



An Energy Action Plan for



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ST. LOUIS PARK ENERGY ACTION PLAN

EXECUTIVE SUMMARY

Our Commitment

St. Louis Park is committed to an equitable transition toward efficient energy use and renewable power generation.

Our Vision: By engaging residents, businesses, and local government, St. Louis Park will transition to 100% clean energy and achieve net zero greenhouse gas emissions. Our work will provide a better future for our children, a healthier and more economically vibrant city for all those who live and work here, and a model for small cities and energy providers nationwide.

How Will We Get There? The City will focus on the following priority areas:

Climate Action Plan

Strategies:

- Develop a climate action plan for St. Louis Park centered around two proposed goals: achieving carbon neutrality by 2040 and sourcing 100% renewable electricity by 2025.

Energy Efficiency in Business

Strategies:

- Drive 30 'Top 100' large businesses to participate in energy efficiency programs and track their energy use.
- Provide education and outreach to all businesses using a targeted approach based on business type.

Renewable Energy

Strategy:

- Reach out to nonprofits, local government, faith-based organizations, and businesses by leveraging organizations, city communication channels, and educational partners to increase renewable energy use.
- Reach out to residents by leveraging organizations, city communication channels, and educational partners to increase renewable energy use.

Partnership with Youth

Strategy:

- Partner with St. Louis Park youth groups, such as Roots and Shoots, that are already doing energy work in the community through the iMatterNow campaign.

Playbook for Achieving Our Goals

Ongoing Tracking		
<ul style="list-style-type: none"> • Hold regular work-group meetings to maintain momentum and track progress. • Continue communication between focus area work groups to ensure unified outreach efforts in the community. • Recruit community volunteers as opportunities arise. • Review goals and revise strategies as necessary. 	Immediate Actions (Sept. – Nov. 2016)	
	<ul style="list-style-type: none"> • Develop and present a resolution to the City Council regarding the need for a climate action plan. • Begin writing a climate action plan upon resolution approval. • Solicit grant funding for the development of the climate action plan. • Reach out to businesses and key leaders to develop benchmarking case studies. • Prioritize businesses to target for benchmarking. • Research solar programs for businesses and determine possible outreach options. • Begin developing renewable outreach materials. • Form a team between Xcel Energy and the Climate Action Plan work group to create a plan to achieve renewable electricity goals. 	
	Longer-term Actions (Dec. 2016 – March 2018)	
	<ul style="list-style-type: none"> • Finalize a climate action plan for St. Louis Park. • Begin climate action plan implementation and schedule check-ins to track progress. • Generate a process map for specific businesses types, including information on audits, instructions, and resources from CenterPoint Energy and Xcel Energy. • Develop a website to promote energy leaders and program opportunities in the business sector. • Continue to develop business case studies and renewable outreach materials. • Continue to conduct outreach. 	

Introduction



Photo by bradleyjohnson/CC

This energy action plan summarizes a six month community-wide energy planning process for St. Louis Park residents and businesses that was conducted through Xcel Energy's Partners in Energy service. From August 2015 to February 2016, 13 residents and businesses from across the community formed the Energy Action Team that met alongside representatives from Xcel Energy, St. Louis Park's electricity provider. The group met to review the current state of energy use and activity within the community, set goals for where the community could go, and strategize around near-term priorities. The team also conducted detailed action planning to determine how to get started on core priorities over an 18 month initial implementation period (September 2016 - March 2018).

Participation in the Partners in Energy planning process was approved by St. Louis Park's City Council on January 20, 2015, following a recommendation from the City's Environment and Sustainability Commission. The commission saw Xcel Energy's offering as an opportunity to expand upon St. Louis Park's ongoing sustainability efforts, and the increasing attention on the community's allocation of resources in the energy sector. This plan focuses specifically on increasing the community's efforts around *sustainable energy* and, even more specifically, provides actions that target community-wide *electricity* use. Two components influenced this concentration: the Environment and Sustainability Commission's strategic carbon neutrality recommendations to prioritize front-loading commercial electricity-savings, and the electricity data, technical support, and program knowledge uniquely available throughout the process with Xcel Energy, the City's electricity service provider at the table.

The content that follows begins with an overview of the St. Louis Park community, its baseline energy use, documentation of the planning process, a summary of the priority actions developed by the group for implementation, and how the Energy Action Team plans to keep the implementation of this plan on track.

The City of St. Louis Park – Community Background

The City of St. Louis Park is a community of 47,933 residents located in the Twin Cities' west metro. As the Energy Action Team described it, being a suburb that shares its eastern border with Minneapolis, it's known for being "comfortably close" to large city attractions while maintaining neighborhood-scale benefits. The City has historically committed itself to maintaining good schools, parks, housing stock, and cultural opportunities with the goal of attracting lifelong residents. In addition to these community priorities, the City has a growing commitment to sustainability, and a goal of becoming a leader in environmental stewardship.

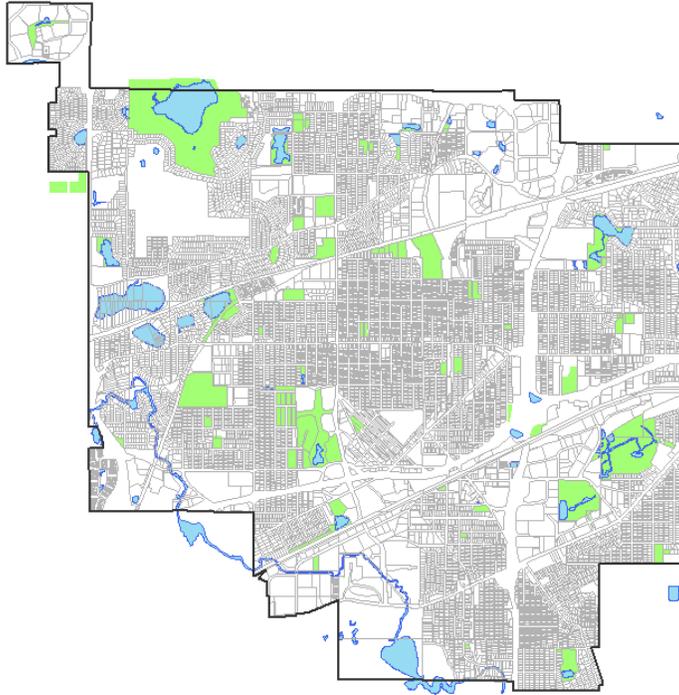
Land and Location

Facts and Figures	
County	Hennepin
Metro Area Location	Directly west of Minneapolis
Square Miles¹	10.64
Density²	4,250 residents/(square mile)
Neighborhoods³	35

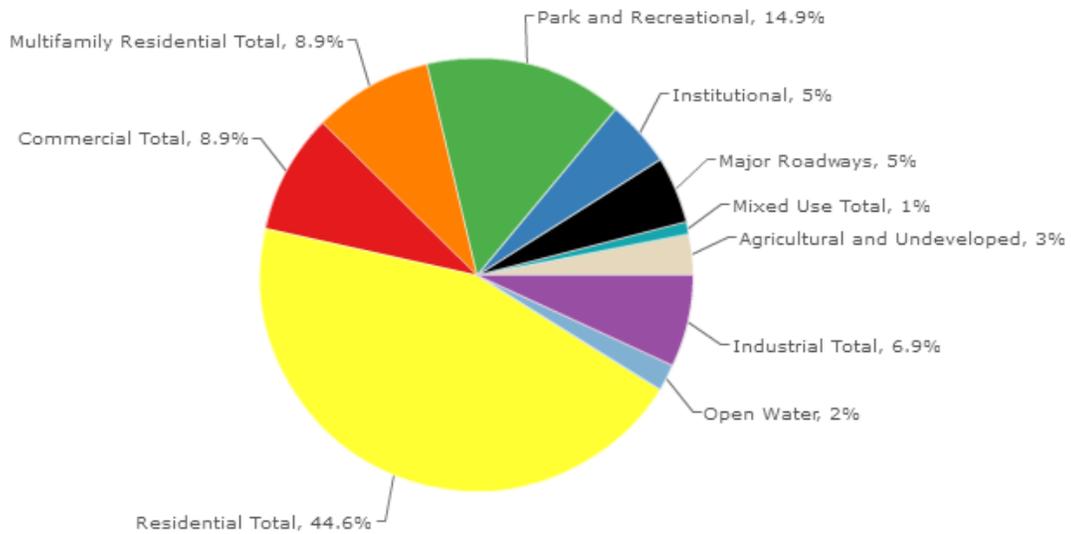
¹ "St. Louis Park Quick Facts", U.S Census Bureau, <http://www.census.gov/quickfacts/table/PST045215/00,2757220>.

² "St. Louis Park Quick Facts", U.S Census Bureau, <http://www.census.gov/quickfacts/table/PST045215/00,2757220>.

³ "Neighborhoods", City of St. Louis Park, <http://www.stlouispark.org/neighborhoods.html>.



Map of St. Louis Park. Source: City of St. Louis Park



Source: Metropolitan Council Generalized Land Use Historical Data Set

Generalized Land Use in St. Louis Park, 2010⁴

⁴ "Community Profiles", Metropolitan Council, <http://stats.metc.state.mn.us/profile/detail.aspx?c=02396500>.

People

Facts and Figures ⁵	
Population	47,933
Percent of Households Speaking a Language Other than English Spoken at Home	12
Percent of Population Under 18	19
Median Age⁶	35.5

Businesses and Employment

The median household income in St. Louis Park is estimated to be \$65,151.⁷ Major employers include Park Nicollet Health Services, St. Louis Park Public Schools, Japs Olson Printing, and Travelers Express/Moneygram. St. Louis Park has a 2.5% unemployment rate, and 7.6% of residents were living below the poverty level from 2009-2013.⁸ The Chamber of Commerce that represents the City is TwinWest, which also includes the communities of Crystal, Golden Valley, Hopkins, Medicine Lake, Minnetonka, New Hope, and Plymouth.

Education

The St. Louis Park public school system is Independent School District 283, and it serves about 4,200 students. Each school in the district has been recognized as a Blue Ribbon School of Excellence by the U.S. Department of Education. There are four public elementary schools, one public middle school, and one public high school. There are also 11 private schools, including one K-5, one K-6, four K-8, one K-12, two 1-12, one 7-12, and one 9-12, with several also offering pre-school programs.⁹ Of adult

⁵ "St. Louis Park Quick Facts", U.S. Census Bureau, <http://www.census.gov/quickfacts/table/PST045215/00,2757220>.

⁶ "American Fact Finder", U.S. Census Bureau, <http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=Cf>.

⁷ "St. Louis Park Quick Facts", U.S. Census Bureau, <http://www.census.gov/quickfacts/table/PST045215/00,2757220>.

⁸ "Employment Stats", City of St. Louis Park, http://www.stlouispark.org/webfiles/file/stats/employment_stats.pdf.

⁹ "Private Schools", City of St. Louis Park, <http://www.stlouispark.org/schools/about-our-private-schools.html>.

residents, 95.2% are high school graduates and 55.5% have received a bachelor's degree or higher.¹⁰

Congregations

St. Louis Park is home to almost 30 congregations. Many synagogues and churches have an interest in environmental sustainability and renewable energy, and either have been or currently are actively involved with organizations such as the Alliance for Sustainability and Minnesota Interfaith Power and Light.

Housing

Estimates from the 2014 Census indicate that in St. Louis Park's residential sector, 49% of the 23,971 housing units are single-family structures, 43% are in multifamily buildings (defined as having 5 or more units), 6% are townhomes, and 2% are in duplex, triplex, or four-plex buildings.¹¹ St. Louis Park has a coalition of renters called SPARC (St. Louis Park Area Rental Coalition), whose mission is to provide a community-wide forum that promotes effective management practices and quality rental housing in St. Louis Park. This group provides a valuable networking opportunity for rental owners, managers, and city staff.

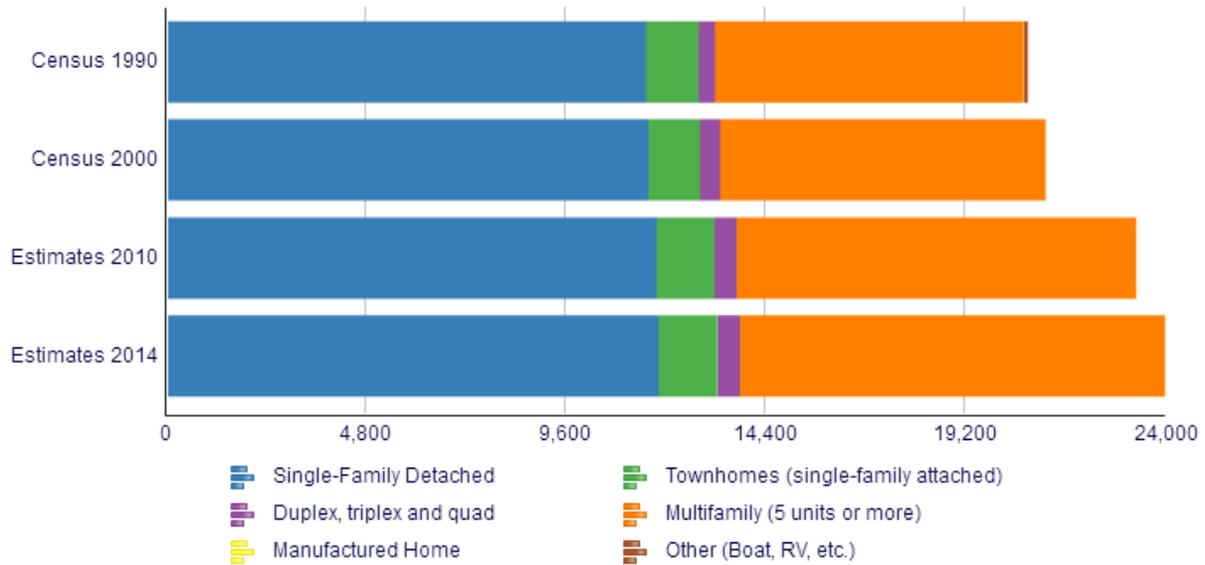
Approximately 88% of St. Louis Park's housing stock was built before 1960.¹²

¹⁰ "St. Louis Park Quick Facts", U.S Census Bureau, <http://www.census.gov/quickfacts/table/PST045215/00,2757220>.

¹¹ "Community Profiles", Metropolitan Council, <http://stats.metc.state.mn.us/profile/detail.aspx?c=02396500>.

¹² "2013 Housing Report", City of St. Louis Park, http://www.stlouispark.org/webfiles/file/community-dev/maxfield_slp_housing_report_final_102813.pdf.

Housing Type in St. Louis Park¹³



Source: U.S. Census Bureau Decennial Census and Metropolitan Council Housing Stock Estimates.

Community Assets

St. Louis Park's Greatest Assets
Highlights from community members' feedback during the planning workshops

- Good schools with small class sizes.
- Comfortably close to Minneapolis.
- Income diversity with affordability for all.
- Great outdoor spaces, including parks and beautification of boulevards.
- Shopping, including Excelsior and Grand and The Shops at West End.
- Thriving neighborhood associations.

¹³ "Community Profiles", Metropolitan Council, <http://stats.metc.state.mn.us/profile/detail.aspx?c=02396500>.



Photo by bradleyjohnson/CC BY

Commitment to Sustainability

Over the past decade, St. Louis Park has shown a strong and steadily increasing commitment to sustainability. In 2005, the City began a planning process called Vision St. Louis Park, which was aimed at *“creating a community so special that people will make a conscious choice to*

make St. Louis Park their lifelong home.” The City convened eight visioning teams around a variety of topics, one of which was the environment. This team created a goal for community members to be *“responsible stewards of the environment and realize their actions today influence the greater ecology inherited by future generations”*. In March 2007 the St. Louis Park City Council adopted four *“strategic directions”* to implement Vision St. Louis Park, one of which was the City’s commitment to being a leader in environmental stewardship.¹⁴

In 2014 the City established a 13-member Environment and Sustainability Commission also called Sustainable SLP. This group has been an important driver for local sustainability progress, working with the City to hire a full-time Environment and Sustainability Coordinator in 2015 and initiating the Partners in Energy process with Xcel Energy that same year.

Sustainable SLP



As mentioned above, Sustainable SLP is an advisory and working commission formed to assist the St. Louis Park City Council in making decisions related to sustainability and the environment. The 2016 priorities for the

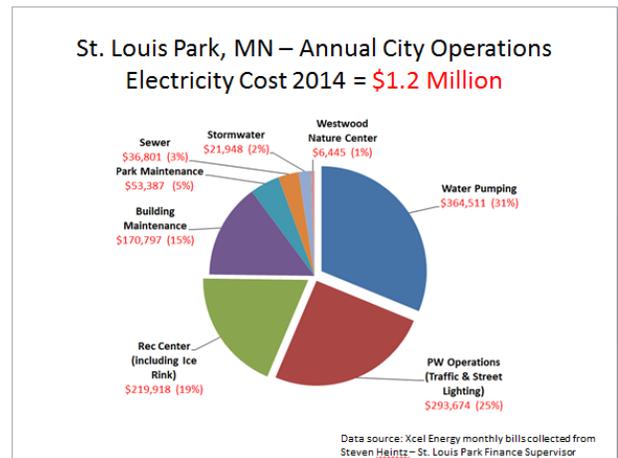
commission include developing a climate action plan, using the Minnesota GreenStep Cities program as a framework to work with City staff and the community, and continuing the visioning process associated with St. Louis Park’s comprehensive plan. Sustainable SLP is divided into work groups, each specializing in a particular area of sustainability.

Sustainable SLP’s currently has an Energy Work Group that meets monthly to carry out the mission of *“promoting energy education and awareness, and to identify and*

¹⁴ “Vision St. Louis Park”, City of St. Louis Park, <http://www.stlouispark.org/vision-st-louis-park.html>.

promote programs and policies that will result in city-wide energy efficiency and the increased utilization and deployment of clean energy resources.” In 2015 group

accomplishments included: Assisting commercial buildings in financing energy efficiency and renewable energy upgrades by launching the Property Assessed Clean Energy (PACE) promotion, working with City staff to craft a request for proposal (RFP) to enter into a contract to purchase 50% of municipal electrical power from solar power from community solar, and partnering with Metro Clean Energy Resource Team to benchmark energy use in municipal buildings using the B3 benchmarking tool. For more information see Appendix 6.



Slide from Energy Work Group Presentation during Partners in Energy Workshop 1

Energy Work Group members led a baseline inventory of St. Louis Park’s greenhouse gas emissions. The data used for this inventory came from a CERTs (Metro Clean Energy Resource Team) grant through the Regional Indicators Initiative¹⁵, and the City’s financial director provided municipal energy bills for baseline analysis.¹⁶ The data used in this analysis spanned from 2008-2013.

This baseline inventory included annual gas and electric operations costs for municipal buildings, the annual per-capita emissions for the City, and a breakdown of greenhouse gas emissions by sector. Using this data the Energy Work Group identified near-term, mid-term, and long-term actions to help the City prioritize how to most effectively reach carbon neutrality by 2040. The Energy Work Group’s proposed actions are outlined in the table below.

