings Efficiency

Scope

- Research and identify properties eligible and interested
- Design outreach approach on an individual building basis

- Define targeted messaging for multifamily properties
- Develop collateral materials to support outreach

Responsible Parties

- Lead/organizer: ?
- Commercial broker and property manager (Anthony Polumbo)
- City of Wheat Ridge
- Sustainable Wheat Ridge
 - \circ Joy Opp (or delegate)

Timeline

Q1 2019

- Confirm strategy team
- Identify potential multifamily property owners to engage
- Provide volunteer training for outreach

Q2 2019

- Begin outreach with identified property owners
- Define targeted messaging for renters and tenants

Q3 2019

- Continue outreach with identified property owners
- Implement viable projects identified

Q4 2019

- Continue outreach with identified property owners
- Implement viable projects identified

Q1-Q2 2020

- Continue outreach with identified property owners
- Implement viable projects identified
- Analyze and assess results

Resources

- Volunteer training and/or speaking points (e.g., City Communications staff, Sustainable Wheat Ridge members)
- Tabling materials (e.g., tablecloths, collateral flyers/brochures, LEDs or other giveaways, eyecatching display)
- Multifamily toolkit

Partners

- City staff
- Sustainable Wheat Ridge
- Energy Outreach Colorado

Outreach Channels

• Property management association

Measurement

- Number of property owners identified, and contacts made
- Number of materials distributed
- Multifamily projects completed

Strategy 3: Renter/Tenant Engagement

Description

Overcome barriers to implementing energy efficiency upgrades for renters and tenants in Wheat Ridge.

Targets

To be determined.

Scope

- Coordinate with Multifamily Engagement strategy
- Research and identify properties eligible and property managers interested
- Design outreach approach on an individual building basis
- Define targeted messaging for renters and tenants
- Develop collateral materials to support outreach

Responsible Parties

- Lead/organizer: ?
- City of Wheat Ridge staff
- Sustainable Wheat Ridge

Timeline

Q1 2019

- Confirm strategy team
- Research barriers and opportunities to overcome implementing energy efficiency for renters and tenants

Q2 2019

- Determine messaging for renters and tenants
- Identify buildings and landlords

Q3 2019

- Begin outreach with identified landlords
- Implement viable projects identified

Q4 2019

- Continue outreach with identified landlords
- Implement viable projects identified

Q1-Q2 2020

• Continue outreach with identified landlords

- Implement viable projects identified
- Analyze and assess results

Resources

To be determined.

Partners

Property management association

Outreach Channels

To be determined.

Measurement

- Property owners identified
- Direct installs completed

How Are We Going to Stay on Course?

To achieve the energy goal outlined in the preceding section, Sustainable Wheat Ridge will help the community reach its goals by maintaining consistent and clear communication City staff, community partners, and Partners in Energy community facilitators.

Operational Actions and Tracking

On a quarterly basis, Sustainable Wheat Ridge will review the energy action strategies and timelines to make sure everyone remains on task and has the resources needed to complete the activities identified in this plan.

Partners in Energy will provide annual tracking and reporting of participation in Xcel Energy's programs and





the associated savings from program participants. Each strategy team will also be responsible for tracking supplemental quantitative and qualitative information about implementation, as applicable, such as website analytics, number of materials distributed, event dates, and estimated participants, etc.

Communications and Reporting

The City of Wheat Ridge and other community organizations have established communication channels as outlined previously in this plan. Sustainable Wheat Ridge and Partners in Energy Team will coordinate the use of the various communication channels to support the strategies with outreach efforts, updates, progress, and successes.

Changing Course: Corrective Action

Even though this Energy Action Plan is designed for greatest impact over the next 18 months, the residual effect and momentum gained by showcasing efficiency, raising awareness, and leveraging resources will have long-term positive implications. An effective energy plan is cyclical in nature (see Figure 11). In addition, the nature of implementation requires staging, flexibility, and course adjustments when necessary

to be successful and to sustain progress. To ensure this plan remains on track, the Energy Action Team will review bi-annual tracking information and compare it against any supplemental strategy tracking metrics and information to assess whether the efforts appear to be making an impact.

To accommodate the fluid nature of action and implementation and learn from experience early in the process, the regularly scheduled team meetings as well as the bi-annual data check-ins will be a forum for agreeing on course adjustments or new approaches necessary to hit plan targets. Any adjustments will be documented and shared with the broader group and community as they occur.

