

# An Energy Action Plan for



**WESTMINSTER**

*FINAL: 2/23/2018*

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## Executive Summary

This Energy Action Plan outlines tangible steps for the City of Westminster to move the community toward its energy efficiency and renewable energy goals. Xcel Energy's Partners in Energy facilitated a series of planning workshops with the Energy Action Planning Team (planning team) starting in the fall of 2017 and wrapping up in early 2018 to develop this plan. The planning team included representatives from Westminster's City operations, school districts and community colleges, United Power and Tri-State Generation, Westminster Chamber of Commerce, and citizens committed to representing local energy priorities and supporting implementation of the plan's strategies.

## Our Energy Vision

The City of Westminster will facilitate an affordable, low-carbon future, community well-being, and a thriving economy through energy awareness, conservation, equity of access, alternative and renewable energy, and sustainable development.

## Our Goals

The City of Westminster aims to be one of the most sustainable cities in America and supports the State of Colorado goals outlined in Executive Order D 2017-015:

- Reduce greenhouse gas (GHG) emissions statewide by more than 26 percent by 2025 compared to 2005 levels.
- Reduce carbon dioxide emissions from the electricity sector by 25 percent by 2025 compared to 2012 levels.
- Reduce carbon dioxide emissions from the electricity sector by 35 percent by 2030 compared to 2012 levels.
- Achieve electricity savings of 2 percent of total electricity sales per year by 2020 through cost-effective energy efficiency.

Westminster will work toward setting specific community-wide GHG goals in upcoming sustainability planning that will include transportation and waste reduction in addition to energy reduction. In the meantime, the community can make actionable progress by implementing the strategies outlined in this Energy Action Plan:

- Through existing utility energy efficiency programs, achieve 1 percent electricity savings and 0.5 percent natural gas savings annually, leading to 12 percent electricity savings and 6 percent natural gas savings by 2030 compared to the City's 2014 baseline year.
- Through renewable energy offerings, increase the amount of energy produced from renewable energy sources by 10 percent annually, or about 1,640 megawatt hours (MWh) per year.
- Through these combined efforts and Xcel Energy's plans to include more renewable sources in its fuel mixture, reduce annual GHG emissions by 19 percent by 2030 compared to the 2014 baseline year.

While these goals do not line up exactly with the state goals, they show intent and actionable progress that will jumpstart other initiatives identified during sustainability planning. Estimated energy savings related to upgraded streetlighting and the Advanced Westminster Downtown Reduced Energy District are not included in the outcomes above as their timelines are uncertain and they require coordination beyond the

scope of this plan. However, as those strategies are implemented, the energy savings will positively and significantly affect progress toward statewide goals.

## How Will We Get There?

To move toward its long-term goals, the City of Westminster's planning team identified strategic initiatives for each of four important focus areas and set shorter-term targets for these focus areas. These focus areas and strategic initiatives will be the working elements of the Energy Action Plan and will generate concrete actions and impacts. The focus areas are shown below, along with a playbook outlining highlighted activities and when they will be underway, as well as what will follow the Partners in Energy engagement.

### Public Use Facilities

#### Strategies:

- Optimize Facilities and Increase Renewable/Alternative Energy Capacity
- Upgrade Streetlights to LED
- Advance Westminster Downtown Reduced Energy District

### New Construction/ Development

#### Strategy:

- Raise Awareness Around New Building Standards and Available Resources

### Residential Buildings

#### Strategy:

- Deliver Residential Education and Outreach

### Commercial Buildings

#### Strategy:

- Implement Awareness Campaign Through Westminster Chamber of Commerce

## Playbook for Achieving Our Goals

### Ongoing

- Coordinate activities with upcoming sustainability planning efforts
- Have regular check-ins to stay on course and adjust as needed
- Track implementation of strategies over time
- Continue to identify new outreach channels and target program
- Recognize successes and high performing community members
- Regularly share outcomes with City Council and the public
- Refine strategy approaches to accommodate lessons learned

### Near-term Actions (April 2018 – December 2019)

- Share Energy Action Plan with community through a press release and City website
- Convene strategy teams
- Finalize organizational priority lists for buildings
- Consider renewable energy options as part of annual planning
- Continue to coordinate with Xcel Energy on best option for streetlight conversion
- Develop contracts, agreements, and partnerships to facilitate progress on Downtown Westminster Reduced Energy District
- Begin to market downtown site to developers and potential tenants
- Establish City task force and hire building standards consultant
- Develop milestone building standards schedule and provide staff training
- Determine calendar of activities and responsibilities
- Develop key messages and first round of standards outreach materials
- Consolidate/disseminate targeted information on resources for residents and businesses

### Long-term Actions (beyond 2019)

- Incorporate energy efficiency into annual capital improvement budgets
- Refresh/update building department materials as appropriate
- Publish progress on City website
- Implement additional energy improvement projects in public facilities
- Continue to educate community on benefits of Downtown Westminster Reduced Energy District
- Further develop initiatives for the commercial sector
- Incorporate this Energy Action Plan into the broader Sustainability Plan, with revisions as needed

## Introduction

This Energy Action Plan outlines tangible steps for the City of Westminster to move the community toward its energy efficiency and renewable energy goals. The community's main energy priorities are outlined below:

- Identify and implement opportunities to drive energy savings in public use facilities and residential properties that will result in cost savings on energy bills.
- Coordinate with the effort to update building and energy standards by raising awareness around efficient building design, alternative energy options, and smart energy development.
- Leverage the opportunity to engage customers on both energy and water efficiency for greatest impact.
- Support renewable energy development across the community.

This plan provides an overview of the City of Westminster's demographics, the community's baseline energy use and profile, documentation of the Partners in Energy planning process, a summary of priority focus areas identified for implementation, and the near-term actions and strategies required to keep the implementation of this plan on track.



Figure 1: Planning Team in Action

## Xcel Energy Partners in Energy

Xcel Energy is the main electric and gas utility serving Westminster. In the summer of 2014, Xcel Energy launched Partners in Energy to support communities, such as Westminster, in developing and implementing energy action plans that supplement existing sustainability plans, strategies, and tools (Figure 2). The content of this plan is derived from a series of planning workshops held in late 2017 and early 2018 with a planning team committed to representing local energy priorities and implementing plan strategies. Plan implementation will begin in late Spring 2018 and will be supported by Xcel Energy.

Partners in Energy will work with the City of Westminster to coordinate support for implementing the plan and will develop a Memorandum of Understanding that outlines specific support Xcel Energy will provide to help Westminster deploy its strategies and achieve its goals (Figure 3).



The City also is embarking on developing a community sustainability plan, and this Energy Action Plan will be an important component of that larger effort, outlining activities that can begin right away while the broader sustainability plan is being developed and providing momentum for continued progress toward goals.



Figure 2. Partners in Energy Process for Success

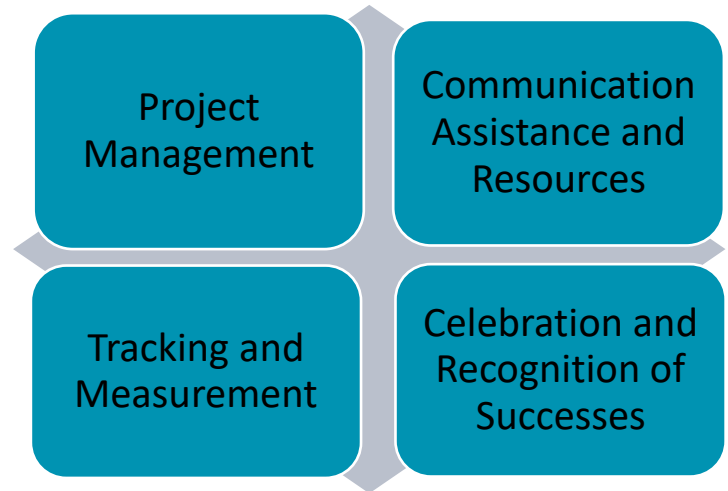


Figure 3. Resources from Xcel Energy for Implementation

## Who Are We? – Community Background

Originally inhabited by pioneers in the mid-1800s on the prospects of gold, what is now Westminster was incorporated in 1911 and later transitioned to include the largest apple and cherry orchards in the country at a point in time. Since those early days, the City of Westminster has transformed into a suburban community rich with amenities just east of the Rocky Mountain Range and approximately 15 minutes from Denver.<sup>1</sup> Situated just west of I-25, and bisected by Highway 36 (the Denver-Boulder turnpike), the City of Westminster has 34 square miles of new and old development, diverse real estate, trails, parks and open space, shopping amenities, access to a commuter rail, a strong local economy of over 4,000 businesses (see Figure 4).<sup>2</sup>

<sup>1</sup> 2017. The 1920 to 1950. *City of Westminster*. <https://www.cityofwestminster.us/Government/WestminsterHistory/The1920to1950>

<sup>2</sup> Boundary Map of Westminster, CO. <https://www.maptechnica.com/city-map/Westminster/CO/0883835>



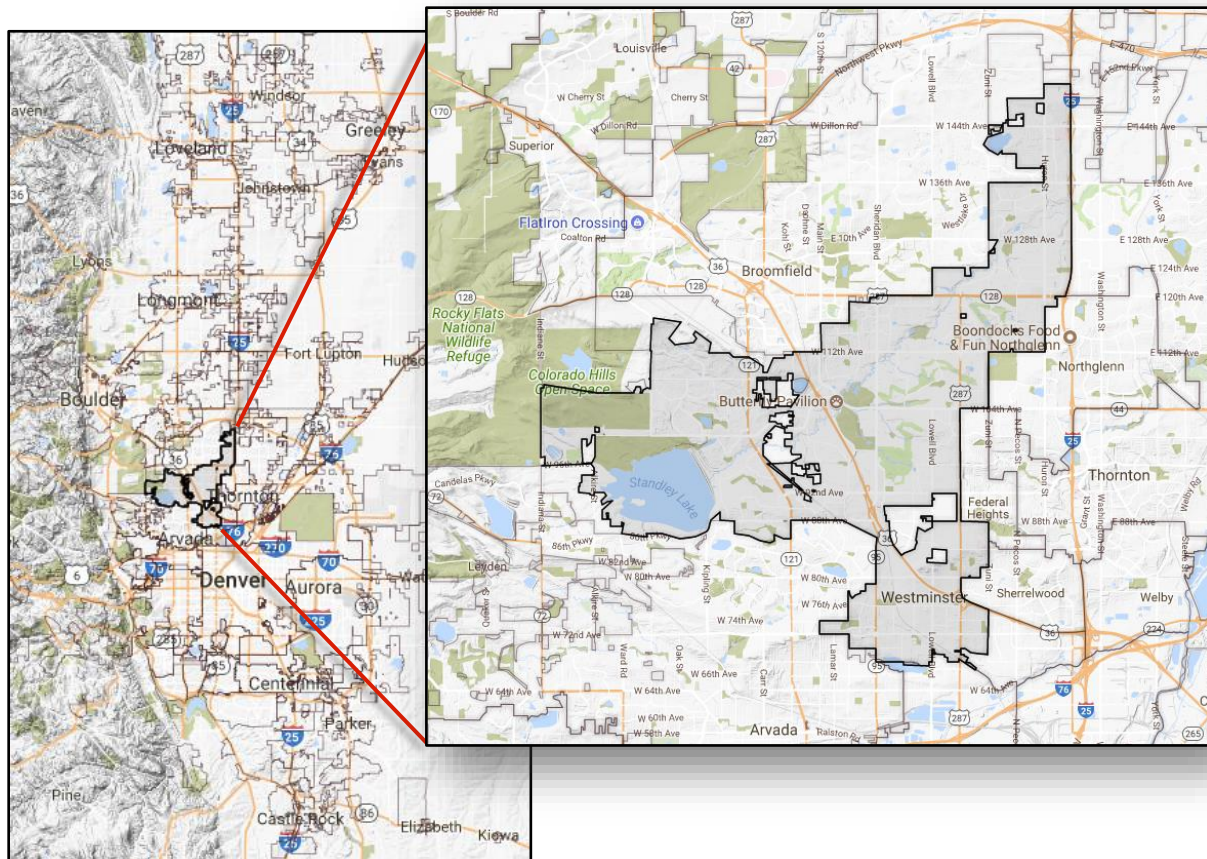


Figure 4. Surrounding Cities and Westminister City Boundary

## Geography, Population, and Demographics

As the eighth most populous city in Colorado, with an estimated 114,000 people, Westminister's development and population continues to grow with the additions of a new downtown development initiative and integration of a commuter rail.<sup>3</sup> It is forecasted that the 2020 population for Westminister will be 119,000, which reflects an annual population growth of approximately 0.75 percent per year.<sup>4</sup> A median age of 36 years places residents below the national average of 37.6 years. Over half of the population of Westminister is 44 or younger, while just under a quarter of the population is 55 or older.

