LA CROSSE
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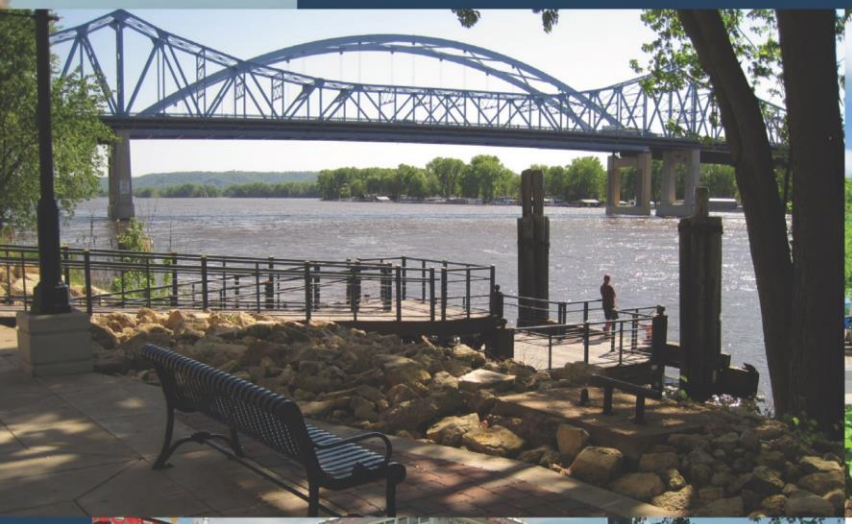
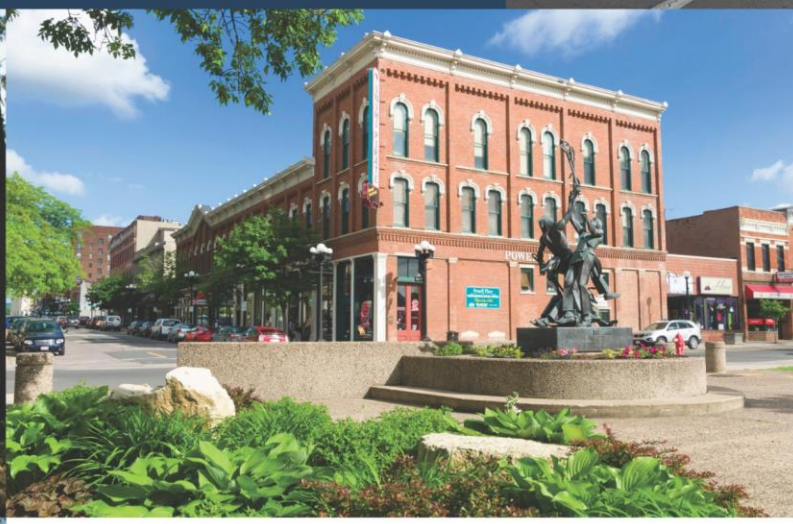
LA CROSSE ENERGY ACTION REPORT

September 2021





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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.

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

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 for electricity and natural gas consumption to be combined.

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

Premise: A unique combination of service address and meter. For residential customers, this is the equivalent of an individual house or one 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 Credit (REC): For every megawatt-hour of clean, renewable electricity generation, a renewable energy credit (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 Certificate.

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).

Therm (thm): A unit of natural gas consumption.

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INTRODUCTION

This Energy Action Report was prepared by La Crosse's Energy Action Team, which included a planning team representing La Crosse residents, businesses, nonprofit organizations, and education institutions. This report includes near-, medium-, and long-term strategies to engage our community, update processes and policies, and create opportunities to reduce our community's carbon emissions. This report is intended to serve as a standalone document, but select portions of this report, such as the strategy recommendations and baseline data, will be included in La Crosse's Climate Action Plan in the energy chapter.

Leading by Example

From plans to policy to implementation, the City of La Crosse has demonstrated a commitment to fostering a culture of energy stewardship in city facilities and in the community.

Table 1: City of La Crosse Sustainability Initiatives

Policies and Plans
• La Crosse Sustainability Plan • Confluence: The La Crosse Comprehensive Plan • Transportation Vision • Bicycle and Pedestrian Master Plan • LEED checklist during multifamily and commercial design review • Interdepartmental Green Team • Carbon-neutral by 2050 Resolution
City Facility Upgrades

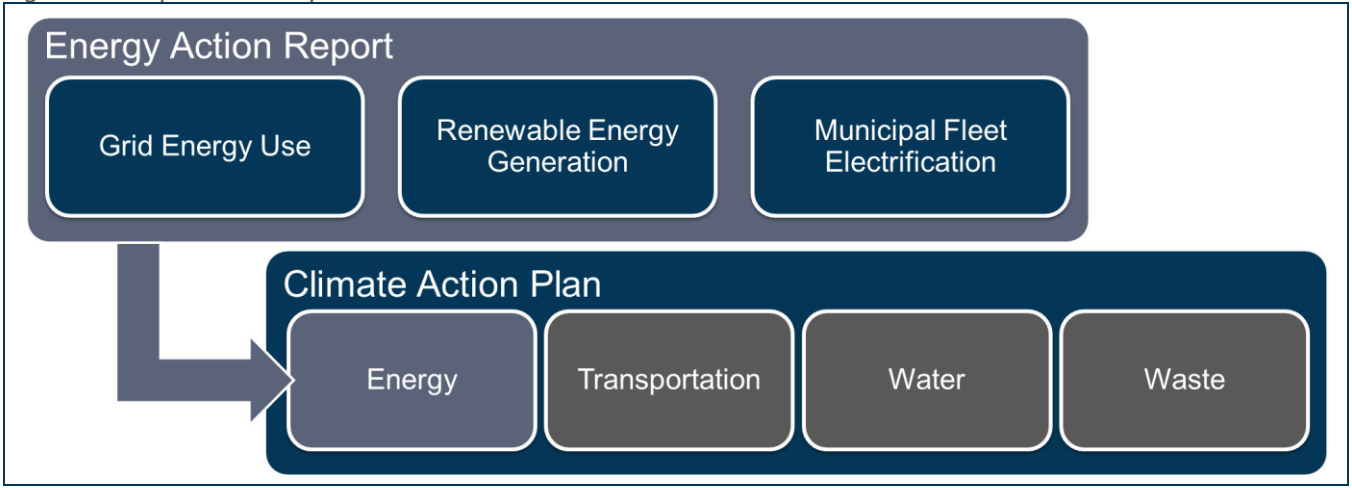
• Johnston Controls Performance Contract
  ○ LED lighting retrofits
  ○ Boiler, chiller, and HVAC replacements
  ○ Solar suitability analysis
  ○ Four 100-kilowatt solar photovoltaic arrays
• Occupancy sensors for lighting in many municipal facilities
• Black River Beach Neighborhood Center solar water heater

Recognition Programs
• SolSmart Gold Designation • Green Tier Legacy Community • Natural Step Community

La Crosse Climate Action Plan

The City of La Crosse passed a resolution to be carbon-neutral by 2050. Achieving this will require engagement from the City of La Crosse, residents, businesses, nonprofit organizations, and education institutions. The La Crosse Climate Action Plan will chart a course to achieving carbon-neutrality and strengthen the La Crosse community against the negative impacts of climate change. The scope of this report is focused on building energy use, including electricity and natural gas consumption. In addition, this report also addresses strategies to electrify city fleet vehicles. The Climate Action Plan will include additional focus areas beyond energy, such as transportation, water, and waste.

Figure 1: Scope of this Report



Planning Process and Community Engagement

Energy Action Team

The City of La Crosse teamed up with Xcel Energy's Partners in Energy and a planning team committed to representing La Crosse to create strategies and tactics that increase La Crosse's building energy efficiency, generate more power from clean, renewable energy, and electrify city fleet vehicles and install charging stations. The City actively recruited stakeholders to participate in this process to represent different sectors of the community, including residents, small and large businesses, service organizations, faith organizations, and education institutions. In addition, City of La Crosse staff were recruited to participate in planning workshops to share information about current city processes and provide input on strategies for process and policy improvements.

Planning Process

The content of this plan was derived from a series of planning workshops hosted online with the Energy Action Team. During the planning workshops, the team reviewed baseline demographic and energy data, identified focus areas and target audiences, and developed implementation strategies. A series of focus group conversations identified barriers, benefits, and calls to action by target audience. City staff also participated in a municipal-focused electric vehicle (EV) planning workshop to discuss fleet electrification and charging infrastructure.

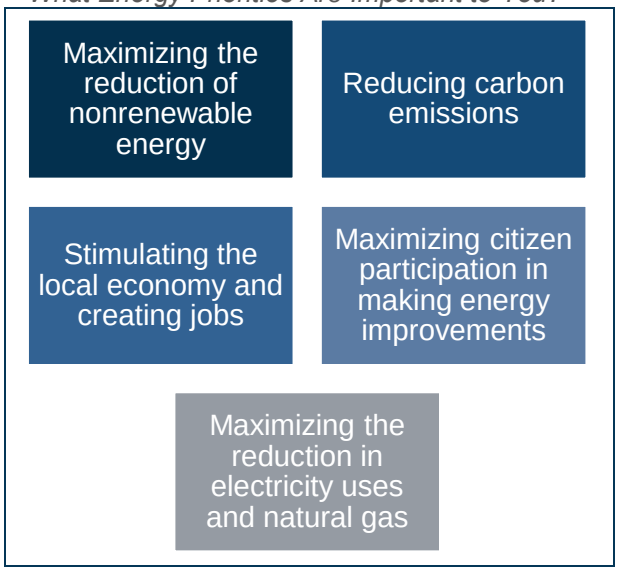
Figure 2: La Crosse's Energy Action Report Development Process

Community Energy Survey

To engage the broader community, City of La Crosse staff and Partners in Energy facilitators created a community energy survey to understand how the community thinks about and uses energy. Distributed on the City's Esri123 Survey platform, almost 250 La Crosse residents and businesses completed the survey, including at least 48 respondents who identified themselves as renters and 59 respondents who identified themselves as a business owner or manager.

The survey asked a series of questions about the importance of climate change, trusted messengers for information, and whether the respondent was a resident or business in La Crosse.

Figure 3: Top Five Energy Survey Responses to "What Energy Priorities Are Important to You?"



Key survey takeaways include the following:

- 79% of respondents said sustainability and climate change were somewhat or very important to them.
- Respondents identified several resources to help them thrive in La Crosse, including renewable and clean energy sources, financial assistance and lower taxes, a sense of community, support networks, affordable housing and rents, and multi-modal transportation opportunities.
- Information about programs and rebates, behavior changes, and financing opportunities were the most helpful in reducing greenhouse gas impacts.

- The energy-related programs that residents wanted to learn more about were renewable energy programs, insulation and air-sealing incentives, and heating and cooling incentives.
- Similarly, respondents who identified as business owners or employees of La Crosse businesses noted that renewable energy programs, HVAC incentives, and lighting upgrades were the energy-related programs they wanted to learn more about.

Figure 4: Sample Energy Survey Responses to "Why is a Climate Action Plan Important to La Crosse?"

DATA BASELINE

An integral part of the Partners in Energy planning process is reviewing baseline data to ensure data-driven decisions for focus areas and strategies. The data baseline includes community demographics, historic energy data, and electric vehicle use and program data. See *Appendix 2: Baseline Analysis* for a comprehensive overview of the demographic and energy baseline data.

Community Demographics

Data from the U.S. Census Bureau American Community Survey informed the team about La Crosse's community makeup, helping the team better understand the characteristics of the population and housing stock.

Some key takeaways from the demographic data include the following:

- La Crosse is a large, younger city compared to peer cities across the State.
- A number of La Crosse residents speak a language other than English.
- La Crosse is a moderate-income community, but local college and technical school students do affect the poverty rate.
- The housing stock is aging and more than half of all units are in rental properties.

Figure 5: La Crosse American Community Survey Quick Facts

POPULATION 51,666	MEDIAN HOUSEHOLD INCOME $43,516	HOUSING UNITS 22,756
MEDIAN AGE 28.8	POVERTY RATE* 25.6%	HOUSING BUILT BEFORE 2000 89%
RACE - WHITE 90%	POVERTY RATE WITHOUT STUDENTS* 16.2%	SINGLE-FAMILY HOMES 54.7%
LANGUAGE OTHER THAN ENGLISH 8%	MEDIAN HOUSING VALUE $136,400	RENTER-OCCUPIED UNITS 54%

Population

La Crosse is a large city with a young population. According to the American Community Survey, La Crosse has 51,666 residents and a median age of 28.8 years, compared to the statewide average of 39.3 years. The lower median age in La Crosse may be attributable to colleges located in the city, including University of Wisconsin–La Crosse, Western Technical College, and Viterbo University. Approximately 29% of La Crosse residents are between 18 and 24 years of age.

English is the primary language spoken in La Crosse, but 8% of residents speak a language other than English, including Spanish, Asian and Pacific Island languages, and Indo-European languages.

Income

The presence of college students also impacts the community's median income and poverty rate. The American Community Survey estimates La Crosse's median household income is $43,516, which is lower than the statewide average of $59,209. La Crosse's poverty rate is 23.4%, but poverty among non-college students is lower at 16.2%. Both figures, however, are higher than the statewide poverty rate of 10.4%.

Housing Stock

La Crosse residents primarily live in homes built before 2000 (89% of all units built) and just over half of the housing units are single-family homes (55%). A large portion of La Crosse residents are renters—54% of all units are renter occupied, potentially due to the large number of college students in the community.

Energy Use and Savings

In addition to demographic data, the stakeholder team also reviewed data from Xcel Energy and Focus on Energy for all residents and businesses located in the City of La Crosse. Xcel Energy provided data on energy use by sector and participation in renewable energy programs and Focus on Energy provided data on participation in energy efficiency programs.

Trends in the energy data include the following:

- The majority of La Crosse's energy users are residential.
- Energy consumption has trended down since 2018.
- Commercial and industrial customers consumed more electricity and natural gas than other sectors.
- Almost $90 million is spent on energy in an average year.
- La Crosse residents and businesses support renewable energy through off-site renewable energy programs.
- La Crosse residents and businesses earned over $2.7 million in incentives between 2018–2020.

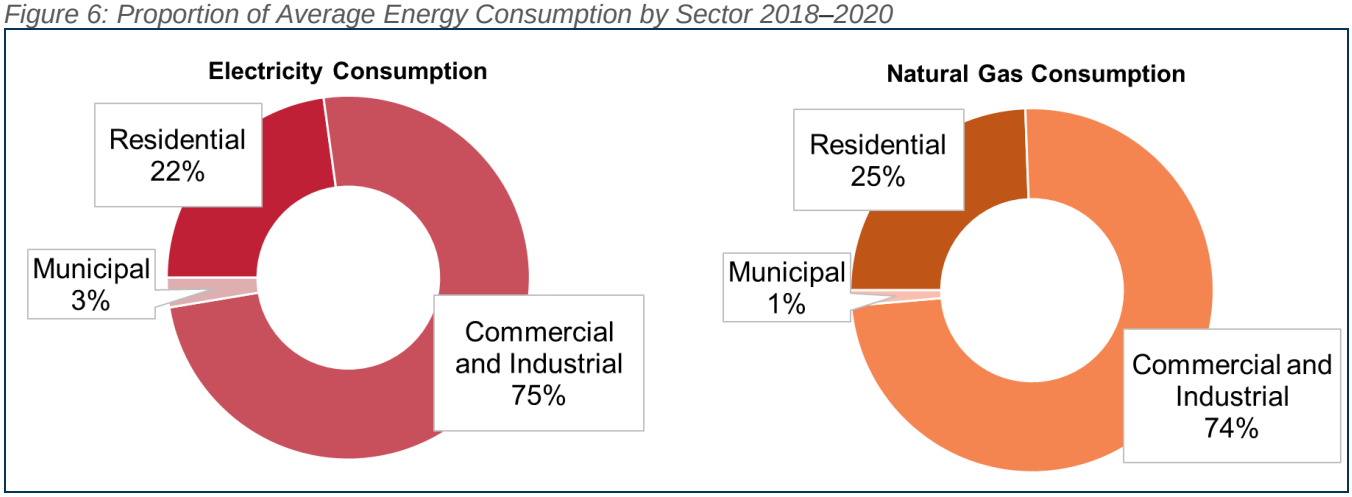
Grid Energy Use

There are 26,946 premises in La Crosse. Most La Crosse premises are residential (22,652), followed by commercial and industrial (4,036), and municipal (258). In an average year, La Crosse consumes 737.5 million kWh of electricity and 41 million therms of natural gas annually. Commercial and industrial premises, representing 15% of total premises, consume 75% of the total electricity and 74% of the total natural gas in the

Term Definition: Premise
A premise is 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.

