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PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

An Energy Action Plan for

City of Northglenn

October 2019

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City of Northglenn Planning Team

Acknowledgements

The planning team was formed from a varied group of city and county staff, local and regional organizations, local businesses, and committed community members. Thanks to the following organizations and individuals for participating in developing this Energy Action Plan.

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Executive Summary

This Energy Action Plan outlines tangible steps for the City of Northglenn to move the community toward its energy efficiency and resiliency goals. Xcel Energy Partners in Energy facilitated a series of workshops with the Energy Action Planning Team (planning team), starting in the spring of 2019, to develop this plan. The planning team included representatives from Northglenn's municipal operations, planning, economic development, and communications departments, as well as the school district, the county health department, United Power, and local community stakeholders.

Our Starting Point

The baseline energy use and costs for Northglenn are based on 2017 data to align with the Sustainability Plan completed in 2018 and greenhouse gas inventory completed in 2019. In 2017, Northglenn's energy profile includes the following:

- 190+ GWh of electricity consumed
- 10.8 million therms of natural gas consumed
- $24.4 million spent community-wide on energy

Our Vision

The Northglenn community will conserve its resources and promote sustainability through energy awareness, renewable sources, and collaboration to provide an exceptional quality of life and resilient future for residents and businesses.

Our Goals

The City of Northglenn aspires to achieve the following energy goals:

- Connect with 7,000 residents (half of premises) to double participation (2,024 total participants) in Xcel Energy programs over 2017 baseline in the next year.
- Achieve community-wide residential energy savings of 1% annually over 2017 baseline over the next year.
- Connect with 400 businesses and engage 115 (15 new participants) in Xcel Energy programs over 2017 baseline in the next year.
- Achieve community-wide commercial energy savings of 2% annually over 2017 baseline for the next 3 years.
- Reduce average municipal facility energy use intensity (EUI) by 5% in the next 3 years
- Add 250 kW of renewable energy in Northglenn by 2025

Our Actions

To move toward its goals, the City of Northglenn's planning team identified strategic initiatives and targets for three important focus areas and a cross-cutting theme that touches all three focus areas. These focus areas and strategic initiatives are the working elements of the Energy Action Plan and will generate measurable impacts. The focus areas are shown in the table below.

Residences	**Strategies:** • Communications Campaign • Home Energy Squad® Buy-Down
Commercial/Small Businesses	**Strategies:** • Business Education & Awareness • Property Managers/Owners Education & Awareness • Incentive Program
Municipal Leadership	**Strategies:** • Education & Awareness Campaign • Building Energy Teams • High-Efficiency Equipment Installations • Building Benchmarking
Cross-Cutting Theme	**Renewable Energy Strategy** • Solar Bulk Purchase Program

Our Impact

By reaching this plan's near-term targets in 2020-2021, Northglenn will:

- Save over 3.8 GWh of electricity
- Increase overall efficiency rebate program participation by 100%
- Save 2,582 MT CO_2e - equivalent to taking 548 vehicles off the road![1]

[1] EPA Greenhouse Gas Equivalencies Calculator, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator (2019)

Introduction

In 2018, the City of Northglenn developed its first Sustainability Plan that established a long-term vision and goals for the community in the areas of arts, culture, and events; community education and civic engagement, sustainable economy, environment and public health, housing, and human dignity, open space and land use, resource conservation, and transportation. The Partners in Energy planning process was an opportunity to take a closer look at energy conservation at the municipal and community levels and to develop priorities and strategies to increase conservation and raise awareness about energy use and renewable energy options. These two plans work in tandem for the City of Northglenn and demonstrate the collaboration necessary among the City and its utilities to achieve shared goals.

The community's main energy priorities are outlined below:

- Raise awareness about energy efficiency and renewable energy in all sectors
- Address energy use in older building stock throughout the City
- Lead by example at the municipal level to demonstrate what is possible and necessary to achieve long-term energy and sustainability goals
- Create resiliency among residents and businesses, as well as municipal facilities, through conservation and renewable energy options

This plan begins with documentation of the Xcel Energy Partners in Energy planning process, an overview of the City of Northglenn's demographics, and the community's baseline energy use and profile. Next it introduces the energy vision, supporting energy focus areas, and community goals. Each focus area contains strategies that define more specific direction for the coordination, steps, and timelines necessary to achieve the goals. Finally, the plan concludes with information about ongoing plan monitoring and maintenance.

Xcel Energy Partners in Energy

Xcel Energy is the main electric and gas utility serving the City of Northglenn. In the summer of 2014, Xcel Energy launched Partners in Energy to support communities, such as the City of Northglenn, 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 a planning team committed to representing local energy priorities and implementing plan strategies, following the process provided by partners in Energy (Figure 1) and implementing plan strategies.

Partners in Energy will work with the City of Northglenn to coordinate support for implementing the plan and will develop a Memorandum of Understanding that outlines specific support Xcel Energy will provide to help Northglenn deploy its strategies and achieve its goals. Typical resources provided to communities during implementation are summarized in Figure 2.

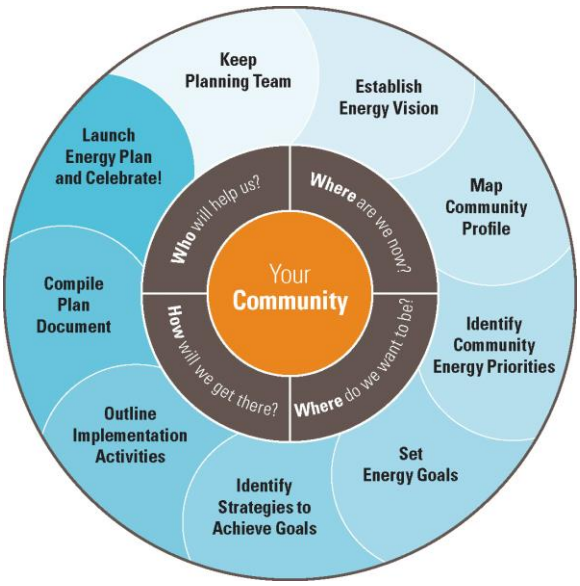

Figure 1. Partners in Energy Process for Success

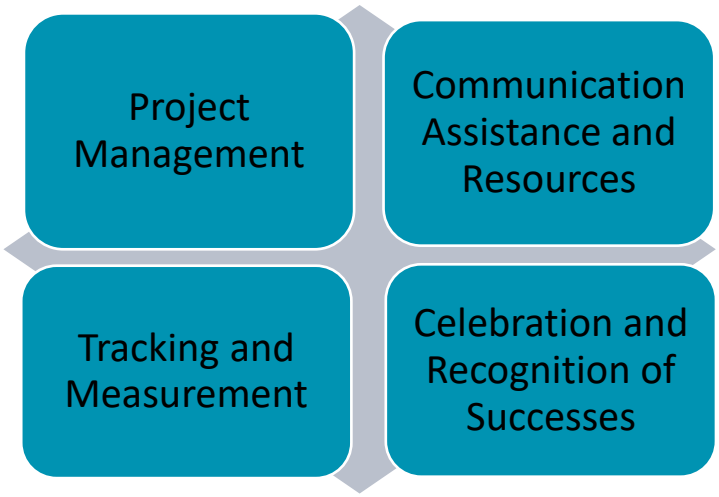

Figure 2. Resources from Xcel Energy for Implementation

Who Are We? – Community Background

The City of Northglenn was founded in 1969, after several years of dedicated residents working to incorporate the city. The City saw significant growth in the late 1970s as many city services were established and has seen steady growth in population and businesses since then. The City of Northglenn is strategically located north of the Denver-metro area along Interstate 25 and two dynamic business corridors.

Geography and Energy Utilities

The City of Northglenn is 6.45 square miles of urban area located in Adams County, with an additional 1 square mile of rural area located 7 miles north in Weld County. The rural square mile is the site of the City's Wastewater Treatment Plant (see Figure 3). Cities surrounding Northglenn include Westminster, Thornton, and Federal Heights.

There are four City Council wards in the City of Northglenn, with two representatives from each ward (see Figure 4)[2]. The mayor represents the community at large.

[2] City Wards Map of Northglenn, CO. https://www.northglenn.org/government/city_council/index.php

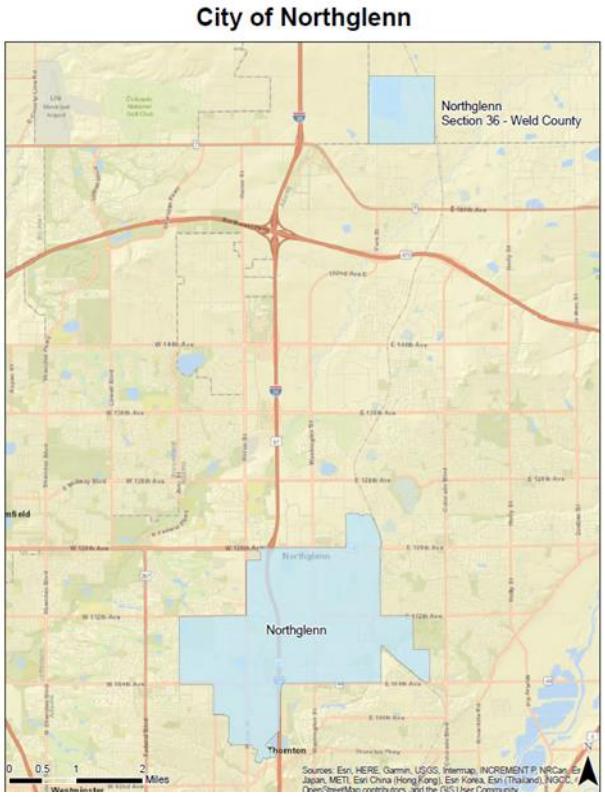

Figure 3: City of Northglenn Boundary

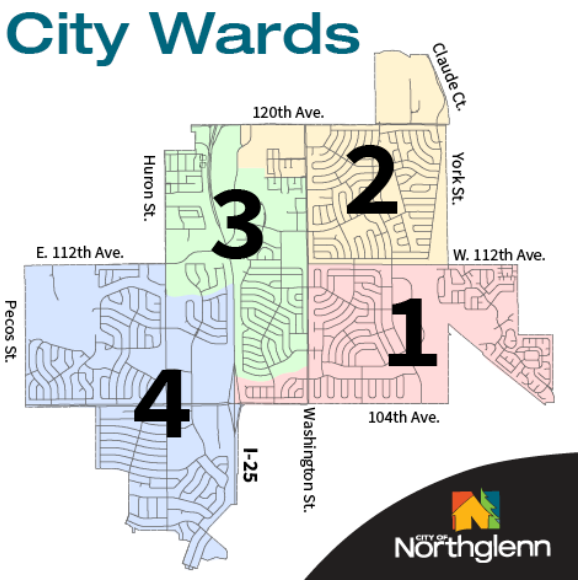

Figure 4: City of Northglenn Ward Districts

Xcel Energy provides natural gas to the entire Northglenn community and electricity to the urban area. United Power provides electricity to the rural square mile in Weld County. This Energy Action plan focuses on sharing energy efficiency and renewable energy information with the community regardless of utility service territory; however, specific goals and targets focus on participation in Xcel Energy's programs and will be coordinated with United Power programs as applicable.

