

### INTRODUCTION

The first step in evaluating the risks and opportunities associated with Minneapolis' various alternative "pathways" on its energy system is to identify the desired future outcomes and conditions. In order to identify such a "vision" of Minneapolis' 2040 energy future, the consultant team conducted an examination of the existing long-term plans and policies that relate to Minneapolis' energy future, and the recent history of policy advocacy and actions taken by the city that reflect desired future conditions. While not an exhaustive inventory, the plans, policies, actions, and issues considered here provide a mostly complete picture of how existing policy creates an energy vision that can guide the "pathways" analysis.

The inventory has four components:

1. Summary of existing policies that related explicitly or implicitly to energy
2. Summary of recent actions or programs that demonstrate a policy preference or desired outcome
3. Summary of energy issues that demonstrate conflicts or choices among different goals
4. A matrix that links the inventory assessment to specific future conditions that are included in the draft vision document

For each plan, policy, action or program, the inventory describes the document or initiative, identifies the relevant energy policies or issues, and describes briefly how the public or stakeholders were engaged by the city as part of the process.

### EXISTING POLICIES

#### 1. Minneapolis Plan for Sustainable Growth

**Description:** The City's Comprehensive Plan is the foundational policy document for city programs, regulations, and capital improvements and investments. The City completes a comprehensive plan update every ten years that must be consistent with the Metropolitan Council Regional Framework and system statements, as per Minnesota Statutes (Minn Statutes 473.858). The most recent Plan (the Minneapolis Plan for Sustainable Growth) was approved by City Council in October of 2009.

The Plan includes a number of goals and policies that guide the development of a Minneapolis Energy Vision. The Plan presents city policies in ten topical chapters:

1. Land use,
2. Transportation,
3. Housing,
4. Economic Development,
5. Public Services and Facilities,
6. Environment,
7. Open Space and Parks,
8. Urban Design,
9. Heritage Preservation, and
10. Arts and Culture.

Each chapter has four elements: 1) Goal statement; 2) Context for the subject matter, 3) Policies, and 4) Implementation guidelines for achieving the goals of the chapter and the overall plan. A number of goals and policies specifically mention energy issues, most specifically the goals in the Environment chapter. However, a number of other goals and policies do not mention energy, but affect energy-related considerations for the Energy Vision, as noted below.

### **Energy-Specific Policies**

Following are a number of Plan policies that directly address desired energy generation, use, and energy infrastructure in the City of Minneapolis.

### ***Economic Development Policies***

#### **Policy 4.13: Downtown will continue to be the most sustainable place to do business in the metro area.**

- 4.13.2 Encourage existing Downtown buildings to retrofit for improved sustainability, including energy efficiency, additional green space, and bicycle facilities.
- 4.13.3 Support opportunities for new Downtown development to build to a high standard of sustainability.

### ***Environment Policies***

#### **Policy 6.1: Integrate environmental, social and economic goals into decision-making processes at all levels.**

- 6.1.1 - Increase usage of renewable energy systems consistent with adopted City policy.
- 6.1.3 - Apply the city-adopted US Green Building Council's LEED (Leadership in Energy and Environmental Design) standards and Minnesota Sustainable Building (B3) Guidelines as tools for design and decision-making when developing, renovating or operating City facilities.
- 6.1.4 Invest in energy efficient heating ventilation and air conditioning (HVAC) and lighting systems, controls and sensors that minimize emission and noise, use of renewable fuel sources, and utilization of best available control technology to minimize particulate emissions.

#### **Policy 6.2: Protect and enhance air quality and reduce greenhouse gas emissions.**

- 6.2.1 Work at the state and regional level to encourage analysis and implementation of sustainable energy generation within the city including energy produced by renewable fuels, co-generation facilities, and clean alternative fuels.
- 6.2.2 Encourage energy and resource conservation to slow the pace of climate change.

#### **Policy 6.3: Encourage sustainable design practices in the planning, construction and operations of new developments, large additions and building renovations.**

- 6.3.4 Encourage developments to utilize renewable energy sources, including solar, wind, geothermal, hydro, and biomass.

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- 6.3.7 Inform developers, businesses, and residents about utility-sponsored energy conservation programs, and sustainable design deconstruction and construction practices.

### **Policy 6.4: Expand the use of renewable energy.**

- 6.4.1 Partner with others, including research institutions, to explore the feasibility of alternative energy sources for Minneapolis government operations, and for use by residents and businesses.
- 6.4.2 Encourage use and generation of renewable energy systems in the City.
- 6.4.3 Educate and inform residents and business about opportunities to increase utilization of renewable energy sources.
- 6.4.4 Take measures for the protection and development of access to sources of renewable energies, especially solar and wind power.

### **Policy 6.5: Support the efficient use of land and development that reduces the reliance on fossil fuels.**

- 6.5.2 Encourage development projects that maximize the development capacity of the site while at the same time reducing non-renewable energy needs.

### **Policy 6.8: Encourage a healthy thriving urban tree canopy and other desirable forms of vegetation.**

- 6.8.6 Continue to recognize the functions and values of the urban forest and tree canopy which provide many economic and ecological benefits such as reducing storm water runoff and pollution, absorbing air pollutants, providing wildlife habitats, absorbing carbon dioxide, providing shade, stabilizing soils, increasing property values and increasing energy savings.

### **Policy 6.10: Coordinate and operate waste management programs that focus on reducing, reusing and recycling solid waste prior to disposal.**

- 6.10.11 Assign waste that cannot be reused, recycled or composted to facilities that recover some of the energy value in garbage.

## ***Heritage Preservation policies***

### **Policy 8.10: Promote the benefits of preservation as an economic development tool and a method to achieve greater environmental sustainability and city vitality.**

- 8.10.4 Encourage the occupation and reuse of historic structures in areas targeted by the City for revitalization by contributing resources to make older buildings more energy efficient and therefore less expensive to operate.

## **Related Non-Energy Policies**

Following are a number of policies and policy descriptions that could direct aspects of the desired energy use, generation, and infrastructure in the City of Minneapolis.

### ***Land Use Chapter***

The comprehensive plan does not offer details regarding preferred locations of energy use, production, and facilities. The future land use map, for instance, does not dictate the preferred locations of energy infrastructure:

“Transportation, communication, and utility uses include roads, rail lines, communications towers, energy production, and similar facilities. While these are important to the city, they are not specified on the map. Most are generally allowed in a range of districts, and specific regulations govern their location and appearance” (page 1-9).

### ***Economic Development Chapter***

The economic development chapter includes a number of policies that could direct the energy vision. These policies encourage use of public development tools to create economic opportunity, partnership with private and business entities to meet economic development goals, and support strategic use of infrastructure to achieve economic development.