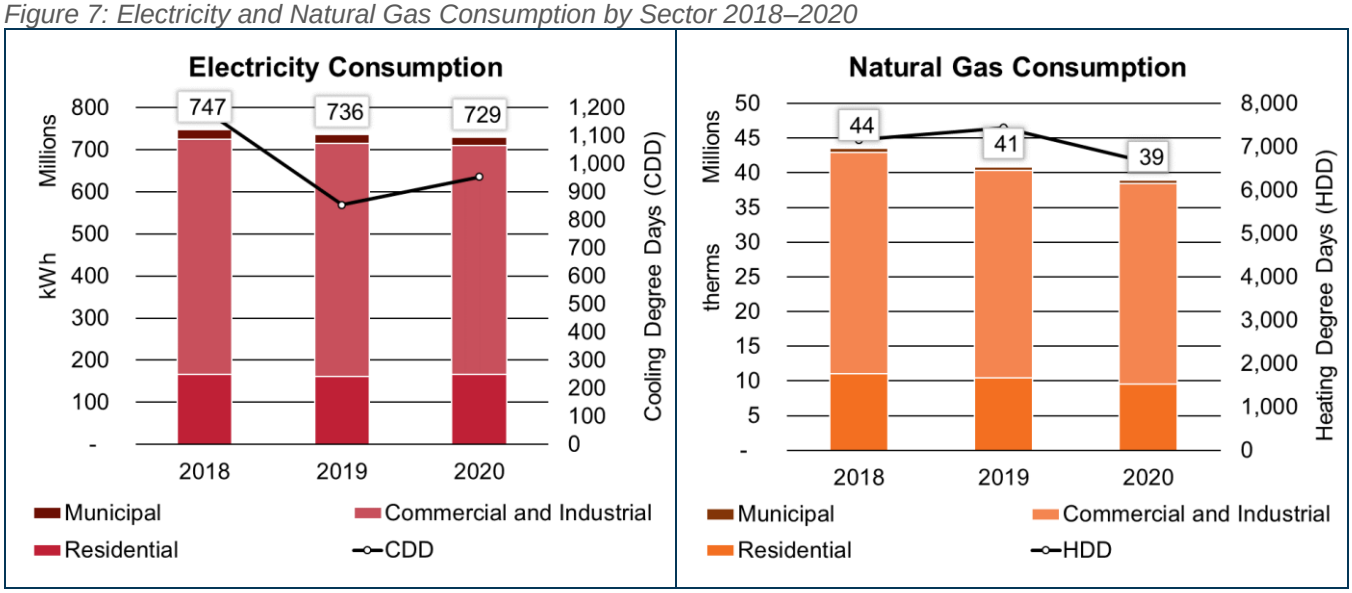
community. Residents, who make up 84% of total premises, consume only 22% of the total electricity and 25% of the total natural gas. Municipal premises were analyzed as a separate sector, representing 1% of total premises and consuming 3% of the total electricity and 1% of the total natural gas (*Figure 6*).

Figure 6: Proportion of Average Energy Consumption by Sector 2018–2020



Examining consumption by fuel source over the baseline period shows how energy use has changed over the past three years (Figure 7). Total electricity consumption decreased 2.4% between 2018 and 2020 and natural gas consumption decreased 10.4% over the same period. The reduction in natural gas consumption aligns with a decrease in the heating degree days, which is a measurement designed to quantify the demand for energy needed to heat a building. In addition, federal and state mandated stay-at-home orders influenced energy use in 2020, decreasing electricity and natural gas consumption in the commercial and industrial sector.

Figure 7: Electricity and Natural Gas Consumption by Sector 2018–2020

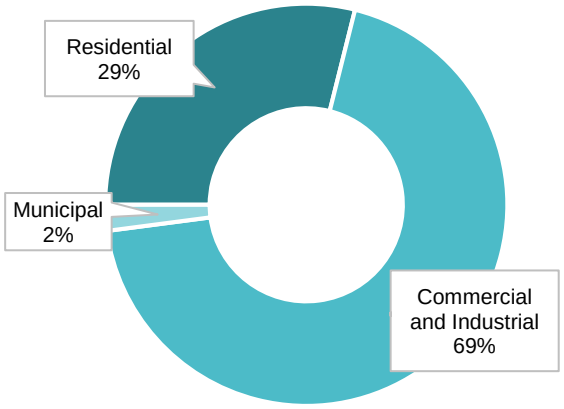


Energy Costs and Energy Burden

La Crosse spends almost $90 million on average each year on energy across all sectors. The average residential customer spends $1,150 a year on energy (electricity and natural gas combined).

Commercial and industrial premise spending varies with the size of the business (e.g., a restaurant versus a manufacturing facility) but averages to $15,340 per premise.

Figure 8: Average Energy Costs 2018–2020

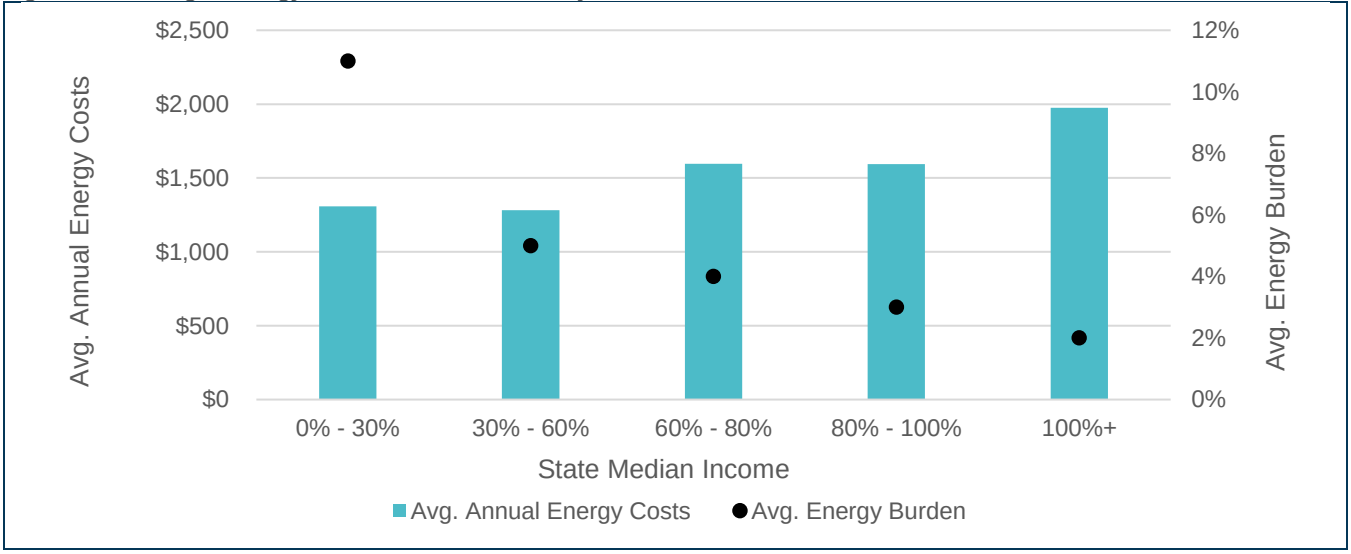


Sector	Electricity Costs	Natural Gas Costs	Costs per Premise
Municipal	$1.7 million	$284,400	$7,670
Commercial & Industrial	$51.5 million	$10.4 million	$15,340
Residential	$18.6 million	$7.5 million	$1,151

Every year, La Crosse residents spend a portion of their income on energy costs to power their homes. *Figure 9* illustrates average annual energy costs across different income brackets and the estimated energy burden. On average, households at 100% state median income (SMI) spend the most each year, but only experience an energy burden of 2%. For lower income brackets, energy burden generally increases as overall dollars spent decreases. The lowest-income households, at 30% SMI, spend the least amount of money on energy but experience the highest energy burden at 11%.

Term Definition: Energy Burden
Percentage of gross household income spent on energy costs. The Home Energy Affordability Gap Analysis defines households with a 6% energy burden or higher as experiencing a high energy burden.

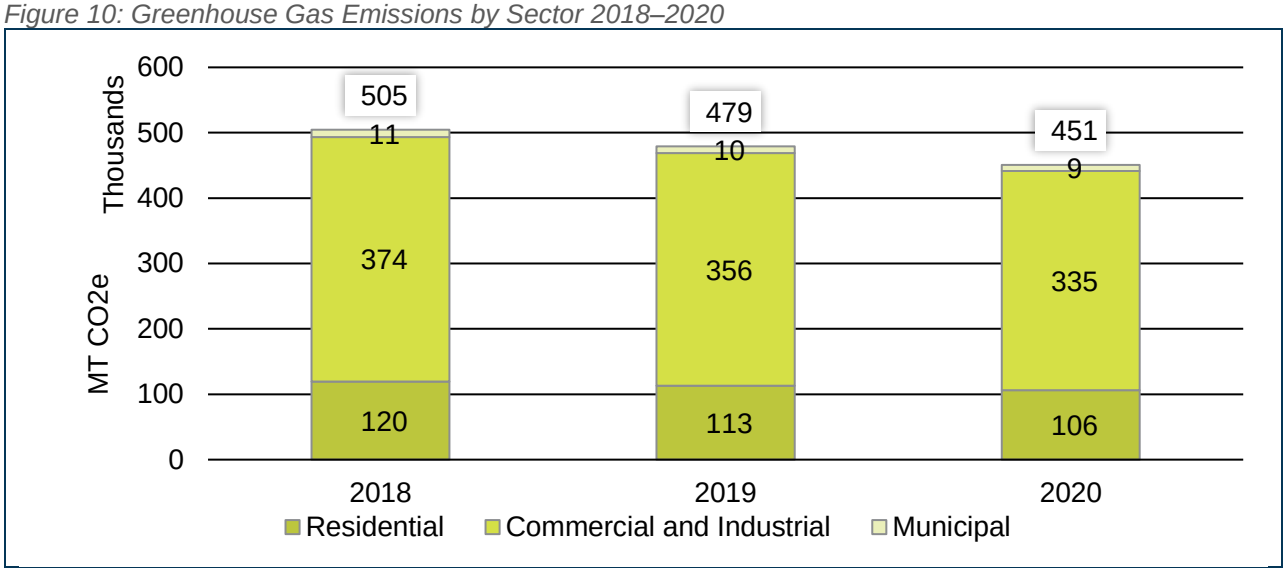
Figure 9: Average Energy Burden in La Crosse by State Median Income



Energy-related Greenhouse Gas Emissions

Between 2018 and 2020, energy consumption in La Crosse resulted in an average of 478,100 metric tons of carbon dioxide equivalent greenhouse gas emissions (MTCO2e) each year. This is equivalent to the greenhouse gas emissions from 103,974 passenger vehicles driven for one year.[1] Commercial and industrial premises account for the largest percentage of emissions, representing 74% of total energy-related greenhouse gas emissions on average.

Figure 10: Greenhouse Gas Emissions by Sector 2018–2020

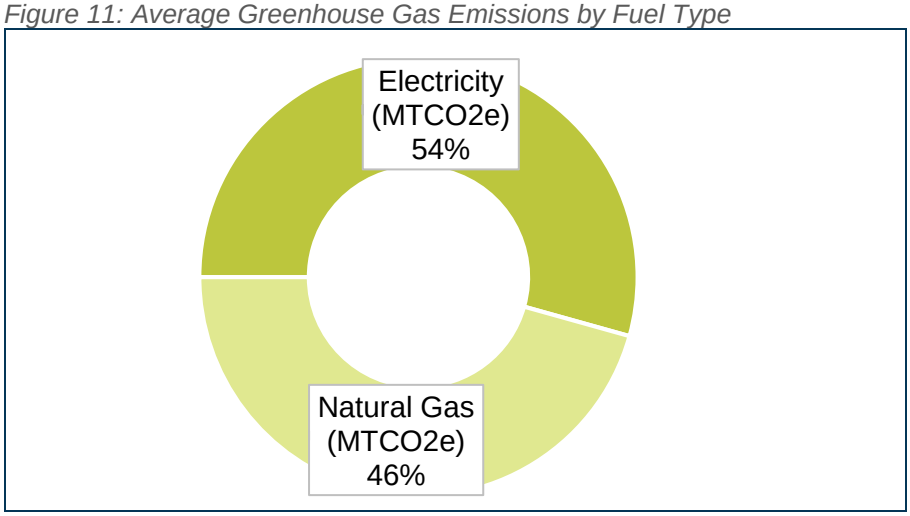


Slightly more greenhouse gas emissions (54%) stem from the use of electricity in La Crosse than from the use of natural gas (46%). To achieve its goal of providing all customers with carbon-free electricity by 2050, Xcel Energy is decarbonizing its electricity generation. As more carbon-free sources are added to Xcel Energy's Upper Midwest Energy Plan, the proportion of greenhouse gas emissions from grid electricity use will reduce.[2]

[1] U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

[2] Xcel Energy's Upper Midwest Energy Plan. https://www.xcelenergy.com/company/rates_and_regulations/resource_plan_overview/upper_midwest_energy_plan

Figure 11: Average Greenhouse Gas Emissions by Fuel Type



Renewable Energy

Local renewable energy use includes both customer subscription programs and on-site installations. In 2019, 2,180 residential premises and 23 commercial and industrial premises subscribed to a renewable energy program with a total of 2.87 million kWh from renewable energy sources. On-site solar installations were less popular during the baseline year, with nine incentives paid to residents and businesses for photovoltaic systems by Focus on Energy from 2018 to 2020.

Term Definition: Subscription Program
Renewable energy subscriptions are structured so that a customer can subscribe part or all of their building's electricity use to renewable energy produced by their utility provider or community solar garden.

Term Definition: On-site Installations
Homeowners and building owners can install solar photovoltaic on or near their building to power their building's electricity.

Table 2: 2019 Xcel Energy Renewable Energy and Focus on Energy Program Participation by Sector

	Residential	Commercial & Industrial
Xcel Energy Subscription Programs		
Subscriber Count	2,180	23
Total Annual Electricity Subscribed (kWh)	2,350,913	376,916
Community Solar Gardens		
Participant Count	22	8
Total Annual Electricity Subscribed (kWh)	54,281	892,043
On-site Solar Installations		
Focus on Energy Incentives Paid[3]	8	1

Energy Efficiency Program Participation and Savings

Xcel Energy, La Crosse's energy utility service provider, and Focus on Energy, the statewide provider of energy efficiency programs in Wisconsin, offer programs to La Crosse residents and businesses to

[3] Data from Focus on Energy participation summaries 2018–2020.

increase energy savings at their homes or buildings. Rebates for new equipment, audit programs, and discounted and no-cost energy measures are available in addition to load management programs.