Population and Demographics

The Colorado State Demography Office estimates the population of Northglenn was 38,905 in 2016[3], representing an 8 percent growth rate over the previous 7 years[4]. Northglenn is not expected to see significant growth over the next 5 years, with an estimated 0.5 percent growth rate[5]. Energy use is expected to follow this trend. The median age in Northglenn is 34, less than the state average of 36.5.[4] Most of the population (86.3 percent) is under the age of 65, with a third of the population under the age of 25.[4] This shows the potential for growth in future years as the young population comes of home-buying age. Many first-time home buyers are also moving in to Northglenn, contributing to the younger demographic.

[3] City of Northglenn Demographics. https://www.northglenn.org/residents/about_northglenn/demographic_information.php
[4] U.S. Census Bureau, Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2016. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2016_PEPANNRES&prodType=table
[5] Northglenn ESRI Community Profile

The majority of Northglenn identifies as white, at 61.2 percent of the population, and is becoming increasingly diverse – 32.5 percent identify as Hispanic or Latino, 2.4% as Asian, 2.1 percent as other, 1.6 percent as Black, and less than 0.5 percent as Native American or Alaskan Native.[2]

The median household income in Northglenn is $57,354[4], less than the state average of $65,458[6]. Energy savings and the corresponding cost savings to residents is a meaningful target for greater resiliency in the community, especially for households with a high energy burden compared to their income.

Housing

As of 2016, Northglenn has an estimated 14,161 housing units, with 68.2 percent of those being single family homes, including duplexes, with the remainder being multifamily housing ranging from 2 to more than 50 units.[7] The majority (59.4 percent) of Northglenn's homes were built between 1960 and 1979. A breakdown of the ages of Northglenn's housing stock is provided in Table 1.[6]

Owner-occupied homes make up 55.7 percent of homes, with renters occupying another 41.5 percent.[6] Because renters typically are not responsible for energy efficiency upgrades in their units, this population will require different outreach tactics and presents opportunities to engage property managers and multifamily building owners.

Table 1: Age of Northglenn Housing Stock

Year Built	Percent of Units
2000 - 2014	13.7%
1990 – 1999	12.8%
1980 – 1989	7.7%
1970 – 1979	19.1%
1960 – 1969	40.3%
1950 or earlier	6.4%

Business and Economy

Northglenn's unemployment rate was estimated to be 4.2 percent in 2018[4], slightly higher than the state-wide average of 3.6 percent[8]. The top industries are services (40.5 percent); retail trade (19.6 percent); finance, insurance, real estate (13.1 percent); and construction (8 percent)[9].

There are just under 1,000 businesses in Northglenn and the City experienced growth in capital, new jobs, new businesses, and tax revenue in 2018. Northglenn also has a strong Urban Renewal Authority (NURA) that promotes private development and redevelopment and commercial related improvements.[10] This growth provides opportunities for new builds and additions to incorporate energy efficiency into their designs.

Commitment to Sustainability (Values and Beliefs)

The City of Northglenn adopted its first city-wide sustainability plan in 2018 to create a process for bringing a sustainability lens to all future work plans. Recognizing the opportunity to create jobs and benefit all

[6] U.S. Census Bureau, 2013 – 2017 American Community Survey 5-Year Estimates. https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml
[7] ESRI – ACS Housing Summary for Northglenn City, CO
[8] Bureau of Labor Statistics, Colorado Economy at a Glance, https://www.bls.gov/eag/eag.co.htm
[9] ESRI – Business Summary for Northglenn City, CO
[10] City of Northglenn, 2018 Economic Development Year in Review. https://www.northglenn.org/Departments/ED/Year%20In%20Review/ED_Year_in_Review_web.pdf

residents, as well as the threats posed by increasing demands on natural, human, and social resources, Northglenn aims to build a sustainable community.

The Case for a Community Energy Action Plan

This Energy Action Plan supports the energy resource conservation goals set in the sustainability plan by providing supporting data for the energy goals and targets, as well as developing actionable strategies that will have the greatest impact on the community. Northglenn chose to take part in the Partners in Energy process to understand where the community currently uses energy and to identify opportunities to reduce energy use.

Where Are We Now? – Baseline Energy Analysis

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 Northglenn by source (electricity, natural gas) and sector (residential, commercial, and municipal). Three years of data were used for the analysis (2016-2018), and 2017 was established as the baseline year for this plan to match with the City of Northglenn's greenhouse gas inventory. Electricity data analysis also included United Power data for the rural portion of Northglenn.

Community Energy Use

Based on aggregated utility data provided by Xcel Energy and United Power, in 2017 the City of Northglenn had 15,758 residential, commercial, and municipal premises (see Figure 5). A premise is a unique identifier for the location of electricity or natural gas service. In most cases, it is a facility location. This total includes premises served by electricity, natural gas, or both. Over 90 percent of premises in Northglenn are residential (14,359).

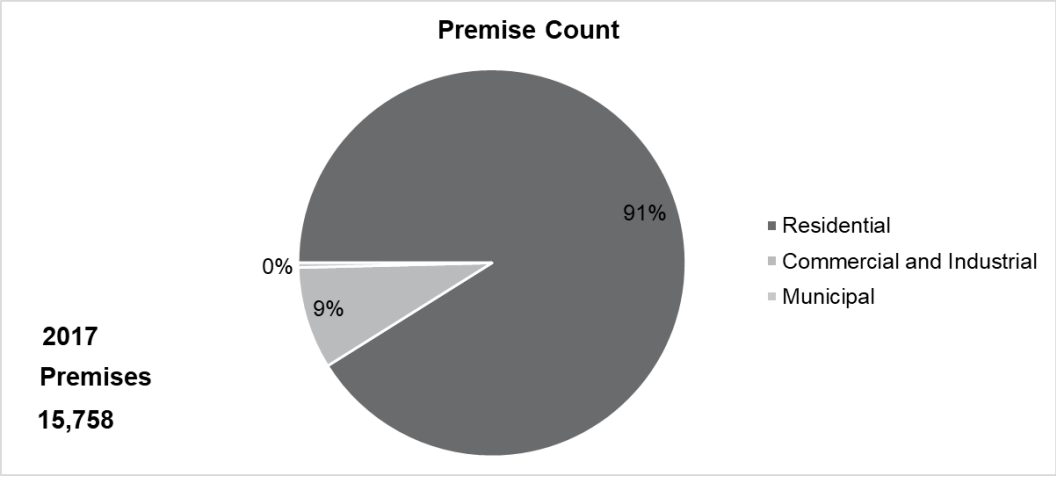

Figure 5: Northglenn Premise Count

Residential premises account for 61 percent of total energy consumption in Northglenn (Figure 6) and 59 percent of energy costs (Figure 7). Although commercial and industrial premises only account for 9 percent of total Northglenn premises, this sector makes up 37 percent of total energy consumption and 37 percent of total energy costs. Municipal premises make up only 0.4 percent of the premise count but are 2 percent of consumption and 4 percent of costs.

