# MINNEAPOLIS CLEAN ENERGY PARTNERSHIP

2020 Annual Report









## Contents

IntroductionIntroduction	
Metrics Scorecard	5
Metric 1: Greenhouse Gas Emissions (Community-wide)	7
Metric 2: Greenhouse Gas Emissions (Municipal Operations)	8
Metric 3: Energy Use (Residential)	9
Metric 4: Energy Use (Commercial and Industrial)	
Metric 5: Renewable Electricity (Community-wide)	11
Metric 6: Renewable Electricity (Municipal Operations)	12
Metric 7: Renewable Electricity (Local and Directly Purchased)	13
2019-2021 Work Plan Progress	14
Appendix: Supporting Data	23
Metric 1 Supporting Data: Greenhouse Gas Emissions (Community-wide)	24
Metric 2 Supporting Data: Greenhouse Gas Emissions (Municipal Operations)	28
Metric 3 Supporting Data: Energy Use (Residential)	29
Metric 5 Supporting Data: Renewable Electricity (Community-wide)	40
Metric 6 Supporting Data: Renewable Electricity (Municipal Operations)	42
Metric 7 Supporting Data: Renewable Electricity (Local and Directly Purchased).	43

## Introduction

In 2020, the Minneapolis Clean Energy Partnership and the world faced unparalleled challenges due to the Covid-19 pandemic and the civil unrest that arose from the murder of George Floyd. Priorities shifted as the partner organizations (City of Minneapolis, CenterPoint Energy, and Xcel Energy) moved their work to virtual platforms and quickly reoriented Clean Energy Partnership activities to address health and safety in the midst of the pandemic and rebuilding after civil unrest.

In addition to the ongoing efforts to implement the 2019-2021 Work Plan, the Minneapolis Clean Energy Partnership adapted and expanded to continue our work toward the Minneapolis Climate Action Plan goals and the 2040 Energy Vision goals by collectively and individually contributing to the following:

#### Offering virtual interface with energy efficiency services

When Governor Walz issued a Stay at Home order except for essential services in March 2020, the partner organizations found new ways to continue to deliver energy efficiency services safely for their workers and customers. CenterPoint Energy, Xcel Energy, and the Center for Energy and Environment (CEE) worked together to develop a virtual Home Energy Squad (HES) visit option to mitigate the risks of in-person services. The City of Minneapolis continued to promote HES visits, including the no-cost, income-qualifying option, and financially supported no-cost, in-person visits for residents living in Green Zones in a year of even greater need. Overall, the virtual audit served as a crucial stopgap for the HES program to safely reach customers and keep 40 HES auditors working through the shutdown.

#### Rebuilding resilient after civil unrest

After widespread acts of property damage in the wake of civil protests in 2020, each of the Partners developed resources to help our communities rebuild more resiliently. CenterPoint Energy launched REBUILD offering triple rebates, no-cost energy advisory services, and more, to help customers access high efficiency natural gas equipment. Dawit Assefa, owner of HD Laundromat on East Lake Street, was featured by the Clean Energy Resource Team (CERTs) and the Sahan Journal for his natural gas saving laundry project that qualified for a \$36,000 REBUILD rebate from CenterPoint Energy. Similarly, Xcel Energy launched a program in June 2020 called Recovery Rebates for customers impacted by civil unrest that offered free consulting services and up to double rebates to aid in their rebuilding efforts. Approximately 75 customers (over 70% of them in Minneapolis) enrolled in the program, including: grocery & convenience stores, retail, restaurants, multi-family buildings and offices. Approximately one-third of the customers sustained extensive damage or complete destruction to their facilities. Most of the projects are still in process with some of the construction projects not expected to be completed until 2024. Many of these projects will include rebates for installing energy efficient lighting, new HVAC (heating and cooling) equipment, refrigeration, and commercial cooking equipment.

#### **Supporting Economic Recovery**

In 2020, the Utilities responded to the Minnesota Public Utilities Commission (PUC) request to provide a list of ongoing, planned, or possible investments that may assist Minnesota's Economic Recovery from the Covid-19 pandemic. The Utilities highlight the following near-term investment initiatives that also support the work of the Clean Energy Partnership in helping the city achieve its climate and equity goals:

- Xcel Energy received approval to allocate \$17.5 million for customer payment arrearage forgiveness
- Xcel Energy proposed \$4 million for Workforce Training & Development in Black, Indigenous, People of Color (BIPOC) communities
- Xcel Energy proposed \$8 million for energy resiliency projects at Minneapolis American Indian Center, Sabathani Center, and East Plymouth Innovation Corridor
- CenterPoint Energy described potential multi-million dollar investments in accelerated pipe replacement, hydrogen projects, a high-tech test kitchen, workforce development, damage prevention, and a Renewable Natural Gas (RNG) project with Hennepin County. CenterPoint Energy estimated these projects could reduce or avoid 20,000 metric tons of carbon dioxide equivalent emissions annually, if approved.

#### Working together to reduce natural gas emissions

In 2021, the Natural Gas Innovation Act (NGIA) was written into law. Originally proposed by CenterPoint Energy in 2020, NGIA establishes a regulatory framework that encourages Minnesota's natural gas utilities to use clean energy resources and innovative technologies to tackle greenhouse gas emissions from natural gas—the City's largest source of emissions. This landmark, bipartisan achievement aligned with the work of the <u>Decarbonizing Minnesota's Natural Gas End Uses Stakeholder Process</u> originally convened by the Great Plains Institute and Center for Energy and Environment in 2019 and continuing through 2021. Each of the Partners engaged in this Stakeholder Process which culminated in a set of consensus-based recommendations for the Partners and others to help Minnesota meet its aggressive decarbonization goals with respect to natural gas end uses.

# <u>Introducing New Opportunities in Energy Efficiency and Efficient Beneficial Electrification</u>

The 2021 legislative session also brought the passage of the Energy Conservation and Optimization (ECO) Act, an effort years in the making. This included the most sweeping changes to Minnesota energy efficiency policy since 2007. The ECO Act expands efficiency programs to, for the first time, include fuel switching and broader load management/demand response opportunities. It also increases some utility goals, such as for low-income spending, while providing new tools to achieve these increased goals. The ECO Act was bipartisan and broadly supported by utilities (including Xcel Energy and CenterPoint Energy), cities (including Minneapolis), environmental advocates, ratepayer advocates, and others.

The following report describes the Minneapolis Clean Energy Partnership's 2020 progress in delivering energy efficiency, energy choices, and renewable energy in an especially challenging year.

## **Metrics Scorecard**



#### Greenhouse Gas Emissions (Community-wide)

#### GHG reduction goal of 30% by 2025:

32% reduction since 2006; achieved 2025 goal but unknown if on track due to 2020 impacts from the pandemic





#### Greenhouse Gas Emissions (Community-wide)

GHG reduction goal of 80% by 2050:

32% reduction since 2006; not on track for 2050 goals





#### Greenhouse Gas Emissions (Municipal Operations)

GHG reduction goal of 1.5% annually:

62% reduction since 2008 and on track





#### Energy Use (Residential)

15% energy consumption reduction by 2025:

4% decrease compared to growth baseline; unknown if on track due to annual variations





#### **Energy Use (Commercial and Industrial)**

20% energy consumption reduction by 2025:

4% decrease compared to growth baseline; not on track



Note: metrics categorized as "yellow" lack enough data to determine outcomes at this time.



#### Renewable Electricity (Community-wide)

100% of renewable electricity use by 2030:

32% in 2020 and not on track





#### Renewable Electricity (Municipal Operations)

100% of renewable electricity use by 2022:

88% in 2020 and on track



Score: GREEN



### Renewable Electricity (Local and Directly Purchased)

10% of renewable electricity use by 2025:

6.9% in 2020 and on track

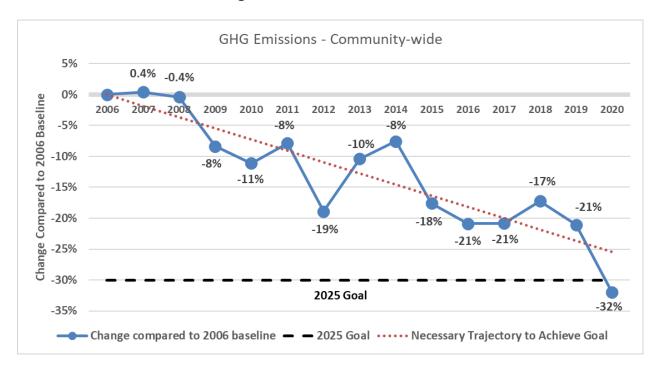


# Metric 1: Greenhouse Gas Emissions (Communitywide)

This metric measures progress toward the Minneapolis Climate Action Plan's (CAP) overarching community-wide greenhouse gas (GHG) reduction goals:

Reduce community-wide greenhouse gas emissions 15% by 2015, 30% by 2025, and 80% by 2050, using 2006 as a baseline.

The following data show a 32% decrease in 2020 emissions compared to 2006. While the City's 2025 goal of a 30% GHG emission reduction was met, the 2020 data was a pandemic-influenced anomaly and the electricity and gas forecasts (see appendix) indicates this metric is not on track to meet the 2050 goal.



GHG emissions reductions to date are in large part attributed to progress on electricity decarbonization, moving away from coal to natural gas, wind, and solar power to produce electricity. For a fourth consecutive year, natural gas is the largest source of GHG emissions in Minneapolis. In 2020, natural gas was the largest emissions source at 45% of overall GHG emissions, followed by electricity (27%) and on-road transportation (23%).

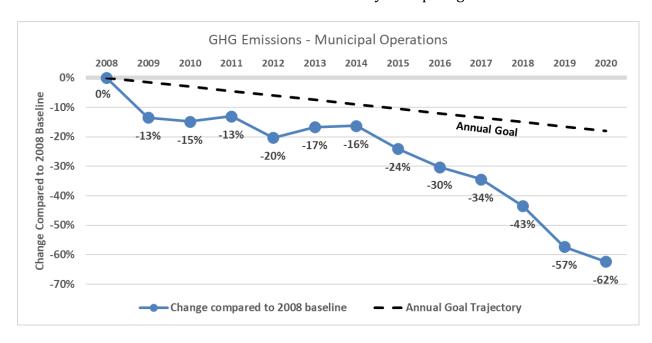
A significant impact on 2020 emissions was the change in behavior due to the pandemic. Traffic volume was down 20% and electricity use was down 5% since 2019. Without these two factors, the overall emissions reduction would have been 27% instead of 32%. These reductions may be one-time pandemic anomalies, particularly for traffic volume. Lasting impacts from the pandemic will continue to be monitored.