During the implementation period, the best process for obtaining involvement from team members will be determined and lined up with appropriate cycles. These may include budget cycles, school calendars, start of the heating season, etc. As these cycles and the appropriate review points in these cycles are incorporated, there may be different times of the year that specific elements may change, and at a minimum there should be at least one time every year for the major stakeholders to review progress, weigh in, and suggest changes to direction.

Sharing Progress

Strategies outlined in this plan have methods for measuring and recognizing success; however, it will be important to let the wider community know how things are progressing and to recognize the collaborative efforts of those involved in hitting the plan targets. At critical milestones, the City of Wheat Ridge, Sustainable Wheat Ridge, and Xcel Energy will publish updates on progress, share successes, and congratulate participants and partners through various communication channels.

Beyond the Plan Horizon

Looking forward beyond the plan horizon, it is recommended that Sustainable Wheat Ridge with the City of Wheat Ridge readdress the energy efficiency goals and successes achieved over the implementation period. Future updates to this plan may be necessary as goals are achieved and new energy opportunities and ideas emerge. Communities with a successful track record of implementing their goals are welcome and encouraged to apply to future Partners in Energy offerings if new community goals or opportunities arise.

Appendix 1: Glossary of Terms

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 Action Plan: A written plan that includes an integrated approach to all aspects of energy management and efficiency. This includes both short- and long-term goals, strategies, and metrics to track performance.

Greenhouse gas (GHG): Gas in the atmosphere that absorbs and emits radiant energy within the thermal infrared range (primary GHGs include water vapor, carbon dioxide, methane, nitrous oxide, and ozone); GHGs are associated with affecting climate change.

Goals: The results toward which efforts and actions are directed. There can be a number of objectives and goals outlined in order to successfully implement a plan.

HOA: Home owners' association.

HVAC: Heating, ventilation and air conditioning.

LED: light-emitting diode.

kW: kilowatt (1,000 watts); a unit of electric power.

kWh (kilowatt-hour): A unit of electric consumption

MMBtu: One million British Thermal Units; a measure of energy content in fuels.

MTCO2e: Metric tons of carbon dioxide equivalent (MTCO2 Eq.); measure used to compare the emissions from different greenhouse gases based on their global warming potential (GWP). The carbon dioxide equivalent for a gas is derived by multiplying the tons of the gas by its associated GWP.

MW: Megawatt (1 million watts); a unit of electric power.

Premise: A unique identifier for the location of electricity or natural gas service. In most cases, it is a facility location. There can be multiple premises per building and multiple premises per individual debtor.

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

RFP: Request for proposals (solicitation of services).

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

Solar 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: A unit of heat energy (natural gas).

Weatherization: Insulation, air sealing, weather stripping, etc., that improve the building envelope.

Appendix 2: Implementation Memorandum of Understanding



Memorandum of Understanding Phase 2 – Plan Implementation

City of Wheat Ridge 7500 W. 29th Avenue Wheat Ridge, CO 80033

The intent of this Memorandum of Understanding is to recognize the achievement of the City of Wheat Ridge (the City) in developing an Energy Action Plan. Xcel Energy, through its Partners in Energy offering, has supported the development of this Energy Action Plan. This document outlines how the City of Wheat Ridge and Xcel Energy will continue to work together to implement this Energy Action Plan. The term of this joint support, as defined in this document, will extend from February 1, 2019 through September 30, 2020.

Xcel Energy will support the City of Wheat Ridge in achieving the goals of its Energy Action Plan in the following ways:

City Facilities

City Energy Analysis & Benchmarking

- o Support strategy team organization, meetings, and communication
- Support the process of identifying appropriate municipal buildings for Xcel Energy Benchmarking and integration into ENERGY STAR Portfolio Manager®
- Provide analysis of energy data to identify opportunities to pursue an energy audit/ business tune-up or other applicable Xcel Energy rebate and incentive programs
- Review reports and provide support for implementation for energy audit/business tune-ups, or other Xcel Energy programs as needed
- o Support tracking and reporting progress to goals

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

Commercial & Industrial

- Business Energy Efficiency Campaign
 - o Support strategy team organization, meetings, and communication
 - Serve as liaison between City and Xcel Energy Account Managers and communications staff and develop a detailed outreach plan to engage local businesses.
 - Provide existing and applicable Xcel Energy case studies and program materials
 - Support development, publishing, and printing of case studies showcasing local businesses who have implemented energy efficiency and develop other sectorspecific collateral targeting conservation

Memorandum of Understanding Implementation Phase

- Provide coordination with City staff (e.g., economic development, building department) to leverage other current business marketing efforts and engagement opportunities (e.g., major construction projects)
- Assist in the development of an annual business award, including supporting the development of format, application, and award criteria
- Provide support for business community events, including a business awards event
- Support tracking and reporting progress to goals

Support funded by Xcel Energy for this strategy is not to exceed 110 hours. These hours will include those provided through our Partners in Energy team from Brendle Group and do not include support provided by Xcel Energy internal program staff.