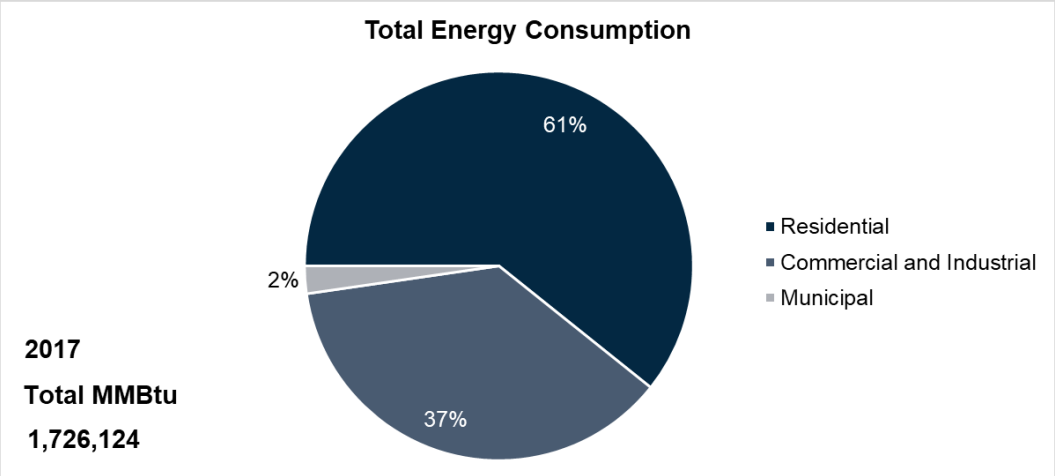

Figure 6: Northglenn Total Energy Consumption

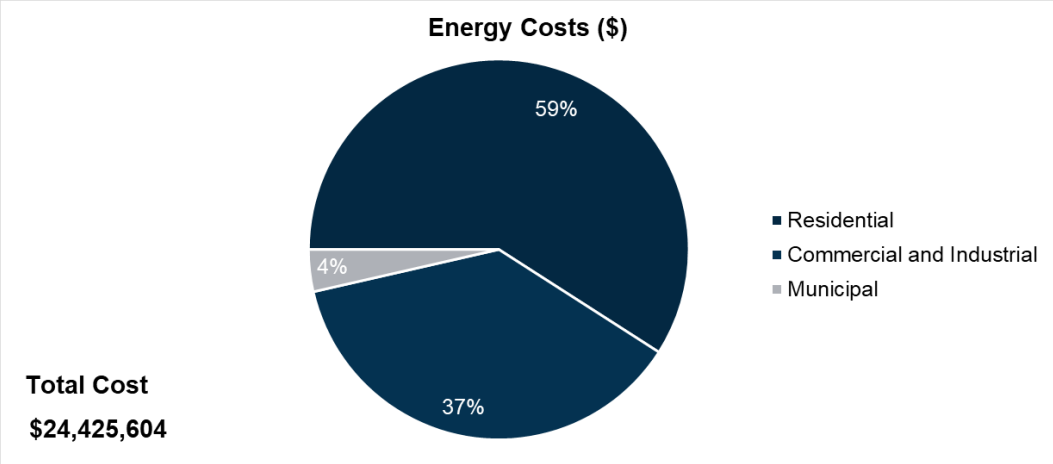

Figure 7: Overall Energy Costs

The bulk of energy costs are spent on electricity across all sectors, as shown in Figure 8, which also shows the natural gas costs across all sectors. Although municipal facilities make up a small portion of the total energy costs, they have the highest annual cost per premise, illustrating opportunities for savings in this sector.

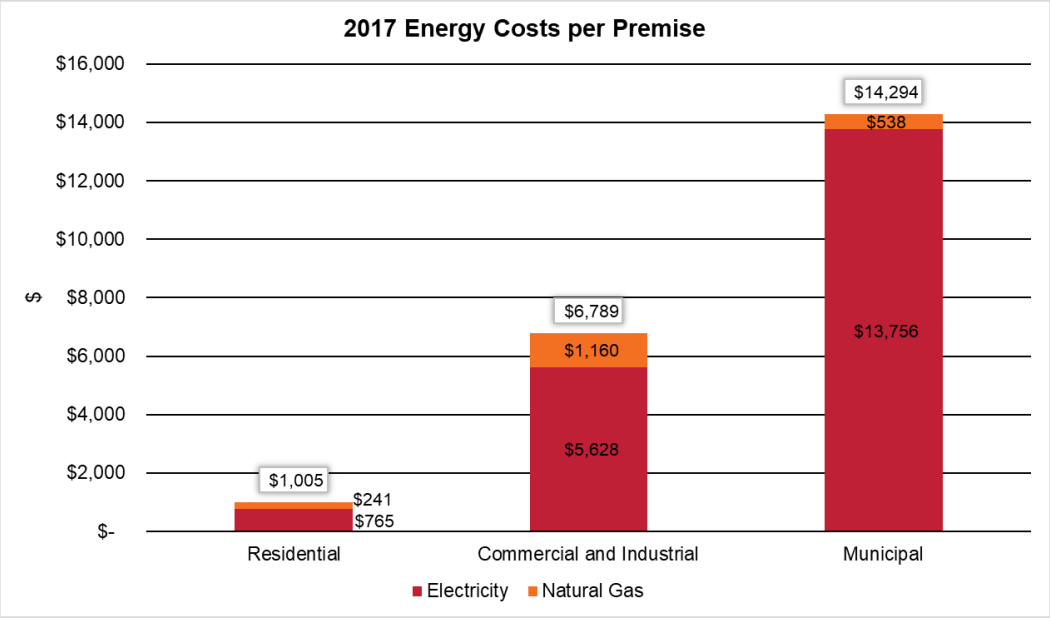

Figure 8: Energy Costs per Premise

In total, approximately 190 million kilowatt-hours (kWh) of electricity and 10.8 million therms of natural gas were consumed by residents, businesses, and municipal facilities in Northglenn in 2017. The residential sector consumed the majority of the electricity, accounting for 105 million kWh (55 percent), while the commercial sector consumed 76.6 million kWh (40 percent), and the municipal sector consumed 8.9 million kWh (5 percent) (see Figure 9).

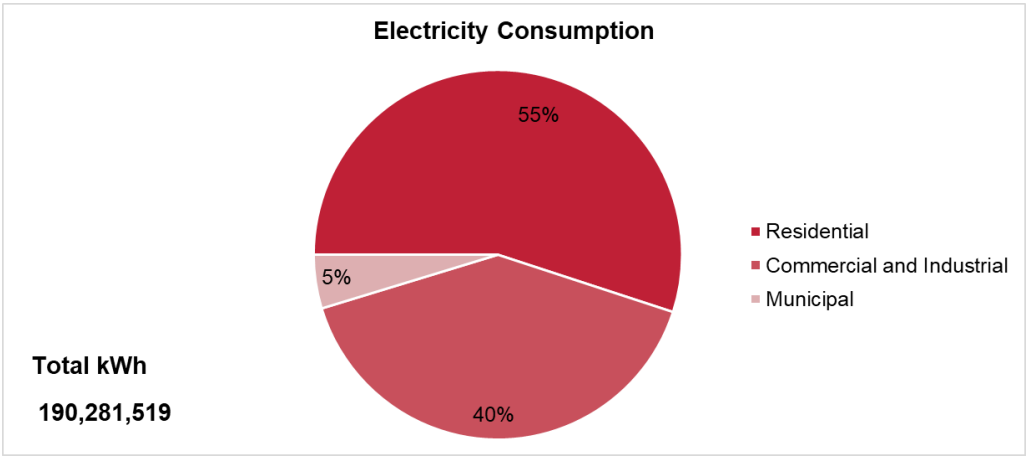

Figure 9: Electricity Consumption by Sector

Natural gas was primarily consumed by the residential sector, accounting for 6.9 million therms (64 percent), while the commercial sector consumed 3.8 million therms (35 percent), and the municipal sector consumed 0.09 million therms (1 percent).

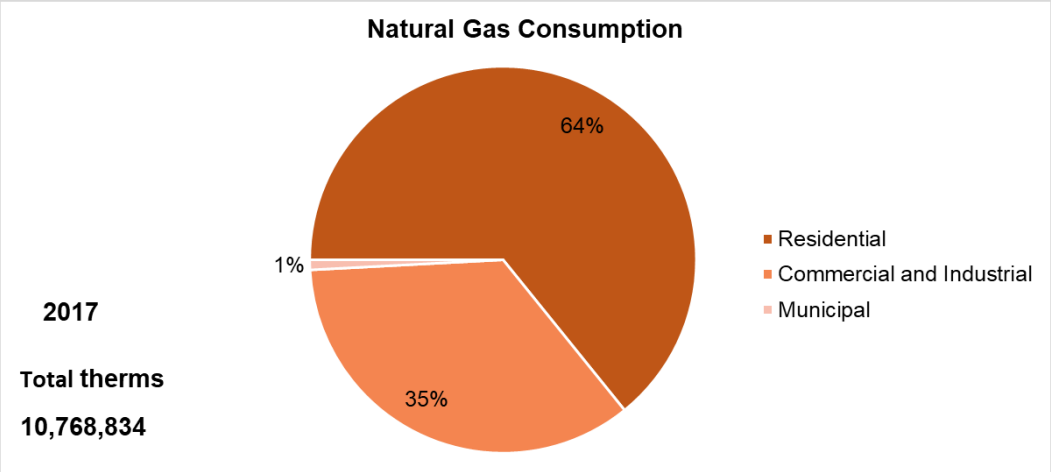

Figure 10: Natural Gas Consumption by Sector

The municipal sector energy use breakout is shown in Figure 11. The majority of municipal energy consumption is electricity, at 77 percent.

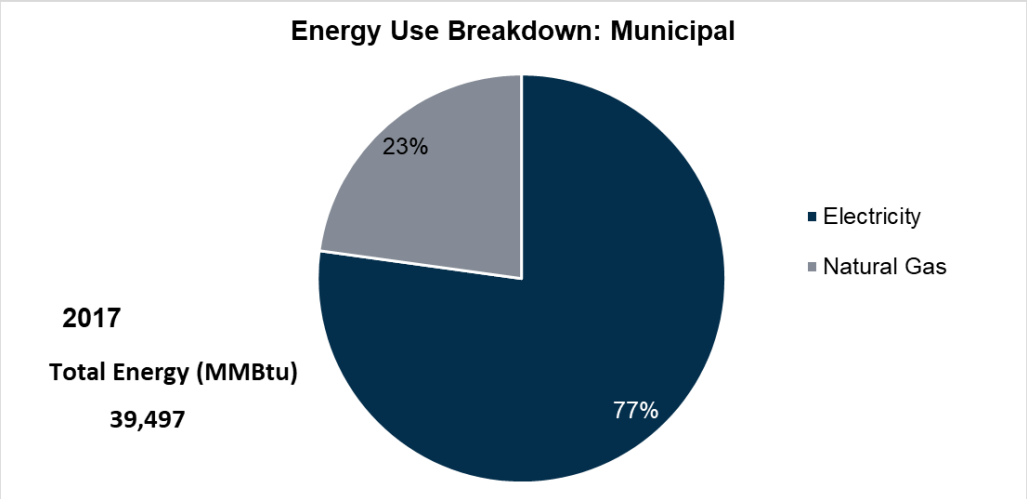

Figure 11: Municipal Energy Consumption

Community Energy Trends

Overall energy consumption in Northglenn increased by 3.6 percent from 2016 to 2018 with a very slight increase in premises (0.13 percent). The residential sector showed the largest increase (4.6 percent) (see Figure 12). This increase may be related to weather, as both the number of heating degree days (HDD) and cooling degree days (CDD) increased in 2018 compared to the previous 2 years. A summary of premise, electricity, natural gas, and total energy trends by sector is provided in Table 2. In 2017, the City added a new justice center and a new headworks facility at the wastewater treatment plant, which

contributes to the increase in natural gas usage and total energy. Electricity may have decreased due to improved efficiency when these facilities were upgraded.

