



JUST TRANSITION: A PATH TO ACHIEVING 100% RENEWABLE ELECTRICITY COMMUNITY-WIDE BY 2030

CITY OF MINNEAPOLIS

DRAFT – August 13, 2021

EXECUTIVE SUMMARY

The City of Minneapolis adopted goals in 2018 to achieve [100% renewable electricity](#) (100RE) for municipal facilities and operations by 2023 and communitywide by 2030. These new goals build upon the 2013 Minneapolis Climate Action Plan, which established a goal of 10% locally generated and directly-purchased renewable electricity by 2025. The transition from fossil fuels to renewable electrification offers the City the golden opportunity to ask, “how can we ensure that this transition to renewable energy transforms and benefits our community”?

This document, a blueprint for transition to a clean electricity future, lays out a process for inclusive community engagement as the foundation for how the City will achieve the 100% renewable electricity goal and prioritize community-benefits. Electricity is a public good and is essential, like our other basic needs for clean water, health and safety, and education.

City staff reviewed the City’s previous plans, including the Climate Action Plan, Energy Vision, Energy Pathways study, and the environmental justice work with the Green Zones, to create within this blueprint:

1. An inventory of community benefits and definitions,
2. A list of potential renewable strategies, policies, and programs, and
3. An evaluation tool to be used in considering strategies and policies.

The proposed recommendations to achieve 100RE by 2030 include a grid mix of 60% renewables, 10% utility scale green tariff programs, and 30% local generation. Of the 60/10/30 goals, perhaps the **most challenging yet most rewarding is achieving the goal of 30% local renewable electricity generation by 2030**. This new local generation goal would contribute to achieving the overall 100% renewable electricity goal and build upon the Climate Action Plan’s 2025 goal of 10% local and directly-purchased renewable electricity. Local renewable electricity investment offers the best opportunity to increase community wealth, reduce energy cost burden, increase workforce opportunities, and increase energy democracy. To achieve this local goal, we will need the full collaboration of our electric utility, Xcel Energy, to expand existing programs such as Solar*Rewards (rooftop solar) and Solar*Rewards Community (community solar gardens) and work with the City to expand access to and use of renewable electricity.¹

The report also recommends that Xcel Energy accelerate the deployment of utility-scale solar and wind, accelerate coal plant retirement, and not build any new gas power plants. Without these changes in Xcel Energy’s portfolio over the next 10 years, the community-wide goal of

¹ City of Minneapolis Resolution Establishing 100% Renewable electricity goal for Minneapolis, 2018

100% renewable electricity will be unachievable even if the 30% local solar goal is met. To ensure that the 100% goal is met this blueprint recommends that future franchise agreements include performance-based goals for renewable electricity. If these performance goals are not met the City should pursue state legislation to empower cities in establishing community choice aggregation.

There are communities within our city who are more vulnerable to the impact of climate change, are energy-burdened, and have been historically under-invested in by both the public and private sectors. These under-investments have resulted in inequitable distribution of resources and access to opportunities, and exacerbated disparities in health, wealth and more. The transition to renewable energy systems can be a tool to reverse these systemic inequities and foster economic and community-wealth building opportunities.

In the development of this 100RE Blueprint, the community engagement process was intended to foster deeper levels of engagement, inclusion, ownership of solutions by the residents and empowerment for communities who had borne environmental racism. The City started the Blueprint's community engagement with outreach to our advisory committees and councils, and then proceeded to community-wide meetings with stakeholders. Early on, the City observed low participation from Black, Indigenous, People of Color and Immigrants (BIPOCI) and low-income residents, and therefore extended the project timeline to work with leaders and organizations from diverse communities. These community leaders and organizations were recommended by the City's Neighborhood and Community Relations Department. The community leaders created engagement plans, advised the City, and led the community-meetings. Details on this process are documented in Appendix C.

This 100RE blueprint has the chance to simultaneously advance racial and social equity and drive down greenhouse gas emissions, and Minneapolis has the opportunity to rebuild and revitalize our community to increase community health and wealth, include community in decision making and establish a more resilient local energy system.

ACKNOWLEDGEMENTS

The City of Minneapolis acknowledges the efforts of the [100% Renewable Electric Resolution](#) sponsors Council Members Gordon, Fletcher and Schroeder and their staff Robin Garwood, Karlee Weinmann, and David Zaffrann; Mayor Frey, Peter Ebnet and Heidi Ritchie; the staff of the Sustainability Division including Kim Havey, Luke Hollenkamp, Kelly Muellman, Stacy Miller, Bjorn Olson, and Diana Chao; staff from the Health Department including Patrick Hanlon and Isaac Evans; Xcel Energy for valuable data used for forecasting and staff support and our Bloomberg American Cities Climate Challenge advisor Dolkar Tenzin. In addition, we wish to thank our consulting partners of the Clean Energy Accelerator (CRA) team from the World Resources Institute (WRI), the Rocky Mountain Institute (RMI) and National Resources Defense Council (NRDC), including Alisa Peterson, Irene Nielson, Celina Bonugli, Alex Dane, Julia Meisel, Jay Orfield, and Robi Robichaud. We especially want to thank and acknowledge the stakeholders and community members who participated in the work groups' deliberation by providing public comments. Those organizations are listed in Appendix D.

PURPOSE OF THE 100RE BLUEPRINT

In 2018, the City of Minneapolis (the City) adopted a resolution² to achieve 100 percent (100%) renewable electricity community-wide by 2030 (Appendix A). Achieving the goal will require innovative changes to how residents, businesses and the city enterprise purchase and consume electricity. The clean energy transition from fossil fuels to renewable energy presents an opportunity to create a more just and inclusive energy economy that builds equity for Black, Indigenous, people of color, and immigrant communities (BIPOCI) who have been under-represented in the energy field and marketplace. 100RE also calls for creating equitable outcomes and benefits for BIPOCI residents, low-income residents, and renters-communities that have borne the brunt of past environmental racism.

This blueprint outlines the City's vision for achieving 100% of community-wide electricity consumption powered by renewable energy. The blueprint is a community-driven plan centered on the voices of residents, especially BIPOCI community leaders. It is an iterative document intended to be revisited with the residents to examine progress and reconsider strategies as technology advances and the regulatory environment changes.