# Metric 2: Greenhouse Gas Emissions (Municipal Operations)

This metric measures progress toward the Minneapolis Climate Action Plan's municipal operations greenhouse gas reduction goal (CAP Buildings & Energy Goal #4):

Achieve a 1.5% annual reduction in greenhouse gas emissions from City facilities.

The following data show a 62% decrease in emissions in 2020 compared to 2008. The data trend indicates this metric is on track to meet the City's adopted goal.



Greenhouse gas emissions from City facilities and operations continue to dramatically decrease, which is primarily the result of reductions in emissions from electricity. The reductions in electricity emissions are the result of the reduced carbon intensity of the electric grid paired with City subscriptions in community solar gardens and Xcel Energy's *Renewable\*Connect* green tariff program. Additionally, City municipal operations have realized a 23% overall decrease in energy consumption since the 2008 baseline year, driven by City initiatives to reduce electricity, largely by partnering in Xcel Energy's conservation programs and vehicle fuel consumption.

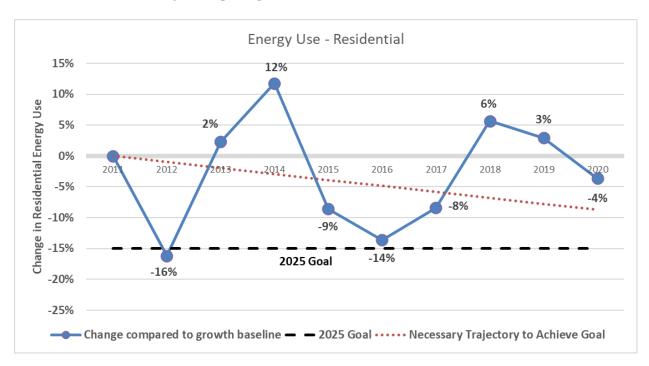
Conversely, emissions from natural gas consumption have remained relatively constant since 2008 and require further action to reduce. Partnership Activity EE.3 continues collaboration on making City facilities more energy efficient, EE.5 has the City participating in CenterPoint Energy's carbon capture pilot, and RE.1 adds electric vehicle infrastructure with smart charging capabilities to the City's fleet thereby decreasing vehicle carbon emissions.

## Metric 3: Energy Use (Residential)

This metric measures progress toward the Minneapolis Climate Action Plan's residential energy reduction goal (CAP Buildings & Energy Goal #1):

Achieve 15% energy efficiency in residential buildings from the growth baseline by 2025.

The following data show a 4% decrease in residential energy use in 2020 compared to the growth baseline; actual use has decreased 3% since 2011. The data exhibits significant year-to-year variation (caused in large part by weather); therefore, it is unknown if this metric is on track to meet the City's adopted goal.



The residential energy sector consists of approximately 183,000 electric and 125,000 gas customers in Minneapolis. The number of electric and natural gas customers has increased in the last decade, but data suggests that households in Minneapolis are using energy more efficiently. However, the reliance on natural gas for space heating in cold weather continues to contribute to significant peaks of energy use in cold weather years (see graph years 2014, 2018, and 2019).

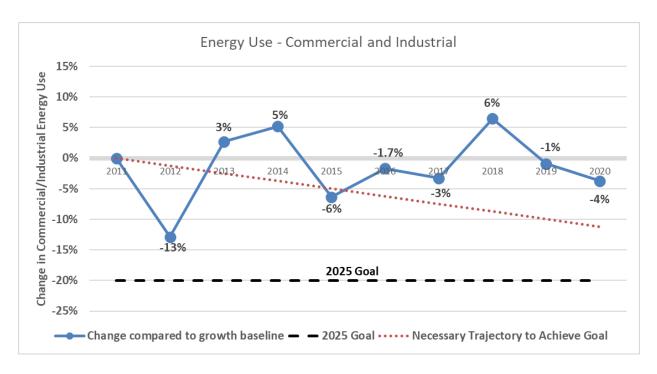
Partnership Activity EE.1 has the Partners collaborating on data-driven strategies to reduce natural gas emissions in the residential sector, especially for customers living in the City's Green Zones. Partnership Activity EE.5 will result in new and enhanced utility tools to help implement the City's energy data disclosure policies. Partnership Activity IF.1 aims to provide residential customers with an inclusive financing option.

## Metric 4: Energy Use (Commercial and Industrial)

This metric measures progress toward the Minneapolis Climate Action Plan's commercial and industrial energy reduction goal (CAP Buildings & Energy Goal #2):

Achieve 20% energy efficiency in commercial/industrial buildings from the growth baseline by 2025.

The following data show a 4% decrease in commercial/industrial energy use in 2020 compared to the growth baseline; actual use has decreased 2% since 2011. The data trend indicates this metric is not on track to meet the City's adopted goal.



The commercial and industrial energy sector consists of approximately 18,000 electric and 11,000 gas customers in Minneapolis. Since 2011, the number of electric and natural gas customers has increased (17% and 5% respectively) while electricity use declined 23% and gas use increased 10%. The decreased electric usage while still increasing customer count has a direct correlation to Xcel Energy's successful customer engagement in our commercial energy efficiency programs. While less affected by weather trends than the residential sector, emissions from natural gas represent over 60% of the emissions in this sector.

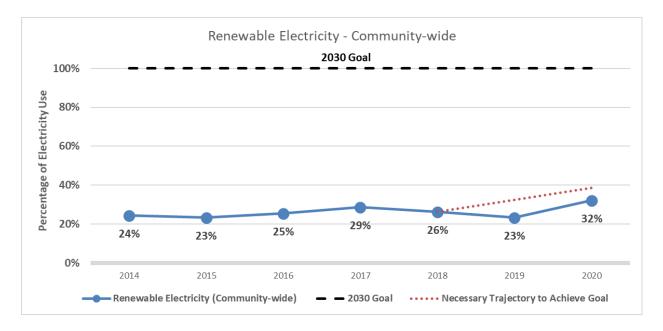
Partnership Activity EE.2 has the Partners teaming up to address energy consumption in the City's most energy intensive commercial buildings. In 2020, due to the City of Minneapolis and other parties' interest, CenterPoint Energy and Xcel Energy began to coordinate delivery of their respective commercial-scale energy audit programs to make it easier for commercial customers to identify opportunities to address each energy source.

## Metric 5: Renewable Electricity (Community-wide)

This metric measures progress toward the Minneapolis community-wide renewable electricity goal:

Receive 100% of community-wide electricity use from renewable sources by 2030.

The following data show that 32% of electricity consumption came from renewable sources in 2020. The data trend indicates this metric is not on track to meet the City's adopted goal, which was established in 2018.



The data shown above indicates that the community's renewable electricity percentage has increased since 2019. The data shows that this metric, while improving, is not at the pace required to meet the 100% goal by 2030, thus this metric is determined to not be on track.

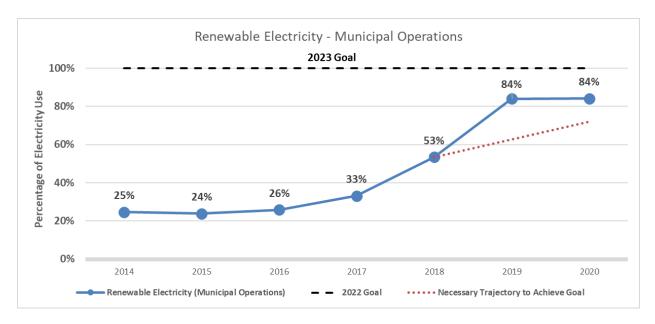
The Xcel Energy renewable electricity grid mix has increased from 26% to 30% since 2019, aligning with the Xcel Energy's Certified Renewable Percentage calculation. Subscription consumption amounts in Xcel Energy's green tariffed Renewable\*Connect, Windsource, and community solar garden programs have risen in recent years. Looking past 2030, Xcel Energy's proposed Integrated Resource Plan projects that by 2034 about 65% of its generated electricity will come from renewable energy.

# Metric 6: Renewable Electricity (Municipal Operations)

This metric measures progress toward the Minneapolis municipal operations renewable electricity goal:

Reach 100% renewable electricity for municipal facilities and operations by 2022

The following data show that 88% of electricity consumption came from renewable sources in 2020. The data trend back to 2014 indicates this metric is on track to meet the City's adopted goal.



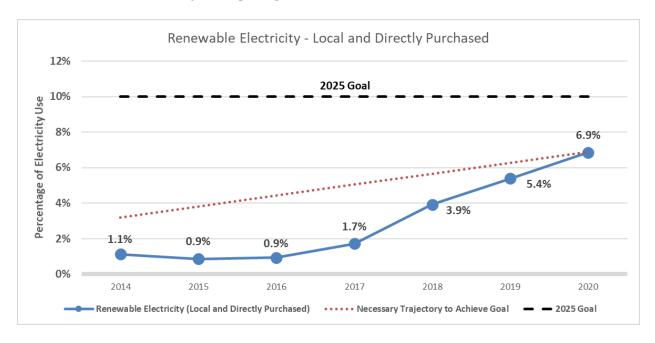
The share of renewable electricity consumed by the City's municipal operations has increased year-over-year, with a dramatic increase in recent years due to the City's increased participation in Xcel Energy's community solar garden (17 million kWh in 2020) and Renewable\*Connect (49 million kWh in 2020) programs. Electricity consumption from municipal operations continues to decline (19% since 2014), making it easier to achieve the renewable electricity goal.

# Metric 7: Renewable Electricity (Local and Directly Purchased)

This metric measures progress toward the Minneapolis Climate Action Plan's renewable electricity goal (CAP Buildings & Energy Goal #3):

Increase electricity from local and directly purchased renewables to 10% of the total consumed by 2025.

The following data show that 7% of electricity consumption came from local and directly purchased renewable sources in 2020. Due to recent significant improvements, this metric is on track to meet the City's adopted goal.



2018, 2019, and 2020 showed dramatic upticks in local and directly purchased renewable electricity. Increases were due to continued large direct-purchase subscriptions in Xcel Energy's *Renewable\*Connect* program, and a surge in local renewables through both Xcel Energy's community solar garden program and new Minneapolis-sited arrays supported by the City's Green Cost Share program.

Partnership Activity RE.3 targets local renewable energy by adding a community solar garden, funded through Xcel Energy's Renewable Development Account, constructed at a City facility and offered to low-income consumers.

## 2019-2021 Work Plan Progress

#### **Progress to Date (September 2021)**

#### EE.1 REDUCE NATURAL GAS USE FOR RESIDENTIAL CUSTOMERS

EE.1 aims to double residential participation in building envelope and high-efficiency equipment programs across the City. EE.1 proposes to use data-driven strategies to identify and engage customers with high energy savings potential with a specific focus on the City's Green Zones.