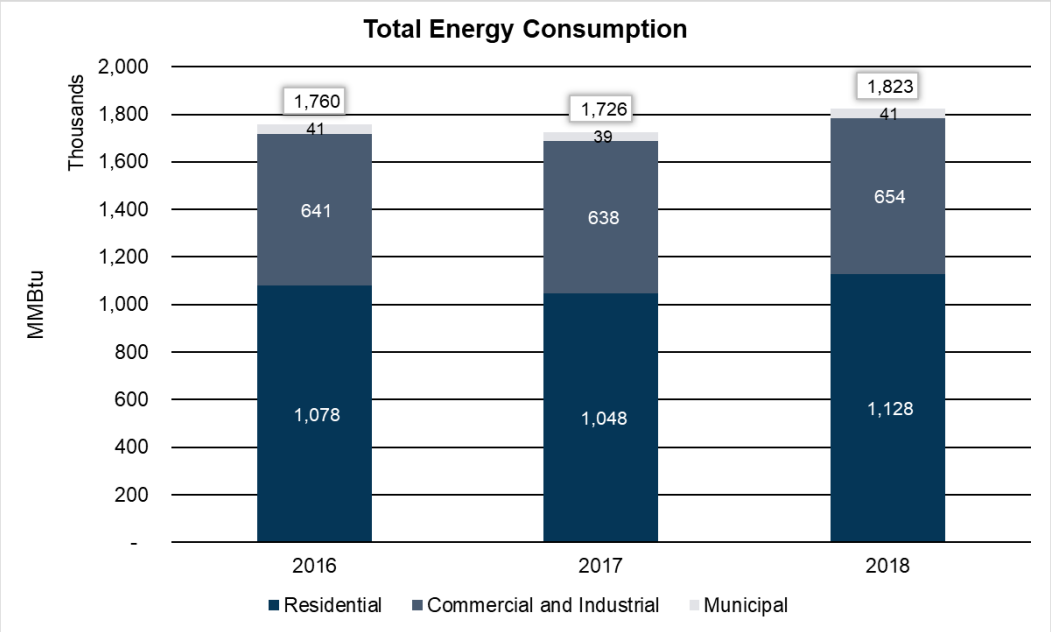

Figure 12: Total Energy Consumption Trends

Table 2: Summary of Energy Trends

Trends (2016 - 2018)	Premises	Electricity	Natural Gas	Total Energy
Residential	0.09%	-0.20%	7.06%	4.58%
Commercial & Industrial	0.52%	-2.99%	5.69%	2.13%
Municipal	1.67%	-1.77%	16.87%	1.95%
Overall	**0.13%**	**-1.38%**	**6.66%**	**3.63%**

Electricity use in Northglenn has decreased slightly (1.4 percent) since 2016. Most of this decrease has come in the commercial and industrial sector, with a 3 percent decrease (see Figure 13).

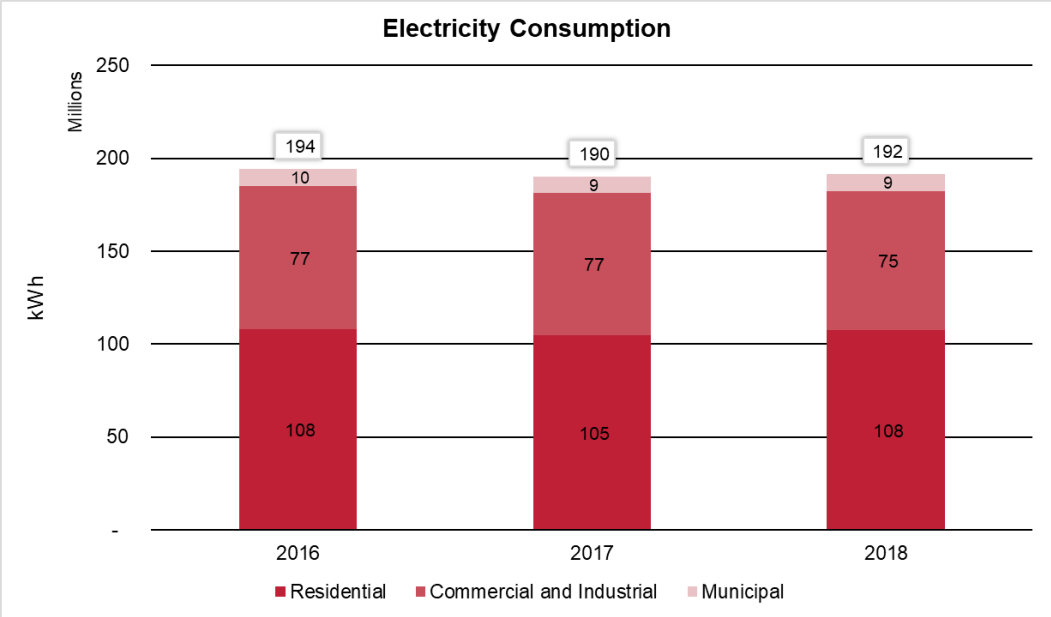

Figure 13: Electricity Consumption Trends

Natural gas use has increased by 6.7 percent since 2016, with the largest increase in the municipal sector (17 percent) (see Figure 14). This increase may be related to weather conditions. As previously mentioned, there was a 12 percent increase in cooling degree days from 2016 to 2018, indicating an increased need for heating typically supplied by natural gas. Further, a new administration building and headworks facility at the wastewater treatment plant were added in 2017, contributing to the municipal increase from 2017 to 2018.

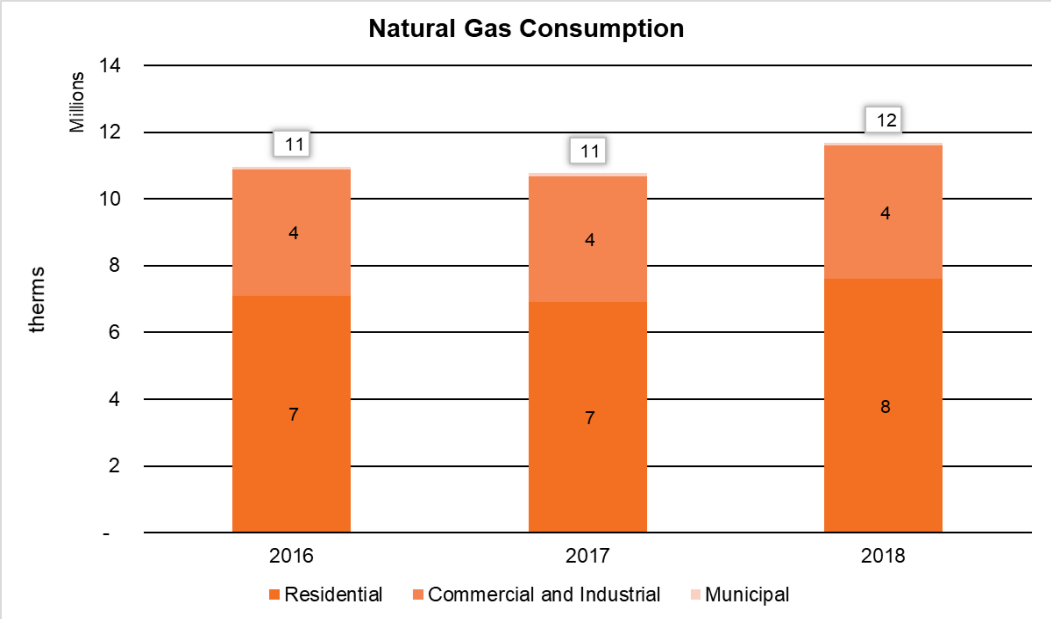

Figure 14: Natural Gas Consumption Trends

Greenhouse Gas Emissions

Community-wide greenhouse gas (GHG) emissions are expressed as metric tons of carbon dioxide equivalent ($MTCO_2e$). GHG emissions in this plan are calculated from electricity and natural gas consumption data provided by Xcel Energy and United Power but use only Xcel Energy emissions factors. The 2018 emissions by sector are shown in Figure 15 and trends are shown in Figure 16.