GOALS

The blueprint includes guidance to policymakers for:

- Powering 100% of community-wide electricity use from renewables by 2030.
- Generating 60% of community-wide electricity use from utility grid renewables by 2030.
- Generating 30% of community-wide electricity use from local renewables by 2030.
- Generating 10% of community-wide electricity use from utility scale green tariff renewables by 2030.
- Accelerating the reduction of fossil fuels in the electricity system.
- Creating a healthier, just, and resilient city.
- Ensuring that BIPOCI and under-resourced communities benefit from the promise of a renewable energy transition with opportunities for community-wealth building.
- Reducing energy costs and energy burden.

² <http://lims.minneapolismn.gov/Download/RCA/4338/100%20renewables%20resolution%20final.pdf>

- Creating a more inclusive energy system.
- Offering recommendations to city policy makers to meet the 100RE goals most equitably.

While pursuing 100% renewable electricity, the City will continuously evaluate strategies, investment, policies, and programs for overall sustainability as well as racial and environmental justice. Since the 100RE resolution was adopted, the City of Minneapolis approved a resolution declaring racism as a public health emergency.³ The resolution includes commitments to allocate dollars in the City budget to be directed toward small business development, community-based infrastructure, and other community-level amenities to reverse and repair harm experienced by BIPOC residents. This commitment can be meaningfully applied to increased efforts to reduce energy burden and increase health and wealth of residents and business through energy efficiency and renewable energy strategies.

The City affirms that racial justice and social equity must be a focus of planning for meeting the 100RE goals and climate mitigation. To ensure participation by BIPOC communities in the development of this Blueprint, the City took more time to gather additional input from several community organizations and more than 100 community members.

Direction from community was clear: progress toward 100RE must improve equity, and that equity should not be sacrificed for expediency. Transitioning to a sustainable energy system that benefits and is inclusive of BIPOC communities is a primary factor for defining success.

MINNEAPOLIS ENERGY AND CLIMATE POLICIES GUIDING 100RE

Minneapolis Climate Action Plan (2013): established goals to reduce greenhouse gas (GHG) emissions 30% by 2025 and 80% by 2050, compared with 2006; committed to generating 10% of community-wide electricity use from local and directly-purchased renewable sources by 2025.

A primary driver for setting the 100% renewable electricity goal is that recent GHG emissions forecasts show that the City is not on track to meet its Climate Action Plan goals. One of the reasons for this is the continued reliance of natural gas (fossil gas) to transition away from coal for electric power. Ensuring that we transition away from coal directly to renewables (and not

³ <http://news.minneapolismn.gov/2020/07/17/city-council-declares-racism-a-public-health-emergency/> Jul 2020.

to fossil gas as a so-called “bridge”) will more quickly reduce carbon emissions, even when we increase demand for electricity through the electrification of cars and homes.

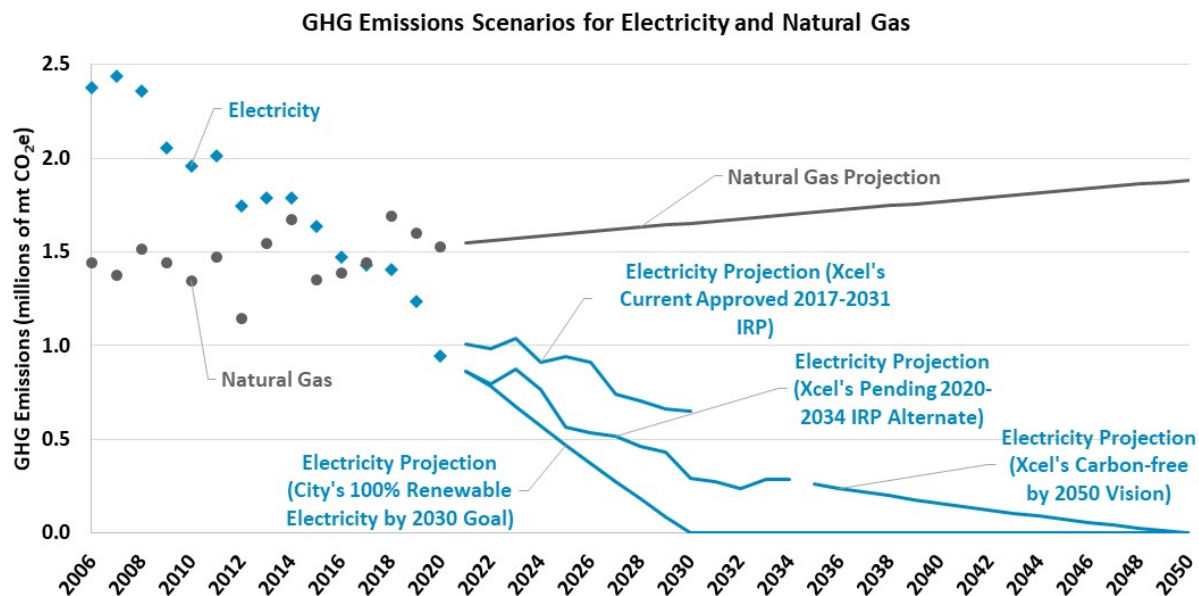


Figure 1. Minneapolis Community-wide Greenhouse Gas Emissions (Historical and Forecasts)

City of Minneapolis Energy Vision (2014): “In 2040, Minneapolis’s energy system will provide reliable, affordable, local and clean energy services for Minneapolis homes, businesses, and institutions: sustaining the city’s economy and environment and contributing to a more socially just community.”⁴

Minneapolis 100% Renewable Electricity Resolution (2018): the 100RE resolution has two components:

- A community-wide goal to be 100% powered by renewable electricity by 2030. Business-as-usual will result in the City not meeting this goal. This Blueprint specifically focuses on achieving this community-wide goal.
- An interim goal for municipal facilities and operations to be 100% powered with renewable electricity by 2022.⁵ The City is on track to achieve this goal. A [blueprint](#) for this goal was completed in 2017.