#### **Policy 4.1: Support private sector growth to maintain a healthy, diverse economy.**

- 4.1.1 Use public development resources and other tools to leverage maximum private sector investment for public benefit.
- 4.1.4 Improve the coordination of economic development activity among units of government, the business community, neighborhood organizations and nonprofit agencies.

#### **Policy 4.3: Develop and maintain the city’s technological and information infrastructure to ensure the long-term success and competitiveness of Minneapolis in regional, national and global markets.**

“The City plays a significant role in maintaining and expanding the physical infrastructure that contributes to Minneapolis’ competitive advantage in attracting, retaining and growing businesses” (p.4-3). Infrastructure examples do not include energy, but do include: stormwater management facilities; open space; street system; and technological infrastructure such as the wireless communications network.

#### **Policy 4.11: Attract businesses to the city through strategic infrastructure investments.**

- 4.11.1 Enhance and maintain transportation, wastewater, green space, and other physical infrastructure to serve the needs of businesses where appropriate.
- 4.11.2 Promote sustainability practices in the redevelopment of areas, including access to mass transit and the use of green technology.
- 4.11.3 Prioritize strategic infrastructure investments in alignment with small area plans and other adopted policies.

### ***Public Services and Facilities Chapter***

The public services and facilities chapter includes a number of important policies describing the infrastructure that enables a high quality of life. The chapter does not specifically address energy infrastructure, but does recognize that the city's infrastructure lies in both public and private ownership, and that the city has a policy interest in both.

#### **Policy 5.4: Enhance the safety, appearance, and effectiveness of the city's infrastructure.**

- 5.4.1 Maintain and improve the quality and condition of public streets, sidewalks, bridges, water systems, and other public infrastructure.
- 5.4.2 Plan for and provide public facilities which anticipate growth needs, use fiscal resources efficiently, and meet realistic timelines.
- 5.4.3 Prioritize capital improvements according to an objective set of criteria consistent with adopted goals and policies, including those of The Minneapolis Plan.

#### **Policy 5.5: Improve the appearance and physical condition of private property throughout the city.**

### ***Environment Chapter***

The environment chapter includes policies that encourage economic use of local resources, development of local businesses, and reducing minimizing the city's carbon footprint.

#### **Policy 6.15: Support local businesses, goods and services to promote economic growth, to preserve natural resources, and to minimize the carbon footprint.**

- 6.15.1 Invest in local businesses, goods and services.
- 6.15.2 Support the growth and development of local businesses.

### ***Urban Design Chapter***

The urban design chapter notes the design, safety, and aesthetic issues around public infrastructure and overhead utilities.

#### **Policy 10.19: Landscaping is encouraged in order to complement the scale of the site and its surroundings, enhance the built environment, create and define public and private spaces, buffer and screen, incorporate crime prevention principles, and provide shade, aesthetic appeal, and environmental benefits.**

- 10.19.5 Landscaping plans should be designed to facilitate future maintenance including the consideration of irrigation systems, drought and salt-resistant species, ongoing performance of storm water treatment practices, snow storage, access to sun, proximity to buildings, paved surfaces and overhead utilities.

### ***Public and Stakeholder Engagement:***

The 2008 Comprehensive Plan Update was a collaborative process led by CPED-Planning Division in close cooperation with the City Planning Commission, Public Agencies, the City Council, residents and stakeholders. The Plan update included an intensive public participation process with residents and other stakeholders. Public participation

techniques used included:

- Community Forums
- Public Surveys and Results
- Public Open Houses
- City Planning Commission Public Hearings
- Public Comment Periods
- Multi-media Outreach

Additionally, several internal meetings were conducted by the Planning Division staff with various City Departments to address all issues within the community equitably.

There were six main phases to the public process:

1. Incorporating input from previous public planning process
2. Visioning for direction of plan
3. Focus groups on key issues
4. Review of draft policy content
5. City's approval process of draft to submit to Metropolitan Council
6. City's final approval process after Metropolitan council review

Focus groups representing a variety of stakeholders were held throughout a six-month period in 2007. The focus groups included realtors, environmental advocates, builder, neighborhood groups, architects, heritage preservationists, and NRP staff. Additionally, there was a Downtown Task Force, which focused on specific policies for Downtown.

These focus groups provided in-depth insights into specific elements of the plan.

## 2. Climate Action Plan

**Description:** In January 2012, the City of Minneapolis adopted targets to reduce citywide greenhouse gas emissions: 15% by 2015 and 30% by 2025, using 2006 emissions as a baseline. [The Climate Action Plan](#), adopted by the City Council in June of 2013, serves as a roadmap for how the city can achieve those goals. The plan is broken up into 7 chapters:

1. Introduction
2. Climate Change – Background and Impacts
3. Emissions Profile and Reduction Targets
4. Plan Development
5. Implementation Goals
6. Greenhouse Gas Emissions Reductions Strategies
7. Implementation

**Chapter 3. Emissions Profile and Reduction Targets**, measures city greenhouse gas (GHG) emissions over a 5-year period. The emissions profile identifies the biggest opportunities for emission reductions within the city borders, consistent with national community GHG inventory protocols. [The Greenhouse Gas Inventories](#) identify the

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methodology for quantifying emissions. The emissions data show that commercial and industrial buildings account for the largest portion (46%) of GHG emissions, transportation accounts for 22%, and residential buildings account for 20% of the city's emissions. The Climate Action Plan lays out goals and actions aimed at reducing emissions in each of these sectors.

Many of the goals and actions are directly related to energy issues including changes to the generation and consumption of electricity and natural gas, as well as energy use associated with transportation and the city's pattern of land uses.

***Energy Specific Goals:*** The Climate Action Plan sets the following goals for reducing greenhouse gas emissions through energy efficiency and renewable energy in public and private sector buildings and facilities.

### Building and Energy Goals:

1. Achieve 15 percent energy efficiency in residential buildings from the growth baseline by 2025.
2. Achieve 20 percent energy efficiency in commercial/industrial buildings from the growth baseline by 2025.
3. Increase electricity from local and directly purchased renewables to 10 percent of the total consumed by 2025.
4. Achieve a 1.5 percent annual reduction in greenhouse gas emissions from City facilities.

To implement these goals, the City identified 17 cross-cutting strategies to meet the Plan goals. The plan identified 10 strategies specifically targeting building sectors (residential, commercial, and industrial buildings), and five strategies for increasing use of renewable energy.

The other major sector contributing to GHG emissions is Transportation and Land Use. The Climate Action Plan set seven goals to help curb emissions in this area, two of which address issues related to the energy vision process:

### Transportation and Land Use Goals:

2. Support livable, walkable, bikeable, safe and growing neighborhoods that meet the needs of all Minneapolis residents, provide a range of housing types at all income levels, and protect against displacement of and provide opportunities to current resident, businesses and cultural communities.
6. Through local action and federal and state legislation, support a transition to cleaner fuels and more efficient vehicles.

