An Energy Action Plan for

Bloomington, MN

May 7, 2018

Acknowledgements

Thanks to the following organizations and individuals for participating in developing this Energy Action Plan.

Bloomington's Energy Action Planning Team

The planning team represented various stakeholder groups, including City staff, Bloomington Sustainability Commission members, local organizations and businesses, committed community members, and energy utilities.

City Staff

- **Dave Hanson,** Parks Department
- **Jason Schmidt,** Economic Development Analyst, Bloomington Port Authority
- **Jen Desrude,** Development Coordinator
- **Mary Hurliman,** Deputy Director, Public Works
- **Scott Anderson,** Facilities and Maintenance Supervisor

Sustainability Commission Members

- **Joe Strommen,** Commissioner
- **Rob Bouta,** Commissioner
- **Sherie Bartsh,** Commissioner
- **Steve Flagg,** Commissioner

Bloomington Residents

- **Don Bailey,** Bloomington Resident
- **Mark Rader,** Bloomington Resident
- **Monica Bence,** Bloomington Resident

Business Representatives

- **Bill Coldwell,** Facility Development and Asset Manager, Donaldson
- **Dana Slade,** Director, Sustainability Programs, HealthPartners
- **Dave Smith,** Quality Bike Products
- **Narvel Brooks,** Account Executive, OATI
- **Melissa Madison,** Executive Director, Commuter Services, 494 Corridor Initiative
- **Steve Zeller,** Director of Global Real Estate, Donaldson
- **Tom Rabiola,** Director of Operations, Mall of America

Education Representatives

- **Jon Hanson,** State Program Supervisor, Normandale Community College
- **Tim Rybak,** Director of Operations, ISD 271

Energy Utility Representatives

- **Emma Struss,** Partners in Energy Lead Facilitator
- **Jamie Johnson,** Partners in Energy Facilitator
- **Tami Gunderzik,** Partners in Energy Program Manager
- **Yvonne Pfeifer,** Community Energy Efficiency Manager, Xcel Energy
- **Nick Mark,** CenterPoint Energy

Table of Contents

Executive Summary

This plan, developed by and for the community, supports One Bloomington and its strategic priorities by outlining how the City can responsibly address climate change through energy efficiency and renewable energy. Successful implementation will result in improved public health, a stronger economy, increased resiliency, and less pollution. The plan proposes a number of goals and strategies. Specific budget items will be brought forward annually for Council consideration, during the budget process.

Our Goals

Community Energy Goal

75% reduction in city-wide energy-related greenhouse gas emissions by 2035, relative to 2016 levels

Electricity Goal

95% reduction in city-wide electricity-related greenhouse gas emissions by 2035, relative to 2016 levels

Natural Gas

33% reduction in city-wide natural gas-related greenhouse gas emissions by 2035, relative to 2016 levels

Transportation

Pursue all viable opportunities for promoting the elimination of vehicle emissions, including support for electric vehicles, increased public transportation, higher-density and mixed-use zoning, additional biking and pedestrian infrastructure, and telecommuting

Focus Areas

Near-term Energy Focus Areas (Begin in the next 2 years)

- Business energy efficiency and renewable energy
- Electric vehicles (EVs)
- Municipal energy – City of Bloomington SolSmart participation and public building efficiency
- Residential energy efficiency and renewable energy

Long-term Energy Focus Areas (Begin after 2 years)

- Continue the implementation and momentum of successful residential, business, and municipal and electric vehicle initiatives launched prior to 2020
- Explore and promote onsite renewable energy opportunities
- Identify energy efficiency and renewable energy opportunities in new construction
- Increase bicycle use and safety
- Increase the use of mass transit and shift away from single-occupancy vehicles

Near-term Priorities and Goals

Business

By 2020:

- Have 70 businesses participate in an energy audit or recommissioning study
- Double baseline energy efficiency program participation
- Sign up an additional 10 businesses in Bloomington for Xcel Energy's Windsource® program, Renewable Connect® program, or a community solar garden subscription

Municipal

- Hire a full-time sustainability professional, responsible for reducing both municipal and city-wide greenhouse gas emissions
- Benchmark city facility energy use and develop a strategic plan for identifying savings opportunities and begin plan implementation
- Join SolSmart and review city practices around solar

Residential

- Sign up 850 households for Home Energy Squad® visits in Bloomington – 350 in 2018 and 500 in 2019
- Sign up an additional 850 households in Bloomington for Xcel Energy's Windsource or Renewable Connect programs – 350 in (2018) and 500 in (2019)
- Have at least four Bloomington multifamily buildings engage in energy efficiency programs annually, during 2018 and 2019

Electric Vehicles

- Aid in the acceleration of electric vehicle (EV) adoption by installing two-five EV chargers at popular municipal locations (e.g. parks) throughout the city

Xcel Energy's Partners in Energy

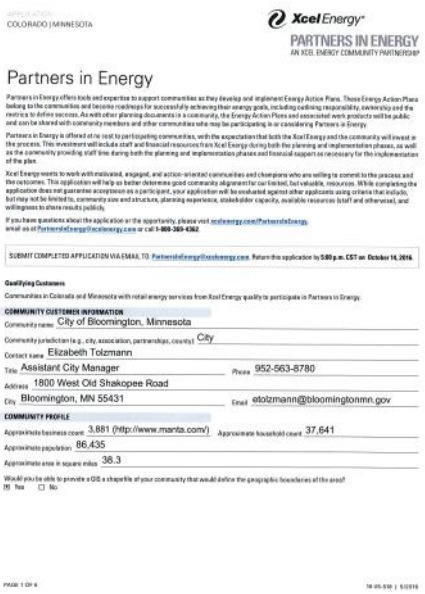
Xcel Energy is the electric utility serving the City of Bloomington. In the summer of 2014, Xcel Energy launched Partners in Energy to support communities like Bloomington in developing and implementing energy action plans that supplement existing sustainability plans, strategies, and tools. The content of this plan is derived from a series of planning workshops held in the community with a planning team committed to representing local energy priorities and advising Bloomington's Sustainability Commission on energy matters.

Figure 1. Partners in Energy Process for Success

Application

The City of Bloomington applied to participate in Xcel Energy's Partners in Energy offering in 2016 and was accepted into the spring 2017 round of participants. The memorandum of understanding between Xcel Energy and the City of Bloomington for the planning phase of Partners in Energy support can be found in Appendix 2.

Figure 2. Partners in Energy Application



COLORADO | MINNESOTA

Xcel Energy®
PARTNERS IN ENERGY
AN XCEL ENERGY COMMUNITY PARTNERSHIP

Partners in Energy

Partners in Energy offers tools and expertise to support communities as they develop and implement Energy Action Plans. Those Energy Action Plans belong to the communities and become roadmaps for successfully achieving their energy goals, including outlining responsibility, ownership and the metrics to define success. As with other planning documents in a community, the Energy Action Plans and associated work products will be public and can be shared with community members and other communities who may be participating in or considering Partners in Energy.

Partners in Energy is offered at no cost to participating communities, with the expectation that both the Xcel Energy and the community will invest in the process. This investment will include staff and financial resources from Xcel Energy during both the planning and implementation phases, as well as the community providing staff time during both the planning and implementation phases and financial support as necessary for the implementation of the plan.

Xcel Energy wants to work with motivated, engaged, and action-oriented communities and champions who are willing to commit to the process and the outcomes. This application will help us better determine good community alignment for our limited, but valuable, resources. While completing the application does not guarantee acceptance as a participant, your application will be evaluated against other applicants using criteria that include, but may not be limited to, community size and structure, planning experience, stakeholder capacity, available resources (staff and otherwise), and willingness to share results publicly.

If you have questions about the application or the opportunity, please visit xcelenergy.com/PartnersInEnergy, email us at PartnersInEnergy@xcelenergy.com or call 1-800-369-4362.

SUBMIT COMPLETED APPLICATION VIA EMAIL TO: PartnersInEnergy@xcelenergy.com. Return this application by 5:00 p.m. CST on October 14, 2016.

Qualifying Customers

Communities in Colorado and Minnesota with retail energy services from Xcel Energy qualify to participate in Partners in Energy.

COMMUNITY CUSTOMER INFORMATION

Community name: City of Bloomington, Minnesota

Community jurisdiction (e.g., city, association, partnership, county): City

Contact name: Elizabeth Tolzmann

Title: Assistant City Manager — Phone: 952-563-8780

Address: 1800 West Old Shakopee Road

City: Bloomington, MN 55431 — Email: etolzmann@bloomingtonmn.gov

COMMUNITY PROFILE

Approximate business count: 3,881 (http://www.manta.com/) — Approximate household count: 37,641

Approximate population: 86,435

Approximate area in square miles: 38.3

Would you be able to provide a GIS a shapefile of your community that would define the geographic boundaries of the area?
(X) Yes ☐ No

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Energy Action Team

Bloomington's Sustainability Commission recruited the Energy Action Team that developed this plan's content. The core team was made up of twenty-five members with connections to Bloomington business groups and associations, City departments, congregations, energy utilities, local clubs and community groups, industrial businesses, institutions and corporations, neighborhoods, the school district, and small and medium-sized businesses. Most Energy Action Team members self-identified their energy literacy to be intermediate or advanced. Energy Action Team members attended five planning workshops over the course of six months.

The team's role was to advise Bloomington's Sustainability Commission on the goals, focus areas, and strategies found in this plan. Team members were also encouraged to think about how they could assist with plan implementation. In addition to the core Energy Action Team, local subject experts and City staff members were invited to join the final two workshops to help with the action planning process.

Figure 3. Energy Action Team at Workshop 1

Planning Workshops

Figure 4. Energy Action Team at first planning workshop

Partners in Energy Workshop Process	
Workshop 1 August 22, 2017	• Team introductions and Partners in Energy process overview • Reviewed baseline energy data and past city and community energy initiatives. • Discussed One Bloomington, goals, and a vision for the Energy Action Plan.
Workshop 2 October 4, 2017	• Discussed background information, opportunities, and prioritization of the focus areas that emerged from workshop 1 and the pre-workshop 2 survey. • Introduced the group to the goal setting process and sample community goals.
Workshop 3 November 7, 2017	• Examined the Sustainability Commission's greenhouse gas emission goals and feasibility for Bloomington. Were introduced to additional data on electric vehicles and greenhouse gas emissions. • Broke into focus area groups and began discussing strategies for the focus areas.
Workshop 4 December 12, 2017	• Brainstormed strategies for each near-term focus area. • Completed an impact and feasibility assessment for proposed focus area strategies. • Discussed implementation resource requirements.
Workshop 5 January 23, 2017	• Broke into focus area groups, refined focus area goals and strategies, and highlighted implementers and timelines for each focus area strategy. • Assessed necessary City, Partners in Energy, and community resources for implementation of plan strategies. • Completed a SWOT (strengths, weakness, opportunities, threats) analysis of the Energy Action Plan.

Energy Data

An integral part of the energy planning workshops was the energy and program participation data provided by Xcel Energy and CenterPoint Energy. These data enabled the Energy Action Team to decide where to focus Bloomington's energy efforts and allowed the team to forecast the impact of proposed energy goals.

