City of Aurora
Partners in Energy Plan

August 2021

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ACKNOWLEDGEMENTS

This planning process was initiated by City of Aurora's application, and subsequent acceptance, to participate in Xcel Energy's Partners in Energy program. Xcel Energy is the main electric and gas utility serving the City of Aurora. Partners in Energy is a two-year collaboration to develop and implement a community's energy goals.

City of Aurora's application and a Memorandum of Understanding provided guidance for the planning process, and informed the selection of the Energy Action Team and the focus areas of this plan. The specific vision, goals and strategies identified in this plan were derived from a series of planning workshops hosted by Xcel Energy's Partners in Energy. For more information about the planning workshops, see **Appendix A: Xcel Energy's Partners in Energy Planning Process**.

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

Energy Action Team

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

City of Aurora Energy Action Plan

Why Develop an Energy Action Plan

The year 2020 - bringing a global pandemic, economic recession, and racial justice protests - highlighted the critical importance of adapting to rapidly changing conditions, building resilience, and bringing equity to the forefront of community planning and decision-making. The City of Aurora applied to Partners in Energy as part of their larger efforts to **connect local business, institutions, multifamily building owners, and nonprofit organization with the resources they need** to recover, adapt, and thrive.

Representatives from these sectors, along with City of Aurora staff, formed the Energy Action Team, which helped build this plan from the ground up. With the help of this Team and supporting members of the community, we hope to achieve the team's vision and goals through implementation of this strategic Energy Action Plan.

Our Energy Action Plan Vision

The City of Aurora will be a leader in energy action, by piloting and sharing success stories and significantly increasing the number of customers participating in energy programs. In doing this, the City and its community members will keep energy-related operational and capital costs low, while contributing to a more reliable energy infrastructure and a greener, cleaner environment.

Energy Baseline: 2019

C&I facilities consumed **49% of total energy** and created **55% of green house gas emissions**

On average, C&I facilities spent **$11,000** on energy bills

Aurora customers saved **$2.8 million** on energy efficiency programs, an average of **$3,000 per participant**

*Commercial and Industrial (C&I) facilities represent 9% of premises served.

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Our Focus Areas

The Energy Action Team identified key strategies for each of the focus areas identified in City of Aurora's Partners in Energy application. The focus areas reflect priorities of supporting economic recovery and resilience, and bringing equity to the forefront of energy planning.

Businesses

- ✓ Connect property owners and tenants with energy program information and campaigns
- ✓ Share energy program information with new and existing businesses through existing City of Aurora channels
- ✓ Celebrate and recognize business energy leaders

Institutions

- ✓ Complete energy efficiency upgrades in facilities
- ✓ Connect local institutions (e.g., schools, health care facilities) with energy program information
- ✓ Conduct resiliency feasibility assessments

Multifamily and Nonprofit Organizations

- ✓ Connect multifamily and nonprofit property owners with targeted energy program information
- ✓ Share energy resources for the community through nonprofit partners

Impact and Results of Plan Implementation

142 additional participants in energy programs, above historical participation of 6,098 per year

Approximately **$549,000 in energy cost savings**

Additional **electricity savings of 5.6 GWh**, above historical electricity savings of 25.8 GWh per year

Additional natural gas savings of 65,000 therms, above historical natural gas savings of 84,000 therms per year

Greenhouse gas reduction of 2,700 MTCO$_2$e, equivalent to switching 102,300 incandescent lamps to light-emitting diode (LED) (EPA, 2021)

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INTRODUCTION

Why Develop an Energy Action Plan

The city of Aurora is one of Colorado's fastest growing and most diverse communities. City of Aurora was one of the first communities involved in the Partners in Energy pilot program in 2014 and knows the benefits coordinated energy planning can bring. Since that first round of participation, the energy sector and the community's energy priorities have changed significantly. Barriers to and costs of renewable energy have decreased, efforts to improve grid resilience and energy performance have increased, and electric vehicles have become a significant part of Colorado's vehicle mix. In addition to the changes experienced over the past seven years, the COVID-19 pandemic and the racial equity protests experienced across the nation in 2020 highlighted the importance of adapting, building resilience, and bringing equity to the forefront of planning and decision-making. The City reengaged in the Partners in Energy offering to align its energy efforts to new priorities and values, support economic recovery and resilience, and bring equity to the forefront of energy action.

This Energy Action Plan also makes important progress toward one of the City's goals, established in the 2018 Comprehensive Plan, of conservation and efficient use of energy resources for the City of Aurora.

Our Engagement & Outreach Process

The creation of this Energy Action Plan was a 10-month process to characterize the City of Aurora's community-wide energy use, identify an energy-related vision and goals, and develop strategies to achieve the City's energy vision. Starting in August 2020,

development of the Energy Action Plan was driven by a series of planning workshops held with the Energy Action Team (Team), formed to provide perspective from four key sectors: businesses, institutions, multifamily, and nonprofit. The Team included members of the community committed to representing local energy priorities, City of Aurora staff, and Xcel Energy Partners in Energy representatives.

Through the planning process, 13 members of the Energy Action Team were engaged through two surveys, four workshops, several work sessions, and one-on-one outreach. Additionally, the process sought input from the City of Aurora's Business Advisory Board and Stanley Marketplace tenants through question and answer sessions. See **Appendix A: Xcel Energy's Partners in Energy Planning Process** for more information about the planning process and the Partners in Energy offering.

WHERE WE ARE NOW

An integral part of the Partners in Energy planning process is reviewing historical data that informs the City of Aurora's community energy baseline. Xcel Energy provided data on energy use, energy efficiency program participation and savings, and renewable energy program participation and generation for the City of Aurora, as detailed in the following sections. Historical energy data for the period 2017-2019 were analyzed to find opportunities to reduce energy use and save money, with the most recent year of available data at the time of plan development (2019) serving as the baseline year. **Appendix B: Baseline Energy Analysis** includes a comprehensive picture of the City of Aurora's baseline energy data.

Grid-Supplied Energy Use

Xcel Energy serves electricity and natural gas to 158,139 unique locations (known as premises) in the City of Aurora (Figure 1). In 2019, City of Aurora community members used a total of 2,765 GWh of electricity and 753,400 therms of natural gas, or 23.6 Million MMBtu, a unit of measure to combine natural gas and electricity use (Figure 2). The average Commercial and Industrial (C&I) facility used more energy than the average residence, so although C&I facilities represent only 9% of premises served,

they use 49% of the total energy (Figure 3). In 2019, C&I produced 55% of greenhouse gas emissions from stationary energy use (

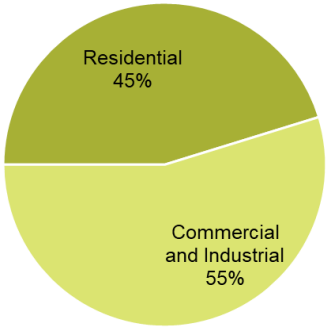


Figure **4**), measured in metric tons of carbon dioxide equivalent ($MTCO_2e$). See **Appendix C: Glossary of Terms** for a complete glossary of terms.

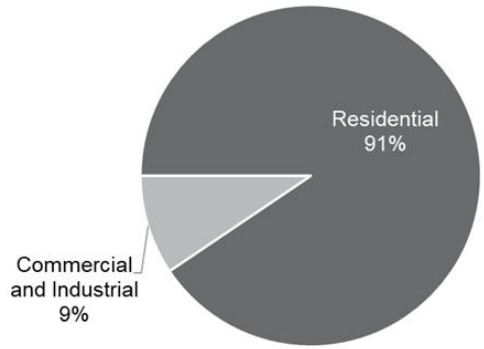


Figure 1. 2019 Premise Count:
158,139 Premises

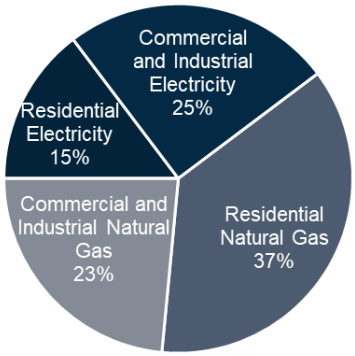


Figure 2. 2019 Energy Consumption by Fuel and Sector:
6,269,439 MMBtu

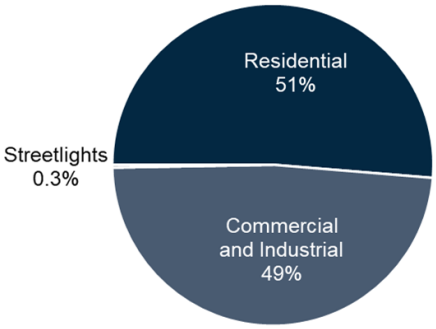


Figure 3. 2019 Total Energy Consumption:
23,632,065 MMBtu

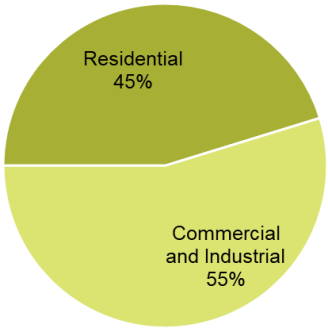


Figure 4. 2019 GHG Emissions:
2,192,502 ($MTCO_2e$)

Program Participation & Savings

Xcel Energy offers a variety of energy efficiency and renewable energy programs that provide customers energy and cost savings and access to carbon-free energy sources. In 2019, approximately 5% of C&I premises and 4% of residential premises participated

in energy efficiency programs, which is typical of communities across Colorado (Table 1). Also in 2019, 0.3% of C&I premises and approximately 5% of residential premises participated in renewable energy programs, also typical across the State (Table 2). Participation in renewable energy programs is expected to increase, particularly in the residential sector, as the cost of renewable energy decreases.

Table 1. 2019 Energy Efficiency Program Participation

Sector	Participation (#)	Participation (%)
Residential	5,297	3.7%
Commercial and industrial	801	5.4%
Total	6,098	3.9%

Table 2. 2019 Renewable Energy Program Participation

Sector	Participation (#)	Participation (%)
Residential	6,813	4.8%
Commercial and industrial	50	0.3%
Total	6,863	4.3%

The top residential and C&I energy efficiency rebate programs used in the City of Aurora, based on participation, are shown in Table 3.

Table 3. 2019 Energy Efficiency Programs with Highest Participation

Residential	Commercial & Industrial
1. Energy Savings Kit	1. Lighting Efficiency
2. Refrigerator & Freezer Recycling	2. Lighting Small Business
3. Residential Heating	3. Cooling
4. High Efficiency Air Conditioning	4. Commercial Refrigeration Efficiency
5. Energy Star New Homes	5. Motor & Drive Efficiency

Residents and businesses participated in all Xcel Energy renewable energy programs that were available in 2019, with the Windsource®, Net Metering, and Renewable*Connect® programs showing the highest participation levels.

Table 4. 2019 Renewable Energy Programs with Highest Participation

Residential	Commercial & Industrial
1. Windsource®	1. Windsource®
2. Net Metering	2. Renewable*Connect®
3. Renewable*Connect®	3. Net Metering & Solar*Rewards®

WHERE WE ARE GOING

Energy Vision Statement

The Energy Action Team created a vision statement for this Energy Action Plan, reflective of community energy priorities, to help guide this planning process.

The City of Aurora will be a leader in energy action, by piloting and sharing success stories and significantly increasing the number of customers participating in energy programs. In doing this, the city and its community members will keep energy-related operational and capital costs low, while contributing to a more reliable energy infrastructure and a greener, cleaner environment.

Focus Areas

To achieve the vision for City of Aurora's energy future, the Energy Action Team identified strategies and implementation resources for the three focus areas identified in the City's application. The focus areas reflect City of Aurora's priorities of supporting economic recovery and resilience, and bringing equity to the forefront of energy planning.