***Balancing Energy and Non-Energy Priorities:*** Finally, the Minneapolis Climate Action Plan provides some guidance on managing risks and opportunities of energy goals. For instance, the following strategy calls for mitigation of the cost risk to low-income households associated with a specific high value GHG-reducing action:

- **Continue to shift to LED streetlights.** Replacing conventional bulbs with LEDs can net up to a 50 to 60 percent reduction in energy use. As capital costs come down, continue to replace older bulbs with more efficient LEDs, with a long term goal of citywide LED use. During typical street reconstruction projects, which include streetlight retrofits, the cost of upgrade/replacement is assessed to property owners on that street. These assessments can have a higher relative impact on low-income property-owners. For streetlight retrofits, innovative financing mechanisms should be explored to avoid this impact. For example, most of the streetlights in the city are owned by Xcel Energy, and a retrofit may be part of the City's franchise renegotiation with Xcel.

Similarly, the Climate Action Plan includes five implementation goals that acknowledge the tradeoffs among different policies and actions, and provide some guidance for how the city might address such tradeoffs in evaluating pathways to the city's desired energy future.

The goals are:

1. Prioritize high impact, short timeframe, equitable, and cost effective strategies
2. Seek strategies with multiple benefits
3. Advance equity in infrastructure and environmental benefits between neighborhoods and communities
4. Monitor progress annually and based on results and new developments, revisit goals and strategies at minimum every three years.
5. Begin assessing and building resiliency to climate changes and impacts.

### ***Public and Stakeholder Engagement:***

The Climate Action Plan had an extensive and multi-faceted process for engaging stakeholders. First, the city created a Steering Committee and three technical committees that included technical experts, community members, and representatives from particular industries. The Steering Committee was the decision-making body for Plan recommendations to the City Council.

Second, at the request of several environmental justice (EJ) organizations, the city established an EJ Working Group to review work by the technical committees and participate in the Steering Committee process. The EJ Working Group provided extensive recommendations for addressing the concerns of communities of color, American Indians, and low-income communities.

Third, the City solicited direct input from community members and businesses. Feedback on Climate Action Plan greenhouse gas (GHG) emissions reductions strategies came from:

- Two public open houses held in November 2012, where attendees could fill out comment forms and speak with project staff. Each event attracted more than 50 attendees.
- An online survey was open from mid-November to mid-December and garnered 65 responses.

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- Formal comments were submitted by the City of Minneapolis citizen boards and commissions, including the Community Advisory Commission (CEAC), Public Health Advisory Committee (PHAC), Bicycle Advisory Committee (BAC, and Pedestrian Advisory Committee (PAC).
- Hennepin County
- CenterPoint Energy

### 3. State and Federal Legislative Advocacy

**Description:** Minneapolis has been active and continues to be active at the state and federal level lobbying an energy agenda consistent with city policies. For example, Minneapolis pursued [two bills](#) in the 2012-2013 legislative session that would help move the city's energy vision and utility franchise negotiations forward:

- Green, Reliable, Affordable Clean Energy Bill (HF1450/SF1490; Rep. Ray Dehn and Sen. Kari Dziedzic). This legislation would require that energy companies provide timely reports on service continuity, meet specific state-established energy goals, and invent consumers to be more energy efficient.
- Franchise Rerform Energy Energy Dependence of Municipalities Bill (HF945/SF911; Rep. Frank Hornstein and Sen. Jeff Hayden). This legislation would require that the State Public Utility Commission use a more fair formula for placing a value on an energy company, which would make it more feasible for communities to consider pursuing a muncpal-owned energy utility.

These bills were not approved in this session, but the city intends to work to move them forward in the next session.

At the federal level, Minneapolis Mayor RT Ryabak joined 115 U.S. mayors to make [three major requests of the 110<sup>th</sup> Congress](#):

- Establish a national cap on greenhouse gas emissions and a flexible market-based system of tradable allowances for emitting industries;
- Pass climate-friendly energy and transportation policies; Create funding and incentives to help cities in their effort to curb greenhouse gas emissions; and
- Establish a national goal to cut greenhouse gas emissions 80 percent by 2050.

### 4. Franchise Agreements

**Description:** The City of Minneapolis has utility franchise agreements with [Xcel Energy](#) and [CenterPoint Energy](#) for electricity and natural gas, respectively. The agreements were signed in 1994 and 1992, respectively, and will expire at the end of 2014. Franchise agreements grant companies the use of city rights of way or other public property to provide services (such as gas, electric, and telecommunications) to residents and other businesses and sets conditions for the use of such public property. The Xcel and

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CenterPoint franchise agreements granted the companies a 20-year right to use property in exchange for a fee.

Under existing state laws, a franchise agreement cannot supersede the regulatory jurisdiction of the Public Utilities Commission. The PUC jurisdiction includes, but is not limited to, the setting of rates and the mix of fuels and resources used to provide energy services. State law explicitly allows cities to charge a fee for use of public property. The current franchise agreement is limited to imposing a franchise fees, the amount and structure of the fee, and other conditions like repairing the streets after construction.

The current franchise fee requires that Xcel Energy pay the City:

- 5% of its gross revenues for Minneapolis residential customers (this rate dropped to 4.5% in January 2013);
- 3% of its gross revenues for Minneapolis large (100kW or greater) commercial/industrial customers; and
- 5% of its gross revenues for Minneapolis small (less than 100kW) commercial/industrial customers

The current franchise fee requires that CenterPoint Energy pay the City:

- 4.5% of its gross revenues for gas sales to residential buildings (4 units or less)
- 5% of its gross revenues for small volume commercial/industrial/firm or interruptible (daily usage of less than 2,000 ccf) and large volume firm customers (more than 2,000 ccf)
- 3% of its gross revenues for large interruptible customers (more than 2,000 ccf)

**Public and Stakeholder Engagement:** The public engagement process at the time the current franchise agreements were established is not documented. The city is, however, conducting public hearings as it prepares to renegotiate the franchise agreements. The Minneapolis City Council set two public hearings – in relation to the franchise agreement – for the consideration of the authorizing the establishment a municipal utility in lieu of renegotiating the franchise agreements. [The hearings](#) are scheduled for 10 a.m. August 1, 2013 for electric and 10:30 a.m. August 1, 2013 for gas.