Energy Data Sources

Energy data specific to the City of Bloomington documented in this plan comes from two sources. As Bloomington's sole natural gas utility provider, CenterPoint Energy provided natural gas Conservation Improvement Program participation and consumption data. As Bloomington's sole electricity utility provider, Xcel Energy provided electricity consumption and energy program participation data. Baseline data was sourced from three years (2014-2016).

15x15 Rule

The electricity data in this plan complies with Xcel Energy's 15 x15 privacy rules, which require all data summary statistics to contain at least 15 entities, with no single entity responsible for more than 15% of the total. Following these rules, if an entity is responsible for more than 15% of the total for that data set, they are removed from the summary.

Plan Implementation Support

Partners in Energy will work with the City of Bloomington to coordinate support for implementing the plan. A Memorandum of Understanding will be developed that outlines specific support Xcel Energy will provide to help the City of Bloomington deploy its strategies and achieve its goals during the first 18 months of plan implementation.

Figure 5. Resources from Xcel Energy for plan implementation

Energy Action Plan

This plan, developed by and for the community, supports One Bloomington and its strategic priorities by outlining how the city can responsibly address climate change through energy efficiency and renewable energy. Successful implementation will result in improved public health, a stronger economy, increased resiliency, and less pollution.

Why an Energy Action Plan?

The City of Bloomington has a responsibility to proactively address climate change to prevent undue harm toward future generations. Decreasing greenhouse gas (GHG) emissions related to the energy sector will have a significant impact — both now and in the future.

The energy actions outlined in this plan should help the City:

- Move Bloomington towards a low-carbon economy
- Increase the city's resiliency
- Improve the health and well-being of those who live and work in Bloomington (increase livability)
- Bring awareness about easy ways residents and businesses can take energy actions

The Energy Action Team also felt it was important that the content of this plan:

- Tie back to the City's One Bloomington six strategic priorities
- Be developed in a collaborative, grassroots way; created by and for the community
- Prioritize innovation and explore new technology

One Bloomington Vision Statement

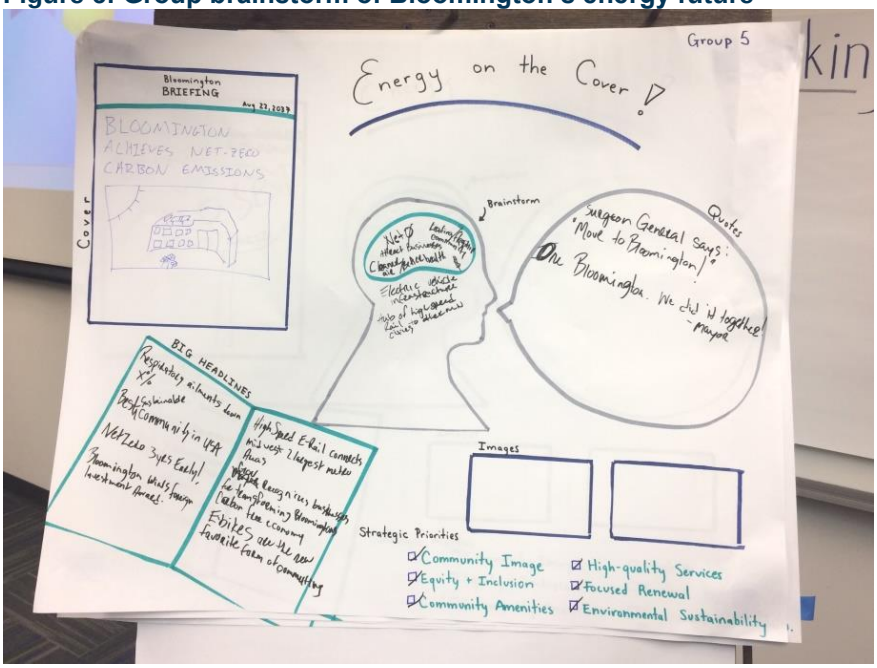
We are a community that includes all residents, working together to accomplish the same goals. We live in different neighborhoods, but we're not defined by boundaries. We are united, not by sameness, but by our desire to build a strong community that we can all enjoy. We are One Bloomington.

Where is Bloomington Going? – Energy Vision, Energy Goals, and Strategic Priorities

Energy Vision

During the first workshop, Bloomington's Energy Action Team took time to brainstorm snapshots of what their ideal energy future looks like. The themes that surfaced from that discussion included transportation, renewable energy, commercial energy efficiency, and benchmarking. These themes inspired the development of the focus areas and strategies outlined later in the plan.

Figure 6: Group brainstorm of Bloomington's energy future



Energy Goals

How is Bloomington Using Energy?

Gas and Electric Premises

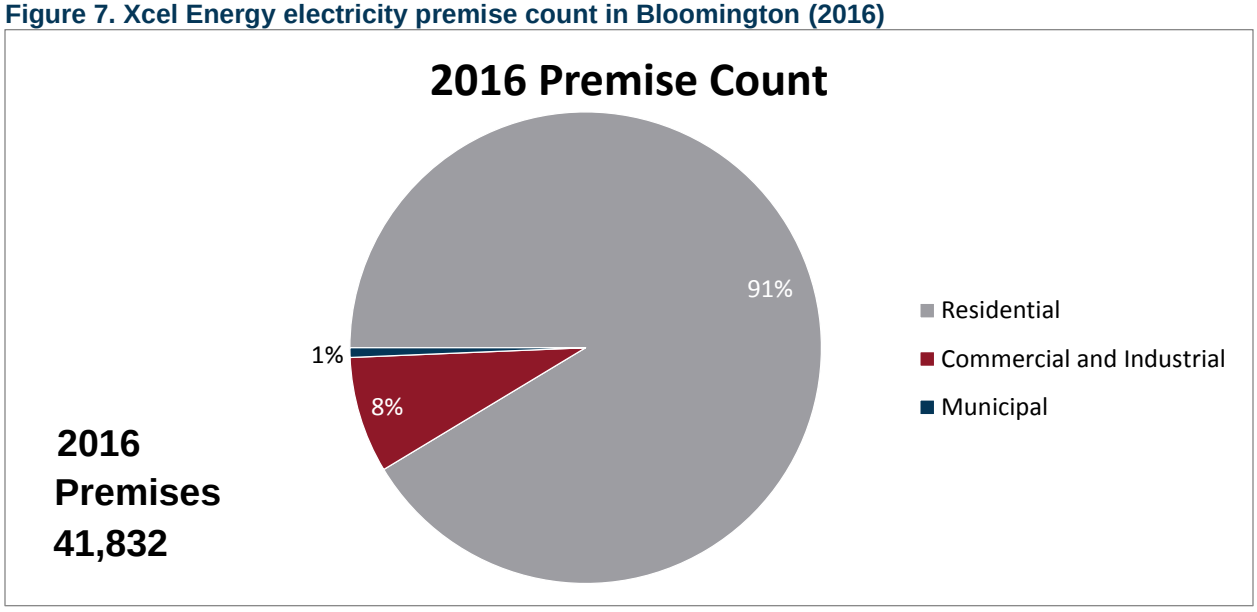
In 2016, Bloomington had nearly 42,000 electric premises and over 30,000 natural gas premises within the city limits.[1] A breakdown of the city's electric premises by sector is shown in Figure 7 below. Municipal premises from city operations are separated from commercial and industrial premises in the data shown.

The premise distribution for gas premises in 2016 was similar to that of electric premises. In 2016, there were 30,295 natural gas premises served by CenterPoint Energy in the City of Bloomington. Of those, 8% were commercial and industrial premises, and the remaining 92% were residential premises.

It is important to note that multifamily buildings can be represented as either residential or commercial premises, or a combination of both, depending on how they are metered. If units are individually metered, those units would be counted as residential premises. If buildings have a common meter, or a separate meter for common areas, that would be counted as a commercial premise. For example, a 20-unit building that is metered individually for electric service, but has one common meter for natural gas service, would count as 20 residential electric premises and one commercial natural gas premise.

[1] A premise is a unique identifier for the location of an energy service.

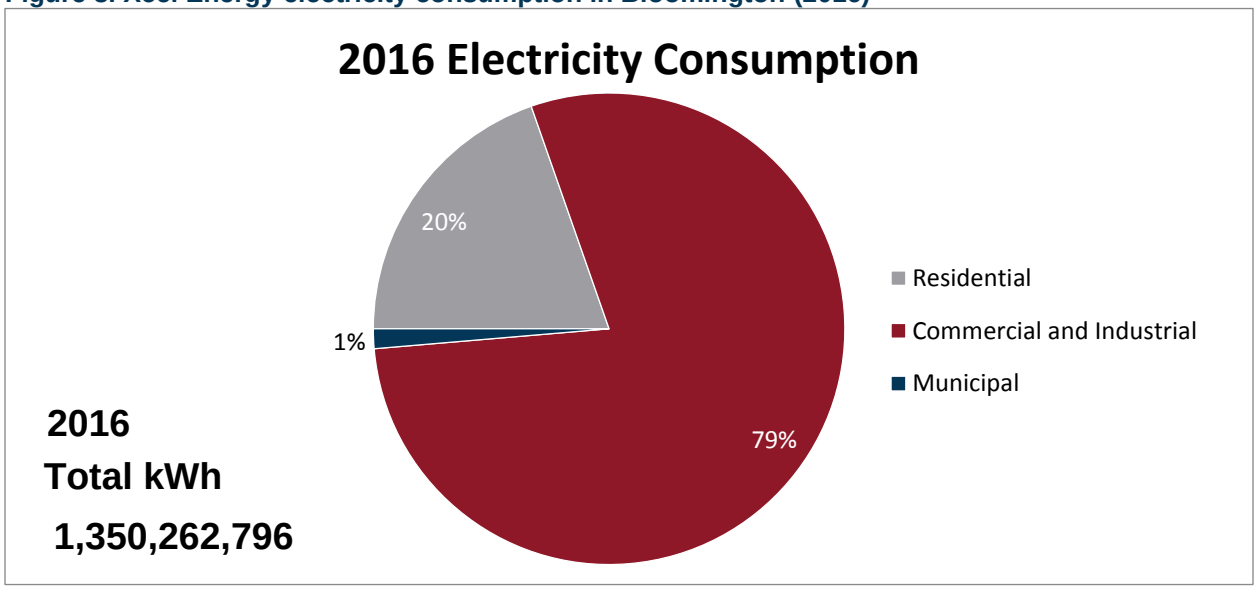
Figure 7. Xcel Energy electricity premise count in Bloomington (2016)



Electricity Consumption by Sector

While commercial and industrial premises make up only 8% of electric premises, they consume nearly 80% of the city's total electricity consumption. This is outlined in Figure 8 (below).