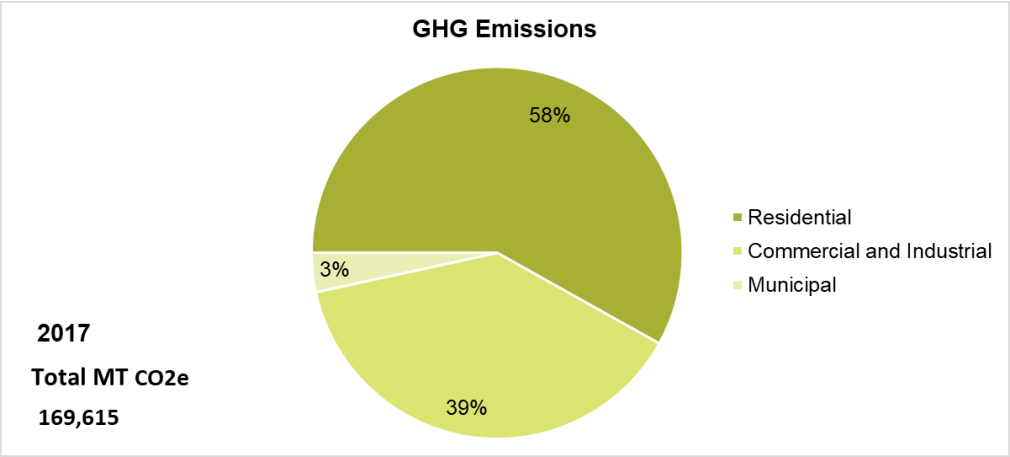

Figure 15: GHG Emissions

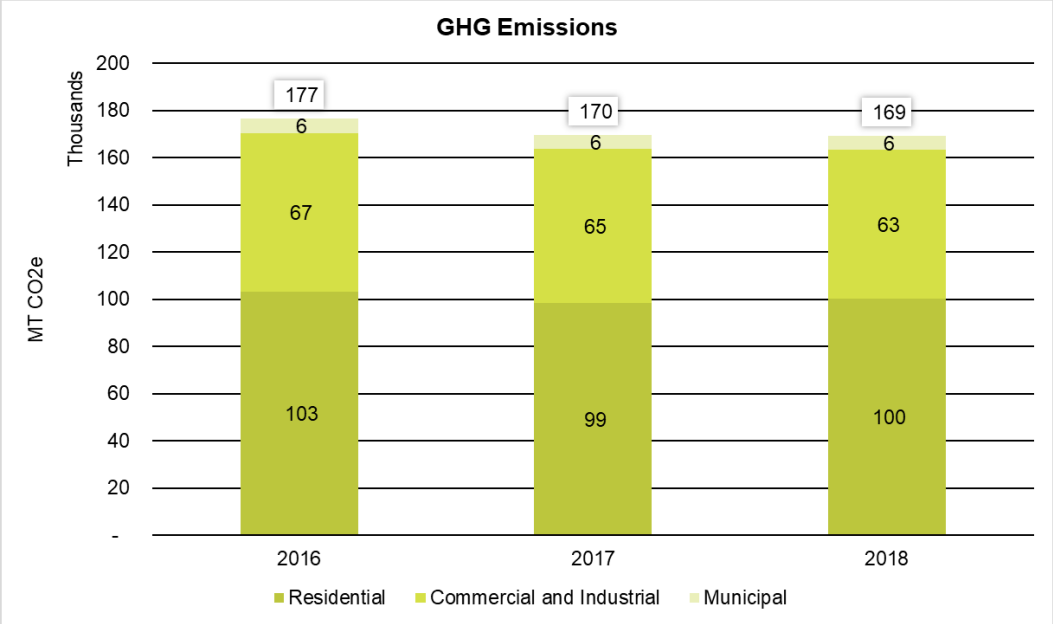

Figure 16: GHG Emissions Trends

Efficiency Program Participation

Part of the community energy profile includes historic demand-side-management (DSM) program participation and energy savings for the residents and businesses of Northglenn. These data provide a snapshot of what programs customers are using and to what degree. The data also show opportunities for greater participation in the available programs and the need for increased education and awareness.

Figure 17 shows the average participation in Xcel Energy DSM programs from 2016 to 2018. In 2018, about 8 percent of residential premises participated in these programs, saving nearly 300,000 kWh and over 20,000 therms. This equates to an average annual cost savings of $32 per participating residence.

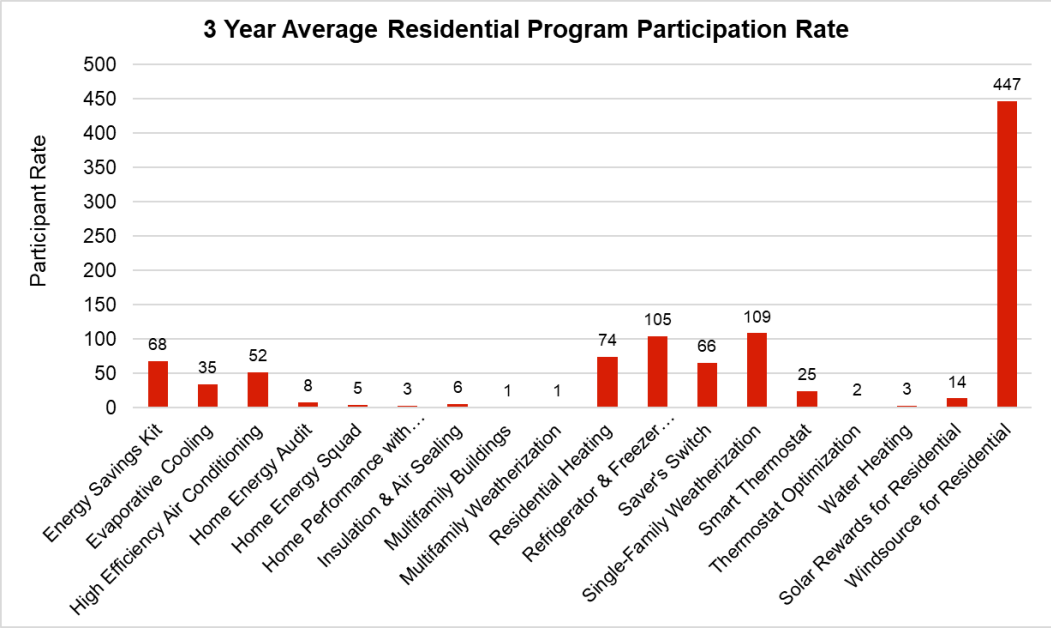

Figure 17: Residential DSM Program Participation, 3-year Average

Figure 18 shows the average commercial and industrial participation in DSM programs from 2016 to 2018, including municipal facilities. In 2018, about 3 percent of commercial and industrial premises participated in DSM programs, saving 1.7 million kWh. This equates to an average annual cost savings of nearly $3,500 per participating customer.

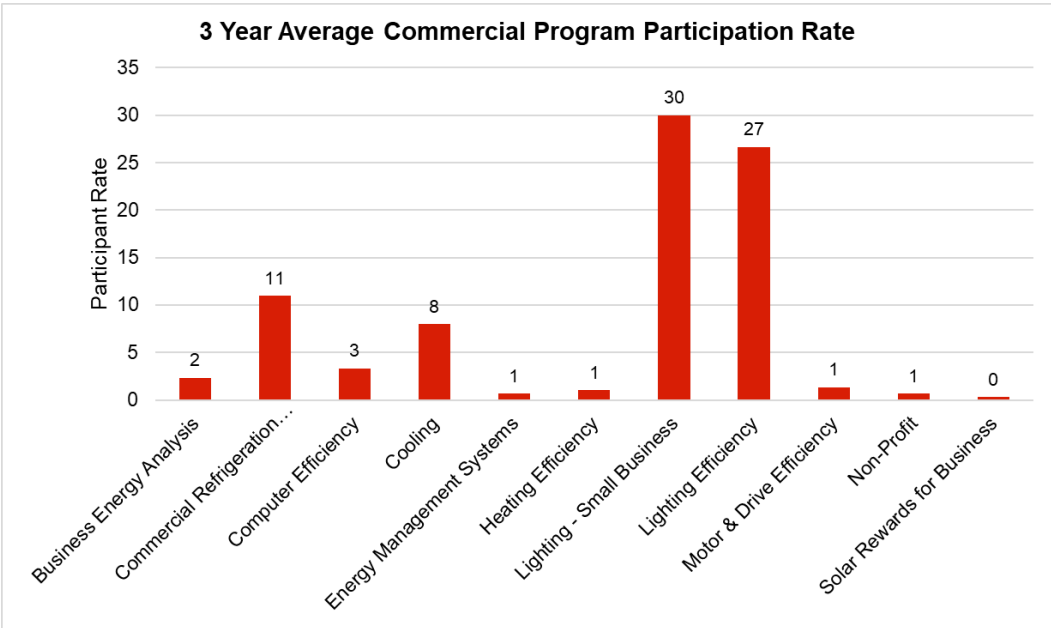

Figure 18: Commercial DSM Program Participation, 3-year Average

Overall participation across both sectors has increased from 2016 to 2018, as shown in Figure 19, with the gains primarily being in the residential sector.

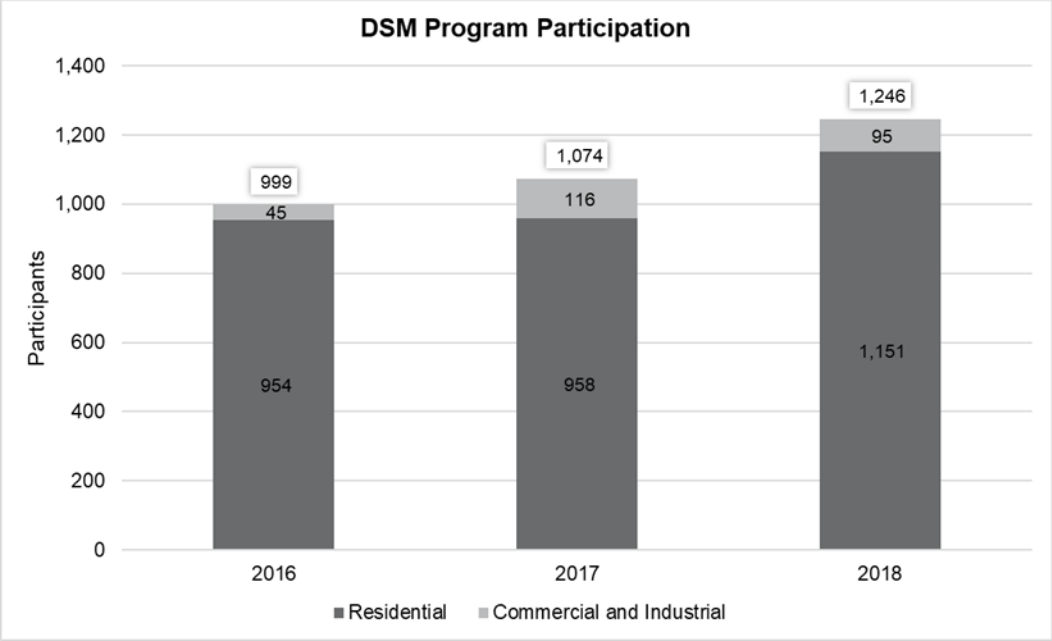

Figure 19: DSM Program Participation Trends

Existing Energy Practices

Table 3. Community Energy Initiatives

Community Energy Initiatives
• Wastewater Treatment Plant – upgraded lighting to LEDs • New City Recreation Center using Xcel Energy new construction programs • Community outreach campaign for LED lighting • Updating energy codes to 2018 IECC (tentative adoption by end of 2019)

Local Outreach and Communication Channels

Engaging the community is critical to reaching the Energy Action Plan goals. Below are some of the ways that Northglenn residents and businesses currently receive information. These communication channels will be helpful during implementation efforts.