⁴ <https://mplscleanenergypartnership.org/wp-content/uploads/2014/12/mpls-energy-vision-9-3-13.pdf>

⁵ <https://lims.minneapolismn.gov/Download/RCA/4338/100%20renewables%20resolution%20final.pdf>

CITY INITIATIVE OR POLICY DRIVEN BY COMMUNITY	YEAR
Community Environmental Advisory Commission (CEAC) – the first stakeholder group is established to advise the City on environmental and sustainability issues.	1990
Minneapolis Climate Action Plan ⁶ – The first comprehensive plan was adopted by the City that established the climate action goals and strategies.	2013
Commercial Benchmarking Policy Adopted – The first program was enacted to disclose energy use in large buildings and encourage energy efficiency	2013
Energy Pathways Study ⁷ – This study looked at several pathways to achieve the Climate Action goals. The pathway chosen at that time established the Clean Energy Partnership.	2014
Energy Vision ⁸ – A vision of what the 2040 Minneapolis energy system	2014
Clean Energy Partnership – A partnership is established between the City, Xcel Energy and CenterPoint Energy to support the City’s climate goals.	2014
Blueprint for Equitable Engagement ⁹ – A stakeholder engagement tool designed to support community.	2016
Energy Vision Advisory Committee’s Community Engagement Plan ¹⁰ – the plan recommended a community stakeholder advisory committee to the Clean Energy Partnership Board.	2016
Green Zones Policy Designation and Resolutions – Established two geographic areas and two resident-based advisory councils to pursue racial and environmental equity.	2017
Utility Franchise Fee Increase Ordinance Amendment – established increased funding for City energy and environmental programs.	2017
100 Percent Renewable Electricity Resolution ¹¹ – Resolution setting the renewable electricity goals community-wide and for city operations.	2018
Northside and Southside Green Zone Work Plans – Recommendations from Environmental Justice resident advisory committees	2019 / 2020

Figure 2: A Recent Timeline of Key Minneapolis Sustainability Milestones

⁶ <http://www2.minneapolismn.gov/sustainability/climate-action-goals/climate-action-plan>

⁷ <http://www2.minneapolismn.gov/energyfranchise/WCMS1P-113782>

⁸ <https://mplscleanenergypartnership.org/wp-content/uploads/2014/12/mpls-energy-vision-9-3-13.pdf>

⁹ <http://www2.minneapolismn.gov/www/groups/public/@ncr/documents/webcontent/wcmsp-187047.pdf>

¹⁰ https://mplscleanenergypartnership.org/wp-content/uploads/2016/03/evac-community-engagement-planning-process_approved_3-4-16.pdf

¹¹ <http://lims.minneapolismn.gov/Download/RCA/4338/100%20renewables%20resolution%20final.pdf>

AREAS OF INFLUENCE: PROCESSES, PROGRAMS AND TECHNOLOGIES

Contributions to renewable energy by the City enterprise, residents, businesses, and Xcel Energy fall into three classifications:

- **System Renewable** grid mix is the electricity from renewable resources that all of Xcel Energy's Minnesota consumers receive for their standard electricity service. This is represented by Xcel Energy's Certified Renewable Percentage reporting, with modifications made by the City to avoid double-counting local actions.
- **Distributed Solar** consists of solar photovoltaic panels installed within or in proximity to the City. Includes projects enrolled in Xcel Energy's Solar*Rewards Rooftop, Solar*Rewards Community®, and non-Solar*Rewards installations, many of which are also supported by the Minneapolis Green Cost Share Program¹².
- **Utility-scale Green Pricing Subscriptions** consist of renewable programs residents and businesses voluntarily participate in for a premium price. Includes Xcel Energy's Windsource® and Renewable*Connect® programs.

As established by the 100RE resolution, the renewable electricity resources contributing to meet the 100RE goal include:

- Solar
- Wind
- Existing Hydropower
- New, low-impact Hydropower

Renewable electricity does not include:

- Nuclear
- Refuse derived fuel (garbage incineration)
- New large-scale Hydropower

¹² <https://www2.minneapolismn.gov/government/programs-initiatives/environmental-programs/green-cost-share/#:~:text=The%20Green%20Cost%20Share%20program,or%20innovative%20pollution%20reduction%20project.>

In 2020 the City of Minneapolis was 32.4% powered by renewable electricity, as shown in Figure 3. The percentage of renewable electricity had been relatively flat from 2015 to 2019, in the mid 20's, after which a significant increase occurred during 2020.