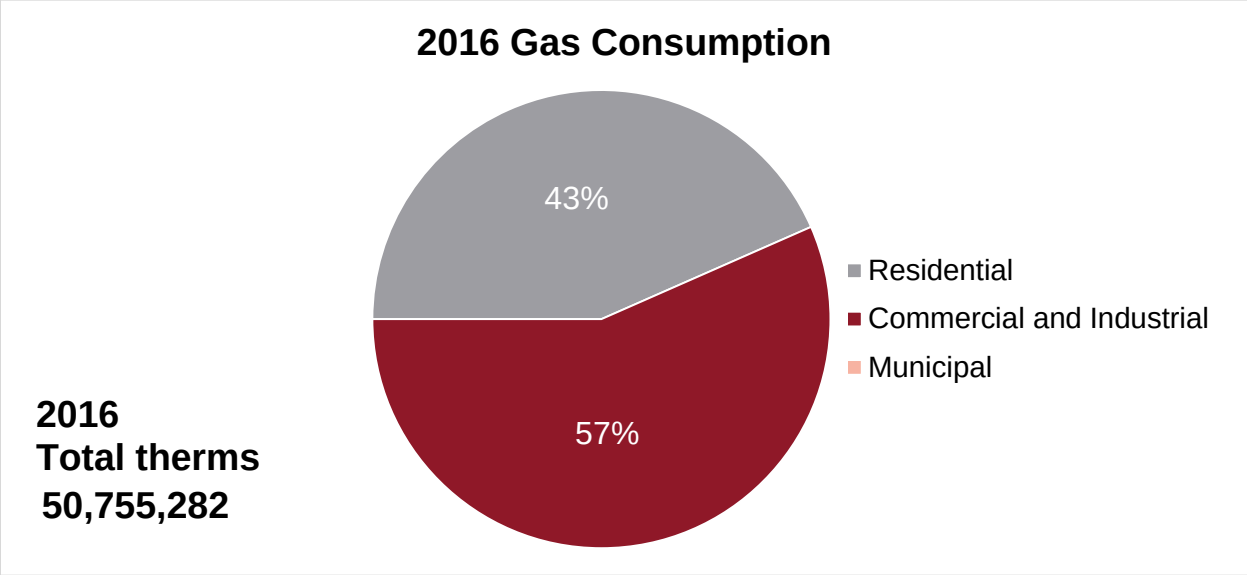
Figure 8. Xcel Energy electricity consumption in Bloomington (2016)



Natural Gas Consumption by Sector

In 2016, Bloomington residents consumed 22,029,489 therms of natural gas and commercial/industrial users consumed 28,725,793 therms. This natural gas consumption breakdown is shown in Figure 9 (below).

Figure 9. CenterPoint Energy natural gas consumption in Bloomington (2016)



Greenhouse Gas Emissions and Trends (2014-2016)

The Bloomington Energy Action Team decided to structure many of their goals in terms of reductions in greenhouse gas emissions. Baseline greenhouse gas emissions data and trends are shown below. "Municipal" on the greenhouse gas charts includes only emissions from electricity.[2] Figure 10 demonstrates that a majority – over 70% – of greenhouse gas emissions from electricity and natural gas came from the commercial and industrial sector in 2016.

[2] An emissions factor, as used in this plan, is a measure of the average amount of a greenhouse gas released into the atmosphere by the specific fuel or source (natural gas and electricity). Greenhouse gas emissions are measured in metric tons of carbon dioxide equivalent ($MTCO_2e$).

Figure 10. Greenhouse gas emissions from natural gas and electricity (2016)

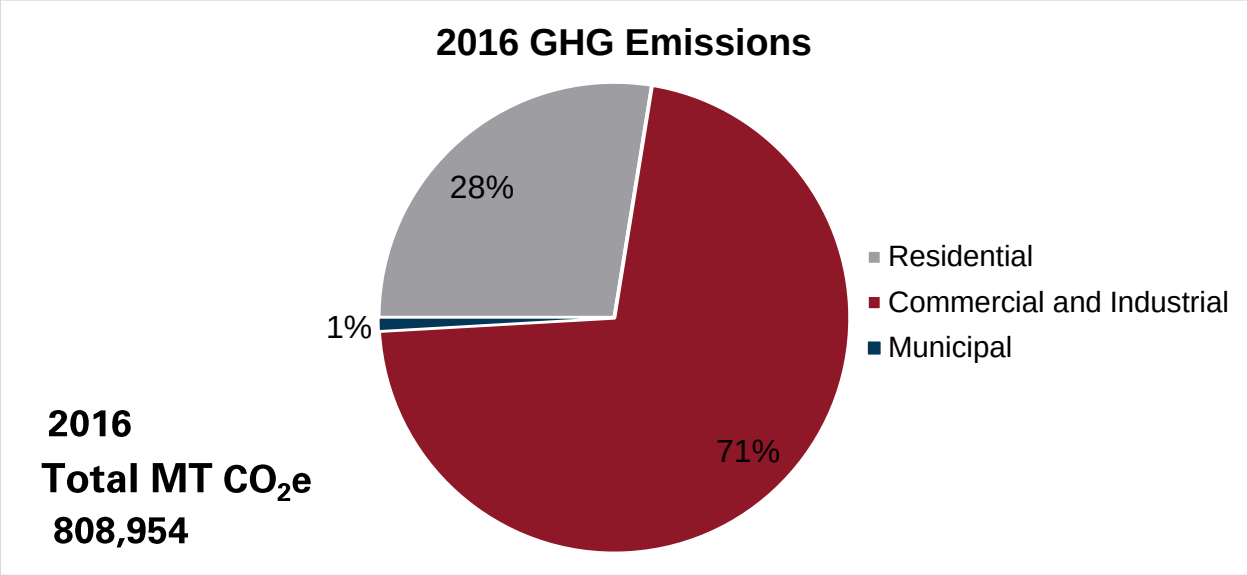
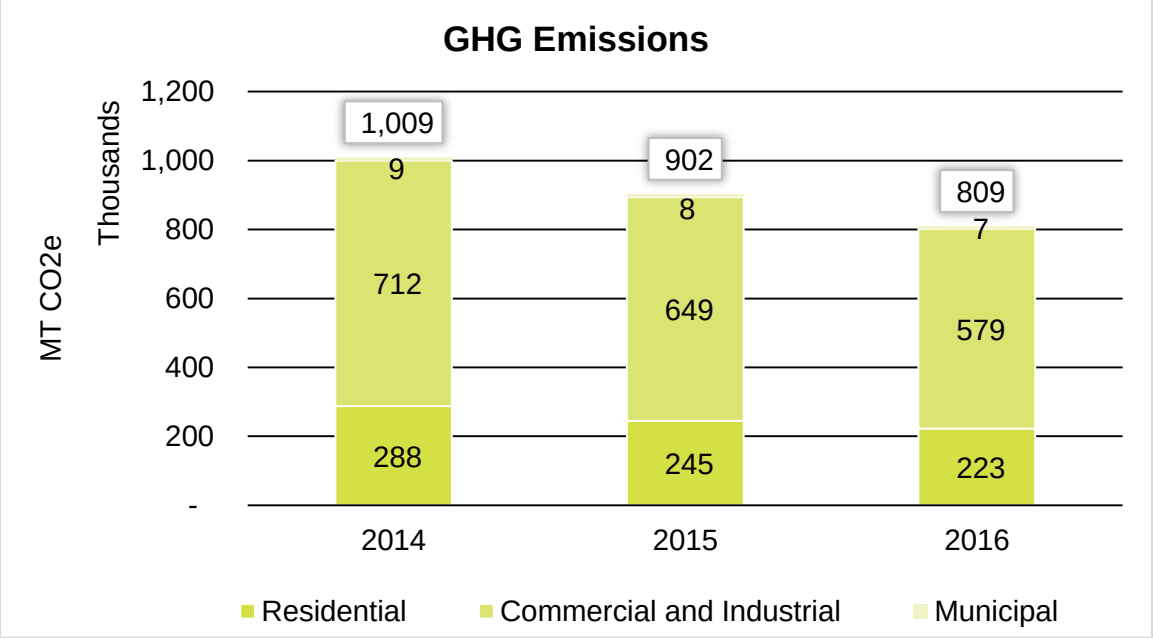


Figure 11 displays trends in greenhouse gas emissions for the City of Bloomington from 2014 to 2015. A clear downward trend is visible. Many factors can contribute to decreasing emissions, including energy conservation, trends in weather affecting heating and cooling needs, and a reduction in the emission factors for electricity. Emissions factors for natural gas have remained consistent in Minnesota.

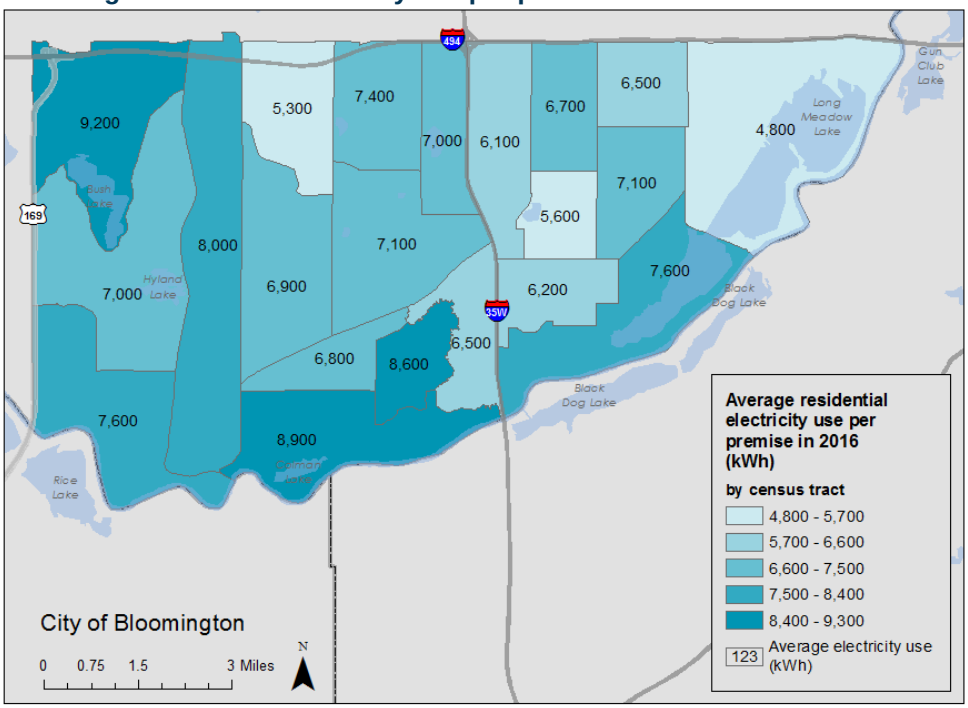
Figure 11. Greenhouse gas emission trends from electricity and natural gas (2014-2016)



Bloomington Residential Electricity Use by Census Tract

Bloomington residential electricity consumption varies for different areas of the city. Figure 12 shows 2016 average annual residential electricity use per premise by census tract. The census tract with the highest average electricity consumption per premise can be found in the northwest corner of the city, and the lowest consumption can be found in the northeast corner.