In 2020, CenterPoint Energy and its vendor, ILLUME, made refinements to the Community Data Profile Dashboard based on EVAC feedback. CenterPoint Energy engaged with additional stakeholders, including Home Energy Squad vendor, Center for Energy and Environment, and other community stakeholders, like the Cities of Bloomington, Saint Louis Park and Minneapolis' Prospect Park Association, in using the Dashboard to deploy targeted engagement strategies and track progress toward goals.

CenterPoint Energy and ILLUME prepared a Minneapolis specific Dashboard analysis to inform the development of targeted outreach strategies in 2021. CenterPoint Energy is preparing to test a marketing campaign in census tracts that have higher energy use, lower CIP participation, and lower income levels. CenterPoint Energy is engaging with the City of Minneapolis, the Department of Commerce, and others in an approach that creates specific messaging to help customers that are behind on their bills access payment assistance resources.

To address the upfront cost barrier of home insulation projects, CenterPoint Energy launched Instant Rebates for its Air Sealing and Insulation Program. In 2021, CenterPoint Energy trained eight rebate eligible installers (REIs) on the Instant Rebate offering. Four REIs have agreed to offer the Instant Rebate option: Advanced Attic Insulation, Air Seal Tech, Element Insulation, and Installed Building Solutions. To date, 15 Instant Rebates have been processed from a single REI, while none of the other three have issued instant rebates. CenterPoint Energy is working with a third-party implementer to assess opportunities to increase participation in the Instant Rebate offering amongst REIs. CenterPoint Energy will also promote the Instant Rebate option with customers in September, ahead of the heating season when insulation projects typically increase.

# EE.2 REDUCE ENERGY USE FOR HIGH ENERGY SAVING POTENTIAL COMMERCIAL CUSTOMERS

EE.2 has the Partners coordinating on engaging commercial buildings with high energy use and energy use intensity.

Xcel Energy's original intent for this initiative was to utilize a new vendor software that streamlines the process of compiling customer building type, usage, and historical DSM

participation to efficiently direct utility staff and customers on the best path forward to maximize energy conservation through the most appropriate program(s). Additionally, Xcel Energy planned to pilot this by cross referencing the City's list of benchmarked buildings to identify the bottom performing 25% - thereby identifying those buildings with the most energy savings potential.

Xcel Energy and its vendor could not come to a financial agreement on terms and therefore did not sign a contract for the pilot. Instead, Xcel Energy used its current method of manually assessing each customer and building individually to determine the best path forward. CenterPoint Energy performed an analysis on the same customers and the utilities met with the City to provide an update. Soon afterwards, the COVID-19 pandemic broke out and had significant impacts on the customers identified for this effort, many of which were large hotels and office buildings.

Xcel Energy monitored and re-assessed the situation twice during the pandemic, including just recently. The remaining buildings on the list are partially occupied, if at all, because they are office buildings. These buildings generally are not moving forward with any capital projects and are waiting to see how their buildings fill following the pandemic; the Delta variant has further delayed the return-to-office plans for many of these buildings.

In a related effort, the Utilities began a joint commercial energy audit process and completed 19 audits in 2020, of which 9 were for Minneapolis customers; none of these were in the bottom performing 25% of benchmarked buildings.

Additionally, for commercial customers, CenterPoint Energy launched REBUILD in August 2020 offering no-cost energy consultations and increased energy efficiency incentives to customers impacted by civil unrest that occurred in 2020. CenterPoint Energy extended the enrollment deadline from the end of 2020 to the end of 2021. To date, 46 customers have enrolled, 5 no-cost Natural Gas Energy Analyses have been conducted, and 8 triple rebates valued at \$33,000 and 1,795 Dth savings have been paid.

Xcel Energy launched a similar program in June 2020 called Recovery Rebates for customers impacted by civil unrest that offered no cost consultations and up to double rebates. Approximately 75 customers enrolled in the program: including grocery and convenience stores, retail, restaurants, multi-family and offices. Approximately one-third of the customers sustained extensive damage or complete destruction to their facilities; those projects are enrolled in the Energy Efficient Buildings program. The remaining customers are enrolled in the Commercial Streamlined Assessment (formerly known as Turn Key) program. Most of the projects are still in process with some of the construction projects not expected to be completed until 2024. Many of these projects will include rebates for installing energy efficient lighting, new HVAC (heating and cooling) equipment, refrigeration, and commercial cooking equipment. The deadline for this application has been extended to December 31, 2021.

#### EE.3 PURSUE ENERGY EFFICIENCY "PERFORMANCE PATH" AT CITY FACILITIES

EE.3 aims to improve energy efficiency in City facilities.

Xcel Energy developed a pilot program to test with the City of Minneapolis in their facilities. This program is designed to incentivize higher levels of customer engagement in energy efficiency with higher levels of utility engagement through assessments/studies and rebates. Xcel Energy has been working with the City's Energy Manager to help achieve a pilot goal of 10% electricity use reduction in City facilities.

As part of this pilot, additional building needs assessments were completed and found minimal new opportunities beyond previous work the Partners have done together, which has included building needs assessments, lighting upgrades, HVAC system upgrades, and street lighting LED conversion. Building Operator Certification (BOC) training for City employees is currently being explored. The City's new Energy Manager may determine if BOC training is prudent for City facilities staff. If the City decides to participate, Xcel Energy will schedule specialized BOC training as requested by the City.

CenterPoint Energy conducted site visits to evaluate over 70 gas meters at City facilities for possible upgrades for automated daily meter reads. City Facilities staff reviewed the information on meter upgrade potential and costs and has decided to proceed with upgrades to two-thirds of the evaluated meters at the City's expense.

#### EE.4 FIELD TEST ENERGY EFFICIENCY AND CARBON CAPTURE TECHNOLOGY

EE.4 aims to pilot energy efficiency and carbon capture technology, called CARBiNX at commercial facilities in Minneapolis and surrounding suburbs.

In 2020, the CARBiNX pilot experienced delays due to permitting challenges and COVID-19. While permitting the CARBiNX unit is permissible under current law, permitting is at the discretion of building code officials who are not familiar with the technology and have to prioritize more standard projects. Therefore, CenterPoint Energy and the makers of CARBiNX, CleanO<sub>2</sub> Technology, have had to invest more time and resources than expected into municipal code official engagement. A virtual meeting was held in late June 2020, to provide a demonstration of the technology and determine permitting criteria and procedures with code officials. The pilot also experienced several months of delays as code officials and project partners focused on other work related to adjusting to COVID-19.

CenterPoint Energy continues to engage in productive meetings with the Minnesota Department of Labor and Industry regarding permitting process. In addition, CleanO2 Carbon Capture Technologies obtained UL listing as a heat recovery unit which is expected to help with permitting approvals.

# EE.5 SUPPORT RESIDENTIAL ENERGY DISCLOSURE POLICIES BY MAKING DATA ACCESSIBLE WITH TOOLS

EE.5 proposes new and enhanced utility data access tools to support implementation of the City's energy disclosure policies.

The Minnesota Public Utilities Commission (PUC) issued an order on Nov 20, 2020 for DOCKET NO. E,G-999/M-19-505, establishing a data aggregation standard, which states that utilities must provide aggregated customer energy use data sets to third parties, such as the City and property owners. These data sets may include data from no fewer than 4 customers and that a single customer's energy use must not constitute more than 50 percent of total energy consumption for the requested data set (the "4/50 rule"). Due to this Commission Order, the Partners have established two parallel paths for roll-out of the Time-of-rent energy cost disclosure ordinance based on building size (1-4 and 5+ unit properties), with weekly meetings, alternating between the two.

#### 5+ unit Properties

CenterPoint Energy and Accelerated Innovations (AI) completed their benchmarking tool modifications for Time of Rent compliance in Q1 2021 and have completed beta testing and tool usage communications.

For consistency in the customer experience, Xcel Energy contracted with AI to develop their tool that allows building owners to comply with the City's Time of Rent ordinance. Xcel Energy has also completed beta testing and tool usage communications.

CenterPoint Energy, Xcel Energy, Minneapolis and AI meet biweekly to align tool pages to allow for a consistent and easier to understand view from a customer perspective.

To develop the help resources above and test the utilities' software tools, the Partners have worked with the Minnesota Multi Housing Association (MHA) to gather interested property owners to test the tools and provide feedback directly to the Partners about their experience.

A "quick start" user guide was developed to assist property owners in using the utilities' data tools specifically for compliance with the City's ordinance. While Utility tools are designed to be as user-friendly as possible, the guide provides the steps property owners will need to follow to create and share with tenants an energy cost report for their building. The Partners also developed other helpful resources for property owners, including FAQs, short videos illustrating the software tool registration steps, the City's 311 call line for helping owners find guidance on the FAQ and common issues, and dedicated utility-specific help email addresses for property owner assistance on technical or account-related issues. These resources are now available and property owners began receiving notifications from the City on the ordinance's effective date of September 1 encouraging them to begin creating energy costs reports and guiding them to the tools and help resources developed by the Partners.

#### 1-4 Unit Properties

For properties with less than 4 units that cannot be adequately aggregated or annonymized, the PUC requires customer consent before releasing whole building energy use data to third parties, such as property owners. As part of the PUC docket previously discussed, on March 1, 2021, Xcel Energy and CenterPoint Energy submitted annual compliance filings, which included a discussion about which, if any, additional use cases the Commission should consider. In its March 1 filing (Docket No. E.G-999/M-19-505), CenterPoint Energy requested that the Commission consider how CEUD consent requirements should apply when landlords of 1-4 unit properties in the City of Minneapolis request tenant customer energy use data (CEUD) in compliance with the City's ordinance. In Xcel Energy's March 1 filing (Docket No. E.G 999/M-19-505), Xcel Energy stated: "We are aware that a number of communities are implementing benchmarking ordinances that in some cases apply to all sizes of rental properties including single-tenant buildings. The Commission may want to specifically examine the 4/50 aggregation standard for the building benchmarking Use Case in light of emerging benchmarking ordinances."

The Partners have been meeting biweekly in 2021 to actively work through time-of-rent compliance options for rental property owners of 1-4 unit buildings. In the case of 1-4 unit properties, the Utilities cannot release Customer Energy Use Data (CEUD) to third parties without the customer's written consent. For compliance implementation, the Partners are currently discussing two options: 1) Petitioning the PUC to allow property owners (as a special use case) access to CEUD without the customer's written consent and 2) Petitioning the PUC to allow the utilities to apply a statistical methodology to modify CEUD and release it to property owners without the customer's written consent. Implementation and enforcement of the ordinance for 1-4 unit properties is delayed until a solution is found any needed PUC approval is received.