- **Businesses:** This focus area includes large and small businesses, with the intent to share energy program information and conduct energy campaigns to help businesses reduce energy use and operating costs. The top energy priority is energy efficiency, though electric vehicles and renewable energy program information will also be shared.
- **Institutions**: This focus area includes strategies for Aurora Public School District and Aurora Community College, while acknowledging the potential to also share best practices with other institutions such as healthcare facilities. Energy priorities include demand management, transportation electrification, renewable energy, and energy efficiency.
- **Multifamily and Nonprofits:** This focus area includes multifamily and nonprofit property owners and managers, with the intent of reducing operating costs for buildings to improve tenant comfort and safety. Nonprofits will also be provided with energy-saving information to share with the community members they serve. Energy priorities include energy efficiency and renewable energy.

Goals and Targets

Plan goals and targets were modeled to represent the impact of the strategies in this plan over the 18-month implementation period:

- 142 additional participants in energy programs, above historical participation of 6,098 per year
- Approximately $549,000 in energy cost savings
- Additional electricity savings of 5.6 GWh, above historical electricity savings of 25.8 GWh per year
- Additional natural gas savings of 65,000 therms, above historical natural gas savings of 84,000 therms per year
- Greenhouse gas reduction of 2,700 $MTCO_2e$, equivalent to switching 110,300 incandescent lamps to LEDs (EPA, 2021)
- Explore the feasibility of participating in a communitywide electric vehicle planning effort through Xcel Energy Partners in Energy

To achieve these goals, energy efficiency program participation targets were established by focus area. Table 5 shows the top three energy programs to be promoted during plan implementation.

Table 5. Energy Efficiency Program Participation Targets by Focus Area

Business 104 additional participants	Institution 24 additional participants	Multifamily 13 additional participants
• Small Business Energy Solutions • Commercial Streamlined Assessment	• Lighting Efficiency • Motor and Drive Efficiency • Custom Efficiency	• Multifamily Buildings • Multifamily Weatherization • Non-Profit Efficiency

HOW WE ARE GOING TO GET THERE

Focus Area: Businesses (B)

Businesses represent almost half of communitywide energy use even though they represent only 9% of locations served, presenting significant potential opportunity for community-wide energy and cost savings. Businesses spend on average about $11,100 per year on energy - $9,600 for electricity and $1,500 for natural gas. Out of 14,900 C&I premises, there are over 800 participants in Xcel Energy's commercial energy efficiency programs each year, with participants receiving an average of $6,000 in rebates and financial incentives in addition to ongoing savings from reduced energy use.

This focus area aims to produce a greater impact by working with large and small businesses to increase participation in energy efficiency programs. The resulting energy savings will help businesses financially while also helping increase communitywide energy savings and climate resiliency. During the 18-month plan implementation period, we aim to achieve the following targets in the business focus area:

- 104 additional program participants from baseline participation (933 total C&I energy efficiency program participants targeted[1]), resulting in an additional
    - 4 GWh of electricity savings

[1] The total C&I energy efficiency program participation target of 933 includes all commercial program participation targets across the Business, Multifamily and Nonprofits and Institutional Focus Areas.

    - 25,000 therms of natural gas savings
    - 1,800 MTCO$_2$e of greenhouse gas savings

Strategy B1: Property Owner and Tenant Outreach

Description

- This strategy will rely on coordination between Partners in Energy and implementation partners in the business community to conduct energy campaigns, share energy program information, and give out supporting resources such as specialty LED kits and lunch kits. Energy campaigns are defined as a concerted effort to enroll targeted businesses in a specific energy program offered by Xcel Energy.

Context and Barriers

- There are not many building owner-operators in Aurora; rather, there is a majority of leased commercial space.
- Implementation actions should favor active approaches (canvasing with materials and resources) over passive activities (mailers, webinars).
- A trusted connection to Xcel Energy and/or the City of Aurora is important for having credibility with businesses. Some businesses have had negative experiences with individuals who took advantage during past campaigns, falsely presenting themselves as Xcel Energy vendors and later presenting businesses with “surprise” bills. Outreach approaches will be designed to maximize credibility and to be sensitive to differing cultural preferences, as feasible.
- We are a diverse community. There are 116 languages spoken in the community. Additionally, cultural barriers exist, such as aversion to taking on debt and loans, and paying interest. In cases where accurate and reasonable, terminology can be altered to be sensitive to cultural preferences.
- Multi-lingual capability is very helpful for inclusivity. Top languages spoken in Aurora include English, Spanish, and Korean. Program materials can be translated into Spanish if the program vendors offer Spanish-speaking technicians. Materials that use infographics rather than words will also better communicate information to a more diverse audience.

Target Audience

This strategy will focus efforts on business corridors and/or business types:

- Business corridors
    - Wholesale
        - Smith & I70 – industrial/light manufacturing
    - Retail
        - Prologis
        - Stanley Marketplace
        - On Havana Street Business Improvement District
        - Majestic

        - Gateway
        - Box Elder
        - Argenta (mixed use)
        - Cultural Art District
    - Office
        - Havana Tower
        - Water Park 1,2,3 (owned by Kaiser Permanente)
    - Oil and Gas
        - Crestone Peak Resources
- Business types
    - Car dealerships
    - Restaurants (on Havana Street or more broadly)
    - Retail (with an intent to focus on independent businesses with large square footage)
    - Churches
    - Laundromats

Scope and Timeline

- Implementation Q1
    - Develop, print, and share program collateral with nonprofit and business partners for distribution. Energy efficiency and electric vehicle programs should be the top focus, but renewable energy information should also be distributed. A range of energy financing options may also be shared, from Xcel Energy's program to microlending. All collateral will include:
        - Information about the City of Aurora's Energy Action Plan.
        - Contact information for Xcel Energy's Business Solutions Center, to help business owners and tenants find the right energy programs.
        - Information about the approved program vendor so businesses will know who should be contacting them.
    - Share program collateral, directly, with interested businesses. For example, transportation electrification information will be specifically distributed to On Havana Business District, Stanley Marketplace, and Western Centers, as they are interested in charging stations and fleet electrification.
- Implementation Q2
    - Begin planning for the Small Business Energy Solutions (SBES) and the Commercial Streamlined Assessment (CSA) campaign. These programs provide small and large businesses a free site walk-through, recommendations, rebate options, and direct installs (e.g., LEDs, faucet aerators, pipe insulation) for qualifying businesses. SBES is specifically geared toward businesses with less than 400 kW of demand, while CSA serves larger businesses.

    - Train nonprofit and business representatives who are multi-lingual and will distribute the collateral to connect their customers to energy programs, acknowledging that many energy programs are offered solely in English.
- Implementation Q3
    - Work with SBES and CSA vendor(s) to design the campaign and develop an outreach plan. Consider whether to recruit a “lead” business from each business corridor or type to serve as an information test case to share successes. Where possible, recruit businesses with multiple locations to help extend the reach of the campaign.
- Implementation Q4
    - Execute outreach plan and begin enrolling businesses. As able, distribute giveaways to help incentivize recruitment.
- Implementation Q5
    - Continue executing outreach plan and enrolling businesses in SBES and CSA programs.
- Implementation Q6
    - Complete and close out all activities, including summary of campaign design, execution, impact, and lessons learned - to inform campaigns in other communities.
- As available
    - Distribute giveaways (e.g., specialty LED kits, lunch kits), through businesses to residents, that include a sticker or flyer with information about the City of Aurora’s Energy Action Plan and energy programs.

Roles and Responsibilities

- Partners in Energy – Lead Role
    - Hold monthly coordination calls with the business focus area team leads (listed below)
    - Develop and print collateral
    - Facilitate campaign design, marketing, and delivery among Xcel Energy, program vendors, and business representatives
    - Lead up orders for giveaway items
- Business Partners – Lead Role
    - Coordinate campaign planning and outreach plan execution
    - Disseminate energy program information
    - Identify community connections who speak languages other than English
    - Introduce Partners in Energy representatives to businesses and related associations
    - Partners include representatives from:
        - On Havana Street Business Improvement District
        - Stanley Marketplace
        - Aurora Economic Development Council
- City – Lead Role

    - Coordinate campaign planning and outreach plan execution
    - Disseminate energy program information
    - Identify community connections who speak languages other than English
    - Introduce Partners in Energy representatives to businesses and related associations
    - City representatives will come from the Business Advisory Board

Communication Channels and Supporting Resources

- Distribution of energy information in languages other than English
    - Via community partners such as Village Exchange Center
- Distribution of giveaways
    - Via community partners such as Havana Auto Parts
- Presentation and tabling opportunities
    - Business Owners' Town Hall
    - Business Advisory Board meetings
    - Aurora Economic Development Council meetings
    - Prologis tenant meetings
    - Stanley Marketplace tenant meetings
    - Aurora Chamber of Commerce meetings
- Networking and dissemination of information
    - Denver Commercial Association of Brokers (DMCAB)/ Denver Commercial Association of Realtors (DMCAR) – with the Business Advisory Board as liaison
    - Refrigeration/Liquor Associations
    - Colorado Licensed Beverage Association
    - Korean & Indian Associations
    - Korean committee
    - Colorado Korean Restaurant Association
    - Korean Pastor Association (church connections)
    - Office of International and Immigrant Affairs (OIIA)
    - Companies with large holdings in Aurora, such as
        - AmCap, Inc.
        - Western Centers
        - West Star
        - John Prop
- Publications useful for outreach & networking:
    - Denver Business Journal
    - Realtor Business Journal
    - Other print media – including diverse media channels. Examples include:
        - Korean community media outlets (Weekly Focus, Oz Media, and Colorado Times) which can also help with translation.
    - Leverage translation services through OIIA and Chamber of Commerce.

Supporting Information

- Stanley Marketplace is home to 53 businesses. The Marketplace is master metered and receives one bill from Xcel Energy. The property management passes on the utility costs to tenants through sub-metering. Tenants can implement energy efficiency projects in their spaces, but the application must be signed by the building owner or a representative of a responsible party listed on the account. The building owner or responsible party would then sign the alternate rebate recipient section on the application, so the rebate goes to the tenants or whoever is paying for the project.
- The On Havana Business Improvement District (HBID) is home to 2,100 businesses (of which the HBID Board of Directors has direct contact with about half, including roughly 7-10 liquor stores, 20 markets, a large grocery store, florists, and more than 100 restaurants. The District includes 209 properties and was 94% leased as of April 2021.

Strategy B2: City-Led Activities

Description

- This strategy relies on coordination between Partners in Energy and the City of Aurora to share energy information through the City's website, social media, and meaningful points of interaction with developers and businesses.

Context and Barriers

- The City of Aurora has a history of incorporating resource conservation and sustainability into development practices. For example, the City is both a Solar Friendly Community and a SolSmart Community. Streamlined processes for adding solar to commercial buildings are available on the City's website at www.auroragov.org/solar.

Target Audience

- All (small, large, and new) businesses
- Commercial developers

Scope and Timeline

- Implementation Q1
    - Update the City's Sustainability & Small Business Development Center (SBDC) websites to provide program summaries, links to Xcel Energy programs, highlight steps the City is taking to promote energy action (e.g., streamlined inspection process for electric vehicle chargers), and share locations of public electric vehicle charging stations.
    - Work with the Communications Department to develop a process for creating, scheduling, posting, and tracking social media content. Discuss whether it is feasible to create and disseminate posts in languages other than English.

    - Develop a mechanism for various departments to track their information distribution.
- Implementation Q2
    - Begin weekly social media posts.
    - Tailor collateral developed under Strategy B1 to the developer community.
- Implementation Q3
    - Work with Aurora Economic Development Council, Public Works Department, and/or Building Division to provide energy program information, or if possible, a more comprehensive welcome kit when businesses apply for a license.
    - Work with City of Aurora Development Review to start including energy program information as part of the development review and change-of-use review processes.
    - Work with City of Aurora Building Division inspection staff to start distributing energy program information as part of the inspection process.
- Implementation Q4
    - Develop a case study showing the cost-benefit of installing charging infrastructure in new developments. Work with City of Aurora Development Review department to start including this information as part of the development review process.
    - Work with City of Aurora Building Division permitting staff to share information on making new developments solar- and electric vehicle (EV) ready. Provide examples where solar generation and charging can be coupled (e.g., solar canopies on car ports with public charging stations).
- Implementation Q5
    - Continue distribution of materials.
- Implementation Q6
    - Complete and close out all activities, including a summary of campaign design, execution, impact, and lessons learned.