## 5. 5-year City Goals and Strategic Directions

**Description:** During a strategic planning process, the Mayor and City Council identified 6 overarching goals and forty-one strategic directions to serve as the City's guide through 2014. [On April 2, 2010](#), the Minneapolis City Council adopted [5-year goals](#) intended to guide the council in the following areas:

- A Safe Place to Call Home
- Jobs & Economic Vitality
- Livable Communities, Healthy Lives
- Many People, One Minneapolis
- Eco-focused
- A City that Works

Relevant strategic directions under the Eco-focused goals include:

- Clean, renewable energy sources successfully integrated
- Trees: a solid green investment
- Lakes and streams pristine
- Use less energy, produce less waste
- World class parks fully enjoyed
- Locally grown food available and chosen

**Public and Stakeholder Engagement:** The [strategic planning](#) efforts were part of an internal process. Every four years the city engages in a citywide strategic planning effort to develop citywide goals and strategic directions. These goals set guidelines for each department to develop its business plan. Elected officials and department leadership participated in 3 sessions to determine a vision, five-year goals, and a strategic direction.

## 6. Sustainability Indicators

**Description:** In 2003, the Minneapolis City Council adopted a [resolution](#) that initiated the development of the Minneapolis Sustainability Program and the use of sustainability principles to guide city decision-making. In 2006, the city adopted [6 citywide sustainability goals](#) – one of which was “eco-focused,” which included the integration of “clean, renewable energy sources” and a reduction in energy use. That same year, the City Council directed staff to use the 24 Sustainability Indicators in work plans and budgets. The city modifies the indicators periodically and now has [26 indicators](#).

The 26 Sustainability Indicators measure the community’s progress towards environmental, economic, and social sustainability. Each indicator has a 10-year measurable target that will help the city track its progress. Of the 26 indicators, two are directly related to energy: Climate Change and Renewable Energy. The city’s targets under each of these are to:

- Reduce citywide greenhouse gas emissions by 15 percent by 2015, and 30 percent by 2025 using 2006 as a baseline.
- Reduce municipal operations GHG emissions by 1.5 percent annually
- Permit 70 renewable energy projects by 2015 citywide
- In municipal operations, increase renewable energy by 1.5 percent annually

In addition, strategies for meeting energy indicators may affect (or be perceived to affect) with non-energy sustainability indicators. Strategies for meeting the energy indicators can work in synergy or in conflict with the following non-energy indicators:

- Asthma
- Air Quality
- Tree Canopy
- Green Jobs
- Community Engagement

- Cost-Burdened Households

**Public and Stakeholder Engagement:** The City of Minneapolis has engaged residents in its efforts around sustainability for twenty years. In that year [two public roundtable meetings](#) were held to express a 50-year vision for the city. Approximately 100 residents and professionals attended the meetings and drafted a series of sustainability initiatives. Minneapolis' citizen/stakeholder environmental commission (Minneapolis Community Environmental Advisory Commission ([CEAC](#))) also reviews and provides comments and recommendations on the sustainability indicators and progress reports. CEAC consists of [18 community members](#) who provide assistance and advice to the city's efforts on sustainable development. CEAC is a key player in assessing sustainability indicators.

### 7. U.S. Conference of Mayors Climate Protection Agreement

**Description:** The U.S. Conference of Mayors Climate Agreement is a platform where participating cities commit to take actions to reduce greenhouse gas emissions and curb impact from climate change. The actions range from reducing greenhouse gas emissions in their own communities, to urging policy makers at the state and federal level to enact programs to meet or exceed the emission reduction target set for the United States in the Kyoto protocol. Mayor R.T. Rybak became one of the first mayors to [sign](#) onto the agreement in [2005](#).

**Public and Stakeholder Engagement:** No organized public engagement was undertaken prior to Mayor Rybak's signing of the agreement. The city does promote its status as a Mayors Climate Agreement signatory in ongoing climate action planning and programs.

### 8. Commercial Building Rating and Disclosure Policy

**Description:** On February 8, 2013, the City Council unanimously [adopted](#) a new section to the city's ordinance code; Section [47.190](#) Commercial Building Rating and Disclosure. The Commercial Rating and Disclosure Policy requires all commercial buildings greater than 50,000 square feet to enter building energy usage and water consumption data into U.S. EPA's Energy Star Portfolio Manager (or equivalent benchmarking program) and to disclose performance reports to the City of Minneapolis. In the City's review of the ordinance, the policy is described as a "tool that uses market forces, not performance or design mandates, to increase building energy performance awareness and motivate owners and tenants to invest in energy efficiency improvements." ([Minneapolis, 2013](#))

Beginning in 2013, all city-owned buildings over 25,000 square are required to report to the city. Commercial buildings over 100,000 square feet will begin reporting in 2014, and buildings over 50,000 square feet will begin in 2015. The city will begin disclosing this information as early as 2013.

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**Public and Stakeholder Engagement:** Outreach was conducted with a number of stakeholder groups including building owners, property management companies, real estate professionals, energy utilities, and construction services companies. City staff made changes to the ordinance based on feedback received, including “adding exemptions to the ordinance for buildings facing financial distress, new construction, and unoccupied buildings ([City of Minneapolis, 2013](#)).” A [public hearing](#) regarding the Building Rating and Disclosure Policy was held on January 28, 2013.

### Government Buildings Energy Efficiency - EECBG

**Description:** In 2009, the American Recovery and Reinvestment Act was signed into law with an allocation of \$3.2 billion going to the Energy Efficiency and Conservation Block Grant (EECBG). The City of Minneapolis (along with St. Paul) received \$30 million in [EECBG funds](#). A portion of these funds, along with EECBG funds from the Minnesota Department of Commerce allowed the city to move forward with initializing energy retrofits on the City’s 65 municipal buildings. The [objectives for this Project](#) were to conduct energy audits of selected City Facilities in order to develop an Energy Efficiency and Conservation Program, with the intent that the City would implement and perform energy efficiency retrofits in compliance with the EECBG Program.

**Public and Stakeholder Engagement:** No formal outreach was conducted for this project. However, information is available to the public on the city website.

### ACTIONS AND PROGRAMS

#### 9. Minneapolis Climate Change Grants

**Description:** The Minneapolis Climate Change Grants funded projects that encourage activities that reduce the impacts of climate change. The purpose was to energize local groups to get residences and businesses to reduce their impact. Each proposal was required to use the [Minnesota Energy Challenge](#) to focus on meaningful and measurable actions.

This was a program run out of the Minneapolis Sustainability Office. Grants were awarded between 2007 and 2011. Over the 5-year period, these grants leveraged more than \$1.1 million in additional funding, including in-kind contributions, donated staff and volunteer time, and other grants.

**Public and Stakeholder Engagement:** One of the primary purposes of this program is to engage residents in taking small actions to reduce their impact on climate change. The following summarizes the number of residents reached each year through the program:

- [In 2007](#), 1,418 residents were reached via the Energy Challenge.
- [In 2008](#), 1,954 residents were reached via the Energy Challenge.
- [In 2009](#), more than 10,200 people attended events related to the grant project and 948 residents participated in the energy challenge.
- [In 2010 and 2011](#) more than 2,000 people attended events related to the project, 2,700 GoTo Bus Cards, 300 compact fluorescent lights, and 134 high-efficiency faucet aerators were distributed.