Table 4. Local Outreach

Local Outreach Channels
Communications
• City of Northglenn Connection
• City of Northglenn Facebook & Twitter pages
○ Official City Page
○ Economic Development
• City of Northglenn events webpage
• Channel 8
• Economic Development E-Newsletter
• North Metro Chamber of Commerce newsletters
• Adams County Economic Development newsletter
• Press releases
• Targeted emails from Xcel Energy
• Nextdoor
• Tri-County Health Department
• Northglenn/Thornton Sentinel (ads)
Events
• Food Truck Carnival
• 4th of July Festival
• Red, White, and Blue BBQ Cook-Off (tentative)
• Summer Concert Series
• National Night Out
• Canal Clean-up – volunteer event
• Magic Fest
• Noel Northglenn
• Senior Center events
Community Spaces for Collateral Distribution
• Anythink Libraries
• Northglenn Recreation Center / Senior Center
• Adams County school district

Figure 20. Northglenn Connection Monthly Newsletter

Where Do We Want to Go?

Our Energy Vision

During the first planning workshop, team members reviewed the sustainability plan vision statement and brainstormed words and phrases that express the Northglenn community's energy intentions and values. From this brainstorming session, the stakeholder group provided feedback on three draft vision statements to narrow to a single vision statement, shown below:

> ***The Northglenn community will conserve its resources and promote sustainability through energy awareness, renewable sources, and collaboration to provide an exceptional quality of life and resilient future for residents and businesses.***

The Northglenn planning team chose to realize this vision by focusing on three key areas based on the needs of the community: residences, commercial and small businesses, and municipal facilities, with the cross-cutting theme of renewable energy.

How Are We Going to Get There?

Focus Areas and Goals

Northglenn will work to achieve its energy vision by establishing ambitious but achievable goals and implementing strategies across three focus areas: residences, commercial/small businesses, and municipal facilities. Across these focus areas, Northglenn will also work to achieve renewable energy targets in the community.

In 2018, the City of Northglenn developed the city's first Sustainability Plan, which has 9 goal areas, one of which is resource conservation for which several energy goals were identified:

- Reduce community-wide residential energy use by 15% by 2025
- Reduce community-wide commercial energy use by 15% by 2025
- Reduce municipal energy use by 25% by 2030

The Energy Action Team used these goals as a starting point to develop the Energy Action Plan goals for each focus area. The Energy Action Plan goals are intended to be achievable within the Partners in Energy timeframe of 2 years and will propel the community toward its longer-term Sustainability Plan goals.

During workshops, the stakeholder team reviewed and discussed the current status of each of the three focus areas and what successful implementation of the Energy Action Plan would look like. Historic program participation was used to aid in goal setting and strategy development for each focus area, along with the workshop discussions. The goals and accompanying strategies for each focus area are outlined in the following sections.

Focus Area 1: Residences

The residential sector in Northglenn accounts for 91 percent of Xcel Energy premises, 55 percent of electricity consumption, and 64 percent of natural gas consumption. This customer group represents a significant opportunity to reduce energy consumption and save money in Northglenn by impacting how residents view and consume energy. The aging housing stock in Northglenn also represents a significant opportunity, as many homes are likely to realize savings through efficiency upgrades. The large number of multifamily housing units and proportion of renters present opportunities for savings for both building owners and tenants. Further, during the baseline year of 2017, 7 percent of residential premises participated in efficiency and renewable energy programs, representing considerable room for increased participation and engagement.

Historical Program Participation

Figure 17 shows the 3-year average participation rate in each of Xcel Energy's residential efficiency and renewable programs. In 2017, there were 958 participants, representing 7 percent of the residential premises in Northglenn. This participation resulted in a 0.4 percent energy reduction across the community. The planning team used this information to inform the residential focus area goals, primarily targeting increasing participation rates and overall community energy savings.

Goals

- ***Connect with 7,000 residents (half of premises) to double participation (2,000 total participants) in Xcel Energy programs over 2017 baseline in the next year.***
- ***Achieve community-wide residential energy savings of 1% annually over 2017 baseline for the next 3 years.***

Annual savings are an approximation based off the number of participants in each program and the savings associated with each program. The savings indicated are a percentage of the baseline year total energy savings for the residential focus area.

Strategies

Table 5: Residential Focus Area Strategy 1

Strategy 1: Residential Communications Campaign

Description

The primary focus of this strategy is to raise awareness and educate residents about their energy use and available programs for energy efficiency and renewable energy. This strategy will leverage existing channels of communications and events, along with city communications staff and Xcel Energy resources.

Scope

- Align with current Communications Department planning cycle (18 months)
- Identify what to communicate and desired actions around two initiatives:
    - Light up a Senior's Life
        - Connect high school students (Youth Commission) with seniors to help install give-away energy efficiency items in their homes and share other efficiency information that encourages:
            - Home Energy Squad® audits
            - Refrigerator recycling
            - Heating and cooling rebates
            - Xcel Energy Store
    - Ward/Building Adoption Challenge (3-6 months)
        - Assign a city building to each of the four wards for friendly challenge (City Hall, Recreation Center, Police Department, Maintenance & Operations)
        - Develop initiative that encourages:
            - Efficiency improvements in the buildings
            - Points for the ward for resident activities, such as:
                - Home Energy Squad audits
                - Refrigerator recycling
                - Heating and cooling rebates
                - Renewable energy options
            - Council-member engagement
            - Resident recognition two times each month during the challenge (Be like ___")
- Enlist trusted channels of communication
    - Light up a Senior's Life
        - Youth Commission
        - Northglenn High School liaison
        - Adams 12 liaison
        - Senior Center
        - Northglenn Connection
        - Faith communities
        - Channel 8 (for older residents who aren't as media savvy)
    - Ward/Building Adoption Challenge
        - Ward meetings and council members
        - Festivals (calendar of appropriate events)

        - Nextdoor
        - Facebook
        - Healthy Eating Active Living (HEAL)
        - Instagram
        - Twitter
- Design campaign features
    - Light up a Senior's Life
        - Develop content and flyer for seniors with efficiency information and resources
        - Identify sources for installation items
        - Develop process for identifying students and seniors and connecting the two groups
        - Develop process for tracking installation and activities
        - Determine how to recognize efforts (students and seniors)
        - Share results community wide
    - Ward/Building Adoption Challenge
        - Identify and engage council members, ward liaisons, and building champions
        - Determine schedule such that winning ward can have summer picnic
        - Develop point system and process for self-reporting and tracking (pledges)
        - Develop process for recognizing actions (story telling)
        - Develop messaging content (social media, Northglenn Connection, Nextdoor, etc.)
        - Cross-post on all platforms on set schedule
        - Measure success and report out community wide

Responsible Parties

- Lead: Summer Nettles and Diana Wilson
- Other Responsible Parties:
    - Partners in Energy staff
    - City planning staff
    - Mayor/Council members
    - School district liaison
    - Senior Center liaison
    - Youth Commission liaison
    - Sustainability Committee
- Responsibilities:
    - Build communications campaign framework
    - Develop schedule
    - Outline materials
    - Develop content
    - Recruit champions and volunteers to deliver content and materials
    - Administer initiatives

Timeline

- Align with current 18-month Communications Department planning timeline to incorporate campaign
- Use the 4th quarter of 2019 to plan
- Be ready to deliver starting in 1st and 2nd quarters of 2020

- Report findings at end of each campaign

Outreach Channels

- City Communications Department
- School district
- Ward liaisons
- Building champions

Measurement

- Xcel Energy participation data
- Pledges and resident self-reporting process
- Youth service tracking
- Social media analytics
- Website analytics

Table 6: Residential Focus Area Strategy 2

Strategy 2: Home Energy Squad Buy-down

Description

This strategy focuses on identifying funding (either from City budget or through a grant) to offset or completely buy down the cost of a certain number of Home Energy Squad® standard or Plus visits for residents. As part of this strategy, a contract with the Home Energy Squad vendor will need to be executed. The City will leverage available marketing and communications channels to inform residents of the offering.

Scope

- Identify funding source to pay some or all of the fee for residents (between $50 and $150 depending on standard or Plus option) (up to a certain number or amount) to encourage Home Energy Squad participation
- Contract with Xcel Energy Home Energy Squad vendor to track and pay for visits
- Develop marketing strategy to let residents know about the opportunity as part of communications campaigns for Light up a Senior's Life and Ward/Building Challenge
- May address low-income residents only or first-come first-served

Responsible Parties

- Lead: Becky Smith
- Other Responsible Parties:
    - Xcel Energy Home Energy Squad vendor
    - Partners in Energy staff
    - City communications staff
- Responsibilities:
    - Identify funding and timeline
    - Develop contract with Home Energy Squad vendor and method for payment and tracking
    - Develop outreach efforts
    - Track participation

Timeline

- Develop program in 2020
    - Target audience
    - Outreach
    - Tracking
    - Administration
- Identify outside funding or build into 2021 budget
- Begin marketing first quarter 2021
- Deliver through 2021 or until funding is exhausted

Funding

- To be identified as part of strategy execution

Partners

- Home Energy Squad vendor

- Xcel Energy

Outreach Channels

- Residential communications campaign

Measurement

- Number of Home Energy Squad participants taking advantage of buy-down opportunity

Focus Area 2: Commercial and Small Business

The commercial sector, including industrial facilities and both large and small businesses, makes up 9 percent of premises in Northglenn and accounts for 755 storefront businesses (based on Economic Development data). Despite the low percentage of premises, this sector represents 37 percent of all energy consumption in Northglenn, including 40 percent of electricity consumption, and 35 percent of natural gas consumption. The significant portion of energy consumption in this sector provides an opportunity for reduced energy use in the Northglenn community.