Roles and Responsibilities

- Partners in Energy – Lead Role
    - Hold monthly coordination calls.
    - Develop and print collateral.
    - Develop communications plan and social media content.
    - Develop collateral distribution and tracking plan.
    - Arrange specialty LED kits or other giveaways to include in the welcome kit, when available.
    - Provide technical support on solar carport and EV charger design examples.
- City – Lead Role
    - Lead changes to City web pages.
    - Post and track social media content.

- Distribute energy materials to new businesses, development applicants, and inspection participants.

Communication Channels and Supporting Resources

- City web pages
- City social media accounts
- Suggested social media topics:
  - Raise awareness of Xcel Energy's Certified Renewable Percentage Program.
  - Economic development rate (EDR) – discounted rate for large megawatt (MW) energy users such as data centers, cold-storage warehouses
  - How to read your energy bill
  - Financing energy projects
  - Energy efficiency programs
  - Renewable energy programs
  - Top tips for saving energy in business properties
  - EV programs, webinars, and grant funding opportunities
  - Tools for finding the right EV (focus on fleet conversion)

Strategy B3: Celebrating Success

Description

- This strategy builds on City of Aurora Business Advisory Board's existing business recognition awards to recognize energy leadership.

Context and Barriers

- The Business Advisory Board has been conducting these recognition awards since 2007.

Target Audience

- Energy leaders in the business community

Scope and Timeline

- As needed based on the award date. Past awards occurred in December 2019 and April 2021 (2020 awards were presumably disrupted by the COVID-19 pandemic).
  - Work with the Business Advisory Board to develop a calendar and process for presenting an annual recognition award for energy leadership.

Roles and Responsibilities

- Partners in Energy – Lead Role
  - Support in identifying eligible businesses, based on program participation during the past year.
  - Support in identifying Xcel Energy staff for keynote addresses.
  - Provide co-branded award plaque.
  - Give the recipient a free audit or other program.

    - Contribute specialty LED kits or other available giveaways to the award basket.
    - Co-brand, with the City, a press release that announces the award recipient.
    - Feature the award recipient in a Partners in Energy newsletter, social media, and/or invite the business to be a speaker at a Partners in Energy event.
- External Partners – Lead Role
    - Business Advisory Board. The Business Advisory Board will be responsible for selecting the award recipients and handing out the awards at the annual dinner.
- City – Support Role
    - Issue the press release and other standard marketing activities associated with the awards.

Communication Channels and Supporting Resources

- Awards event
- City web pages
- City social media accounts
- City TV

Supporting Information

- Partners in Energy implementation resources cannot be used for monetary awards.

Focus Area: Multifamily and Nonprofits (MN)

This focus area is intended to help multifamily buildings and nonprofits reduce energy burdens through increased participation in energy programs. Multifamily households and nonprofits were identified as an important focus area for this planning effort, in alignment with the City of Aurora's desires to connect the community with resources during the COVID-19 pandemic and to elevate equity as a key consideration in planning processes.

The City of Aurora has a higher proportion of multifamily units than the Denver Metro Area and the State of Colorado (Figure 5). Approximately 34% of housing units in the City of Aurora are multifamily, presenting a significant pool of both building owners and residents who could benefit from energy improvements to multifamily buildings (City of Aurora, 2018).

In general, energy improvements to multifamily buildings can be challenging, as the benefits of making improvements are split between building owners and tenants. For instance, multifamily residents, especially renters, are traditionally less empowered to make energy improvements because the long-term benefits are often passed on to building owners. Alternatively, if the building owner pays for an upgrade, but tenants reap the benefits of energy savings on their utility bill, there is less incentive for the owner to take action. Finally, if the owner pays for the upgrade and passes on the cost

of the upgrade through tenant utility bills, tenants may still experience the short-term financial burden of the upgrade. Connecting building owners with free resources and rebates to lower the cost of making energy upgrades can remove some of these “split incentive” barriers and benefit both building owners and tenants.

Aurora’s Chamber of Commerce identifies 69 nonprofits located in or serving Aurora’s community members (Aurora Chamber of Commerce, 2021). Many nonprofits in Aurora serve residents with lower incomes, with limited English proficiency, or communities of color. In addition to encouraging energy improvements to the nonprofit buildings themselves, this focus area includes a strategy to connect residents served by nonprofits with free energy-saving resources and information

Assisting multifamily buildings and nonprofits can help improve conditions for Aurora’s residents, especially underserved residents, without putting the financial burden of action on the residents themselves.

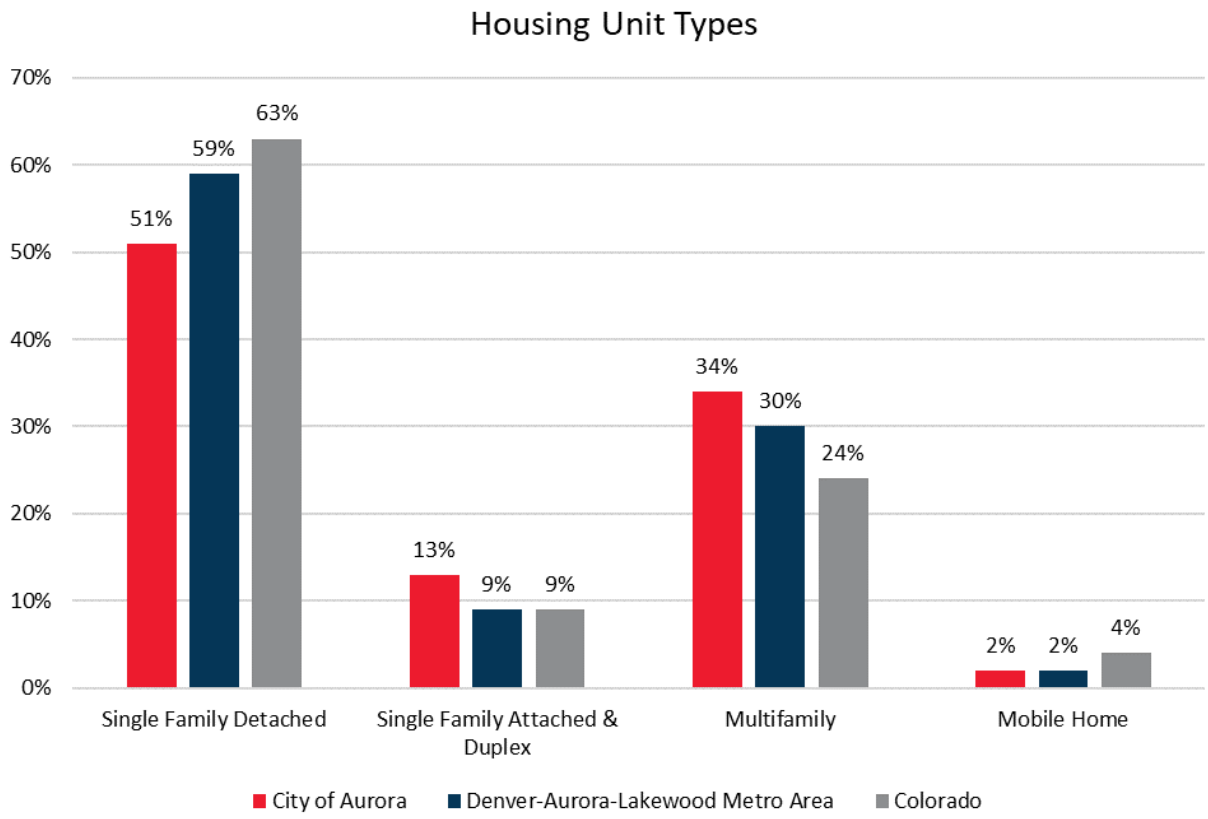


Figure 5. Percent Housing Type Comparison (City of Aurora, 2018)

In 2019, 19 multifamily buildings and 1 nonprofit participated in Xcel Energy’s energy efficiency programs, resulting in an average energy savings of 29,000 kWh and 1,300 therms, equivalent to approximately $3,200 in energy savings per year per participant. This strategy aims to increase participation in applicable energy programs by 13

participants, which would save an additional 359,000 kWh and 25,000 therms annually. These energy improvements will save building owners money, which can be passed on to tenants but will also make buildings more habitable and comfortable places to live and work.

More specifically, this strategy aims to increase program participation over the 2019 baseline by:

- 11 additional participants in the Multifamily Buildings and Weatherization programs, above the 2019 baseline, for a total of 30 participants
- 2 additional participants in the Nonprofit Energy Efficiency program, above the 2019 baseline, for a total of 3 participants

Strategy MN1: Multifamily and Nonprofit Property Owner Outreach

Description

The purpose of this strategy is to increase the number of multifamily and nonprofit buildings participating in energy efficiency and renewable energy programs. Successful implementation will rely on connecting multifamily and nonprofit property owners with compelling program information and external resources to help them identify and take energy action. There are four main programs available for multifamily and nonprofits:

- **Multifamily Building Efficiency Program**: Identifies energy-saving opportunities through an onsite assessment for buildings greater than 5 units. Energy specialists will guide participants through the rebate process and recommend qualified contractors to help with larger energy-saving upgrades identified in the assessment. During the visit, free energy-saving products (e.g., light bulbs, showerheads, and aerators) are installed in each unit.
- **Nonprofit Energy Efficiency Program (NEEP):** Provides funding for the purchase and installation of energy efficient equipment to eligible 501(c)3 nonprofits that serve low-income individuals and families. Additional services include energy audits and assistance in navigating rebates and funding sources. NEEP is operated by Energy Outreach Colorado, with funding from Xcel Energy and other Colorado utilities.
- **Affordable Housing Rebate Program (AHRP):** Provides funding for the purchase and installation of energy efficient equipment to income-qualified multifamily facilities. Additional services include energy audits and assistance in navigating rebates and funding sources. AHRP is operated by Energy Outreach Colorado, with funding from Xcel Energy and other Colorado utilities.
- **Renewable Energy Trust**: Supports renewable energy projects for Colorado nonprofit organizations and public entities. The installed renewable energy projects help nonprofit and public organizations offset their energy costs, allowing energy savings to be reinvested in many community programs. The Renewable Energy Trust is a donor-advised fund of The Denver Foundation.

Context and Barriers

- Nonprofits are often resource- and time-constrained, especially as they continue to support the communities that they serve in navigating the impacts of the COVID-19 pandemic.
- It can be challenging to connect with multifamily property owners, especially those who own multiple properties across multiple locations (and potentially within different utility service territories). It will be important to find community partners to help make introductions.
- The upfront cost of energy improvements can be a barrier to taking impactful and lasting energy action (like upgrading equipment), especially for nonprofits. Many grant opportunities still require a financial match. Strategies must address upfront costs or couple with financing mechanisms.
- Organizations may need to budget for improvements before they can be made, and savings may be challenging to consider in the business case if a budget only looks at a single fiscal year rather than payback or lifetime savings of the measure.
- There is an opportunity to target older buildings. For instance, ballast lighting in older buildings may be a key opportunity. The City's first building code was adopted in 2000; buildings built prior to 2000 may have the greatest opportunities for energy improvements. Buildings built prior to 2010 may include equipment reaching the end of its useful life.
- Information should be available "on demand" to account for busy schedules.
- A trusted connection to Xcel Energy and/or the City is important for credibility.

Target Audience

The target audience for this strategy includes all multifamily buildings and nonprofit buildings that qualify for the programs listed in the description.