Residential

- Residential Energy Efficiency Campaign
 - Support strategy team organization, meetings, and communication
 - Lead development of printed marketing materials
 - Support promotion of events through coordinated development of email content, website content, or other social media content
 - Serve as liaison among City and Xcel Energy program staff on programs such as Xcel Energy Home Energy Squad (HES). Arrange program support such as HES technicians, to attend events.
 - Support outreach initiatives at five community events through event support, basic tabling supplies (tablecloths, flyers and brochures, material display stands) and collateral development, but not Partners in Energy staff attendance
 - o Train volunteers to provide outreach and information at community events
 - Provide 400 LEDs for distribution at residential events
 - Support tracking and reporting progress to goals
 - Support one in-person event to celebrate and recognize Sustainable Wheat Ridge and contributors to energy reduction in Wheat Ridge
- Multifamily Engagement
 - Support strategy team organization, meetings, and communication
 - Support development and delivery of materials to educate multifamily property owners on available resources
 - Support development of outreach approach to engage property owners
 - Serve as liaison between City and Xcel Energy Communications Staff to coordinate outreach and collateral development
 - Support tracking and reporting progress to goals

Support funded by Xcel Energy for this strategy is not to exceed 130 hours. These hours will include those provided through our Partners in Energy team from Brendle Group and do not include support provided by Xcel Energy internal program staff.

Project Management, Reimbursed Expenses and Bonus

 Provide presentation content outlining Partners in Energy process, identified focus areas and goals, and benefits to community to be presented to Council as part of update process

Memorandum of Understanding Implementation Phase

- Facilitate regular check-in meetings, track and report energy impacts and activities (process annual data from Xcel Energy), and help coordinate implementation kick-off activities
- If the residents and businesses in the City achieve 2,500,000 kWh electric and 50,000 therms of natural gas conservation, as outlined in the City goals below and tracked by Xcel Energy's DSM program participation, within the time period of February 1, 2019 to February 1, 2020, Xcel Energy will provide up to \$2,500 in matching funds to install an Electric Vehicle charger at City Hall
- Provide up to \$2,450 for reimbursed expenses related to printing and distribution of cobranded marketing materials, venue fees, food, and other related needs associated with outreach and education. Xcel Energy funding will not be provided for the purchase of alcohol

Support funded by Xcel Energy for project management is not to exceed 70 hours. These hours will include those provided through our Partners in Energy team from Brendle Group and do not include support provided by Xcel Energy internal program staff.

The City of Wheat Ridge commits to supporting the Energy Action Plan to the best of its ability by:

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

	Electricity Savings (in kWh)	Natural Gas Savings (in therms)
Baseline Historic Energy Savings	1,473,200	21,900
Incremental Plan Energy Savings (2/1/19-9/30/20)	1,091,500	28,400
Total Plan Energy Savings (baseline + plan energy savings)	2,564,700	50,300

City of Wheat Ridge Conservation Goals

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

City Facilities

- City Energy Analysis & Benchmarking
 - Lead strategy efforts to identify and implement energy savings
 - Support strategy team organization, meetings, and communication
 - Maintain ENERGY STAR Portfolio Manager® and analyze energy data for participating municipal buildings
 - Review past completed audits of City facilities and other applicable City documents to inform energy improvements
 - Schedule energy audit/business tune-up or other Xcel Energy rebate and incentive program of a City facility(ies) and identify and budget an upgrade project within first 6 months of implementation period

Memorandum of Understanding Implementation Phase

- Coordinate energy audit/business tune-up or other Xcel Energy rebate and incentive program participation with Energy Performance Contracting efforts to ensure that incentives are maximized and efforts aren't duplicated
- Use City's media outlets to share case studies and perform outreach to share successes on internal energy saving efforts

Commercial & Industrial

Business Energy Efficiency Campaign

- o Lead strategy efforts with support from Sustainable Wheat Ridge members
- Support development of new case studies, printed marketing materials, and other sector-specific collateral. Provide review and input as appropriate
- Publish case studies in selected outreach channels
- Coordinate strategy efforts with other current business marketing efforts delivered by the City
- o Use City's media outlets to deliver outreach and communicate with local businesses
- Lead development of detailed outreach action plan with input and participation by Sustainable Wheat Ridge members
- Provide support for business community events and annual business award event
- Share City's Energy Action Plan information at city events as appropriate