Historical Program Participation

Figure 18 shows the 3-year average participation rate in each of Xcel Energy's commercial efficiency and renewable programs over the last three years. The 3-year average participation rate is 85 participants, due to low participation in 2016. However, in 2017 and 2018, there were 116 and 95 participants respectively, representing approximately 9 percent of the commercial premises in Northglenn. This participation resulted in a 0.8 percent energy reduction across the community. The planning team used this information to inform the commercial and small business focus area goals, primarily focused on increasing participation rates and overall community energy savings.

Goals

- ***Connect with 400 businesses and engage 115 (15 new participants) in Xcel Energy programs over 2017 baseline in the next year.***
- ***Achieve community-wide commercial energy savings of 2% annually over 2017 baseline for the next 3 years.***

Annual savings are an approximation based off the number of participants in each program and the savings associated with each program. The savings indicated are a percentage of the baseline year total energy savings for the commercial and small business focus area.

Strategies

Table 7: Commercial & Small Business Strategy 1

Strategy 1: Businesses - Awareness, Education & Participation

Description

The primary focus of this strategy is to generate awareness through educating and encouraging businesses to participate in energy efficiency and renewable energy programs.

Scope

- Identify and promote success stories/case studies of businesses who have successfully reduced energy costs by utilizing energy efficiency and renewable energy programs and resources (website, Connection, business e-newsletter, social media, events etc.)
- Develop business sector specific marketing materials to inform businesses about efficiency for their business type using the Partners in Energy Small Business toolkit as a resource (e.g., restaurants, office space, etc.)
- Provide a table at the annual Business Appreciation Breakfast to educate businesses on energy efficiency and renewable energy opportunities
- Develop talking points for tenants to discuss energy efficiency upgrades with property managers and owners
- Determine if Tri-County health inspectors are able to distribute materials during inspections and provide them with Xcel Energy commercial refrigeration program flyers
- Educate other partnering agencies (Adams County Economic Development, Metro North Chamber of Commerce, Small Business Development Center, etc.) about available Xcel Energy resources and programs

Responsible Parties

- Lead: Shannon Fields (Northglenn Economic Development)
- Other Responsible Parties:
    - Annemarie Heinrich (Tri-County Health)
    - Partners in Energy staff
    - Communications staff
- Responsibilities:
    - City of Northglenn:
        - Provide information to businesses to promote energy programs and resources (through City communication channels, Design Review Committee, business packets, etc.)
        - Identify and develop success stories/case studies to promote energy efficiency and renewable energy
    - Tri-County Health
        - Request that inspectors distribute information to restaurants
        - Provide inspectors with collateral
    - Partners in Energy Staff
        - Develop co-branded collateral for distribution via all channels
        - Support success stories/case study development

Timeline

- Begin outreach to businesses and information sharing starting Q1 2020

- Determine potential success/case studies by Q2 2020
    - Malley Center – HVAC upgrades
    - Boondocks – Lighting and equipment upgrades
    - Future development projects (Civic Center, Karl's Farm, etc.)

Funding

- No additional funding required

Partners

- Tri-County Health
- Case study businesses

Outreach Channels

- Newsletters
- Economic Development Division
- Social Media & Website
- Northglenn Connection
- New & Business Retention/Expansion meetings
- Business Appreciation Breakfast
- Business Walks
- Design Review Committee
- Metro North Chamber of Commerce
- Adams County Economic Development
- Tri-County Health

Measurement

- Xcel Energy participation data
- Event participation/contacts
- Direct connections with businesses
- Attendance at Business Appreciation Breakfast

Table 8: Commercial & Small Business Focus Area Strategy 2

Strategy 2: Property Managers & Owners - Awareness, Education & Participation

Description

The primary focus of this strategy is to generate awareness through education and encourage commercial property managers and owners to participate in energy efficiency and renewable energy programs.

Scope

- Identify commercial property managers and owners for targeted outreach
- Develop talking points to discuss energy efficiency upgrades with property management and owners
- Share energy efficiency best practices and success/case stories demonstrating potential increased property value and marketability
- Provide a table at the annual Business Appreciation Breakfast to educate property managers and owners on energy efficiency and renewable energy opportunities

- Educate property managers and owners about CPACE for financing energy upgrades

Responsible Parties

- Lead: Shannon Fields (Northglenn Economic Development)
- Other Responsible Parties:
  - Partners in Energy staff
  - City communications staff
- Responsibilities:
  - Identify property managers and owners
  - Conduct outreach to generate awareness, educate and encourage energy efficiency and renewable energy participation

Timeline

- Develop list of property managers and owners to target by Q2 2020
- Identify potential success story to share by Q2 2020
  - Malley Center – HVAC upgrades
- Conduct outreach to property managers and owners starting in Q3/Q4 2020

Funding

- No additional funding required

Partners

- To be identified for case study development

Outreach Channels

- Economic Development Department
- Business Retention & Expansion meetings
- Targeted outreach to property managers and owners

Measurement

- Xcel Energy participation data
- Connections made with property managers and owners

Table 9: Commercial & Small Business Focus Area Strategy 3

Strategy 3: Explore City Incentives for Commercial Projects

Description

The City will explore opportunities for providing additional incentives to the commercial and industrial sector to support energy efficiency and renewable energy projects, including Xcel Energy DSM program participation, to increase impact over time, saving businesses money and reducing community energy use.

Scope

- Study municipal incentive programs in other communities to identify best practices and successful programs

- Identify or create with City constructs an ongoing funding source to support energy efficiency and renewable energy project buy-downs
- Based on cost and savings information from Xcel Energy (Appendix 3), develop a financially feasible and motivating process to incentivize commercial projects
- Prepare a policy proposal for adoption
- Present proposal during City Council work session and guide through to adoption
- Once adopted, develop an outreach effort to let community members know about the available incentives and the process for applying to receive them
- Include participant recognition to encourage more participation

Responsible Parties

- Lead: Brook Svoboda
- Other Responsible Parties:
    - Economic Development Department
    - City Manager
    - Partners in Energy staff
    - Communications staff
- Responsibilities:
    - Develop policy and process
    - Provide project information to support incentive guidelines and appropriate levels of support and documentation

Timeline

- Q1-Q2 2020: Conduct research
- Q2-Q3 2020: Develop proposed policy and program plan
- Q4 2020: Solicit Council approval
- Q1-Q2 2021: Implement communications and outreach
- Q3 2021: Launch and maintain program

Funding

- Ongoing funding source from within City budgets

Partners

- Xcel Energy

Outreach Channels

- Northglenn Connect
- Social media
- Economic Development channels
- City website

Measurement

- Number of applicants for City incentives
- Number of incentives awarded

Focus Area 3: Municipal Leadership

Although community facilities represent only 4 percent of energy use in Northglenn, there is an opportunity to lead by example within city facilities, schools, and parks and recreation facilities. Further, energy savings in these facilities has an impact on all Northglenn community members by enabling organizations to save taxpayer dollars.

Historical Program Participation

Community facilities program participation is included in commercial participation, as shown in Figure 18. There are about 61 total premises in the municipal facilities category, including facilities owned by the City of Northglenn. One of the largest municipal energy users, the City's wastewater treatment plant, receives electricity from United Power. The wastewater treatment plant has leveraged LED lighting rebates from United Power for upgrades to the facility.

The planning team chose to focus on reducing energy use across these facilities by tracking and reducing energy use intensity (EUI), or the energy used per square foot of a building, through employee education and awareness and energy-efficient equipment upgrades. This goal may be reassessed once a baseline EUI is developed to determine if the goal is still the appropriate level of feasibility.

Goal

- ***Reduce average municipal facility energy use intensity (EUI) by 5% in the next 3 years***

Strategies

Table 10: Municipal Focus Area Strategy 1

Strategy 1: Education & Awareness
Description
This strategy focuses on raising awareness and educating both City employees and residents about the City's participation in Partners in Energy and energy efficiency. This will be done through education and signage in City buildings, via the City employee intranet, and the City Manager report.
Scope
• Increase awareness of City's participation in Partners in Energy • Educate City staff on current use of energy and best practices to conserve energy • Challenge each facility to conserve energy through reward-based behavior and employee pledges • Deploy banners/signage in each building about energy use • Utilize NIC (employee intranet) to share information • Utilize biweekly City Manager report to share information
Responsible Parties

• Lead: Planning department staff will coordinate with the City Manager's office to get messages out
• Other Responsible Parties:
  ○ Communications Department
  ○ Leadership team
  ○ Sustainability Committee

- Staff Green Team (communicate energy savings to community; get the word out to City employees)
- Finance department (manage)
- Partners in Energy staff (support collateral, outreach, materials, etc.)

Timeline

- Start planning messaging before end of 2019 – continuous updates on progress to community
- Begin sharing messaging in Q1 2020
- Engage staff throughout 2021 (pledges, etc.)

Funding

No additional funding required

Partners

No other partners required

Outreach Channels

- Signage in buildings (by lights, other public facing spaces)
- Informational emails through Communications Department
- Employee lunch & learns
- City Manager's report
- City intranet

Measurement

- Number of employee pledges
- Participation in lunch & learns
- Energy savings

Table 11: Municipal Focus Area Strategy 2

Strategy 2: Building Energy Teams

Description

This strategy builds on Strategy 1: Education and Awareness by creating teams within each City building responsible for education and awareness via signage and friendly competitions. By engaging employees in the process, this strategy will increase awareness of energy use both in City facilities and at home, allowing the City to lead by example and improve residential efficiency as well.