Eligibility requirements are as follows:

- **Multifamily Building Efficiency Program**
  - Greater than five (5) units
- **Nonprofit Energy Efficiency Program**
  - Organization's core mission serves low-income individuals and families
  - Organization is an IRS 501(c)3 nonprofit organization in good standing with the State of Colorado
  - Organization owns the facility and is responsible for paying the energy bills
  - Exceptions
    - Churches with low-income services provided directly by the church
    - Organizations with long-term leases (minimum 3 years remaining, option to renew) and a letter showing owner support
    - Nonprofits leasing government-owned buildings may qualify on a limited basis

- **Affordable Housing Rebate Program**
  - Building has 5 or more units
  - Building has a central heating system
  - 66% of the building residents are at or below 80% of area median income (AMI) (Table 6)

Table 6. AMI by household size for the City of Aurora

Household Size	1	2	3	4	5	6	7	8
AMI	$ 50,400	$57,600	$64,800	$71,920	$77,680	$83,440	$89,200	$94,960

Source: Energy Outreach Colorado

- **Renewable Energy Trust**
  - Project must be for a nonprofit, government, or educational institution
  - Project cannot be used for commercial or individual benefit

Initial multifamily outreach will focus on buildings constructed prior to 2010, as these buildings are most likely in need of energy upgrades based on the expected lifetime of key energy equipment e.g., Heating, Ventilation, and Air Conditioning (HVAC) systems, water heaters, lighting).

Scope and Timeline

- Implementation Q1
  - Connect with Energy Outreach Colorado and City's Community Development Manager to identify roles and opportunities to leverage existing connections with multifamily and nonprofit buildings
  - Develop a list of eligible multifamily and nonprofit buildings
    - Connect with the City of Aurora addresser to identify multifamily buildings greater than five units and built before 2010 – include primary points of contact for building owners and/or property managers
    - Work with the City of Aurora Office of Refugee and Immigrant Affairs to identify qualifying nonprofit buildings and primary points of contact for building owners and/or property managers
  - Map applicable financing mechanisms - rebates, and grants available to support energy projects (e.g., solar, lighting, air purification) - to project types and eligible applicants.
- Implementation Q2
  - Identify multifamily or nonprofit building owner(s), to spotlight who successfully completed energy upgrades leveraging Community Development Block Grant (CDBG) funding or other similar sources of funding - to participate in a media campaign (e.g., Aurora 8 spotlight).
  - Connect with Aurora Mental Health Center (AMHC) facilities manager to identify opportunities - to serve as a success story.
  - Develop and print collateral to share with nonprofits and multifamily building owners. All collateral should include information about City of

Aurora's Energy Action Plan and program information relevant to the audience, including contact information for relevant programs.
        - Printed and electronic collateral will be developed in conjunction with collateral being developed under the Business focus area and will be shared through the Building Department.
    - Identify trusted partners within City of Aurora and community to lead collateral distribution.
    - Distribute collateral to nonprofit and multifamily building owners through trusted partners.
    - Conduct biannual implementation tracking and check effectiveness of outreach in driving increased program participation.
- Implementation Q3
    - Develop the spotlight to showcase multifamily or nonprofit building owner(s) selected in Q2.
        - Coordinate with Aurora 8 to produce a story for the weekly news program.
        - Xcel Energy staff may participate in interview to provide program context. Interview may be live, pre-recorded, or written.
        - Develop social media content and share through City of Aurora media channels to promote the news story.
        - Explore opportunities for additional media products (e.g., in-studio production, weekly news, co-branded Public Service Announcements).
    - Support AMHC in their pursuit of opportunities identified in Q2 by connecting AMHC with appropriate program partners.
- Implementation Q4-Q5
    - Host one short, recorded webinar each for nonprofit and multifamily building owners to provide information on energy program benefits, how to get started, and where to find more information.
        - Promote webinar(s) through City of Aurora social media – market as "on demand".
        - Include brief presentations from relevant partnering agencies/ organizations (e.g., Energy Outreach Colorado and CLEAResult).
        - Share example of successful program implementation from community (may be same or different than spotlight selected for Aurora 8).
        - Explore the feasibility of making the webinar available with captions in English (for the hearing impaired) and Spanish.
        - Encourage participation from City of Aurora employees and partners who work with nonprofits or multifamily buildings.
    - Conduct biannual implementation tracking and check effectiveness of outreach in driving increased program participation

- Implementation Q6
    - Develop and share AMHC spotlight.
    - Coordinate with Aurora 8 to produce a story for weekly news program.
    - Partners in Energy to conduct interview and provide program context – may include Xcel Energy appearance.
    - Develop social media content and share through City of Aurora media channels to promote the news story.
    - Explore opportunities for additional media products (e.g., in-studio production, weekly news, co-branded Public Service Announcements).
    - Conduct biannual implementation tracking and check effectiveness of outreach in driving increased program participation.
    - Complete and close out all activities.

Role and Responsibilities

- Xcel Energy – Partners in Energy staff, Multifamily Buildings Program, Media Team
    - Strategy management and coordination
    - Marketing and communications lead, including brainstorming, content creation, and collateral design
    - Connect stakeholders with program information
    - Coordinate media needs
- City of Aurora – Community Development Manager, Addresser, Office of Refugee and Immigrant Affairs, Geographic Information System (GIS) Department, Building and Planning Departments
    - Stakeholder identification and outreach
    - Marketing and communications assistance, including brainstorming, content review, and content sharing
    - Translation services
- External Partners – Aurora Mental Health Center, additional nonprofit or multifamily building owner to spotlight (TBD), Energy Outreach Colorado
    - Program coordination
    - Dissemination of energy program information through success story development, media spotlight, and other community connections

Communication Channels and Supporting Resources

- Communication Channels
    - Aurora 8
    - City of Aurora social media and website
- Supporting Resources
    - Financing mechanisms, rebates, and grants available to support energy projects
        - Colorado Property Assessed Clean Energy (C-PACE)
        - Xcel Energy Programs
        - CDBG

Supporting Information

- AMHC has 25 buildings and recently sold several buildings to build financial reserves and to make improvements to remaining building stock.

Strategy MN2: Sharing Energy Resources through Nonprofit Partners

Description

The purpose of this strategy is to identify and recruit nonprofits to serve as implementation partners - to promote equitable access to energy programs. Nonprofit partners will connect the populations they serve with energy efficiency program information and free resources like specialty LED kits.

Context and Barriers

- One nonprofit – Aurora Mental Health Center (AMHC) – was involved in the development of this plan.
- Nonprofits are often resource- and time-constrained, especially as they continue to support the communities they serve in navigating the impacts of the COVID-19 pandemic.
- Multilingual capability is very helpful for inclusivity. Top languages in Aurora include English, Spanish, and Korean. Materials can be translated into Spanish if the program vendors offer Spanish-speaking technicians. Materials that use infographics rather than words will also better communicate information.
- Most Xcel Energy programs do not provide resources (websites, flyers, technical staff) in additional languages.

Target Audience

- Populations served by nonprofits in Aurora, including but not limited to, low-to-moderate income households, Black, Indigenous, People of Color (BIPOC) households, renters, and limited-English-proficiency households.

Desired Outcomes

- Meaningfully engage a minimum of three (3) nonprofits in Aurora as implementation partners to share resources and information with target populations.
- Share 200 specialty LED kits and educational materials with nonprofit partners for distribution to the residents they serve.

Scope and Timeline

- Implementation Q1
    - Identify nonprofit partners and collaborate to identify best energy programs for promotion to the communities they serve
- Implementation Q2
    - Develop and print collateral to share with nonprofit partners for distribution.
        - All collateral should include information about Aurora's Energy Action Plan and program information for programs identified in Q1.

        - Collateral may be translated as desired and resources are available but must include a disclaimer that the majority of energy services are solely provided in English.
    - Train nonprofit representatives that are multi-lingual and City of Aurora employees that work with target populations on the selected programs.
    - Share collateral and specialty LED kits with nonprofit partners to distribute.
- Implementation Q3
    - Support nonprofit partners in their distribution of program information, collateral, and giveaways.
- Implementation Q4
    - Monitor distribution of collateral and program participation through biannual program tracking.
    - Regroup and identify any new or additional needs to assist nonprofit partner outreach.
    - Develop collateral and training materials to assist with continued nonprofit outreach.
- Implementation Q5
    - Support nonprofits in their continued outreach efforts to the residents they serve.
- Implementation Q6
    - Complete and close out all activities.
    - Conduct biannual implementation tracking and check effectiveness of outreach in driving increased program participation

Roles and Responsibilities

- Xcel Energy – Partners in Energy staff, Xcel Energy program contacts
    - Strategy management and coordination
    - Marketing and communications lead, including brainstorming, content creation, and collateral design
    - Connect stakeholders with program information and lead program training
- City of Aurora – Community Development Manager, Office of Refugee and Immigrant Affairs, Planning and Development Services Department
    - Provide list of nonprofits and identify primary points of contact
    - Distribute specialty LED kits
- External Partners Energy Outreach Colorado, Nonprofit partners (TBD)
    - Connect with appropriate program information
    - Lead translation of collateral
    - Distribute collateral and giveaways

Communication Channels and Supporting Resources

- Communication Channels
    - Nonprofit partners
    - City of Aurora social media and website
    - Newsletters and utility bill inserts

Focus Area: Institutions (I)

The institutions engaged during the Partners in Energy planning process included higher education and K-12 school districts. These organizations represent large energy users that provide key support for the community in many ways. The City of Aurora is seeking to support these institutions in saving energy and money through sharing energy program information and resources. In addition to schools, Aurora Water was consulted during the planning process to identify resources and outreach opportunities that could benefit institutions within the City of Aurora. To see a summary of Aurora Water's efforts and opportunities, see **Appendix D: Summary of Discussion and Opportunities with Aurora Water**. In addition to helping institutions save energy and money, Partners in Energy supports the adoption of emerging technologies that can help the City increase energy and climate resiliency. During the 18-month implementation period, we aim to achieve the following:

- 24 additional program participants on top of baseline participation (931 total C&I energy efficiency program participants targeted[2]), resulting in an additional:
    - 1.3 GWh of electricity savings
    - 15,000 therms of natural gas savings
    - 600 $MTCO_2e$ of greenhouse gas savings

Strategy I1: Targeted Energy Efficiency Upgrades in School Facilities

Description

- This strategy includes coordination between Partners in Energy and school implementation partners, to address opportunities for energy efficiency in targeted facilities through building controls, staff training, equipment upgrade strategies, and sharing success stories.

Context and Barriers

- Aurora Public Schools has historically taken advantage of Xcel Energy rebate programs, and recently embarked on an Energy Performance Contract (EPC) by leveraging the Colorado Energy Office's (CEO) EPC Program.
- Implementation actions should favor sharing past successes in energy efficiency to help spur new energy efficiency opportunities and point institutions toward additional resources and information to overcome cost and capacity barriers.

Target Audience

This strategy will focus efforts on the education sector, including:

- Aurora Public Schools
- Cherry Creek Schools

[2] The total C&I energy efficiency program participation target of 931 includes all commercial program participation targets across the Business, Multifamily and Nonprofits, and Institutional Focus Areas.

- Community College of Aurora

Scope and Timeline

- Implementation Q1
    - Engage with institutions such as Cherry Creek Schools and Community College of Aurora to determine candidates for targeted energy audits
    - Begin discussion with Aurora Public Schools about projects to highlight in Strategy I2, completed before or as a result of the Energy Performance Contract
- Implementation Q2-Q3
    - Collaborate with and track results from Aurora Public Schools Energy Performance Contracting efforts to lend support toward ensuring implementation of high impact upgrades
        - Engage in conversations with the school district to work together toward achieving City of Aurora goals
- Implementation Q4-Q6
    - Continue collaboration on, and tracking of, energy efficiency upgrades throughout implementation
    - Complete and close out all activities

Roles and Responsibilities

- Partners in Energy – Lead Role
    - Hold monthly coordination calls
    - Facilitate developing materials and connecting stakeholders with resources for project execution
    - Connect with additional stakeholders for potential energy audits
    - Support identification of facilities for energy efficiency upgrades
- External Partners – Lead Role: Aurora Public Schools
    - Lead identification of target facilities
    - Coordination and execution of energy efficiency upgrades
    - Utilize capital budget as available for energy efficiency upgrades
- City of Aurora – Supporting Role
    - Support coordination as appropriate

Communication Channels and Supporting Resources

- Xcel Energy Partners in Energy data for energy use and energy efficiency program data
- Xcel Energy's energy efficiency program resources
- Staff time and identified budgets for projects

Strategy I2: Institutional Outreach, Education and Awareness

Description

- This strategy relies on coordination between Partners in Energy and the City to share energy information through the City's website and meaningful points of interaction with institutions.