The majority of Westminister's population (68 percent) identifies as white, with race and ethnicity becoming more diverse – 21 percent of the population identify as Hispanic or Latino followed by Asian at almost 6 percent, 2 or more races at 2 percent, black at just under 2 percent, and American Indian, Alaska Native, or other at just over 1 percent.

Westminister residents are well-educated with 43 percent of residents possessing a bachelor's or higher degree. The median household income of \$67,081 in 2015 was higher than the state median of \$60,629.<sup>5</sup>

<sup>3</sup> Municipalities Ranked by Population (July 2016). Colorado State Demographers Office. <https://demography.dola.colorado.gov/population/population-totals-municipalities/#population-totals-for-colorado-municipalities>.

<sup>4</sup> U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015 and 2020. Esri converted Census 2000 data into 2010 geography.

<sup>5</sup> U.S. Census Bureau. 2011-2015 American Community Survey 5-Year Estimates.

## Housing

As of 2015, Westminster had an estimated total housing stock of 44,586 units.<sup>6</sup> Most of the housing (87 percent) was built prior to the 2000s (see Table 1), with 70 percent (includes duplexes) being single family developments. Almost two-thirds of residents own their homes. Older homes tend to be less efficient than newer homes, which affects energy use.

A major redevelopment project of the former Westminster Mall site in Downtown Westminster offers prospects of new housing – approximately 600+ housing units are projected in Phase I of the project (see Figure 5).<sup>7</sup> This would increase the housing stock to more than 45,000 units, representing the largest housing unit gain in the past 5 years.

Table 1. Age of Housing Stock in Westminster

Year Built	Number of Units
Total housing units (2015)	44,586
2010 or later	381
2000 to 2009	5,522
1990 to 1999	10,164
1980 to 1989	10,872
1970 to 1979	11,506
1960 to 1969	2,532
1950 to 1959	2,810
1940 to 1949	457
1939 or earlier	336

Source: U.S. Census Bureau. 2011-2015 American Community Survey 5-Year Estimates



Figure 5. Downtown Westminster Projects (courtesy of Westminster Economic Development)

<sup>6</sup> Ibid.

<sup>7</sup> 2017. Downtown Westminster. City of Westminster: Economic Development Office.

[http://www.westminstereconomicdevelopment.org/Westminster/media/Downtown-Westminster-Documents/11sept2017WND-Site-Plan\\_.pdf](http://www.westminstereconomicdevelopment.org/Westminster/media/Downtown-Westminster-Documents/11sept2017WND-Site-Plan_.pdf)

**Business and Economy**

According to the United States Census American Community Survey 2011-2015, Westminster has a healthy economy with an employed population within the City of 59,000, more than half of its estimated population. Table 2 outlines top business types by numbers of employees in Westminster.

The City is home to a variety of employers. The top five employers within the City are Ball Corporation, St. Anthony’s North Hospital, Digital Globe, McKesson Technology Solutions, and Trimble Navigation (see Table 3). These five businesses employ nine percent of the overall workforce. The top ten employers employ 15 percent of the workforce, each business employing 400 or more employees.

In the next decade, Westminster could annex land that is unincorporated in Jefferson County, which would affect aspects of Westminster’s business and economy. Development opportunities also include the possibility of developing vacant land. Additionally, there are projects currently under construction that will add to the retail market, office and industrial space, and the housing mix (see Figure 6).

Table 2. Employed Population by Business Type in Westminster

<b>Subject</b>	<b>Estimate</b>	<b>Percent</b>
Agriculture, forestry, fishing and hunting, and mining	709	1%
Construction	4,175	7%
Manufacturing	5,459	9%
Wholesale trade	1,963	3%
Retail trade	7,074	12%
Transportation and warehousing, and utilities	3,213	5%
Information		
Finance and insurance, and real estate, and rental and leasing	3,626	6%
Professional, scientific, and management, and administrative and waste management services	8,130	14%
Educational services, and health care and social assistance	11,021	19%
Arts, entertainment, and recreation, and accommodation and food services – arts, entertainment, and recreation	5,998	10%
Other services, except public administration	2,681	5%
Public administration	2,568	4%
<b>Civilian employed population 16 years and over (TOTAL)</b>	<b>59,026</b>	<b>100%</b>

Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

Table 3. Top Employers in Westminster

<b>Employer</b>	<b>2015 Employment</b>	<b>2015 Rank</b>
Ball Corporation <i>Aerospace and Packaging</i>	934	1
St. Anthony’s North Hospital <i>Health Care Provider (two facilities)</i>	895	2
DigitalGlobe <i>Geospacial Technologies</i>	650	3
McKesson Technology Solutions <i>Health Care Services</i>	610	4
Trimble Navigation <i>Geopositioning Technologies</i>	568	5
Alliance Data Systems <i>Network Credit Authorization</i>	543	6
Tri-State Generation <i>Electric Energy Wholesaler</i>	522	7
Kaiser Permanente <i>Health Care Provider (two facilities)</i>	500	8
Reed Group <i>Human Resources Management</i>	442	9
MTech Mechanical Technologies Group <i>HVAC Systems</i>	400	10

Source: Source: City of Westminster Economic Development Office, June 2015



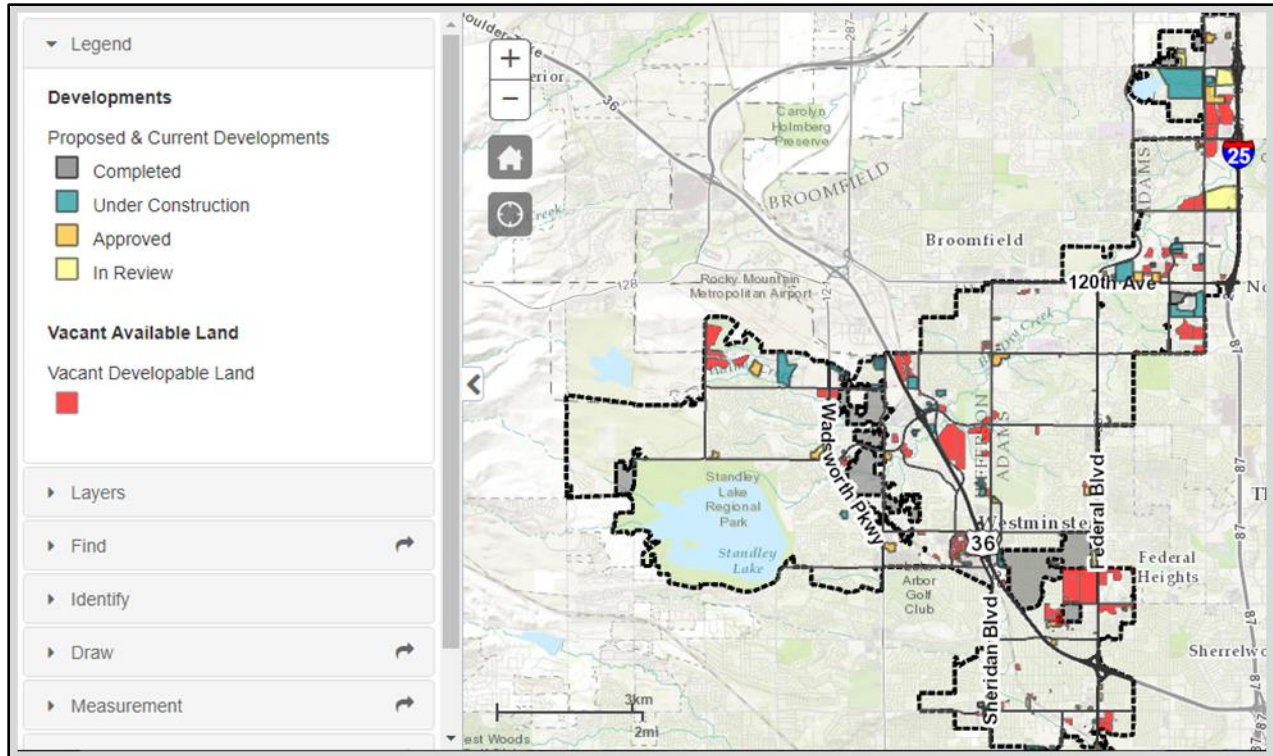


Figure 6. Westminster Future Land Use Map<sup>8</sup>

## Commitment to Sustainability

The City of Westminster is committed to becoming one of the most sustainable cities in America. To this end, Westminster is a signatory to the Climate Mayors – a commitment to honor the Paris Agreement goals of helping to meet the 1.5 degrees Celsius target and work to create a 21<sup>st</sup> century clean energy economy. The City also is a signatory to the Compact of Colorado Communities, which aims to build capacity in local governments through community collaboration to take on advanced climate action planning. And as a member of the Colorado Communities for Climate Action (CC4CA), Westminster is working with a coalition of local governments to advocate for state and federal policies to protect Colorado’s climate for current and future generations.

In 2018, the City will begin to develop a community-wide sustainability plan and GHG inventory that will leverage the work and momentum of this Energy Action Plan and will include other elements, such as transportation and solid waste, to make additional progress toward GHG targets that will be set during the sustainability planning process.

Beyond these commitments, the City of Westminster is determined to build stronger relationships among its residents, businesses, and utilities to create a culture of greater energy efficiency and to strive for more renewable energy sources, starting with a high-performing downtown redevelopment.

<sup>8</sup> City of Westminster Long Range Planning and Urban Design (<https://www.cityofwestminster.us/Government/Departments/CommunityDevelopment/Planning/LongRangePlanningandUrbanDesign>).

## The Case for a Community Energy Action Plan

This plan builds on current energy and sustainability efforts and serves as the unifying call to action for members of the community to do more for greater impact.