¹⁵ “About the Regional Indicators Initiative”, Regional Indicators Initiative, <http://www.regionalindicatorsmn.com/about-regional-indicators-initiative>.

¹⁶ Sustainable SLP’s Introduction Slides, Presented by Ryan Griffin during Workshop 1

Energy Work Group's Recommendations for St. Louis Park¹⁷

Near Term	Mid Term	Long Term
<ul style="list-style-type: none"> • Build strategic partnerships. • Lead by example. • Engage the commercial sector. 	<ul style="list-style-type: none"> • Focus on HVAC of existing residential and commercial building stock. • Develop a sustainability vision. • Begin to think seriously about transportation. 	<ul style="list-style-type: none"> • Fully address transportation opportunities. • Explore and implement distributed generation opportunities. • Design for reduced consumption.

As the chart above shows, “building strategic partnerships, leading by example, and engaging the commercial sector” were the top three recommendations for near-term actions.

In November 2014 Xcel Energy attended an Energy Work Group meeting to provide more information about Partners in Energy. The group determined that participating in Partners in Energy aligned with their near-term recommendations, and in 2015 St. Louis Park became the 4th Minnesota city to join Partners in Energy.

Xcel Energy's Partners in Energy

Xcel Energy is the electric and gas utility serving the City of St. Louis Park. In the summer of 2014, Xcel Energy launched Partners in Energy, an offering to support communities with developing and implementing their own customized energy action plans. As mentioned above, St. Louis Park was chosen as the fourth city in Minnesota to participate. The other Minnesota communities participating at the time this report was written are the Lake Street/Midtown Greenway Corridor in Minneapolis, the City of Maplewood, the City of Red Wing, the City of Edina, and Ramsey County's Parks and Recreation Department. There are also six Colorado communities currently participating.

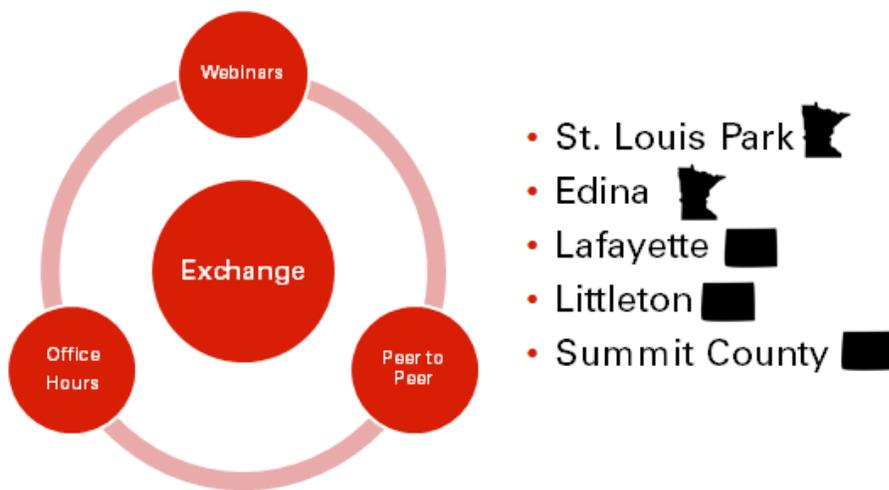
The objective of the Partners in Energy planning process is to allow communities to develop actionable plans that advance their goals with the support of Xcel Energy's technical expertise, facilitation process, and program knowledge. After the six month

¹⁷ Sustainable SLP's Introduction Slides, Presented by Ryan Griffin during Workshop 1

planning period, Xcel Energy continues to support partnering communities with plan implementation assistance for 18 months.

Since St. Louis Park gets its electricity from Xcel Energy, the information, programs, and support provided through Partners in Energy are focused on electricity. Other energy companies were not intentionally excluded and it is important to consider their programs and offerings as part of a holistic approach to energy management.

In addition to planning workshops, communities can participate in joint learning opportunities with three to five other Partners in Energy communities by forming an Exchange. Exchanges meet for office hour calls, webinars, and peer-to-peer conversations developed around topics that support planning and implementation tasks. The goal of these interactions is to create opportunities for collaboration between communities and provide communities with access to field experts in the energy field.



St. Louis Park's Exchange Communities

Energy Action Team

During the Partners in Energy planning process, the Energy Action Team develops the focus areas, strategies, and goals for this plan. Team members are asked to represent their various community roles during the planning process. Sustainable SLP's Energy Work Group recruited team members with an emphasis on including representation from St. Louis Park's business sector, a high priority area for the plan. The resulting Energy Action Team was comprised of residents, business representatives, City staff, commission members, and school district staff. In a pre-workshop survey, 90% of

team members self-identified as having intermediate or advanced energy literacy and 60% responded that they dealt with energy at work all the time. Members of the Energy Action Team are listed on the following page.



Energy Action Team at Workshop 5

St. Louis Park's Energy Action Team

City of St. Louis Park

- a) Shannon Pinc, Environment and Sustainability Coordinator
- b) Julie Grove, Economic Development Specialist
- c) Ryan Griffin, Sustainable SLP, Resident
- d) Cindy Larson O'Neil, Sustainable SLP, Resident

Business and Organizations

- a) Christopher Liedman, Park Nicollet
- b) Bette Danielson, Nordic Ware
- c) Michael Kelner, Hardcoat Inc.
- d) Micah Vainikka, Knutson Construction, Resident
 - Scott Wingrove represented Knutson Construction at Workshop 1
- e) Tom Bravo, St. Louis Park School District Facilities Manager

Residents

- a) John Stark
- b) Larry Kraft, iMatter
- c) Matt Metzger
- d) Matt Wyatt
- e) Tom Hillstrom

Xcel Energy Representatives

- a) Tami Gunderzik, Partners in Energy Program Manager
- b) Yvonne Pfeifer, DSM Community Channel Manager
- c) Jenny Edwards, Center for Energy and Environment — Facilitator
- d) Emma Struss, Center for Energy and Environment — Facilitator
- e) Sarah Klauer, Center for Energy and Environment — Facilitator

Workshop Guests

Workshop 3

- a) Mark Brinkman, TruNorth Solar, Resident
- b) Mark Eilers, Resident, Ten K Solar

Workshop 4

- a) Judy Dorsey, Xcel Energy Partners in Energy Team (Brendle Group)

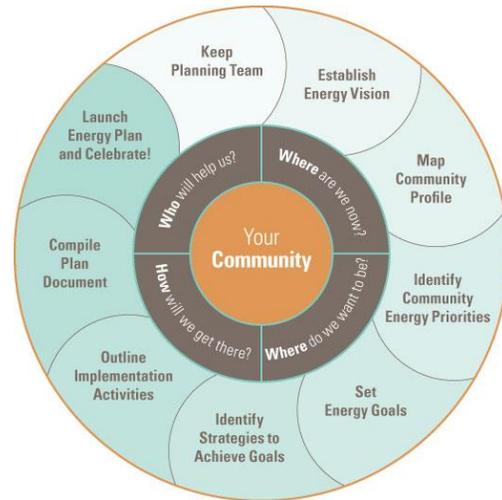
Workshop 5

- a) Sarah Schaffer, CenterPoint Energy

Planning Process

The content of this plan was derived heavily from a series of five planning workshops. Xcel Energy’s role in the planning process was to facilitate the workshops; provide electricity use, program participation, and other technical data as available; and develop this energy action plan based on the community’s input and feedback.

Xcel Energy will continue to work with Sustainable SLP and members of the Energy Action Team to support the implementation of this plan.



Xcel Energy’s Partners in Energy Planning Process

Energy Action Team Recruitment

Sustainable SLP’s Energy Work Group was very strategic when recruiting Energy Action Team members. With a near-term focus on commercial efficiency, the group wanted to ensure that the team would have strong representation from the business community. Strategizing who to contact and conducting outreach occurred over several months in early 2015. Details on the timeline are outlined below.

St. Louis Park Participation in Partners in Energy’s Planning Phase	
Nov 2014	Xcel Energy attended a St. Louis Park Energy Work Group meeting to provide background on Partners in Energy.
Jan 2015	City Council approved participation in Partners in Energy.
Feb-May 2015	Recruitment for St. Louis Park’s Energy Action Team.
July 2015	Energy Action Team formed.
August 2015	First Partners in Energy planning workshop.

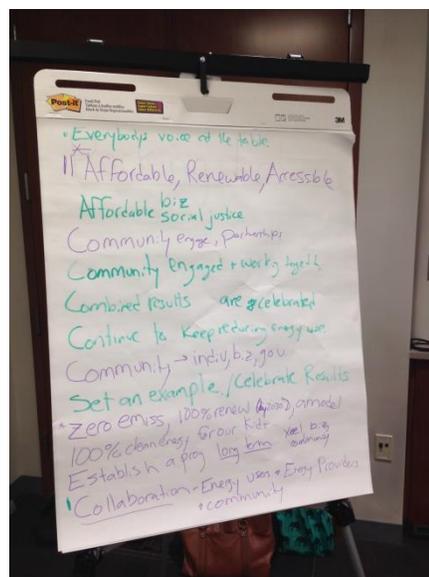
Planning Workshops

The full St. Louis Park Energy Action Team met for a total of five in-person workshops, and members worked during the interim on strategy-specific research and development. The primary planning objectives during these five workshops were to develop a unifying vision for St. Louis Park's energy future, share information on existing activities within the community, develop priority focus areas for near-term implementation, and work through details on strategies, goals, and the initial work plan for implementation.

City-specific electricity data and community facilitators were provided by Xcel Energy for all five workshops. The community facilitators were from the Center for Energy and Environment. Xcel Energy staff also attended the five workshops to act as a resource. Additional information on the workshop structure is included below and in Appendix 2.

Workshop 1

- Workshop 1 (August 13, 2015):** Welcome and introductions, Partners in Energy overview, summary of initial baseline electricity data of St. Louis Park, presentation of past energy initiatives by Sustainable SLP commissioners, and an energy visioning activity that sparked conversations around transitioning to zero emissions, leadership, and community wellbeing.



Workshop 2

- Workshop 2 (September 24, 2015):** The team discussed three proposed vision statements. Members opted to refine the statements and vote prior to Workshop 3. The team also discussed focus areas and voted on four priorities: partnership with youth, renewable energy, developing a St. Louis Park climate action plan, and increasing energy efficiency in business.

Workshop 3

- Workshop 3 (November 12, 2015):** The team split up into three work groups to discuss draft goals and strategies for each focus area.

Workshop 4

- **Workshop 4 (January 12, 2016):** Discussion of climate action planning led by Judy Dorsey of Brendle Group and Climate Action Plan work group members. The Energy Action Team discussed community-wide climate goals for carbon neutrality by 2040 and carbon-free electricity by 2025, as proposed by the Climate work group (see Appendix for presentation materials). Small groups worked on refining community goals and strategies based on climate targets.

Workshop 5

- **Workshop 5 (February 18, 2016):** Work groups continued to define their strategies and mapped out the implementation timeline. Groups discussed communication expectations. The team did a SWOT (strengths, weaknesses, opportunities, and threats) analysis of each focus area. The evening ended with a discussion on naming the initiative.



Renewables Work Group at Workshop 5

Where does the City Stand? – Baseline Energy Analysis

St. Louis Park's Current Electricity Use

An early step in the Partners in Energy planning process was to review the current energy use in St. Louis Park. The Xcel Energy facilitation team presented community energy statistics from the past three years of available electricity data (2012-2014) to help the Energy Action Team understand how and where energy is currently used in the community.¹⁸

Community Electricity Use

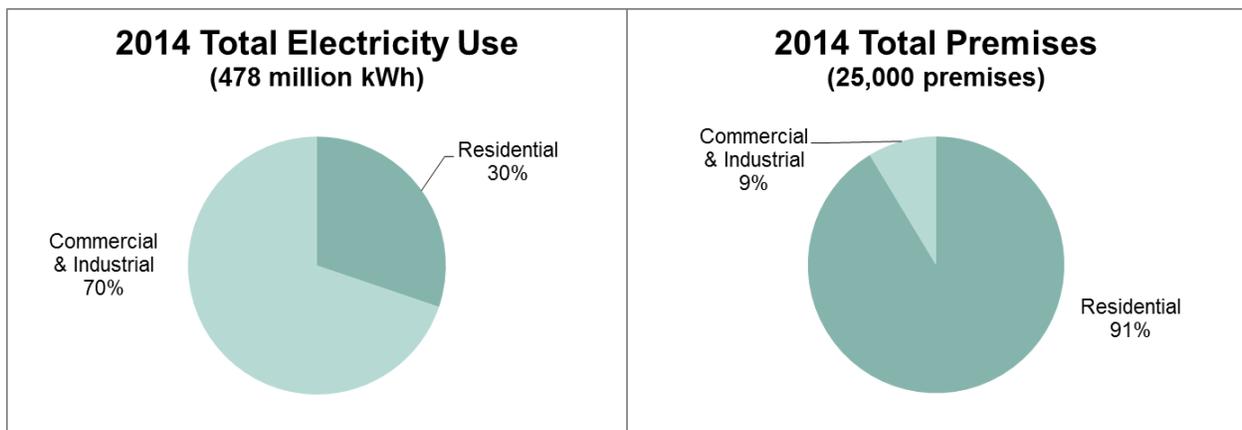


Figure 1. St. Louis Park Community Wide Electricity Use in 2014

In 2014, the total community electricity use was 478 million kilowatt-hours (kWh). Commercial and industrial (C/I) customers, which include municipal properties in this instance, account for 70% of the electricity use. The remaining 30% can be attributed to residential properties. As seen in Figure 1, there are ten times more residential premises in St. Louis Park than commercial and industrial premises. This means that per year, on average, a commercial/industrial premise is using 25 times more electricity than a residential premise.

¹⁸ All energy data presented through this process was developed for planning purposes and may contain some variation from data obtained through other sources. All energy and program data presented here complies with Xcel Energy's 15x15 data privacy rules (all summary statistics must contain at least 15 entities and no single entity can be responsible for more than 15% of the total or they will be removed from the summary). In St. Louis Park, no entities were removed from these summary statistics.

Residential Electricity Use

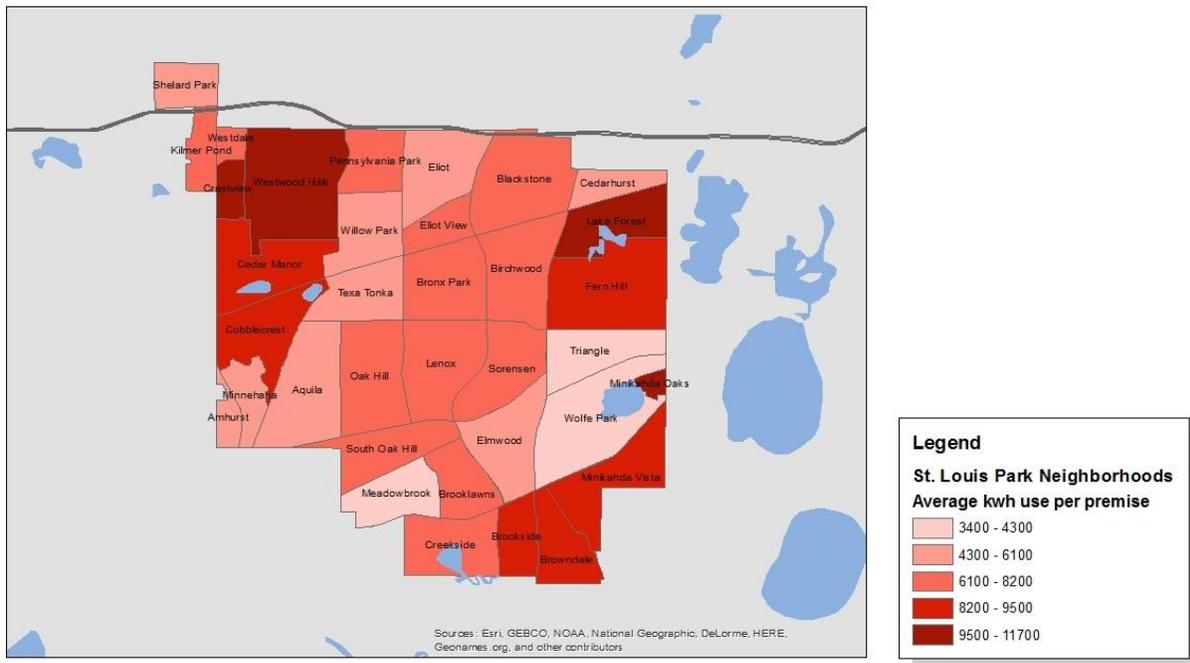


Figure 2. Average Residential Electricity Use by St. Louis Park Neighborhoods

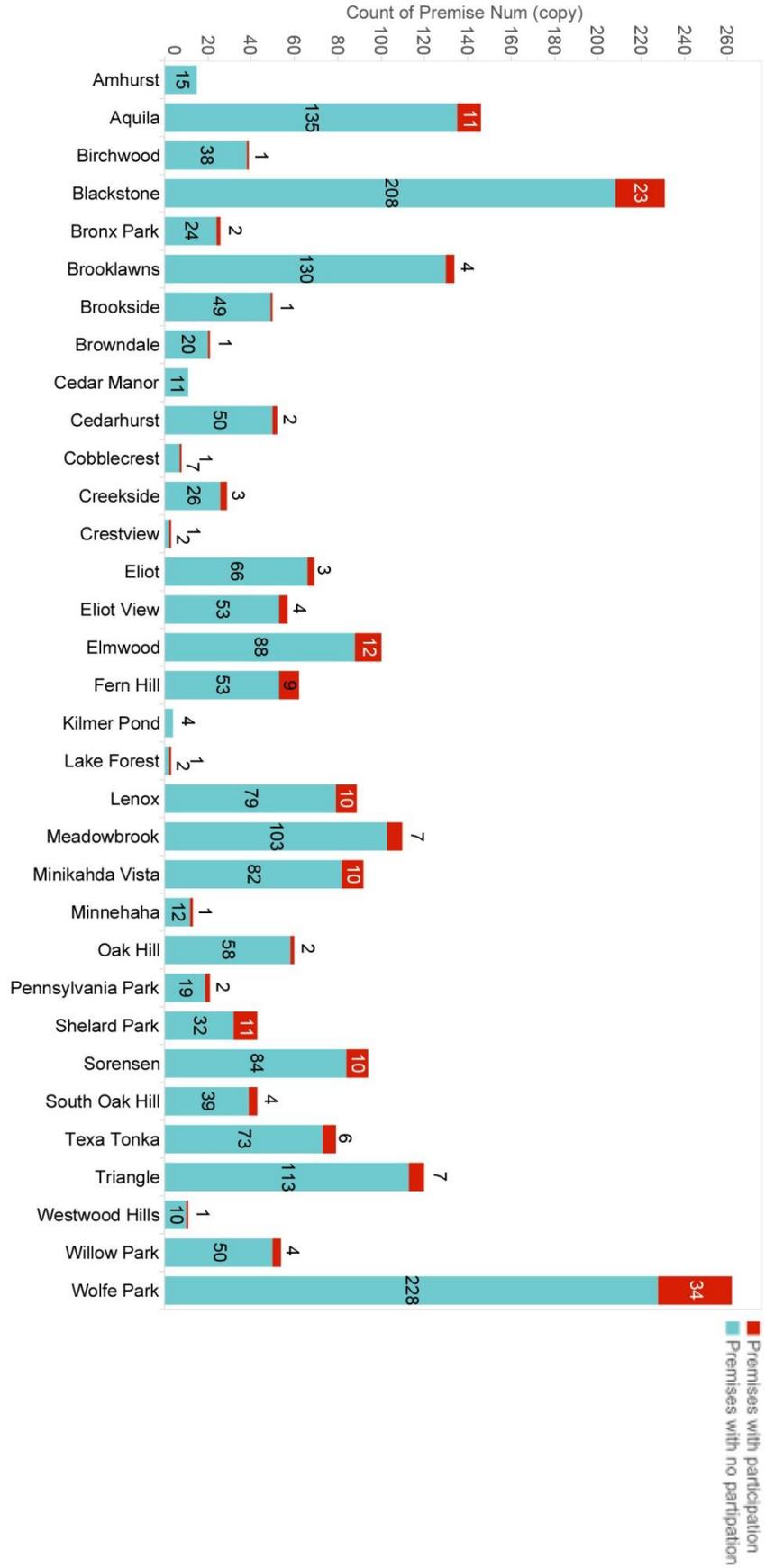
In 2014 there were 22,769 residential premises in St. Louis Park. The average annual electricity consumption for each premise was 6,339 kWh. The map above shows a geographic breakdown of St. Louis Park's average residential electric use by neighborhood. The neighborhoods with the lowest average consumption are Triangle, Wolfe Park, and Meadowbrook. These neighborhoods have a higher percentage of apartments than the four neighborhoods with the highest consumption that are primarily made up of single-family housing.¹⁹

Commercial Electricity Use

In 2014 there were 2,156 commercial/industrial premises in St. Louis Park. The average electricity consumption for each premise was 154,669 kWh, and the median use was 16,855 kWh. In total this sector used 333,465,738 kWh in 2014.