Additionally, the city issued a report that includes the [Challenges and Lessons Learned](#) when conducting outreach around energy efficiency and climate change.

#### 10. Residential Energy Efficiency Revolving Loan Program

**Description:** The City of Minneapolis worked with [Community Energy Services](#) to provide no to [low interest loans to](#) Minneapolis homeowners for the purpose of implementing energy saving measures. Homeowners were required to attend community workshops that provided training on specific energy-saving actions. Homeowners could then sign up for an advanced energy audit, which would result in specific recommendations for major upgrades. Financing was available for participants.

Minneapolis provided more than \$800,000 for the program, of that \$747,000 was spent and \$3.1 million in additional private funding was leveraged. The city successfully reached out to its residents to increase the number of home energy improvements among households.

**Public and Stakeholder Engagement:** The city worked with CEE to reach out to the public in order for residents to take advantage of this loan program. The program worked to reach 6,000 households.

### 11. Solar Cities

**Description:** In 2009, the U.S. Department of Energy (DOE) named 25 U.S. cities as [Solar America Cities](#); Minneapolis - St. Paul were among those selected. DOE recognizes these cities based on the commitment to the adoption of solar technology. The awards are intended to accelerate solar adoption in these cities by supporting innovation efforts with financial and technical assistance. The Minneapolis Saint Paul [Solar in the Cities Initiative](#) had an aggressive goal of increasing solar capacity 500% in the Twin Cities from 2009 to 2011.

The top five priority areas include:

- City and state policies
- Financing mechanisms
- Integrating solar in city infrastructure
- Buildings public awareness
- Training and education

Sections 11, 12, and 13 highlight the accomplishments of Minneapolis since being selected for this program.

**Public and Stakeholder Engagement:** *Solar in the Cities Initiative* included partnerships with the following groups:

- Minnesota Department of Commerce
- Xcel Energy
- League of Minnesota Cities
- Fresh Energy
- International Brotherhood of Electrical Workers
- District Energy St. Paul
- Minnesota Renewable Energy Society
- Center for Energy and Environment
- Solarflow Energy
- Neighborhood Energy Connection

In addition to working with these partners, the *Solar in the Cities Initiative* [coordinated multi-stakeholder working groups](#) that resulted in the passage of [strong solar legislation in 2009](#) and advancing 2010 legislative initiatives. The program also actively engaged solar contractors, environmental organizations, and neighborhood groups on multiple occasions to development solar friendly permitting processes and regulation.

### 12. Minneapolis Solar Energy Systems

**Description:** In addition to the solar installations that were part of the Energy Innovation Corridor (below), the Minneapolis city council approved the installation of one of the largest PV systems in the state on top of the Convention Center in [January 2010](#). The project was funded in part by a Renewable Development Fund grant. The 600 kW system was installed in November of 2010; it produces 750,000 kWh of renewable electricity each year. The solar array provides 5% of the convention center's power.

**Public and Stakeholder Engagement:** The public was not directly engaged in the formation or approval of this installation.

### 13. Energy Innovation Corridor

**Description:** The Energy Innovation corridor is a showcase of energy efficiency, renewable energy, transportation, and smart technology along the new light rail line that runs between Minneapolis and St. Paul. Both cities have been actively involved in implementing energy technologies along this corridor.

Minneapolis has installed solar systems on seven of its buildings within the EIC, including:

- Royalston Maintenance Facility (103.6 kW)
- Currie Maintenance Facility (40 kW)
- Fire Station #1 (3 solar thermal panels)
- Fire Station #4 (13.2 kW)
- Fire Station #6 (5 kW)
- Fire Station #19 (9.8 kW & 3 solar thermal panels)
- Haaf parking ramp (40kW).

These installations will save the city \$32,200 in energy costs and avoid 170 metric tons of greenhouse gas emissions each year ([City of Minneapolis](#)).

**Public and Stakeholder Engagement:** The Energy Innovation Corridor included a significant branding and marketing component to promote energy efficiency and clean energy initiatives. The EIC partnership conducted direct outreach businesses and residents within the EIC as part of programmatic efforts, in addition to producing an electronic newsletter, maintaining a website with information on progress and new initiatives, and conducting a variety of ad hoc publicity and marketing efforts.

### 14. Solar Ordinances and Permits

**Description:** The city building department adopted guidelines and standards by issuing solar energy permits and created a [solar energy ordinance](#) (adopted December of 2010) that defines and sets standards for buildings mounted and freestanding solar energy

systems. The city developed a streamlined permitting process for residential solar electric systems, based on national best practices and crafted to meet Minneapolis circumstances. The ordinances establish an as-of-right solar installation process, clarifies solar access easements provisions, and provides guidelines for protecting existing solar systems when proposed development may shadow them.

**Public and Stakeholder Engagement:** The Solar Cities program conducted outreach to solar contractors and building officials on numerous occasions to review program goals and draft language for solar permitting documents. The comments resulted in significant changes to the ultimate permit process. The City engaged multiple stakeholders and held public hearings throughout the ordinance writing process and modified language in response to stakeholder input.

### 15. Thinc.GreenMSP – Manufacturing Better Business

**Description:** In 2006, the Mayor’s Initiative on Green Manufacturing began with Mayor Rybak and Mayor Coleman working with the BlueGreen Alliance to make the Twin Cities a national leader in the growing green economy. The initiative led to the identification of the region’s best strategies and opportunities to expand the green economy. The research that was conducted as part of this initiative resulted in Thinc.Green<sup>MSP</sup>, which integrates a set of tools to “grow the region’s economy, to create regional distinction, to drive demand for green products and services, and to generate momentum and support for continues innovation in green manufacturing ([City of Minneapolis](#)). In September 2010, the City Council adopted a resolution authorizing and directing staff to enter into a [Joint Powers Agreements](#) with the City of St. Paul to advance and implement Thinc.Green<sup>MSP</sup>.

Thinc.Green<sup>MSP</sup> will partner with private, public, and academic centers to:

- Implement several Strategic Initiatives to improve Minneapolis Saint Paul’s manufacturing base;
- Grow the market for green products and services;
- Brand MSP as a great place to develop green business; and
- Expand the green business-friendly environment that will make MSP a more attractive choice for manufacturers, suppliers, and related services.

**Public and Stakeholder Engagement:** The Thinc.Green<sup>MSP</sup> [Steering Committee](#) provided a forum for the coordination of private, public, and intergovernmental efforts to grow the region’s green economy. In January 2011, city staff solicited applications from interested candidates to serve on the Thinc.Green<sup>MSP</sup> Steering Committee and the mayors of both cities approved those appointments. The Steering Committee focused on three specific areas: 1) green buildings policy development, 2) government procurement of green products and services, and 3) expanding export opportunities for local green manufacturers and clean tech companies.