The main energy priorities that the City of Westminster has identified as drivers of this plan include the following:

- Raising awareness among community members of all kinds about the importance of energy efficiency, renewable energy, and smart new development and construction
- Identifying and implementing low- to no-cost opportunities to save energy and money
- Recognizing the link between energy conservation and water conservation and leveraging opportunities to make progress in both areas
- Leading by example in public use facilities with conservation projects and renewable energy subscriptions and installations

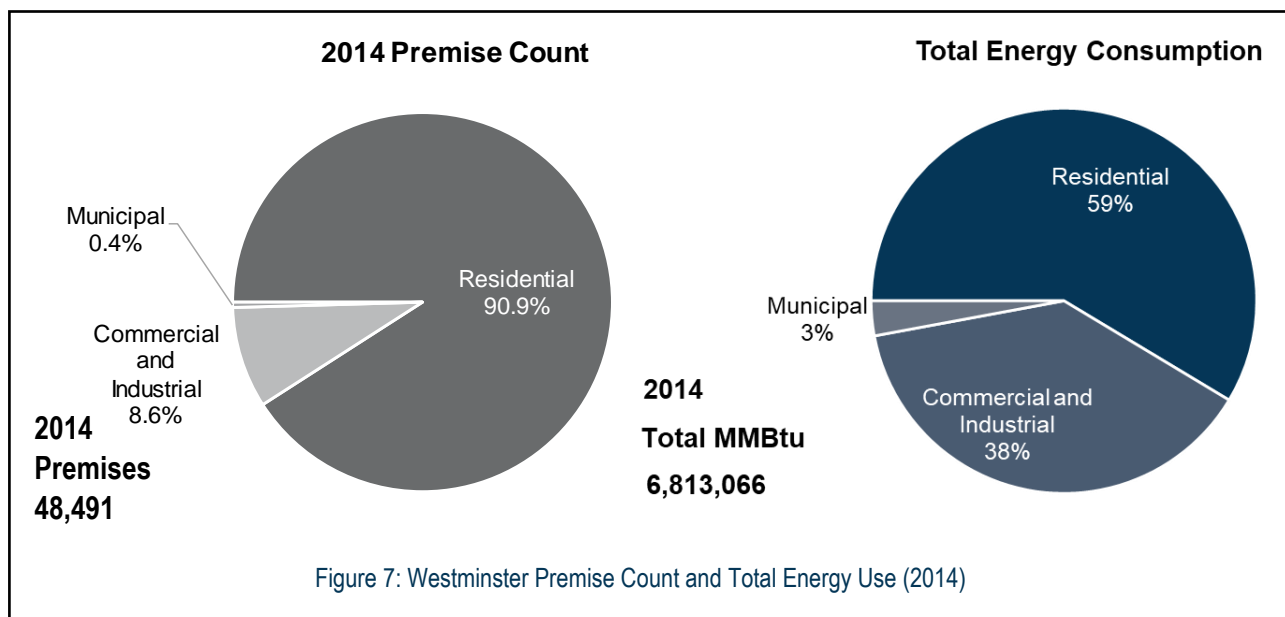
## Where Are We Now?

### Baseline Energy Analysis

An introductory step in the Partners in Energy planning process is to develop a community energy profile. The Xcel Energy team analyzed the amount of energy that was purchased from Xcel Energy and United Power by fuel source (electricity, natural gas) and sector (residential, commercial and industrial, municipal) for the period 2014-2016. Three years of data were used for analysis, and 2014 was established as the baseline year to align with the City's GHG inventory baseline. The GHG inventory will consider energy, transportation, and solid waste emissions, while this plan focuses on energy in buildings.

### Community Energy Use and Trending

Based on aggregated utility data provided by Xcel Energy and United Power, in 2014 Westminster had 48,491 residential, commercial and industrial, and municipal premises (see Figure 7). This total includes premises served by electricity, natural gas, or both. More than 90 percent of the premises are residential (44,082 premises); they account for 59 percent of total energy consumption in the community in 2014.



While the number of commercial and industrial and municipal premises is small compared to the residential sector, these sectors accounted for 41 percent of the total energy use in the community (see Figure 8) and 53 percent of the overall energy costs (see Figure 9).

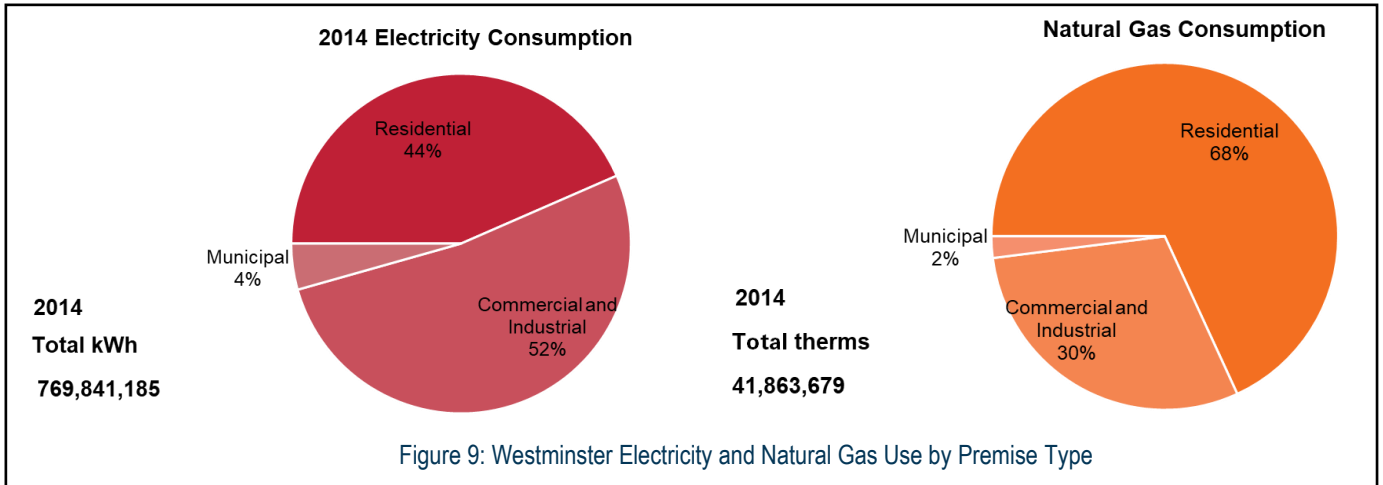


Figure 9: Westminster Electricity and Natural Gas Use by Premise Type

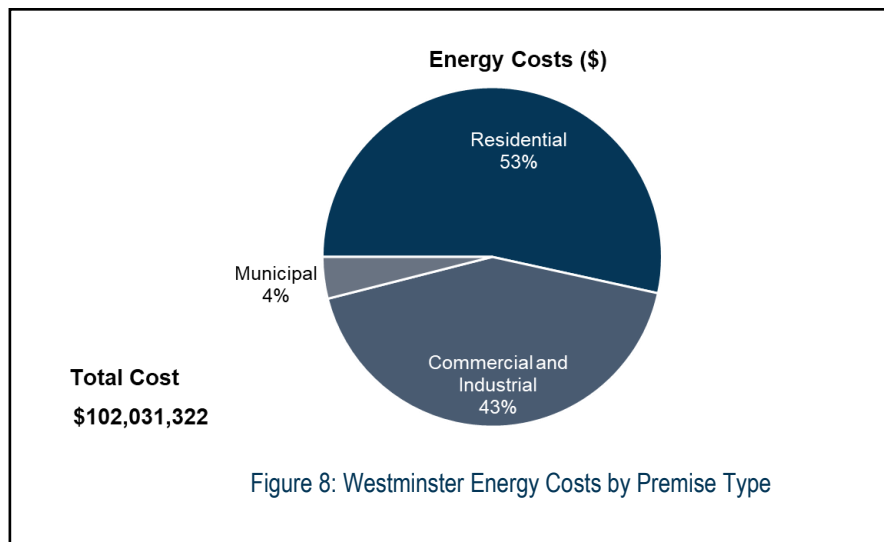


Figure 8: Westminster Energy Costs by Premise Type

In total, approximately 770 million kWh of electricity and 41.9 million therms of natural gas were consumed by residents and businesses in the City of Westminster in 2014. The commercial and industrial sector consumed most of the electricity, accounting for more than 401 million kWh (52 percent), while the residential sector consumed 335 million kWh (44 percent), and the municipal sector consumed 34 million kWh (4 percent). Natural gas, on the other hand, was principally consumed by the residential sector, amounting to 28.5 million therms (68 percent). The remaining 13.3 million therms were consumed by the commercial and industrial sector (30 percent) and the municipal sector (2 percent).

Electricity use in Westminster has stayed relatively constant from 2014 to 2016 despite a slight upward trend in premise counts of 0.7 percent per year (see Figure 10). Over the same period, natural gas use has declined by about 5.3 percent per year with a slight upward trend in premise counts of 0.6 percent per year. These declines could be attributed to energy efficiency but could also be the result of weather conditions or other factors (Figure 11).

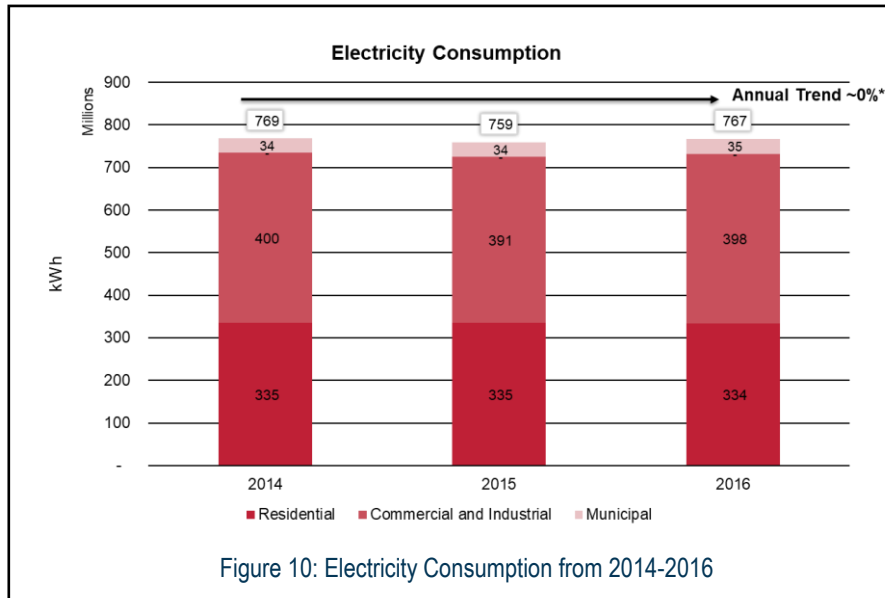


Figure 10: Electricity Consumption from 2014-2016

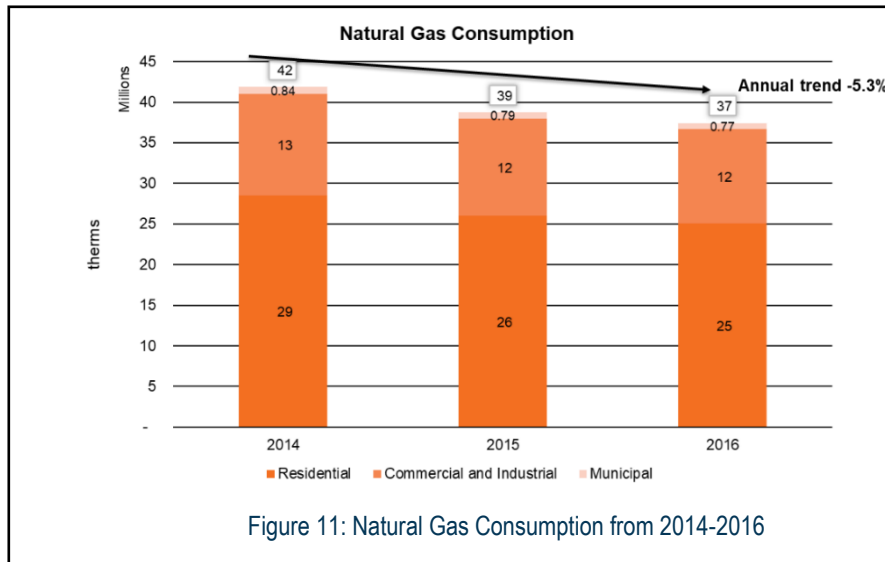


Figure 11: Natural Gas Consumption from 2014-2016



### Municipal Energy Use

The City of Westminster monitors its energy use and costs, which are represented in this plan as the municipal sector. Figure 12 breaks down municipal energy use according to fuel source (electricity or natural gas), with usage amounts and costs shown in Table 4. To demonstrate the City’s commitment to this plan, the City has been actively pursuing efficiency upgrades, such as LED lighting and controls and higher efficiency equipment, in its facilities. In addition, several strategies have been identified in this plan to reduce energy use and costs associated with the City’s energy needs.