¹⁹ "Neighborhoods", City of St. Louis Park, <http://www.stlouispark.org/neighborhoods.html>.

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Year-to-Year Electricity Use Changes

Between 2012 and 2014 both residential and commercial sectors in St. Louis Park experienced a decline in electricity use. The residential sector experienced a 1.2% overall reduction and the commercial/industrial sector saw a 4.4% drop in electricity use.²⁰ (Note that these are overall trends and do not account for changes in weather, population, economic conditions, or other factors that affect electricity use on a year-to-year basis.)

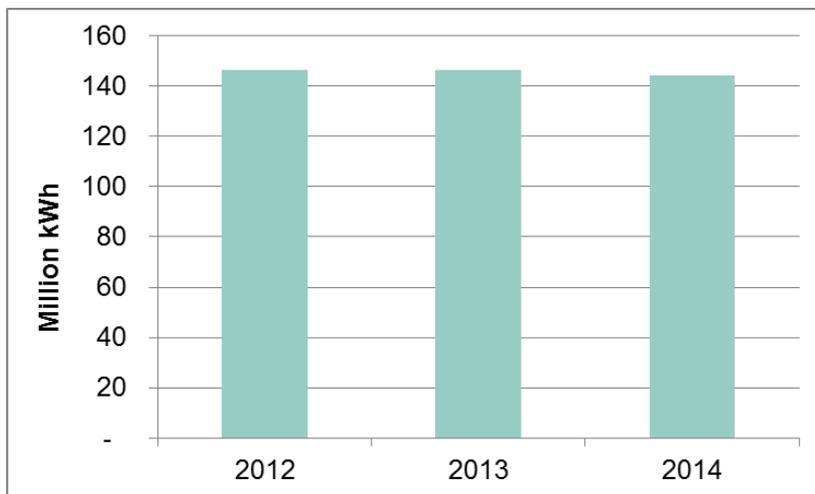


Figure 4. Residential Electricity Use

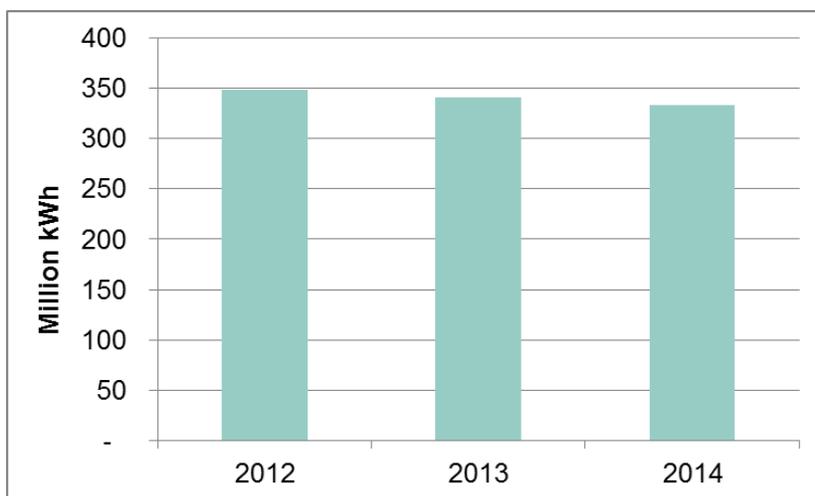


Figure 5. Commercial/Industrial Electricity Use

²⁰ As a frame of reference, Minnesota's Next Generation Energy Act, established in 2007, calls for statewide energy conservation goal of 1.5 percent of annual retail electric and gas sales. <http://www.house.leg.state.mn.us/hinfo/newlawsart2007-0.asp?storyid=608>

Municipal Electricity Use

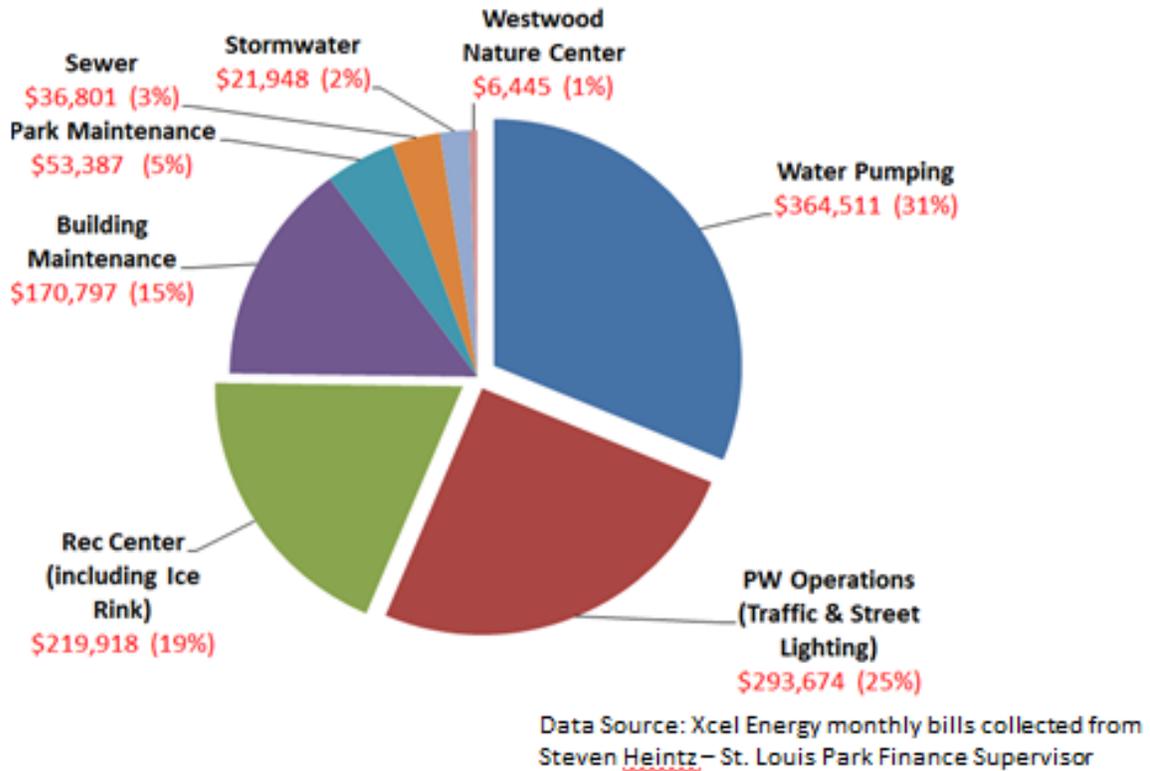


Figure 6. 2014 Annual City Operations Electricity Costs (Source: Sustainable SLP)

As mentioned above, Sustainable SLP and City staff worked to create a baseline benchmark of energy use for certain municipal buildings and services. Figure 5 shows the City’s annual operation budget for electricity based upon 2014 spending. The top four sources for electricity use in the city are water pumping, traffic and street lighting, the recreation center equipped with an ice rink, and building maintenance.

Greenhouse Gas Emissions

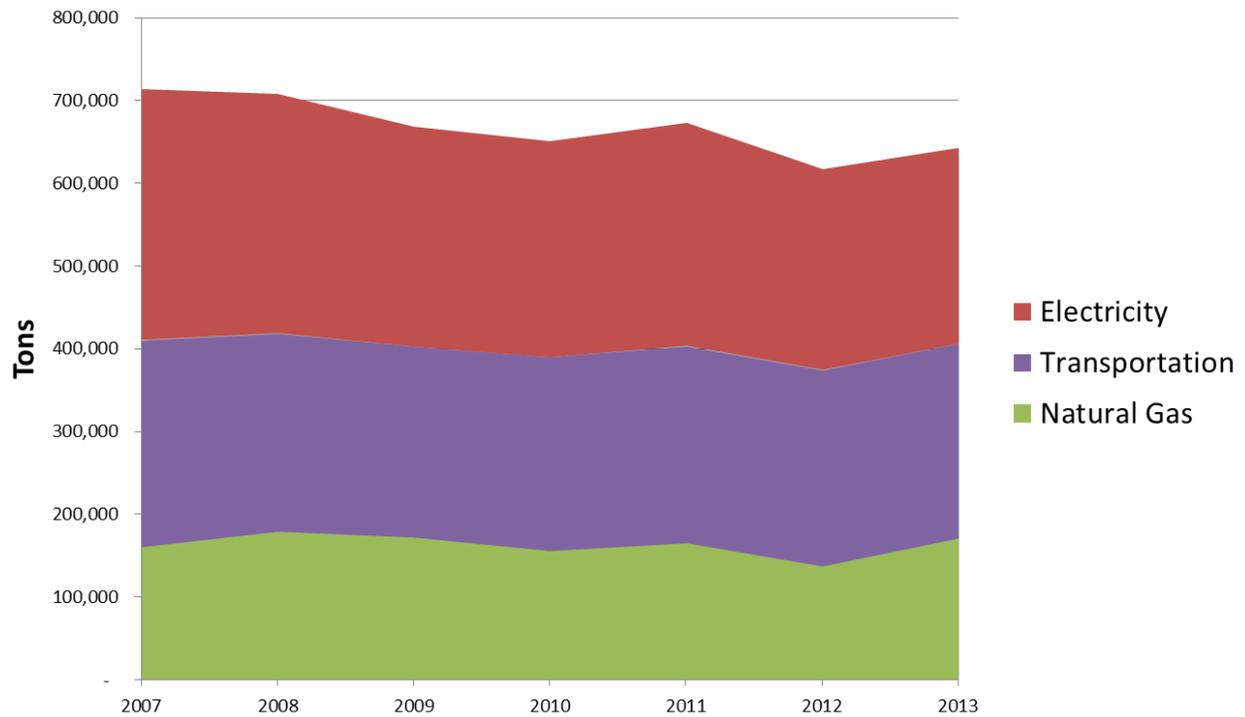


Figure 7: History of St. Louis Park Greenhouse Gas Emissions per Sector ²¹

Between 2007 and 2013 greenhouse gas emissions from electricity have declined by 4.2%, emissions from transportation by 0.6%, and emissions from natural gas by 1.4%. In 2013 the City's greenhouse gas emissions were 652,249 tons and the 2015 estimate is 648,137 tons, based on data collected from the Regional Indicators Initiative. These are the three largest sources of direct community greenhouse gas emissions.

Past and Present Energy Initiatives and Program Participation

St. Louis Park has been working on a variety of climate change issues for a number of years. Therefore, it was important for the Energy Action Team to keep in mind past and current efforts.

²¹ Larry Kraft, Climate Action Plan work group presentation, Workshop 4

Residential Energy Efficiency Participation

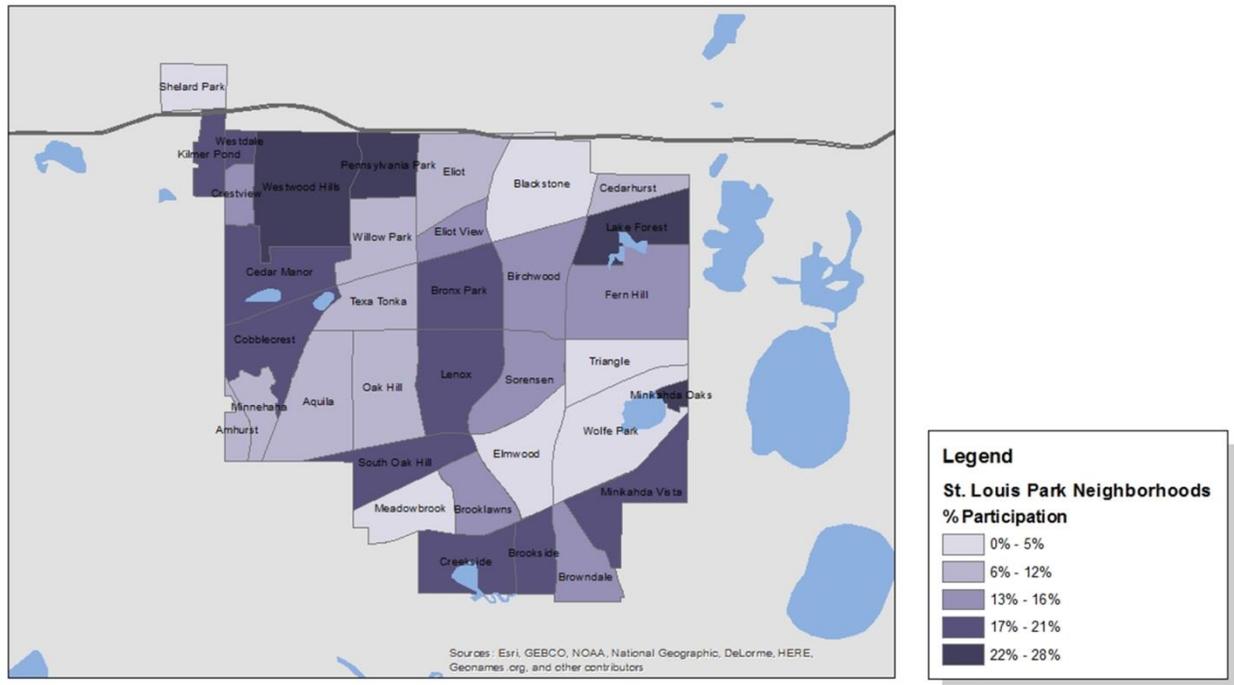


Figure 8. Percent of Residential Energy Efficiency Program Participation by Neighborhood

Residents in St. Louis Park participated in 3,578 energy efficiency programs and rebates offered by Xcel Energy from 2012-2014. The most popular residential electricity demand-side management programs provided by Xcel Energy were Saver’s Switch® (air-conditioning load control), cooling rebates, Home Energy Squad®, and refrigerator recycling. Figure 8 shows a map of program participation by neighborhood shows where the highest activity is concentrated (the map is not normalized by population). Since 2013 the City of St. Louis Park has bought down the cost of Home Energy Squad® home energy visits for residents and has participated in the “Enhanced” version of the program, which provides additional services. From 2012-2014, 491 St. Louis Park residents completed Home Energy Squad visits, approximately 2% of the eligible population.

In total, efficiency programs saved 1,360,190 kWh from 2012-2014, which is equivalent to an average of 0.03% of total residential electricity use each year.

Commercial Energy Efficiency Program Participation

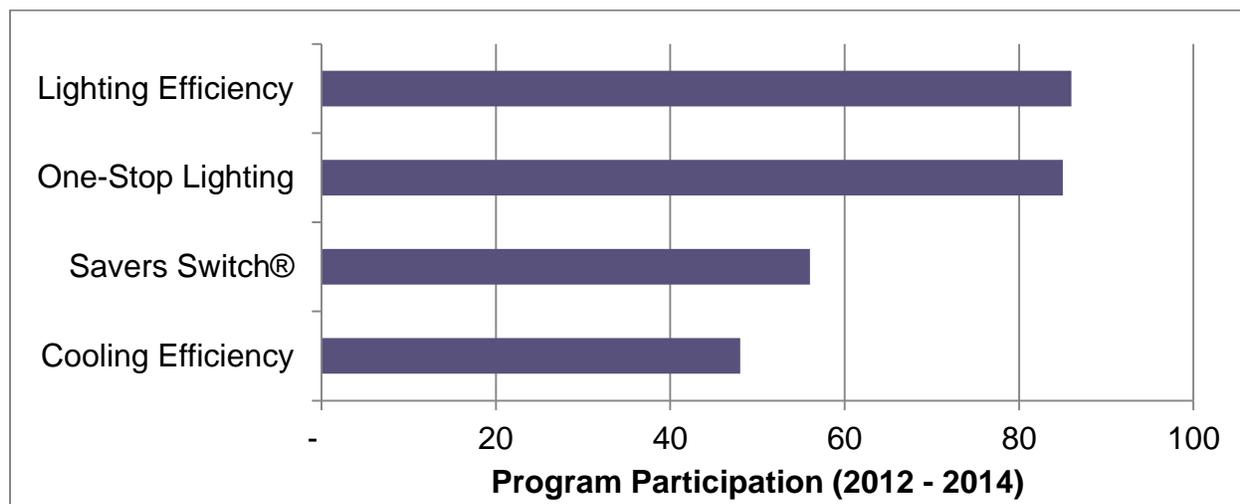


Figure 9. Commercial Energy Program Participation from 2012-2014

The most popular programs in the commercial sector from 2012-2014 were lighting efficiency, One-Stop Efficiency Shop® Lighting Retrofits for small business, Saver's Switch®, and cooling efficiency. Those four programs accounted for 275 participants during that time and in total all efficiency program participation from 2012-2014 saved 11,362,344 kWh, which is equivalent to an average of 1.1% of total commercial and industrial electricity use each year through 662 program participation actions.

Renewable Energy Program Participation

Residents and business owners in St. Louis Park have the opportunity to participate in renewable energy programs through Xcel Energy. The chart below displays participation in two programs over a three year period. The "Solar Programs" refers to the rebates residents and businesses received for installing solar panels. Windsource® is a program that allows energy users to subscribe to 100 kWh blocks of wind energy by paying an additional premium on their bill. To compare St. Louis Park's participation with that of a neighboring city, during this same time period, the City of Edina had eight residential and 11 commercial/industrial participants in solar programs, and 638 residential and eight commercial/industrial participants in Windsorce®.