### ENERGY RELATED ISSUES

Over the years, a number of energy issues have come up where the city has some regulatory or policy authority, and where stakeholders and residents advocate for specific outcomes. In several of instances over the last ten years, for instance, opportunities for developing alternative energy sources and distributed generation have been cast to be in conflict with city goals for improving health and air quality. In other instances, electric system infrastructure improvements have been perceived to conflict with environmental and equity. In most of these instances the city engaged residents and stakeholders and helped create forums for public concerns to be heard. While not every such instance resulted in changes in city policy or created precedents for decision-making, the city did sometimes modify initial positions in response to stakeholder concerns. These examples may also help to identify how city officials and the public can work together on outcomes that meet the goals of safe, reliable, equitable, and environmentally responsible goals of the energy vision.

#### 1. HERC Volume expansion

**Description:** The Hennepin County Energy Recovery Center, HERC, is a waste-to-energy facility located in downtown Minneapolis. The HERC burns about 365,000 tons of garbage each year, which generates enough electricity to power 25,000 homes. The HERC also provides steam to heat buildings in downtown Minneapolis and Target Field – the equivalent of heating 1,500 homes using natural gas. The HERC is currently operating at 90% of its capacity. In 2009, Covanta Energy (the facility operator), requested a conditional use permit that would allow the facility to operate at full capacity. The expansion would increase the amount of waste being processed at the HERC by 40,000 tons per year ([Hennepin County, 2013](#)).

**Community Response:** Several [community groups](#) have come out strongly opposed to the expansion. Some community members argue that the expansion will contribute to an increase in poor air quality, add more toxins to the air, and have negative impacts on the health of residents living in proximity or downwind. Opponents also note that waste-to-energy is an acknowledged lower priority for managing solid waste than other options in both Minneapolis and Hennepin County priorities. Opponents believe that the negative externalities outweigh the environmental benefits. In 2009, citizens and state lawmakers petitioned the state to mandate an environmental review; the MPCA determined the petitions were unnecessary as and EAW was already mandatory ([MPCA, 2010](#)).

**City Stance:** The city council has not taken a position on whether proposed expansion creates or solves environmental problems. In 2009, the Minneapolis Planning Commission denied a conditional use permit to increase burning because it was found to be a “detrimental to public safety, health or welfare ([TC Daily Planet, 2011](#)).” However, an appeal was filed to get the [City Council](#) to over turn the decision, several extensions have

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been granted while Covanta and the Minnesota Pollution Control Agency (MPCA) work to complete an Environmental Assessment Worksheet (EAW).

**Public Involvement:** In 2009, when Covanta Energy appealed the City Planning Commission's denial of a request for a conditional use permit to increase burning capacity, the city [notified](#) the North Loop Neighborhood Association and the Downtown Minneapolis Neighborhood Association. A [public hearing](#) was held June 22, 2009. The public continues to be active on this issue.

**Outcome:** The expansion request continues to be caught up in appeal extensions as the City Council awaits the completion of the EAW and determine whether an Environmental Impact Statement (a more detailed version of an EAW) is required.

### 2. 28th Street Transmission Lines – Hiawatha Project

**Description:** In 2009, Xcel Energy proposed running a high-voltage power line over the Midtown Greenway, referred to as the Hiawatha Project. This project was intended to add energy capacity to the Lake Street corridor and provide more reliable service.

**Community Response:** Community members came out strongly opposed to this proposal. Several Midtown neighborhood groups and organizations banded together to put a stop to what they saw as a negative impact on an asset that has led to the area's revival. Some of the groups in opposition included: the [Midtown Greenway Coalition](#), East Phillips Improvement Coalition ([EPIC](#)), Little Earth of United Tribes, and the Corcoran, Seward, and Longfellow neighborhoods.

**City Stance:** On February 6<sup>th</sup>, 2009, the city council [approved](#) a [resolution](#) to “pursue the production of electricity more responsibly, the delivering of electricity more intelligently and the consuming of electricity more efficiently (Schiff, 2009).” The resolution further recommended that “Xcel Energy delay its routing permit application to the Minnesota Public Utilities Commission for the Hiawatha Project and provide greater detail [...] as well as a thorough analysis of aggressive alternative methods to abate and/or supply the electricity (Schiff, 2009).” And finally, the city council resolved that the city's preferred route for the new high voltage transmission lines is underground below East 28<sup>th</sup> Street.

**Public and Stakeholder Engagement:** Given the substantial neighborhood and stakeholder participation in this effort, the city did not engage in a public outreach effort.

**Outcome:** In January of 2012, the Minnesota Public Utilities Commission granted Xcel's Certificate of Need for the project. Additionally, the PUC [determined](#) that the route of the transmission lines would be buried beneath East 28<sup>th</sup> Street in south Minneapolis. Acknowledging the additional cost of burying the lines, the PUC on June 28, 2012 [determined](#) the rate allocation would be spread amongst Xcel's statewide customer base.

### 3. Midtown Eco-Energy Power Plant

**Description:** In 2001 the Green Institute, a non-profit organization, had the idea of acquiring city garbage transfer station at 2850 20<sup>th</sup> Ave. S and converting it to a biomass renewable energy plant. The executive director at the time eventually left the non-profit to start the private firm Kandiyohi Development Partners, which took over the biomass plant project. In 2006, the City of Minneapolis issued an RFP to sell the transfer station property for the purpose developing a biomass plant. The only proposal they received was from Kandiyohi. The plans called for a 24.5 megawatt combined heat and power facility. The primary fuel source was to be from wood and agricultural byproducts. Kandiyohi worked with Xcel Energy to come up with a power purchase agreement and with the MPCA to get approval for the environmental review.

**Community Response:** A number of neighborhood groups [opposed](#) the biomass plant citing environmental and economic concerns. Specifically, community members were worried about cumulative emissions impact in an area that already has facilities with substantial emissions, the possibility that Refused Derived Fuel may be burned at some point, and that the economic and financial justifications were flawed.

**City Stance:** Both the city council and Mayor Rybak initially [supported](#) this project saying that it would create a good source of alternative energy that would help address climate change and provide jobs. However, once it became clear that Kandiyohi was not going to get a power purchase agreement with Xcel, the city moved to cancel the land deal and the project came to a halt.

**Public and Stakeholder Engagement:** The city council and the Minnesota Pollution Control each held public meetings in regard to this issue. The city's meeting occurred on [March 21, 2008](#) and the MPCA's held a meeting on [December 13, 2008](#). Each meeting demonstrated strong opposition from the same groups cited above.

**Outcome:** Community backlash, Xcel backing out of the project, the cumulative impacts bill that passed the legislature that year, and the City pulling out [put an end to the project](#). There had been talk of finding an alternative location, but nothing has happened since the project ended in 2008.