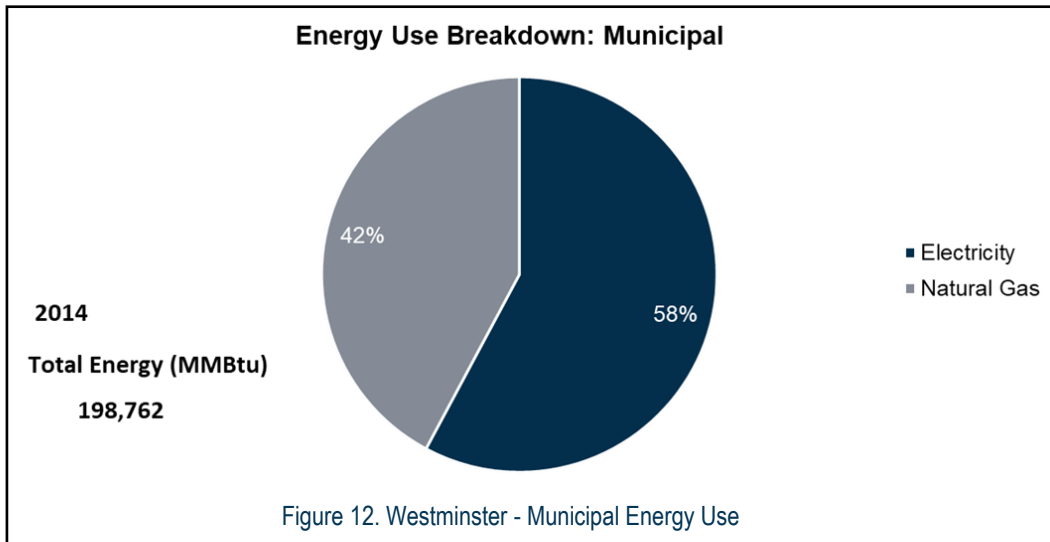


Table 4. Municipal Energy Use and Cost in 2014

Usage Type	2014 Usage Amount	2014 Annual Cost
Electricity – non-streetlight	28.1 GWh	\$2.5 million
Electricity – streetlights	5.6 GWh	\$1.4 million
Natural gas – includes transport gas	83,800 Dth	\$0.15 million
<b>Total</b>		<b>\$4.0 million</b>

In 2014, community-wide GHG emissions (expressed as metric tons of carbon dioxide equivalent, or MTCO<sub>2</sub>e) calculated from electricity and natural gas consumption data provided by Xcel Energy and United Power were higher in the residential sector (51 percent) than in the commercial and industrial sector (45 percent) (see Figure 13). GHG emissions associated with energy used in the community will continue to decline as Xcel Energy increases the renewable energy sources in its electricity source fuel mix (see Figure 14) and as residents and businesses implement energy efficiency and renewable energy initiatives like the ones outlined in this plan.

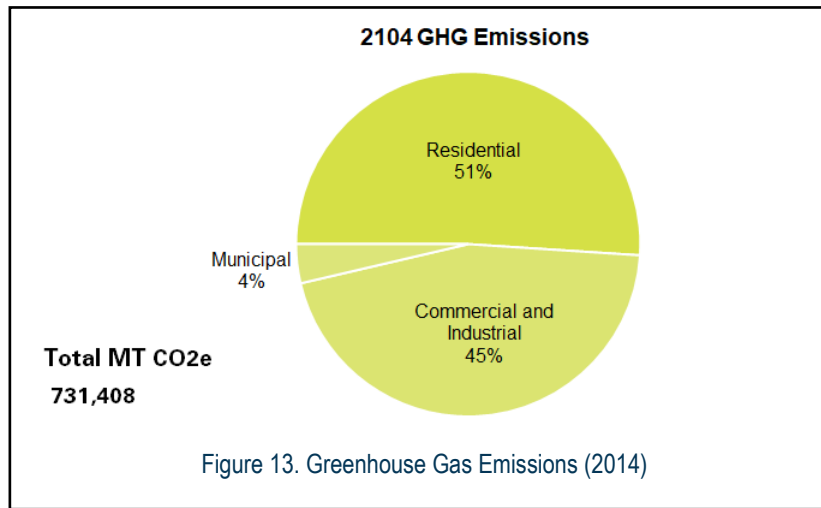


Figure 14 presents projections that include Xcel Energy’s annual goals for energy savings (1.5 percent and 1.0 percent, respectively) to achieve a projected 45 percent carbon dioxide emissions reduction target by 2021 through additions of renewable energy to the supply mix. Furthermore, [Xcel Energy’s 2017 Colorado Renewable Energy Plan](#) that is now under review with the Public Utilities Commission includes even more clean energy solutions that will further reduce carbon emissions. This plan proposes a 3-year roadmap to expand renewable power offerings and provide solutions that support its customers sustainability goals.<sup>9</sup>

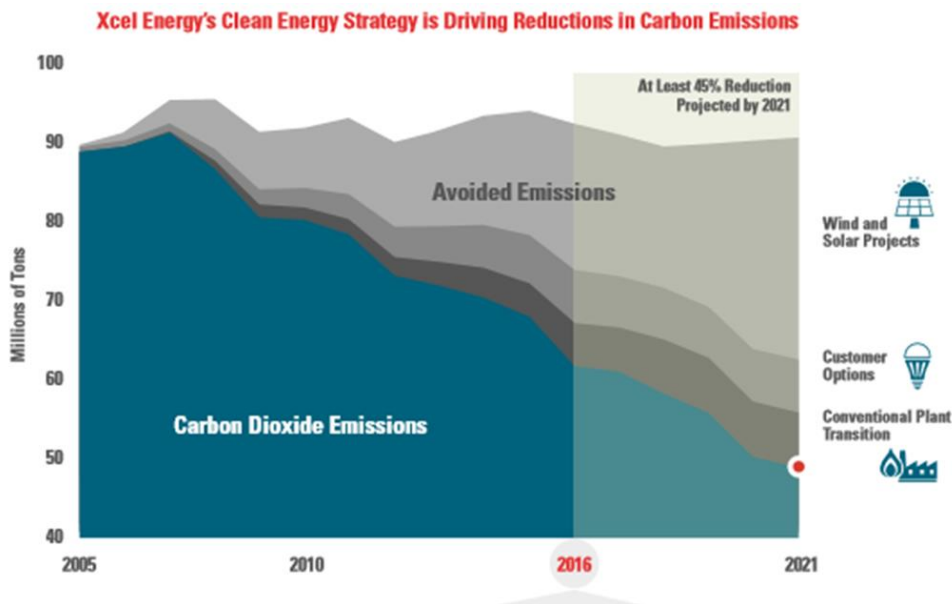


Figure 14. Xcel Energy Projected Emissions Reductions by 2021

<sup>9</sup> <https://www.xcelenergy.com/staticfiles/xcel-responsive/Admin/Managed%20Documents%20&%20PDFs/CO-2017-Renewable-Energy-Plan-Fact-Sheet.pdf>

### 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 Westminster. These data provide a snapshot of what types of 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.

Looking at Xcel Energy data for 2014, about 4 percent of residents participated in Xcel Energy DSM programs, saving nearly 898,000 kWh and 62,100 therms. This equates to an average annual energy cost savings of \$64 per participating residence, in addition to rebates and other financial incentives associated with program participation. Figure 15 shows residential program participation for the period 2014-2016.

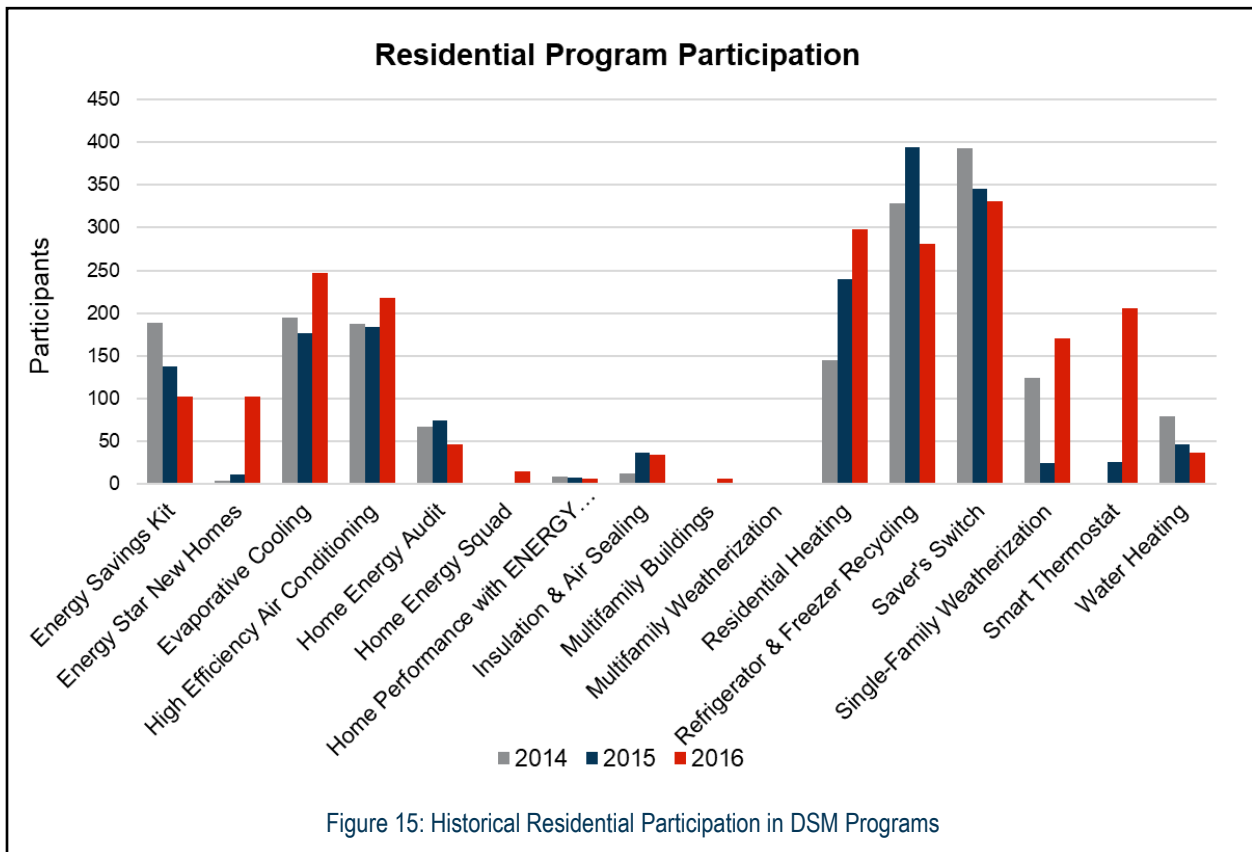
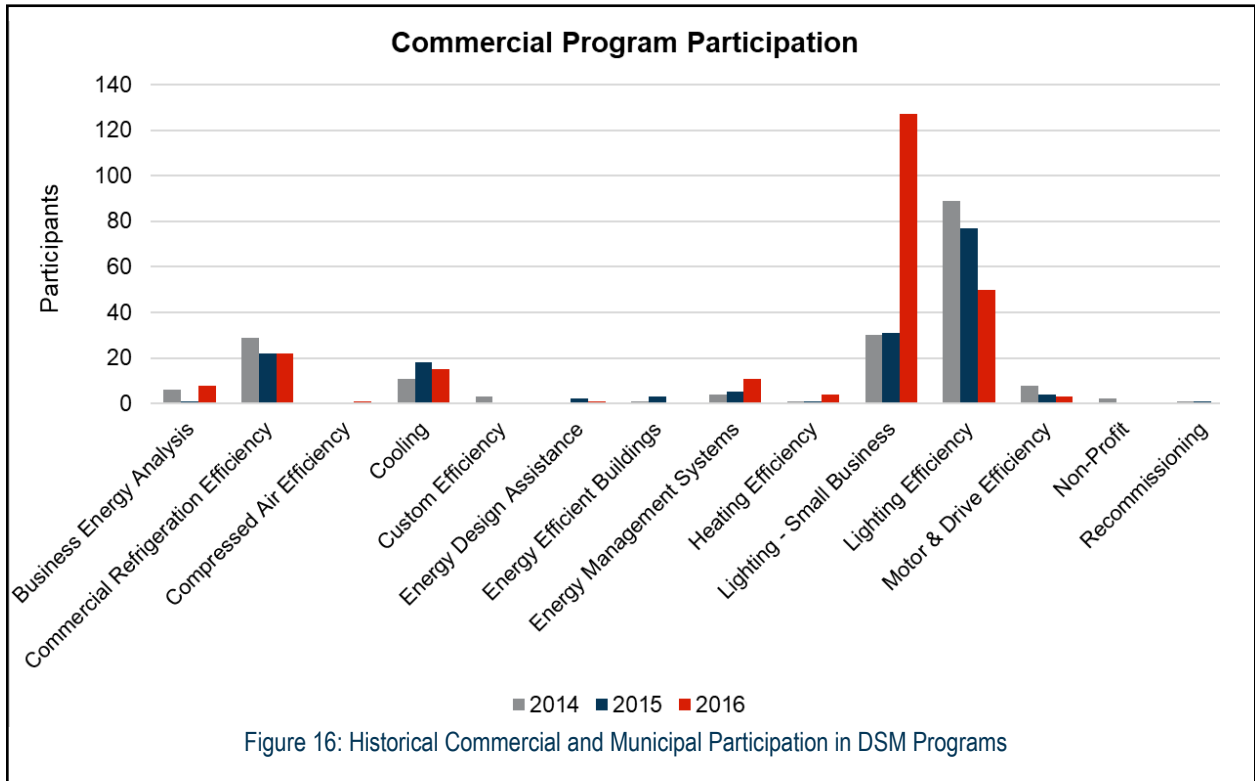