Residential

Residential Energy Efficiency Campaign

- Lead strategy efforts with support from Sustainable Wheat Ridge members
- o Lead campaign development to educate residents and drive conservation actions
- Lead development of a resource library by gather available resources, email content, website content, or other social media content
- Support development of printed marketing materials, event materials, and tabling details
- Help identify which community events will be most beneficial to have a formal/increased presence
- Launch campaign and track metrics pertaining to number of residences reached
- Coordinate with Home Energy Squad representatives to promote offering and dedicate funding to offer reduced-price Home Energy Squad visits
- Use City's media outlets to deliver outreach and communicate with residents
- Lead event tabling at community events (including coaching volunteers to support)
- Share City's Energy Action Plan information at city events as appropriate
- Coordinate activities with Xcel Energy's sponsorship team
- Multifamily Engagement
 - Lead strategy efforts with support from Sustainable Wheat Ridge members
 - Lead development and delivery of materials and development of the outreach plan to educate multifamily property owners on available resources to drive energy savings for shared spaces and rental units

Project Management

Participate in coordination and tracking of scheduled check-ins, activities, and events

Memorandum of Understanding Implementation Phase

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

Single Points of Contact

All communications pertaining to this agreement shall be directed to Marianne Schilling, on behalf of the City of Wheat Ridge, and David Hueser, on behalf of Xcel Energy.

Legal Applicability and Waiver

This is a voluntary agreement and not intended to be legally binding for either party. This Memorandum of Understanding has no impact, nor does it alter or modify any existing Franchise Agreement or other existing agreements between Xcel Energy and the City. Parties agree that this Memorandum of Understanding is to memorialize the intent of the Parties regarding Partners in Energy but does not create a legal agreement between the Parties. It is agreed by the Parties that nothing in this Memorandum of Understanding will be deemed or construed as creating a joint venture, trust, partnership, or any other legal relationship among the Parties. This Memorandum of Understanding is for the benefit of the Parties and does not create third party rights. Nothing in this Memorandum of Understanding constitutes a waiver of Wheat Ridge's ordinances, Wheat Ridge's regulatory jurisdiction, or Colorado's utility regulatory jurisdiction.

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

5

For the City of Wheat Ridge: Signature:	Signature: Mame: Patrick Gott Name: Patrick Gott Title: Date: Date: Signature: Hollie Velasquez Horvath Name: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019		XCEL ENERGY PARTNERS IN EN Memorandum of Understo Implementation
Signature:	Signature: Marne: Pate: Bate: For Xcel Energy: Signature: Hollie Velasquez Horvath Title: Director, Community Relations Date: 2/8/2019	For the City of Wheat Ridge:	
Name: Patrick Gott Title: CHY Manger Date: 2-5-19 For Xcel Energy: Signature: Hollie Velasquez Horvath Name: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019	Name: Patrick Gat Title: Cat Date: 25:14 For Xcel Energy: Signature: Signature: Hollie Velasquez Horvath Name: Hollie Velasquez Horvath Title: Director, Community Relations Date: 2/8/2019	On Hard	
Title: Date: For Xcel Energy: Signature: Signature: Name: Hollie Velasquez Horvath Title: 2/8/2019	Title: Cut Manuger Date: 25.19 For Xcel Energy: Signature: Hollie Velasquez Horvath Name: Hollie Velasquez Horvath Title: Director, Community Relations Title: 2/8/2019	Signature: Status Off	
Date: 25-19 For Xcel Energy: Signature: Add Add Add Add Add Add Add Add Add Ad	Date:	Name: Patrick Goff	
For Xcel Energy: Signature: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019	For Xcel Energy: Signature: Hull: Name: Hollie Velasquez Horvath Title: Director, Community Relations Date: 2/8/2019	Title: City Manager	
For Xcel Energy: Signature: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019	For Xcel Energy: Signature:	259	
Signature: Hollie Velasquez Horvath Title:	Signature: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019		
Name: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019	Name: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019 2	For Xcel Energy:	
Name: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019	Name: Hollie Velasquez Horvath Title: Director, Community Relations 2/8/2019 2/8/2019	Signature: Hold Abuard	
Title: Director, Community Relations	Title:		
2/8/2019	Date:2/8/2019	Director Community Deletions	
Date:	Date:		
	6	Date:	
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
	6		
			6