From 2018 to 2020, more than 25,000 La Crosse residents and businesses participated in Focus on Energy programs, resulting in almost $2.4 million paid in incentives from Focus on Energy. In addition to the incentives paid by Focus on Energy, Xcel Energy offers additional bonus incentives for certain Focus on Energy rebates and programs. More than $370,000 in bonus incentives were paid in La Crosse to residents and businesses over the baseline period.

Table 3: Efficiency Program and Rebate Participation

	Residential Programs	Business Programs
Total Focus on Energy Program Participation	24,425	1,445
Total Focus on Energy Electricity Savings (kWh)	4,958,175	24,496,059
Total Focus on Energy Natural Gas Savings (therms)	168,432	464,074
Total Focus on Energy Incentives Paid	$722,386	$1,674,839
Total Xcel Energy Bonus Incentives Paid	$178,993	$192,870
Average Annual Focus on Energy Participation	8.142	482
Average Focus on Energy Incentive per Participant	$30	$1,159

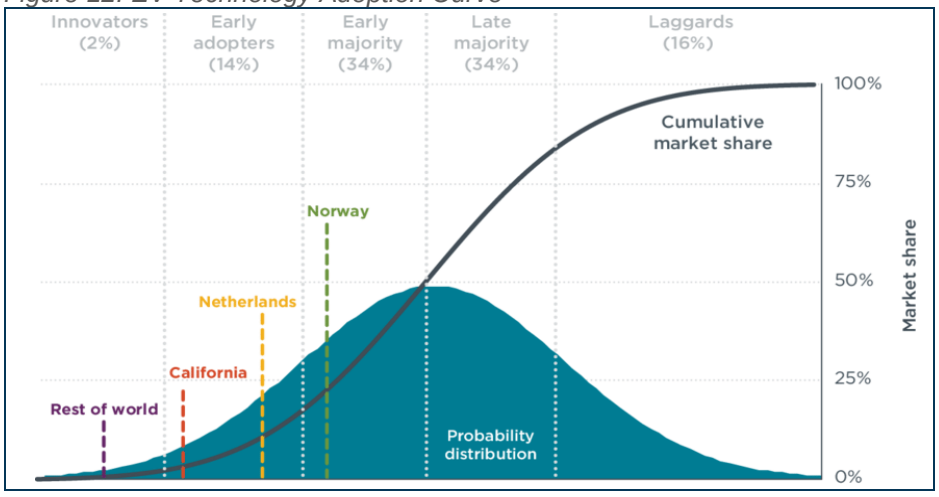
Vehicle Electrification

As part of its sustainable energy strategies, the City of La Crosse is promoting vehicle electrification within the community as well as in the City fleet. This includes purchasing electric vehicles (EVs) and installing vehicle charging infrastructure. Both national and local data and trends were used to inform EV strategy development.

Electric Vehicle Baseline and Trends

The projected adoption of electric vehicles is expected to follow a similar pattern to many other new technologies as shown in *Figure 12*. As electric vehicles are relatively new to the mainstream vehicle market, most communities, including the state of Wisconsin, is in the “Innovators Phase” with EVs comprising only a small percentage of vehicle sales. In 2018, 0.8% of new vehicle sales in Wisconsin were EVs.

Figure 12: EV Technology Adoption Curve



While EVs are currently a very small portion of vehicles in the state, the technology adoption curve and the data from Norway, California, and other areas with a high percentage of EVs suggests that the number of EVs on the road will likely increase rapidly over the next five to ten years. This projection is further supported by a few vehicle manufacturers investing substantially in EV production and setting goals for EV market share. A sample of these goals are shown to the right (White, 2021). This means that now is a good time for La Crosse to start preparing the city systems and infrastructure to accommodate EVs and avoid adjusting reactively.

Figure 13: 2025 Manufacturer Electric Vehicle Goals

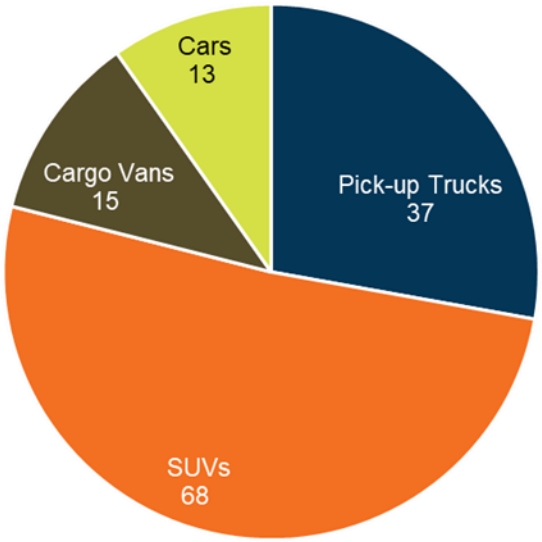
- Audi: 20 models
- BMW: 15-25% global sales
- Ford: $29 billion invested
- GM: $27 billion invested; 20 North America EV models
- Hyundai: 23 models worldwide
- Jaguar: All-electric
- Land Rover: 6 models
- Toyota: 60 new models, sell 5.5 million EVs per year
- VW: Have built 1.5 million EVs
- Volvo: 50% of global sales

City of La Crosse Fleet Baseline

For the City's fleet, each department is responsible for procuring the vehicles needed for their operations. The City procures its vehicles as a short-term lease, which means vehicles are replaced about every three years.

As of 2019, there were 222 vehicles in use across all departments and two of these vehicles were hybrid electric vehicles (*Figure 14)*. These hybrid vehicles were police cruisers, and the department has seen significant fuel and cost savings from these pilot vehicles. As a result, the Police Department is incorporating more hybrid vehicles into the police fleet.

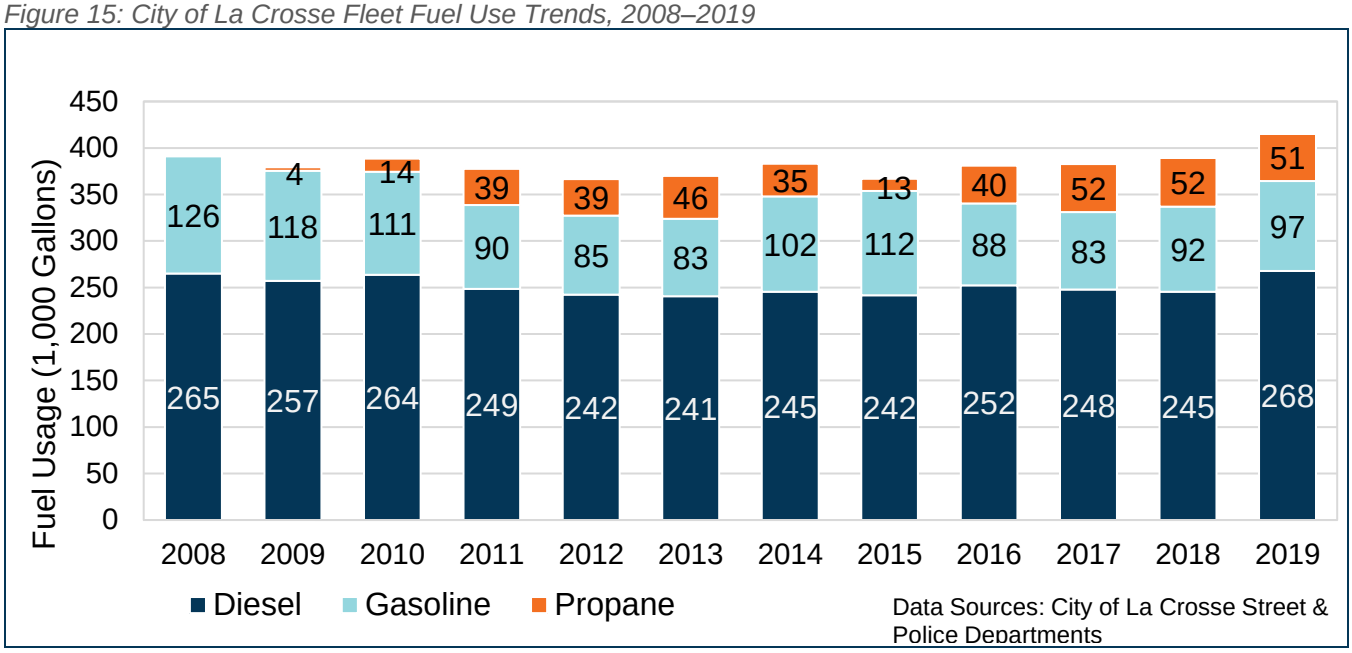
Figure 14: City of La Crosse Light-duty Fleet Breakout by Type and Department



Department	Number of Vehicles
AIRPORT	30
FIRE	35
GROUNDS & BUILDINGS	2
LA CROSSE CENTER	2
MUNICIPAL TRANSIT	27
PARKS	30
POLICE	70
REFUSE & RECYCLING	1
WASTEWATER/STORMWATER	25
Grand Total	**222**

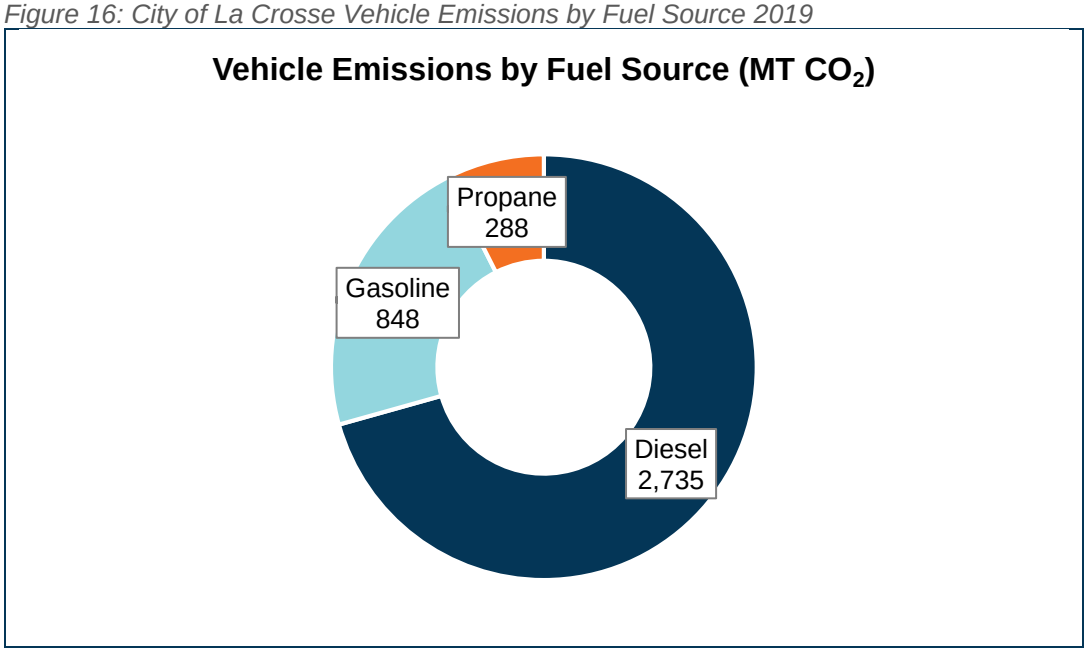
Cars offer the most options for vehicle replacement to plug-in hybrids or all-electric, however, cars make up a small percentage of the fleet. There are several new models of all-electric SUVs and pick-up trucks expected to come to market in the next year or two. Now is a good time for the City of La Crosse to prepare for fleet electrification to take advantage of the new EV SUV and truck models as they become available.

Figure 15: City of La Crosse Fleet Fuel Use Trends, 2008–2019



In 2019, these vehicles used 415,179 gallons of fuel, which was a 6% increase from 2018. Fuel use trends are shown in *Figure 15*. The GHG emissions from these vehicles were 3,871 MT CO_2 in 2019 as shown in *Figure 16*. It would take 4,743 acres of forest to offset these carbon emissions.[4]

Figure 16: City of La Crosse Vehicle Emissions by Fuel Source 2019



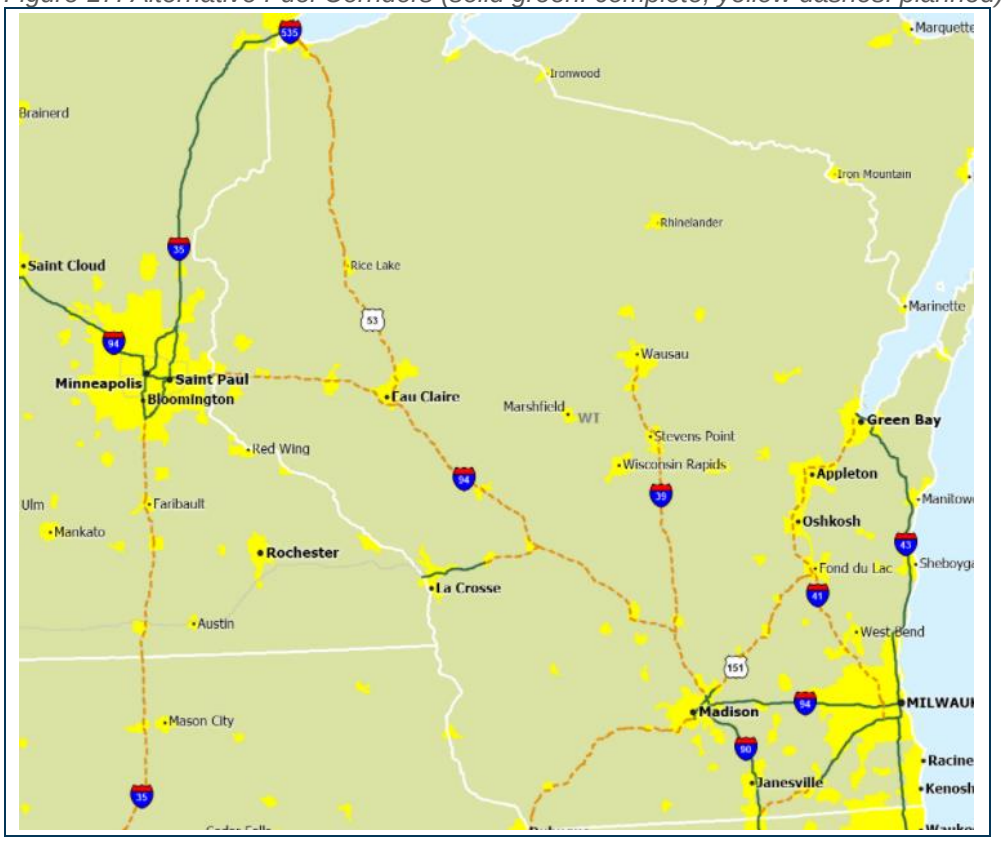
[4] U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Electric Vehicle Charging Infrastructure

There are 11 publicly available level 2 charging stations within ten miles of La Crosse Center. From residences to businesses to public parking spaces, vehicle charging infrastructure will need to be installed throughout the community to support the growing population of EVs. A study from the Idaho National Laboratory showed that more than 80% of EV charging occurs at home and workplace charging was the second most common location (Idaho National Laboratory, 2013). Although public charging is not responsible for most vehicle charging, it plays an important role in making EV owners feel comfortable purchasing an EV with the knowledge that charging is available should they need it.

Public charging also plays an important role in longer trips, allowing EV owners to stop and recharge their vehicle. The Federal Highway Administration's Alternative Fuel Corridor program is working to develop travel corridors where EV charging infrastructure can be found at least every 50 miles. The stretch of I-90 between La Crosse and Sparta has received this designation and additional EV corridors are planned across the state (*Figure 17*). As with other transportation efforts, local and regional coordination will be important in ensuring high quality charging infrastructure is available to support EVs purchased by La Crosse residents.