Figure 12. Average residential electricity use per premise in 2016



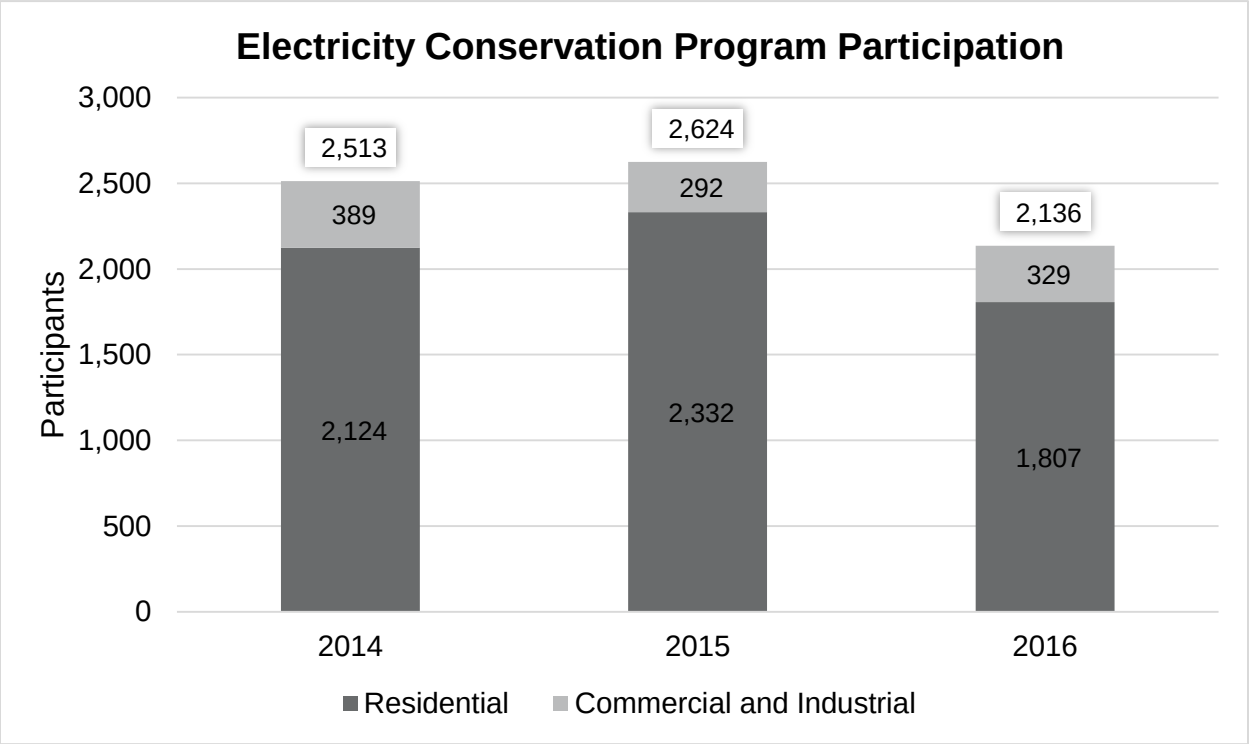
How is Bloomington Saving Energy?

Conservation Program Participation

Bloomington's participation in residential and commercial electricity conservation programs is displayed in Figure 13. Figure 14 shows a breakdown by program, showing historic participation for 2014-2016.[3] Some programs, such as Home Energy Squad, are jointly offered, meaning they are represented in the residential counts for both Xcel Energy and CenterPoint Energy.

Figure 13 shows participation trends in Xcel Energy programs.

Figure 13. Xcel Energy electricity conservation program participation trends (2014-2016)



[3] Historic participation represents an average of the baseline years. For Xcel Energy, baseline participation years are 2014-2016. For CenterPoint Energy, baseline participation years are 2015-2016.

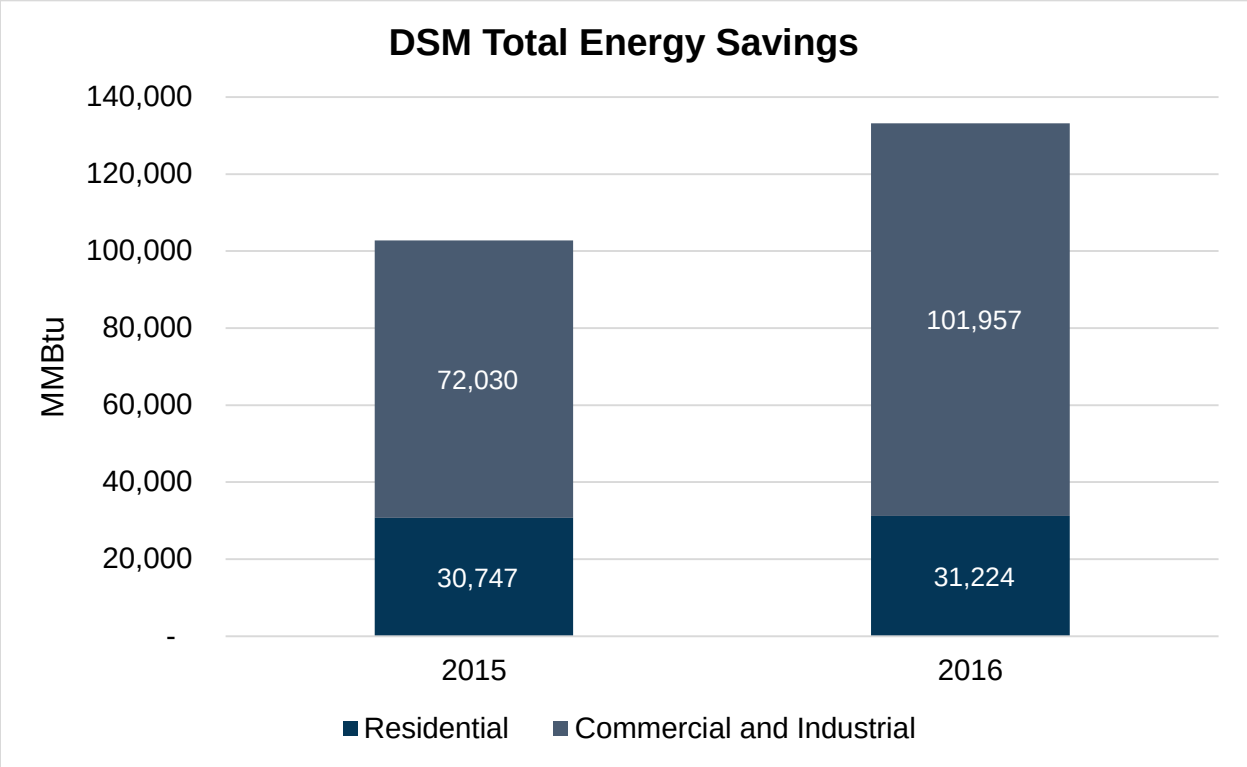
Figure 14. Historic conservation program participation in Bloomington (2014-2016 combined)

	Program	Historic Participation
Residential	Efficient New Home Construction	5
	Home Energy Audit	13
	Home Energy Savings Program	80
	Home Energy Squad	227
	Insulation Rebate	1
	Multifamily Energy Savings Program	80
	Refrigerator Recycling	202
	Residential Cooling	491
	Residential Heating	350
	CenterPoint Energy programs (includes Xcel Energy co-branded programs)	2,095
	Total Residential Participation	**3,544**
Commercial	Computer Efficiency	2
	Cooling Efficiency	50
	Custom Efficiency	4
	Data Center Efficiency	2
	Efficiency Controls	4
	Electric Rate Savings	11
	Energy Design Assistance	4
	Energy Efficient Buildings	1
	Fluid System Optimization	10
	Foodservice Equipment	1
	Lighting Efficiency	107
	Motor Efficiency	16
	Multifamily Building Efficiency	1
	Process Efficiency	1
	Recommissioning	12
	Turn Key Services	3
	Small Business Lighting	77
	CenterPoint Energy programs	103
	Total Commercial Participation	**408**

Conservation Program Savings

Figure 15 shows combined energy savings from Xcel Energy and CenterPoint Energy programs for 2015 and 2016 in MMBtu. The commercial sector saw the greatest savings for both years shown. In 2016, savings from Xcel Energy electricity conservation programs represented about 1.3% of community-wide electricity use, while savings from CenterPoint Energy gas programs represented about 1.4% of community-wide gas use.

Figure 15. Xcel Energy and CenterPoint Energy combined natural gas and electricity energy savings trends (2015-2016)



How is Bloomington Investing in Renewable Energy?

Wind Energy

As of 2016, there were 1,291 subscribers in Bloomington to Xcel Energy's Windsource® program, an offering that allows residents and businesses to pay a slight premium to source a portion (or all) of their electricity use from Minnesota wind power. Of those 1,291 subscribers, 1,281 were residential subscribers, and 10 were commercial subscribers. Figure 16 (below) shows Windsource subscription trends.

Figure 16. Windsource subscription trends for Bloomington (2014-2016)

	2014		2015		2016	
	Subscribers	kWh Subscribed	Subscribers	kWh Subscribed	Subscribers	kWh Subscribed
Residential Subscribers	1,020	2,868,278	1,173	3,052,475	1,281	3,493,973
Commercial Subscribers	6	1,178,134	7	1,518,196	10	1,612,677

Solar Energy

Xcel Energy's Solar*Rewards® is a program that helps residents and businesses install onsite solar to produce their own energy. If they produce more than needed, the extra energy is added to the grid and they receive a credit on their Xcel Energy electricity bill. According to Bloomington's 2016 Community Energy Report, as of 2016, there were 7 businesses and 24 residents participating in Solar*Rewards. This is summarized in Figure 17 (below). One residential customer subscribed to 9 kW of capacity from a solar garden in 2016.