### 4. Linden Hills Anaerobic Digester

**Description:** Linden Hills Power & Light (LHP&L) is a community based non-profit organization. [LHP&L](#) works to shrink the local carbon footprint through education, community engagement, and action by promoting sustainable energy, waste reduction, and energy conservation. In 2007, LHP&L applied for and [received a grant](#) from the Minnesota Pollution Control Agency (MPCA) to conduct a feasibility study for a community anaerobic digester.

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Anaerobic digesters use the methane produced from organic matter to provide an alternative energy source. The [benefits](#) of this project include reducing the amount of waste that ends up at the incinerator or landfill, a reduction in greenhouse gas emissions, green jobs, and cleaner and cheaper energy. LHP completed a [feasibility study](#) in 2008.

**Community Response:** This project is a community-led effort. In February 2008, LHP&L rallied block captains to [spread the word](#) about the program. The first community meeting attracted 50 residents wanting to be involved. LHP&L worked with Minneapolis and Hennepin County to develop a pilot curbside collections program picking up separated organics – over 1,400 residents participate.

**City Stance:** The City seems to be generally in favor of anaerobic digesters as the council was receptive to a recommendation from the [Urban Agriculture Policy Plan](#) to include a text addressing anaerobic digesters and composting business in the zoning. However, any changes to the code have been [delayed](#) as the council waits for [MPCA to finalize](#) its composting rules.

**Public and Stakeholder Engagement:** In this case, the public reached out to the city. The city will have public outreach as it considers zoning code language for anaerobic digesters in the city.

**Outcome:** Curbside collection of organic waste is available for Linden Hills residents, however, there is not an anaerobic digester facility in place to receive the waste. LHP&L [stopped](#) pursuing an anaerobic digester as the St. Paul Port Authority had more resources to make it happen and is currently building a facility in Becker, MN.

### 5. Upper St. Anthony Falls Hydro

**Description:** In 1999, the Federal Energy Regulatory Commission granted Crown Hydro a license to build a 3.2-megawatt hydroelectric facility on the west bank of the Mississippi River, just above the St. Anthony Falls. The Minneapolis Park and Recreation Board owns the land and has strongly and consistently objected to the construction of this facility ([Minnesota Daily, 2011](#)). In 2011, Crown Hydro sought [legislative action](#) that would allow them to circumvent local control by directing the park board to authorize an agreement – the bill [failed](#).

**Community Response:** Community and resident organizations and the Minneapolis Park Board have opposed construction of this facility. The main concern is that the plant would divert water from the falls resulting in low flow that would hurt the local economy by making the destination less desirable.

**City Stance:** The City Council [formally disapproved](#) of legislation that would take away local control. The City Council has not appeared to take a stance one way or another on the project itself, though some individual council members have taken positions.

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**Public and Stakeholder Engagement:** The City did not conduct outreach efforts, as Minneapolis Parks and Recreation Board owns this land and the City of Minneapolis had little authority over this decision.

**Outcome:** Crown Hydro continues to try to move the project forward.

### 6. Riverside Plant Conversion

**Description:** In order to meet environmental and climate action goals, Minneapolis supported a 2001 bill passed by the Minnesota Legislature that allowed utility companies to convert coal plants to natural gas and recover costs through rate increases. In September 2003, Xcel Energy [announced plans](#) to convert the Riverside power plant from coal to natural gas. Xcel began the conversion starting in 2006 as part of its Metro Emissions Reduction Project to significantly reduce air emissions and increase electrical production. The [plant came online](#) in April 2009.

**Community Response:** Minneapolis residents were actively advocating cleaning up the Riverside plant, organizing to [oppose](#) the continued use coal fired power plants. Residents, neighborhood groups, and advocacy groups sent letters to the MPCA, to stop the plant from burning coal.

**City Stance:** In 2002, the Minneapolis City Council passed a [resolution](#) to “call on Northern States Power Company to convert the Riverside plant from coal to natural gas to reduce the environmental and public health impacts that coal burning presents to the community.”

**Outcome:** The conversion began in 2006, and the natural gas plant went online in 2009.

## Matrix of Plans/Policies with Desired Future Conditions

The matrix on the following pages shows a list of desired future conditions for four components of Minneapolis' energy system (supply, distribution/infrastructure, end use, non-energy related conditions). For each condition, the matrix identifies one or more policy, program, or action that justifies the condition.

The matrix does not show every policy that supports each condition, but merely identifies the most relevant policies. The Climate Action Plan and the Comprehensive Plan are the two documents that provided most of the direct support for the desired conditions.

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies				
Conditions: A. Energy Supply	Comprehensive Plan	Climate Action Plan	Council Resolution	Sustainability Indicators
<b>1. Low or no carbon</b> – Carbon intensiveness is a primary component of clean energy	6.2	B&E Goal #4 CCS #4, 12, 13,	Requesting NSP to convert Riverside plant to natural gas 2/1/2002	Climate Change
<b>2. Clean</b> - Few or no waste products or pollutants, in addition to low carbon	6.1, 6.3, 6.4	RE # 1-5	Requesting NSP to convert Riverside plant to natural gas 2/1/2002	Renewable Energy, Air Quality, Trans. Alternatives
<b>3. Affordable cost</b> – supply cost is an important consideration in creating a supply portfolio		CCS #9, 10, 11		Cost-Burdened Households
<b>4. Reliable</b> –supply mix protected from unexpected unavailability		Not specifically, but addressed indirectly		
<b>5. Predictable</b> cost – supply is minimally subject to price volatility		IG #1 - planning for the future		
<b>6. Diversified</b> – supply uses multiple fuels with different availability and price risks	6.2	Not specifically, but addressed indirectly	Regarding Xcel Energy's Midtown High Voltage Power Line Proposal 2/6/2009.	Renewable Energy
<b>7. Local</b> – Maximize opportunities for local generation	6.3, 6.4	RE # 1-5	Regarding Xcel Energy's Midtown High Voltage Power Line Proposal 2/6/2009.	Renewable Energy

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies				
Conditions: A. Energy Supply	Mayor CPA	Ordinances	Solar Cities	5-Year Goals, Strategies
<b>1. Low or no carbon</b> – Carbon intensiveness is a primary component of clean energy	Climate Agreement			
<b>2. Clean</b> - Few or no waste products or pollutants, in addition to low carbon				Eco-Focused Strategy - Use less energy, produce less waste
<b>3. Affordable cost</b> – supply cost is an important consideration in creating a supply portfolio				
<b>4. Reliable</b> –supply mix protected from unexpected unavailability				
<b>5. Predictable cost</b> – supply is minimally subject to price volatility				
<b>6. Diversified</b> – supply uses multiple fuels with different availability and price risks				
<b>7. Local</b> – Maximize opportunities for local generation		Solar Ordinance Chapter 535	Integrating solar in city infrastructure	