Figure 17: Alternative Fuel Corridors (solid green: complete, yellow dashes: planned)



OUR ENERGY FUTURE

Energy Priorities

La Crosse must reduce greenhouse gas emissions across different sources, including grid-energy use, to achieve carbon-neutrality by 2050. As noted in the *Data Baseline*, La Crosse emits an average of 478,100 MTCO2e annually through grid energy use. To reduce greenhouse gas emissions from energy, three priorities were identified: energy efficiency, renewable energy, and electric vehicles.

Figure 18: La Crosse's Average Annual Greenhouse Gas Emission Equivalencies[5]

What does La Crosse's energy-related greenhouse gas footprint look like?

Equivalent to the greenhouse gas emissions from…

103,974 passenger vehicles driven for one year.

Equivalent to the CO2 emissions from…

57,573 homes' energy use for one year.

53,796,219 gallons of gasoline consumed.

Energy Efficiency

Energy efficiency is simply using less energy to perform the same task. This can be accomplished through equipment upgrades (e.g., upgrading to a more energy efficient air conditioner) and behavior changes (e.g., turning off the lights when you leave a room). Energy efficiency not only reduces energy use, but also has short-term and long-term cost benefits. Short-term benefits are reflected on energy bills, and long-term benefits such as equipment upgrades can reduce operation and maintenance costs.

Energy efficiency is an important first step in reducing greenhouse gas emissions because the cleanest energy is the energy you don't use. Further, energy efficiency ensures that future renewable energy adaptations fit the building's current energy use

[5] U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

without overbuilding or oversubscribing to renewable energy.

Both Focus on Energy and Xcel Energy offer programs and rebates to La Crosse residents, businesses, nonprofit organizations, and education institutions to increase their energy efficiency. Between 2018 and 2020, La Crosse saved 29.5 million kWh of electricity and 632,000 therms of natural gas, equivalent to eliminating 13,400 MTCO2e emissions over that three-year period.

Energy efficiency strategy recommendations in this report include equipment upgrades, behavior changes, and audit programs to increase annual energy savings.

Renewable Energy

Renewable energy was identified as a priority because it is carbon-free, meaning energy generated from renewable sources does not have a greenhouse gas emission impact. In the La Crosse community energy survey, maximizing renewable energy use was the number one energy priority for survey respondents. Residents, businesses, and nonprofit organizations can support renewable energy through on-site generation (e.g., solar photovoltaic systems or geothermal) and subscription programs (e.g., community solar gardens).

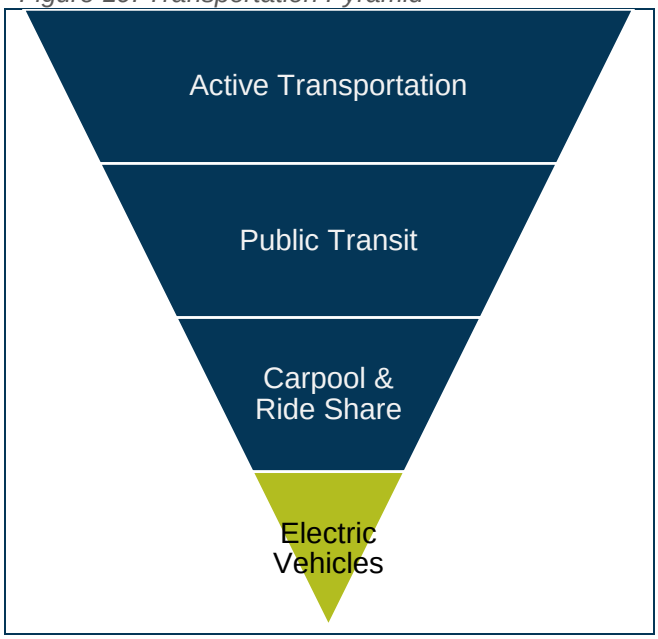
As of 2019, 3.7 million kWh of electricity was generated from renewable subscription programs (Xcel Energy's Renewable*Connect® and Solar*Connect Community©), which avoided emitting 1,265 MTCO2e. On-site solar photovoltaic systems are less popular in La Crosse, which could be attributable to the cost of installing a system or the suitability of the roof (i.e., tree cover or angle of the roof). Between 2018 and 2020, only nine Focus on Energy incentives were paid for on-site solar installations.

Renewable energy strategy recommendations in this report include education and outreach about on-site solar installation, subscription program opportunities, and the benefits of renewable energy.

Electric Vehicles

Electric vehicles are one opportunity to reduce vehicle-related greenhouse gas emissions. As shown in the transportation pyramid to the right, they are just one of several options for reducing transportation-related emissions. Electric vehicle strategies are addressed in this plan due to their connection with energy use. Other transportation strategies will be covered in the Climate Action Plan Transportation section. Fueling your car with electricity can reduce emissions to about one-third of gas-powered vehicles; if you power your charging station with renewable energy, you can drive with up to 100% renewable energy.[6] Less than one percent of new vehicle sales in Wisconsin were electric vehicles in 2018, but there are several new all-electric vehicle models coming to the market within the next few years. The City of La

Figure 19: Transportation Pyramid



[6] National averages reported by the U.S. Department of Energy. www.afdc.energy.gov/afdc/vehicles/electric_emissions.php

Crosse has two hybrid vehicles in their fleet already. For charging, there are 11 publicly available level 2 stations in the community.

The scope of this report excludes emissions from transportation, but electric vehicle strategies were included because of programs and expertise from Xcel Energy, and the opportunity to power your vehicle with renewable electricity.

Strategy recommendations for electric vehicles are focused on municipal operations, including fleet electrification, charging infrastructure, and process updates as well as city policy and charging at city facilities.

Target Audiences

This plan is focused on benefitting all those who live and work in the city of La Crosse. The Energy Action Team identified target audiences during the planning workshops.

Residents

Residents include both homeowners and renters. Homeowners can make equipment upgrades, change their behavior, and install or subscribe to renewable energy. Renters, however, are more limited in what they can do since they do not own their home. Renters will be encouraged to change their behavior, make small upgrades like switching to LED bulbs, subscribe to renewable energy if the electricity bill is in their name, and engage with their landlord to invest in the building's equipment and envelope. In addition, La Crosse's lowest income residents will be targeted to reduce their energy burden by encouraging participation in free and low-cost programs, including energy and weatherization assistance.

Table 4: Resident Barriers and Benefits to Energy Action

Benefits	Barriers
Lower utility bills	Upfront costs to upgrade equipment
Increased home comfort	Split incentive with property owners
Investment in house stock	Lack of awareness or knowledge about what to do
Reduce energy use and greenhouse gas emissions	Competing priorities for other projects
Growing environmental stewardship	Disinterest in being green
Leading by example for neighbors	Difficult to quantify impact

Rental Property Owners and Managers

More than half of all housing units in La Crosse are renter occupied. Property owners and managers will be encouraged to invest in their buildings by making equipment upgrades, such as installing energy efficient heating and cooling equipment and upgrading their insulation. Rental property owners can also invest in on-site renewable energy and, if the electric utility bill is in their name, subscribe to renewable energy.

Table 5: Rental Property Owner and Manager Barriers and Benefits to Energy Action

Benefits	Barriers
Improved comfort and durability of property and units	Split incentive if renter pays utility bills
Lower utility bills for renters	Upfront costs to make upgrades
Better for the environment	Competitive rental market makes it easy to rent without investing in improvements

Benefits	Barriers
PR benefits to attract more renters	Difficult to find time with other maintenance and projects

Businesses, Nonprofit Organizations, and Education Institutions

Businesses include small businesses in La Crosse's historic downtown and larger industries such as manufacturing and healthcare. Nonprofit and service organizations include faith-based organizations, service organizations that support La Crosse's vulnerable populations, and mission-driven nonprofits. Education institutions include the School District of La Crosse, University of Wisconsin–La Crosse, Viterbo University, and Western Technical College. These target audiences were grouped together because the calls to action are similar for each. To increase energy efficiency, these target audiences will be encouraged to get a building energy audit to identify energy-saving opportunities in their operations and to take advantage of rebates for energy efficiency models during equipment upgrades. Both on-site renewable energy and subscription programs will be promoted depending on the organization's financial capacity to support renewable energy.

Table 6: Business, Nonprofit, and Education Institution Barriers and Benefits to Energy Action

Benefits	Barriers
Leading by example for peers and positive public perception	Capital to invest in new equipment and processes
Long-term energy savings affect bottom line	Lack of familiarity with options and where to start
Achieve corporate and organization goals	Focused on immediate payback instead of long-term benefits
Lower utility bills create new cash flow to invest in building	Time required to complete an audit, review options, and follow through on recommendations
Lower maintenance costs with new equipment	Disinterest from leadership and decision makers

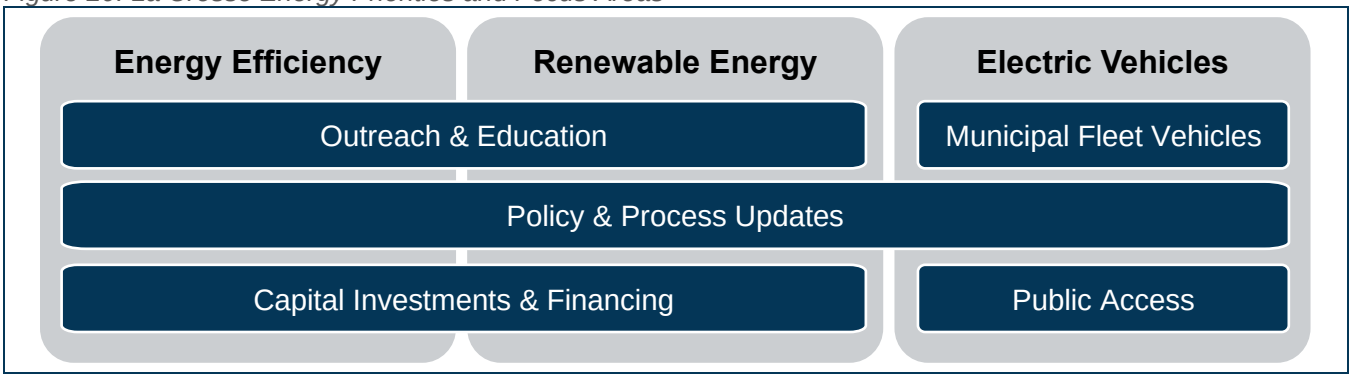
Public Buildings

Public buildings include those owned by the City of La Crosse and County buildings located in the city limits. Like businesses, nonprofits, and education institutions, public buildings will be encouraged to complete building energy audits and follow through on recommended actions. The City of La Crosse will continue to implement energy efficiency and renewable energy recommendations with Johnson Controls through a performance contract. In addition, electric vehicle strategy recommendations in this report will target electrifying the city's fleet, installing public charging, and updating city policies to increase private charging infrastructure.

STRATEGY RECOMMENDATIONS

The following strategies are recommended by the Energy Action Team to put La Crosse on the path toward achieving carbon neutrality by 2050. Strategies are organized by focus area and include near-, medium-, and long-term recommendations. Near-term strategies will be implemented in the next three years and directly supported by Xcel Energy's Partners in Energy for the first 18 months of implementation. See *Appendix 1: Implementation Work Plan* for additional detail about near-term strategy implementation.

Figure 20: La Crosse Energy Priorities and Focus Areas



Energy Efficiency Strategies

Outreach and Education

Short-term Strategies, 2022–2025

- Increase awareness of energy efficiency rebates and behavior changes.
- Host an energy challenge.
- Promote free business assessments.
- Convene large energy users to share best practices.
- Connect residents with free and low-cost energy assistance programs.

Medium-term Strategies, 2026–2030

- Facilitate clean energy workforce development opportunities.
- Engage rental property landlords and property managers.

Process and Policy Updates

Short-term Strategies, 2022–2025

- Benchmark city-owned building energy consumption.
- Update development review and permit process with energy efficiency information.
- Prioritize sustainability standards in new construction and renovation of City-owned buildings.
- Support State initiatives to update building energy codes as recommended by the 2020 Climate Change Task Force Report.

Medium -term Strategies, 2026–2030

- Adopt an energy benchmarking ordinance for private-owned buildings.
- Update purchasing policy to prioritize energy efficient equipment in replacement schedules.
- Create a sustainable building policy to require higher sustainability standards in new construction and redevelopment projects.

Capital Investment and Financing

Short-term Strategies, 2022–2025

- Create energy audit and recommissioning schedule for City-owned buildings.
- Update existing loans and grants to include energy efficiency improvements as eligible costs.

Medium-term Strategies, 2026–2030

- Create incentives like bonus rebates for rental property owners who increase their property's energy efficiency.

Renewable Energy Strategies

Outreach and Education

Short-term Strategies, 2022–2025

- Increase awareness of renewable energy options.
- Host renewable energy challenge.

Process and Policy Updates

Short-term Strategies, 2022–2025

- Maintain SolSmart Gold designation and pursue additional recommended actions..
- Update development review and permit process with renewable energy information.

Medium-term Strategies, 2026–2030

- Create a sustainable building policy to require renewable energy in new construction and redevelopment projects.

Capital Investment and Financing

Short-term Strategies, 2022–2025

- Power City buildings with 100% renewable electricity.
- Update existing loans and grants to include renewable energy improvements as eligible costs.

Medium-term Strategies, 2026–2030

- Review buildings that subscribe to renewable energy to see if on-site renewable energy is feasible with improved technology.

Electric Vehicle Strategies

Municipal Fleet Vehicles

Short-term Strategies, 2022–2025

- Continue to leverage peer learning opportunities, especially in similar climates.
- Work with Enterprise on including EV or hybrid options in leasing contract.
- Familiarize managers with hybrid and electric vehicles (HEVs).

Medium-term Strategies, 2026–2030

- Develop a vehicle replacement plan.
- Develop a detailed infrastructure implementation plan.
- Develop a time-of-use charging plan.

Long-term Strategies, 2030–2050

- Include EV training in employee onboarding.
- Establish a policy for use of EV charging location and enforcement.
- Develop EV training for maintenance staff.

Process and Policy Updates

Short-term Strategies, 2022–2025

- Create EV-friendly building codes.
- Host EV permit and installation educational workshops
- Incorporate EV adoption in the Climate Action Plan
- Collaborate with regional EV partners.

Medium-term Strategies, 2026–2030

- Offer a standardized permit template with a separate service fee specifically for charging infrastructure.
- Expedite the permit process through online platforms.
- Incorporate EV-readiness requirements into building codes for new construction.
- Create EV charging codes that can be incorporated into existing zoning, codes, and standards.
- Designate EV charging as a permitted land use where appropriate.

Long-term Strategies, 2030–2050

- Include EVs in minimum required parking spaces.
- Collaborate through regional EV planning.
- Review and update taxes and fees to appropriately compensate for reduced fuel tax income.

Public Access

Short-term Strategies, 2022–2025

- Create an EV charger siting guide that includes ADA compliance.
- Develop a utility notification protocol for new charging station projects.
- Establish and enforce parking rules for EV charging locations.
- Establish a budget for EV charging station installation and upkeep.

Medium-term Strategies, 2026–2030

- Conduct a rate study to determine charging station fees.
- Explore grant opportunities to fund EV infrastructure for public and private stations, including opportunities in existing City loans/grants.
- Educate customers about charging station fees.
- Ensure all new buildings are EV ready.
- Design for future EV charging capacity when installing charging infrastructure.

Long-term Strategies, 2030–2050

- Increase renewable electricity for EV charging through subscription programs.

CONCLUSION

The City of La Crosse has committed to achieving carbon neutrality by 2050. This report is the first step in La Crosse's climate action planning process to reduce greenhouse gas emissions and mitigate the negative impacts of climate change.

Through education and outreach, policy and process updates, capital investments, and new financing opportunities, the strategy recommendations included in this report will reduce our energy-related greenhouse gas emissions by increasing building energy efficiency and renewable energy generation. These recommendations will also transition the City of La Crosse's fleet to electric and create additional opportunities to encourage electric vehicle ownership.