Renewable Energy Program Participation (2012-2014)

	Residential	Commercial/Industrial
Solar Programs	7	6
Windsorce®	505	36

Where is St. Louis Park Headed? – Energy Vision, Focus Areas, and Goals

A clearly articulated, transparent, and shared vision of the community’s energy future sets the direction for subsequent decisions about focus areas, goals, and strategies for achieving those goals. At the beginning of the planning process, participants shared their individual visions for what St. Louis Park’s energy future could be, and iterated on a unified vision to guide the process. The results of that effort are the vision statement below. Details about the workshop planning process are included at the end of this section.

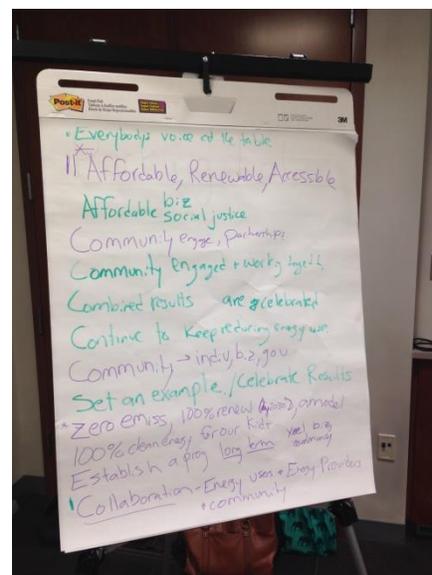
Vision

St. Louis Park is committed to an equitable transition toward efficient energy use and renewable power generation. By engaging residents, businesses, and local government, St. Louis Park will transition to 100% clean energy and achieve net zero greenhouse gas emissions. Our work will provide a better future for our children, a healthier and more economically vibrant city for all those who live and work here, and a model for small cities and energy providers nationwide.

This vision statement guided the Energy Action Team in the development of the focus areas. Strategies and goals are outlined later on in the plan.

Focus Areas

The focus areas identified for St. Louis Park are the key priorities under which goals and strategies of the plan are organized. The four focus areas that emerged out of the planning process are Climate Action Plan, Energy



Efficiency in Business, Renewable Energy, and Partnership with Youth. These areas were prioritized based on a combination of where the group felt there could be the biggest impact, where there was already existing activity or knowledge to build on within the group, and where existing community assets could be leveraged.

Focus Area: Climate Action Plan

Developing a climate action plan was an overarching priority that quickly emerged during the planning workshops, as St. Louis Park does not currently have a comprehensive plan outlining carbon reduction targets, and it was decided that this was an important focus group area. The importance of formulating a plan was summarized by Energy Action Team member Ryan Griffin: “Global climate change has been called the greatest challenge of our time. It is a problem that will impact our way of life for generations to come. We have a strong responsibility to act now to curb greenhouse gas emissions in order to reduce the damaging effects of climate change. Our children's and grandchildren's future depends on the leadership we take now on this issue. For these reasons, the Partners in Energy team has made it a priority to propose that the City of St. Louis Park create, adopt and follow a climate action plan.”

Team members proposed that a climate action plan should focus on the goal of reaching community-wide carbon neutrality by 2040.²² A nested goal specific to the electricity sector is to have the plan address possible pathways toward reaching 100% of community-wide electricity use sourced from renewables by 2025. These goals were discussed by the entire Energy Action Team during the Workshop 4. At that time many team members expressed support for the proposed goals, though some were interested in obtaining more information around the technical feasibility, cost to the community, and how carbon credits would factor. Team members called for a prioritization of actions based on a cost/benefit analysis, so that the analysis could help the community identify the most beneficial actions in terms of time and financial investments and encourage the City to pursue the most economical solutions first.

In addition to a climate action plan outlining greenhouse reductions, the team also discussed the need for a plan to address adaptation and community resilience in response to changing conditions. Development of those materials will require efforts outside the Energy Action Team’s scope of work, and is perhaps something that could be taken on by the City or Sustainable SLP.

²² This date was influenced by Dr. Jim Hansen’s climate research which concludes that a 2.5% annual carbon reduction is necessary in order to avoid a climate tipping point.

Goals:

- Reinststate energy tracking with the Regional Indicators Initiative (this stopped in 2013).
- Move the City Council to:
 - Approve a resolution for plan development in April/May 2016.
 - Adopt a climate action plan by April 2017.
 - Adopt a policy in April 2016 to have the City’s electricity use sourced from 100% renewables by 2025, building upon the Environmentally Preferred Purchasing Policy approved by City Council.
- Once developed, begin implementing actions outlined in St. Louis Park’s climate action plan.

The graph below shows the gap between the proposed climate action plan goal of St. Louis Park reaching net-zero electricity by 2025, and where planned grid CO₂ reductions and Partners in Energy goals are expected to get the community. The graph assumes business as usual (BAU) electricity growth of 1.5% per year and energy savings from efficiency program participation to continue at 4GWh per year (the average from 2012-2014).

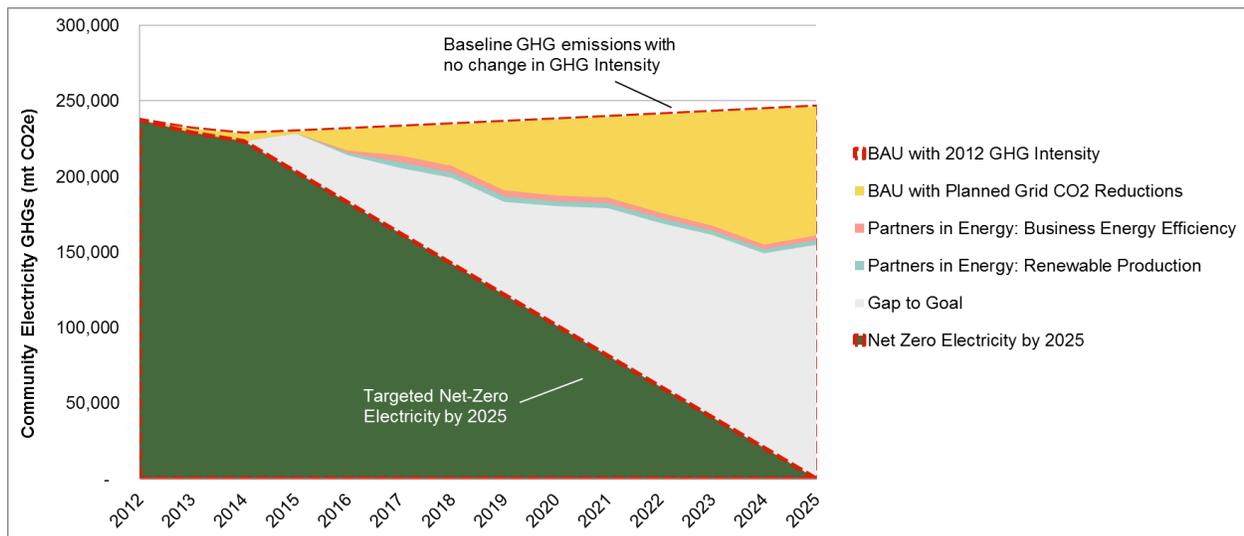


Figure 10. St. Louis Park Greenhouse Gas Emission Projections

In order to close the gap, and reach the goal of targeted net-zero electricity by 2025, the goals outlined in this plan for renewables and energy efficiency in business would need to continue at almost five times the intensity after the initial 18 month implementation period.

Focus Area: Energy Efficiency in Business

As shown in the baseline energy reporting, the commercial/industrial sector accounts for 70% of St. Louis Park's total electricity use. Guided by this data and previous recommendations from Sustainable SLP, the Energy Action Team voted to make Energy Efficiency in Business one of their focus areas.

The reasons for prioritizing this area were in part to focus on an area that will likely have a large impact, and because the community's work in Sustainable SLP had not done much with the business sector and so this was an important gap to fill. With a strong representation of businesses around the table, the planning team was in a unique position to really understand local business needs and how to best conduct outreach to local businesses.

Goals:

- Drive 30 of the 'top 100' large businesses in St. Louis Park to complete energy efficiency actions over the 18 month implementation period.
- Encourage 200 small to medium-sized businesses to take energy efficiency actions over the 18 month implementation period.

Between 2012 and 2014 there was an average of 220 program participation actions completed annually by St. Louis Park businesses. This equated to 11,362,344 kWh in electricity savings. The goals above would move participation to 373 actions per year, resulting in an additional 6,579,000 kWh in saving.

Focus Area: Renewable Energy

St. Louis Park has a vision of transitioning to 100% clean energy and achieving net zero greenhouse gas emissions. Therefore the team saw the importance of driving residents and businesses to use electricity produced from renewable sources such as wind and solar. The focus area Renewable Energy also ties into the proposed renewable electricity goals of St. Louis Park's climate action plan.

It was important that to this focus area to position St. Louis Park as a leader in renewable energy, and to have renewable sources be "locally grown" and located within St. Louis Park where feasible. This plan outlines two key short-term strategies for engaging residents and businesses in renewable energy actions. Long-term recommended strategies for City leadership include developing an iconic solar project within the City and leveraging that project for education and community pride, and developing a community solar garden within St. Louis Park.

Goals:

- Add 200 kW of rooftop solar and a 1 MW community solar garden within the 18 month implementation period.
- Add 1,500 new commercial and/or residential Windsource subscribers within the 18 month implementation period.

Focus Area: Partnership with Youth

Almost 20% of St. Louis Park's population is under 18 years old, and this segment of the population was directly called out in the Energy Action Team's vision to "provide a better future for our children." Thus the team felt it was important to engage youth in driving energy efficiency and renewable actions that would impact their lives the most. Knowing the high school's Roots and Shoots²³ club is currently executing a campaign called iMatterNow through the support of iMatter, a youth-driven campaign dedicated to activating change around climate issues, the team saw opportunities to partner during implementation.

Partnership with youth differs from the other focus areas in that it doesn't have defined strategies. This is because team members did not feel comfortable developing a work plan that involved youth without their input. Therefore the only goal for this focus area is to ensure youth groups are aware of the plan's focus areas and invited to partner in implementation as they see fit. Larry Kraft, the executive director of iMatter, serves on the Energy Action Team and will act as the liaison between St. Louis Park's Energy Action Team and the youth groups. Due to the youth group's ongoing climate action work, partnering on climate action plan tasks may provide the best opportunity for youth involvement.

The climate action plan work group presented a resolution to the City Council regarding the development of a climate action plan on April 18, 2016. A few weeks prior, on March 21, 2016, youth with iMatterNow called on the City Council to take action on climate change.

Goal:

- Ensure that youth are engaged, and ensure that members of Roots and Shoots partnering with iMatter are aware of this plan and invited to help implement as they are interested.

²³ Roots and Shoots is a club at St. Louis Park High School that meets bi-monthly. The club is a youth-led community action program organized by the Jane Goodall Institute.

How Are We Going To Get There? – Strategies

This section outlines in more detail the specific strategies identified to meet the goals of each focus area. The Energy Action Team spent several sessions revising strategies, and the result was developed along with Xcel Energy and facilitator assistance. Although focus areas are documented separately in this plan, the team plans to have focus area groups collaborate with one another to implement strategies. This is especially true between the Renewable Energy and Energy Efficiency in Business groups.

Focus Area: Climate Action Plan

STRATEGY OVERVIEW: Develop a Climate Action Plan for St. Louis Park	
Objective	<ul style="list-style-type: none"> Produce a climate action plan for St. Louis Park that guides the City in reaching carbon neutrality in a timeframe that avoids a climate tipping point.
Goals	<ul style="list-style-type: none"> Reinstate Regional Indicator Initiative energy tracking (which stopped in 2013). Have the City Council: <ul style="list-style-type: none"> Adopt a climate action plan by April 2017. <ul style="list-style-type: none"> Approve resolution for plan development in April/May 2016. Adopt a policy to have the City’s electricity use sourced from 100% renewables by 2025, building upon the Environmentally Preferred Purchasing Policy approved in April 2015. Once developed, begin implementing actions outlined in St. Louis Park’s climate action plan.
Actions	<ul style="list-style-type: none"> Use Shannon Pinc as a resource to get on upcoming City Council meeting agendas. Form a team between Xcel Energy and the Climate Action Plan work group to create a plan to achieve renewable electricity goals.
Measuring Success	<ul style="list-style-type: none"> Resolutions and policies being adopted by City Council.
TEAM:	
Community Lead(s)	Lead: Ryan Griffin Team: Larry Kraft, Matt Metzger
Community Partners	<ul style="list-style-type: none"> iMatter City Staff Sustainable SLP

<p>Outreach and Communication Channels</p>	<ul style="list-style-type: none"> • Communication plan to be developed with the City upon the completion of the climate action plan.
<p>Proposed Xcel Energy Support</p>	<ul style="list-style-type: none"> • 8 hours of climate action planning advice and review from Brendle Group specific to electricity planning. • Provide contacts to answer regulatory and technical questions about Xcel Energy’s infrastructure, operating system, and franchise agreement with St. Louis Park. • Share learnings from the Clean Energy Partnership in Minneapolis and opportunities such as pilot programs as they arise. • Outside of the 18 month scope of this plan, as the climate action plan is revised, Xcel Energy will meet with the City to review modifications and will continue to provide updates about partnership opportunities.

Timeline

March-June 2016

- Finalize initial resolution for the City Council (Ryan and Climate Action Plan, or CAP, work group).
- Research the City Council approval process (Shannon and CAP work group).
- Develop resolution presentation for the City Council (Ryan and CAP work group).
- Present at City Council meeting (Ryan and CAP work group).
- City Council approval of resolution (St. Louis Park City Council).
- Upon City Council approval to develop a climate action plan, outline plan development responsibilities such as data analysis, writing, research, etc. (Shannon and CAP work group).
- Evaluate if outside funding is available to develop a climate action plan (Shannon and CAP work group).
- Research what other entities are doing in terms of climate planning; look at peer cities, the Met Council, the county, the state, and national information (CAP work group with resource suggestions from the Partners in Energy facilitation team).
- Check-in with Julie Grove at the City to discuss the reinstatement of Regional Indicator Incentive data tracking (Ryan).
- City Council approves resolution committing to purchasing 100% renewable electricity in agreement with the 2015 Environmentally Preferred Purchasing Policy (City Council).

July 2016

- Form a team with Xcel Energy and St. Louis Park to plan for 100% renewable electricity by 2025 (CAP work group and Xcel Energy).
- Hold first meeting (CAP work group and Xcel Energy).
- Post climate action plan development RFP (request for proposal) (City staff).

August 2016

- Proposals for climate action plan development due.
- Review climate action plan proposals (CAP work group, City staff).

September 2016

- Select a consultant to develop St. Louis Park's climate action plan (CAP work group, City staff)

October 2016 - March 2017

- Six-month development of St. Louis Park's Climate Action Plan (outside consultant assistance, CAP work group, and 8 hrs of Partner in Energy support provided throughout planning process)

March 2017

- Final stakeholder review of a climate action plan (CAP work group)
- Incorporate revisions into a climate action plan (consultant, CAP work group).
- Get on the City Council April meeting agenda (Shannon Pinc and CAP work group).
- Develop a communication plan to inform community members about the climate action plan and the proposed goals (CAP work group, City communications staff, and Shannon Pinc).

April 2017

- Develop climate action plan presentation for the City Council (CAP work group).
- Get a climate action plan approved by the City Council (City Council).

May 2017

- Energy Action Team checks in with the City on the implementation of the climate action plan (CAP work group and City staff).

- Develop an organized communications plan with the City that addresses the CAP action items (CAP work group and City staff).
- Begin adopting actions outlined in the climate action plan (City staff and Sustainable SLP).
- Identify pilot project opportunities for the City (CAP work group and Xcel Energy).

June 2017

- Roll out specific implementation recommendations and action items with the climate action plan that will influence work from June 2017 to March 2018. The work timeline will be updated reflecting those tasks.

Long-Term Actions

- Review the climate action plan every 2-3 years (City staff, CAP work group, and Xcel Energy).

Focus Area: Energy Efficiency in Business

STRATEGY OVERVIEW: 'Top 100' Large Businesses Energy Tracking	
Objective	<ul style="list-style-type: none"> Motivate large businesses in St. Louis Park to save energy by voluntarily tracking their business energy use, participating in energy efficiency actions, and recognizing/celebrating the results.
Goal	<ul style="list-style-type: none"> Have 30 of the largest businesses complete energy efficiency actions between September 2016 and March 2018.
Actions	<ul style="list-style-type: none"> Provide a call to action for large business leaders from the Mayor/City Council. Set up a public website to track business participation and results. Provide ongoing Mayoral/City Council recognition of the energy leaders. Publicize individual accomplishments using case studies. Provide individualized technical assistance for benchmarking e.g. a call line. Create business-facing energy use cases/company spotlights.
Measuring Success	<ul style="list-style-type: none"> Number of businesses that are listed on website. Overall large business program participation.
Community Lead(s)	<p>Lead: To be identified. Recruitment at the beginning of plan implementation.</p> <p>Team: Micah Vainikka and additional recruited members.</p>
Community Partners	<ul style="list-style-type: none"> Mayor/City Council TwinWest Chamber of Commerce City of St. Louis Park's communication staff
Outreach and Communication Channels	<ul style="list-style-type: none"> Mayoral press coverage. TwinWest Chamber of Commerce events and publications. Direct outreach to large businesses in St. Louis Park.
Proposed Xcel Energy Support	<ul style="list-style-type: none"> Assist in outreach to businesses. Develop communicational collateral and outreach tools. Support recognition program. Provide support for use of business benchmarking tool if appropriate. Help prioritize energy efficiency programs for large businesses. Track participation in Xcel Energy programs.

STRATEGY OVERVIEW: Provide education and outreach to businesses using a segmented approach based on business type.

Objective	<ul style="list-style-type: none"> Drive energy efficiency in small to medium businesses by conducting a targeted education and outreach campaign to priority business segments.
Goal	<ul style="list-style-type: none"> Two hundred small to medium-sized businesses take energy efficiency actions between September 2016 and March 2018.
Actions	<ul style="list-style-type: none"> Prioritize business types on which to focus given local energy efficiency potential. Generate a process map for specific businesses types, including information on audits, instructions, and resources from CenterPoint Energy and Xcel Energy. In addition, provide information about financing options such as PACE. Develop business-specific outreach materials on opportunities, incentives, and tangible and intangible benefits.
Community Lead(s)	Team: To be identified. Recruitment at the beginning of plan implementation.
Community Partners	<ul style="list-style-type: none"> TwinWest Chamber of Commerce City of St. Louis Park's communication staff
Outreach and Communication Channels	<ul style="list-style-type: none"> Events and publications through TwinWest Chamber of Commerce. City-wide news publications.
Proposed Xcel Energy Support	<ul style="list-style-type: none"> Identify leading business segments and top energy efficiency priorities. Assist with developing marketing materials.