Figure 17. Xcel Energy's Solar*Rewards program participation (2016)

Solar*Rewards	Installations	Total Capacity (kW)	Total Energy Produced (kWh)
Residential	24	143	52,811
Commercial	7	151	26,049

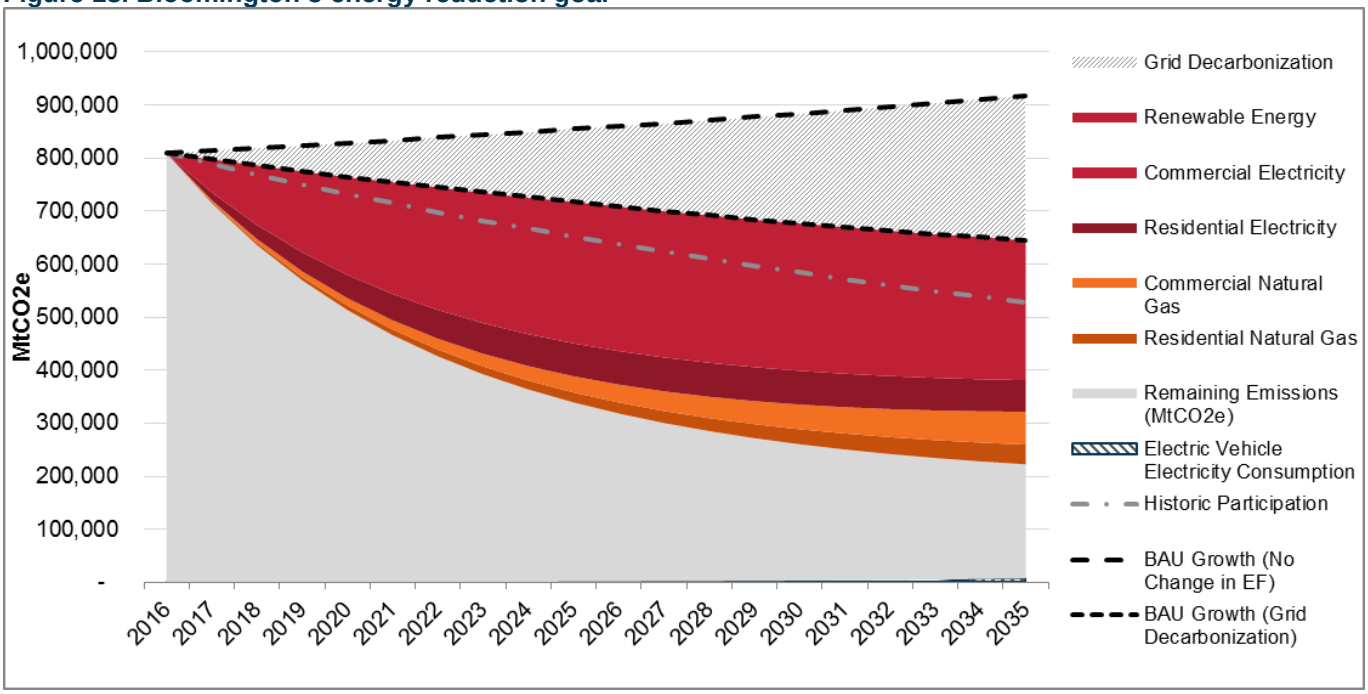
Bloomington's Energy Goals

The Energy Action Team, informed by the data above, developed the following goals for the City of Bloomington. These goals reflect the team's objective to responsibly address climate change.

Emissions Reduction Goals

The City of Bloomington will complete a 75% reduction in city-wide energy-related greenhouse gas emissions by 2035 (relative to 2016 levels). This will be achieved through a 95% reduction in city-wide electricity-related emissions and 33% reduction in city-wide natural gas-related emissions.

Figure 18. Bloomington's energy reduction goal



Transportation Goal

Pursue all viable opportunities for promoting the elimination of vehicle emissions, including support for electric vehicles, increased public transportation, higher-density and mixed-use zoning, additional biking and pedestrian infrastructure, and telecommuting.

For transportation energy, there are many ways to incrementally lower emissions while saving money and improving quality of life in our city. However, the only foreseeable way to reduce emissions on a large scale is by widespread conversion to electric vehicles (EVs) powered by renewable electricity. The speed of this transition will depend heavily on the overall market, and the City of Bloomington will have only a limited influence. This makes it impossible to set a realistic, quantitative goal for transportation emissions.

What are Bloomington's Energy Priorities?

In order to achieve Bloomington's energy goals, the Energy Action Team identified four areas to focus initial efforts. The priority sectors of focus between 2018 and 2020 include businesses, electric vehicles, the City of Bloomington (municipal energy), and residents. Between 2020 and 2035 these sectors will continue to be engaged, but four more long-term priorities will be added:

- Explore and promote onsite renewable energy opportunities
- Identify energy efficiency and renewable energy opportunities in new construction
- Increase bicycle use and safety
- Increase the use of mass transit and shift away from single-occupancy vehicles

Each of the four near-term focus areas are summarized on the following pages. Their strategies and goals are listed on the next page.

Business

GOALS by 2020

- Have 70 businesses participate in an energy audit or recommissioning study
- Double baseline energy efficiency program participation
- Sign up an additional 10 businesses in Bloomington for Xcel Energy's Windsource® program, Renewable* Connect® program, or a community solar garden subscription

STRATEGIES

- Work with the Chamber of Commerce to develop points of contact at local businesses and a sustainability recognition program
- Host event to educate businesses on Bloomington's Energy Action Plan, financing and incentives available for renewable energy and efficiency, and communicate opportunities and roles
- Develop at least three local case studies to give recognition to business energy champions
- Have the City buy down the cost of energy audits and recommissioning studies, and communicate the discount to businesses
- Create a sustainability consortium of Bloomington businesses. Hold a series of 3-4 site-hosted events to facilitate peer sharing
- Become a pilot community in Hennepin County's Building Energy Benchmarking Collaborative

Electric Vehicles

GOAL

- Increase use of electric vehicles (EVs) by installing 2-5 EV chargers at popular municipal locations (e.g. parks) throughout the city

STRATEGIES

- Pilot program to install 2-5 EV chargers at popular municipal locations (e.g. parks) throughout the city
- Provide free electric vehicle test rides at community events

Municipal

STRATEGIES

- Dedicate full-time staff hours to sustainability initiatives, including reducing both municipal and city-wide emissions
- Benchmark city facility energy use and develop a strategic plan for identifying savings opportunities and implementing cost
- Join SolSmart and review the City's planning, permitting, inspection, and other solar related processes to ensure the City of Bloomington is working towards achieving silver or gold status

Residential

GOALS

- Sign up 850 households for Home Energy Squad visits in Bloomington — 350 in 2018 and 500 in 2019
- Sign up an additional 850 households in Bloomington for Xcel Energy's Windsource or Renewable Connect programs — 350 in 2018 and 500 in 2019
- At least four Bloomington multifamily housing buildings engage in energy efficiency programs each year

STRATEGIES

- Home Energy Squad Social media outreach
- Continue to host Home Energy Squad workshops for residents
- Home Energy Squad and renewable energy testimonials
- Continue to offer buy-downs on the cost of a Home Energy Squad visit
- Targeted outreach to income-qualified homes to receive free Home Energy Squad visits
- Sponsor a renewable energy subscription contest
- Continue to connect with the Minnesota Housing Authority and create a relationship with the Minnesota Multifamily Affordable Housing Energy Network to promote energy efficiency in multifamily buildings
- Market energy efficiency to the Bloomington Rental Housing Collaborative
- Create energy efficiency handouts to accompany license renewals for multifamily properties

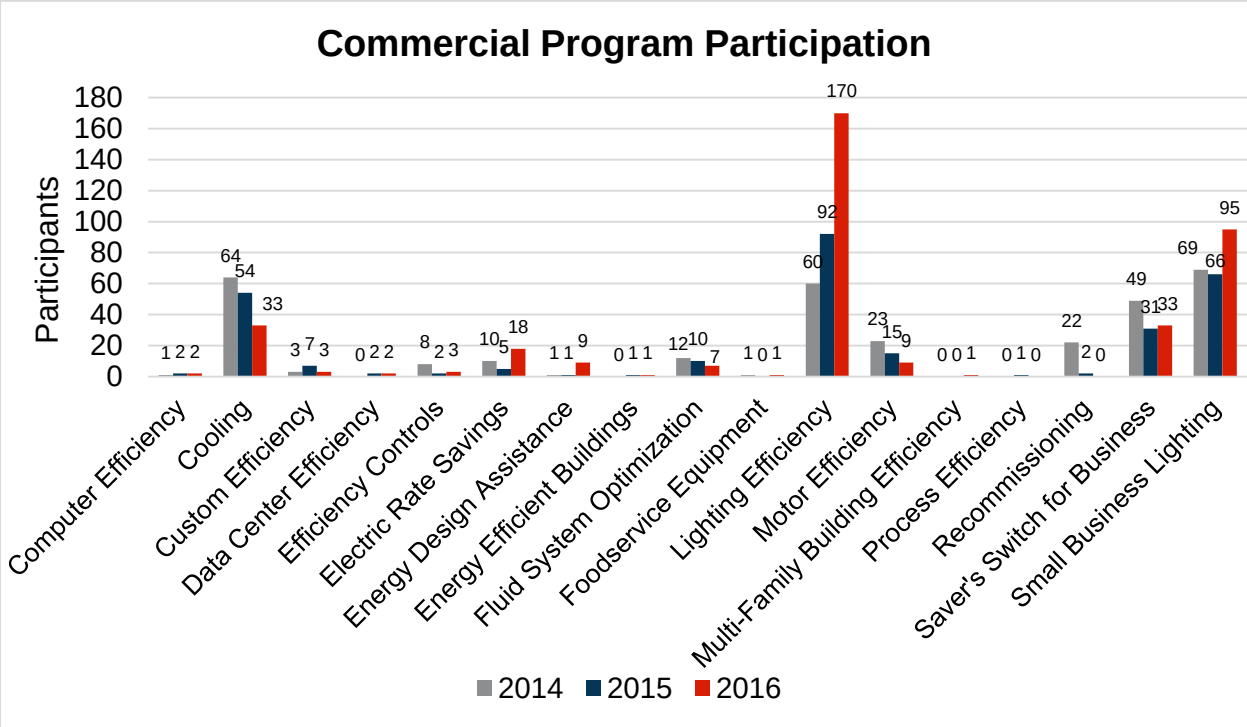
Business Energy Efficiency and Renewable Energy

Why is this sector a priority?

Bloomington's businesses are a priority for the City's near-term energy efforts because they account for 79% of the city's electricity use and 59% of its natural gas use.[4]

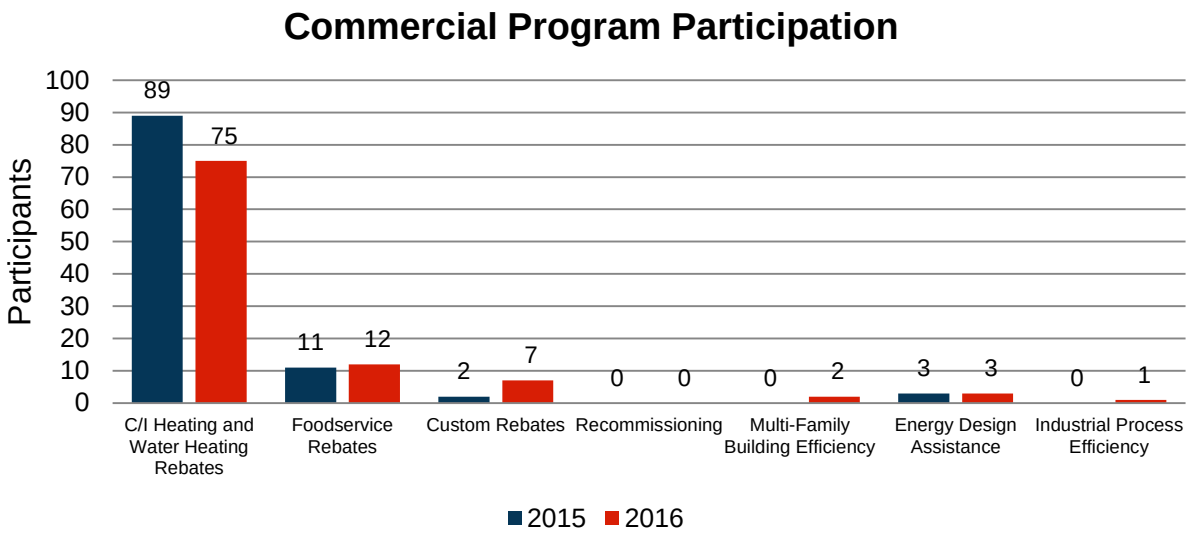
This energy consumption presents a significant opportunity to both save energy and source more energy from renewable sources. Baseline program participation rates also fell under 5%, demonstrating that there is ample opportunity to engage businesses in conservation and renewable energy programs.