Figure 15: Historical Residential Participation in DSM Programs

In 2014, more than 4 percent of businesses (including City facilities) participated in Xcel Energy DSM programs, saving about 2,943,000 kWh and 41,800 therms. This equates to an average annual energy cost savings of about \$1,500 per participating business, in addition to rebates and other financial incentives associated with program participation. Figure 16 shows the commercial and municipal program participation for the period 2014-2016.



### Renewable Energy Program Participation

Various renewable energy options are available to Westminster residents and businesses. In 2016 (the first year available for estimating energy subscription and production), more than 5 percent of eligible Westminster residential customers and 1 percent of eligible Westminster business customers participated in Xcel Energy renewable energy offerings. The result is about 16,280,000 kWh in subscribed or produced electricity (see Table 5.) Appendix 2 has additional information about these renewable energy options through Xcel Energy.

Table 5: Renewable Energy Program Participation<sup>10</sup>

<b>Residential Program</b>	<b>Participants</b>	<b>Subscribed/Produced Energy (kWh)</b>
<b>WindsorSource® for Residences</b>	<b>1,504</b>	<b>3,450,000</b>
Solar*Rewards (on-site solar)	880	2,860,000
<b>Solar Gardens</b>	<b>10</b>	<b>79,000</b>
<b>Commercial Program</b>	<b>Participants</b>	<b>Subscribed/Produced Energy (kWh)</b>
<b>WindsorSource® for Business</b>	<b>10</b>	<b>91,300</b>
Solar*Rewards (on-site solar)	17	7,960,000
<b>Solar Gardens</b>	<b>15</b>	<b>1,840,000</b>

### Existing Energy Practices

In addition to Xcel Energy DSM and renewable energy programs, other energy-related activities and initiatives are underway and are summarized in Table 6 (primarily include City-led initiatives).

<sup>10</sup> 2016 Annual Community Energy Report for the City of Westminster, Xcel Energy ([https://www.xcelenergy.com/working\\_with\\_us/municipalities/community\\_energy\\_reports](https://www.xcelenergy.com/working_with_us/municipalities/community_energy_reports)).

Table 6: Community Energy Initiatives

**Community Energy Initiatives****Westminster at Work**

- Performance contracting for City facilities (contractor makes retrofits and finds financing, cost is paid back through realization of energy and cost savings)
- Renewable energy power purchase agreements – four City building rooftops are leased to companies that install solar, which the City then buys at a lower rate than offered by Xcel Energy
- Community solar garden subscription for 3.7 megawatts (MW) – the City is the largest subscriber
- Geothermal exchange system in new building – 70 wells; water circulation provides cooling and preheating for buildings. Although not technically a renewable energy source, geothermal energy is a green energy source that does not contribute to GHG emissions
- Design contracts for the City must include life-cycle costs, not just initial development costs, which can drive decisions toward alternative energy solutions
- Ongoing LED lighting retrofits
- Pilot conversion of streetlights to LEDs: 16 streetlights served by United Power have been converted to LED
- Downtown energy district development
- Newly hired Chief Sustainability Officer who will work on citywide sustainability plan in 2018 that will leverage this work as part of the larger planning effort
- City as signatory of Compact of Colorado Communities and Climate Mayors, and member of the Colorado Communities for Climate Action
- “ReNew Our Schools” competition participation by Adams 12 schools in January 2018, which encourages school occupants and the school community to use less energy at school and at home and rewards schools with the highest response and outcomes with financial incentives
- Equipment upgrades by Jefferson County Public Schools

## Existing Outreach and Communication Channels

Engaging the community is critical to reaching Action Plan goals. Table 7 lists some of the ways that residents and businesses currently receive information. These communication channels will be helpful during implementation for education and outreach efforts.

Table 7. Local Outreach

Local Outreach Channels	
<b>Digital Communications</b>	
•	City of Westminster <a href="#">Facebook</a>
•	@westminsterco Twitter Feed
•	Partner websites
•	Targeted emails from Xcel Energy
•	LinkedIn
•	Nextdoor
•	Westminster City Edition (Figure 17)
•	City of Westminster Events website page
•	School district websites
•	Front Range Community College website
•	Chamber of Commerce newsletter
<b>Events</b>	
•	Westy Fest
•	National Night Out
<b>Community Spaces for Collateral Distribution</b>	
•	Westminster Public Library
•	City of Westminster Building Department
•	Chamber of Commerce
•	City Park Recreation Center
•	The MAC
•	North Metro Community Services



Figure 17. City Edition Newspaper







Additional GHG reduction targets will evolve as the City gets underway with its upcoming community-wide sustainability planning efforts. And in addition to saving energy and reducing GHG emissions, the City will strive through this plan to develop and maintain good relationships with Westminster's residents, businesses, and utilities. Other beneficial outcomes will include improved air quality, water conservation, and increased awareness.

## How are We Going to Get There?

To achieve the energy goals outlined above, the planning team identified the following focus areas: public use facilities, new construction/development, residential buildings, and commercial buildings. 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 to support the achievement of the goals are organized into tables for each focus area. Each strategy includes a general description of the effort; numeric targets to keep the strategy on track; details outlining necessary activities; delineation of leadership, roles, and responsibilities; proposed timelines; available or needed resources; and how to measure success.

### Focus Area 1: Public Use Facilities

This focus area includes all City of Westminster facilities as well as facilities operated by Adams 12 and JeffCo school districts and Front Range Community College. These organizations already are leading by example to conserve energy in a number of ways. Just a few of their initiatives include the following:

- City of Westminster Energy Performance Contracting to identify conservation opportunities and pay for upgrades with energy savings
- Improved operations using building automation systems for tighter HVAC scheduling
- Lighting upgrades to LEDs where possible
- High efficiency equipment upgrades as replacements are needed
- Water treatment process efficiency upgrades where possible
- Recent City Request for Proposals for a downtown development district that will include district energy solutions (district energy solutions are based on economies of scale where one large plant for heating or cooling is often more efficient than multiple smaller systems)
- Subscriptions in renewable energy opportunities

However, there is still more that can be done and energy savings in these facilities has an impact on all Westminster community members by enabling the organizations to use tax dollars wisely and lead by example. The planning team identified three strategies for this focus area to address continued building system improvements, streetlighting, and innovative downtown development.

## Strategy 1: Optimize Facilities and Increase Renewable/Alternative Energy Capacity

### Description

Systems and operations in most public facilities tend to experience drift over time and benefit from regular optimization, or building recommissioning. This is an activity that helps ensure systems are operating as they are intended for greatest efficiency. It typically involves a study and recommendations, followed by prioritization and implementation. Recommendations often include operational activities, such as HVAC scheduling to better match occupancy or shifting activities to reduce demand. Recommendations also can include low-cost upgrades, such as adding lighting controls or replacing worn out HVAC parts that keep whole systems from functioning properly.

In addition, as opportunities arise, it is important to look for ways to offset electricity use with renewable and alternative energy sources, where possible as part of normal planning and infrastructure upgrades.

### Targets

- Five percent energy savings over 5 years
- Three additional recommissioning projects over baseline by the end of 2019
- Twelve additional upgrades over baseline by the end of 2019 (9 lighting upgrades, 1 motor/drive, 2 cooling)
- Subscriptions for 2 additional MW of renewable energy over baseline

### Scope

- Develop organizational priority lists for building recommissioning and process for appropriate budgeting to address rolling commissioning each year
  - Develop timeline for identifying top priority building for each organization
  - Conduct building energy audits, if needed
  - Enroll in Xcel Energy Building Tune-up Program for study and equipment incentives
- Identify other potential efficiency projects on the horizon (lighting, HVAC, etc.) and include in budgeting process
- Explore Xcel Energy's Renewable\*Connect and other renewable energy options to increase renewable energy offsets and propose options/costs for participating to be considered in 2018 budgeting process
- Share with City Manager's Office and City Council benefits and resources to get buy-in for allocating resources
- Consider community solar garden options or renewable energy installations on public facilities
- Incorporate a plan for additional electric vehicle charging station infrastructure as part of new downtown development, including having conduit or suitable chase-way to get conductor/wire from electric service panel to delivery point
- Share with City Council/school boards benefits and resources to get buy-in for allocating resources
- Revise targets based on resources allocated

### Responsible Parties and Roles

- Tom Ochtera, City of Westminster
  - Serve as City point of contact and strategy lead
  - Assess buildings information and identify top priority buildings
  - Identify costs and benefits, including resources available from Xcel Energy