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies				
Conditions: B. Distribution System	Comprehensive Plan	Climate Action Plan	Council Resolution	Sustainability Indicators
<b>1. High level of reliability</b> – system has redundancy and resilience		Not specifically, but addressed indirectly		
<b>2. High level of safety</b> – system is safe for end users, utility workers, and contractors	5.4			
<b>3. Allows for consumer choice</b> – allows for self generation, on-site storage or backup, aggressive E.E. or conservation	6.3.4 6.4.3	6.4.1 6.4.4 CC Strategy 11 RE Action 2,3,4,5 IB Action 1		Renewable Energy
<b>4. Minimizes land use conflicts</b> – opportunities for undergrounding of lines, separating substations from	6.8.6		Regarding Midtown High Voltage Line Proposal 2/6/2009.	
<b>5. Minimizes natural resource conflicts</b> – preserve linear green space, protects urban forest and water quality/flow	6.8.6		Regarding Midtown High Voltage Line Proposal 2/6/2009.	
<b>6. Minimizes duplication of infrastructure</b> – system efficiently uses space available in rights-of-way		CC Strategy 1		
<b>7. Establishes a 21st century distribution system</b> - Maximizes opportunities for micro grids, electric vehicles, distributed generation, smart metering	6.3.4	6.4.3 RE Action 2,3,4, 5 CC Strategy 15, 16	Regarding Midtown High Voltage Line Proposal 2/6/2009.	

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies					
Conditions: B. Distribution System	Commercial Building Disclosure	Ordinance	Solar Cities	5-Year Goals, Strategies	Franchise Agreements
<b>1. High level of reliability</b> – system has redundancy and resilience				Eco-Focused Strategy - Clean, renewable, integrated energy	
<b>2. High level of safety</b> – system is safe for end users, utility workers, and contractors					
<b>3. Allows for consumer choice</b> – allows for self generation, on-site storage or backup, aggressive E.E. or conservation	Section 47.190	Solar Ordinance Chapter 535	Market transformation - Finan. Mechanisms, training/edu.	Eco-Focused Strategy - Clean, renewable, integrated energy	
<b>4. Minimizes land use conflicts</b> – opportunities for undergrounding of lines, separating substations from					
<b>5. Minimizes natural resource conflicts</b> – preserve linear green space, protects urban forest and water quality/flow					
<b>6. Minimizes duplication of infrastructure</b> – system efficiently uses space available in rights-of-way					Agreement gives Xcel permission to use right of ways
<b>7. Establishes a 21st century distribution system</b> - Maximizes opportunities for micro grids, electric vehicles, distributed generation, smart metering		Solar Ordinance Chapter 535		Eco-Focused Strategy - Clean, renewable, integrated energy	

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies					
Conditions: C. Energy Use	Comprehensive Plan		Climate Action Plan	5-Year Goals, Strategies	Ordinance
<b>1. Highest level of efficiency</b> – buildings and facilities capture all lifecycle cost E.E. measures	4.13.2 6.1.3	4.13.2	B&E Goals #1,2 CCS #6, 7      CB #1-5	Eco-Focused Strategy - Use less energy, produce less waste	
<b>2. Maximizes efficiency’s societal benefits</b> – efficiency/retrofit priorities recognize ability to pay			Implementation Goals #2, 3      CCS #1, 11              RB #1, 2, 4		
<b>3. Promotes a conservation mindset</b> – helps transform societal norms to using less	4.13 6.3	6.1 6.10	CCS #5, 6, 7		
<b>4. Allows end-user self sufficiency</b> – buildings/facilities with energy resources can use on-site generation to achieve net-zero ratings	4.13.3 6.3	6.5.2	RE #4	Eco-Focused Strategy - Clean, renewable, successfully integrated energy	Solar Ordinance Chapter 535
<b>5. Promotes equity in rate structures</b> – recognizes economic differences among Minneapolis communities	6.1		Implementation Goals #2, 3 CCS #1		

Summary of Existing City Policies and Desire Future Conditions

Conditions: C. Energy Use	Commercial Building Disclosure
<b>1. Highest level of efficiency</b> – buildings and facilities capture all lifecycle cost E.E. measures	Yes
<b>2. Maximizes efficiency’s societal benefits</b> – efficiency/retrofit priorities recognize ability to pay	
<b>3. Promotes a conservation mindset</b> – helps transform societal norms to using less	Yes
<b>4. Allows end-user self sufficiency</b> – buildings/facilities with energy resources can use on-site generation to achieve net-zero ratings	
<b>5. Promotes equity in rate structures</b> – recognizes economic differences among Minneapolis communities	

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies				
Conditions: D. Non-Energy	Comprehensive Plan	Climate Action Plan	Council Resolution	Sustainability Indicators
<b>1. Improves social equity</b> - Minimizes costs including lowering energy bills, minimizing bill volatility, and improving access to energy services	6.1	Implementation Goals #2,3 CCS #1 RB 1, 2, 4		
<b>2. Reduces economic and health disparities</b> - reduces health and economic disparities	6.2	Implementation Goals #2,3 CCS #1 RB, 1,2,4	Xcel's Midtown HVP Line 2/6/2009. NSP Power Plant Conversion 2./1/2002	Air Quality, Tree Canopy, Asthma
<b>3. Improves participation</b> - Everyone has opportunity to participate in energy system decision making	6.3.7 6.4.3	6.4.1 CCS #11 CB #1		
<b>4. Expands economic development</b> - encourages investment in new business and new opportunities for existing businesses	4.1.	4.11 CCS #2, 4, 13 IB #1		Green Jobs
<b>5. Improves City's ability to meet goals</b> - energy supplier/distributor responds directly to City policies and goals	4.13	CCS #3, 17 CB #2		

Summary of Existing City Policies and Desire Future Conditions

Supporting Policies				5-Year Goals, Strategies
Conditions: D. Non-Energy	Ordinance	Thinc.Green	Solar Cities	
<b>1. Improves social equity -</b> Minimizes costs including lowering energy bills, minimizing bill volatility, and improving access to energy services				Goal - Many People, One Minneapolis
<b>2. Reduces economic and health disparities</b> – reduces health and economic disparities				Goal - Livable communities, healthy lives
<b>3. Improves participation -</b> Everyone has opportunity to participate in energy system decision making			Training/Education Building public awareness	
<b>4. Expands economic development</b> encourages investment in new business and new opportunities for existing businesses		Expand the green business-friendly environment Brand MSP for		
<b>5. Improves City’s ability to meet goals</b> - energy supplier/distributor responds directly to City policies and goals	Solar Ordinance Chapter 535			