Figure 19. Baseline Xcel Energy commercial program participation



[4] Source: 2016 baseline data

Figure 20. Baseline CenterPoint Energy commercial program participation



Near-term Goals

By 2020:

- Have 70 businesses participate in an energy audit or recommissioning study
- Double baseline energy efficiency program participation (see Figure 19 and Figure 20 for program baseline participation counts)
- Sign up an additional 10 businesses in Bloomington for Xcel Energy's Windsource program, Renewable* Connect program, or a community solar garden subscription

Strategies

The Energy Action Team recommends seven strategies to achieve the business sector's near-term goals:

- Work with the Chamber of Commerce to develop points of contact at local businesses and a sustainability recognition program.
- Host event to educate businesses on Bloomington's Energy Action Plan, financing and incentives available for renewable energy and efficiency, and communicate opportunities and roles
- Develop at least three local case studies to give recognition to business energy champions
- Have the City buy down the cost of energy audits and recommissioning studies, and communicate the discount to businesses

- Create a sustainability consortium of Bloomington businesses. Hold a series of 3-4 site-hosted events to facilitate peer sharing
- Become a pilot community in Hennepin County's Building Energy Benchmarking Collaborative

The following tables outline the tasks, responsibilities, timeline, and purpose of each strategy. An implementation chart summarizing all of this information can be found in Appendix 3. The primary implementers of these strategies are City of Bloomington staff, Xcel Energy's Partners in Energy staff, and business representatives that served on Bloomington's Energy Action Team.

Strategy A) Work with the Chamber of Commerce to develop points of contact at local businesses and a sustainability recognition program.	
Purpose	Identify communication pathways between the City and relevant business contacts (facility managers, sustainability professionals, operations staff, etc.) to distribute energy resource information and networking opportunities, and to develop a sustainability recognition program.
Tasks	• Contact Chamber of Commerce to ask for assistance in developing business contact list • Use Chamber of Commerce's knowledge to develop contact list • Prioritize outreach to businesses with local leadership and decision makers • Work with the Chamber of Commerce to develop a recognition program for businesses that are managing their energy use and taking other sustainable actions.
Timeline	Q2 2018 (April-June)
Lead	• City of Bloomington
Implementation Team	• City of Bloomington staff • Chamber of Commerce
Resources	• City of Bloomington staff hours (estimated 40 hours)

Strategy B) Host event to educate businesses on Bloomington's Energy Action Plan and communicate opportunities and roles.	
Purpose	Inform the business community about near-term energy goals and strategies, the benefits of participating, and the financing and incentives available. This event will also provide an opportunity to start building a local network of businesses actively thinking about energy initiatives.
Tasks	• Develop event agenda and scope • Find host site • Select date and create promotional materials • Identify speakers from Energy Action Team • Order refreshments • Print copies of the plan • Develop Energy Action Plan PowerPoint summary for business audience
Timeline	Q3 (July-Sept 2018)
Lead	• Sustainability Commission
Implementation Team	• Sustainability Commission • City of Bloomington staff • Bloomington Energy Action Team members • Xcel Energy's Partners in Energy staff
Resources	• Xcel Energy Partners in Energy staff support for event planning, coordination, and development of event materials (e.g. PowerPoint) • City of Bloomington staff hours (estimated 20 hours) • $150 for event refreshments provided by Xcel Energy. • 20 printed and bound copies of the Energy Action Plan • $1,000 for printing and mailing event postcards provided by Xcel Energy

Strategy C) Develop at least three local case studies to give recognition to business energy champions.	
Purpose	Help local businesses share their energy conservation or renewable energy stories with their peers.
Tasks	• Identify businesses that have completed energy efficiency upgrades or renewable energy projects • Reach out to businesses and connect with interviewees • Conduct interviews and write case studies • Coordinate with businesses to get photo • Format case studies • Have pieces reviewed by city partners • Distribute case studies via City communication channels (website, social media, newsletter)
Timeline	Q3 2018 (July-Sept)
Lead	• Sustainability Commission
Implementation Team	• Sustainability Commission • City of Bloomington staff (estimated 20 hours) • Xcel Energy's Partners in Energy staff
Resources	• Xcel Energy Partners in Energy staff hours • City of Bloomington staff hours • $50 printing budget for hard copies of case studies

Strategy D) Have the City buy down the cost of energy audits and recommissioning studies, and communicate the discount to businesses.	
Purpose	Similar to Bloomington's Housing and Redevelopment Authority buying down the cost of Home Energy Squad visits for residents, this buy down would help minimize the financial barrier businesses face when identifying energy efficiency opportunities. This strategy directly relates to the goal of having 70 businesses participate in an energy audit or recommissioning study by 2020.
Tasks	• Identify what audit offerings exist for businesses • Determine what buy down is feasible and will incentivize businesses to get an audit • Identify source of funding for buy-downs • Coordinate with CenterPoint Energy and Xcel Energy regarding the special offering • Develop and distribute application and promotional materials around audit benefits and discount • Distribute materials • Select participants • Follow-up with businesses to capture outcomes, and to encourage businesses to follow the audit's recommendations.
Timeline	Organize: Q4 2018 (Oct-Dec), Implement: Q1-Q4 2019 (Jan-Dec)
Lead	• Sustainability Commission
Implementation Team	• Sustainability Commission • City of Bloomington staff (estimated 80 hours) • Xcel Energy's Partners in Energy staff
Resources	• $10,500 to give the first 35 Bloomington businesses $300 towards an audit or a recommissioning study. Small to medium-sized businesses will get priority for the funding based upon their larger cost burden • $200 printing budget for promotional materials • Xcel Energy's Partners in Energy staff hours

Strategy E) Create a sustainability consortium of Bloomington businesses. Hold a series of 3-4 site-hosted events to facilitate peer sharing.	
Purpose	Provide a space for businesses to learn from one another, have easy access to program information, and celebrate energy successes.
Tasks	• Identify host sites with energy stories • Identify local energy leaders • Reach out to local energy leaders and ask if they would speak at events • Determine event structure • Select dates for events • Promote events using city and partner communication channels. • Order refreshments • Invite rebate program specialists to events • Develop materials to make it easy for businesses to schedule audits or learn more about rebates at event • Follow-up with businesses after events
Timeline	Hold first event in Q4 (Oct-Dec 2018). Hold 2-3 events in 2019.
Lead	• Sustainability Commission
Implementation Team	• Sustainability Commission • City of Bloomington staff (estimated 30 hours) • Bloomington Energy Action Team – business representatives • Xcel Energy's Partners in Energy staff
Resources	• Refreshment budget, $100 per event • Donated business event space • $1,000 printing and mailing budget • Xcel Energy's Partners in Energy staff hours • CenterPoint Energy program resources

Strategy F) Become a pilot community in Hennepin County's Building Energy Benchmarking Collaborative	
Purpose	Given that it is difficult to manage what you can't measure, the Energy Action Team saw benchmarking as a helpful tool to increase businesses' awareness of their baseline energy use and encourage energy efficiency action.
Tasks	• Get City Council approval to apply to participate in Hennepin County's Building Energy Benchmarking Collaborative (launched in 2017) • Express interest to Hennepin County to participate • Pass a benchmarking ordinance • Implement benchmarking program • Leverage Building Owners and Managers Association (BOMA) to help educate how benchmarking benefits businesses and the tools available
Timeline	Q2 2018 (April-June) – Ongoing
Lead	• City of Bloomington staff
Implementation Team	• Hennepin County's Building Energy Benchmarking Collaborative staff
Resources	• City of Bloomington staff hours

Estimated Impact of Business Goals

Bloomington must save an average of approximately 80 million kWh and 1 million therms annually to achieve its goal of a 75% reduction in city-wide energy-related greenhouse gas emissions by 2035. In 2016, Bloomington businesses saved 16.7 million kWh and 447,700 therms. The business energy conservation goals listed in this plan are expected to save 17.7 million kWh and 445,221 therms in 2018 and 17.7 million kWh and 445,221 therms in 2019, totaling 35.4 million kWh and 890,442 therms. This will get the city approximately 22% of the way towards its electricity goal and 43% of the way to its natural gas goal by the end of 2019. After 2020, the City plans to increase business engagement to achieve higher annual savings.

By 2020, all of the strategies[5] outlined in this plan, are expected to get Bloomington 60% of the way towards the annual average emissions savings needed to meet the City's 2035 goal of a 75% reduction in city-wide energy-related greenhouse gas emissions.

[5] Strategies include residential and commercial energy conservation program participation, estimated carbon savings from renewable energy program participation, and carbon savings from grid decarbonization.

Electric Vehicles

Why is this sector a priority?

Transportation Habits

Ninety-three percent of Bloomington households own a vehicle and single occupancy vehicles are the primary way Bloomington residents get to work[6]

National Trends

It is estimated that electric vehicle sales will surpass internal combustion engine sales by 2038 — only 20 years away[7]

Emission Reduction Opportunity

Electric vehicles in Minnesota provide a GHG reduction of at least 61% in most cases (based on Xcel Energy's electricity resource mix) and 95% in many cases (for vehicles charging on renewable energy subscription programs like Windsource)[8]

Goal

- Increase use of electric vehicles (EVs) by installing 2-5 EV chargers at popular municipal locations (e.g. parks) throughout the city

Near-term Strategies

- Pilot program to install 2-5 EV chargers at popular municipal locations (e.g. parks) throughout the city
- Provide free electric vehicle test rides at community events

[6] Metropolitan Council Community Profile for Bloomington and Commuting and American Community Survey 2017
[7] Bloomberg Businessweek
[8] Drive Electric Minnesota

Strategy A) Pilot program to install 2-5 EV chargers at popular municipal locations (e.g. parks) throughout the city.	
Purpose	Develop infrastructure that promotes EVs in Bloomington. The largest barrier to EV adoption at this time is public uncertainty about the technology.[9] A municipal investment in charging stations will increase public confidence about EVs, and provide an opportunity for education. This strategy ties into the transportation goal that is part of reducing the City's overall energy emissions by 75% by 2035.
Tasks	• Identify high-impact, low-cost locations for EV chargers • Research charger options • Develop project proposal • Get project approved by City Council • Apply for funding • Install chargers • Promote new infrastructure using City communication channels
Timeline	Begin planning steps Q3 2018 (July-Sept)
Lead	• Sustainability Commission
Implementation Team	• City of Bloomington staff
Resources	• EV Peer Cohort program run by the League of Minnesota Cities, Great Plains Institute and Clean Energy Resource Teams • Funding for 2-5 chargers, approx. $3,000 each

[9] MIT Sloan School of Management

Strategy B) Free electric vehicle test rides at community events	
Purpose	Provide an opportunity for residents to experience EVs first hand.
Tasks	• Sustainability Commission can organize test rides with other EV advocacy groups and car dealerships • Outreach to local car dealerships that sell EVs and assess interest in partnering to host free EV test rides • Identify a preexisting community event, such as the Bloomington Farmers Market or Heritage Days, to host the test rides • Market and communicate the event to residents through the City's communication channels • Invite a city council member or the mayor to kick off the test rides (or another "local celebrity") • Table at the event to share utility information about EVs (e.g. the EV rate plan structure or any incentives and services Xcel provides for EV owners) • After pilot chargers are installed, the City could promote their locations to residents
Timeline	After the City's pilot chargers are installed
Lead	• Sustainability Commission (estimated 60 hours)
Implementation Team	• Sustainability Commission (estimated 60 hours) • City of Bloomington staff (estimated 40 hours)
Resources	• Outdoor, public space to host the event (e.g. a park) • Participation from at least one elected official • Time/materials for marketing communications • Would be great to have an Xcel Energy rep to educate about rate options for charging, etc.