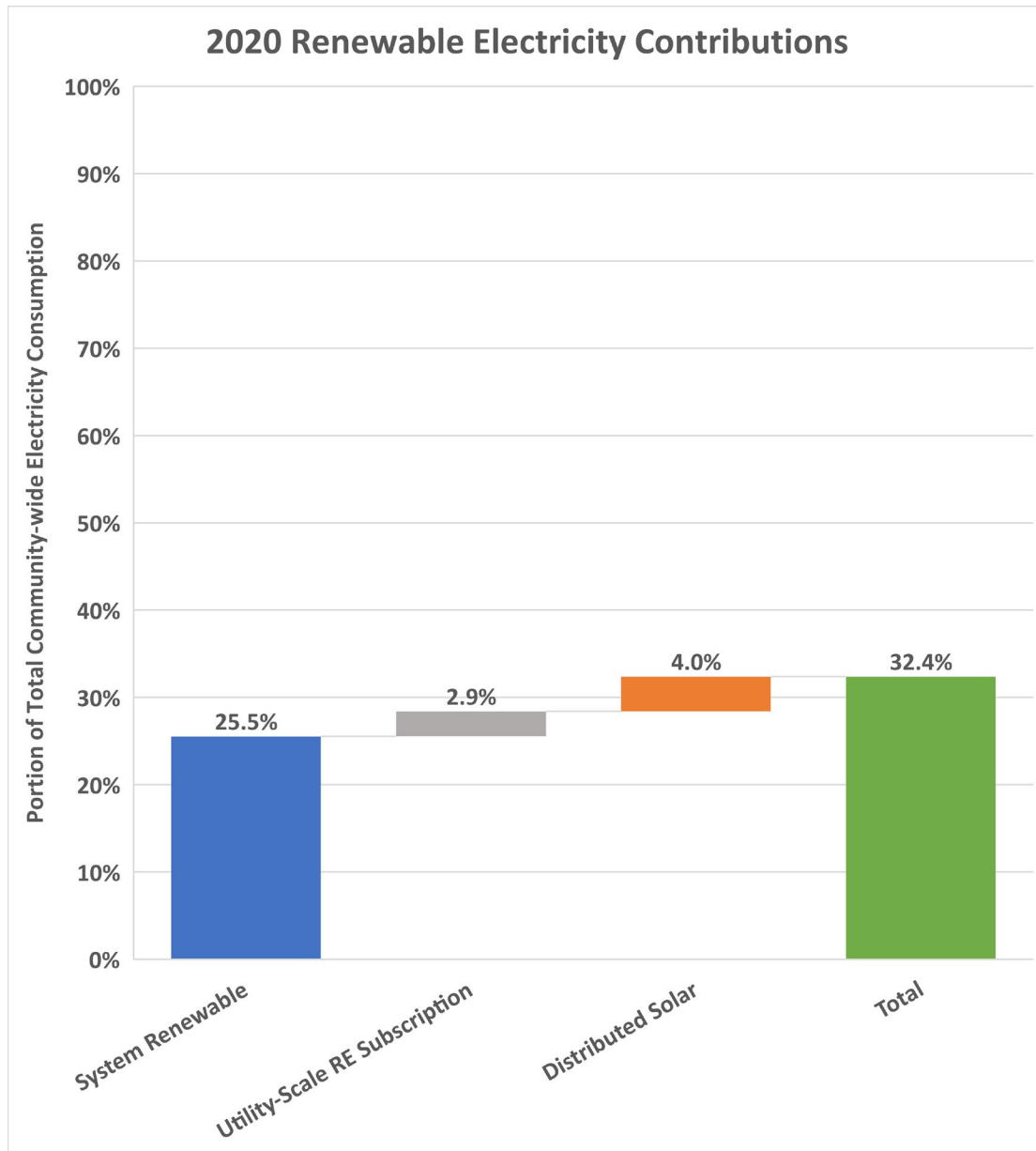


Figure 3. Renewable electricity portfolio in the City of Minneapolis. 2020

COMMUNITYWIDE LOAD FOR ELECTRICITY

The community-wide load in 2030 will differ from today based on population growth, energy efficiency savings, building electrification, and vehicle electrification. Some of these factors (such as population and business growth, building electrification, and electric vehicle charging) will add to the demand for more electricity while others (such as energy efficiency and conservation) will decrease demand for electricity. The scenario below is just one possible outcome modeled by the World Resources Institute (WRI) for the City.

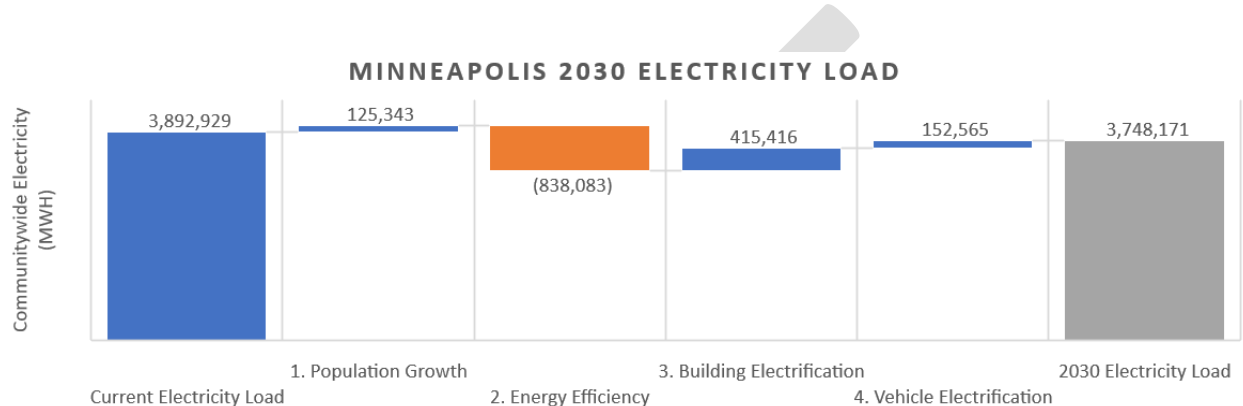


Figure 4: 2030 Electricity Load Projection

The following assumptions went into the above scenario:

- **Population Growth:** All other things being equal, electricity load will increase proportionally with Minneapolis' estimated annual population growth of 0.26%.
- **Energy Efficiency:** Xcel Energy's Integrated Resource Plan (IRP) assumption of energy efficiency improvements will result in 2% electricity savings annually.
- **Building Electrification:** On average, 25% of natural gas appliances will be replaced by heat pumps at failure from now until 2030.
- **Vehicle Electrification:** There will be a 25% electric vehicle (EV) penetration rate by 2030.

Building electrification and energy efficiency will likely have the biggest impacts on Minneapolis' communitywide load and will be highly dependent on building electrification goals and available incentives.

Based on these assumptions from Figure 4, the communitywide electric load will decrease by 3.7% compared to the current electric load, even with an increase in EV and building electrification.

ELECTRICITY USE BY SECTOR

As the economic engine of the state and region, Minneapolis is home to more than 44,000 businesses and more than 250,000 employees, which makes Minneapolis' commercial and industrial sector energy use much larger than the energy used by residential customers. As shown in Figure 5, commercial buildings will consume 64% of the electricity used in Minneapolis in 2030. The largest share of this commercial demand comes from the City's larger buildings (over 50,000 SF) which are participating in the Energy Benchmarking program. These commercial benchmarked buildings also include large multi-family residential buildings. One of the most progressive policy in the USA is the City of [New York's building and benchmarking](#) program which requires all buildings come into compliance with a set carbon intensity per square foot that support the City's climate action goals.