Implementing the strategies included in this report will require commitment from the City of La Crosse, residents, businesses, education institutions, energy utilities, and other community stakeholders. With support from Xcel Energy's Partners in Energy, our community will hit the ground running by implementing short-term strategies while developing the Climate Action Plan.

When La Crosse's Climate Action Plan is complete, the community will have a path forward to achieving our carbon-neutrality goal, creating a more resilient La Crosse.

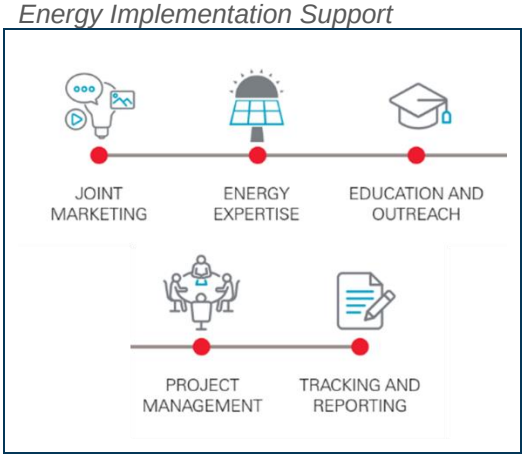
APPENDIX 1: IMPLEMENTATION WORK PLAN

This appendix provides additional details for short-term strategies, including the implementation team and tasks, timeline, and goals. This appendix will serve as a work plan for the Energy Action Team and Partners in Energy over the next 18 months.

Implementation Support from Partners in Energy

Xcel Energy's Partners in Energy commits to 18 months of implementation support, including marketing and communications support and program expertise as well as a dedicated community facilitator to serve as a primary point of contact. Partners in Energy digital resources, including office hours, community portal, and community events, will also be available to the Ashland team.

Figure 21: Xcel Energy's Partners in Energy Implementation Support



When possible, Xcel Energy will leverage its communication channels to promote programs and resources and its staff expertise to connect the City of La Crosse and La Crosse-area Xcel Energy customers with the right resources.

Data and Reporting

Progress reports with metrics of success, including program participation, energy consumption, and energy-related greenhouse gas emissions, will be provided during the first phase of implementation. If available, ad-hoc participation reports for specific programs will be provided to measure the success of campaigns and to determine whether we need to change course.

Project Management and Tracking

Partners in Energy will host regular project management check-in calls with City staff to ensure that La Crosse stays on course. In addition, Partners in Energy facilitators will also support one-on-one outreach to the Energy Action Team and community connectors to facilitate strategy implementation.

Implementation Support from the City of La Crosse and Community

The City of La Crosse will be a primary point of contact for implementation and will assign members to attend regular project management check-ins. The City commits to leveraging existing communication channels and community connections for outreach and engagement strategies. The City of La Crosse will also lead strategies specific to City-owned buildings and policies.

The Energy Action Team formed to create this report will support implementation by serving as community connectors to their networks and will help promote our energy vision, encourage participation in programs and outreach campaigns, and share success stories. When available, the Energy Action Team will serve as partners and leaders in strategies, including those targeting small and medium-sized businesses, nonprofit organizations, and education institutions.

Communication Channels

Several communication channels were identified by the Energy Action Team to leverage during implementation. The team noted that the City of La Crosse and La Crosse County channels are the most appropriate to share information because they are trusted messengers for this information. Other networks can be leveraged to boost the message.

- City of La Crosse website and social media
- La Crosse County website and social media
- La Crosse Newsletter
- La Crosse Public Library
- University and college networks
- Tenant association network
- Community events
- Local TV news
- La Crosse Tribune
- Public social media forums
- Neighborhood groups and social media
- Word of mouth
- Radio channels, including talk radio (WIZM), public radio, and mainstream radio
- Direct mailer to residents
- Water utility bill inserts
- Xcel Energy MyAccount and bill inserts
- Faith communities
- Chamber of Commerce
- Downtown Mainstreet
- Northside Business Association
- Community bulletin boards and kiosks at gathering places
- Energy Center University
- Nonprofit and civic organization mailing lists

Community Connectors

Community connectors — individuals and organizations who will champion the Energy Action Plan — are an important resource for implementation success. A community connector uses their network of contacts to share and champion calls to action and advocate energy strategies. Community connectors include those represented on the Energy Action Team and other community members.

Short-term Action Plan: Energy Efficiency Strategies (EE)

EE 1: Increase awareness of energy efficiency rebates and behavior changes

What is the strategy?

Leverage community communication channels to increase awareness of available energy efficiency programs and resources from utilities, state, and federal resources and educate the community about simple behavior changes to reduce energy use.

How will the strategy be implemented?

- Leverage existing materials from Focus on Energy, Xcel Energy, and the Department of Energy to create La Crosse-specific collateral.
- Update City and Sustainable La Crosse websites with resources to have a central location for the community to go to for energy information.
- Use City-owned public display kiosks, digital signs, and poster boards to create sustainability kiosks in public places and gathering spots.
- Integrate energy resources into existing community events, including the annual Earth Day celebrations.
- Host webinars and information sessions featuring energy experts.
- Create behavior change videos and tip sheets to share on city communication channels.
- Share collateral with community partners to distribute within their own network.

Who is responsible?

Lead/Co-Lead: City of La Crosse Communications, Partners in Energy
Support: Xcel Energy, Focus on Energy, Wisconsin Office of Energy Innovation, Department of Energy, community connectors

When will implementation occur?

- Ongoing throughout the short-term action plan with messages updated quarterly with seasons:
  - Winter: Keep heating costs low.

- Spring: Prepare for summer heat and construction season.
- Summer: Keep cooling costs low.
- Fall: Prepare for winter.

- Q3–Q4 2021: Develop initial material.
- 2022–2025: Promote on city channels.
  - Q1 of each year: Plan for Earth Day presentations.
  - Q2 of each year: Refresh outreach materials with current program offerings.

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a

How will we measure success?

- Create print collateral for each target audience identified in this action plan.
- Number of webinars and events hosted, with a goal to host an energy table at each Earth Day starting in 2022 and at least two energy efficiency webinars before Q1 2023.
- Increase energy savings through Focus on Energy and Xcel Energy program participation by 10% during first year of implementation.

EE 2: Host an energy challenge

What is the strategy?

Challenge residents and businesses to complete energy audits using lessons learned from the 2018 Mayor's Energy Challenge.

How will the strategy be implemented?

- Review lessons learned and best practices from 2018 Mayor's challenge.
- Recruit current mayor and City Council to sponsor challenge.
- Plan challenge structure, timeline, and eligibility.
- Coordinate Focus on Energy and Xcel Energy partners to identify audit options and rebate incentives.
- Create outreach and promotional materials.
- Leverage City-owned communication channels to promote challenge.

Who is responsible?

Lead/Co-Lead: City of La Crosse
Support: City Council, Xcel Energy, Partners in Energy, Focus on Energy, community connectors

When will implementation occur?

- Q3–Q4 2022: Plan challenge.
- Q1–Q3 2023: Launch challenge in coordination with adoption of Climate Action Plan.

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • General funds • PSC Innovation Grants

How will we know if we are successful?

- Host biennial challenge.
- Sign up 100 residents for energy audits.
- Sign up 25 businesses for energy audits.
- Increase annual energy savings 20% during implementation year

EE 3: Promote free business assessments

What is the strategy?

Xcel Energy offers small- and medium-sized businesses access to free energy assessments to identify opportunities to save energy in their building. Businesses who follow through on recommendations can access rebates from Focus on Energy and Xcel Energy to keep upfront costs low.

How will the strategy be implemented?

- Identify a list of small- and medium-sized businesses in La Crosse.
- Create outreach materials to promote free assessment options.
- Partner with Chamber of Commerce, Downtown La Crosse, and other business groups to promote assessments.

Who is responsible?

Lead/Co-Lead: Xcel Energy
Support: City of La Crosse, Partners in Energy, Focus on Energy, business organization community connectors

When will implementation occur?

- Q3–Q4 2021: Create materials and identify businesses.
- Q1–Q4 2022: Conduct outreach.

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • General funds • PSC Innovation Grants • City of La Crosse Economic Development Grants (for businesses to complete projects) • PACE (for businesses to complete projects)

How will we know if we are successful?

- Sign up for 25 businesses for energy assessments during outreach.

EE 4: Convene large energy users to share best practices

What is the strategy?

Large employers, industry leaders, and education institutions often have facility managers dedicated to maintaining facilities and achieving corporate/organization sustainability goals. These organizations have similar equipment and can learn from each other regarding what has and has not worked in their facility when it comes to energy efficiency. From these conversations, we can compile best practices and case studies to share with our community.

How will the strategy be implemented?

- Identify a list of large industry, education institution, and large energy user facility managers.; with a goal to invite 20 business representatives.
- Create outreach plan for convening, including agenda and host site.
- Create a list of best practices to share.
- Invite attendees to attend.
- Partner with Chamber of Commerce and other business groups to share invitation.
- Host meeting.

Who is responsible?	
Lead/Co-Lead: Xcel Energy **Support**: City of La Crosse, Partners in Energy, Focus on Energy, business organization community connectors	
When will implementation occur?	
• Q3–Q4 2021: Create materials and outreach plan. • Q1–Q2 2022: Identify/invite businesses to attend and host event.	
What resources are required?	
Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • General funds • PSC Innovation Grants • PACE (for businesses to complete projects)
How will we know if we are successful?	
• Host bi-annual meeting with large energy users. • Number of attendees who participate, with a goal to host at least 20 different businesses at the first event.	

EE 5: Connect residents with free and low-cost energy assistance programs

What is the strategy?	
There are several programs to support residents in reducing their energy burden, including free energy-saving packs from Focus on Energy and the Energy Assistance and Weather Assistance Programs. In most cases, both homeowners and renters are eligible to apply if the energy utility accounts are in their name and their income qualifies.	
How will the strategy be implemented?	
• Create a list of local service providers to connect with income-qualified residents. • Leverage existing materials from Focus on Energy, Xcel Energy, and the Wisconsin Department of Administration to create La Crosse-specific collateral. • Conduct outreach on City-owned channels and boost messages with service provider networks.	
Who is responsible?	
Lead/Co-Lead: City of La Crosse **Support**: Xcel Energy, Partners in Energy, Focus on Energy, service provider community connectors, La Crosse Public Library	
When will implementation occur?	
• Q3–Q4 2021: Create materials and identify businesses. • Q1–Q4 2022: Conduct outreach.	
What resources are required?	
Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a
How will we know if we are successful?	
• Sign up 100 new households for Wisconsin Home Energy Assistance Program.	

- Double energy-saving pack participation with 4,000 participants during first year of implementation.

EE 6: Benchmark city-owned building energy consumption

What is the strategy?

Benchmarking is an easy way to track energy and water consumption to help identify buildings with high energy use and monitor the impact of energy efficiency upgrades. By using benchmarking platforms like EnergyStar Portfolio Manager we can automate our benchmarking entries and create a public dashboard for our community to see building energy and water use.

How will the strategy be implemented?

- Create a list of city energy premises and water meters.
- Create EnergyStar Portfolio Manager account.
- Connect EnergyStar Portfolio Manager to Xcel Energy accounts to automate energy-use entries.
- Update City website to link to EnergyStar dashboard.

Who is responsible?

Lead/Co-Lead: City of La Crosse
Support: Xcel Energy, Johnson Controls

When will implementation occur?

- Q1–Q2 2022: Set up EnergyStar profiles and accounts.
- Ongoing: Monitor energy use data and identify projects to complete with Johnson Controls.

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • Johnson Controls performance contract to follow through on projects

How will we know if we are successful?

- Create profiles for all City-owned facilities by Q2 2022.

EE 7: Update development review and permit process with energy efficiency information

What is the strategy?

Developers, architects, and contractors regularly interact with City staff during development review and permitting. By leveraging these existing points of contact, we can share energy program information to encourage integration of energy efficiency into design and equipment upgrades.

How will the strategy be implemented?

- Leverage existing materials from Focus on Energy, Xcel Energy, and the Department of Energy to create La Crosse-specific collateral.
- Review materials with development review and permit staff.

Who is responsible?

Lead/Co-Lead: City of La Crosse Planning and Permitting staff
Support: Xcel Energy, Partners in Energy, Focus on Energy

When will implementation occur?

- Q4 2021: Compile materials and review with staff.
- Q1 2022: Update materials.

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a
How will we know if we are successful?	
• Process updates are made.	

EE 8: Prioritize sustainability standards in new construction and renovation of City-owned buildings

What is the strategy?

Sustainability standards, such as the Net Zero Energy Building Certification, identify design and building performance standards to increase the building's sustainability. Sustainability standards are often above state building code and energy codes. Prioritizing these standards in City-owned buildings will ensure the City is leading by example and encouraging us to reduce our greenhouse gas footprint.

How will the strategy be implemented?

- Create a list of preferred sustainability standards.
- Educate city facility, planning, and other staff about sustainable designs.
- Review capital improvement plan to identify major renovations and new construction projects.
- Identify funding sources to cover additional costs of sustainable standard designs.

Who is responsible?

Lead/Co-Lead: City of La Crosse
Support: Xcel Energy, Focus on Energy, future buildings/architects for city projects

When will implementation occur?

- Q3–Q4 2022: Create a list of preferred sustainability standards and identify funding sources to cover additional costs of preferred rating systems.
- Q1 2023: Review capital improvement plan for opportunities to integrate standards into design.
- Q2–Q3 2023: Operationalize sustainability standards.

What resources are required?

Time	The strategy requires new staff to be hired or contracted to implement and maintain.
Cost	The strategy requires significant new municipal funding resources.
Funding	What funding sources could be used to offset the costs of strategy implementation? • PSC Innovation Grants • New levy to cover costs for design

How will we know if we are successful?

- Sustainability standard integration is standardized into City construction process by 2023.

EE 9: Support State initiatives to update building energy codes as recommended by the 2020 Climate Change Task Force Report

What is the strategy?

Wisconsin's 2020 Climate Change Task Force Report identified several strategies for reducing greenhouse gas emissions in the built environment, including updating building energy codes. Cities across Wisconsin can support this work by advocating the benefits of increasing energy code standards to the State legislature

How will the strategy be implemented?

• Connect with La Crosse State Senator and Representative to advocate the importance of the strategy to La Crosse.	
Who is responsible?	
Lead/Co-Lead: La Crosse City Council **Support**: City of La Crosse	
When will implementation occur?	
• Ongoing to align with State Legislature session.	
What resources are required?	
Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	N/a
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a
How will we know if we are successful?	
• City Council and Mayor engage State leadership. • City of La Crosse signs on to support an energy-related bill or policy.	

EE 10: Create energy audit and recommissioning schedule for City-owned buildings

What is the strategy?	
Partnering with Johnson Controls, the City of La Crosse can prioritize energy efficiency upgrades in City buildings that lower energy use, energy bills, and greenhouse gas emissions. Using benchmarking data (strategy EE 6) we can identify our highest energy users that would benefit from an energy assessment and equipment upgrades.	
How will the strategy be implemented?	
• Review benchmarking data to identify low-barrier project opportunities and buildings with high energy use. • Create recommissioning schedule and project list with Johnson Controls. • Complete projects.	
Who is responsible?	
Lead/Co-Lead: City of La Crosse **Support**: Johnson Controls, Xcel Energy, Focus on Energy	
When will implementation occur?	
• Kick off after benchmarking data is complete in Q1 2023. • Complete recommissioning schedule and project list by start of Q3 2023. • Start implementing schedule.	
What resources are required?	
Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy requires a moderate amount of new municipal funds, due to low-cost, or external funding options like grants or private investment.
Funding	What funding sources could be used to offset the costs of strategy implementation? • General fund
How will we know if we are successful?	
• Schedule is created. • Projects are being implemented with a goal to complete at least first phase of project recommendations with Johnson Controls by 2024.	