Context and Barriers

- Outreach, education, and awareness of resources available to support energy efforts is key to bridging the gap between limited resources and capacity for energy projects at institutions.
- Providing opportunities to highlight past successes fosters renewed collaboration and new project opportunities.

Target Audience

- Institutions identified in Strategy I1
- Additional Institutions that would benefit from information and best practice sharing, such as Buckley Space Force Base and health care institutions.

Scope and Timeline

- Implementation Q1
    - Share Energy Action Plan activities and results with Buckley Space Force Base, as appropriate, to continue promoting partnership between the Base, City of Aurora, and other institutions within Aurora. Other types of institutions could include libraries, hospitals, and other public buildings.
    - Begin development of key resources for hosting on the City website for use by institutions in Aurora, including
        - Financial grants
        - Rebates and incentives
        - Others
    - Explore opportunities, like the business recognition awards, for the City of Aurora to publicize and promote energy efficiency successes completed by institutions
    - Re-establish student energy competitions through Aurora Public Schools
        - Share examples of other Partners in Energy community student energy competitions
        - Utilize the City of Aurora's website to promote results of competitions
- Implementation Q2
    - Create a City-hosted web-based resource library
        - Utilize the City of Aurora's website to host resources and success stories for institutions
    - Create success stories of past energy efficiency and renewable energy projects completed by institutions

        - Collaborate with institutional stakeholders to identify past and future projects as candidates for success story development
        - Develop and compile information (e.g., cost, rebate program utilized, payback, energy savings, benefits, challenges) on key projects, for dissemination to other institutions in Aurora. Key projects can include
            - existing building upgrades
            - new construction projects
            - major renovations that go above and beyond in saving energy or sourcing from renewable generation
            - electric vehicle conversions and infrastructure
        - Host success stories on City website as part of the City's resource library for institutions, and share outward through channels such as roundtable discussions with energy managers, newsletters, social media, or other channel
    - Disseminate energy program information and resources focused at the energy-water nexus through available City of Aurora communication venues to commercial properties, targeting eligible institutions and businesses
    - Explore opportunities to deploy school education kits in school districts
- Implementation Q3
    - Identify opportunities through Colorado Association of School District Energy Managers (CASDEM) and/or other roundtable discussions to present and share resources and opportunities around energy efficiency
    - Perform outreach to institutions on the availability of the resource library via City social media channels
- Implementation Q4
    - Collaborate with Aurora institutions such as Community College of Aurora or Aurora Public Schools to support one event
        - Utilize resources and giveaways, such as sustainable lunch kits, for students attending events
- Implementation Q5
    - Perform outreach to institutions on the availability of the resource library via City social media channels and by utilizing contacts identified through Strategy I1 and I2
    - Present and share resources and opportunities for energy efficiency at one CASDEM or other roundtable discussion
- Implementation Q6
    - Complete and close out all activities

Roles and Responsibilities

- Partners in Energy – Lead Role
    - Hold monthly coordination calls

    - Develop and print collateral
    - Develop or supply website content for resource library
    - Connect with institutions on a biannual basis in a roundtable setting
- City of Aurora – Lead Role
    - Primary contact: Marisa Noble and Karen Hancock
    - Lead changes to City web pages
    - Distribute school kits, lunch kits and other giveaways to institutions
- External Partners – Support Role
    - Aurora Public Schools and Community College of Aurora: Collaborate with Partners in Energy on content, including success story development and event planning

Communication Channels and Supporting Resources

- City web pages
- City social media accounts
- Newsletters
- Institutional communication networks of
    - Aurora Public Schools
    - Cherry Creek Schools
    - Community College of Aurora

Supporting Information

- A charter was executed in 2015, establishing the Buckley Partnership Steering Group which promotes partnerships and collaboration between Buckley Space Force Base, City of Aurora, Aurora Public Schools, Community College of Aurora, and Aurora Chamber of Commerce - to reach common goals and provide mutual support.

Strategy I3: Technology Innovation Feasibility Assessments

Description

- This strategy relies on coordination among Xcel Energy, Partners in Energy, the City and institutional stakeholders - to evaluate emerging technologies (e.g., batteries, electric vehicles, and/or solar) and other opportunities for demand management and carbon footprint reduction.

Context and Barriers

- A grant for electric bus upgrades and charging infrastructure has been awarded to Aurora Public Schools
    - Proterra Fast DC chargers with two main bay stations (150 kW and 60kW) with ports for 7 chargers are scoped, and are to be separately metered

Target Audience

- Aurora Public Schools
- City of Aurora

Scope and Timeline

- Implementation Q1-Q2
    - Share resources and information on electric vehicle programs and funding opportunities while a comprehensive communitywide electric vehicle plan is developed
    - Collaborate with other Partners in Energy communities for lessons learned on electric vehicle infrastructure and fleet conversion
    - Share electric vehicle charging evaluation tools to evaluate building sites at the City of Aurora for charging infrastructure
        - Xcel Energy online tools
        - Electric vehicle tools and toolkits developed through Partners in Energy
        - Other available third-party tools
    - Educate Aurora community and City staff about Xcel Energy's Partners in Energy Electric Vehicle planning offering, and share related resources for electric vehicles
- Implementation Q3
    - Provide City of Aurora staff updates on additional battery-related opportunities, including future Xcel Energy products, currently in development
    - Enroll the City of Aurora in the Partners in Energy Electric Vehicle planning offering
- Implementation Q4
    - No activity
- Implementation Q5-Q6
    - Complete and close out all activities

Roles and Responsibilities

- Partners in Energy – Lead Role
    - Share resources and information on electric vehicles
- City of Aurora – Lead Role
    - Enrollment in Electric Vehicle planning through Partners in Energy

Communication Channels and Supporting Resources

- City web pages
- City social media accounts
- Newsletters

Supporting Information

- Charge Ahead grants require an 80/20 match for chargers.
- When it comes to charging infrastructure, consider the capacity to charge electric bikes, wheelchairs, and other mobility devices.
- Xcel Energy develops new offerings periodically, and battery-related programs are under consideration. Partners in Energy will continue to monitor the

development of new program offerings and share these developments with the City and its stakeholders.

Energy Action Plan Impact

By implementing the strategies outlined in this Energy Action Plan, we expect to increase participation in targeted energy programs, which will translate into significant energy savings.

Over the next 18 months, achieving the targets in this plan would result in the following:

- 142 additional participants in energy programs, above and beyond historical participation of 6,098 per year, for a total of 6,240 participants
- Approximately $549,000 in energy cost savings
- Electricity savings of 5.6 GWh, above and beyond historical electricity savings of 25.8 GWh per year, for a total of 31.4 GWh
- Natural gas savings of 65,000 therms, above and beyond historical natural gas savings of 84,000 therms per year, for a total of 149,000 therms
- Greenhouse gas reduction of 2,700 $MTCO_2e$, equivalent to switching 103,500 incandescent lamps to LEDs (EPA, 2021)

If the Energy Action Team continued implementation efforts at the same level over the next 9 years, by 2030 the implementation of the strategies in this plan would result in the following:

- 861 new participants in energy programs
- Electricity savings of 50 GWh
- Natural gas savings of 580,000 therms
- Greenhouse gas reduction of 18,000 mtCO2e, equivalent to switching 685,000 incandescent lamps to LEDs (EPA, 2021)
- Approximately $4.9 million in energy cost savings

HOW WE STAY ON COURSE

Data and Reporting

Partners in Energy will provide biannual progress reports with metrics and targets of success, as defined above, and overall progress toward goals for Xcel Energy rebates and programs. These reports will be available publicly and shared with both the community and the Energy Action Team. Though some portions of the City of Aurora are served by other electric utilities, the data associated with those utilities was not collected and will not be included as part of the reporting.

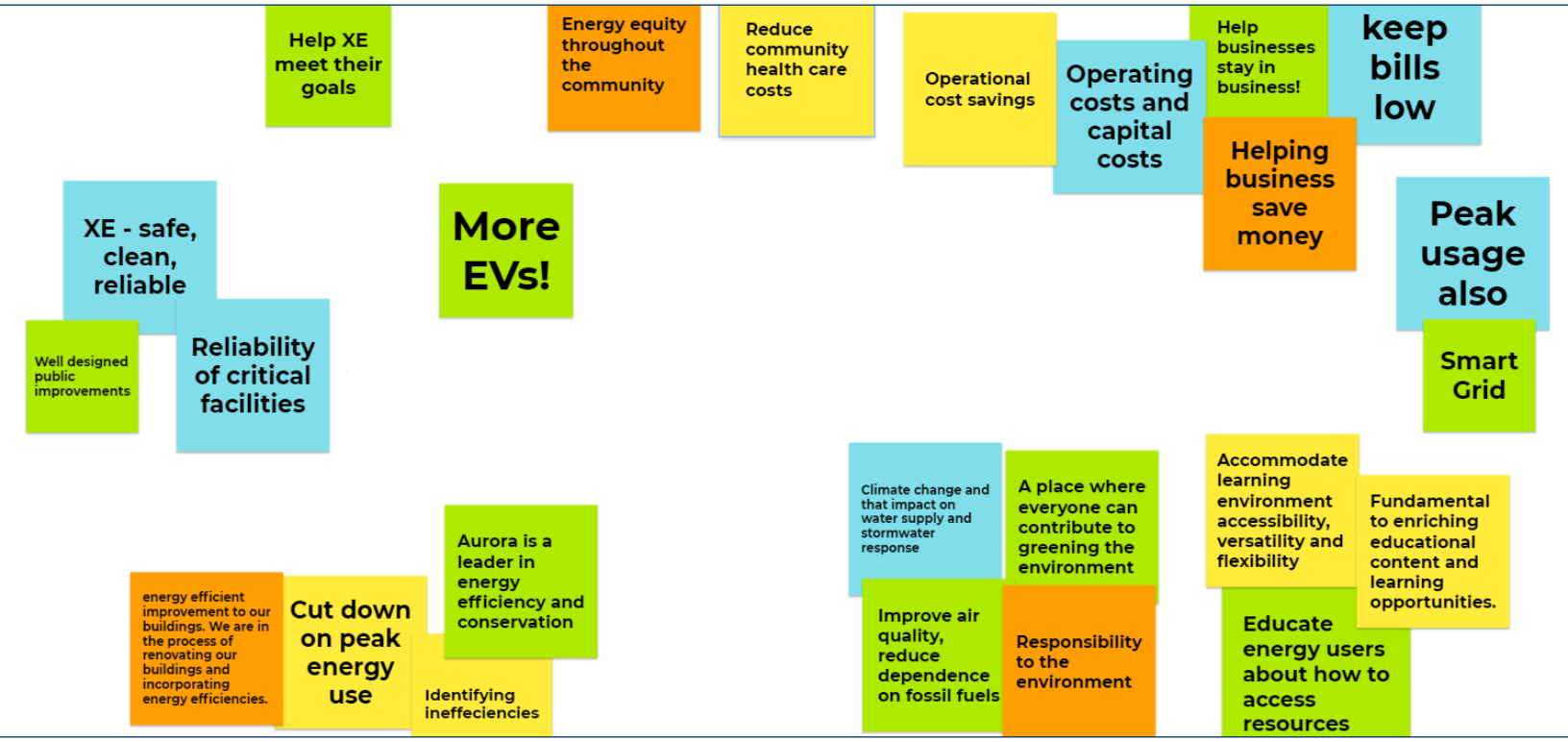
Project Management and Tracking

Partners in Energy will host regular project management check-in calls with the Energy Action Team to ensure we stay on course to achieve our strategies. Check-in calls will be held on a monthly basis with sub-teams organized by focus area. If possible, a City of Aurora staff member will join each team, based on relevant roles and responsibilities. Additional tracking tools, such as a spreadsheet to guide action and responsible parties, may be developed if deemed helpful by implementation teams.