Timeline

September-November 2016

- Use the plan to get buy-in from Sustainable SLP and the City Council on business goals.
- Recruit members of the community to join the Energy Efficiency in Business focus area group so there is the necessary bandwidth to reach goals.
- Begin case study development; start outreach to businesses and recognized leaders (e.g. planning team members such Hardcoat, Park Nicollet, Nordic Ware, etc); and lay groundwork for the development of case studies.
- Research the broader types of businesses in St. Louis Park (e.g. through assessor database) and prioritize business types for targeted outreach; assess

what they need and where they should start (e.g. restaurants, offices, retail, etc.).

- Collect info that can be used for marketing (e.g. how much businesses have historically saved in St. Louis Park).

December 2016- February 2017

- Develop messaging to largest businesses that invites them to benchmark their buildings and provides information on how to get started on efficiency. (Benchmarking may not be the only step, but would be presented as a resource if businesses want to start there.)
- Finalize one to two starter case studies.
- Schedule and carry out mayoral recognition of business leaders who have done efficiency and ask for additional leaders to step up their efficiency goals; finalize what specifics about the recognition.
- Launch city-hosted website that will have a list of recognized business leaders.
- Show leadership of city benchmarking as an example and make a commitment about tracking/reducing energy use of city buildings.

March-May 2017

- Produce ongoing case studies for different types of businesses based on who is signing on to the goals.
- Develop ongoing communications to the community featuring different business types and what you can do (e.g. through newsletters or city utility billing).
- Check goals and refine communications at end of May 2017, if needed.

2017

- Promote the benefits of benchmarking, and ask the City Council to consider the benefits of benchmarking requirements, depending on how the voluntary participation is going.
- Apply for a Minnesota GreenCorps member to partially provide free technical assistance for benchmarking, and look into other free resources to direct businesses for voluntary benchmarking.

Focus Area: Renewable Energy

STRATEGY OVERVIEW: Reach out to private entities (non-profits, faith-based organizations and businesses) and public entities (local government and schools) by leveraging organizations, city communication channels and educational partners to increase renewable energy use.

Objective	<ul style="list-style-type: none"> • Increase solar installations and subscriptions to Windsource®. • Leverage local business organizations to engage businesses.
Focus Area Goals	<ul style="list-style-type: none"> • Add 200 kW of rooftop solar and 1 MW of community solar garden subscriptions within the 18 month implementation period. • Add 1,500 new commercial and residential Windsource® subscribers within the 18 month implementation period.
Actions	<ul style="list-style-type: none"> • Create a web presence on the St. Louis Park website for nonprofits, local government, faith-based organizations, and businesses to learn more and have access to relevant resources such as financing. • Present at two St. Louis Park Economic Development Authority Study Sessions. • Conduct follow-up informational sessions at a case study site. • Conduct direct outreach to businesses. • Engage businesses with existing solar arrays. • Connect with the outreach communications of the business efficiency focus area. • Have business program materials available at community events such as the Solar Power Hour, Organics Living Workshop, and Earth Day events.
Measuring Success	<ul style="list-style-type: none"> • Track solar permitting through the City of St. Louis Park. • Track program enrollment through Xcel Energy.

TEAM:

Community Lead(s)	<p>Lead: Chris Liedman</p> <p>Team: Cindy Larson, Matt Wyatt. This team will recruit additional implementation team members.</p>
Community Partners	Sustainable SLP, Julie Grove (St. Louis Park Business Liaison), City of St. Louis Park, CERTs, St. Louis Park Business Council, TwinWest Chamber of Commerce
Outreach and Communication Channels	<ul style="list-style-type: none"> • Audience: private entities (non-profits, faith-based organizations and businesses) and public entities (local government and schools) • Channels: St. Louis Park Economic Development Authority communications channels and meetings, the City newsletter, St. Louis Park Business Council meetings, TwinWest Chamber of Commerce communication channels, and Xcel Energy email blasts.

	<ul style="list-style-type: none"> • Messaging: Emphasize the return on investment for solar and statistics on how it can benefit business marketing; opportunities to be highlighted as a case study.
Proposed Xcel Energy Support	Help with tracking, reviewing and developing marketing materials.
STRATEGY OVERVIEW: Reach out to residents by leveraging organizations, city communication channels, and educational partners to increase renewable energy use.	
Objective	<ul style="list-style-type: none"> • Increase residential Windsource® subscriptions. • Increase residential solar installations. • Distribute information to educate St. Louis Park residents about renewable energy opportunities.
Focus Area Goals	<ul style="list-style-type: none"> • Add 200 kW of rooftop solar and 1 MW of community solar garden subscriptions within the 18 month implementation period. • Add 1,500 new commercial and residential Windsource® subscribers within the 18 month implementation period.
Actions	<ul style="list-style-type: none"> • Create a web presence on the St. Louis Park website for residents to learn more and have access to relevant resources. • Write and share content via City communications channels, including digital and print platforms. • Develop materials and table at community events. • Create materials for neighborhood associations to distribute. • Connect with community solar developers to amplify messaging and clarify information for residents. • Use outreach techniques (e.g. hosting a solar tour, developing case studies, getting media coverage) on established residential solar.
Measuring Success	<ul style="list-style-type: none"> • Track solar permitting through St. Louis Park. • Track program enrollment through Xcel Energy.
TEAM:	
Community Lead(s)	<p>Lead: Cindy Larson and Matt Wyatt</p> <p>Team: This team will recruit additional implementation team members.</p>
Community Partners	Sustainable SLP Educational work group, Shannon Pinc (St. Louis Park Environment and Sustainability Coordinator), City of St. Louis Park, neighborhood associations, CERTs, and community solar developers.
Outreach and Communication Channels	<ul style="list-style-type: none"> • Audience: Residents. • Channels: Community events, social media (Facebook, Twitter, Nextdoor), website, newsletter, neighborhood associations, and

	<p>cable channels.</p> <ul style="list-style-type: none">• Messaging: Demystify community solar and solar arrays- join in the community effort to make a positive environmental impact by lowering carbon emissions.
Proposed Xcel Energy Support	Help develop, review, and track marketing and display materials.

Timeline

March 2016 (potentially pre-implementation)

- Develop materials focused on Windsorce® to display at tabling event (Community Team, Xcel Energy, City communications staff)

April 2016

- Attend the Solar Power Hour on April 12th, 2nd Annual Organic Living Workshop on April 16th, 2016 (Community Team, Sustainable SLP, and City staff).
- Conduct business solar research (Community Team).

September 2016

- First implementation team meeting (Community Team).
- Recruit implementation team members (Community Team).
- Research on how to best involve CERTs (Community Team).
- Conduct addition business solar research (Community Team and CERTs).
- Develop content and concept for a website (Community Team, City communications staff, and Xcel Energy).

October 2016

- Research solar tours (Community Team).
- Continue to develop content for website (Community Team, City communications staff, and Xcel Energy).
- Get on the agenda for the December 2016 St. Louis Park Economic Development Authority meeting (Community Team).

November 2016

- Develop a business-centered presentation (Community Team and Xcel Energy).
- Develop content for Park Perspective (Community Team, City communications staff, and Xcel Energy).
- Develop content for an Xcel Energy email blast (Community Team and Xcel Energy).

- Table at a home remodeling event (Community Team).
- Table at additional community events as available throughout implementation (Community Team).

December 2016

- Research opportunities to involve youth (Community Team).
- Present at St. Louis Park Economic Development Authority meeting (Community Team, Xcel Energy).
- Launch website (Community Team and City communications staff).
- Follow up from St. Louis Park Economic Development Authority meeting (Community Team).
- Connect with community solar developers and invite them to the April event (Community Team).

January 2017

- Reach out to businesses directly throughout implementation (Community Team and Julie Grove).
- Follow up from the St. Louis Park Economic Development Authority meeting (Community Team).
- Plan business follow-up event at a case study business (Community Team)
- Publish content in Park Perspective (Community Team and City communications staff).

February 2017

- Develop content for Park Perspective and other City channels throughout implementation (Community Team, City communications staff, Xcel Energy, and the Sustainable SLP outreach work group).
- Host follow-up business event (Community Team).
- Publish content in neighborhood bulletins (Community Team, City communications staff, and Breanna Freedman).
- Table at a sustainable home remodel fair (Community Team).

March 2017

- Develop business presentation (Community Team, City Xcel Energy).
- Prepare materials for the April event (Community Team, City communications staff, and Xcel Energy).
- Send an email blast through Xcel Energy for the April event (Community Team and Xcel Energy).
- Get on the agenda for the April St. Louis Park Economic Development Authority meeting (Community Team).

April 2017

- Present at St. Louis Park Economic Development Authority meeting (Community Team and Xcel Energy).
- Table at 3rd Annual Organic Living Workshop (Community Team, Sustainable SLP, and City staff).
- Follow up from St. Louis Park Economic Development Authority meeting (Community Team)
- Plan business follow-up event at case study business (Community Team)

May 2017

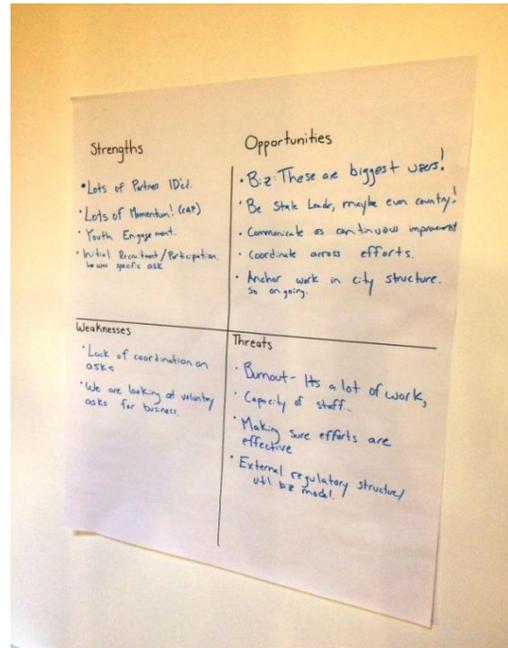
- Follow up from St. Louis Park Economic Development Authority meeting (Community Team).
- Host follow-up business event (Community Team).

June 2017-March 2018

- Strategies dependent on success of outreach.

Threats and Opportunities in Implementation

At the end of the planning process the Energy Action Team reflected on each of their focus areas to identify strengths, opportunities, weaknesses, and threats. The team plans to use this knowledge to better prepare for roadblocks and to leverage opportunities.



SWOT Analysis from Workshop 5

Climate Action Plan

Strength: Momentum with youth group on climate action plan.

Opportunity: To be a leader in the state and maybe the country. Anchor these strategies to go beyond 18 months.

Threats: Regulatory structure, utility business model — there's a lot of inertia against the kinds of things we want to do.

Renewables

Strength: Identified a lot of channels to educate and reach out to partners.

Opportunity: To invite new people and tell them exactly what they'll help you achieve.

Threat: Personal burn-out with a lot of people.

Weakness: We might not be able to reach enough people.

Business Efficiency

Opportunity: There's a big opportunity for efficiency and impact because businesses use a lot of energy.

Threat: It's a lot of work, and currently there is not a lot of human power. Another threat is lack of coordination enough between groups.

Weakness: Voluntary participation can be difficult. Mitigate with a mandatory approach as needed. Even with a mandate, Minneapolis wasn't able to get 100% participation.

How Are We Going To Stay On Course? – Monitoring and Reporting

Work Group Leads

In order to meet the goals outlined in this plan, the members of St. Louis Park's Energy Action Team assigned work group leads for each of their focus areas. Ryan Griffin is the lead for the Climate Action Plan group, Cindy Larson, Chris Liedman, and Matt Wyatt are the leads for the Renewable Energy group, and the lead for the Energy Efficiency in Business group will be identified in the beginning of plan. Responsibilities for work group leads include being the point person for communication with Partners in Energy community facilitators, ensuring communication goals are being met, and initiating meeting scheduling.

To maintain strong communication during implementation both city staff liaison Shannon Pinc at spinc@stlouispark.org and community facilitator Emma Struss at estruss@mncee.org should be cc'ed on work group emails to track progress.

Communication Frequency

Climate Action Plan

During Workshop 5 the Climate Action Plan group agreed that communication in the first few months should occur on a biweekly basis. After a resolution for a climate action plan is passed by Council, then the group will transition to a monthly check-ins. Email is the preferred mode of communication, with calls and in-person meetings as additional options when needed.

Energy Efficiency in Business

The Energy Efficiency in Business group will meet on a monthly basis.

Renewables Focus Area

As implementation kicks off, it is anticipated that more coordination and meetings will be needed to set up activities, and less coordination and meetings will be needed farther out. Therefore the renewables focus area group will meet monthly for the first few months and transition to every other month as implementation progresses. Google Drive will be used to share documents, materials, and ideas. The group will review goals quarterly to track progress.

Partnership with Youth

Larry Kraft will act as the liaison between iMatterNow campaign members and the volunteers and staff implementing this plan.

Communication with the Community

A webpage on the City's website will be created in 2016 to share information and updates about the focus areas outlined in this plan.

Appendix 1: Glossary of Terms

Account: Generally refers to a single customer account; also called a debtor (see below).

B3 Benchmarking: B3 stands for Buildings, Benchmarks, and Beyond. It is an online benchmarking tool that uses building and meter information to summarize energy consumption, costs, and carbon emissions.

Climate Tipping Point: A critical threshold at which the future state of a system can be qualitatively altered by a small change in forcing.²⁴

Commercial Premises: Includes, but is not limited to, properties such as schools, apartment buildings, worship buildings, businesses, and nonprofits.

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

Community Solar Garden: A centralized solar installation that allows for investment in solar energy without an installation on an owner's property. A utility credit is provided to individual owners for energy production by their fraction of the installation.

Debtor: Refers to a single customer account that could have multiple premises and/or multiple meters associated with it.

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 shift the 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-term 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 to successfully implement a plan.

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

Home Energy Squad® (HES): Home Energy Squad is a joint offering between Xcel Energy and CenterPoint Energy in communities where CenterPoint Energy provides

24 Lenton, Timothy M. "Earth System Tipping Points." United States Environmental Protection Agency. [https://yosemite.epa.gov/ee/epa/erm.nsf/vwAN/EE-0564-112.pdf/\\$file/EE-0564-112.pdf](https://yosemite.epa.gov/ee/epa/erm.nsf/vwAN/EE-0564-112.pdf/$file/EE-0564-112.pdf).

natural gas service. The program helps residential customers reduce energy use in their homes by completing direct installs. The “Enhanced” version of the program includes diagnostic testing and follow-up support.

Metro Clean Energy Resource Teams (CERTs): A Twin Cities based organization that empowers communities and their members to adopt energy efficiency and renewable energy technologies and practices for their homes, businesses, and local institutions.

Minnesota GreenStep Cities: Minnesota GreenStep Cities is a voluntary challenge, assistance, and recognition program to help cities achieve their sustainability and quality-of-life goals.

One-Stop Efficiency Shop[®] Lighting Retrofits: A full-service lighting rebate program available to small businesses in Xcel Energy's Minnesota service territory with an electric demand of 400 KW or less.

Premise: A unique identifier for the location of electricity or natural gas service, acting as a contact point between an energy company and a customer. In most cases it is a facility location. There can be multiple premises associated with a single site 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.

Renewable Energy Certificates (REC): The property rights to the environmental, social, and other nonpower qualities of renewable electricity generation. A REC, as well as its associated attributes and benefits, can be sold separately from the underlying physical electricity associated with a renewable-based generation source.²⁵

Rooftop Solar: Solar panels that provide electricity to onsite users.

Refrigerator/Freezer Recycling: An Xcel Energy residential program that facilitates the removal and recycling of spare operational refrigerators and freezers. Appliance pick up and recycling is free, and residents receive a rebate for participation.

Solar*Rewards[®]: A program from Xcel Energy that offers incentives and rebates for installation of photovoltaic (PV) solar panels.

Therm: A unit of natural gas consumption.

²⁵ U.S. Environmental Protection Agency. "Renewable Energy Certificates." Green Power Market. <https://www3.epa.gov/greenpower/gpmarket/rec.htm>.

Windsorce[®]: A program from Xcel Energy that allows customers to purchase blocks of wind energy as their electricity source.

Appendix 2: Planning Phase

Workshop Overview

The section below includes more detail on how the group developed the above vision, focus areas, and strategies over the course of five workshops.

Workshop 1 — Visioning Activity

The facilitation team introduced Partners in Energy and presented an initial data set of St. Louis Park's energy usage. The group brainstormed their favorite St. Louis Park assets and then, first individually and then as a group, the team defined what an ideal energy future for the St. Louis Park area would look like. As team members presented the qualities they deemed most important, trends surfaced that included a focus on accessibility, stakeholder partnership, leadership, paving the way for future generations, conservation, and net zero. At the end of Workshop 1, three volunteers formed a small work group to wordsmith a draft vision statement.



Workshop 1: Brainstorming

Small Work Group

A small group developed various energy vision statements based upon the Energy Action Team's workshop discussion. They used materials provided by the facilitation team as a guideline and then drafted a vision statement. Following a facilitated conference call with the full group and a City lead, a second option was drafted. This was sent out for community feedback between Workshop 1 and Workshop 2. Three vision statements were presented to the group at Workshop 2.

Between Workshops 1 & 2: Three volunteers from the Energy Action Team drafted a vision statement over a facilitated call and several emails.

Workshop 2 — Vision, Focus Areas, and Draft Goals

Three vision statements were presented to the Energy Action Team at Workshop 2. The discussion that followed included if goals and dates should be included in the vision statement and, if so, how aggressive they should be. The facilitation team presented options for focus areas based on St. Louis Park's vision and the community asset brainstorm in Workshop 1. The Energy Action Team nominated focus areas for voting



Workshop 2: Focus Area Exercise

and then voted on which ones were best suited for the Energy Action Plan. The four focus areas selected were: Energy Efficiency in Business, Climate Action Plan, Partnership with Youth, and Renewable Energy. Focus areas that were included in the vote, but were not selected were Local Government and Community Collaboration. Ways of measuring success, including draft goals, were discussed for each of the selected focus areas.

Between Workshops 2 & 3: The team voted on the three vision statement proposals and decided a time-bound goal should not be included in the vision statement. There was also a COMPASS tool webinar through the Exchange.

Workshop 3 — Draft Goals and Strategies

Workshop 3 started with an outline of the workshop goals and a review of the Energy Vision that the Energy Action Team voted on between Workshop 2 and Workshop 3. The group reviewed the four selected focus areas from the previous workshop (Energy Efficiency in Business, Climate Action Plan, Partnership with Youth, and Renewable Energy). The group separated into three small groups to each work on the draft goals and strategies for each focus group. The Climate



Workshop 3: Small Groups

Action Plan focus area did not have a small group, but a plan was made for a check-in call with those interested in working on it between Workshop 3 and Workshop 4. At the end of the workshop, the larger group heard from each small group and the facilitation team talked about bringing a draft of the Energy Action Plan to Workshop 4. The draft goals are shown in the table below.

Draft Goals

Energy Efficiency in Business

- 10% participation of St. Louis Park businesses with 10% of the highest users involved.

Renewable Energy

- 200 kW of rooftop from mixed residential and business installations, and a 1MW community solar garden.
- Recruit an additional 1,500 residents to sign up for Windsource®.