EE 11: Update existing loans and grants to include energy efficiency improvements as eligible costs

What is the strategy?

Upfront costs to complete projects are a common barrier in La Crosse for following through on energy project recommendations. By updating existing City loans and grants to include energy efficiency upgrades as eligible costs, residents and businesses can leverage city funding to complete projects.

How will the strategy be implemented?

- Review existing loan and grant programs for home and building improvements.
- Update eligible costs to include energy efficiency projects (if not prohibited by originating funding source).

Who is responsible?

Lead/Co-Lead: City of La Crosse
Support: N/a

When will implementation occur?

- Q4 2021: Compile a list of funding programs and update eligibility criteria for 2022 funding cycle.

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy requires a moderate amount of new municipal funds, due to low-cost, or external funding options like grants or private investment.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?

- Loan and grants eligible costs include energy efficiency callout.

Short-term Action Plan: Renewable Energy (RE) Strategies

RE 1: Increase awareness of renewable energy options

What is the strategy?

Leverage community communication channels to increase awareness of available renewable energy programs, including both on-site and off-site opportunities from utilities, state, and federal resources.

How will the strategy be implemented?

- Leverage existing materials from Focus on Energy, Xcel Energy, and the Department of Energy to create La Crosse-specific collateral.
- Update City and Sustainable La Crosse websites with resources to have a central location for the community to go to for renewable energy information.
- Update on-site solar checklist to provide alternative options when buildings aren't suitable for on-site solar energy.
- Use public display kiosks, digital signs, and poster boards to create sustainability kiosks in public places.
- Integrate renewable energy options into existing community events, including annual Earth Day celebrations.
- Host webinars and information sessions featuring renewable energy experts.
- Share collateral with community partners to distribute within their own network.

Who is responsible?

Lead/Co-Lead: City of La Crosse Communications, Partners in Energy
Support: Xcel Energy, Focus on Energy, Wisconsin Office of Energy Innovation, Department of Energy, community connectors

When will implementation occur?

- Ongoing throughout the short-term action plan with messages aligned with seasons:
  - Winter–Spring: Plan for construction season.
  - Summer–Fall: Take advantage of sun.
- Q3–Q4 2021: Develop initial materials.
- 2022–2025: Promote on city channels.
  - Q1 of each year: Plan for Earth Day presentations.
  - Q2 of each year: Refresh outreach materials with current program offerings.

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?

- Create print collateral for each target audience identified in this action plan.
- Number of webinars and events hosted, with a goal to host at least two renewable energy webinars before Q1 2023.
- Increase renewable energy program participation in Xcel Energy's renewable energy offerings, with a goal to double subscription program participation (add 2,200 participants).
  - Double participation will be inclusive of impact from strategy RE2.

RE 2: Host renewable energy challenge

What is the strategy?

Like the energy challenge (strategy EE 2), La Crosse can challenge residents and businesses to power their home and buildings with 100% renewable energy. Lessons learned from the 2018 Mayor's Energy Challenge will be used to develop this strategy, which will be timed to occur after the energy audit challenge so residents aren't over-building or over-subscribing to renewable energy (i.e., following the best practices of energy efficiency as the first step to renewable energy).

How will the strategy be implemented?

- Review lessons learned and best practices from 2018 Mayor's challenge.
- Recruit current mayor and City Council to sponsor challenge.
- Plan challenge structure, timeline, and eligibility.
- Coordinate Focus on Energy and Xcel Energy partners to identify renewable energy options and rebate incentives.
- Create outreach and promotional materials.
- Leverage City-owned communication channels to promote challenge.

Who is responsible?

Lead/Co-Lead: City of La Crosse
Support: City Council, Xcel Energy, Partners in Energy, Focus on Energy, community connectors

When will implementation occur?

- Q3–Q4 2023: Plan challenge.
- Q1–Q3 2024: Launch challenge after Energy Challenge and after Climate Action Plan adoption.

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • General funds

	• PSC Innovation Grants
How will we know if we are successful?	
• Host biennial challenge. • Double renewable energy subscription participation (add 2,200 participants). ○ Double participation will be inclusive of impact from strategy RE1.	

RE 3: Maintain SolSmart designation and pursue additional recommended actions

What is the strategy?	
The City of La Crosse achieved SolSmart Gold, currently the highest designation. SolSmart has additional recommended actions to remove barriers to on-site solar installation. The City of La Crosse should maintain their Gold designation and pursue additional free and low-cost improvements to continue making on-site renewable energy more accessible.	
How will the strategy be implemented?	
• Review new SolSmart recommendations. • Pursue additional recommendations with SolSmart guidance.	
Who is responsible?	
Lead/Co-Lead: City of La Crosse **Support**: SolSmart	
When will implementation occur?	
• Q1 2023: Review SolSmart recommendation actions. • Q2–Q4 2023: Pursue recommended actions.	
What resources are required?	
Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a
How will we know if we are successful?	
• SolSmart recognizes additional actions completed by City of La Crosse.	

RE 4: Update development review and permit process with renewable energy information

What is the strategy?	
Developers, architects, and contractors regularly interact with City staff during development review and permitting. By leveraging these existing points of contact, we can share renewable energy information (e.g., solar-ready) to encourage integration of renewable energy into design. This strategy and timeline will be the same as strategy EE 7.	
How will the strategy be implemented?	
• Leverage existing materials from Focus on Energy, Xcel Energy, and the Department of Energy to create La Crosse-specific collateral. • Review materials with development review and permit staff.	
Who is responsible?	
Lead/Co-Lead: City of La Crosse Planning and Permitting staff **Support**: Xcel Energy, Partners in Energy, Focus on Energy	
When will implementation occur?	
• Q4 2021: Compile materials and review with staff. • Q1 2022: Update materials.	
What resources are required?	

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a
How will we know if we are successful?	
• Process updates are made.	

RE 5: Power City buildings with 100% renewable electricity

What is the strategy?

The City can power its buildings with 100% renewable electricity through a combination of on-site solar and off-site subscription programs. The strategy will review the solar analyses from Johnson Controls to include on-site solar in the capital improvement plan for suitable sites and pursue subscription programs for unsuitable sites.

How will the strategy be implemented?

- Review solar suitability analysis for suitable and unsuitable site list.
- Identify funding sources to cover both on-site and subscription program costs.
- Update capital improvement plan to include on-site solar funding for suitable sites.
- Explore subscription program options for unsuitable sites, including costs to subscribe to renewable energy programs.
- Subscribe buildings to renewable energy.

Who is responsible?

Lead/Co-Lead: City of La Crosse
Support: Xcel Energy, Focus on Energy, Johnson Controls, City Council

When will implementation occur?

- Q1–Q2 2023: Research subscription program options and costs.
- Q3–Q4 2023: Identify funding sources to cover on-site and subscription program costs.
- Q1 2024: Submit capital improvement plan requests.
- Q2 2024: Present subscription program proposal to City Council.
- Q3–Q4 2024: Subscribe to renewable energy.

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy requires significant new municipal funding resources.
Funding	What funding sources could be used to offset the costs of strategy implementation? • Levy • Bonding • State or federal tax credits

How will we know if we are successful?

- All City-owned electric premises are sourcing energy from renewable sources, including on-site solar generation and subscription programs.

EE 6: Update existing loans and grants to include on-site renewable energy as eligible costs

What is the strategy?

Upfront costs to install on-site renewable energy are a common barrier in La Crosse homes and buildings. By updating existing City loans and grants to include on-site renewable energy as an

eligible cost, residents and businesses can leverage city funding to complete projects. This strategy will align with strategy EE 11.
How will the strategy be implemented?
• Review existing loan and grant programs for home and building improvements. • Update eligible costs to include renewable energy projects (if not prohibited by originating funding source).
Who is responsible?
Lead/Co-Lead: City of La Crosse **Support**:
When will implementation occur?
• Q4 2021: Compile list of funding programs and update eligibility criteria for 2022 funding cycle.
What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy requires a moderate amount of new municipal funds, due to low cost, or external funding options like grants or private investment.
Funding	What funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?
• Loan and grants eligible costs include renewable energy callout.

Short-term Action Plan: Electric Vehicle (EV) Strategies

EV 1: Continue to leverage peer learning opportunities, especially in similar climates

What is the strategy?
Talk with other local transit and fleet managers about their experience with new EVs.
How will the strategy be implemented?
Continue to build on successes by sharing information with professional network of MN and IL transit mangers. Leverage local organizations such as the Wisconsin Clean Cities Wisconsin Public Transportation Association to learn more about EV options and cold weather performance.
When will implementation occur?
• Ongoing for both transit bus fleet and light-duty fleet
Who is responsible?
Lead/Co-Lead: Department fleet managers **Support:** Darin Streek
What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?
• City of La Crosse staff attend two EV networking events.

EV 2: Work with Enterprise on including EV or hybrid options in leasing contract

What is the strategy?

Encourage the move to hybrid or electric vehicle options when they are available and have leasing agent present appropriate options when determining fleet replacements each year. Be sure to include comparison of total ownership costs in discussion.

How will the strategy be implemented?

Talk to account manager to present options when they are available.
Use fuel study data to support decisions (department managers).
Share success stories and tips/tricks between departments.
Monitor durability of early EV adoption and share experiences among department.
Share strategy and progress with neighbor communities, as well.

When will implementation occur?

- Starting in Q4 2021 and ongoing as vehicles are replaced

Who is responsible?

Lead/Co-Lead: Darin Streek, Enterprise leasing agent
Support: Department fleet managers

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?

- EV and PHEV vehicles are added to the leasing contract with Enterprise.

EV 3: Familiarize managers with hybrid and electric vehicles (HEVs)

What is the strategy?

Share success stories and lessons learned from early HEV adoption (police department and other) with other department managers to encourage more widespread use.

How will the strategy be implemented?

- Create a case study that includes
  - Vehicle type
  - Vehicle use
  - Fuel savings
  - Testimonial from users on experience
  - Tips or lessons learned
- Share case study with fleet managers.
- Share case study with community as appropriate.

When will implementation occur?

- Starting Q4 2021 with police fleet pilot outcomes and ongoing as more departments choose HEVs

Who is Responsible?

Lead/Co-Lead: Brad Stoner, Darin Streek
Support: City communications

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.

Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • N/a
How will we know if we are successful?	
• Complete one case study featuring City of La Crosse HEV is completed.	

EV 4: Create EV-friendly building codes

What is the strategy?
Consider adopting building codes that provide guidance for installing EV charging stations.
How will the strategy be implemented?
• Review existing building codes to see if any updates need to be made to provide guidance for installing all levels of EV charging stations and associated infrastructure. • Identify model code language that addresses identified updates. • Work with building inspectors and other code enforcers to revise model code language to meet local needs/experiences. • Submit revised code language to Code Council for public review and adoption.
When will implementation occur?
• Q3 2022
Who is responsible?
Lead/Co-Lead: Planning and Development - Lewis Kuhlman **Support:** Community Risk Management - Dave Reinhart/Craig Snyder
What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • Technical Support: MREA, Renew Wisconsin, Wisconsin Clean Cities, Focus on Energy

How will we know if we are successful?
• Building code with EV-friendly provisions is adopted.

EV 5: Host EV permit and installation educational workshops

What is the strategy?
Host educational workshops on EV charging station permit and installation processes for staff, contractors, and other members of the development community.
How will the strategy be implemented?
• Reference Sol Smart experience to design workshops. • Identify resources to share and partners to present at workshops. • Determine desired outcomes (e.g., number of participants). • Identify potential participants (e.g., contractors and developers). • Promote workshops on social media and other communication outlets. • Host the workshops. • Follow up with participants to evaluate efficacy of workshops.
When will we implement it?
• Q1–Q2 2022: Develop materials.

- Q3 2022: Host workshops periodically.

Who is responsible?

Lead/Co-Lead: Environmental Planning - Lewis Kuhlman
Support:

- Community Risk Management - Dave Reinhart/Craig Snyder/Pat (identifying participants and outreach)
- County (hosting workshops)
- Xcel Energy (facilitation and technical expertise)

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • Potential Partners: MREA, Renew Wisconsin, Wisconsin Clean Cities, Focus on Energy, State DOT, Xcel Energy, Western Technical College, Kwik Trip, County

How will we know if we are successful?

- Two workshops hosted with City staff.

EV 6: Incorporate EV adoption in the Climate Action Plan

What is the strategy?

Consider EVs within the City's Climate Action Plan process.

How will the strategy be implemented?

- Determine GHG savings and costs associated with EVs to understand how EVs impact GHG emission reduction goals.
- Provide City Council with EV information and ask for City Council's direction on EVs.
- Reviewing existing plans regarding support for and conflict with EV adoption and address those findings within the plan.
- Understand community sentiment toward and knowledge about EVs through community surveys, engagement at community events, and/or community workshops.
- Incorporate EVs with other multimodal efforts addressed in the plan.

When will implementation occur?

- Q3 2021

Who is responsible?

Lead/Co-Lead: Planning and Development - Lewis Kuhlman
Support:

- Climate Action Plan consultant
- Climate Action Plan steering committee

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • Climate Action Plan budget

How will we know if we are successful?

- Electric vehicle section is included in Climate Action Plan.

EV 7: Collaborate with regional EV partners

What is the strategy?

Continue to coordinate with regional partners to advocate additional EV adoption.

How will the strategy be implemented?

- Invite regional partners to be part of the EV permit and installation educational workshops as described in strategy EV 5: Host EV permit and installation educational workshops.
- Coordinate with La Crosse Area Planning Committee (LAPC), including Onalaska, West Salem, and La Crosse County.
- Identify key State Department of Transportation (DOT) staff and track implementation of I-90 electrification.
- Coordinate with fueling stations to adopt EV charging (e.g., Kwik Trip).
- Work with large employers to provide workplace and public EV charging (e.g., health systems, universities, LHI, hotels).

When will we implement it?

- Ongoing starting Q4 2021

Who is responsible?

Lead/Co-Lead: Planning and Development - Lewis Kuhlman

Support:

- LAPC - Jackie Eastwood
- State staff
- Kwik Trip

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.

Funding	• What potential funding sources could be used to offset the costs of strategy implementation?
	  • State grants
	  • Private investment

How will we know if we are successful?

- Regional partners attend EV workshops (strategy EV 5).

EV 8: Create an EV charger siting guide that includes ADA compliance

What is the strategy?

Develop guidance for the installation of public charging infrastructure throughout the city on public or private land to help ensure EV owners will have a consistent experience of charging infrastructure. This should include ADA compliance to ensure access for all drivers.

How will the strategy be implemented?

- Complete space needs and availability assessment, including identifying public sites that would be good candidates for EV charging.
- Identify resources and capacity for internal needs, based on vehicle and departments.
- Align siting guide with existing design guidelines and zoning overlays.

When will implementation occur?

- Develop guide Q3 2022

Who is responsible?

Department Lead/Co-Lead:

- Planning department to determine how they are set up, space/needs assessment

Support:

- Parking utility for enforcement (under police department)
- Design
- Engineering

What resources are required?

Time	The strategy requires new staff to be hired or contracted to implement and maintain.
Cost	The strategy requires a moderate to high amount of new municipal funds to maintain compliance with requirements.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?

- Siting guide is complete.

EV 9: Develop a utility notification protocol for new charging station projects

What is the strategy?

Develop guidelines for contacting Xcel Energy when planning for any EV charging station infrastructure projects with significant electric load.

How will the strategy be implemented?

- Consider how to determine when a station is part of a project and incorporate process/communication points.
- Assign someone as a contact for Xcel Energy to
  - Serve as liaison between City and Xcel Energy
  - Streamline point of contact for all parties
  - Have back up contact for redundancy in notification
- Follow up for the sites about needs from utility.

When will implementation occur?

- Q4 2021

Who is responsible?