Energy Action Team Commitment

The Energy Action Team, formed to create this plan, will support implementation by attending regular monthly meetings associated with the focus areas they represent. Energy Action Team members are expected to be ambassadors of this Energy Action Plan by sharing the plan vision, goals, and targets, and to leverage their networks to help support the strategies included in this plan. Where appropriate, specific Energy Action Team member roles and responsibilities have been identified in each strategy.

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



About Xcel Energy's Partners in Energy

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

Plan Development Process

The planning process kicked off in June 2020 with a presentation to Council and stakeholder identification. The project management team identified a list of potential Energy Action Team candidates based on the community priorities and values we identified in the City of Aurora's application. Key members and representatives of the business, institution, multifamily, and nonprofit communities were identified. Council

reviewed and provided feedback on this list. The project management team contacted potential team members via multiple channels to invite them to the process. The team issued a formal letter of invitation and followed up with emails and phone calls. Table 7 shows the groups that were involved in the planning process and those that were invited to participate but did not participate.

Table 7. Participants Invited and Involved in Energy Action Plan process

	Businesses	Institutions	Multifamily/Non-Profit
Involved	• Aurora Economic Development Council • Business Advisory Board • Fulenwider, LLC. • On Havana Street Business Improvement District • Stanley Market Place • Aurora Chamber of Commerce • Prologis, LLC.	• City of Aurora • Kaiser Permanente • Community College of Aurora • Aurora Public Schools	• Aurora Mental Health Centers
Invited	• Small Business Development Center • Marijuana Grow House • Visit Aurora • Majestic Commerce Center	• Cherry Creek Schools	• Aurora Council • Aurora Housing Authority • The Village Exchange • Dayton Opportunity Center • Asian Pacific Development Center

Participants marked as “involved” in Table 7 attended one or more planning workshops. In total, four virtual planning workshops were held from December 2020 through May 2021. Energy Action Team members participated in interactive exercises – including virtual whiteboards, polling, and breakout group conversations – to identify the vision, goals, and strategies for this Energy Action Plan. Throughout the planning process, Energy Action Team members were committed to the plan success and served as ambassadors to their networks and groups, garnering feedback from the larger communities they represent.

APPENDIX B: BASELINE ENERGY ANALYSIS

Data was provided by Xcel Energy for all City of Aurora premises for the period 2017–2019. Xcel Energy provides electric and natural gas service to the community. The data helped the Energy Action Team understand the City of Aurora's energy use and opportunities for energy conservation and renewable energy. Data included in this section establishes a baseline against which progress toward goals will be assessed in the future.

Electricity and Natural Gas Consumption and Cost

The majority of premises in Aurora are residential, making up 91% of the nearly 160,000 premises within the city (Figure 6). Despite residential premises being the overwhelming majority, C&I premises use 49% of total energy and pay more than half of the energy costs across the community (Figure 7, Figure 8). This finding is largely a function of much higher energy costs per premise for C&I customers. While only 29% of residential energy use is attributed to electricity, electricity use for the C&I sector is 52 of total energy use (Figure 9, Figure 10). Higher electricity use contributes to higher energy bills for C&I customers (Figure 11). This distribution of energy uses presents significant opportunities for C&I customers to lower their energy bills through measures that both reduce their electricity use and shift their peak demand. Additionally, this distribution means C&I customers can cover a significant portion of their energy use through renewable energy sources, since renewable energy can only address electricity use. However, renewable energy supplies are generally available at a cost premium that is less attractive to business owners, and few C&I customers (0.3% of C&I premises) in Aurora currently take advantage of renewable energy programs.

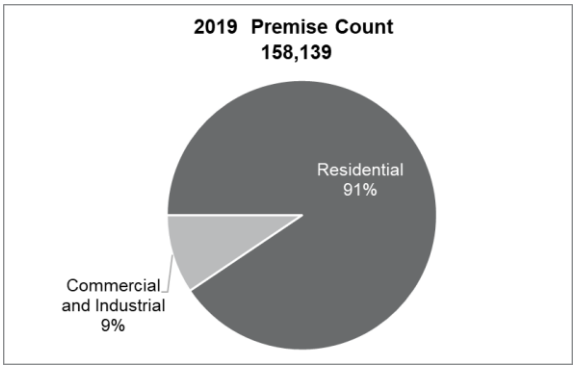


Figure 6. City of Aurora 2019 Premises by Sector

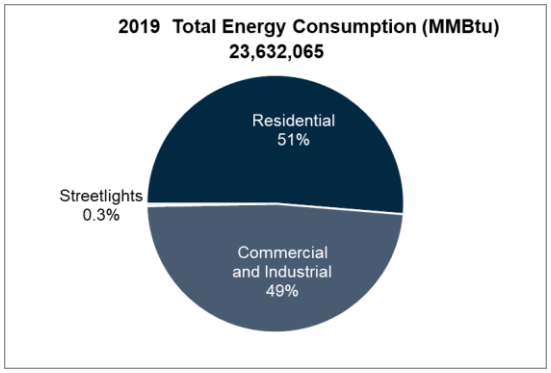


Figure 7. City of Aurora 2019 Energy Consumption by Sector

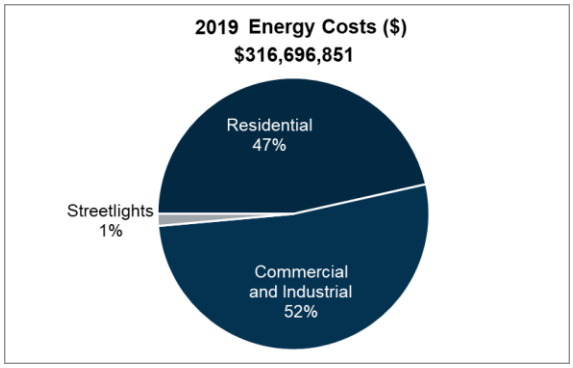


Figure 8. City of Aurora 2019 Energy Costs by Sector

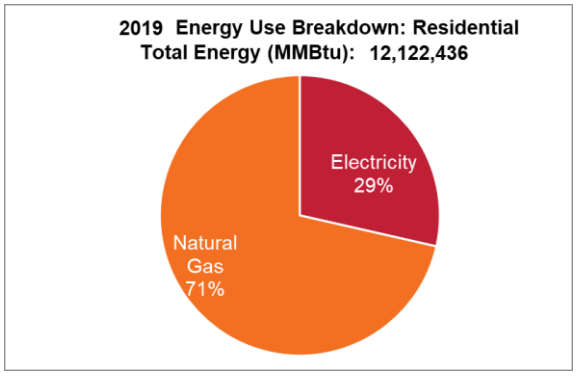


Figure 9. City of Aurora 2019 Residential Energy Use Breakdown by Fuel Type

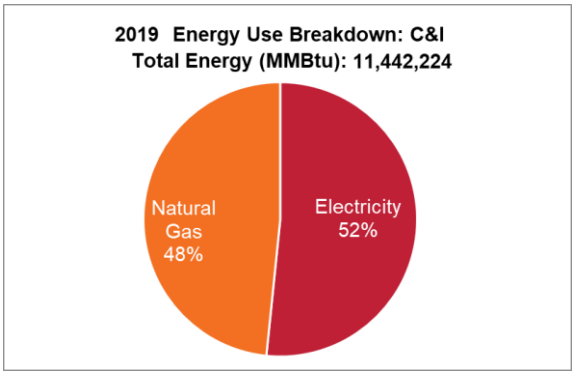


Figure 10. City of Aurora 2019 Commercial Energy Use Breakdown by Fuel Type

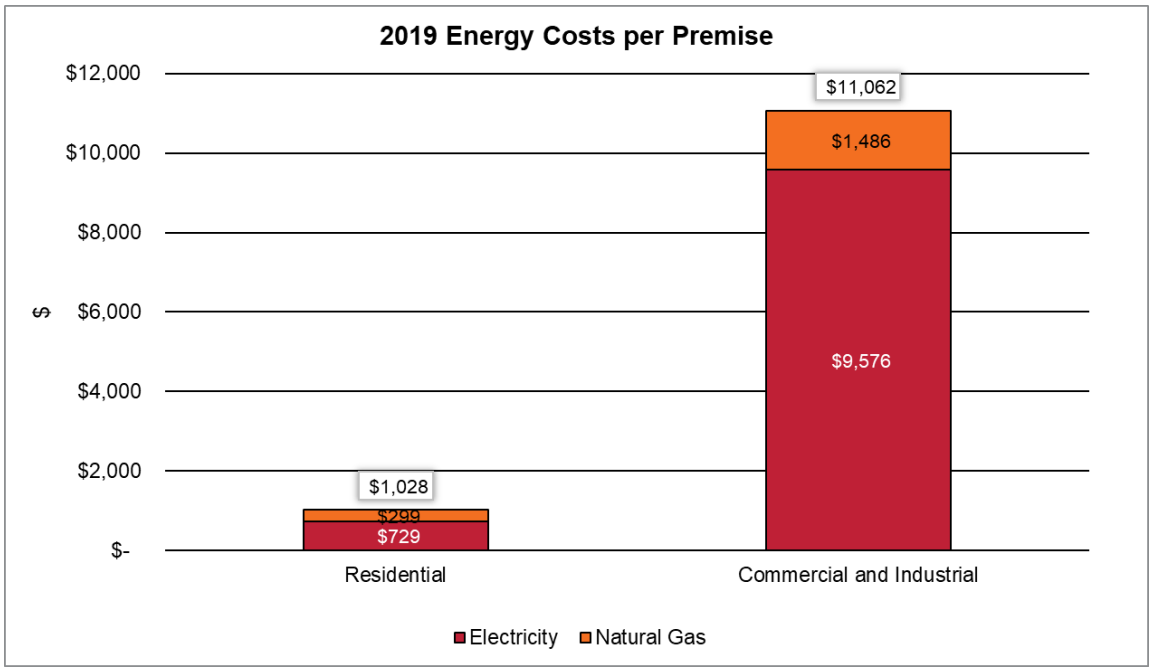


Figure 11. City of Aurora 2019 Energy Cost per Premise by Sector by Fuel Type

Greenhouse Gas Emissions and Trends

Building electricity and natural gas usage in Aurora contributes over 2 million metric tons of carbon dioxide equivalent ($MTCO_2e$) to total emissions. That amount of emissions is the same amount 477,000 standard passenger vehicles (EPA, 2021) would produce if they were driven for a full year! Well aligned with their overall energy consumption, C&I customers contribute 55% of greenhouse gases associated with stationary building energy use (Figure 12). Energy consumption-related greenhouse gas emissions have stayed relatively constant in Aurora over the past three years, despite total energy consumption rising over the same time period (Figure 13, Figure 14). This finding is largely due to the "greening of the grid" or the process of adding more renewable energy supplies into the source fuel mix to support electricity generation.