- Solicit recommissioning support and engage for implementation
- Identify potential for additional renewable energy subscriptions or opportunities for renewable energy installations
- Track results
- Shannon Oliver, Adams 12 Schools
  - Assess buildings information and identify top priority buildings
  - Identify costs and benefits, including resources available from Xcel Energy
  - Solicit recommissioning support and engage for implementation
  - Identify potential for additional renewable energy subscriptions or opportunities for renewable energy installations
  - Track results
- Hal Corin, JeffCo Schools
  - Assess buildings information and identify top priority buildings
  - Identify costs and benefits, including resources available from Xcel Energy
  - Solicit recommissioning support and engage for implementation
  - Identify potential for additional renewable energy subscriptions or opportunities for renewable energy installations
  - Track results
- Patrick O'Neill, Front Range Community College
  - Assess buildings information and identify top priority buildings
  - Identify costs and benefits, including resources available from Xcel Energy
  - Solicit recommissioning support and engage for implementation
  - Identify potential for additional renewable energy subscriptions or opportunities for renewable energy installations
  - Track results
- Partners in Energy staff
  - Connect team staff with appropriate Xcel Energy program staff
  - Offer support for outlining benefits of participating in programs for team use
  - Coordinate team meetings and updates
  - Support tracking
  - Document and share successes

### Timeline

- Q2 2018: Develop schedule and specific organizational targets
- Q3 2018: Prioritize buildings lists and propose for resources
- Q4 2018: Conduct audits/studies
- Q2 2019: Begin implementing recommendations
- Q3 2019-ongoing: Begin measuring results

### Funding

- Staff time for all organizations over 18+ months
- Funding from the City and other organizations for recommissioning, upgrades, and additional renewable energy subscriptions
- Program resources from [Xcel Energy](#) and potentially [United Power](#)
  - [Xcel Energy's Building Tune-up](#) with on-site diagnosis and assessment of mechanical systems, quick fix of low- and no-cost measures, report of other recommendations;

support with implementation and rebates (buildings between 5,000 and 50,000 square feet)

- [Onsite energy audits](#) and [engineering assistance studies](#) (minimal fees) that identify and quantify energy-saving projects (Xcel Energy will pay up to 75 percent of engineering assistance study costs up to \$25,000 based on potential energy savings)
- Recommissioning for buildings greater than 50,000 square feet to identify ways to optimize building energy performance and take advantage of equipment rebates
- [Renewable\\*Connect](#) renewable energy subscription opportunity (coming soon)
- [Solar\\*Rewards® for Businesses](#) offers opportunity to offset electricity use by installing solar panels and receive \$0.005/kWh produced incentive plus net metering
- [Solar\\*Reward Community](#) for customers who want to subscribe to a solar garden and receive credit for energy produced on electricity bills
- [United Power/Tri-State rebates](#) (heat pumps, LED lighting, ENERGY STAR appliances, cooling equipment, variable speed drives, etc.)

### Partners

- Xcel Energy program staff
- United Power program staff
- C-PACE staff at Colorado Energy Office

### Outreach Channels

- Internal communication channels typically used to raise awareness about facilities needs
- City and school websites to share progress toward goals

### Measurement

- Number of projects implemented
- Renewable energy capacity installed or subscribed

## Strategy 2: Upgrade Streetlights to LED

### Description

This strategy involves City staff and Xcel Energy staff working together to identify the most appropriate long-term solution for upgrading Xcel Energy-owned streetlighting across the City for energy and maintenance cost savings. Converting streetlights to LED will save significant energy and cost and will improve safety because of better color rendering. The effort will include using lifecycle cost analysis to consider three or four options for streetlighting through the lenses of cost, GHG emissions, energy use, and long-term maintenance.

### Targets

- Develop a plan for moving forward on streetlight upgrades
- Achieve potential annual electricity savings for City of 1,434,400 kWh and cost savings from \$37,000 to \$107,000, depending on approach

### Scope

- Finalize and sign the non-disclosure agreement with Xcel Energy to discuss the valuation of the streetlighting infrastructure
- Raise awareness of this issue as a priority for the City by creating a milestone schedule, task force, and presentation/education to Council
- Determine staff recommendations for Council approval
- Develop a reasonable timeline for completing plan

### Responsible Parties and Roles

- Tom Ochtera, City of Westminster
  - Serve as City point of contact and strategy lead
  - Liaison/advisor within City to bring attention to this priority and encourage appropriate participation by other City staff
  - Support valuation process and development of recommendations
- City Manager
  - Execute non-disclosure agreement with Xcel Energy
  - Review and coordinate with legal department on proposed options/recommendations
  - Present options/recommendations to Council
- City Public Works staff
  - Coordinate on implementation logistics and plan for upgrades
- Preston Gibson, Xcel Energy
  - Serve as Xcel Energy point of contact
  - Execute non-disclosure agreement with City
  - Provide financial details to help inform City decision-making (costs, savings, etc.)
  - Liaison within Xcel Energy to bring appropriate staff in at critical points of negotiation for best results
- Partners in Energy staff
  - Encourage timely communication among team members
  - Support tracking
  - Document and share successes

**Timeline**

- Q3 2018: Complete non-disclosure agreement and begin valuation process
- Q1 2019: Present issues and options to Council with recommendations

**Funding**

- City funding to value the existing streetlight system citywide
- City Attorney staff time and possible outside legal counsel
- City funding for potential third-party valuation

**Partners**

- Xcel Energy program staff
- United Power program staff

**Outreach Channels**

- Internal communication channels typically used to raise awareness about facilities needs
- City and school websites to share progress toward goals

**Measurement**

- Successful recommendations to Council

### Strategy 3: Advance Downtown Westminster Reduced Energy District

#### Description

The City of Westminster is already underway with plans for downtown redevelopment and in late 2017 solicited support to help with its plans for a reduced energy district. This strategy is to elevate awareness about the project, encourage goals associated with that effort, and share progress with the public as it develops.

#### Targets

- 500,000 square feet of connected thermal load in 2019

#### Scope

- Finalize Exclusive Negotiating Agreement with ENGIE Group
- Develop contracts and other multi-organizational agreements, such as special purpose entities, connection and use agreements, and franchise agreements to govern long-term investments and administration of the reduced energy district
- To the extent possible, coordinate efforts in conjunction with Xcel Energy and its resources for this type of project, which may include customized rebates and incentives, negotiated rate structures, financial or performance sub-agreements, fuel purchasing, and other opportunities
- Develop partnerships with other organizations, such as the National Renewable Energy Lab (NREL) to access technical expertise
- Develop a range of services for potential reduced energy district customers, including engineering, financing, construction, commissioning, and measurement and verification for projects and potential projects related to the district
- Investigate monetizing (valuation) of assets related to in-kind contributions by the City or private developers outside of ENGIE, such as public right-of-way, ENGIE use of City assets; ENGIE use of private sector assets, etc.
- Begin marketing the downtown site to potential developers and tenants, including facilitating and securing potential grants and their requirements that benefit the overall project implementation
- Educate development community and tenant population on benefits of reduced energy district solutions
- Disseminate reduced energy district information to the public and business community metro-wide

#### Responsible Parties and Roles

- ENGIE Project Manager
  - Develop overall project scope and process with City
  - Manage and coordinate related activities
- Trane Project Manager
  - Support scope development and coordination
- City of Westminster
  - Tom Ochtera
    - Serve as City point of contact and strategy lead
    - Liaison/advisor within City to bring attention to this priority and encourage appropriate participation by other City staff
    - Support process and development of recommendations



- City Attorney
- Xcel Energy New Construction Design Assistance program staff
- NREL staff

### Timeline

- Q1 2018: Finalize Exclusive Negotiating Agreement with ENGIE
- Q3-4 2018: Contract 500,000 square feet of connected thermal load
- 2019: Continuously increase the connected load and implementation of system-wide energy efficiency and renewable energy strategies to reduce use and costs
- 2019: Incorporate SmartCity technologies toward an eco-district or overlay district (areas with special development requirements)

### Funding

- Xcel Energy programs
- Funding for City attorney or outside legal counsel toward successful PPP
- Funding for City staff time to develop relationships and educational materials
- Funding for third party engineering review of ENGIE deliverables

### Partners

- NREL technical support
- Developers
- Business community
- Chamber of Commerce

### Outreach Channels

- City website
- City building department
- City Facebook page
- Events

### Measurement

- Installed renewable/alternative energy capacity
- Reduced electricity demand compared to standard development
- Reduced energy costs for tenants (measured in energy use per square foot)
- Reduced greenhouse gas emissions (metric tons carbon dioxide equivalent – MTCO<sub>2</sub>e - compared to standard development)

## Focus Area 2: New Construction and Development

As the City grows and evolves, it has an opportunity to build into its energy standards additional options for increased building efficiency from design to construction. The City is just completing the first phase of a building standards update (moving to International Energy Conservation Code - IECC 2015) for residential construction that includes improved energy, water, and mobility standards as well as encouraging more homes to be built zero energy ready. Phase two of the update will address commercial (retail, office, and industrial) standards and presents a great opportunity to build in resources and information that can spur higher performing new construction for long-lasting impacts to the community. These new standards will, by their nature, increase efficiency and save energy.

### Strategy 4: Raise Awareness Around New Building Standards and Available Resources

#### Description

The objectives of this strategy are to increase awareness and participation in/around energy efficiency and renewable energy in new construction (both internally at the City and externally in the development/construction community), AND increase awareness and participation in/around renewable energy in new construction in Westminster.

#### Targets

- Increase participation in Xcel Energy new construction programs by 14 participants
- Inform City staff and builders/developers of resources available related to standards development and resources for building better buildings
- Train City staff to incorporate information about available resources and share with building applicants
- Host two educational workshops for builders/developers
- Encourage 10 renewable energy installations (assume 7 kW each)

#### Scope

- Assemble an internal task force and hire a code consultant to guide Phase II of design standards (commercial and more robust residential updates)
  - Move from competition/points framework to standards and alternatives
  - Encourage/require higher performing buildings (zero energy ready homes, ENERGY STAR homes, WaterSense, etc.)
  - Outline proposed standards updates (what is required, what is encouraged, what will be identified as high performance, how will high performers be incentivized)
  - Incorporate metrics into standards
  - Consider requiring pre-wire standards to accommodate electric vehicle charging in residential garages and parking lots
  - Present expected benefits and available incentives to Council
  - Move proposed standards through approval process
- Over next 2 years, coordinate education within City departments (building, planning, economic development) around new design standards – target staff members who have milestone and ongoing contact with builders/developers
  - Develop internal training plan and external public awareness campaign
  - Apply for and participate in Xcel Energy code webinars

- Offer in-house trainings
- Develop outward-facing materials to share with builders/developers and realtors to educate them about new standards and resources available
  - Make information about utility program offerings available through the building department and on the City's website
  - Offer two public workshops in coordination with Xcel Energy (should include training for local contractors)
  - Develop case studies (Adams 12 has done Energy Efficient Buildings and will be doing Energy Design Assistance)
- Create materials to inform/educate about new standards and present resources available from Xcel Energy and United Power
  - Nextdoor, website, Chamber of Commerce
  - Builder/Developer mailing lists

### Responsible Parties and Roles

- Amy Johnson, City of Westminster
  - Strategy lead
- Sean McCartney, City Urban Designer
  - Support standards development process
- All building division and planning staff
  - Develop and disseminate information
  - Share information at point of permit and other milestones during development/construction
  - Track progress
- Economic development representative
  - Support standards development process
- Consultant (will be selected in early 2018)
  - Lead standards development process
- Xcel Energy Partners in Energy staff
  - Coordinate and support code training (with Colorado Energy Office)
  - Support development and dissemination of information
  - Support workshop development

### Timeline

- Q2 2018 – Internal organization and planning
- Q3 2018 – Standards development with code consultant
- Q4 2018 – Internal education/awareness
- Q1 2019 – External communication via workshops and social media

### Funding

- Funding for City staff time
- Funding for consultant
- Utility program rebates/incentives
- Partners in Energy support for materials development
- City/Partners in Energy funding for educational events

**Partners**

- Code consultant
- Xcel Energy program staff
- Chamber of Commerce and realtor associations

**Outreach Channels**

- Pre-application meetings for new building projects
- Trade association member listings
- Chamber of Commerce member listings
- Builders' associations
- City venues for workshops
- Community Development project managers and published materials
- City webpage information
- City Edition

**Measurement**

- Level of new standards adopted
- Number of participants in workshops/trainings
- Number of participants in Energy Design Assistance and estimated energy savings from projects (kWh, therms)
- Number of participants in Energy Efficiency Buildings and estimated energy savings from projects (kWh, therm)
- Number of participants in equipment rebates
- Numbers of new construction program participants and estimated actual energy savings results
- New renewable capacity installed (residential and commercial kW)

### Focus Area 3: Residential Buildings

As noted in the baseline section of this plan, residential energy customers far outnumber commercial and industrial customers in Westminster (they represent 90 percent of total premise counts) and represent 44 percent of the community's annual electricity consumption, 68 percent of the community's annual natural gas consumption, and incur 53 percent of the total energy costs in the community. Raising awareness about energy and water efficiency and renewable energy in this sector could have significant impacts for the community over time – when customers know how to use less energy, they save money. There are a few initiatives underway to support income-qualified residents but much more can be done to raise awareness about the opportunities for savings – both cost and energy – that would have an immediate benefit for residents.