Scope

- Identify teams and team lead within each building
- Conduct a building-level competition – which building energy team can reduce building energy use the most within an 18-month timeframe
- Empower teams to make decisions about energy efficiency upgrades and operational improvements

Responsible Parties

- Lead: Becky Smith

- Other Responsible Parties:
  - Building champions
  - Partners in Energy staff
  - Communication Department
- Responsibilities:
  - Develop and promote building energy challenge
  - Develop signage/education materials for City buildings (branding should be consistent among all strategies)
  - Determine appropriate upgrades in each building

Timeline

- Determine Building Champions – end of Q2 2020
- Develop Building Energy Challenge – end of Q2 2020
- Begin Building Challenge – Q3 2020

Funding

- If prizes for building challenge are considered, will require additional funding

Partners

No additional partners required

Outreach Channels

- Email blasts to City staff about building champions, building challenge
- Signage within City buildings
- All employee emails

Measurement

- Energy use intensity within buildings
- Pre and post challenge surveys to gauge employee awareness

Table 12: Municipal Focus Area Strategy 3

Strategy 3: High-Efficiency Equipment Installations

Description

This strategy focuses on increasing the efficiency of equipment the City uses in its facilities by replacing equipment with high efficiency options, developing guidelines on efficiency, including possible updates to procurement policies, and leveraging Xcel Energy incentives to assist with upgrades.

Scope

- Replace equipment and lighting with high efficiency options; ensure that anything new is a higher efficiency option
- Develop efficiency design guidelines for simple things
- Research a green revolving fund to use rebates and/or savings to pay for additional high-efficiency equipment
- Balance HVAC system in City Hall – leverage rebate programs to pay for analysis

Responsible Parties

- Lead on equipment: Jason Hensel, Rob Webber
- Other Responsible Parties:
    - Matt Cashman, Doug Pullen
    - IT department – identify technology that can help achieve goals
    - Becky Smith and Brook Svoboda – revolving fund policy
- Responsibilities:
    - Communicate importance of equipment replacements with higher efficiency equipment
    - Review procurement policies and consider implementing a green revolving fund (so that utility incentives or other incentives get put back into the budget of the division that received the incentive instead of into the general fund)
    - Document and memorialize green procurement policy as a priority by having it adopted by decision makers

Timeline

- Put some focus on energy efficiency in the Capital Improvement Plan (CIP)
- Ongoing: manage jobs for higher efficiency equipment replacement
    - Incorporate Xcel Energy rebates, when applicable
- Research and adopt green procurement policy and green revolving fund (develop and adopt within 1 to 2 years)
    - Develop draft procurement policy Q1/Q2 2020
    - Develop draft green revolving fund guidelines Q1/Q2 2020
    - Bring policy proposals to City Council study session by Q2/Q3 2020 with target for Q4 adoption

Funding

- Incorporate upgrades into capital improvements planning process to allocate funding
- Revolving fund, if adopted
- Xcel Energy and United Power incentives

Partners

No additional partners required

Outreach Channels

- City Manager report
- Information to City Council about costs/benefits (see Appendix 3 for project types, potential costs, savings, and simple paybacks)

Measurement

- Energy savings (weather normalized using 3-year baseline)

Table 13: Municipal Focus Area Strategy 4

Strategy 4: ENERGY STAR Portfolio Manager® setup

Description

Setting up ENERGY STAR Portfolio Manager will allow the City to benchmark its facilities and track EUI, which is the basis of the municipal goal. This will provide monthly information about the performance of City buildings to inform decisions about energy upgrades and improvements.

Scope

- Collect previous year(s) gas and electric bills
- Collect building information (area, floors, occupant, etc.)
- Set up Portfolio Manager account; add building/utility data
- Monitor Portfolio Manager account
- Communicate progress

Responsible Parties

- Lead: City Public Works or Finance department
- Other Responsible Parties: Partners in Energy staff, building team leads
- Responsibilities:
    - Partners in Energy staff: set up Portfolio Manager account, train City responsible party on use
    - Building team leads: login for view only to monitor building progress

Timeline

- End of 2019: Gather utility bills for previous 2-3 years; fill out building information spreadsheet
- Q1 2020: Set up Portfolio Manager account
- Ongoing: regular monitoring
- End of 2020: Communicate progress to City staff and public

Funding

No additional funding required

Partners

No additional partners required

Outreach Channels

- Communicate through Building Energy Teams
- Message about benchmarking through Education and Awareness strategy
- Employ online resources to communicate progress

Measurement

- Number of buildings set up in Portfolio Manager (benchmarked)
- EUI of buildings

Cross-Cutting Focus Area: Renewable Energy

The City of Northglenn is also focused on increasing renewable energy generation throughout the community. As such, the planning team chose to develop a community-wide renewable energy goal and strategy, rather than a renewable energy target within each focus area. This cross-cutting focus area is intended to cover residences, commercial and small businesses, and municipal leadership.

Goal

- ***Add 250 kW of renewable energy in Northglenn by 2025***

Strategy

Table 14: Cross-Cutting Focus Area Strategy

Strategy 1: Solar Bulk Purchase Program

Description

The Solar Bulk Purchase Program will be a joint effort with other Denver North Metro area cities to spur development of distributed renewable energy. The program will create a solar cooperative that residents can join to get discounted solar panel installations, including materials and labor, because of the ability to purchase materials in bulk. This strategy will involve partnering with the City of Westminster and the City of Broomfield to develop and administer the offering, conduct outreach about the solar bulk purchase program, and track participation.

Scope

- Partner with Westminster and other communities to develop a grant proposal to the Department of Local Affairs (DOLA) to develop and offer a bulk purchase option for rooftop solar to residents
- Get City Council endorsement and support to spend City resources to implement if the grant is awarded
- Identify funding source for 25%-50% match to DOLA grant
- Review successful models elsewhere in the state and develop similar process
    - Engage with administrative organization, like Solar United Neighborhoods
    - Solicit solar installation partners
    - Develop marketing materials and outreach campaign
    - Conduct outreach
    - Assist participants with permitting needs
    - Track participation and capacity installed

*Note: Strategy is dependent upon successful DOLA grant application

Responsible Parties

- Lead: Becky Smith
- Other Responsible Parties:
    - City communications staff
    - Other City liaisons (Westminster, etc.)
    - Solar program administrative organization (e.g., Solar United Neighborhoods)
    - Solar installer
    - Permitting department
    - Partners in Energy staff

- Responsibilities:
    - Collaborate on grant efforts
    - Identify matching funding
    - Develop process
    - Communicate about opportunity
    - Measure participation

Timeline

- DOLA Applications due December 1, 2019
- Decision by March 2020
- Planning/development 2nd through 4th quarters 2020
- Delivery starting first quarter 2021

Funding

- DOLA grant application – due December 2019

Partners

- City of Westminster
- City of Broomfield

Outreach Channels

- Ward meetings
- Connection
- Nextdoor
- Facebook
- Festivals/events

Measurement

- Number of participants in bulk purchase program
- kW of installed solar

How Are We Going to Stay on Course?

The planning team has worked hard to develop ambitious and achievable goals that align with the energy vision. To achieve the targets and energy goals outlined in this plan, the City of Northglenn and its partners identified in the strategies above will work to maintain consistent and clear communication among themselves and with the community at large. Each strategy will have sub-teams that will communicate regularly to work out the details of implementation, carry through on identified actions, and share progress and results. In the first months of implementation, a core subset of the planning team will meet as a large group via online meetings to ensure effective group coordination and communication.

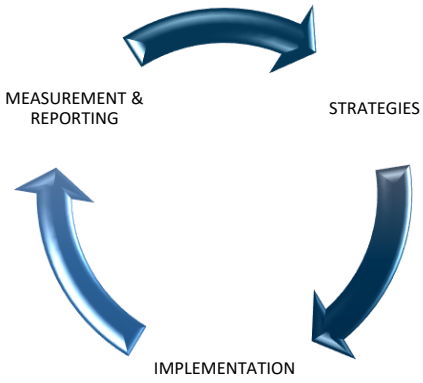

Figure 21. Actions and Tracking

Operational Actions and Tracking

Partners in Energy staff will track energy data for Northglenn on a bi-annual basis and will report out on quantifiable progress. This tracking and reporting will include participation in Xcel Energy's programs and the associated savings. Each strategy team also will track supplemental quantitative and qualitative information about implementation, such as social media and website analytics, number of materials distributed, event dates, and estimated participants, etc.

Communication and Reporting

The City of Northglenn staff and Partners in Energy staff will coordinate the use of the various communication channels to support the strategies with outreach efforts, updates, progress, and successes.

In addition to internal team communications, the City also wants to leverage the Energy Action Plan to increase awareness of energy use and the City's sustainability goals in the community. Updates and progress will be shared via the City website, social media outlets, and the Northglenn Connection.

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 encouraging action will have long-term positive implications. An effective energy plan is cyclical in nature (see Figure 21). 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 planning 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, seasonal events, 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.

Beyond the Plan Horizon

Looking forward beyond the plan horizon, it is recommended that Northglenn reassess the energy efficiency and renewable energy 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

Use whichever appendices are appropriate. The following is a preliminary glossary.

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

To be added.

Appendix 3: Xcel Energy Commercial Programs Payback Analysis

Program	Average Elec. Savings / Participant (kWh/yr)	Average Gas Savings / Participant (therms)	Average Rebate / Participant ($)	Average Cost Savings / Participant ($)	Average Total Cost / Participant ($)	Payback Period (years)	Notes
Recommissioning	85,804	814	$5,728	$5,907	$13,701	1.3	Xcel Energy funds up to 75% of study costs, up to $25,000. Pay up to $400/kW or $0.08/kWh for upgrades
Lighting-Small Business	6,540	199	$682	$545	$1,894	2.2	Free analysis. Rebates on installation varies by light, see more
Motor & Drive Efficiency	79,904	0	$8,526	$5,430	$23,578	2.8	Controllers: $188 - $3,000 Drives: $400 - $10,500, dependent on hp Motors: $25 - $5,500, dependent on type, hp, new vs early retirement
Commercial Refrigeration	5,029	300	$377	$437	$1,664	2.9	Free assessment, rebate varies by equipment, see more
Energy management systems	162,443	3,204	$12,701	$14,506	$73,733	4.2	Up to $600/kW saved and/or $4/Dth saved
Lighting Efficiency	33,394	0	$3,047	$2,077	$13,063	4.8	Rebates on installation varies by light, see more