Municipal Energy

Why is this a priority?

Focusing on municipal buildings and processes is a near-term priority, given the pre-existing commitments the City has made with programs such as GreenStep Cities. Prioritizing municipal energy actions also demonstrates a desire to be a leader in the community when it comes to conservation.

Proposed Strategies

- Dedicate full-time staff hours to sustainability initiatives, including reducing both municipal and city-wide emissions
- Benchmark city facility energy use and develop a strategic plan for identifying savings opportunities and implementing cost
- Join SolSmart and review the City's planning, permitting, inspection, and other solar related processes to ensure the City of Bloomington is working towards achieving silver or gold status

Strategy A) Dedicate full-time staff hours to sustainability initiatives, including reducing both municipal and city-wide emissions.	
Purpose	Recognizing a need for plan implementation support and other sustainability initiatives, the Energy Action Team recommends a full-time permanent position at the City to build capacity for this type of work.
Tasks	• Develop position description • Get approval and funding for position from City Council • Post position and conduct interviews • Complete hire
Timeline	Request to City Council in 2018. Position posted Q1 2019 (Jan-March)
Lead	• City of Bloomington staff
Implementation Team	• City of Bloomington staff
Resources	• Salary and benefits for full-time sustainability professional

Strategy B) Begin recording metrics on city facility energy use and develop a strategic plan for identifying savings opportunities and implementing cost-effective energy and sustainability improvements.	
Purpose	This strategy will help the City effectively manage its properties and be a community leader in implementing energy efficiency practices.
Tasks	• City staff will develop a five-year strategic plan for updating energy efficiency in city buildings; review and update every 3 years • Identify system/process for maintaining up-to-date benchmarking data and analyze data to identify best opportunities for conservation • Begin plan implementation in 2019
Timeline	Q2 2018 (April-June) – Ongoing
Lead	• City of Bloomington staff
Implementation Team	• City of Bloomington staff (estimated 120 hours for strategic plan development; estimated 120 hours annually to implement)
Resources	• Budget will be recommended in Strategic Plan

Strategy C) Join SolSmart and do the associated work.	
Purpose	Participate in the SolSmart program, a national designation program recognizing cities, counties, and towns that foster the development of mature local solar markets. This will help reach the City's overall energy-related emissions reduction goal of 75% by 2035.
Tasks	• Review and update zoning ordinances to eliminate any roadblocks to rooftop solar; market accordingly • Review and update zoning ordinances to ensure that new and re-developed buildings are "solar-ready" in terms of roof load, shading, etc. • Review and update ordinances, permitting, etc. that affect soft costs of solar and electric vehicle infrastructure
Timeline	SolSmart support is provided through 2018.
Lead	• City of Bloomington staff
Resources	• SolSmart program support • Estimated 60 hours of City of Bloomington staff time in 2018 and 60 hours in 2019

Residents

Why is this sector a priority?

Bloomington residents are a priority audience for energy efficiency and renewable energy adoption for three reasons:

Existing Partnerships and Program Participation

Bloomington's Housing and Redevelopment Authority has partnered with the Home Energy Squad program since 2013, and had great participation success. The Energy Action Team is interested in leveraging this partnership to drive even greater impact over the next two years.

Community Buy-in

Although the residential sector uses far less electricity and slightly less natural gas than commercial buildings (See Figure 8 and Figure 9), there are many more individuals responsible for making residential energy decisions than commercial ones. The quantity of residential decision makers provides an opportunity to create a cultural shift in Bloomington.

Improve Health and Well-being

Energy programs like Home Energy Squad can help residents have more comfortable homes by improving living spaces through energy efficiency measures like weather-stripping doors, doing safety checks on equipment, and identifying ways to save money.

Near-term Goals

- Sign up 850 households for Home Energy Squad visits in Bloomington – 350 in 2018 and 500 in 2019
- Sign up an additional 850 households in Bloomington for Xcel Energy's Windsource or Renewable Connect programs – 350 in 2018 and 500 in 2019
- At least four Bloomington multifamily housing buildings engage in energy efficiency programs each year

Strategies

Bloomington's Energy Action Team proposed nine strategies for City and community partners to focus on between 2018 and 2020. The strategies are outlined in the charts below and also included in the implementation chart in Appendix 3.

- Home Energy Squad Social media outreach
- Continue to host Home Energy Squad workshops for residents
- Home Energy Squad and renewable energy testimonials
- Continue to offer buy-downs on the cost of a Home Energy Squad visit

- Targeted outreach to income-qualified homes to receive free Home Energy Squad visits
- Sponsor a renewable energy subscription contest
- Continue to connect with the Minnesota Housing Authority and create a relationship with the Minnesota Multifamily Affordable Housing Energy Network to promote energy efficiency in multifamily buildings
- Market energy efficiency to the Bloomington Rental Housing Collaborative
- Create energy efficiency handouts to accompany license renewals for multifamily properties

Strategy A) Home Energy Squad Social Media Outreach	
Purpose	Connect with Bloomington residents online to meet the goal of signing up 850 households for Home Energy Squad visits in Bloomington – 350 in 2018 and 500 in 2019.
Tasks	• Develop emails along with Facebook and Nextdoor posts that highlight the City's buy-down to residents, as well as other program offerings (including access to loans and rebate information) • Distribute the materials through their appropriate channels • Follow up with participants to encourage them to use the audit's recommendations for energy-efficiency upgrades.
Timeline	Q3 2018 (July-Aug) – Ongoing
Lead	• Sustainability Commission
Implementation Team	• Sustainability Commission • City of Bloomington staff (estimated 20 hours) • Xcel Energy's Partners in Energy staff
Resources	• City of Bloomington staff hours • Xcel Energy Partners in Energy staff hours • $500 budget for social media ads

Strategy B) Continue to lead Home Energy Squad workshops for residents	
Purpose	Educate Bloomington residents about energy efficiency opportunities in their home and encourage participation in the Home Energy Squad program.
Tasks	• Identify audience and workshop needs • Select locations for workshops • Identify and coordinate with speaker(s) • Promote workshops using various communication channels • Identify and work with local businesses to host lunch & learns where Center for Energy and Environment (CEE) will present. Aim for hosting these events at 4 businesses annually
Timeline	Q3 2018 (July-Aug) – Ongoing
Leads	CEE and City of Bloomington
Implementation Team	• Sustainability Commission • City of Bloomington HRA staff (estimated 40 hours) • Center for Energy and Environment • Xcel Energy's Partners in Energy staff
Resources	• Xcel Energy Partners in Energy staff • Home Energy Squad staff hours

Strategy C) Home Energy Squad and Renewable Energy Testimonials	
Purpose	Leverage powerful peer-to-peer persuasion to meet the goals of: • Signing up 850 households for Home Energy Squad visits in Bloomington – 350 in 2018 and 500 in 2019. • Signing an additional 850 households in Bloomington for Xcel Energy's Windsource or Renewable Connect programs – 350 in 2018 and 500 in 2019.
Tasks	• Identify Bloomington residents who have received a Home Energy Squad visit or subscribe to Windsource or Renewable Connect • Email participants to request testimonials and pictures • Format testimonials for various outreach channels (social media posts on Nextdoor and Facebook, City website, Bloomington Briefing, and Sun Current) • Post testimonials on social media and pitch testimonials to newspapers
Timeline	Q3 2018 (July-Aug) – Ongoing
Lead	• Sustainability Commission
Implementation Team	• Sustainability Commission • City of Bloomington staff (estimated 40 hours) • Community volunteers – Home Energy Squad, Windsource, and Renewable Connect participants • Xcel Energy’s Partners in Energy staff
Resources	• Xcel Energy Partners in Energy staff hours

Strategy D) Home Energy Squad Buy-downs	
Purpose	Have the City continue to buy down the cost of Home Energy Squad visits by $50, and consider the benefits and feasibility of offering deeper buy-downs.
Tasks	• Bloomington's Housing and Redevelopment Authority (HRA) staff will act as a liaison to the HRA board to request additional funding, as needed, to meet the Energy Action Plan's Home Energy Squad goals (350 in 2018 and 500 in 2019) • Pending approval from the HRA board, Bryan Hartman from Bloomington's Housing and Redevelopment Authority will reach out to Stacy Boots Camp at the Center for Energy and Environment to coordinate the buy-down contract
Timeline	Q4 2018 (Oct-Dec)
Lead	• City of Bloomington
Implementation Team	• City of Bloomington staff (estimated 40 hours) • Center for Energy and Environment • Xcel Energy's Partners in Energy staff
Resources	• $7,500 to buy down visits in 2019[10]

[10] Bloomington HRA has an annual budget of $17,500 to discount Home Energy Squad visits by $50 for residents in 2018 and 2019. This existing budget will cover the cost of discounting 350 visits in 2018 and 350 visits in 2019. The $7,500 requested will cover the additional 150 visit discounts needed to reach the goal of 500 total visits in 2019. If goals are surpassed the City can allocate more funds to buy down visits at any time.