During the baseline year of 2014, 4 percent of the residential sector premises participated in efficiency programs, and 5 percent of eligible premises participated in at least one renewable energy program offered by the local utilities. The potential for improvement is considerable with the right approach, programs, and messaging.

#### Strategy 5: Deliver Residential Education and Outreach

##### Description

This strategy involves identifying existing resources and target sectors (multifamily, low-income), and connecting the target sectors and resources through education and outreach efforts.

##### Targets

- Achieve residential energy savings of 0.5 percent per year for the next 5 years
- Increase renewable energy generation and subscription (measured in kwh) by 2 percent per year for the next 5 years
- Increase participation in [Xcel Energy's Home Energy Squad](#) from 5 per year to more than 50 each year
- Increase participation in [Xcel Energy's low-income weatherization](#) programs by 100 percent (for a total of 4 multifamily buildings and more than 200 residences participating annually)
- Double participation in [Xcel Energy's Water Heater](#) rebate program, for more than 100 participants annually
- Promote awareness of joint energy and water savings opportunities

##### Scope

- Develop/update information available about efficiency and renewable energy
  - Update information about energy efficiency, water efficiency, and renewables on City website, including information about solar tools (listed below), then conduct a secondary social media push or separate active outreach effort
  - Make information available in print and in other languages for broader application (for those who do not have access to the Internet)
  - Disseminate information through available outreach channels (see list below)
  - Disseminate information through specific events (see list below)
- Target multifamily buildings
  - Reach out to landlords and/or property management companies using City reclaimed water contact lists as a starting point

- Conduct education about multifamily programs and who benefits (building owners and tenants)
- Pilot with two or more Home Owners Associations (HOAs)
  - Provide information about ReSource Central indoor and outdoor water audit programs (slow-the-flow campaign) and Xcel Energy and United Power residential rebate programs
  - Reach out to HOAs, starting with City contact list
- Offer renewable energy workshops with Xcel Energy and Colorado State University (CSU) Extension
  - Conduct renewable energy educational meeting in collaboration with CSU Extension
  - Potentially post recorded presentations on City's website to make available to those who cannot attend in person
  - Look for existing educational materials (e.g., short, engaging videos and case studies) that would be effective to include in social media outreach
  - Promote solar calculator tools to help residents navigate different renewable offerings
- Investigate whether the City's rental inspection program (which evaluates 1,400 units/year) can be leveraged for outreach on energy efficiency programs
- Investigate whether program materials can be included with the kill-a-watt kits available at Westminster libraries
- Promote Xcel Energy's Home Energy Squad, Home Energy Audit, and other programs through ReSource Central (formerly Center for ReSource Conservation)
  - Provide ReSource Central staff with leave-behind materials about Home Energy Squad, Home energy Audits, and other programs to share with interested residents
  - ReSource Central will modify their existing customer feedback survey to include questions about interest in home energy programs and links to Xcel Energy programs
  - ReSource Central will update its website in 2018 to include an energy section with links to utility energy efficiency programs

### Responsible Parties and Roles

- Paul Schmiechen, City of Westminster Chief Sustainability Officer (strategy lead)
  - Coordinate with internal departments and communications staff
  - Support City messaging and events
- Brian Donahue, Project Specialist and City Resource Central Coordinator
  - Liaison with Resource Central
  - Communicate with income-qualified residents
- Darren Nowels, ReSource Central water programs manager
  - Liaison with Xcel Energy Partners in Energy implementation staff and City staff
  - Communicate with City participants in ReSource Centrals' indoor and outdoor water audit programs
  - Provide referrals to Home Energy Squad, Home energy Audit, and other programs of interest
- Holly Clayton, City of Westminster, rental inspection program
- Cary Weiner, CSU Extension
  - Collaborate with solar workshop materials and support, solar tools
- Ann Sutton, resident-at-large
  - Provide general implementation support and potential HOA liaison

- Ruth Doerr, Ronan Institute
  - Provide general implementation support
- Deborah Olsen, resident-at-large
  - Provide general implementation support and potential HOA liaison
- Xcel Energy Partners in Energy and program staff
  - Develop materials
  - Support event
  - Provide communications support
  - Provide tracking

### Timeline

- Q2 2018: Develop strategy timeline and identify neighborhood(s) and/or HOAs
- Q3-4 2018: Develop messaging and materials for outreach
- Q4 2018-Q1 2019: Conduct workshops and outreach through communication channels
- 2019: Repeat with other neighborhoods/HOAs/property management companies

### Funding

- Funding for City staff
- Partners in Energy staff
- Xcel Energy rebate programs
- Event and marketing materials support
- ReSource Central (in-kind contributions)

### Partners

- City residents
- Planning/building staff representatives
- Adams County Housing Authority
- Targeted HOAs
- Property management companies
- United Power program staff
- CSU Extension (solar resources, including home calculator and workshop support)

### Outreach Channels

- Earth Day
- Westy Fest
- Operation Freebird (low-income outreach)
- City website
- Nextdoor
- City Facebook page
- City Edition (goes out six times/year)
- Westminster Window
- Xcel Energy bill inserts
- City of Westminster water bill inserts
- City Park Recreation Center
- The MAC



- North Metro Community Services
- Libraries (kill-a-watt kits)
- Chamber of Commerce (new resident packets)
- Twitter

### Measurement

- Total energy savings (in kwh and therm) and total participation in identified programs
- Total power generation/subscription (in kwh) and total participation in renewable energy programs
- Total GHG emission savings (in MTCO<sub>2</sub>e) from energy efficiency and renewable program participation
- Numbers events where energy efficiency and renewable energy awareness is promoted

## Focus Area 4: Commercial Buildings

Reaching businesses is a challenge in many communities, especially when it comes to engagement around energy efficiency. However, commercial buildings account for more than half (52 percent) of the community's total electricity consumption and there are many opportunities for these businesses to save energy and money. With a targeted approach that is simple, easy, and impactful, this sector can benefit from and contribute to overall community efforts.

### Strategy 6: Implement Awareness Campaign Through Westminster Chamber of Commerce

#### Description

The strategy is designed to leverage the Westminster Chamber of Commerce and City of Westminster networks and efforts around sustainability to provide information about energy efficiency and renewable energy resources available, promote the benefits of taking action for greater efficiency, and recognize leaders and high performers in the business community. The approach will start by promoting and sharing information about a few key utility programs designed to bring awareness and immediate energy and cost savings to participants. These programs can serve as a gateway activity for business owners to think about participating in other ways in the future. Initial programs will include Xcel Energy's Small Business Lighting and Commercial Refrigeration offerings, which include a free installation of screw-in LED lamps and faucet aerators along with recommendations for other equipment upgrades and support to get projects completed. In addition to gateway programs, the approach will include providing information on renewable energy options available to businesses in Westminster. With this strategy as a catalyst, the intent is for additional initiatives targeted at commercial businesses to evolve over time to address a sector with high energy use and potential for energy savings.

#### Targets

- Enroll 100 businesses in [Xcel Energy's Small Business Lighting](#) Program by the end of 2019
- Encourage increased participation (20 participants) in utility energy audit offerings
- Increase participation in other utility business programs, such as [Commercial Refrigeration](#), [Lighting Efficiency](#), and [Motors & Drives](#)
- Increase commercial participants in renewable energy programs by 50 percent (63) for the end of 2019

#### Scope

- Convene team from the Chamber of Commerce, Metro North Chamber of Commerce, Westminster Economic Development and Sustainability areas, Xcel Energy, and United Power
- Identify program information to share and develop "Assistance List" or collateral messaging programs and benefits, along with direct contact information (could be one or more pieces, depending on schedule)
- Develop calendar of events and communications to leverage for pushing out information
- Take advantage of upcoming Chamber Sustainability Summit (3<sup>rd</sup> quarter 2018) to share utility resources and recognize high-performing businesses
- Develop a case study from Westminster business community
- Coordinate content for Chamber monthly newsletter, social media outlets, and welcome pack
- Add a sustainability webpage to the Chamber's website with links to utility resources and City efforts
- Add sustainability information to the City's Economic Development webpage

- Support businesses in the fall planning season with information about equipment upgrades and renovation resources
- Develop an energy efficiency and renewable energy checklist for businesses (longer term)
- Track progress and, if successful, identify next corridor for implementation

### Responsible Parties

- Bryan Head, Westminster Chamber of Commerce (strategy lead)
  - Convene team and coordinate materials and content for Chamber outreach and events
- Paul Schmiechen, City of Westminster Chief Sustainability Officer
  - Serve as City liaison
- Stephanie Troller, City of Westminster Economic Development
  - Coordinate communication and serve as business liaison
- Metro North Chamber of Commerce staff
  - Collaborate on sharing content through existing channels
- Xcel Energy Partners in Energy and United Power program staff
  - Support co-branded materials/content development
  - Support communications
  - Liaison with Xcel Energy program staff
  - Tracking

### Timeline

- Q2 2018: Convene team and prioritize programs and messaging
- Q3 2018: Develop content, conduct outreach through existing channels, and leverage Sustainability Summit to recognize high-performing business
- Q4 2018: Support fall business planning with content and resources for businesses
- Q1 2019: Track results and continue to share information

### Funding

- Funding for limited staff time (Chamber, City)
- Xcel Energy and United Power program incentives and free equipment
- Partners in Energy staff time

### Partners

- Metro North Chamber of Commerce
- Xcel Energy and United Power account representatives

### Outreach Channels

- Chamber website, events, social media outlets, and welcome packets
- Chamber of Commerce ambassadors for new businesses – direct contact
- City website
- City Edition
- Direct email contact
- Xcel Energy program staff and account managers for large business customers

**Measurement**

- Numbers of businesses that sign up and implement
- Estimated energy and cost savings from direct installation of equipment and resulting projects
- Renewable installations and kW produced

**Summary: Energy and GHG Savings from Focus Area Strategies**

To meet the City’s energy savings and GHG reduction goals outlined earlier, the following assumptions were included in projection modeling conducted as part of the planning process:

- Maintain level of historical participation, energy savings, and GHG savings from DSM and renewable program offerings
- Increase participation (above historical levels) and energy savings from DSM programs from the implemented strategies in this plan
- Increase participation (above historical levels) and GHG savings from renewable energy programs from the implemented strategies in this plan.