Department Lead/Co-Lead:

- Lewis, Planning Department

Support: Xcel Energy, other departments included in development process

What resources are required?

Time	The strategy requires a minimal amount of existing staff time and effort to implement and maintain.
Cost	The strategy can be fully funded through existing municipal funds or grants.
Funding	What potential funding sources could be used to offset the costs of strategy implementation? • N/a

How will we know if we are successful?

- Protocol is established with Xcel Energy and City staff.

EV 10: Establish and enforce parking rules for EV charging locations

What is the strategy?

Create rules for parking in spaces with public EV chargers to help ensure charging stations are available when needed.

How will the strategy be implemented?

- Identify staff to be involved in developing rules.
- Identify timing and charging requirements for spot based on station location(s).
    - Review traffic impacts and access points for EVs.
- Create signage for enforcement and install signage.
- Create training plan for police (parking enforcement) and train staff.

When will implementation occur?

- Q3 2022

Who is responsible?

Department Lead/Co-Lead:

- Police department to create and enforce

Support:

- Planning department
- Engineering department

What resources are required?

Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy may be able to be fully funded through existing municipal funds or grants, but a moderate amount of new municipal funds may be required for enforcement.
Funding	• What potential funding sources could be used to offset the costs of strategy implementation? • If additional officers are needed for enforcement, there is a budget impact

How will we know if we are successful?

- Parking rules are established.
- Training is completed with police department staff.

EV 11: Establish a budget for EV charging station installation and upkeep

What is the strategy?

Develop a budget for charging station installation and maintenance for stations installed on City properties.

How will the strategy be implemented?

- Determine maintenance costs and schedules for stations.
- Determine revenue from charging stations and how those funds will be used.
    - This step should coincide with rate study strategy.
- Determine department whose budget will be used for maintenance.
- Align with **annual** budget cycle and Capital Improvement Plan Process (five year plan each year, **annual** process)
- Find existing funding source to divert funds or create new revenue line.
    - What revenue from charging will exist? How will that be used?
- Initiate City Council approval of budget as part of budget and CIP processes.

Who is responsible?

Department Lead/Co-Lead:

- Finance department

Support:

- City Council for approval
- Clerk for fees
- All departments part of this budgeting and Capital Improvement Plan process as well as support from other departments who are using the stations for city fleet vehicles

What resources are required?	
Time	The strategy requires a moderate amount of existing staff time to implement and maintain.
Cost	The strategy requires a moderate amount of new municipal funds.
Funding	• What potential funding sources could be used to offset the costs of strategy implementation? • Revenue from parking violations or stations
How will we know if we are successful?	
• Budget is allocated for EV chargers.	

Strategy Implementation Timeline

	Partners in Energy Support Through Q1 2023								
	2021		2022						
Strategy	Q3	Q4	Q1	Q2	Q3	Q4	2023	2024	2025
EE 1: Increase awareness of energy efficiency rebates and behavior changes	x	x	x	x	x	x	x	x	x
EE 2: Host an energy challenge					x	x	x		
EE 3: Promote free business assessments	x	x	x	x	x	x			
EE 4: Convene large energy users to share best practices	x	x	x	x					
EE 5: Connect residents with free and low-cost energy assistance programs	x	x	x	x	x	x			
EE 6: Benchmark City-owned building energy consumption			x	x	x	x	x	x	x
EE 7: Update development review and permitting process with energy efficiency information		x	x						
EE 8: Prioritize sustainability standards in new construction and renovation of City-owned buildings					x	x	x		
EE 9: Support State initiatives to update building energy codes as recommended by the 2020 Climate Change Task Force Report			x	x	x	x	x	x	x
EE 10: Create energy audit and recommissioning schedule for city-owned buildings							x		
EE 11: Update existing loans and grants to include energy efficiency improvements as eligible costs		x	x						
RE 1: Increase awareness of renewable energy options	x	x	x	x	x	x	x	x	x
RE 2: Host renewable energy challenge							x	x	
RE 3: Maintain SolSmart designation and pursue additional actions							x		
RE 4: Update development review and permitting process with renewable energy information		x	x						
RE 5: Power City buildings with 100% renewable electricity							x	x	
EE 6: Update existing loans and grants to include on-site renewable energy as eligible costs		x	x						
EV 1: Continue to leverage peer learning opportunities, especially in similar climates	x	x	x	x	x	x	x	x	x
EV 2: Work with Enterprise on inlcuding EV or hybrid options in leasing contract		x	x	x	x	x	x	x	x
EV 3: Familiarize managers with hybrid and electric vehicles (HEVs)		x		x		x	x	x	x
EV 4: Create EV-friendly building codes			x	x	x	x			
EV 5: Host EV permit and installation educational workshops			x	x	x	x			
EV 6: Incorporate EV adoption in the Climate Action Plan	x								
EV 7: Collaborate with regional EV partners		x		x		x	x	x	x
EV 8: Create an EV charger siting guide that includes ADA compliance					x				
EV 9: Develop a utility notification protocol for new charging station projects		x							
EV 10: Establish and enforce parking rules for EV charging locations					x				
EV 11: Establish a budget for EV charging station installation and upkeep		x	x			x	x		

APPENDIX 2: BASELINE ANALYSIS

This appendix includes data from a variety of sources to establish a community baseline against which progress toward goals will be compared in the future.

Demographic Baseline

Demographic data was sourced from the U.S. Census Bureau 2019 American Community Survey five-year estimates. Two databases — DP04 Housing Characteristics and DP05 Population Characteristics — were the primary sources for La Crosse's demographic baseline.

Housing Characteristics

About 55% of La Crosse residences are single-family homes (single unit, detached and attached); the next largest category of units are large multi-family buildings with 20 or more units, representing 16% of total units. The remaining units include duplex, triplex, and fourplex homes (2-4 units) and other multi-family buildings (5+ units). A small percentage of units are mobile homes (1.4%).

Table 7: Units in structure

Total housing units	22,756
Single unit, detached	11,204
Single unit, attached	1,247
2 units	1,846
3 or 4 units	1,569
5 to 9 units	1,414
10 to 19 units	1,496
20 or more units	3,654
Mobile home	326
Boat, RV, van, etc.	-

Most of the housing stock in La Crosse is older, with 89% of units being built before 2000. Homes built before 2000 often need new equipment such as furnaces and air conditioners; these homes may also need energy efficiency improvements like new insulation and air sealing.

Table 8: Age of housing units

Total housing units	22,756
Built 2014 or later	340
Built 2010 to 2013	444
Built 2000 to 2009	1,676
Built 1990 to 1999	2,444
Built 1980 to 1989	2,005
Built 1970 to 1979	2,673
Built 1960 to 1969	2,148
Built 1950 to 1959	3,015
Built 1940 to 1949	2,092
Built 1939 or earlier	5,919

The majority of occupied housing units in La Crosse are rental units (54%). Renting may make it challenging for occupants to make energy-efficiency improvements, even if they pay the energy bills.

Table 9: Housing tenure

Occupied housing units	21,314
Owner-occupied	9,806
Renter-occupied	11,508

Population Characteristics

To better understand the demographics of La Crosse's population, we examined age, race, and language spoken at home.

Most La Crosse residents are White (90%), followed by Asian (4%) and Black (2.5%).

Table 10: Race

Total Population	51,866
White	46,729
Black or African American	1,275
American Indian and Alaska Native	216
Asian	2,023
Native Hawaiian and Other Pacific Islander	1
Some other race	363

La Crosse residents primarily speak English (92%), but 8% of residents speak a language other than English, including Spanish, Asian and Pacific Island languages, and other Indo-European languages. As such, community outreach work in La Crosse may reach a broader audience when materials and resources are made available in languages in addition to English.

Table 11: Language spoken by residents 5 years and older

Total Residents	49,352
Speak only English	45,387
Speak a language other than English	3,965
Languages Other Than English Spoken at Home	
Spanish	1,602
Other Indo-European languages	788
Asian and Pacific Island languages	1,397
Other languages	178

The median age in La Crosse is 28.8 years, which is just over 10 years younger than the statewide median of 39.5 years. The table below shows age bracket totals and proportion relative to the overall population.

Table 12: Age

	Residents	Percentage of Total
Total population	51,666	-
Under 5 years	2,514	4.8%
5 to 9 years	1,821	3.5%
10 to 14 years	2,171	4.2%
15 to 19 years	5,204	10%

	Residents	Percentage of Total
20 to 24 years	10,834	20.9%
25 to 29 years	4,107	7.9%
30 to 34 years	3,403	6.6%
35 to 39 years	2,662	5.1%
40 to 44 years	2,031	3.9%
45 to 49 years	1,997	3.9%
50 to 54 years	2,410	4.6%
55 to 59 years	2,995	5.8%
60 to 64 years	2,689	5.2%
65 to 69 years	2,129	4.1%
70 to 74 years	1,320	2.5%
75 to 79 years	1,465	2.8%
80 to 84 years	840	1.6%
85 years and over	1,274	2.5%

Income Comparisons

The median income in La Crosse is $43,516, which is lower than statewide average of $59,209. The following table shows the percentage of households falling within a given household income range in La Crosse.

Table 13: Household income

Household Income	Percent of Total Households
Less than $10,000	6.5%
$10,000 to $14,999	6.9%
$15,000 to $24,999	13.6%
$25,000 to $34,999	13.4%
$35,000 to $49,999	17.7%
$50,000 to $74,999	18.1%
$75,000 to $99,999	10.8%
$100,000 to $149,999	8.3%
$150,000 to $199,999	2.4%
$200,000 or more	2.3%

La Crosse's poverty rate is 23.4%, but poverty among the population when excluding college students is lower, at 16.2%. Both figures are higher than the statewide poverty rate of 10.4%.

Table 14: Poverty rate

	Residents	Residents Below Poverty Level	Percent of Residents
Total Population	47,292	11,088	23.4%
Under 18 years	7,301	1,085	14.9%

	Residents	Residents Below Poverty Level	Percent of Residents
18 to 64 years	33,415	9,416	28.2%
60 years and over	9,228	812	8.8%
65 years and over	6,576	587	8.9%

Energy Baseline

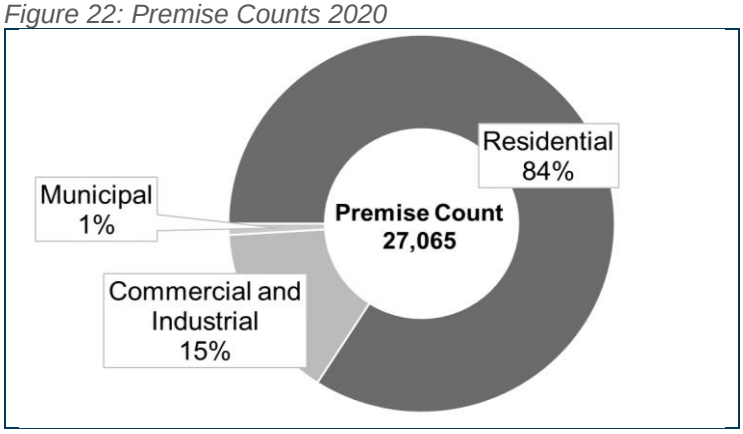
All data was provided by Xcel Energy and Focus on Energy as part of La Crosse's participation in Xcel Energy's Partners in Energy.

Xcel Energy, La Crosse's electric and natural gas service provider, provided 2018-2020 consumption and program participation data for all customers in La Crosse. Focus on Energy, the statewide provider of energy efficiency programs in Wisconsin, provided 2018-2020 program participation, energy savings, and incentives data.

Electricity and Natural Gas Premises

In 2020, there were 27,065 total premises in the La Crosse. Approximately 84% percent of premises serve residents, while 15% serve commercial and industrial customers, which also includes education institutions and nonprofits. The remaining 1% of premises within the community are municipal, owned by The City of La Crosse.

Figure 22: Premise Counts 2020

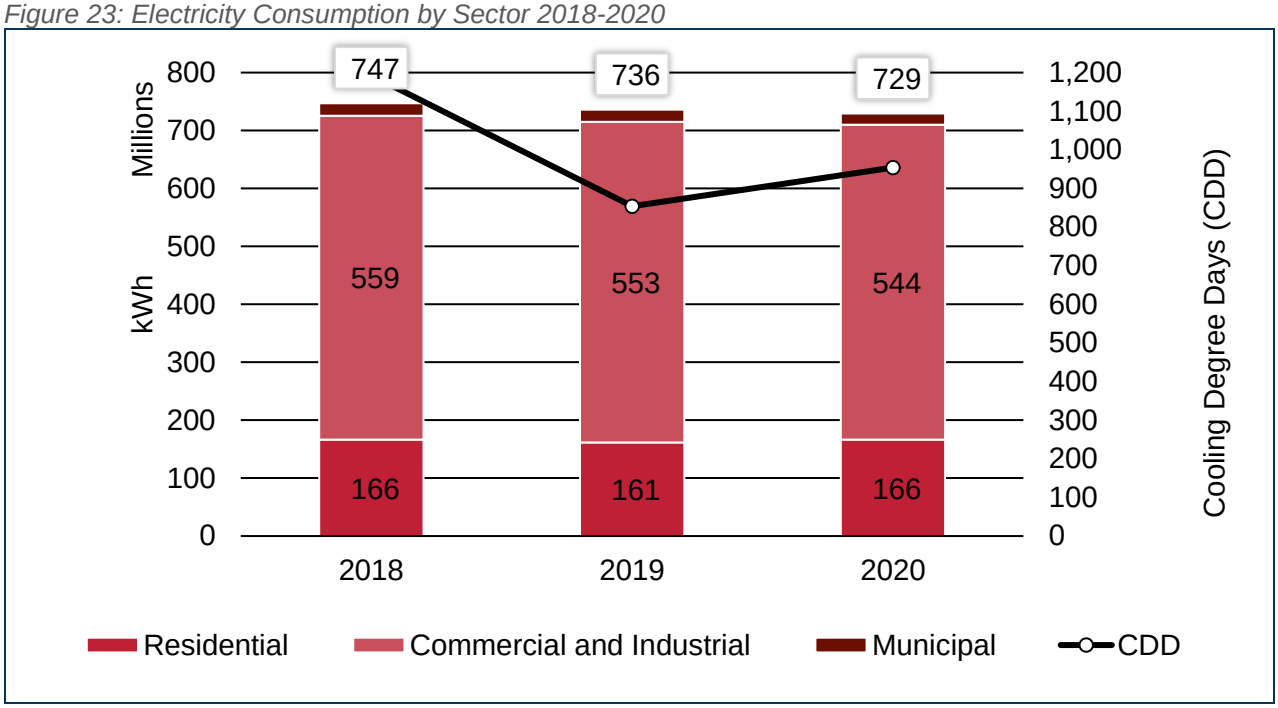


Electricity and Natural Gas Consumption and Trends by Sector

Although commercial and industrial customers represent only 15% of premises in La Crosse, these customers consume about 75% of total electricity and 74% of total natural gas in the community. Residents consume 22% of electricity and 25% of natural gas, by comparison.