2030 Projected Electricity Use by Sector (MMBtu)

■ Residential ■ Commercial ■ Industrial

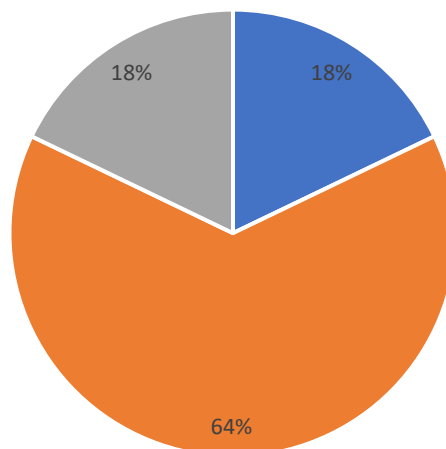


Figure 5: Estimated Energy Use in 2030 by Sector

CHALLENGES AND CONTEXT FOR ACHIEVING THE 100 RE GOAL

Xcel Energy, an investor-owned utility and regulated monopoly, exclusively provides electricity service to the City of Minneapolis. Xcel Energy is a vertically integrated utility that operates electricity generation, transmission, and retail distribution. In this current environment,

achieving the 100RE goal is almost entirely dependent on Xcel Energy's system renewable electricity mix, adopted policies, and offered programs. Additionally, the state regulatory environment and policy actions within the City's authority have an impact.

Recognizing energy utilities' importance for meeting climate and energy goals, the City entered into the Minneapolis Clean Energy Partnership in 2014 with Xcel Energy and CenterPoint Energy (the gas utility).¹³ The 100RE and other clean energy goals require coordination within the Clean Energy Partnership on priorities like energy efficiency, renewable energy, and equity.

In 2018, Xcel Energy announced a nation-leading goal to generate 60% of electricity from renewable sources by 2030, averaged across its service territories. Laudably, this would increase the utility's renewable electricity by nearly double compared to its 2020 Minnesota grid mix, thereby making it easier for the City to achieve its goals.¹⁴ However, important differences between the Minneapolis 100RE goal and Xcel Energy's corporate goal include:

- Xcel Energy's 60% goal is calculated company-wide spanning its multiple service territories across the nation, and actual renewable levels vary from state to state. For Minnesota, Xcel Energy predicts a Certified Renewable Percentage of 52% in 2030, significantly less than the company-wide goal of 60% in that same year.
- The 60% target by Xcel Energy includes many of the local actions taken by its customers, such as Minneapolis customers' community solar subscriptions and Solar*Rewards rooftop solar contributions. Therefore, to avoid "double counting" of these actions, Xcel Energy's Certified Renewable Percentage must be modestly reduced prior to adding in Minneapolis' local actions toward the 100RE goal.

Based on Xcel Energy's Alternate Plan in its 2020-2034 Integrated Resource Plan¹⁵ and paired with the City's 2020 data, the City estimates the business-as-usual trajectory falls far short of the 100% renewable goal, achieving only 57% by 2030. When factoring in Xcel Energy's most generous distributed solar scenario in 2030, this increases modestly to 59%, shown in Figure 6.

As a local jurisdiction, Minneapolis currently lacks the authority to require Xcel Energy to increase its planned renewable electricity within the City or broader service territory.

¹³ Minneapolis Clean Energy Partnership. <https://mplscleanenergypartnership.org/>

¹⁴ https://www.xcelenergy.com/staticfiles/xcelresponsive/Company/Corporate%20Responsibility%20Report/2019%20CRR/2019_Leading%20the%20Clean%20Energy%20Future_CRR.pdf

¹⁵ Docket 19-368. Xcel Energy Supplemental Plan. Jun 2020.

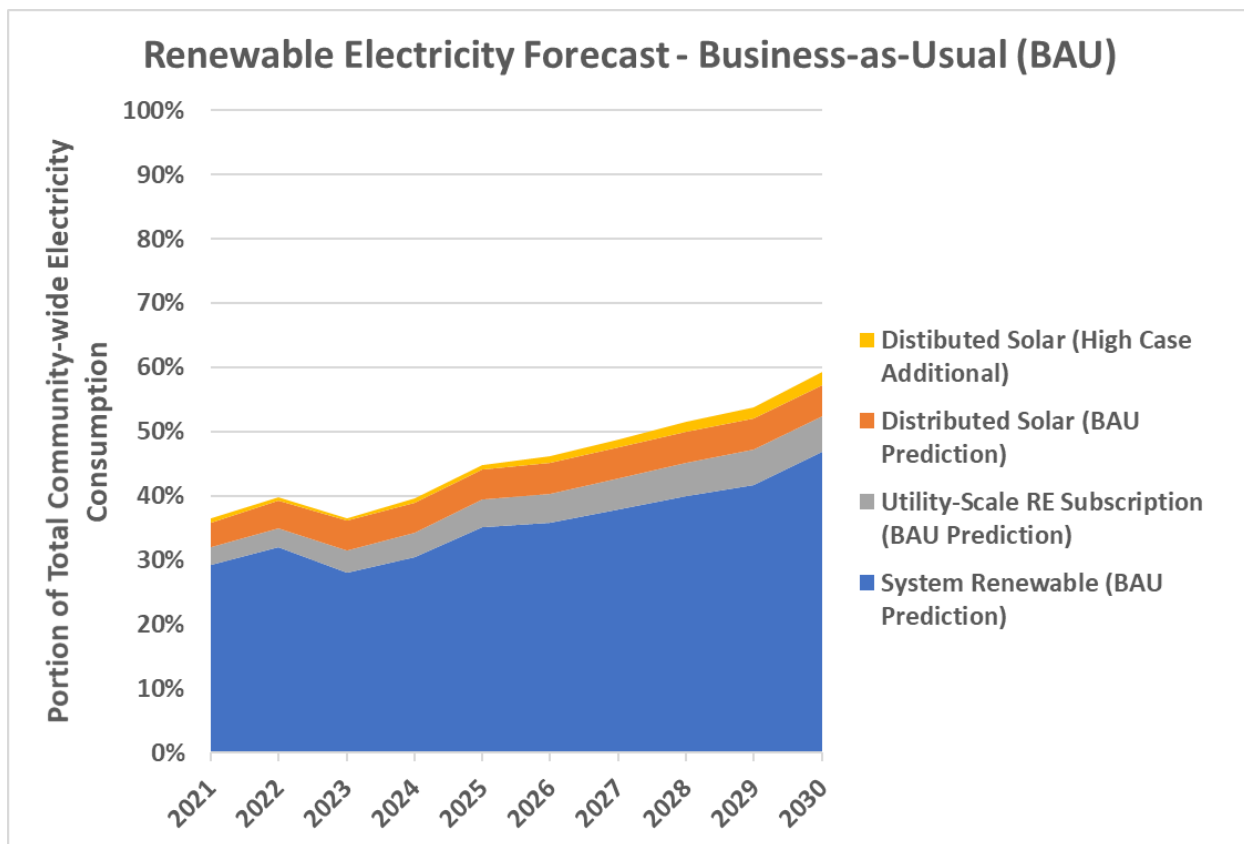


Figure 6. Forecast of renewable electricity through 2030

Achieving the 100% goal requires substantial increases in all three categories of action: system renewables, voluntary renewable electricity subscriptions, and distributed solar. The recommended goals for achieving 100% by 2030 include the following:

- **System Renewable = 60%.** Xcel Energy can accomplish this by increasing the capacities of existing solar and wind resources, building new solar and wind generation, further accelerating the retirement of fossil fuel power plants, and avoiding the construction of new gas power plants. This can be accomplished by Xcel Energy advancing the timeline of their Alternate Plan in the 2020-2034 Integrated Resource Plan, so that the Certified Renewable Percentage forecasted as 60% in 2034 is instead accomplished by 2030.
- **Utility-Scale RE Subscription = 10%.** This can be accomplished by enrolling more and larger subscriptions in Xcel Energy's current and future green tariff programs.
- **Distributed Solar = 30%.** This can be accomplished by the combination of massive scale-up of local solar installed within the city boundaries and a much

greater subscription by city residents and business to nearby community solar gardens.

This scenario for achieving 100% is shown in the figure below, with the additional progress required above the business-as-usual case shown shaded.

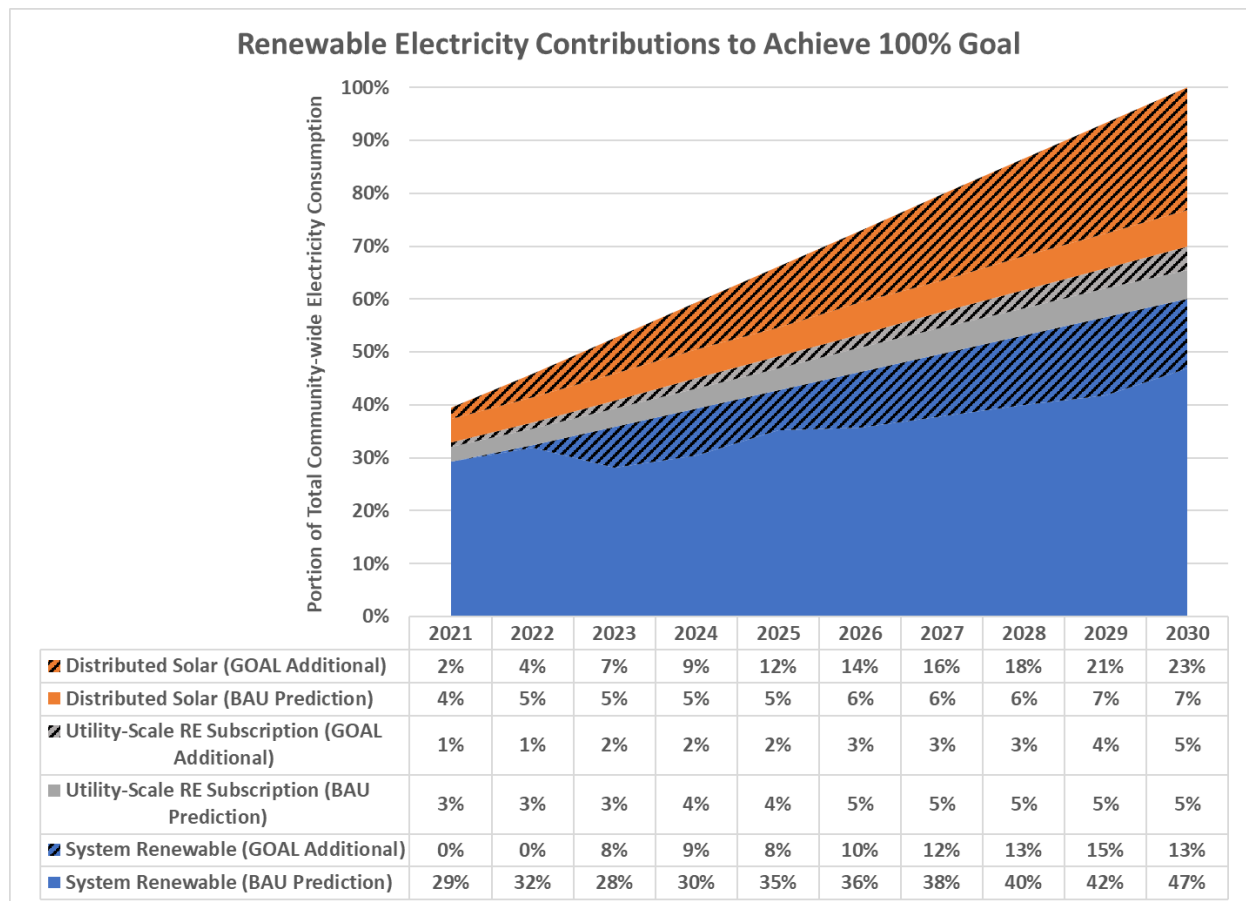


Figure 7. Path to Achieving 100% Renewable Electricity with Goals for Additional Contributions.

If Xcel Energy commits to achieving its company-wide 60 percent renewable goal by 2030 in Minnesota as well, Minneapolis electricity customers would need to invest in or self-generate 40 percent of its energy from renewables through green pricing, community solar, and rooftop solar. Any additional progress Xcel Energy makes above 60% renewable electricity means that the goal gap covered by the community via local actions is even easier to achieve.

Achievement of the 30% by 2030 goal has been shown to be technically feasible, given the area available for solar installations in the City alone can account for more than 30%. The 30% goal will also likely be met through sizable contributions from community solar gardens outside of the City boundary, but near the metropolitan area. Realizing the 30% goal necessarily requires positive, fostering government policy at all levels to allow and encourage rapid local solar

deployment. Regulatory policy must also enable deployment of locally-owned and distributed solar. Finally, and equally important, Xcel Energy must embrace and empower distributed, non-utility-owned solar for its multitude of positive climate, societal, price, and grid impacts.