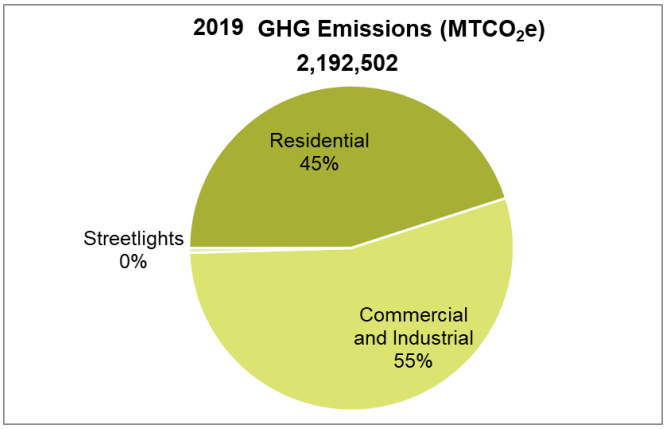


Figure 12. City of Aurora 2019 Greenhouse Gas Emissions by Sector

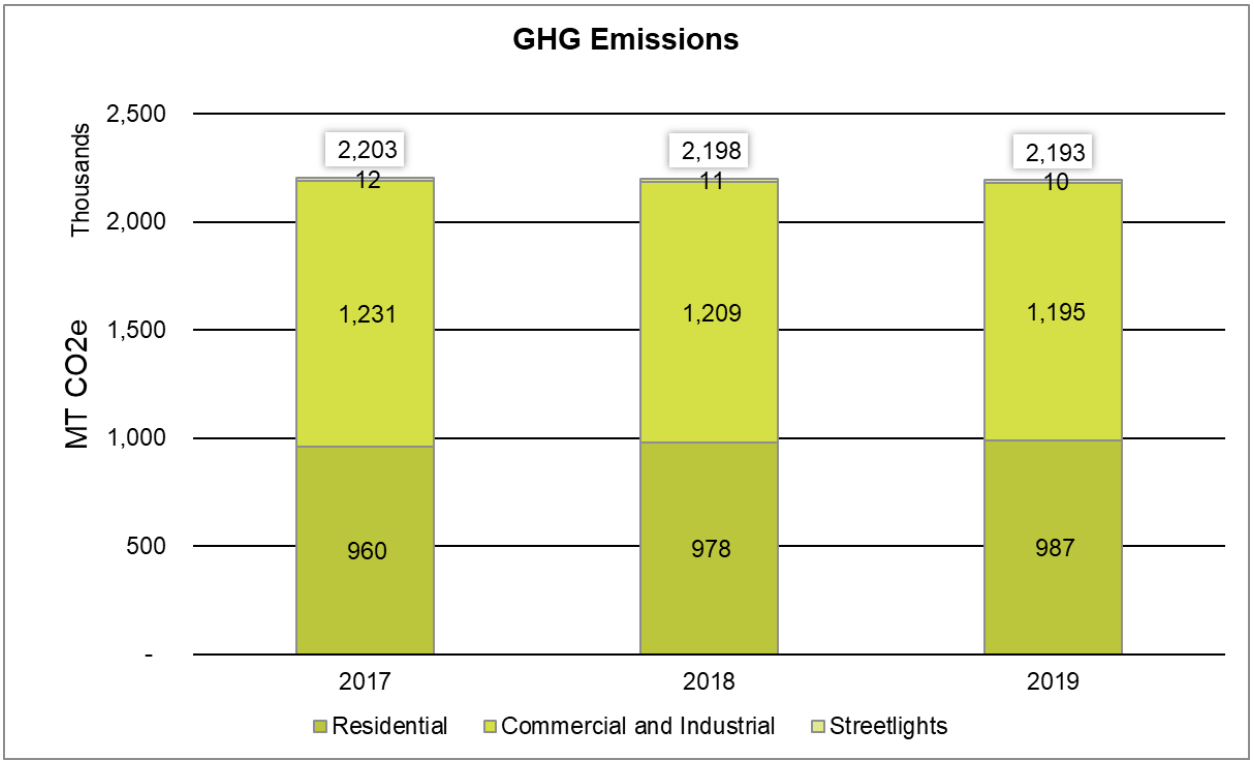


Figure 13. City of Aurora 2017-2019 GHG Emission by Sector

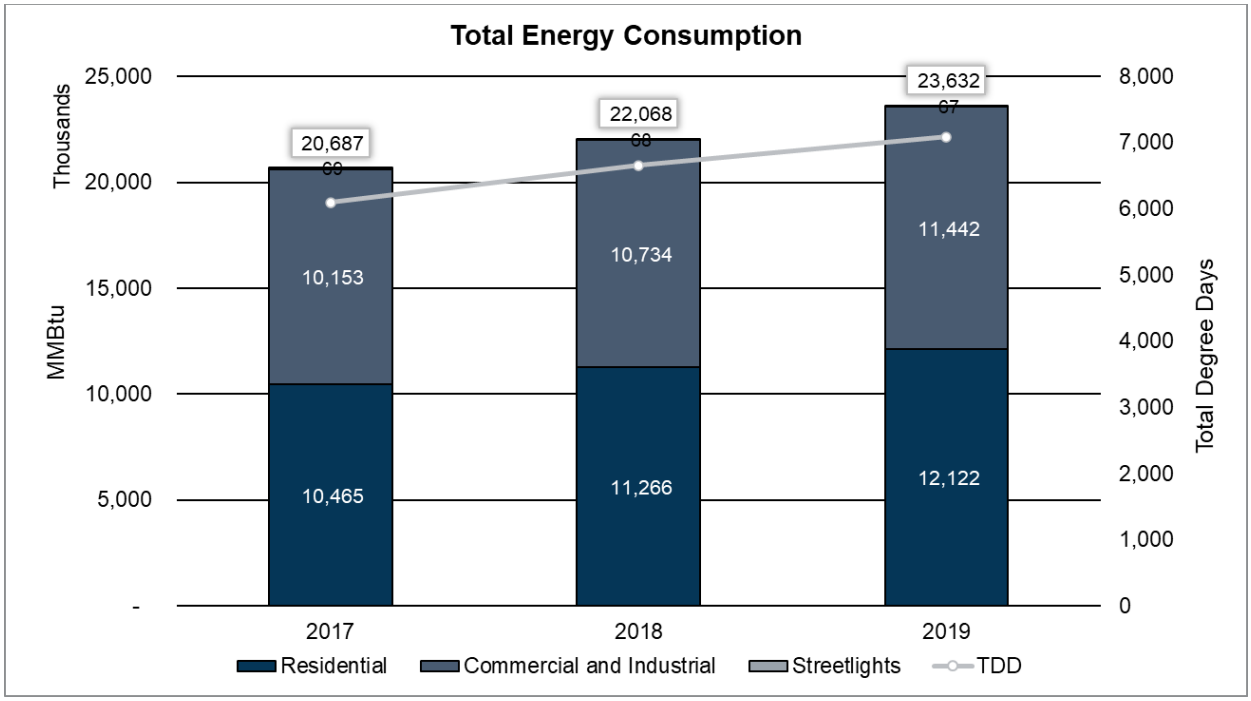


Figure 14. City of Aurora 2017-2019 Energy Consumption by Sector

Program Participation and Savings

Many energy programs are available to help residents and businesses reduce their energy use, reduce their utility costs, and increase the portion of their energy sourced from renewable electricity sources. In 2019, the energy efficiency programs saved Aurora customers $2.8 million dollars (Figure 15). C&I participants made up 13% of total program participants, but received 83% of cost savings, for an average energy cost savings of almost $3,000 (Figure 16) per participant. Still, the 2019 program participation rate for the C&I sector was 5.4%, indicating a significant opportunity to increase total cost savings by increasing participation. In general, participation tends to ebb and flow with economic conditions, but lighting programs and cooling rebates have been most popular over the past three years (Figure 17). Aurora has an opportunity to both build on the success of these programs and increase participation in underutilized programs.

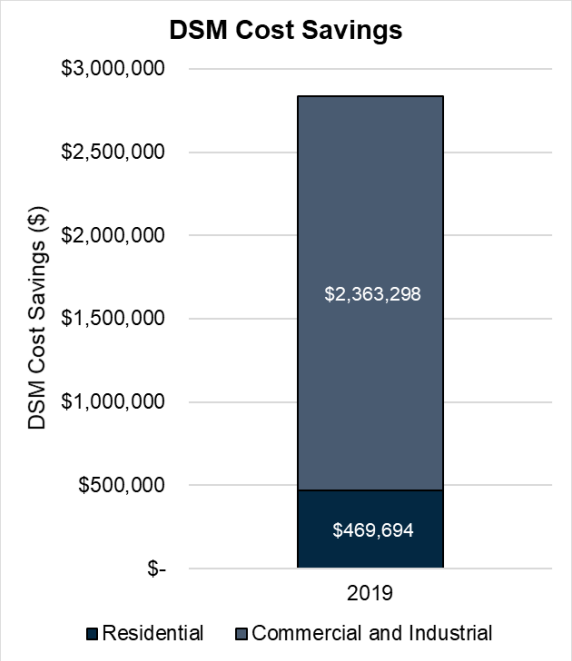


Figure 15. City of Aurora 2019 Energy Program Cost Savings by Sector

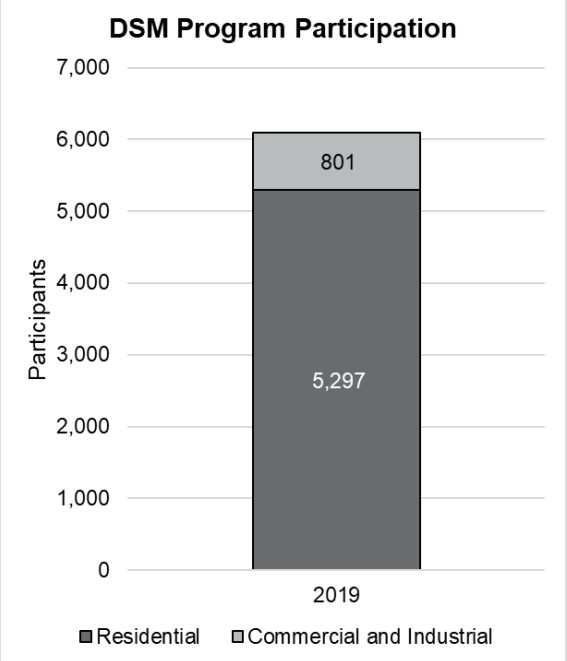


Figure 16. City of Aurora 2019 Energy Program Participation by Sector

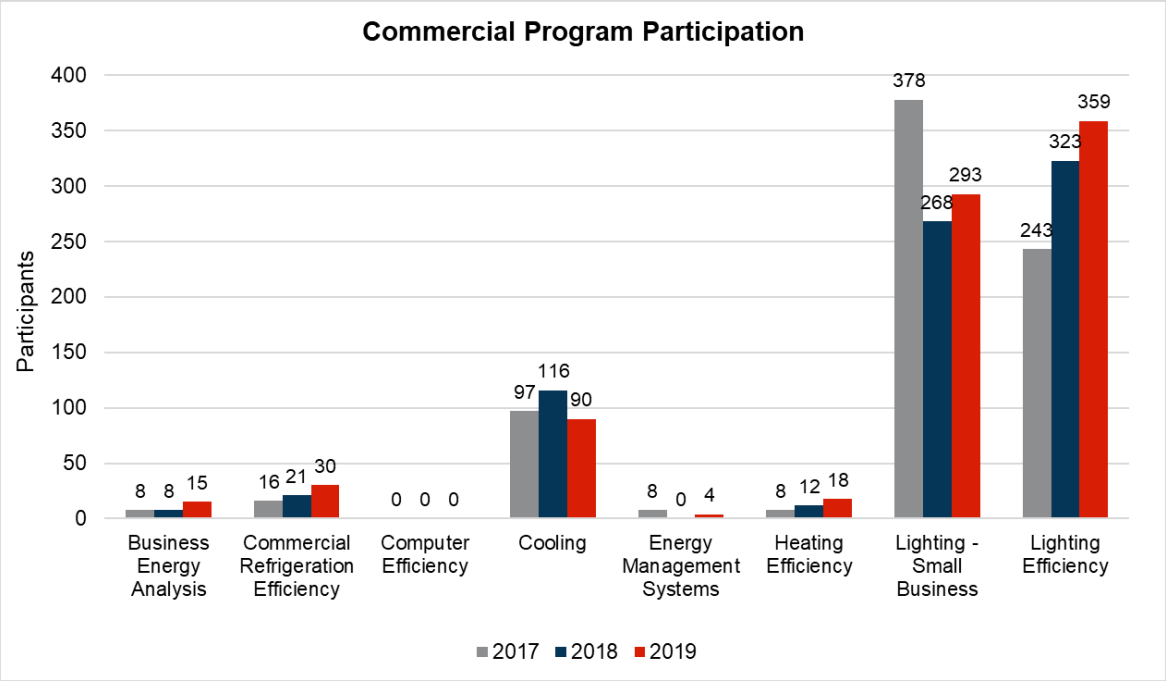
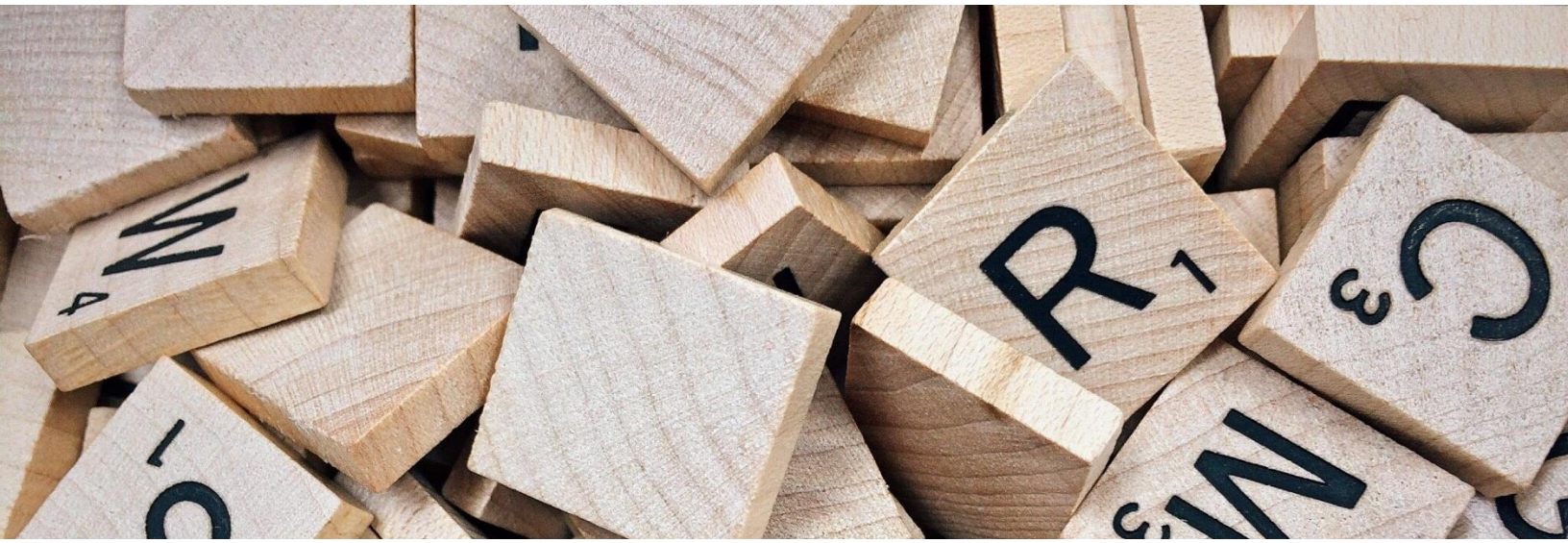