Partnership with Youth

- Recruit youth ages 10-18 to participate in the development of a Climate Action Plan by 12/31/15.

Between Workshops 3 & 4: The Climate Action Plan work group met to discuss proposed goals and data projections. Additionally they discussed possible collaboration with iMatter youth leaders.

Workshop 4 — Climate Action Planning and Goal and Strategy Refinement



Workshop 4: Carbon Credit Presentation

Workshop 4 started with a guest presentation from Partners in Energy implementer, Judy Dorsey. Judy spoke about climate action planning as a way to help the team further understand what other communities have done on a national scale. Then Larry Kraft, a member of the Energy Action Team, presented on carbon credit calculations for St. Louis Park, which helped a group of team members develop proposed goal scenarios for St. Louis Park to reach carbon neutrality. After his presentation the entire team

discussed the proposed goals, which were carbon neutral by 2040 and 100% renewably-sourced electricity by 2025. Half the team was immediately on board. The other half had questions regarding the technical feasibility of implementing the goals, the proposed cost to the community, and how carbon credits would be factored into implementation. For the remaining portion of the workshop team members worked in small groups to further define focus area goals and strategies.

Between Workshops 4 & 5: Small groups developed additional tactical details for strategy implementation.

Workshop 5: Strategy Mapping and SWOT Analysis



Workshop 5 began with an overview of the workshop planning process. The Energy Action Team then divided into three work groups to further define the goals and strategies needed for each focus area. The groups then mapped out actions on a timeline to chart implementation tasks and responsibilities.

The teams also agreed upon communication expectations within their specific work groups. At the end of the workshop the work groups gathered back as a large group and discussed the strengths, weaknesses, opportunities, and threats that face each focus area as the City begins implantation. The primary concern from the Energy Action Team was volunteer burnout. Solutions for this included applying for grants and getting a Minnesota GreenCorps placement. Areas of opportunity included engaging the business community and moving the development of a climate action plan forward.

The final team discussion addressed the need for a name and logo to help brand the effort and more clearly communicate around the initiative as actions are carried out in the community. The team chose to modify the Sustainable SLP circular logo to reflect a focus on energy. The team also agreed to meet for a celebration post plan approval.

Appendix 3: Sustainable SLP' Introduction Slides, Presented by Ryan Griffin during Workshop 1



St. Louis Park
MINNESOTA
Experience LIFE in the Park.



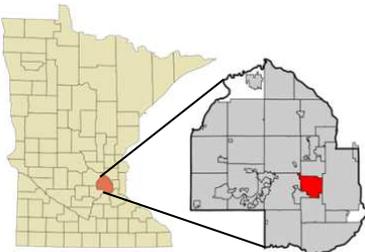
SUSTAINABLE
SLP

St. Louis Park - Partners in Energy Strategic Planning Team - Kickoff Meeting

Ryan Griffin
August 13, 2015



St. Louis Park
MINNESOTA



Population:	47,321
Land Area:	10.6 sq. miles
Population Density:	4,447 residents/ sq. mile
Annual Electricity:	147,274 MWh
Annual Natural Gas:	31,110,902 Therms
Annual Travel:	437,470,020 vehicle miles
Vehicle miles/person/day:	25.3 miles
Unemployment rate:	3.20%
Median Family Income:	\$81,763
2014 City Budget:	\$30.4 Million
Gross Dom. Income of City:	\$1.86 Billion

Background / timeline

- Nov 2014 – Proposal to Energy Work group
- Jan 2015 – SLP became the 4th MN city to join Xcel Partners in Energy
- May 2015 – initial meetings facilitated by CEE between SLP and Xcel
- July 2015 – Strategic Planning team formed
- Aug 2015 – Kickoff meeting!

Capstone Project

Masters in Sustainable Systems Engineering - UW Madison

Develop a virtual model by which all city sectors (residential, commercial, municipal) in St. Louis Park can work together to mitigate their impact on climate change and the environment.

Aggressive goal proposed: become carbon neutral as a city by 2040.

Problem

Our food-supply, economy, security and health at risk.

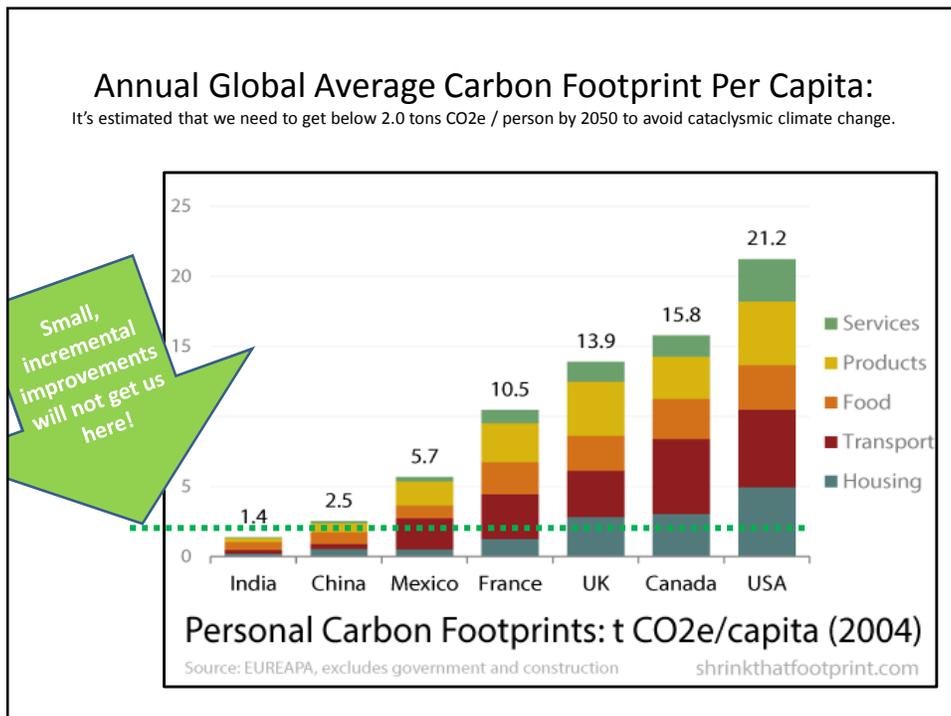


Statement

SLP is committed to reducing its impact, but needs a strategy, goals and an action plan.





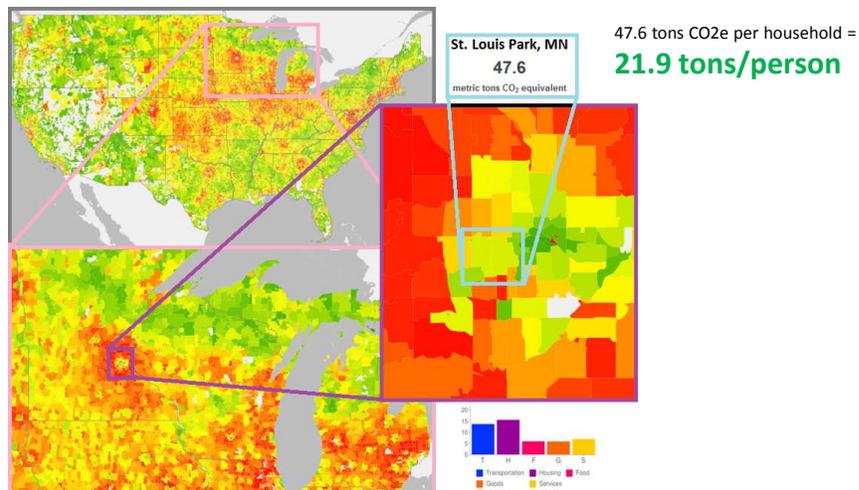


Step 1: Collect & Analyze Baseline Data

- GIS Data
- National Averages
- RII Data as baseline for entire city (residential, commercial & industrial)
- City utility bills
- Utility aggregate data



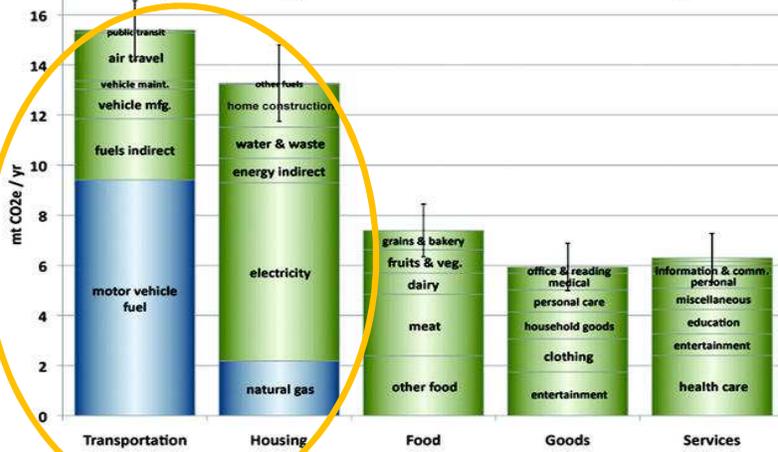
Annual per-capita emissions for St. Louis Park (CO₂e)



Source: Berkeley Cool Climate Calculator: (includes scope 1, 2 & 3 emissions) [Berkeley 2014]

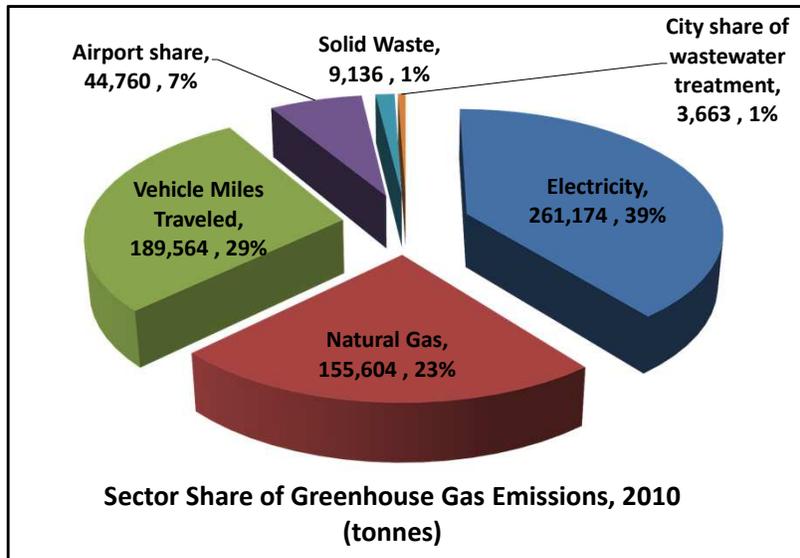
St. Louis Park mirrors national average footprint

Carbon Footprint of Typical U.S. Household: 48 Tons per Year

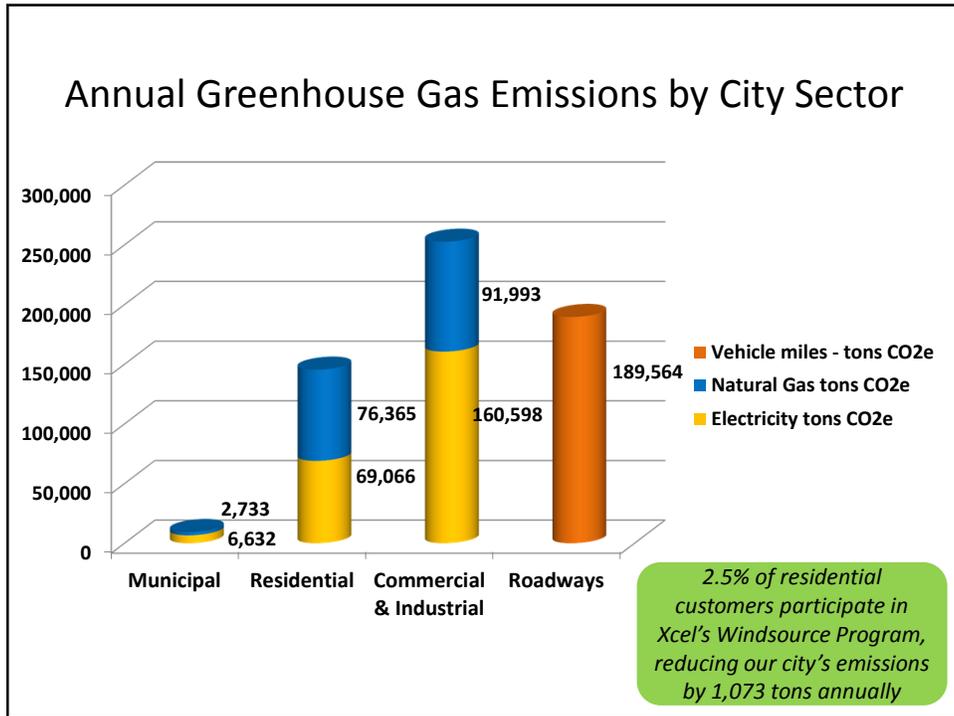


Source: Berkeley Cool Climate Calculator: (includes scope 1, 2 & 3 emissions) [Berkeley 2014]

Regional Indicators Initiative (RII) – St. Louis Park, MN



Data Source: Regional Indicators Initiative



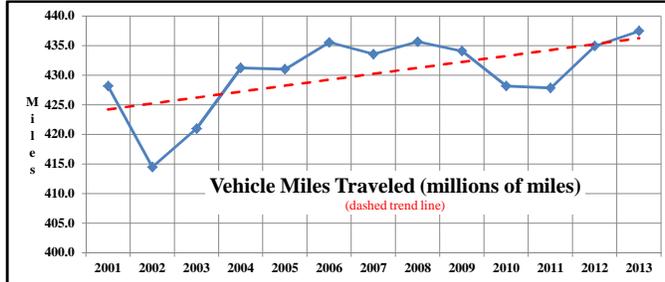
Minnesota Electricity facts

- **25.0%** - Minnesota Renewable Energy Standard for 2016 (excluding Xcel Wind Source power). **Jumps to 31.5% in 2020.**
- Minnesota grid GHG emission rates improved by 19% between 2007-2013
- 2013 Xcel Energy Windsource pricing was only 7% above standard rates.

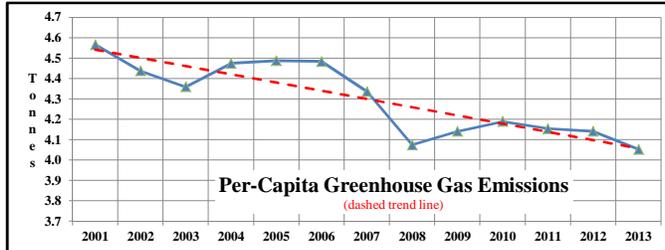


Data Source: DSIRE Database of State Incentives for Renewables & Efficiency

Vehicle Miles Travelled in St. Louis Park



Population growth may account for VMT growth.



Cars are becoming cleaner and more efficient.

Data Source: Regional Indicators Initiative

Vehicle Miles Travelled in St. Louis Park



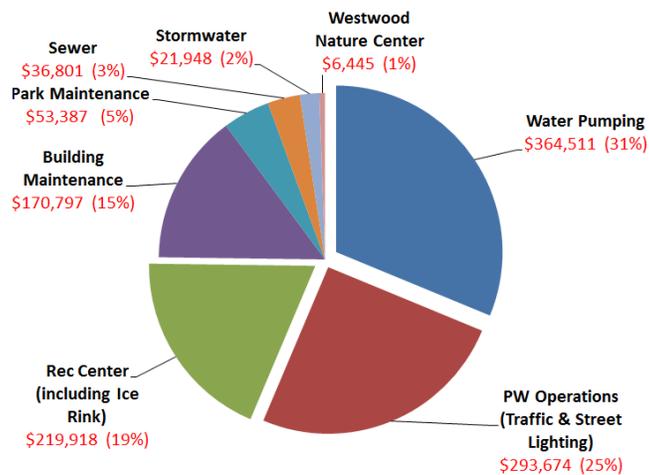
- 25.3 miles travelled per person per day
- Interstate / Artery = 27%
- State & County highways = 49%
- Municipal Streets = 24%

Natural Gas Challenges & Dependency

- Highest residential CO2 emission source for City
- Cheapest way to emit greenhouse gases in SLP, with a 40% decrease in cost since 2008.
 - \$404 cost per ton **vehicle fuel** CO2e
 - \$199 cost per ton **electrical** CO2e
 - **\$125 cost per ton natural gas** CO2e
- Must find was to reduce dependency in mid-term

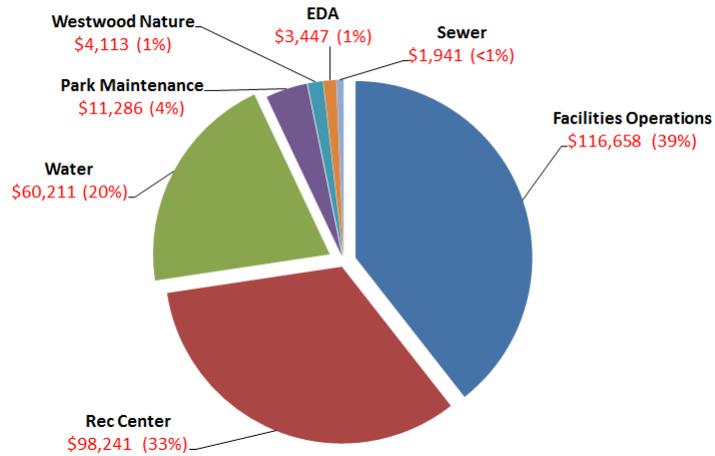


St. Louis Park, MN – Annual City Operations Electricity Cost 2014 = \$1.2 Million



Data Source: Xcel Energy monthly bills collected from Steven Heintz – St. Louis Park Finance Supervisor

St. Louis Park, MN – Annual City Operations Natural Gas Cost 2014 = **\$296,000**



Data source: Xcel Energy monthly bills collected from Steven Heintz – St. Louis Park Finance Supervisor

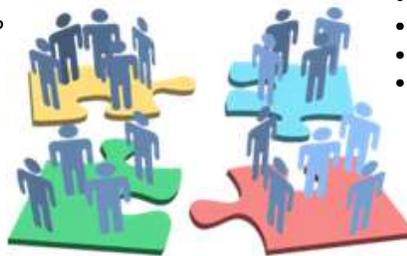
Step 2 for SLP: Engage Stakeholders

Government:

- Mayor
- City Council
- City Staff
- Sustainable SLP

Partners:

- Xcel Energy
- CenterPoint Energy
- CEE
- MN DOT
- PACE
- CERTS



Citizens:

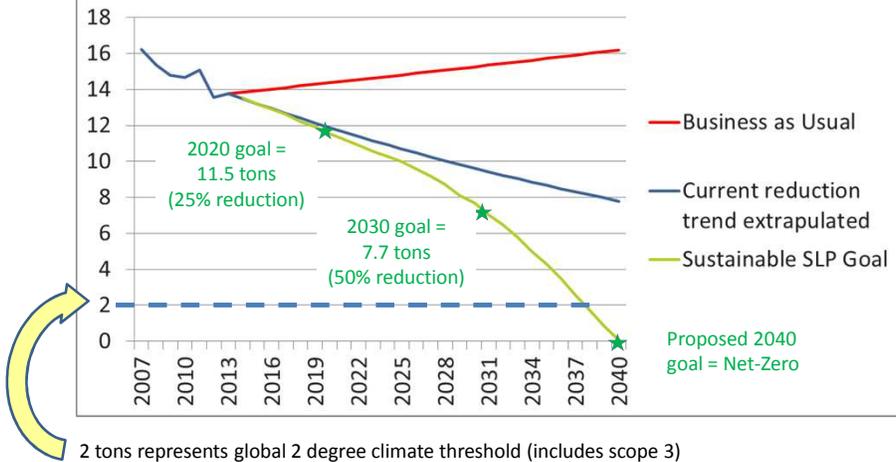
- Residents
- Voters
- Taxpayers
- Students

Private Sector:

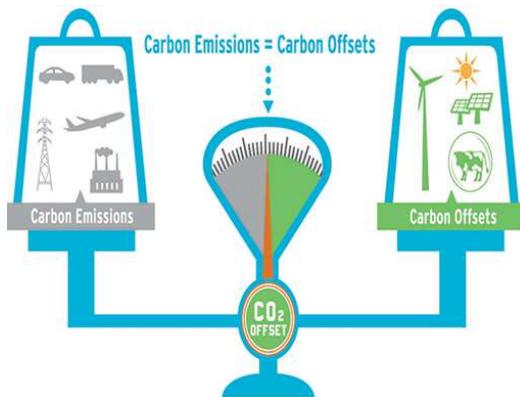
- Retail / Small Business
- Commercial
- Industry

Step 3 for SLP: Goal Setting: 25-year greenhouse gas projection & net-zero goals

City of SLP tons per-capita scope 1 & 2 GHG emissions (excludes food, products & infrastructure)



Applying Conservation savings to Carbon Offsets



SLP spends \$155.7 million in total energy per year (\$3,291 / person)

It would cost \$4.4 million per year to offset all sectors of the city - \$142 / person / year

(less than 3%)

- Reducing electricity by 7% through **behavioral change**, would let the city join the Xcel Windsource Program with no net cost increase (7% savings = \$81,000/yr.)
- Reducing natural gas by 12.5% through **behavioral change** would let the city join the CenterPoint Green Balance Program with no net cost (12.5% savings = \$37,000/yr.)