Pertaining to the City's Truth-in-Sale-of-Housing (TISH) Energy Disclosure Ordinance, CenterPoint Energy continued to pilot Center for Energy and Environment's Energy Advisor service to support implementation of the Minneapolis's new energy reporting requirement. Between 2020 and 2021, CenterPoint Energy allocated \$100,000 to this initiative.

#### RE.1 INSTALL ELECTRIC VEHICLE INFRASTRUCTURE FOR CITY FLEET

RE.1 spurs the transition to an electric vehicle fleet for the City of Minneapolis.

Xcel Energy and the City have finalized the Customer User Agreement, which has also been approved by City Council. Xcel Energy and the City are working with program designers to lay out a formal plan for review and implementation. Charging infrastructure will likely be installed at the Aldrich facility, Fridley Water Plant, and Federal Court House Ramp.

# RE.2 ACHIEVE 100% RENEWABLE ELECTRICITY FOR CITY ENTERPRISE AND COMMUNITY PATHWAY

RE. 2 creates a pathway to the City's 100% renewable electricity goal.

In 2019 the City issued a Request for Information (RFI) to meet its 100% renewable electricity goal for both city enterprise by 2023 and communitywide by 2030. The City received 16 responses, including one from Xcel Energy. The City and Xcel Energy met multiple times to discuss potential renewable options the City is interested in.

A review committee consisting of City staff from Property Services, the Sustainability Division, Councilmember aides, and the Mayor's office reviewed the RFI submissions and used the ideas to develop two Request for Proposals (RFP) for the 2023 and beyond renewable electric resource:

- 1. An RFP requesting 90% of the City's municipal operations needs to be met by a large generation source located outside the City limits.
- 2. An RFP requesting 10% of the City's municipal operations needs to be met by one or more generation sources located within City limits.

Responses for these two RFPs were due in March 2021 and the City was pleased with the number and quality of responses received. The City has met internally numerous times to review the responses and reached out to promising proposals for further clarifications and questions.

In March 2021, a total of seven proposals were received for the RFP requesting 8 million annual kWh from renewable resources located inside the City limits, ranging from outright purchase of solar arrays on City buildings, REC contracts, and Power Purchase Agreements (PPA) for electricity generated by solar arrays located on City owned buildings. The City decided to pursue PPA proposals that would save money and require no capital expenditures. After careful review of the three PPA proposals received, the proposal from Sundial Solar was selected to best meet the city objectives.

In September 2021, City Council granted permission for staff to execute a contract with Sundial Solar for the arrays to be built on City owned facilities for total of 5.1 million annual kWh. An additional RFP may be issued in the near future for the remaining City building rooftop sites not utilized as a part of the Sundial Solar contract.

The City is currently finalizing review of the proposals received for resources outside of City limits. The City anticipates needing to partner with Xcel Energy to bring to fruition the final concept selected. The City will begin engagement with Xcel Energy in the near future once the winning proposal has been formally accepted by the City.

# RE.3 PROVIDE SOLAR GARDEN AND ENERGY EFFICIENCY OPPORTUNITIES FOR LOW-INCOME COMMUNITIES

RE.3 aims to establish a low-income community solar garden.

Xcel Energy submitted the adjusted Renewable Development Fund (RDF) grant contract to the Public Utilities Commission (PUC) that would alter the timeline per the request of the grantee and establish the final grant amount. That request was approved at the PUC in July 2021. Xcel Energy has submitted the compliance filing with the grantee that provides additional solar garden detail. Subscribers and participants in the energy efficiency roll-out plan may be identified through the City's 4D program. Xcel Energy will work with the City on the income qualified energy efficiency engagement at the appropriate build stage of the community solar garden..

#### WD.1 IMPROVE EQUITABLE ACCESS TO CLEAN ENERGY JOBS

WD.1 aims to build the Partner's collective understanding of the obstacles and opportunities of achieving a diverse clean energy workforce.

Since the adoption of the Work Plan in late 2018, the workforce situation in clean energy jobs, like all parts of the economy, has been altered due to the pandemic. The Partners are in the process of beginning new conversations reflective of the evolving workforce situation.

Xcel Energy has submitted a proposal to the PUC for a \$4 million workforce development program aimed at helping Black Indigenous People of Color (BIPOC) find training and energy related careers. Xcel Energy met with local organizations and the unions – as well as the City - that offer such programs to determine what should be included in our RFP and program structure.

Additionally, Xcel Energy filed and received approval of a CIP modification to work with the Center for Energy and Environment (CEE) on a \$5.7M proposed energy efficiency workforce training program that will be focused on engaging participants in areas of concentrated poverty, providing training in energy efficiency skills such as energy audits, insulation installation, assisting participants with job placement, or establishing their own business. The program also includes a scholarship fund to assist income qualified students at two- and four-year institutions pursuing careers in energy efficiency. Xcel Energy intends to partner with workforce development experts, community leaders and companies from the region that would eventually hire the CIP-WDE participants.

Xcel Energy and City have worked together on employment communications and outreach, including newsletters and job fairs.

In 2020, CenterPoint Energy launched a new employment opportunity to provide a more accessible career entry pathway into the skilled trades and utility industry. CenterPoint

Energy is recruiting cycles of 10 Appliance Generalist candidates to take part in a six-month paid training course to learn the fundamentals of gas and electricity and how to repair refrigerators, ranges, dishwashers, washers and dryers. Training consists of classroom, lab and field training. At the end of the six-month training, candidates take a hands-on appliance assessment test to become a full-time appliance technician with HSP. The position does not require prior experience or technical school certification/enrollment. CenterPoint Energy intends for this to be an on-going position opportunity.

In 2020, CenterPoint Energy participated in the City of Minneapolis's Trans Equity Summit to talk about CenterPoint Energy career opportunities and customer resources.

In 2021, CenterPoint worked directly with Minneapolis Employment and Training on outreach and recruitment efforts in Minneapolis. CenterPoint also participated in a May 27 "community-focused curbside career fair" at the North Minneapolis CareerForce location to promote this offering and other open employment opportunities at the Company, including Leak Detectors, Customer Service Representatives, and HVAC Technicians.

The City's Employment and Training staff are meeting regularly with Health Department staff to coordinate green job exposure opportunities in solar and other green energy job with the CPED Career Pathways program. The City is working to further align efforts between the Health Department's exposure training and the network of workforce development CBOs (community-based organizations) CPED partners with on various jobs programs.

#### IF.1 IMPROVE ACCESS TO ENERGY EFFICIENCY BY PROVIDING INCLUSIVE FINANCING

IF.1 proposes an Inclusive Financing pilot.

On January 14, 2021, the PUC held a hearing in consideration of a CenterPoint Energy-City of Minneapolis Tariffed On-Bill aka Inclusive Financing (IF) pilot. On March 1, the PUC issued an order: 1) directing CenterPoint Energy and the City to submit a filing in a new docket within 90 days that presents potential viable pilot options that help achieve City objectives developed in consultation with interested parties and 2) directing CenterPoint Energy with input from interested parties to develop a new or expanded low-income CIP proposal focused on renters with input from interested parties.

CenterPoint Energy and the City have been meeting weekly to respond to the March 1 PUC order. CenterPoint Energy and the City engaged the following interested parties regarding development of an IF pilot: Center for Energy and Environment, Citizens Utility Board Minnesota, Community Power, Minnesota Department of Commerce, Energy Cents Coalition, Hennepin County Recording Office, Institute for Local Self Reliance, Minneapolis Energy Vision Advisory Committee, Mid-Minnesota Legal Aide, Liberty Homes, Minnesota Center for Environmental Advocacy, Minnesota Office of the Attorney General, Minnesota and Minneapolis Realtors Associations, Minnesota Mortgage Bankers Association, Minnesota Title Association, Sierra Club, Sustainable Resources Center, Suburban Rate Authority, Xcel Energy, and others. The Petitioners also consulted with external parties with expertise in

TOB programs such as Clean Energy Works, Renew Missouri, EEtility, Green Bank, Inclusive Prosperity Capital, Liberty Homes, and Ameren Missouri. Minnesota Center Environmental Advocacy (MCEA) hosted a meeting for attorneys involved with the IF docket.

On June 1, CenterPoint Energy and the City submitted a filing in response to the March 1 PUC Order describing progress to date in the development of an IF pilot in consultation with interested parties and requesting a 90-day extension to submit a revised IF pilot petition. The extension period allowed more time to address unresolved elements of the IF pilot proposal in consultation with interested parties.

On September 1, CenterPoint Energy and the City submitted a revised IF pilot petition.

Xcel Energy has engaged in City and CenterPoint Energy discussions during this period. The utility has performed another analysis of measures determined to have some potential from the Cadmus study and found that modeled under the strict PAYS program, these measures do not currently pass the program's qualifying tests. Xcel Energy continues to have concerns about the program but remains open to discussions throughout its development. Xcel Energy is engaging with Colorado stakeholders regarding a possible On Bill or TOB program there as well and has stated a willingness to extend any Colorado offering to Minnesota customers. In the meantime, CenterPoint proposes to count electricity side savings from eligible natural gas saving measures in its pilot program in keeping with the PAYS model.

## Appendix: Supporting Data

The Partnership originally established metrics based on recommendations of EVAC and the Planning Team in 2015 and first reported on them in the 2015 Annual Report (published in 2016). The intent of this first generation of metrics was to inform the Board of progress in the Partnership, helping the partners understand what activities are happening in the community and determining the level of success. Compiling metrics included significant data collection from all three partners to determine which areas of the community are currently being well-served, less-served, or under-served.

The data collected in the first generation of metrics remains very valuable to the Partnership and other stakeholders, and thus is retained and reorganized under the new seven key metrics. This section contains this data for posterity and to help illuminate the reasons for trends and yearly variation seen in the key metrics in this report.

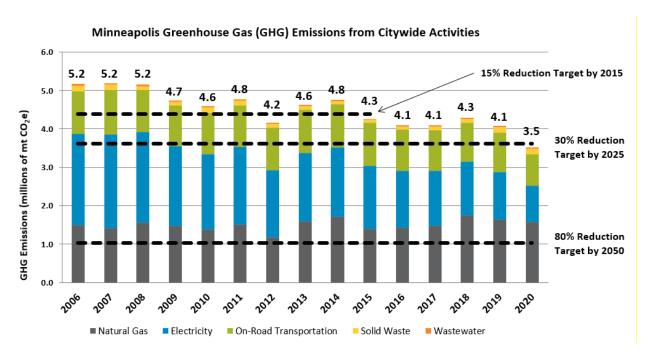
This section also provides trend forecasting (when data is available), which is an area of continued effort by the Partnership.