Figures 19 and 20 illustrate estimated strategy contributions to energy savings of electricity and natural gas, respectively.

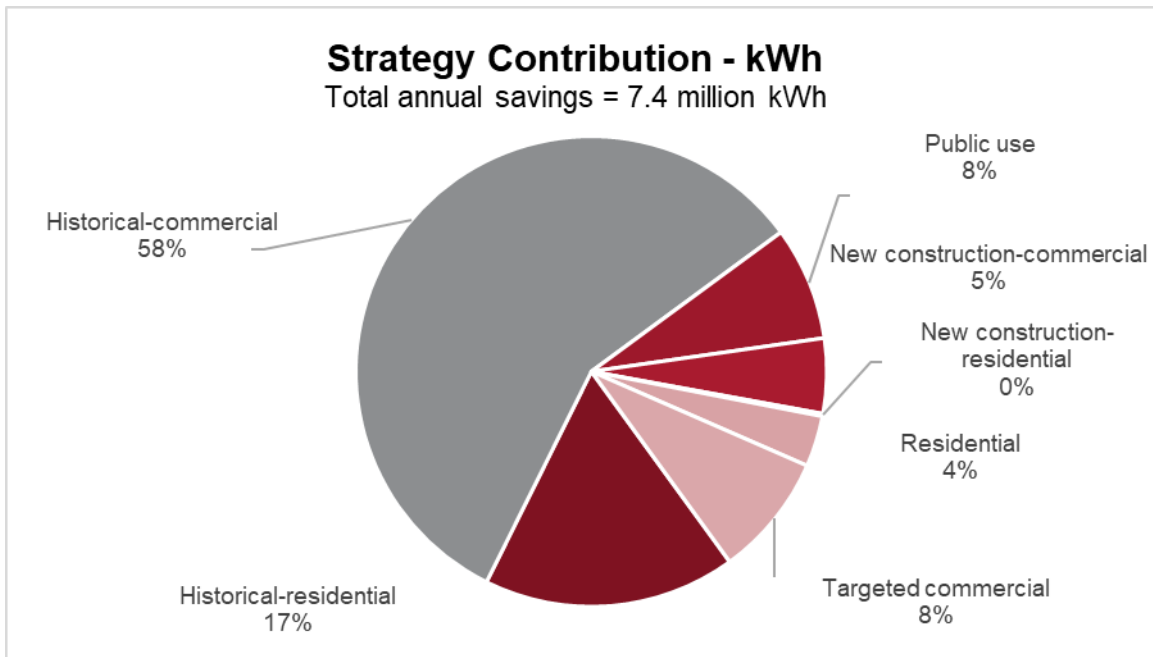


Figure 19. Electricity Energy Savings by Strategy

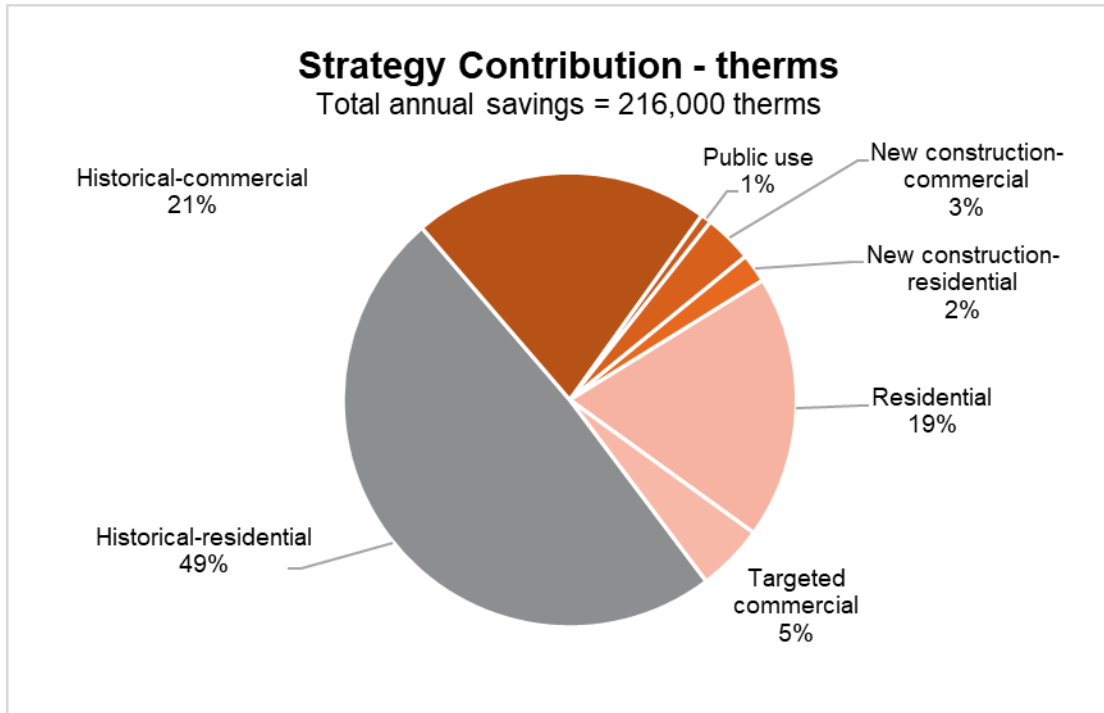


Figure 20. Natural gas energy savings contributions by strategy

Through modeled increased participation in DSM and renewable energy programs and Xcel Energy’s efforts to include more renewable energy sources in its fuel mix, the City anticipates reducing annual GHG emissions from buildings by 19 percent by 2030, which means reducing Westminster’s annual carbon footprint by 136,110 MTCO<sub>2</sub>e.

### How Are We Going to Stay on Course?

To achieve the targets and energy goal outlined in this plan, the City of Westminster 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 meet regularly to flesh out the details of implementation, carry through on identified actions, and share progress and results. This group of teams also will meet on a bi-annual basis to make course corrections, where necessary, and update actions to meet the realities of implementation.



Figure 21. Actions and Tracking

### Operational Actions and Tracking

Partners in Energy staff will track energy savings data (cost, kWh, and therms) for Westminster 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

Because the City of Westminster considers this effort to be highly visible and important in its mission to the community, the Energy Action Plan and updates, progress, and successes will be shared via the City website, social media outlets, periodic press releases, and The City Edition.

## 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 be cyclical and will have long-term positive implications. In addition, the nature of implementation requires staging, flexibility, and course adjustments when necessary to be successful and to sustain progress.

To accommodate the fluid nature of action and implementation and learn from experience early in the process, the regularly scheduled strategy team meetings as well as the bi-annual team meetings 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 Westminster and Xcel Energy will publish updates on progress, share successes, and congratulate participants and partners through the City's active social channels.

## Beyond the Plan Horizon

The City will be developing a broader community sustainability plan in the near future and this Energy Action Plan will be a key component that will necessarily require updates over time to align with the broader objectives. A recursive planning approach incorporates all the lessons learned, new technologies, new programs, changing resources, and evolving priorities for the community.

## 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.

**MTCO<sub>2</sub>e:** Metric tons of carbon dioxide equivalent (MTCO<sub>2</sub> 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: Xcel Energy Renewable Energy Options

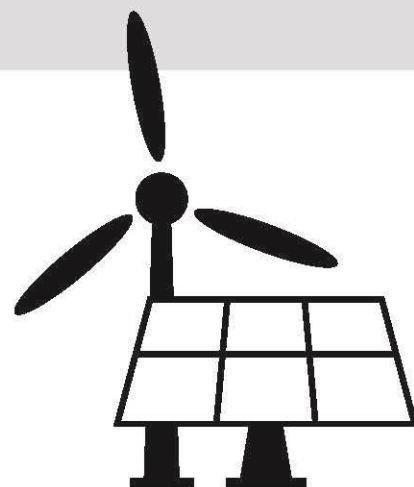
See following pages.

# DE-MYSTIFY RENEWABLE ENERGY!

Interested in renewable energy, but confused about what options are available? Xcel Energy offers solar and wind programs to meet your needs.

## Why should you participate in these programs?

- ✓ Green your fuel source mix
- ✓ Reduce your greenhouse gas emissions
- ✓ Contribute to community energy goals



## Which renewable energy program is the right fit for you?

	Solar*Rewards®	Windsorce®
<b>Program Description</b>	Install solar panels to produce your own energy and sell energy you don't use back to Xcel Energy.	An easy, flexible, low-risk way to power your home with wind energy.
<b>Eligibility</b>	<ul style="list-style-type: none"><li>• Xcel Energy electricity customer</li><li>• Homeowner</li></ul>	<ul style="list-style-type: none"><li>• Xcel Energy electricity customer</li><li>• Homeowner or renter</li></ul>
<b>Cost &amp; Benefits</b>	Produce your own energy and receive a \$0.005/kWh incentive from Xcel Energy. Also receive credit from Xcel Energy for extra energy produced or carry over to the next month.	Pay \$1.50 per block subscribed in addition to standard electricity charges. Subscriptions available in 100-kWh blocks.
<b>Renewable Energy Credits (RECs)</b>	Xcel Energy is the REC owner for 20 years and then ownership is transferred to you.	RECs are retired on your behalf.

**START THE PROCESS TODAY!**

For questions and more information visit:

 [xcelenergy.com/renewables](http://xcelenergy.com/renewables)

 **Xcel Energy®**

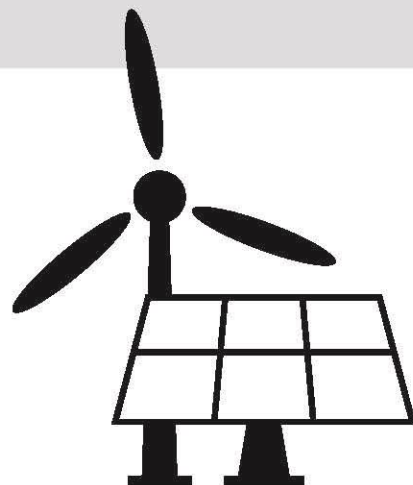
**PARTNERS IN ENERGY**  
An Xcel Energy Community Collaboration

# DE-MYSTIFY RENEWABLE ENERGY!

Interested in renewable energy, but confused about what options are available? Xcel Energy offers solar and wind programs to meet your business's bottom line.

## Why should you participate in these programs?

- ✓ Green your fuel source mix
- ✓ Reduce your greenhouse gas emissions
- ✓ Contribute to community energy goals



## Which renewable energy program is the right fit for you?

### Solar\*Rewards®

### Windsource®

#### Program Description

Install solar panels to produce your own energy and sell energy you don't use back to Xcel Energy.

An easy, flexible, low-risk way to power your business with wind energy.

#### Eligibility

- Xcel Energy electricity customer
- Building Owner

- Xcel Energy electricity customer
- Business Owner

#### Cost & Benefits

Produce your own energy and receive a \$0.005/kWh incentive from Xcel Energy. Also receive credit from Xcel Energy for extra energy produced or carry over to the next month.

Pay \$1.50 per block subscribed in addition to standard electricity charges. Subscriptions available in 100-kWh blocks.

#### Renewable Energy Credits (RECs)

Xcel Energy is the REC owner for 20 years and then ownership is transferred to you.

RECs are retired on your behalf.

## START THE PROCESS TODAY!

For questions and more information visit:



[xcelenergy.com/programs\\_and\\_rebates/business\\_programs\\_and\\_rebates/renewable\\_energy\\_options\\_business](https://www.xcelenergy.com/programs_and_rebates/business_programs_and_rebates/renewable_energy_options_business)



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An Xcel Energy Community Collaboration

## Appendix 3: Implementation Memorandum of Understanding

To be added.