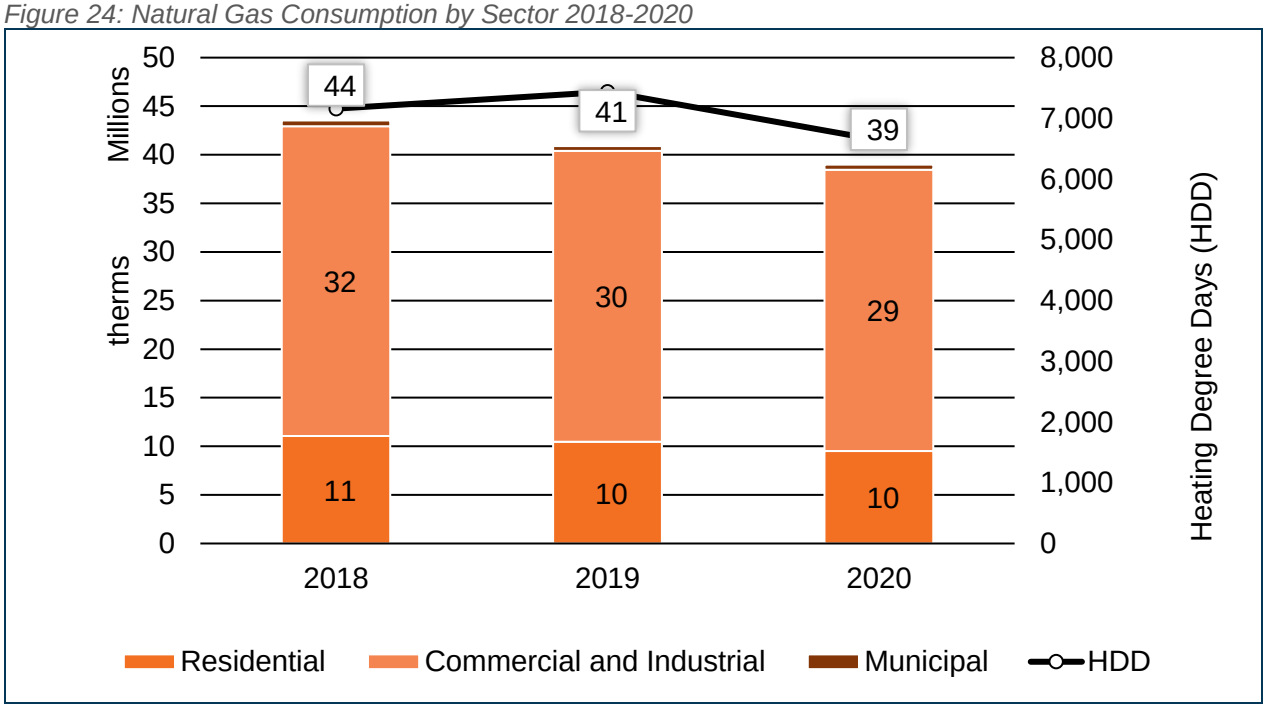
Over the baseline period of 2018-2020, electricity consumption remained relatively stable, but decreased by about 2.4% between 2018 and 2020. One factor in electricity consumption is cooling degree days, which correspond with hotter summers and a greater air conditioning load for electric customers. The lower level of electricity consumption in 2020 compared to 2018 correlate to fewer cooling degree days.

Figure 23: Electricity Consumption by Sector 2018-2020



Similarly, natural gas use may be impacted by weather trends, including heating degree days, when the use of natural gas for heating may increase. Natural gas consumption in La Crosse fell by 10.4% between 2018 and 2020, in correlation with the decrease in heating degree days in 2020 as compared to 2018.

Figure 24: Natural Gas Consumption by Sector 2018-2020



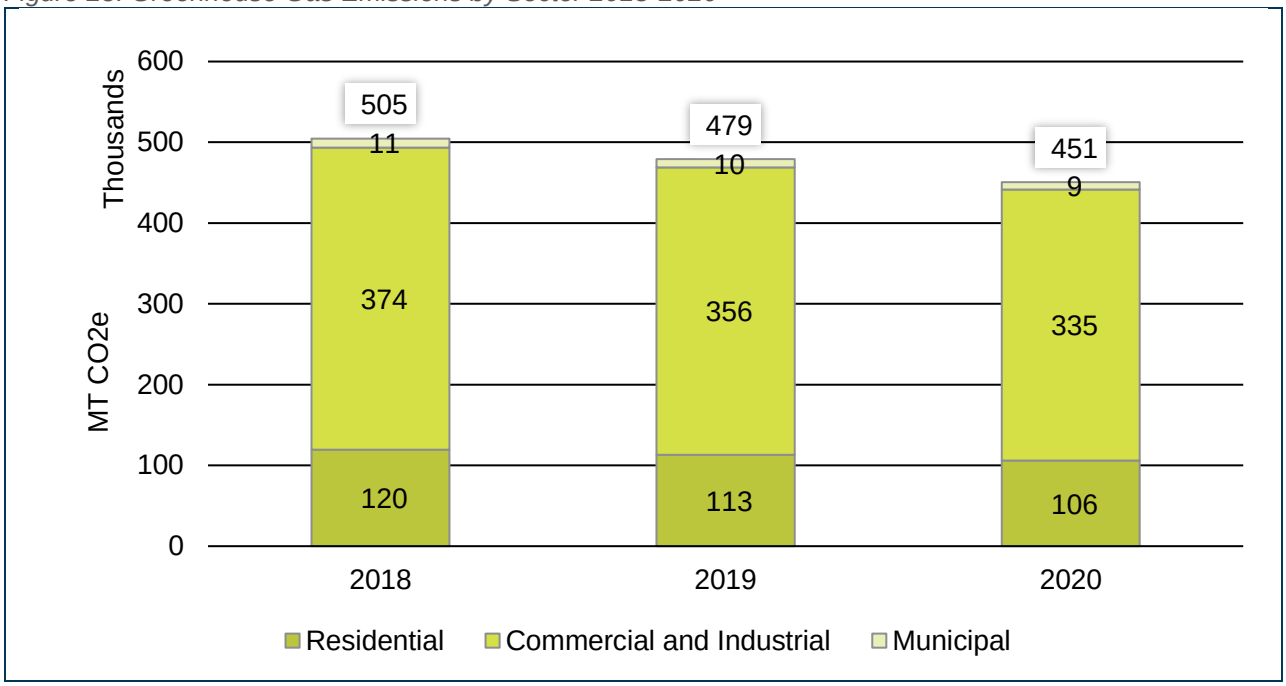
Decreases in both electricity and natural gas consumption may be largely attributed to the commercial and industrial sector specifically, while the residential and municipal sectors remained relatively stable over the baseline period.

Greenhouse Gas Emissions and Trends

Annual greenhouse gas emissions in La Crosse steadily decreased over the baseline period. Between 2018 and 2020, total annual emissions in the community decreased by about 10.7%. While emissions decreased in all sectors, the municipal and residential sectors saw the greatest percentage reductions in emissions, at 22.2% and 13.2% annually. By comparison, the commercial and industrial sector's annual emissions decreased by about 11.6% over the baseline period. The decrease in emissions may be attributed both to the reduction of energy consumption in the community, as well as a decrease in the carbon emission intensity of the electricity grid as Xcel Energy's Upper Midwest electricity generation decarbonizes.[7]

Overall, the commercial and industrial sector is responsible for the greatest portion of La Crosse's greenhouse gas emissions (74%), as the sector consumes the most electricity and natural gas. During the baseline period, annual community-wide emissions were on average 478,087 metric tons of carbon dioxide equivalent (MTCO2e). This is equivalent to the greenhouse gas emissions from 103,974 passenger vehicles driven for one year.[8]

Figure 25: Greenhouse Gas Emissions by Sector 2018-2020



[7] Emissions factors used for the baseline are from Xcel Energy's 2016 carbon reporting and projections of emissions based on the utility's integrated resource plans. Emission factors for 2018–2020 have not yet been third-party verified at the time this plan was written and are subject to change slightly based on the actual emissions factors for Xcel Energy's Upper Midwest electricity mix over these years.
[8] U.S. Environmental Protection Agency Greenhouse Gas Equivalencies Calculator. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

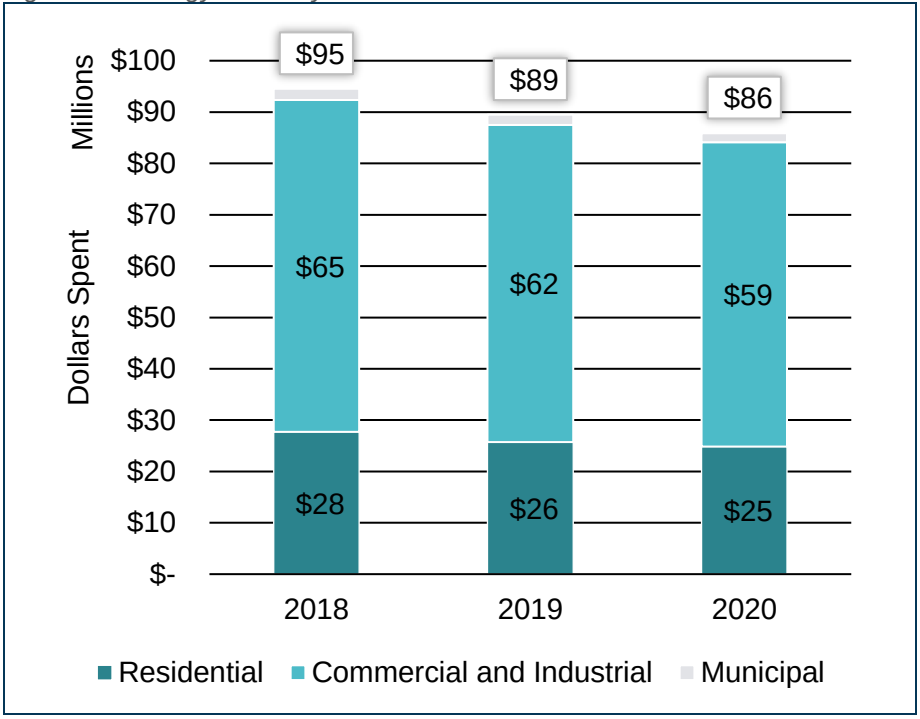
Energy Costs

Over the baseline period, an average of nearly $90 million was spent on energy costs each year across all sectors. Electricity accounts for the majority of energy costs in La Crosse.The average residential premise spent $1,151 annually on energy during the baseline, about 71% of which was spent on electricity. Commercial and industrial customers spent nearly $62 million on energy annually over the baseline period; costs per commercial and industrial premises averaged $15,340 annually but vary greatly depending on energy use.

Table 15: Average Annual Energy Costs by Sector and Fuel Type 2018-2020

Sector	Electricity Costs	Natural Gas Costs	Costs per premise
Municipal	$1.7 million	$284,400	$7,670
Commercial & Industrial	$51.5 million	$10.4 million	$15,340
Residential	$18.6 million	$7.5 million	$1,151

Figure 26: Energy Costs by Sector 2018-2020



Program Participation and Savings

Xcel Energy and Focus on Energy offers programs to La Crosse residents and businesses to increase their home or buildings' energy efficiency. Rebates for new equipment, audit programs, and discounted and no-cost energy measures are available in addition to load management programs.

La Crosse residents and businesses saved more than 29.4 million kWh, and about 632,500 therms, through program participation during the baseline period. Program participation varied each year, depending on program availability, outreach campaigns, and utility outreach. While participation for residents and businesses was highest in 2018, incentives paid by Focus on Energy and Xcel Energy was greatest in 2019 due to the specific programs residents and businesses engaged in. Popular programs included lighting, energy saving packs, insulation, and heating and cooling equipment upgrades.

Between 2018 and 2020, customers in La Crosse received almost $2.4 million in incentives from Focus on Energy. In addition to the incentives paid by Focus on Energy, Xcel Energy offers additional bonus incentives for certain Focus on Energy rebates and programs. Over the baseline period, La Crosse customers received over $371,000 in bonus incentives from Xcel Energy.

Table 16: Focus on Energy and Xcel Energy Program Participation and Savings 2018-2020

	2018	2019	2020	3-year total	3-year average
Program Participants	15,486	4,065	6,319	25,870	8,623
Electricity Savings (kWh)	5,159,619	14,656,081	9,638,534	29,454,234	9,818,078
Natural Gas Savings (therm)	138,040	242,783	251,683	632,506	210,835
Focus on Energy Incentives Paid	$512,863	$1,052,752	$831,610	$2,397,226	$799,075
Xcel Energy Bonus Incentives Paid	$101,681	$154,141	$116,041	$371,863	$123,954

Table 17: Focus on Energy Incentives Paid by Sector 2018-2020

	2018	2019	2020
Residential Customers	$247,916	$313,077	$161,393
Business Customers	$264,947	$739,675	$670,217

Renewable Energy Support

About 9.7% of residential premises and 0.8% of commercial and industrial premises are subscribed to either a renewable energy subscription program or a community solar garden. Top renewable energy programs in the community were Xcel Energy's Windsource and Xcel Energy's Renewable*Connect for both residents and commercial and industrial customers. Between 2018 and 2020, Focus on Energy paid nine Renewables Rewards incentives for customers who installed solar panels on their home or business.

Table 18: Renewable Energy Program Participation by Program and Sector 2019

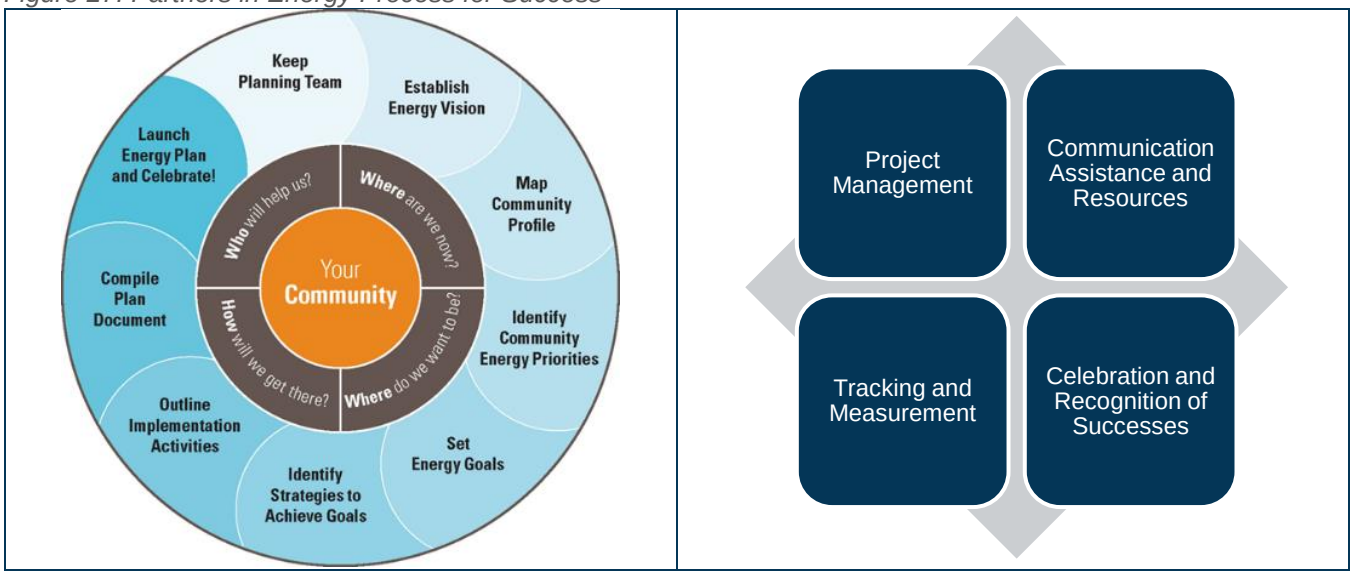
	Residential	Commercial & Industrial
Xcel Energy Subscription Programs		
Subscriber Count	2,180	23
Total Annual Electricity Subscribed (kWh)	2,350,913	376,916
Community Solar Gardens		
Participant Count	22	8
Total Annual Electricity Subscribed (kWh)	54,281	892,043
On-site Solar Installations		
Focus on Energy Incentives Paid	8	1

APPENDIX 3: 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 serves 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.

City of La Crosse is the third Wisconsin community to participate in the program, joining the cities of Eau Claire and Menomonie to create an energy action plan.

Figure 27: Partners in Energy Process for Success



APPENDIX 4: IMPLEMENTATION MEMORANDUM OF UNDERSTANDING

To be inserted once signed.