Metric 1 Supporting Data: Greenhouse Gas Emissions (Community-wide)

	Metric	2016	2017	2018	2019	2020
1	GHG emissions - Community-wide (mt CO <sub>2</sub> e)	4,092,680	4,094,614	4,280,605	4,082,324	3,516,431
1	Change compared to 2006 baseline	-21%	-21%	-17%	-21%	-32%

	Supporting Data		2017	2018	2019	2020
1a	Emissions from electricity use (mt CO <sub>2</sub> e)	1,473,229	1,429,560	1,403,714	1,233,805	946,398
1b	Electricity emissions factor (mt CO₂e/MWh)	0.365	0.372	0.365	0.338	0.274
1c	Emissions from natural gas use (mt CO <sub>2</sub> e)	1,427,609	1,485,074	1,744,181	1,645,787	1,572,306

The figure below represents the citywide greenhouse gas (GHG) emissions inventory, an accounting of Minneapolis emissions from buildings, transportation, wastewater, and solid waste. Minneapolis has adopted targets to reduce community-wide emissions 15% by 2015, 30% by 2025, and 80% by 2050 (from the 2006 baseline) through the roadmap set by the *Minneapolis Climate Action Plan*.

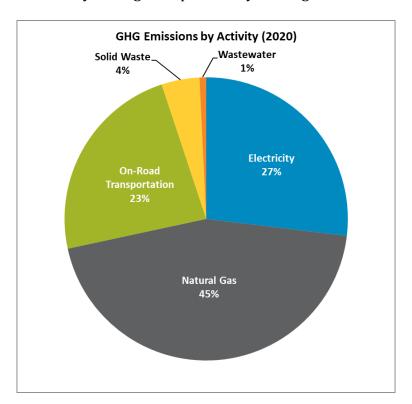


Emissions from the two fuels that are the focus of the Clean Energy Partnership – electricity and natural gas – account for 72% of the City's overall greenhouse gas emissions.

A significant impact on 2020 emissions was the change in our behavior due to the pandemic. Compared to 2019, traffic volume (vehicles miles traveled) was down 20%, resulting in a GHG emissions reduction for the transportation sector of 20%. Transportation volumes have already rebounded from their pandemic lows, meaning that this reduction from transportation will prove fleeting, at least in large part.

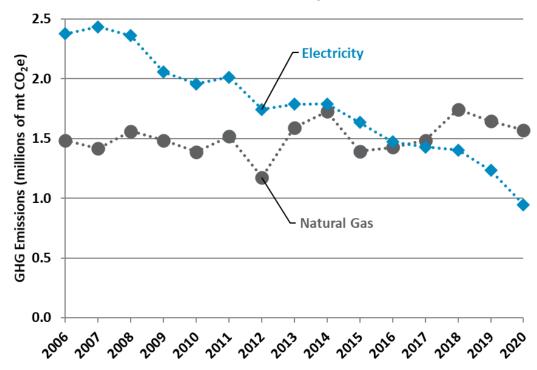
Another significant impact on 2020 emissions was a year-over-year reduction in the electricity sector of 23%. Electricity use was down 5% during this period at least in part due to building operations changes during the pandemic. Residential sector electricity consumption in Minneapolis was at the highest level since at least 2006, while Commercial/Industrial sector electricity consumption was at its lowest. But an even greater factor in electricity GHG emissions reductions was the year-over-year 19% decrease in Xcel Energy's emissions factor due to a significantly greater share of electricity being produced by renewable sources.

Without two pandemic related factors (decreased traffic volume and decreased electricity consumption), the overall GHG emissions reduction in 2020 would have been 27% instead of 32%. These reductions are likely one-time pandemic anomalies, particularly for traffic volume which may return to near-normal levels in 2021. Due to this, achievement of the City's 30% GHG reduction by 2025 goal is potentially fleeting.

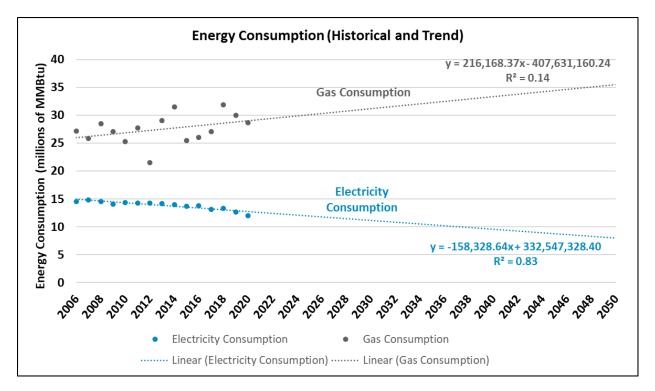


Starting in 2017, the largest source of emissions came from the combustion of natural gas, with emissions from natural gas and electricity further diverging and continuing their respective trends.

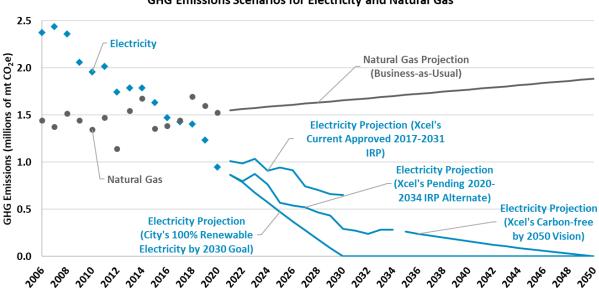
#### **GHG Emissions from Electricity and Natural Gas**



A trend line can be created by looking at the underlying historical energy consumption data and applying a linear regression. The resulting trend prediction is shown in the following graph.



To predict future emissions, the consumption forecasts above are coupled with emission factors for fuels, while keeping everything else constant. The emission factor for natural gas is assumed to remain constant. CenterPoint Energy continues to take a lead in disrupting natural gas emissions trends by leading legislation that provides the regulatory structure for gas utilities to propose innovative natural gas decarbonization strategies. The emission factor for electricity falls over time in four scenarios: 1) Xcel Energy's current, approved 2017-2031 Integrated Resource Plan (IRP), 2) Xcel Energy's pending 2020-2034 IRP, 3) Xcel Energy's carbon-free by 2050 vision, and 4) The City of Minneapolis' 100% renewable electricity by 2030 goal.



**GHG Emissions Scenarios for Electricity and Natural Gas** 

The results show the emissions trajectory for each fuel. Looking toward 2025, if other sectors besides electricity and natural gas are held constant, overall emissions will continue to decrease driven by the decrease in electricity emissions. Under this scenario, the City would miss the same goal with the current, approved Xcel Energy 2017-2031 IRP, making a 27% overall GHG reduction. The City will exceed its 30% overall GHG reduction goal with a 36% overall GHG reduction in the City's 100% renewable electricity projection scenario. Additionally, the goal would be achieved with a 33% reduction in Xcel Energy's pending 2020-2034 IRP Alternate scenario. In this scenario, Xcel Energy's projected carbon intensity in 2025 under the IRP Supplement is 70% below what it was in the City's baseline year of 2006.

To achieve the City's 80% GHG reduction goal by 2050, emissions from <u>all</u> sectors and fuels must be below approximately 1,000,000 metric tons of carbon dioxide equivalent (mt CO2e). If current trends continue, natural gas will account for nearly twice the GHG emissions as the City's goal for all sectors combined.

Metric 2 Supporting Data: Greenhouse Gas Emissions (Municipal Operations)

	Metric	2016	2017	2018	2019	2020
2	GHG emissions - Municipal operations (mt CO <sub>2</sub> )	67,637	63,603	54,803	41,366	36,524
2	Change compared to 2008 baseline	-30%	-34%	-43%	-57%	-62%

	Supporting Data		2017	2018	2019	2020
2a	Emissions from electricity use (mt CO <sub>2</sub> )	40,575	35,807	25,187	11,058	10,272
2b	Emissions from natural gas use (mt CO <sub>2</sub> )	8,258	8,922	10,107	10,448	9,731

Greenhouse gas emissions from City facilities and operations have decreased dramatically (62%) since the 2008 baseline. This drop has been largely due to substantial decreases in electricity emissions, due to reductions in Xcel Energy's grid mix emissions and City renewable energy projects and subscriptions. Starting in 2019, electricity was no longer the largest single source of emissions in the inventory, in 2020 representing 28% compared to 34% for vehicle fuels. Electricity has accounted for 55 percentage points of the 62% decrease seen below.

62% Drop 2008 - 2020 96,928 CHILLED WATER 15,911 **■** STEAM 84,282 NATURAL GAS 83.913 82 531 81,140 ELECTRICITY 80.739 80.000 77,255 14,973 15,631 5,028 73,590 15.289 14,392 15,311 14,475 67,637 9.746 14.053 Metric Tons of Carbon Dioxide 1,768 3,113 63,603 60,000 8,682 3,015 10 333 14,050 54 803 7.811 13,283 8.258 41,366 40,000 36,524 4.244 13.932 12.522 10,107 52 383 51,008 40.57 20,000 35.80 10.448 9,731 25,187 2008 2010 2011 2012 2013 2014 2015 2016 2017 2019 2020 2009 2018

Figure 8: City's Carbon Emissions

Emissions from natural gas have remained relatively constant and are the third largest source of emissions after vehicle fuels and electricity. Likely within the next few years, emissions from natural gas will eclipse those from electricity as renewable electricity for municipal operations increases due to the City's 100% renewable electricity goal. New solutions, including energy efficiency and beneficial electrification, will be needed to reduce

reliance on fossil fuels for heating in the future. Additional options to consider may be carbon capture technology and renewable natural gas.

Metric 3 Supporting Data: Energy Use (Residential)

	Metric	2016	2017	2018	2019	2020
	Energy use - Residential (MMBtu)	12,737,491	13,520,158	15,617,627	15,229,655	14,270,066
3	Growth baseline energy use - Residential (MMBtu)	14,743,172	14,759,991	14,776,811	14,793,631	14,810,451
	Change compared to growth baseline	-14%	-8%	6%	3%	-4%

Residential Energy Use	2016	2017	2018	2019	2020
3a Residential building electricity use (MWh)	970,280	950,159	1,029,006	970,477	1,044,234
3b Residential building gas use (therms)	94,204,489	102,712,038	120,984,119	119,102,768	106,998,274

#### Residential Energy Use

Residential energy use decreased in 2020 compared to 2018 and 2019 and year-to-year energy use continues to fluctuate greatly due to changes in yearly temperatures. The National Oceanic and Atmospheric Administration (NOAA) recorded a 10% decrease in heating degree days, a measurement of heating demand, compared to 2019.