In addition to policy, incentives are required to speed the adoption of local solar. This calls for continuing and improving upon the many successful incentive programs, scaling them up in capacity, extending them through at least 2030, and increasing incentive rates for families with high energy burdens.

Achieving the 30% by 2030 goal is possible, but a next level of thinking and action is required. For more discussion on local, distributed solar, and particularly around financial incentives to accelerate deployment, see Appendix F.

DRAFT

DISPARITIES IN MINNEAPOLIS CONTRIBUTE TO DISPARITIES IN OUR ENERGY SYSTEM

In Minnesota, combustion of fossil-fuels in electricity generation is the primary source of GHG emissions with significant social costs and disproportionately adverse impacts on people. Unfortunately, the impact of climate change and pollution is not felt equally across Minneapolis; the City's BIPOCI and low-income residents face disproportionate impacts from climate change and are less likely to have the resources to weather the impacts of climate change. They are also more likely to live adjacent to industrial areas that have higher concentrations of pollutants.

Race is a strong predictor of socio-economic and health disparities within the City of Minneapolis. Minneapolis ranks as one of the worst cities for racial inequality. The 2019 Brookings Metro Monitor report shows that Minneapolis-Saint Paul ranks 92 out of 100 for racial inclusion,¹⁶ and the energy system is inequitable. Many common strategies for reducing carbon footprint are not affordable and accessible to low- to moderate-income households and renters, such as energy efficiency, rooftop solar, cost-premium green electricity pricing programs, and electric vehicles.¹⁷

Generally, low-income households run into renewable energy options barriers due to cost and lack of awareness of programs and services. Transitioning to a renewable energy future offers an opportunity to decrease these disparities by prioritizing benefits to BIPOCI and low-income communities.

To further illuminate the disparities in the energy system in Minneapolis, the following statistics provide perspective:

- 40% of the City's population of 430,000 identify as BIPOCI.¹⁸
- 25% of Minneapolis's energy efficiency and renewable energy workforce is BIPOCI.¹⁹
- 12% of Minneapolis households have a high energy burden (above 6 percent),²⁰ and energy burden is disproportionately high for BIPOCI households.

¹⁶ <https://www.brookings.edu/research/metro-monitor-2019-inclusion-remains-elusive-amid-widespread-metro-growth-and-rising-prosperity/>

¹⁷ <https://iopscience.iop.org/article/10.1088/2516-1083/abb954/pdf>

¹⁸ American Community Survey <https://www.census.gov/acs/www/data/data-tables-and-tools/narrative-profiles/2018/report.php?geotype=place&state=27&place=43000>

¹⁹ Minneapolis Renewable Electricity and Energy Efficiency Workforce Assessment <https://naseo.org/data/sites/1/documents/publications/Minneapolis%20Workforce%20Development%20Assessment.pdf>

²⁰ ACEEE defines a household's energy burden as spending more than 6% of their income on meeting energy costs.

- The median energy burden of households with low-income in Minneapolis is 3.3 times higher than households without low-income.²¹
- 53% of housing units in Minneapolis are occupied by renters who pay into but are often not able to access money-saving renewable and energy efficiency programs.²²
- Minneapolis has the lowest Black homeownership rates in the U.S. with 25% of Black households owning their homes compared to 76% of white households, exacerbating racial disparity in terms of access to renewables and efficiency programs.²³

The transition to renewable electricity can provide an opportunity to create a more decentralized and consumer-centric system with local job opportunities. **Residents who met with the City asked that the City be intentional about creating equitable community outcomes during the renewable electricity transition. They want an electricity system that is community-centered, resilient, innovative, and democratic.**

The City applied a racial equity lens in developing this blueprint using Minneapolis' Racial Equity Impact Analysis tool. (Appendix E) The City shares residents' interest in creating a just and thriving energy economy for all and has committed resources to advance opportunities for residents and businesses to benefit from a renewable transition through inclusive economic growth.

²¹ American Council for an Energy-Efficient Economy (ACEEE) https://www.aceee.org/sites/default/files/pdfs/aceee-01_energy_burden_-_minneapolis.pdf

²² American Community Survey

²³ Redfin- <https://www.redfin.com/news/black-homeownership-rate-across-united-states/>

THE VISION: CO-CREATING THE BLUEPRINT IN PARTNERSHIP WITH THE RESIDENTS

The City's Sustainability division adopted a **targeted universalism** approach to community engagement to ensure that the City's BIPOC residents were part of the blueprint design (procedural equity)²⁴ and centered the lived experiences of the City's BIPOC communities in creating the blueprint itself (structural equity.)²⁵ **Targeted Universalism** is an approach to advancing equity and justice that acknowledges our common goals and shared fate as human beings, while also addressing the stark contrasts in access to opportunity between different groups of people as a result of structural racism and other forms of systemic oppression and "othering".²⁶ Adopting a targeted universalism approach means that solutions to achieving 100RE can be universally accessed if targeted at the particular barriers encountered by the communities with the least historical access.

Over a span of a year and a half, the City engaged with community leaders and residents, including BIPOC and renters, to ask about their priorities and goals for the expected energy transition.

The City used the following **principles to guide community engagement**.

- Inviting discussion about the lived experiences of Minneapolis residents.
- A commitment to fostering collaboration with residents, with additional outreach to BIPOC residents.
- A commitment to fostering co-creation of programs and policies with residents.

The City started the Blueprint's community engagement with our existing advisory committees and councils and held community-wide meetings with stakeholders. Early on, the city observed low participation from BIPOC and low-income residents and extended the project timeline to work with leaders and organizations from diverse communities. These community leaders and organizations were recommended by the City's Neighborhood and Community Relations Department. The community leaders created engagement plans, advised the City, and led the

²⁴ Procedural equity is the idea of fairness and transparency of the processes that allocate resources and the desire for due process.