Step 4 for SLP: Strategic Planning

Prioritization Matrix

Issue	CO2e Impact	+ Improvement vs. doing nothing	+ Difficulty and Cost	= Priority Weight (near, mid, long)
Transport / Vehicle CO2e	High (5)	Low (1)	High (-5)	Long term (1)
Commercial Electrical CO2e	High (5)	Medium (3)	Medium (-3)	Near term (5)
Commercial Gas CO2e	Medium (3)	Medium (3)	Medium (-3)	Mid term (3)
Residential Gas & HVAC CO2e	Medium (3)	High (5)	High (-5)	Mid term (3)
Residential non HVAC Electrical	Medium (3)	Medium (3)	High (-5)	Long term (1)
Municipal Works footprint	Low (1)	High (5)	Low (-1)	Near term (5)
City Renewable generation	Medium (3)	Medium (3)	High (-5)	Long term (1)

Top 3 Near-term (2015-2016) Recommendations for action (Things we can do now)

- 1) Build strategic partnerships:
 - Xcel Partners in Energy
 - Clean Energy Resource Teams (CERTS)
 - Chamber of Commerce
- 2) Lead by example:
 - Conservation through behavior change among city staff
 - Xcel Windsource for city accounts
 - CenterPoint Green Balance for city accounts
- 3) Engage commercial sector:
 - Sector uses 70% of the city's electricity – identify largest user groups
 - Leverage existing programs through outreach – PACE, CERTS, Xcel

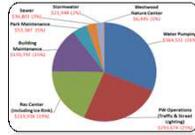
Top 3 Mid-term (2015-2020) Recommendations for action

- 1) Focus on HVAC of existing residential and commercial building stock
 - Reduce dependency on natural gas
 - Incent reporting of building performance in the commercial sector
 - Incent superinsulation and other conservation tactics at time of remodel
- 2) Sustainability Vision
 - Ensure energy strategy is a part of a broader sustainability strategy
 - Align strategies regionally with nearby cities to accomplish goals
- 3) Begin to think seriously about transportation
 - Form 'Transportation work group'
 - Partner with the 'Health in the Park' "Connect the Park"
 - Promote "Live where you work, shop where you live"

Top 3 Long-term (2020-2040) Ideas for action

- 1) Fully address transportation
 - Actively plan and design for higher density communities
 - Greatly reduced dependence on personal automotive transport
- 2) Explore and implement distributed generation opportunities
 - Community Solar
 - Bio-digestion
 - Geothermal / district heat
- 3) Design for reduced consumption
 - Produce locally
 - Waste Less
 - Encourage more sustainable consumption patterns
 - Reduce embodied energy in infrastructure

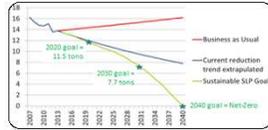
Project Outcomes to Date:



Baseline energy data reporting completed



St. Louis Park becomes 4th MN city to join Xcel's 'Partners in Energy Program'



First Draft of Emissions Plan submitted for Energy Work Group review

Future Challenges



- Educating our citizens
- Incorporating our energy strategy into a broader city sustainability mission
- Fully engaging the business community
- Increasing our strength by partnering regionally with other municipalities
- Unforeseen challenges such as social, political or economic changes that disrupt our path to net-zero

Conclusion & Lessons Learned



Lessons
Learned

- Mitigating climate change requires action at every possible level, as soon as humanly possible
- Cities are well positioned to ‘move the ball’
- Start with the big picture in mind
- Think in terms of maximizing global benefit
- A plan is only as good as the stakeholders engaged

Questions??

Thanks for taking the time to read this proposal!

These are just some high level thoughts on how we might begin to enact change. In order for any of this to be successful, it must be a collaborative effort. Your input and comments are welcomed and appreciated!

Please contact me at:

ryan.griffin@seetheforestconsulting.com or 716-525-4488

Appendix 4: Climate Action Plan PowerPoint, Presented by Larry Kraft during Workshop 4

Vision:

what must happen to end the crisis



Arctic Methane

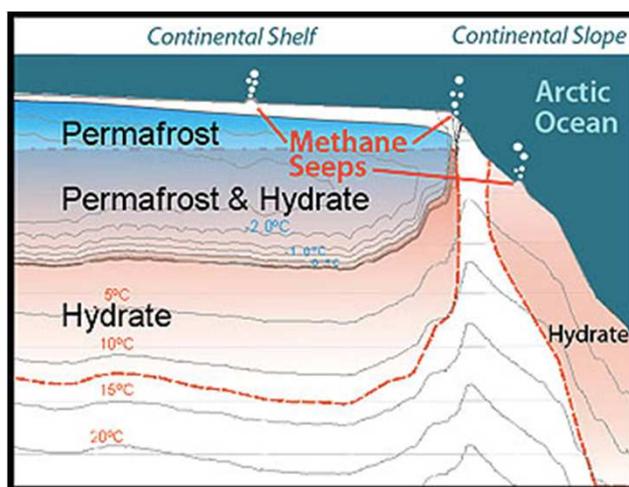


Image: © 2012 Monterey Bay Aquarium Research Institute

Methane Melt Pools

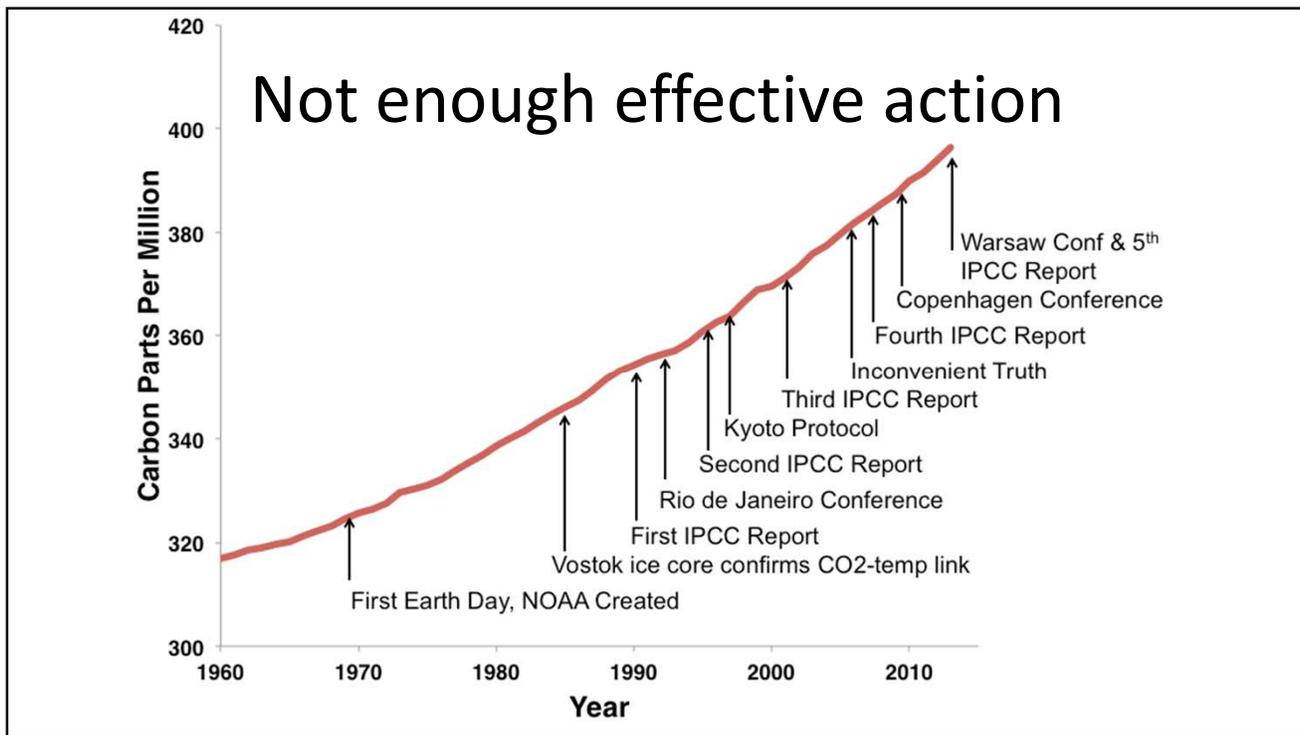
South-Central Alaska



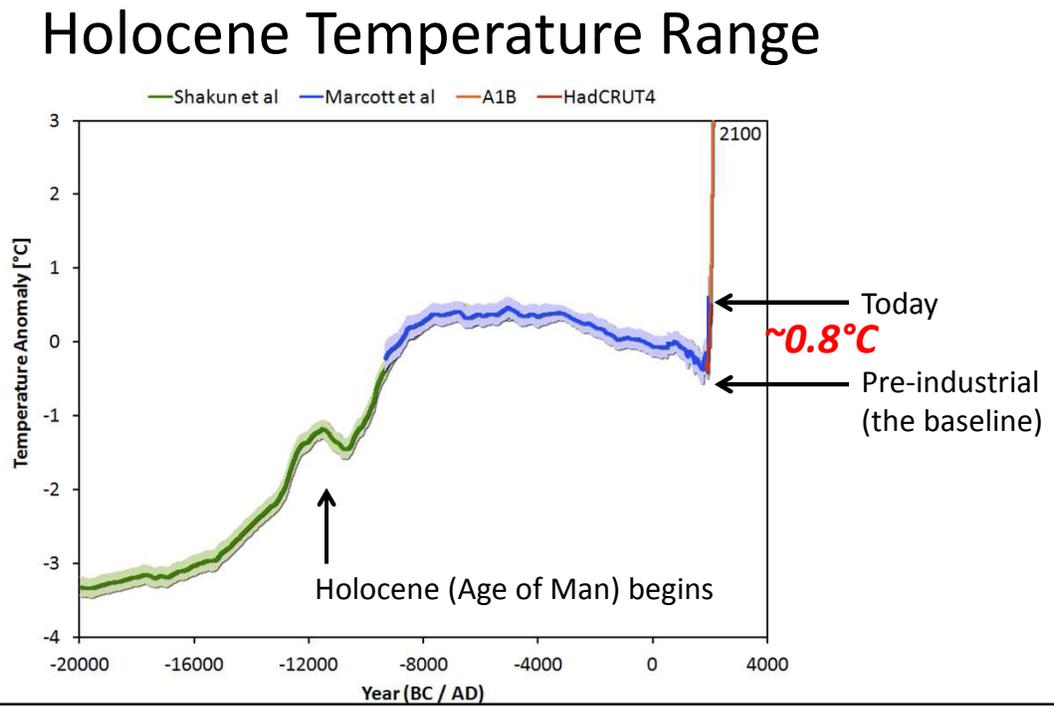
Source: K.M. Walter Anthony, et al., *Nature Geoscience*, June 2012; *Alaska Dispatch*, May 22, 2012
Photo: © 2010 Marie Laure Geai

Tipping Point?

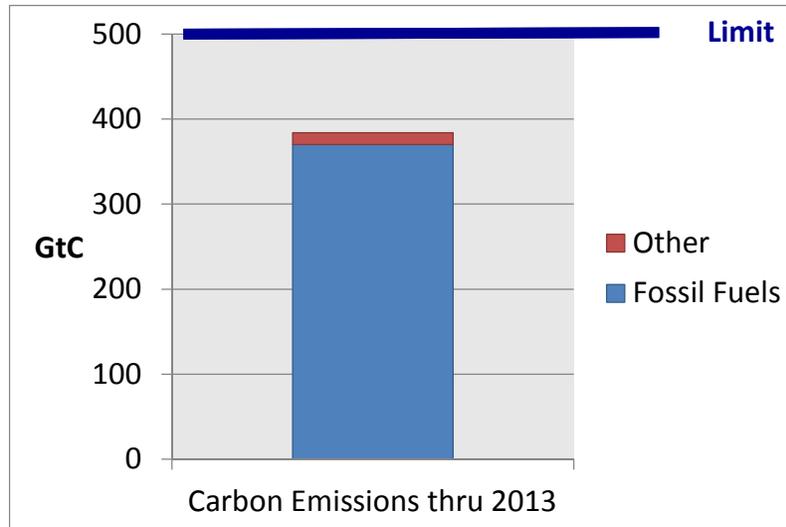




Scientific Basis



To date carbon emissions



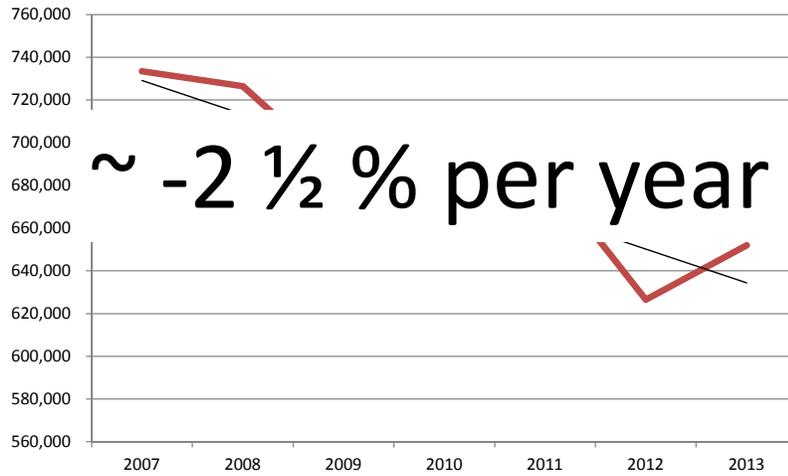
Citation: Hansen J, Kharecha P, Sato M, Masson-Delmotte V, Ackerman F, et al. (2013) Assessing “Dangerous Climate Change”: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature. PLoS ONE 8(12): e81648. doi:10.1371/journal.pone.0081648

Carbon “Budget”

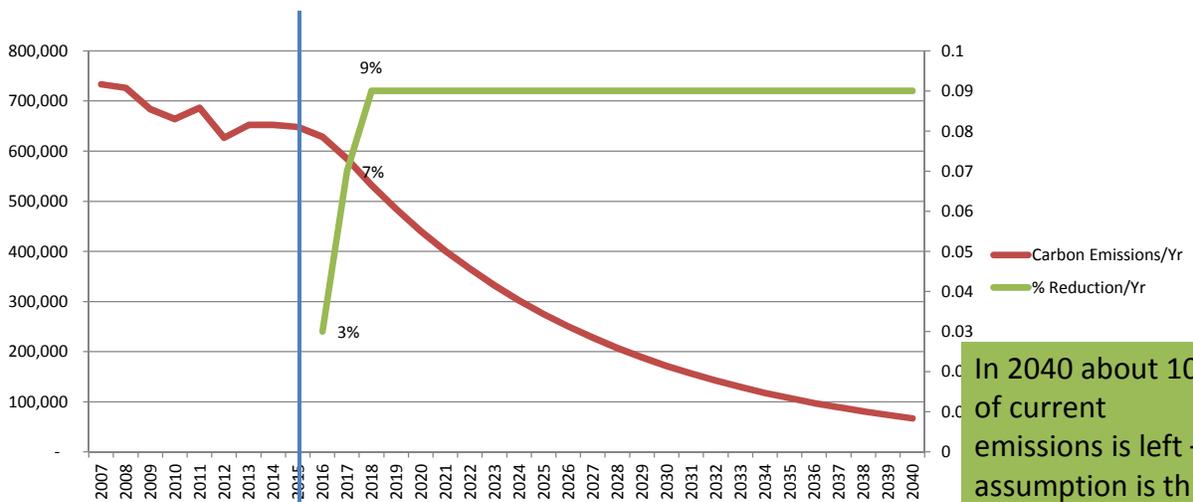
- World
 - 96 GtC total
 - 2015 estimate – 9.74 GtC
 - 9.9 times the 2015 number
- Saint Louis Park
 - 2013: 652,249 tons
 - 2015 estimate: 648,137 tons
 - SLP Carbon Budget:
 - $648,137 * 9.9 = 6,387,417 \rightarrow \mathbf{6.4M \text{ tons}}$

SLP Carbon Emissions (tons)