In 2020, Minneapolis had approximately 125,000 residential natural gas customers, an increase of 9.0% over ten years. While overall natural gas consumption has increased with customer growth, the weather-normalized gas use per customer has decreased by about 7.3% over the same ten-year period. In 2020, Minneapolis residential gas customers used approximately 856 therms of natural gas or the equivalent of 4.5 metric tons of carbon dioxide equivalent ( $CO_2e$ ).

Xcel Energy's approximate number of 184,000 residential customers increased 5.0% over the span of six years from 2014 to 2020 and their corresponding consumption increased 6.0%. This is almost a 7% increase in consumption from 2019 with a slight decrease in residential customers. Xcel Energy attributes this largely to the impacts of many working from home and staying at home much more in 2020, thereby using more electricity. Minneapolis customers used an average annual electric consumption of 5,679 kWh in 2020, equating to approximately 1.55 metric tons of  $CO_2e$  per household (after accounting for carbon-free Windsource and Renewable\*Connect commitments by Minneapolis residents) reflecting the ongoing decline in  $CO_2e$  per kWh on Xcel Energy's Upper Midwest system. This is about one-third of the emissions of a typical gasoline-powered vehicle.

#### <u>Utility Residential Conservation Improvement Programs</u>

CenterPoint Energy and Xcel Energy's portfolio of Conservation Improvement Programs continued to help Minneapolis residents conserve energy, save on their utility bills, and improve the comfort and safety of their homes. On the gas side, <a href="CenterPoint Energy's Efficiency Programs & Rebates">CenterPoint Energy's Efficiency Programs & Rebates</a> spending amounted to \$3.5 million, including \$1.2 million in customer rebates, to assist over 37,000 Minneapolis residents save over 1 million therms of natural gas and \$732,000 on their annual gas utility bills in 2020 (calculation does not include income-qualifying or multi-family program participants). <a href="Xcel Energy's Residential Energy Efficiency Programs & Rebates">Xcel Energy's Residential Energy Efficiency Programs & Rebates</a> provided over 5,800 residential customer rebates, over 3.3 million kWh in energy savings, \$1.1 million in rebates, and an estimated \$1.7 million saved on customer bills over the life of the measures.

#### **Home Energy Squad**

<u>Home Energy Squad (HES)</u> is a joint program offered by Xcel Energy and CenterPoint Energy to help residential customers identify energy efficiency opportunities via a home energy assessment.

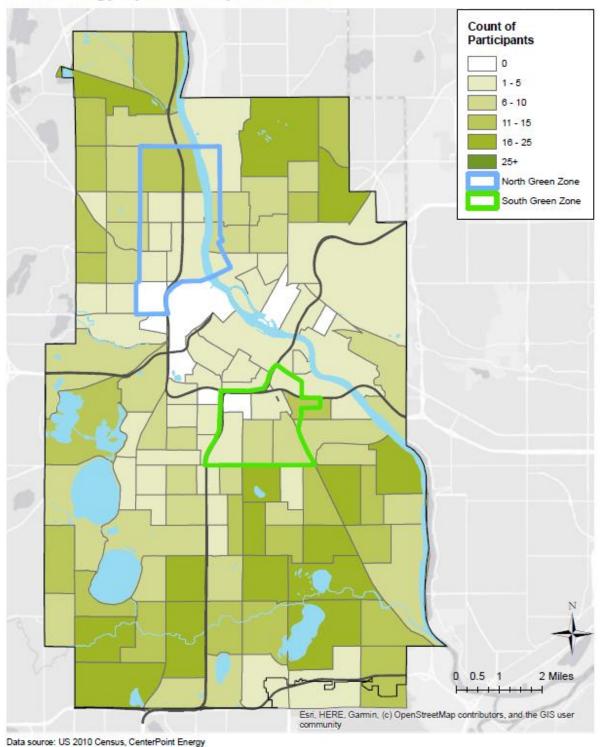
Home Energy Squad Program		2016	2017	2018	2019	2020
Зс	Home Energy Squad participation	837	620	869	1,786	1,068
3d	Home Energy Squad annual energy savings (kBtu)	4,930,524	3,599,205	5,115,628	10,538,705	4,740,255
3е	Home Energy Squad estimated annual cost savings	\$ 49,753	\$ 46,156	\$ 57,070	\$ 112,911	\$ 69,544
3f	Residences (1-4 unit) annually served by HES	0.9%	0.7%	1.0%	2.0%	1.2%

Despite facing significant disruptions due to the Covid-19 pandemic, 1,068 participants engaged HES services. In mid-March, HES in-home visits were put on hold to comply with the Governor's Stay at Home Order. To keep staff and customers engaged, CenterPoint Energy, Xcel Energy, and Center for Energy and Environment collaborated to develop a virtual version of the HES visit combined with customer do-it-yourself installs. In-home visits resumed, with safety precautions, but the virtual visit is now a permanent offering. The following table describes Home Energy Squad participant characteristics in 2020.

2020 Minneapolis Home Energy Squad Visits	Number	Percent of Total
Total HES Visits	1,068	100%
Visits at Owner-occupied homes	933	87%
Visits at renter-occupied homes	135	13%
Visits at single family residences	712	67%
No-cost visits for low-income customers	79	7%
Received wall insulation recommendation	452	42%
Received attic insulation recommendation	590	55%
Received air sealing recommendation	533	50%

The following map shows the distribution of Home Energy Squad visits across Minneapolis in 2020. In 2020, the neighborhoods that saw the most visits were: 1.) Longfellow, 2.) Standish-Ericsson, 3.) Field/Regina/Northrop, 4.) Willard-Hay, and 5.) Hale/Page Diamond Lake.

### **Home Energy Squad Participation, 2020**



#### Home Energy Squad-driven loans

The Center for Energy and Environment's <u>Home Loans Programs</u> offers low-interest loans for home energy efficiency improvements. In 2020, Minneapolis residents financed 4 high-efficiency air conditioners, 5 high-efficiency heating systems, 83 home insulation projects, and 11 Solar projects. The City of Minneapolis offered 0% interest loans to 96 of the projects.

Energy Efficiency Loans			2017	2018	2019	2020
3g HES-driven energy efficiency loan count	4	3	37	73	153	103
3h HES-driven value of loans	\$ 192,23	4	\$ 346,772	\$ 628,422	\$ 1,216,944	\$ 845,660

#### **Air Sealing & Insulation Rebates**

CenterPoint Energy offers a <u>rebate for residential air sealing and insulation upgrades</u>. Insulation and air sealing improvements are among the greatest opportunities for energy savings in homes, with most of the energy savings coming from reduced heating loads in the winter. The energy savings potential is particularly high for older homes that may have little, or even no, insulation in the walls and attic.

Home insulation rebated projects in Minneapolis averaged approximately 278 therms of estimated annual energy savings per project, or approximately 30% of weather-normalized natural gas use per Minneapolis residential customer.

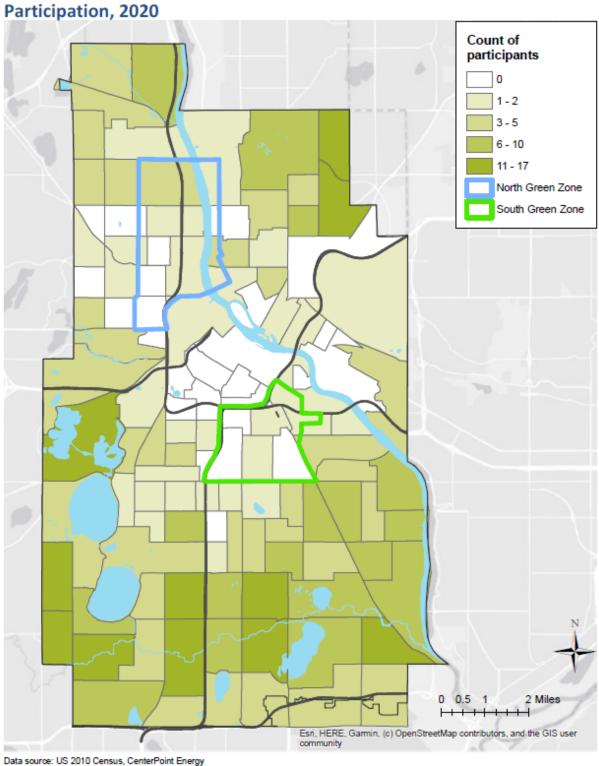
Air Sealing & Insulation (ASI) Rebates		2016		2017		2018	2019	2020	
3i	ASI participating customers		277		242	258	569		470
3 <u>j</u>	ASI estimated annual energy savings (therms)		64,404		67,390	71,670	136,330		108,900
3k	ASI estimated annual cost savings	\$	42,292	\$	43,938	\$ 46,729	95,158		70,785
31	ASI rebate dollars spent	\$	130,000	\$	136,060	\$ 138,469	\$ 300,573	\$	253,513

In 2020, the number of Minneapolis residences to receive an air sealing and insulation rebate was 470.

Of the 470 rebated insulation projects, 18% (83) also received 0% interest loans provided by the City of Minneapolis in collaboration with the Center for Energy and Environment.

The following map shows the distribution of CenterPoint Energy's home insulation rebates across Minneapolis in 2020.

# CenterPoint Energy Home Insulation Rebate Program



#### <u>Income-Qualifying Conservation Improvement Programs</u>

CenterPoint Energy and Xcel Energy offer energy conservation services for low-income customers, including specifically designed opportunities for homeowners, renters, multifamily building owners, and affordable housing organizations.