Strategy E) Income-Qualified Home Energy Squad Outreach	
Purpose	Connect Bloomington residents with lower incomes to resources that can help them save money on energy.
Tasks	• Identify communication channels that best reach Bloomington residents eligible for free Home Energy Squad visits • Develop outreach materials with targeted messaging for residents with lower incomes • Distribute materials using the identified communication channels (Bloomington Briefing and social media)
Timeline	Q3 2018 (July-Aug) – Ongoing
Lead	• Sustainability Commission
Implementation Team	• City of Bloomington staff • Xcel Energy's Partners in Energy staff
Resources	• $200 per campaign for Facebook ads • Xcel Energy Partners in Energy staff

Strategy F) Renewable Energy Subscription Contest	
Purpose	Use a competition to work toward the goal of signing up an additional 850 households in Bloomington for Xcel Energy's Windsource or Renewable Connect programs – 350 in year one (2018) and 500 in year 2 (2019).
Tasks	• Evaluate if residents will be motivated by a renewable energy competition with peer communities • Reach out to peer communities to evaluate interest in a competition • Collaborate with partner communities to design contest rules, management platform, and rewards • Develop contest materials (e.g. tracking images, website copy, completion instructions, flyers on Windsource, Renewable Connect, and Community Solar Gardens) that use relative cost messaging • Coordinate with peer cities to distribute contest materials and launch contest • Track campaign progress and communicate results to the community throughout the campaign
Timeline	Q3 2018 (July-Aug) – O4 2019
Lead	• Sustainability Commission
Implementation Team	• City of Bloomington staff (estimated 80 hours) • Sustainability Commission • Xcel Energy’s Partners in Energy staff
Resources	• City of Bloomington staff hours • Xcel Energy Partners in Energy staff • Staff hours of partner communities

Strategy G) Continue to connect with the Minnesota Housing Authority and create relationship with Minnesota Multifamily Affordable Housing Energy Network to promote energy efficiency in multifamily buildings.	
Purpose	The City of Bloomington already attends Minnesota Housing Authority meetings. This strategy would leverage the opportunity to promote energy efficiency information through existing networks.
Tasks	• Promote energy efficiency at meetings as opportunities arise • Coordinate with Minnesota Multifamily Affordable Housing Energy Network (MMAHEN) to promote energy efficiency in Bloomington multifamily affordable housing • Encourage Bloomington affordable housing businesses to join or coordinate with MMAHEN
Timeline	Q3 2018 (July-Aug) – Ongoing
Lead	• Bloomington Housing and Redevelopment Authority
Implementation Team	• Sustainability Commission • Xcel Energy's Partners in Energy staff
Resources	• Bloomington Housing and Redevelopment Authority staff time

Strategy H) Market energy efficiency to the Bloomington Rental Housing Collaborative	
Purpose	Bloomington's Housing and Redevelopment Authority facilitates the Bloomington Rental Housing Collaborative. This collaborative provides an audience of rental housing owners, managers, and leasing agents who may provide pathways to energy efficiency projects.
Tasks	• Present about energy efficiency programs and opportunities at Bloomington Rental Housing Collaborative meetings • Publish content about energy efficiency program offerings in the Rental Housing Collaborative newsletter and web page
Timeline	Q3 2018 (July-Aug) – Ongoing
Lead	• Bloomington Housing and Redevelopment Authority staff
Implementation Team	• Sustainability Commission • Xcel Energy Partners in Energy staff
Resources	• Bloomington Housing and Redevelopment Authority staff hours • Xcel Energy Partners in Energy staff

Strategy I) Create energy efficiency handouts to accompany license renewals for multifamily properties	
Purpose	Leveraging existing communication touchpoints between the City of Bloomington and multifamily property owners to distribute targeted energy efficiency program information.
Tasks	• Create handouts • Work with City license staff to distribute
Timeline	Q3 2018 (July-Aug) – Ongoing
Lead	• Bloomington Housing and Redevelopment Authority
Implementation Team	• Xcel Energy's Partners in Energy staff • Sustainability Commission
Resources	• Budget for printing handouts

Estimated Impact of Residential Strategies

In 2016 Bloomington's participation in residential energy conservation programs resulted in an estimated savings of 875,000 kWh and 282,000 therms. Residential energy conservation from the goals proposed in this Energy Action Plan is expected to achieve a savings of 279,375 kWh and 28,700 therms in 2018 and 399,108 kWh and 41,000 therms in 2019. These savings will contribute about half a percent towards the city's electricity savings goals and about four percent towards the city's natural gas goals for 2018 and 2019.

By 2020, all of the strategies[11] outlined in this plan, are expected to get Bloomington 60% of the way towards the annual average emissions savings needed to meet the City's 2035 goal of a 75% reduction in city-wide energy-related greenhouse gas emissions.

[11] Strategies include residential and commercial energy conservation program participation, estimated carbon savings from renewable energy program participation, and carbon savings from grid decarbonization.

After 2020

The first two years of plan implementation will require a lot of capacity building and problem solving. After implementation hits its stride, the Energy Action Team recommends the City consider the following energy strategies:

Overall

- Create a climate action plan. In August 2017 City Council committed to do this in their resolution in support of the Paris Climate Agreement.
- Continue to build capacity and support for initiatives started in the first two years of Energy Action Plan implementation and ramp up participation in existing programs

Business

- Explore incentives (e.g. property tax credits, utility franchise fee waivers, regulatory waivers) for choosing renewable energy sources
- To incentivize investments in energy efficiency, require landlords to disclose estimated energy costs for potential business tenants
- Start to explore and promote onsite renewable energy options for businesses

Municipal

- Develop a plan reducing fleet emissions by incorporating the following strategies when appropriate: downsizing/rightsizing, purchasing hybrid vehicles, purchasing electric vehicles. Consider lifetime carbon emissions when purchasing energy-intensive municipal equipment
- Commit to an emissions reduction goal for municipal operations, with the intention of setting one more aggressive than the city-wide goal
- Research and present to the Council for deliberation green building codes that would continuously promote higher building standards and performance for future building development

Residential

- To incentivize investments in energy efficiency, require an energy audit disclosure with estimated energy costs, as part of real estate transactions

  Establish a financing program for greenhouse gas emission-reducing home improvements, similar to the existing Housing and Redevelopment Authority programs

Transportation

- Update zoning ordinances to ensure that new and redeveloped parking areas (e.g. lots, garages, street parking) are EV ready
- Develop a strategic plan for developing a more EV-friendly city

- Continue to support the Alternative Transportation Plan, which focuses on increasing opportunities for biking and walking within the city
- Continue supporting 494 Commuter Services, and provide additional assistance for their work to promote alternative transportation
- Conduct education to promote healthcare benefits associated with biking

How Are We Going to Stay On Course?

Hiring Additional Staff Support

Recognizing what it will take to achieve the goals outlined in this plan, the Energy Action Team strongly recommends hiring full-time staff to support implementation efforts. Similar to peer communities, the City of Bloomington could structure the position as a sustainability professional.

Operational Actions and Tracking

The Sustainability Commission and Community Lead will check in with Partners in Energy staff every month and hold bi-weekly calls as needed. Progress on plan implementation will be checked on a quarterly basis using an implementation tracking chart.

Communication and Reporting

The Sustainability Commission and City staff will provide an update to City Council a year into plan implementation, and when the Partners in Energy implementation phase is complete.

Appendix 1: Glossary of Terms

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

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

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

Energy Action Plan: A written plan that includes an integrated approach to all aspects of energy management and efficiency. This includes both short and long-term goals, strategies, and metrics to track performance.

Goals: The results toward which efforts and actions are directed. There can be a number of objectives and goals outlined in order to successfully implement a plan.

KWh (kilowatt-hour): A unit of electricity consumption.

MMBtu (million British thermal units): A unit of energy consumption that allows both electricity and natural gas consumption to be combined.

Premise: A unique identifier for the location of electricity or natural gas service. In most cases it is a facility location. There can be multiple premises per building, and multiple premises per individual debtor.

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

Therm: A unit of natural gas consumption.

Appendix 2: Planning Memorandum of Understanding

Xcel Energy®
PARTNERS IN ENERGY
An Xcel Energy Community Collaboration

Memorandum of Understanding
Phase 1 – Plan Development

Mary Hurliman
Deputy Director of Public Works
City of Bloomington
1800 West Old Shakopee Road
Bloomington, MN 55431-3027

Congratulations on being selected to participate in Xcel Energy's Partners in Energy. This offering is designed to provide your community with the tools and resources necessary to develop and implement an energy action plan that reflects the vision your community has for shaping energy use and supply in its future. Participation is intended to span 24 months with the initial 6-8 months dedicated to developing of a strategic energy action plan and the remaining time focused on the implementing that plan.

The intent of this Memorandum of Understanding (MOU) is to confirm the City of Bloomington's intent to participate in the initial plan development phase of the Partners in Energy program and outline the commitment that your community and Xcel Energy are making to this collaborative initiative. The primary objective of this phase of the program is to develop your energy action plan.

In order to achieve this Xcel Energy will provide:

- Consulting support to assist in identifying potential community stakeholders, and constructing or delivering an invitation or informational announcement regarding the planning process.
- Data analysis of community energy use and Xcel Energy program participation to the extent that it is legally and technically prudent and feasible. The results can be used to identify potential opportunities to implement plan strategies. Xcel Energy will attempt to integrate data provided by the City of Bloomington into the analysis if feasible.
- Professional facilitation of 3-5 plan development work sessions with the community stakeholder group to develop the energy action plan's vision, focus areas, goals and implementation strategies.

- Assistance as needed in synthesizing the community and program data collected with the vision of the community to identify attainable goals that align with suitable strategies and tactics.
- Development of the documented energy action plan that will incorporate inputs from the stakeholder planning team and will be accessible to the community.
- Commitment to delivering an actionable and complete draft energy action plan for review within seven months of the City of Bloomington and Xcel Energy signing this MOU.

Although participation in the Plan Development phase of Partners in Energy program requires no monetary contribution, the community, the City of Bloomington, does agree to provide:

- A single contact point to recruit active and engaged stakeholders, coordinate planning meeting logistics as well as distribution of deliverables, and lead participation of the community in the planning process.
    - Community staff engagement in developing workshop agendas, participating in post-workshop check-in meetings and follow-up work, and implementation planning.
- Commitment to ensuring community stakeholder engagement throughout the planning workshops. This could include consultation with key community stakeholders who may be relevant to the plan but not present on the energy action planning team, to gain input on proposed goals and strategies.
- Timely review of Energy Action Plan document, as well as shepherding the completed plan through stakeholder review process.
    - Good-faith evaluation of the recommendations and analysis provided, as well as fair consideration of the potential strategies and tactics identified to ensure alignment with the community's goals and priorities.
- Meeting facilities to host the stakeholder group during the development of the plan.
- Identification of existing community energy plans, programs, or initiatives that could be leveraged in successful development and delivery of this plan.

- Commitment to delivering an actionable and complete energy plan within a twelve month timeframe of the City of Bloomington and Xcel Energy signing this MOU. Within this period the City of Bloomington is committed to completing the formation of the energy action planning team and the development and approval of the energy action plan.
- Public distribution of the work products developed with the support of the Xcel Energy's Partners in Energy Program.

Resource Commitment Summary
Plan Development Phase

City of Bloomington	Xcel Energy
• Single point of contact • Support in maintaining community stakeholder engagement throughout the planning process. • Involvement in development and review of Energy Action Plan content. • Meeting facilities • Access to existing energy-related plans and programs • Commitment to completing the plan development and approval • Agreement that the energy plan resulting from this work will be available to the public	• Assistance identifying and recruiting stakeholders • Analysis of community energy use and program participation • Facilitation of planning sessions • Training and guidance developing goals and strategies • Documentation and delivery of the energy action plan • Commitment to completing the plan development

The Memorandum of Understanding for the Implementation Phase of the Partners in Energy program will be developed upon completion of your energy action plan and will outline your goals and the resource commitment from Xcel Energy and the City of Bloomington.

All communications pertaining to this agreement shall be directed to Mary Hurliman, on behalf of the City of Bloomington, and Tami Gunderzik on behalf of Xcel Energy.

Thank you again for your continued interest in Xcel Energy's Partner in Energy program. We look forward to assisting the City of Bloomington in the development of an action energy plan.

For the City of Bloomington:

Mary Hurlimann

Date: 8/17/17

For Xcel Energy:

_____

Date: _____