Figure 17. City of Aurora 2017-2019 Commercial Program Participation by Program

APPENDIX C: GLOSSARY OF TERMS



15 x 15: Xcel Energy's privacy rule, which require all data summary statistics to contain at least 15 premises, with no single premise responsible for more than 15% of the total. Following these rules, if a premise is responsible for more than 15% of the total for that data set, it is removed from the summary.

British Thermal Unit (BTU): the amount of heat needed to raise one pound of water at maximum density through one degree Fahrenheit

Carbon-free: Carbon-free refers to sources of energy that will not emit additional carbon dioxide into the air. Wind, solar and nuclear energy are all carbon free sources but only wind and solar are renewable.

Carbon-neutral: Carbon-neutral, also described as "net zero" could include carbon free sources but is broader and refers to energy that removes or avoids as much carbon dioxide as is released over a set period of time. Carbon-neutral is sometimes used to describe a site that produces an excess amount of electricity from a renewable energy source, such as solar, compared to what it consumes. That excess energy is put back into the grid in an amount that offsets the carbon dioxide produced from the electricity it draws from the grid when it is not producing renewable energy.

Community Data Mapping: A baseline analysis of energy data in a geospatial (map) format across the community.

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

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

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

Energy Reduction: The result of behavior changes that cause less energy to be used. For example, setting the thermostat lower *reduces* the energy used in your home during the winter. Since energy reductions can be easily reversed, they are not accounted for when calculating changes in energy usage.

Energy Savings: Comes from a permanent change that results in using less energy to achieve the same results. A new furnace uses X% less to keep your home at the same temperature (all things being equal), resulting in energy *savings* of X%. For accounting purposes, energy savings are only counted in the year the new equipment is installed.

Greenhouse Gases (GHG): Gases in the atmosphere that absorb and emit radiation and significantly contribute to climate change. The primary greenhouse gases in the earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Grid Decarbonization: The current planned reduction in the carbon intensity of electricity provided by electric utilities through the addition of low- or no-carbon energy sources to the electricity grid.

Kilowatt-hour (kWh): A unit of electricity consumption.

Million British Thermal Units (MMBtu): A unit of energy consumption that allows both electricity and natural gas consumption to be combined.

Metric Tons of Carbon Dioxide Equivalent (MTCO2e): A unit of measure for greenhouse gas emissions. The unit "CO2e" represents an amount of a greenhouse gas whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO2), based on the global warming potential (GWP) of the gas.

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

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

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

Resilience: The ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents.

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

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

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

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

Therm: A unit of natural gas consumption.

Trade Partner: Trade Partners, also known as Trade Allies or Business Trade Partners, are vendors and contractors who work with business and residential customers servicing, installing, and providing consulting services regarding the equipment associated with utility rebate programs. Their support for utility programs can range from providing equipment and assisting with rebate paperwork, to receiving rebates for equipment sold.

APPENDIX D: SUMMARY OF DISCUSSION AND OPPORTUNITIES WITH AURORA WATER

Context

- Aurora Water is one of the largest energy users in the City and the second largest water provider in Colorado (CDPHE, 2021).
- Aurora Water is embarking on an energy master planning effort, typically updated on a 5-year cycle, with the next update occurring in 2022. The following opportunities may help jump-start the energy master planning effort.
- Aurora Water is interested in exploring ways to reduce electricity demand, including battery storage.
- A solar feasibility study at Aurora Water facilities was completed to assess appropriate locations for increasing renewable energy supplies.
- Aurora Water is evaluating electric vehicle infrastructure opportunities at new and existing facilities.
- Aurora Water is planning to add 10-20 electric vehicle charging stations at the Southeast Aurora Maintenance (SEAM) site.
- Xcel Energy develops new offerings periodically, and battery-related programs are under consideration. Partners in Energy will continue to monitor the development of new program offerings and share these developments with the City and its stakeholders.
- Aurora Water is seeking to hire one staff member to help manage future energy efficiency opportunities.

Opportunity 1: Energy Upgrades and Technology Exploration

- Participate in Xcel Energy's Strategic Energy Management program
    - Determine an energy champion from Aurora Water staff to facilitate participation in Xcel Energy's Strategic Energy Management program
    - Enroll Aurora Water in the Strategic Energy Management program
    - Identify appropriate party to align Strategic Energy Management program efforts with Aurora Water's energy master planning effort
    - Connect Aurora Water with technical support as needed to implement energy efficiency and demand management opportunities in facilities
    - Continue collaboration on, and tracking of, energy efficiency upgrades throughout implementation
    - Identify opportunities for Xcel Energy to regularly engage in Aurora Water new development conversations, to incorporate energy efficiency opportunities into design, as was done with the SEAM facility
- Coordinate and collaborate with Xcel Energy to identify opportunities to pilot new technologies, such as battery storage
    - Collaborate with Xcel Energy to explore opportunities to adopt battery technology at an Aurora Water facility

    - If opportunities are feasible, determine appropriate location for battery storage based on
        - Availability of renewable energy
        - Load profile of the facility
        - Other factors as determined by the Xcel Energy evaluation and selection process
    - Collaborate with Xcel Energy to perform feasibility analysis of battery technology adoption at an Aurora Water facility
    - Utilize available tools (e.g., PVWatts), paired with available Xcel Energy data, to support technical analysis of battery feasibility at the determined location
    - When a program is available, evaluate the business case of Xcel Energy battery offerings for Aurora Water
    - Enroll an Aurora Water facility in an Xcel Energy battery offering
    - Create a battery success story to promote Aurora Water's experience utilizing batteries in their operation
- Explore electric vehicle (EV) charging opportunities at Aurora Water facilities
    - Share resources and information on EV programs and funding opportunities
    - Collaborate with other Partners in Energy communities for lessons learned on electric vehicle infrastructure and fleet conversion
    - Share EV charging evaluation tools to evaluate building sites at Aurora Water for charging infrastructure
        - Xcel Energy online tools
        - EV tools and toolkits developed through Partners in Energy
        - Other available third-party tools

Opportunity 2: Outreach and Education

See the Co-Branding Opportunities and Communications section below for a preliminary list of potential resources, communication channels, and opportunities to support outreach and education efforts.

- Conduct outreach and education in partnership with local school districts and higher education
    - Support Aurora Water events, such as teacher workshops, through a presentation with a focus on the energy-water nexus and with applications for students in the classroom and at home
    - Collaborate with Aurora Water and students from Aurora school districts on educational opportunities
        - Work with education and outreach staff at Aurora Water to support the Water Festival at Aurora Community College
        - Supply sustainable lunch kits for 5th graders/attendees of the training

- Create success stories of past energy efficiency and renewable energy projects, completed by Aurora Water, to share as an example to other institutions
    - Develop and compile information (e.g., cost, rebate program utilized, payback, energy savings, benefits, challenges) on key projects, for dissemination to other institutions in Aurora. Key projects can include
        - existing building upgrades
        - new construction projects
        - major renovations that go above and beyond in saving energy or sourcing from renewable generation
        - electric vehicle conversions and infrastructure
- Disseminate energy program information and resources focused at the energy-water nexus, through Aurora Water bill inserts to commercial and multifamily properties, targeting eligible institutions and businesses

Co-Branding Opportunities and Communication Channels

The following table summarizes co-branding and co-marketing opportunities between Xcel Energy and Aurora Water. This initial list was developed May 20, 2021, with input from Xcel Energy and Aurora Water and should be referenced and updated, as helpful, throughout the implementation process and beyond.

Market Segment	Communication Channels	Notes
schools	showerhead and School Kits with dual energy/water savings	
multifamily / rental properties	direct outreach – free indoor water assessments	• Small to 4-unit buildings • Opportunity to direct install • Opportunity to coordinate with CLEAResult Multifamily Building Efficiency assessments and direct install (includes shower heads and aerators) • Aurora Water has built relationships with some property managers through direct outreach
“public” – residents and businesses	water bill inserts	• Greg Baker (public relations (PR)) best contact • Don’t often reach right people in multifamily management with bill inserts and mailers • Better opportunity for residents and some businesses (though many rent/lease)

commercial / multifamily	supplemental rebates	• Toilet, ozone washing machines, others • Require replacement of showerheads and faucet aerators to receive toilet rebates • OR access discounted items if receive toilet rebate – through Xcel Energy marketplace • Many showerheads and aerators are free through marketplace • Need to identify appropriate avenues for promoting opportunity
residents / multifamily /schools	co-branded emails	• Co-branded email 1-2 times per year to promote showerheads • Opportunity to expand reach and content of emails
"public" – residents and businesses	tabling events	• Showerheads as giveaways • Show low and high-flow showerhead demonstration – Partners in Energy collaboration opportunity • Interactive/touch screen learning tool • Trivia/gamification
multifamily / commercial	direct outreach to high users	• Aurora Water conducts direct outreach to provide multiple options and recommendations when Aurora sees abnormally high-water events or water users
all	social media	• Traditionally low-effort and low impact
low-income / multifamily / businesses	mailers/print content	• Co-branded • Direct mail or distribute on sight in coordination with direct/in-person outreach • Mile High Youth Corps conduct direct install – potential partner
multifamily	presentation to property managers/owners	• CLEAResult presentation to property managers • HOA annual/bi-annual meeting • Opportunity to explore similar structure to HOA meetings
multifamily	Pay-per-Click ads	• Search engine ads • Work with PR
large commercial / industrial	Aurora Water energy pilot project	• PR opportunity – lead by example • Develop co-branded case study • Offer project tours – co-learning for other industrial users

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