Inc	come-Qualifying Energy Efficiency Programs	Source	2017	2018	2019	2020
3m	Low-income CIP program participants	CNP	712	690	556	437
3n	Low-income CIP dollars spent	CNP	\$ 1,841,555	\$ 2,036,310	\$ 1,827,837	\$ 1,055,068
30	Low-income CIP est. energy savings (therms/yr)	CNP	205,272	151,380	65,590	61,420
3р	Low-income CIP est. annual cost savings	CNP	\$ 133,839	\$ 98,711	\$ 45,782	\$ 39,923
3q	Low-income CIP program participants	Xcel	596	831	730	496
3r	Low-income CIP dollars spent	Xcel	\$ 629,357	\$ 753,378	\$ 638,193	\$ 363,833
3s	Low-income CIP est. energy savings (kWh/yr)	Xcel	423,297	451,639	438,243	348,402
3t	Low-income CIP est. annual cost savings	Xcel	\$ 45,018	\$ 43,524	\$ 48,478	\$ 186,176
3u	Weatherization Assistance Program (WAP) visits	DOE	253	238	237	76
3v	WAP dollars spent	DOE	\$ 887,202	\$ 1,188,524	1,091,426	302,702

	Energy Cost Assistance Programs		2017	2018	2019	2020
3w	Gas Affordability bill pay assistance Participants	CNP	3,247	3,228	3,451	2,705
3x	Gas Affordability bill pay assistance total spent	CNP	\$ 1,269,960	\$ 1,396,992	\$1,519,908	\$948,156
Зу	Power-On participants	Xcel	2,321	1,550	2,515	2,683
3z	Power-On total spent	Xcel	\$ 1,090,603	\$ 754,558	\$ 1,171,688	\$ 1,329,997
3aa	Senior Discount participants	Xcel	5,784	5,817	5,864	5,370
3bb	Senior Discount total spent	Xcel	\$ 941,056	\$ 969,362	\$ 962,811	\$ 973,938
Зсс	Medical Affordability Program participants	Xcel		344	397	235
3dd	Medical Affordability Program total spent	Xcel		\$ 268,275	\$ 312,415	\$ 168,903

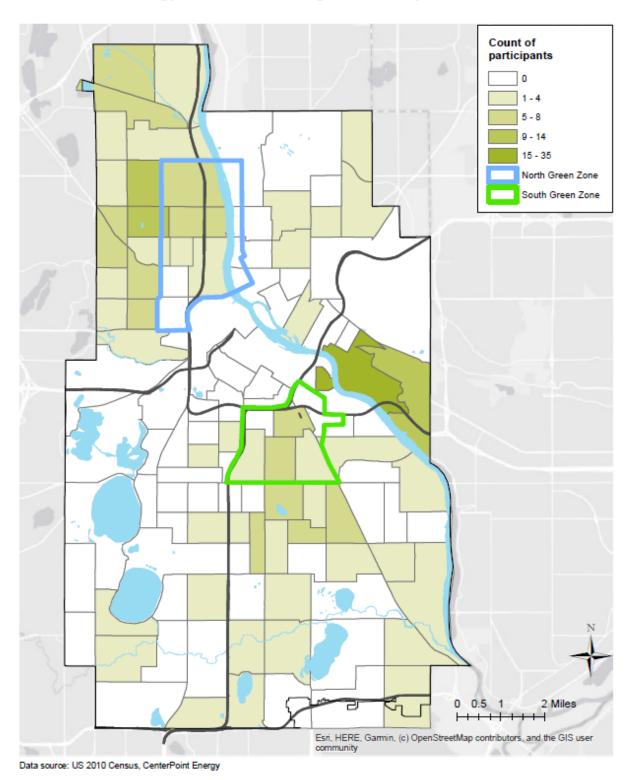
In 2020, <u>CenterPoint Energy's Income-Qualified Programs</u> and <u>Gas Affordability Program</u> directed \$2 million to help qualifying customers in Minneapolis reduce their energy costs and improve the efficiency, comfort and safety of their homes.

In 2020, lower participation in the State's Weatherization Assistance Program, which leverages CenterPoint Energy income-qualifying funding, was heavily influenced by a pause in conducting in-home energy audits from April to August due to the pandemic. When inhome audits recommenced, the program administrators had difficulty identifying willing participants.

Xcel Energy's <u>Energy Assistance Options</u> include access to the Power-On Program, Senior Discount, and Medical Affordability Program as well as Income Qualified Energy Efficiency programs such as Home Energy Savings, Low Income Home Energy Squad, and Multi-Family Energy Services Program. In total, these programs reached over 8,700 Minneapolis customers providing over \$2.9 million in assistance and energy efficiency options in 2020.

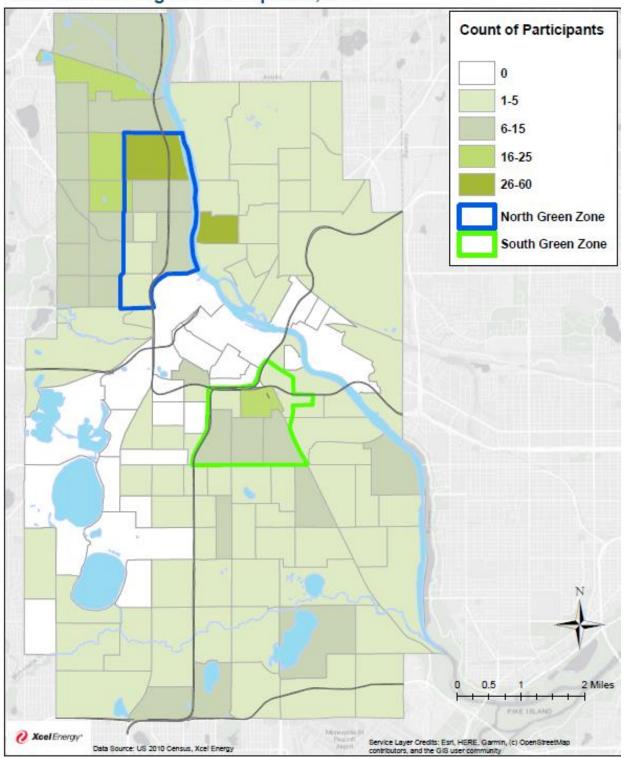
The following map shows the participation distribution of CenterPoint Energy incomequalified energy efficiency services, including Low Income Weatherization, Low Income Rental Efficiency, Stay Safe Stay Warm, Non-Profit Affordable Housing Rebates, and Low Income Multi Family Building Efficiency received across Minneapolis in 2020.

### CenterPoint Energy Low-Income Program Participation, 2020



The following map shows the distribution of Xcel Energy's income-qualified energy efficiency services received across Minneapolis in 2020 including the Home Energy Savings and Low Income Multi-Family programs.

Metric 3q: Xcel Energy Low-Income Program Participation, 2020



#### Metric 4 Supporting Data: Energy Use (Commercial and Industrial)

	Metric	2017	2018	2019	2020
	Energy use - Commercial and Industrial (MMBtu)	29,942,608	33,015,226	30,791,985	29,971,782
4	Growth baseline energy use - Commercial and Industrial (MMBtu)	30,963,136	31,017,477	31,071,818	31,126,159
	Change compared to growth baseline	-3%	6%	-1%	-4%

	Commercial/Industrial Energy Use	2017	2018	2019	2020
4a	Commercial building electricity use (MWh)	2,892,605	2.863.923	2,742,094	2,466,135
4b	Industrial building electricity use (MWh)	2,892,003	2,803,923	2,742,094	2,400,133
4c	Commercial building gas use (therms)	141,309,553	163,935,711	160,205,374	147,987,332
4d	Industrial building gas use (therms)	27,001,432	33,389,796	21,044,749	31,957,081

#### Commercial and Industrial Energy Use

Electric consumption decreased 11% from 2019 to 2020 for commercial and industrial customers within the City. At least half of the reduction in consumption can be attributed to the effects to the pandemic and the rest to energy efficiency work. Natural gas consumption for commercial and industrial customers decreased by 2%, despite slightly colder weather in 2019.

Progress toward the City's goal is measured against a growth baseline established in the Climate Action Plan. The growth baseline established a post-2011 business-as-usual forecast with a 0.5% annual increase in electricity consumption and no annual increase in natural gas consumption.

Separate electricity use data for commercial and industrial customers is currently not available for all years except 2015. Xcel Energy's data privacy policy allows disclosure of aggregated data of more than 15 customers where no one customer comprises more than 15 percent of the total usage. The industrial sector in Minneapolis does not meet this threshold.

#### Utility Commercial/Industrial Conservation Improvement Programs

CenterPoint Energy and Xcel Energy offer a variety of energy efficiency programs to their commercial and industrial customers throughout Minneapolis. These programs offer rebates, consultive services and other funding support to engage customers in energy efficiency opportunities that range from full process and systematic improvements to specific end use measure installations such as heating, cooling, lighting, food service equipment, and motors.

In 2020, <u>CenterPoint Energy's Efficiency Programs & Rebates</u> spending amounted to over \$2 million, including \$1 million in rebates, to help 500 business customers reduce natural gas use by approximately 4.7million therms and save businesses over \$2.9 million in annual energy costs.

#### **REBUILD Bonus Rebates**

To help Minneapolis-area businesses and property owners recover from property damage that occurred during the year's civil unrest, CenterPoint Energy launched REBUILD in August of 2020. Customers affected by property damage during the civil unrest that enroll in REBUILD can apply for triple the standard rebate amount for high-efficiency natural gas equipment and no-cost energy advisory services. For new construction or major

renovations, the Company will work with customers to maximize rebates within the existing structure of current programs. By the end of 2020, 29 participants enrolled in REBUILD. Two participants received a Natural Gas Efficiency Analysis audit at no cost and three participants received triple rebates for high-efficiency foodservice equipment. The rebated foodservice measures had a combined energy savings of 1,017 Dth and rebates in the amount of \$18,600.

<u>Xcel Energy's Business Programs & Rebates</u> provided over 1,000 rebates to Minneapolis businesses in 2020 totaling over \$7.2 million that reduced energy consumption 63,814 MWh, saving businesses over \$4.0 million in energy costs.

Co	ommercial/Industrial Conservation Improvement Programs	Source	2017	2018	2019	2020
4e	Energy efficiency program participation (customers)	CNP	504	480	569	509
4f	Energy efficiency program participation (rebates)	CNP	1,269	1,062	1,405	4,124
4g	Rebate dollars spent	CNP	\$2,891,985	\$1,275,517	\$ 914,578	\$1,002,066
4h	Estimated annual energy savings (therms)	CNP	13,398,873	4,945,230	3,730,500	4,723,570
4i	Estimated annual cost savings	CNP	\$7,426,544	\$2,210,343	\$2,286,713	2,921,399
4j	Energy efficiency program participation (customers)	Xcel	866	1,008	898	1087
4k	Energy efficiency program participation (rebates)	Xcel	1,814	2,113	1758	1432
41	Rebate dollars spent	Xcel	\$5,864,360	\$7,686,747	\$5,311,750	\$7,144,317
4m	Estimated annual energy savings (kWh)	Xcel	56,415,847	84,863,345	55,934,867	63,687,110
4n	Estimated annual cost savings	Xcel	\$3,215,703	\$4,777,461	\$3,306,631	\$4,028,305

#### <u>Multi-Family Building Conservation Improvement Programs</u>

Multi-Family energy efficiency programs are offered by both CenterPoint Energy and Xcel Energy, including the jointly offered <u>Multi-Family Building Efficiency</u> program and <u>Energy Design Assistance</u> program.