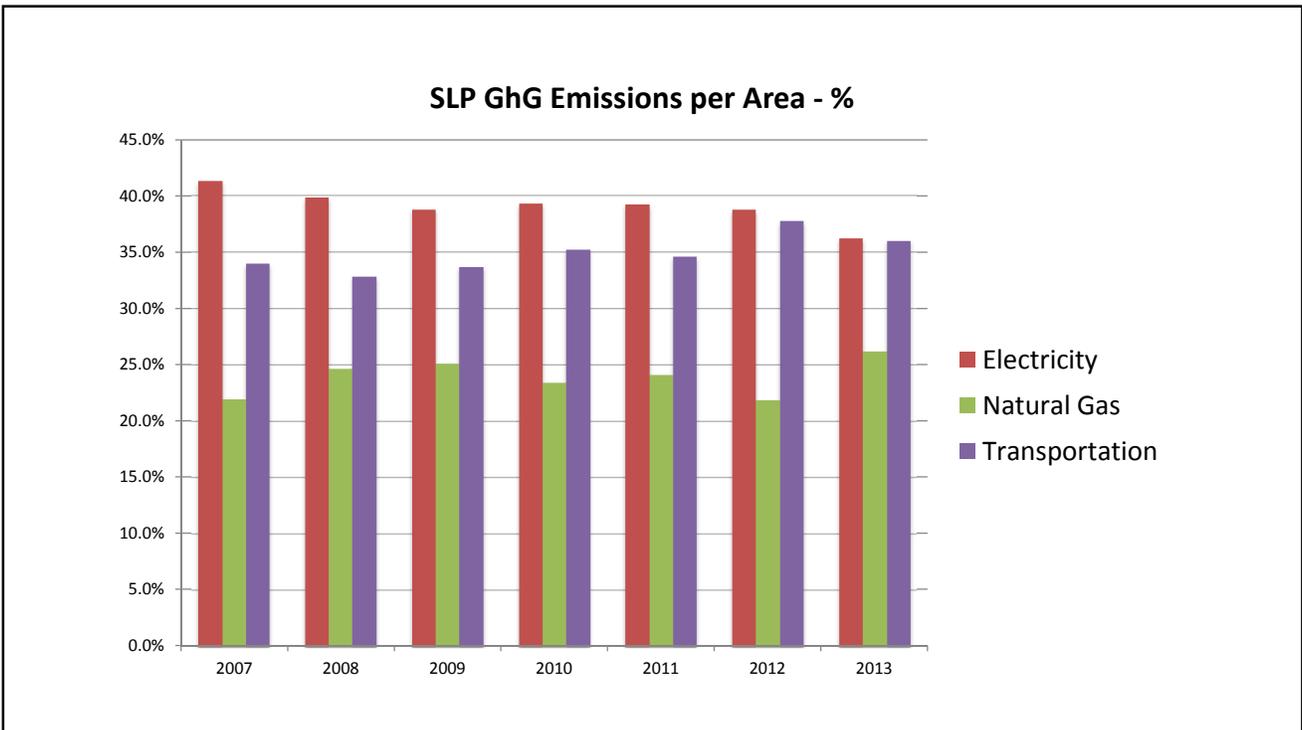
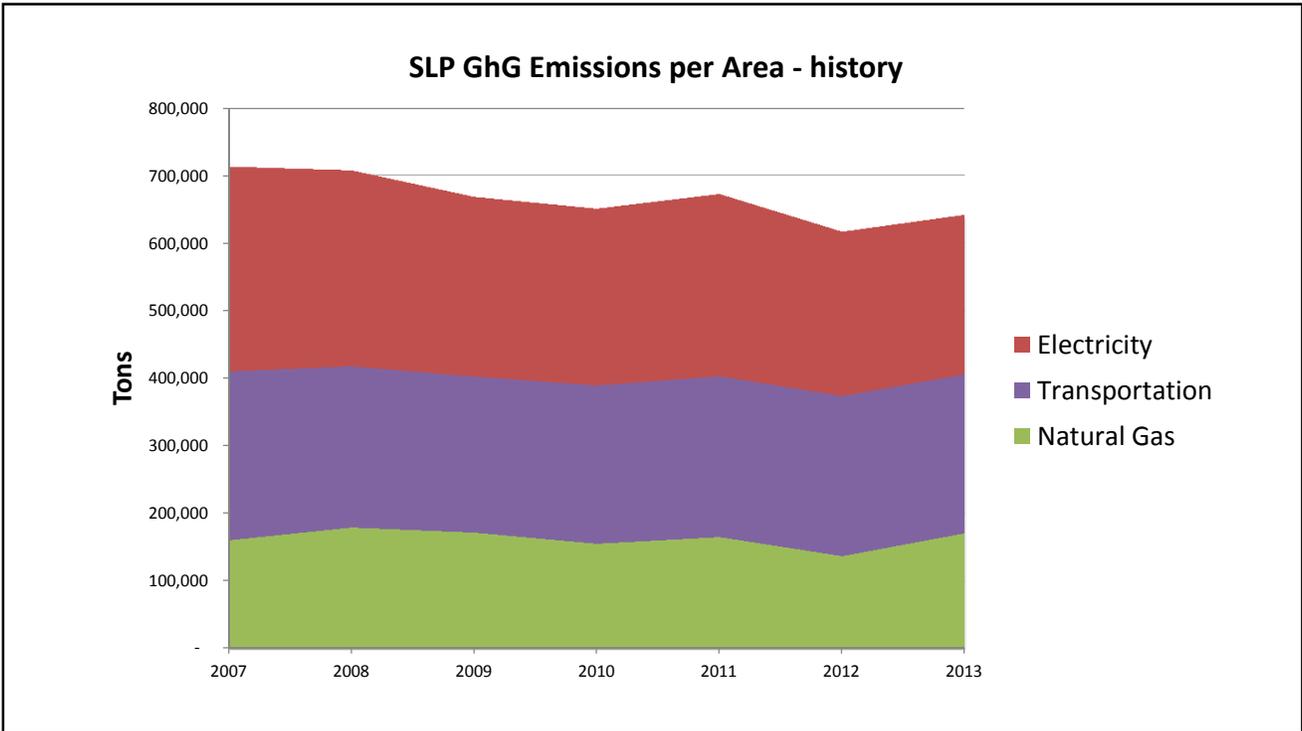
History

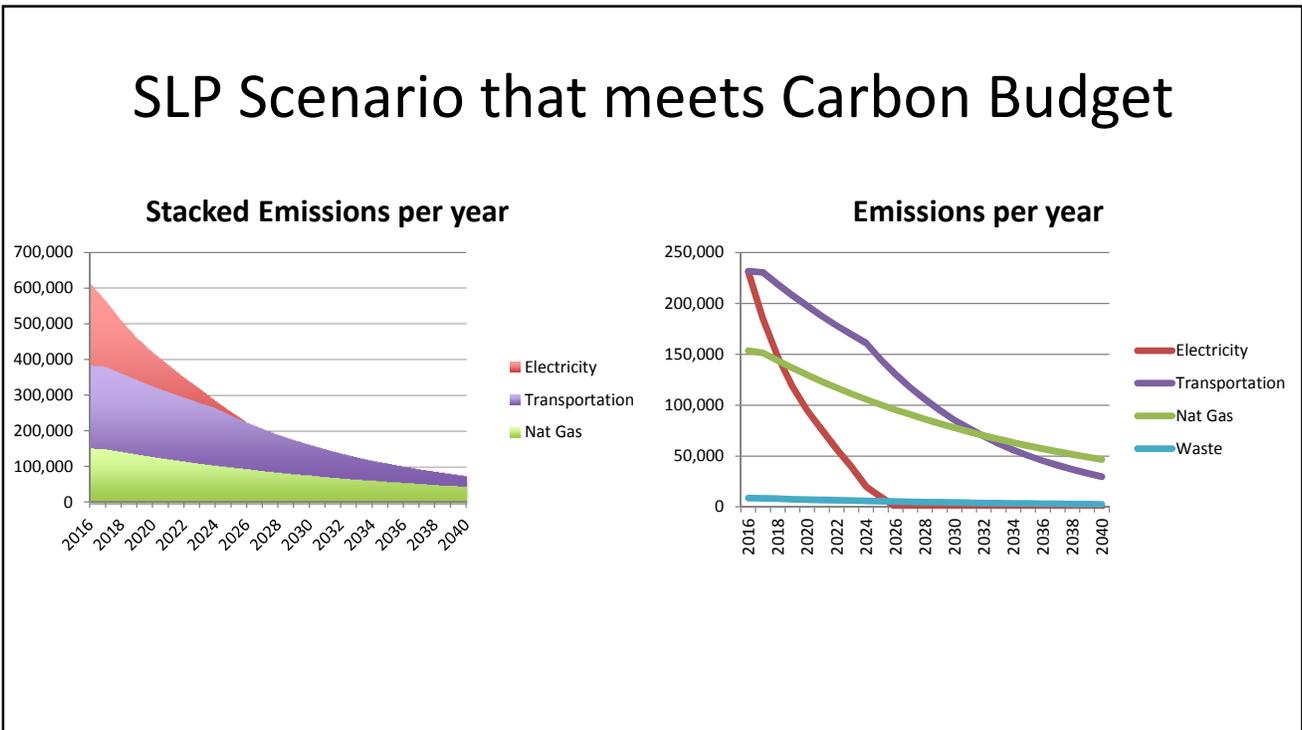
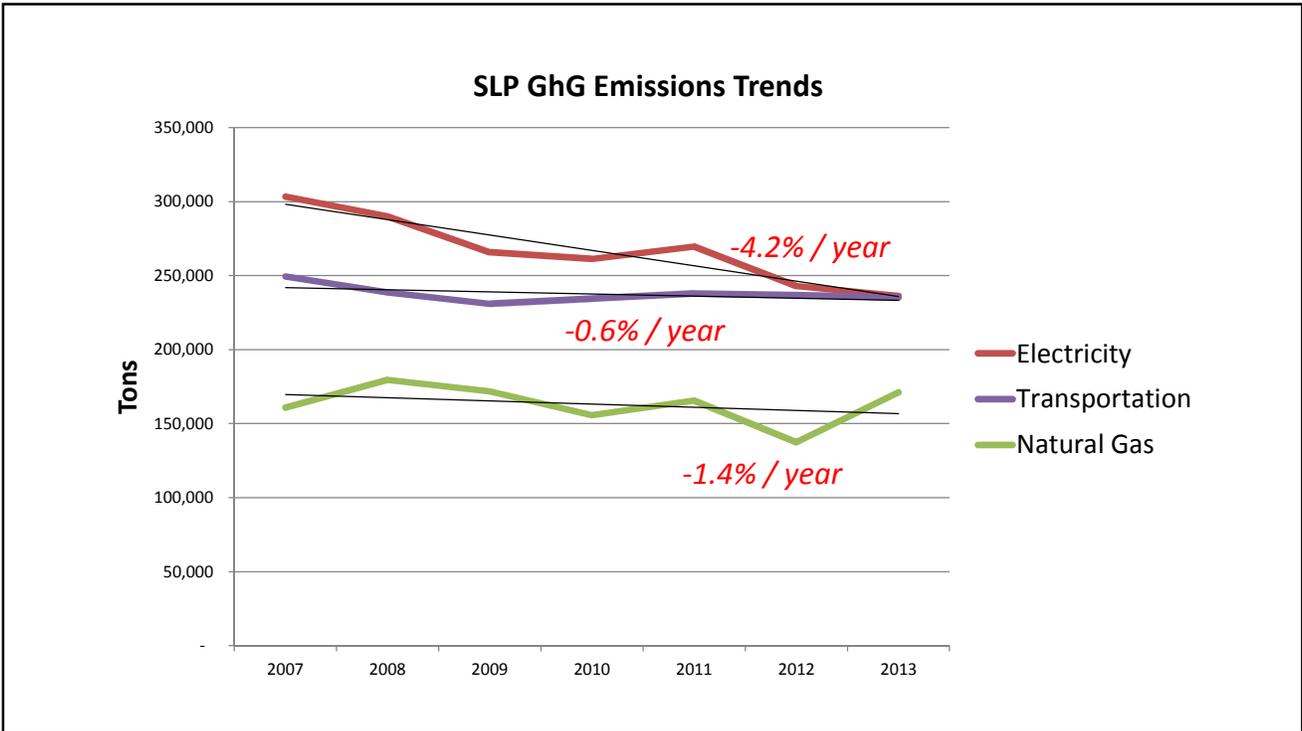


Needed to meet Carbon Budget



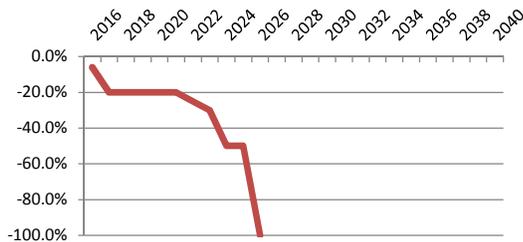
In 2040 about 10% of current emissions is left – assumption is this is offset



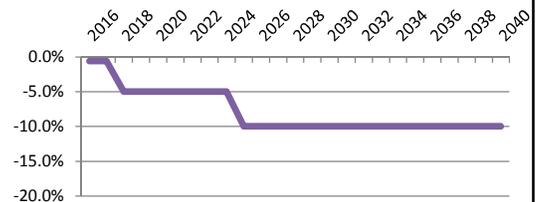


SLP Scenario that meets Carbon Budget

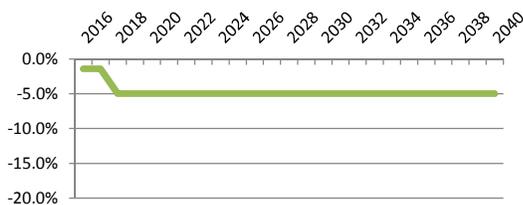
Electricity Reductions per year



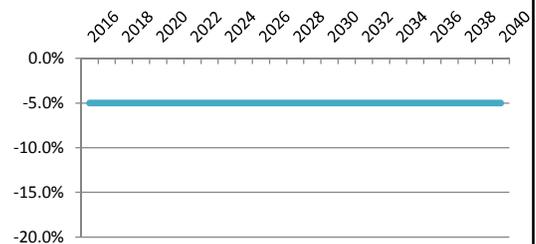
Transportation Reductions per year



Natural Gas Reductions per year



Waste Reductions per year



Scenario Assumptions

- Electricity: 100% Renewable with Xcel by end of 2025
- Natural Gas
 - Efficiency efforts focused on Natural Gas - to get ~30-35% reduction by 2025
 - After 2025 - 5% reduction per year - based on swapping out Nat Gas for other heating technologies
- Transportation
 - 5% reduction per year starting in 2018
 - Then going to 10% per year in 2025

CONTRACT NO.

09-15

CITY OF ST. LOUIS PARK



PARTNERS IN ENERGY
AN XCEL ENERGY COMMUNITY PARTNERSHIP

**Memorandum of Understanding
Phase 1 – Plan Development**

Tom Harmening
City Manager
City of St. Louis Park
5005 Minnetonka Boulevard
St. Louis Park, MN 55416-2216

Congratulations on being selected to participate in Xcel Energy's Partners in Energy program. This program 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. Program participation is intended to span 24 months with the initial 4-6 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 is to confirm the City of St. Louis Park'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 St. Louis Park into the analysis if feasible.

XCEL ENERGY PARTNERS IN ENERGY

Memorandum of Understanding Plan Development Phase

- 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 energy action plan within six months of the City of St. Louis Park 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 St. Louis Park, does agree to provide:

- A single contact point to work with recruiting stakeholders, coordinating planning meeting logistics, and coordinate distribution of deliverables and lead participation of the community.
- Meeting facilities to host the stakeholder group during development of the plan.
- Identification of existing community energy plans or programs that could be leveraged in successful development and delivery of this plan.
- Good-faith evaluation of the recommendations and analysis provided and fair consideration of the potential strategies and tactics identified that align with the community's goals.
- Commitment to delivering an actionable and complete energy plan within six months of the City of St. Louis Park and Xcel Energy signing this MOU.
- 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 St. Louis Park	Xcel Energy
<ul style="list-style-type: none">• Single point of contact• Meeting facilities• Access to existing energy-related plans and programs• Involvement in developing implementation strategies• Commitment to completing the plan development• Agreement that the energy plan resulting from this work will be available to the public	<ul style="list-style-type: none">• 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 St. Louis Park.

All communications pertaining to this agreement shall be directed to Phillip Elkin, on behalf of the City of St. Louis Park 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 St. Louis Park in the development of an energy action plan.

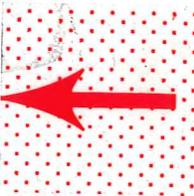
For the City of St. Louis Park:



Date: 2/23/15

For Xcel Energy:

Date: _____



Appendix 6: Energy Work Group 2015 Goals/Successes & 2016 Goals

2015 GOALS

- ✓ Research, assess and recommend initiatives, partnerships, and programs to the St. Louis Park Environment and Sustainability Commission and St. Louis Park City Council to achieve defined green energy goals in our City.
- Eliminate or offset greenhouse gas emissions in all city sectors.
- ✓ Accelerate use of renewable clean energy technologies in all city sectors.
- Significantly increase the energy efficiency of commercial, residential, and public buildings.
 - ✓ Identify and utilize an objective evaluation tool for prioritization of energy action items.
- ✓ Enable community to engage in Energy Work Group action plans and maintain two-way communication with citizens.
- ✓ Assist in education around sustainability.
- Demonstrate effectiveness of Energy Work Group benchmarks by measuring success.
- Be an attractive city for sustainable businesses.
- Become a city that is recognized as a leader in sustainability.

2015 SUCCESSES

- ✓ **Presentation to St. Louis Park Business Council** - August 6, 2015 - Sustainable SLP and Energy Work Group. Well-received. Business Council requested continued presentations, case studies and on-going partnership.
- ✓ **Awarded partnership with Partners in Energy Program** with Xcel Energy and Center for Energy and Environment - April 2015.
- ✓ **Recruitment and launch of Partners in Energy Program** - August 13, 2015
 - Stakeholders: *Nordicware, Park Nicollet, Knutson Construction, SLP Public Schools, Sustainable SLP Commissioners, City of St. Louis Park, Xcel, Center for Energy and Environment and SLP residents* working in companies and fields such as engineering, design and environmental activism. Cargill, BKV Group (LEED architects), iMatter (environmental youth activism) and Barr Engineering.
 - Committed Focus areas: (each area developing 18-month and beyond goals and strategies)
 - Climate Action Plan
 - Business Energy Efficiency
 - Renewable Energy
 - Youth
- ✓ **Launched Property Assessed Clean Energy (PACE) promotion** - January 2015. Joint effort with SLP City staff and Energy Work Group. Finance mechanism for energy efficiency and renewable energy upgrades to commercial buildings. Pilot projects: *Park Tavern* and *Hardcoat Inc.* - work in progress.
- ✓ **Solar Energy SLP** - municipality. Worked with SLP City staff to craft RFP and enter into contract to purchase 50% of municipal electrical power from solar power from community solar - work in progress.
- ✓ **Awarded CERTS Accelerator Program for B2 Benchmarking** - January 2015. Partnered with Clean Energy Resource Team for municipal B3 Benchmarking, an energy conservation tool. Funded staff to gather data on municipal energy usage and identify target areas for efficiency. Findings and recommendations available.

2016 GOALS

- Complete Partners in Energy Vision and Planning Phase – February 18, 2016.
- Launch Partners in Energy 18-month implementation phase.
- Approve and implement goals of Partners in Energy focus areas including development and adoption of Climate Action Plan for City of St. Louis Park.

- Begin to incorporate focus area goals into SLP Comprehensive Plan.
- Complete GreenStep Cities areas for energy:
 - Buildings & Lighting - city use of renewable energy.
 - Economic/Community Development - support Green businesses, connect businesses to assistance.
- B3 Benchmarking: take action to reduce energy use in municipal buildings with poor energy benchmarking scores. Collaboration with City of SLP and Retiree Environmental Technical Assistance Program (RETAP).