N	Multi-Family Building Conservation Improvement Programs	Source	2017	2018	2019	2020
40	Multi-family programs participants	CNP	191	133	328	264
4p	Multi-family programs estimated annual energy savings (Therms)	CNP	552,270	891,040	887,170	959,170
4q	Multi-family programs estimated annual cost savings	CNP	\$ 318,251	\$ 609,550	\$ 575,311	\$ 619,190
4r	Multi-family programs rebate dollars spent	CNP	\$ 286,612	\$ 323,003	\$ 393,171	\$ 585,855
4s	Multi-family programs participants	Xcel	943	1,056	146	165
4t	Multi-family programs estimated annual energy savings (kWh)	Xcel	5,674,561	19,446,382	2,582,954	2,981,937
4u	Multi-family programs estimated annual cost savings	Xcel	\$ 603,490	\$1,094,752	\$ 152,693	\$ 188,612
4v	Multi-family programs rebate dollars spent	Xcel	\$ 828,862	\$1,719,537	\$ 621,583	\$ 432,691

In 2020, multifamily buildings received \$586,000 in CenterPoint Energy rebates for natural gas efficiency measures that will save customers over \$600,000 in gas costs a year.

In 2020, the multi-family buildings Xcel Energy serves received over \$430,000 in rebates for installed electric measures, saving an estimated \$188,000 per year.

#### **Energy Design Assistance**

The <u>Energy Design Assistance</u> (EDA) program partners Xcel Energy and CenterPoint Energy in offering design consultation, energy modeling services, and financial incentives to building owners, architects, and engineers to incorporate energy-efficient systems and equipment in the design of new construction and/or renovations. In 2020, incentives from this joint utility offering totaled over \$2.8 million dollars.

EDA projects within the city in 2020 included new construction buildings, a city storage facility, major renovation at multiple schools, and multi-family buildings.

Energy Design Assistance Program	Source	2017	2018	2019	2020
4w Energy Design Assistance program participation	CNP	18	35	29	38
4x Energy Design Assistance estimated annual energy savings (therms)	CNP	586,466	1,788,769	543,430	844,130
4y Energy Design Assistance rebate dollars spent	CNP	\$ 225,256	664,909	\$ 217,639	\$ 313,227
4z Energy Design Assistance program participation (projects)	Xcel	19	55	33	55
4aa Energy Design Assistance estimated annual energy savings (kWh)	Xcel	4,221,483	14,553,981	5,838,130	17,396,292
4bb Energy Design Assistance rebate dollars spent	Xcel	\$ 780,113	\$1,816,269	\$1,019,560	\$2,487,434

#### Metric 5 Supporting Data: Renewable Electricity (Community-wide)

Metric	2016	2017	2018	2019	2020
5 Renewable Electricity (Community-wide)	25.4%	28.7%	26.3%	23.3%	32.2%

	Supporting Data	2016	2017	2018	2019	2020
5a	Grid Mix Renewable Percentage	25.0%	28.0%	26.2%	26.0%	31.8%
5b	Adjusted Grid Mix Renewable Percentage	24.5%	27.0%	22.3%	17.9%	25.3%
5c	Community-wide Electricity Consumption (MWh)	4,030,026	3,842,763	3,892,929	3,712,477	3,510,358
5d	Local Actions (MWh)	37,300	65,303	152,075	198,248	240,739

The City of Minneapolis adopted its <u>100%</u> Renewable Electricity Resolution in 2018. The elements of this resolution align with the Sierra Club's <u>Ready for 100</u> commitment guidelines with strong emphasis on equity and environmental justice as well as its consumption based definition, including:

"the City of Minneapolis is committed to meeting its renewable electricity goals with as little reliance on purchasing Renewable Energy Credits (RECs) on the open market as possible, and will give goal preference and credit for resources exhibiting additionality regardless of REC ownership, such as community solar gardens and local solar installations"

"Xcel Energy's current and future renewable electricity generation mix will be counted toward municipal and community-wide goals with support from the City in its efforts to transition to renewable energy throughout its service territory"

Aligned with the Sierra Club guidance and the City's resolution, the calculation methodology adopted by the City is <u>action-based</u>, meaning based on the decisions by parties within the City. These parties include Xcel Energy (acting on behalf of their customers), the City's municipal operations, and the residential, commercial, and industrial electric account holders within the City. As the adopted resolution states, this methodology does not completely align with REC ownership.

Local actions by the City enterprise, residents, and businesses consist of the four programs in Metric 7 (Windsource®, Solar\*Rewards (Rooftop) and Solar\*Rewards Community® (community solar gardens), and Renewable\*Connect) that account for local and directly purchased renewable electricity. The grid mix renewable percentage reported by Xcel Energy in their Community Energy Reports is adjusted to remove the impact of all local actions across their entire Minnesota service territory. The effect of this is that local actions are not double-counted (i.e. actions by a Minneapolis resident are only counted once and the actions of any non-Minneapolis resident in Xcel Energy territory are not counted).

The Xcel Energy renewable electricity grid mix decreased slightly in 2018 and 2019 due fluctuations in the portion of Xcel Energy's renewable generation source that is available during the year, but 2020 saw a noticeable increase, aligning with the Company's Certified Renewable Percentage calculation. Subscription consumption amounts in Xcel Energy's green tariffed Renewable\*Connect, Windsource, and community solar garden programs have risen in recent years. Generation changes may fluctuate annually because of Xcel

Energy's requirement to comply with the Midcontinent Independent System Operator's (MISO) to produce energy from certain plants due to pricing and availability. Renewable Energy is always dispatched first. Looking past 2030, Xcel Energy's proposed Integrated Resource Plan projects that by 2034 about 65% of its generated electricity will come from renewable energy.

#### Metric 6 Supporting Data: Renewable Electricity (Municipal Operations)

	Metric	2016	2017	2018	2019	2020
6	Renewable Electricity (Municipal Operations)	26%	33%	53%	84%	84%
	Supporting Data	2016	2017	2018	2019	2020
6a	Electricity consumption (kWh)	101,533,333	102,100,989	101,084,369	88,812,578	86,229,499
6b	Windsource subscription (kWh)	300,000	300,000	225,000	-	-
60	Renewable*Connect subscription (kWh)		6,067,895	35,440,161	57,757,949	48,736,130
6d	Community Solar Garden subscriptions (kWh)		23,857	844,831	11,173,540	17,169,590
6e	On-site solar generation (kWh)	889,805	910,811	806,732	725,237	852,056

The City of Minneapolis utilizes the same accounting methodology for municipal operations as for the entire community, as outlined in Metric 5. This includes the actions taken by the City to power municipal operations with renewable electricity, as well as the adjusted grid mix factor accounting for the actions of our partner, Xcel Energy, on behalf of their customers.

Significant progress was achieved in meeting the City's goal of using 100% renewably generated electricity by 2023. The 49 million kWh of Renewable\*Connect, 17 million kWh of Community Solar Garden subscriptions, and the 19% decrease in electricity usage in 2020 increased the City's renewable electricity percentage to 88% of its total electricity usage. To get closer to the goal, electricity usage will continue to decline as City-owned streetlights are replaced with LED fixtures, the new Public Service Building replaces the older, inefficient Public Service Center and City of Lakes buildings, newer fire stations are constructed, and general conservation measures continue in enterprise buildings.

Metric 7 Supporting Data: Renewable Electricity (Local and Directly Purchased)

	Metric	2016	2017	2018	2019	2020
7	Renewable Electricity (Local and Directly Purchased)	0.9%	1.7%	3.9%	5.4%	6.9%
	Necessary Trajectory to Achieve Goal	4.4%	5.0%	5.7%	6.3%	6.9%
	2025 Goal	10%	10%	10%	10%	10%

	Supporting Data	2016	2017	2018	2019	2020
7a	Windsource Participants	11,926	12,903	13,180	15,315	16,952
7b	Windsource Consumption (MWh)	36,125	50,277	42,506	51,112	57,237
7c	Renewable*Connect Participants		836	910	835	864
7d	Renewable*Connect Consumption (MWh)		4,996	47,929	48,038	43,345
7e	Solar*Rewards Community Subscribers	14	1,797	3,269	4,511	4,811
7f	Solar*Rewards Community Installed Capacity (MW)	3	29	79	104	114
7g	Solar*Rewards Community Installed Capacity (MW) w/in City				0.5	1.5
7h	Solar*Rewards Community Installed Generation (MWh) w/in City				692	2,072
7i	Solar*Rewards Community Subscribed (MWh)	25	7,787	58,050	93,840	132,493
7 <u>j</u>	Solar*Rewards <sup>1</sup> Participants	95	150	813	937	1,189
7k	Solar*Rewards Installed Capacity (MW)	1.01	1.88	7.21	9.04	10.88
71	Solar*Rewards Generation (MWh)	1,150	2,243	3,589	5,258	5,765
7m	Non-Solar*Rewards capacity installed during reporting year (MW)	-	0.3	0.6	2.3	0.2
7n	Non-Solar*Rewards Installed Capacity (MW)	0.3	0.5	1.2	3.4	3.6
70	Non-Solar*Rewards Generation Estimated (MWh)	308	620	579	1,994	1,899

1Solar Rewards includes both Solar Rewards and Made in Minnesota Participants

Xcel Energy offers four renewable energy options to Minneapolis customers: Windsource®, Solar\*Rewards (Rooftop) and Solar\*Rewards Community®, and Renewable\*Connect. These four programs cumulatively constitute the percentage of electricity consumed in Minneapolis from local and directly purchased sources.

Windsource is a voluntary energy program that allows customers to purchase some or all of their energy from wind energy sources. The program is certified by Green-e® and supports additional local renewable energy.

The Renewable\*Connect program offers all customers a way to benefit from renewable energy by accessing wind and solar without the need to purchase and install equipment at their property. The Renewable\*Connect generation mix is approximately 70% wind and 30% solar energy with contracts. The program became available in 2017 and has had participation encounter some fluctuations in the first three years due to the participant mix. The Minneapolis subscriber generation decreased slightly, at 10%, between 2019 and 2020 due to a slight change in program generation and subscriptions.

Through Solar\*Rewards, individuals install solar panels on their roof so they can produce their own energy. If production exceeds use, the extra energy is added to the grid and the customer receives a credit on their bill. Xcel Energy saw a 27% increase in demand and a 20% increase in production between 2019 and 2020.

The Solar\*Rewards Community program (commonly known as community solar gardens) provides residential and business customers the opportunity to participate in solar without attaching an array to their home. Subscribers to a solar garden work directly with a solar developer to access solar energy, while Xcel Energy credits the customer bill for the solar

energy produced within their subscription. The Solar\*Rewards Community program increased participation by 7%, capacity by 21%, and subscribed energy by 47% in Minneapolis between 2019 and 2020.

The following map shows the distribution of Xcel Energy's Solar\*Rewards Community program participation across Minneapolis in 2020.

Metric 7e: Xcel Energy Solar\*Rewards Community Participation, 2020