Inclusive and authentic engagement in the process to develop, implement, and adjudicate programs or policies is key to procedural equity. (USDN) https://www.usdn.org/uploads/cms/documents/usdn_guide_to_equitable_community-driven_climate_preparedness_high_res.pdf

²⁵ Structural equity makes a commitment to correct past harms and prevent future unintended consequences and addresses the underlying structural and institutional systems that are the root causes of social and racial inequities. (USDN)

²⁶ National Equity Project, Targeted Universalism: Our Path Forward

community-meetings. Details on this process are documented in Appendix C. Through this process, we captured the following key findings:

- Many of the City's BIPOC and low-income residents engaged with were not aware of the 100% renewable electricity resolution.
- A majority of BIPOC residents had not been involved in the City's previous energy and climate planning.
- City documents were not in accessible language, and sometimes the energy and climate related vocabulary did not translate well into other languages.
- Community leaders emphasized the need for the City to commit financial resources and time for community education and engagement.
- BIPOC communities are not a monolithic group; engagement plans should be tailored to the community's needs.
- Stakeholders want the City to invest in outreach and education to fulfill the renewable vision.
- A renewable electricity vision needs to address the complexity and the intersectionality of energy affordability, accessibility and reliability with housing, jobs, wealth, community, etc.
- The City should adopt a transparent process explaining how the community can be involved in the planning for the numerous policies and strategies to achieve 100% renewable electricity.
- There is a recognition of power-imbalance between the City and community members. The City holds a great deal of power in terms of the blueprint recommendations, and community members want their input to be reflected in the City's policy and program designs.
- Many residents were not aware of existing energy efficiency programs

Below is a process map that depicts the past community engagement leading to crafting of the blueprint and the future community engagement process that would be adopted to achieve the City's 100% renewable vision.

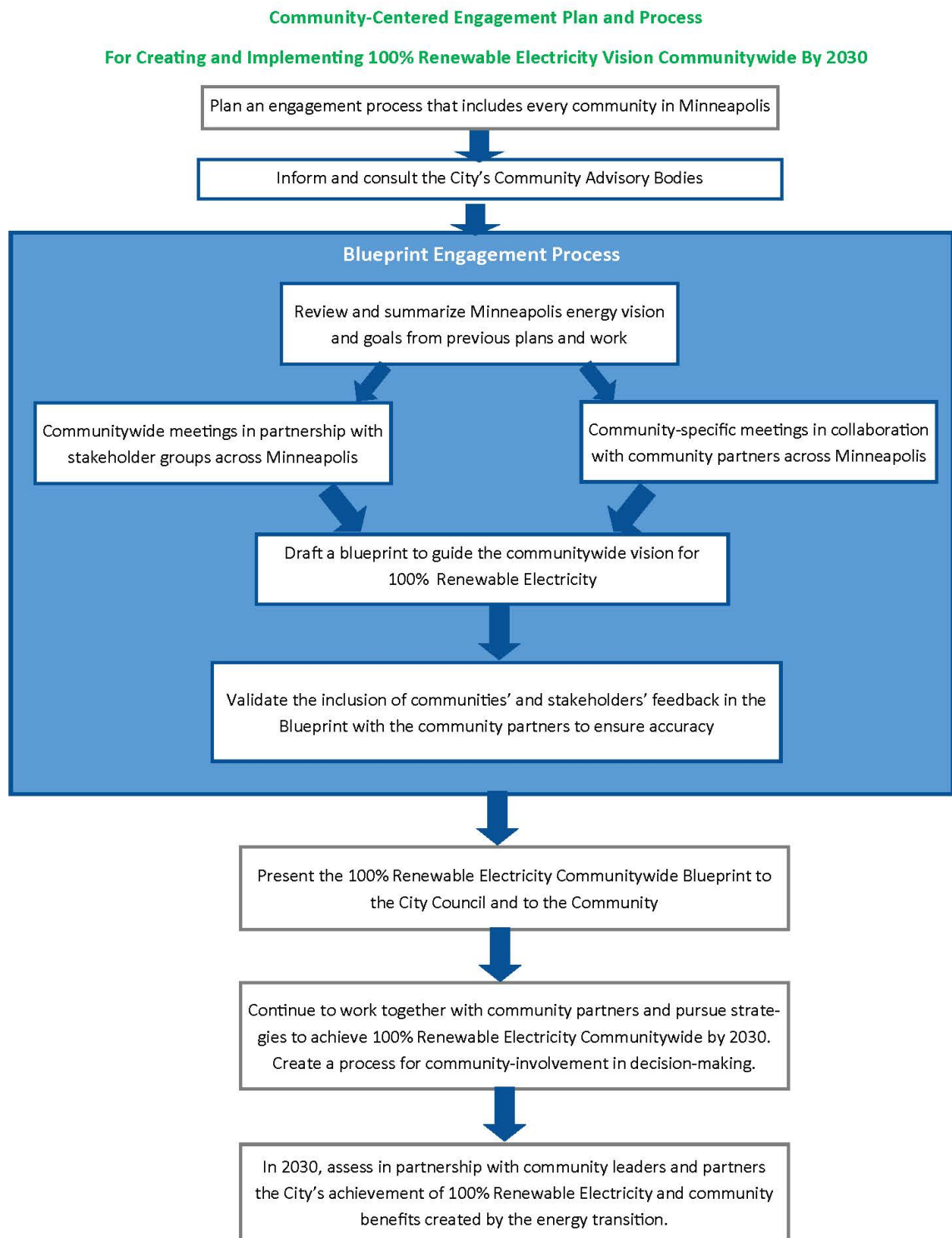


Figure 11: Community Centered Design Process

ENERGY TRANSITION: CO-CREATING EQUITABLE COMMUNITY BENEFITS

The transition to renewable electricity holds the promise of economic transformation. If intentionally designed in collaboration with the utility, state, and community members we can create an energy system that is just and inclusive. The way the City implements strategies and policies to achieve the 100RE can impact individual and community health outcomes, socio-economic well-being, and resiliency for Minneapolis residents.

The transition to 100 RE will require investment in energy and infrastructure projects. These investments will create jobs, economic opportunities, and reduce GHG emissions and air pollution for some.

Therefore, the questions the City wanted to address included:

1. What other benefits can an energy transition create for our residents?
2. How do we ensure that those benefits (community benefits) are equitable?²⁷
3. How do we ensure that the benefits from an energy transition and investment are shared by marginalized communities that have been impacted by environmental racism?
4. How do we ensure that communities have the tools and resources necessary to adapt?

The City recorded the benefits desired from an energy transition, which we refer to as “community benefits”. The community benefits desired can help guide the City as it pursues strategies to achieve the 100% renewable electricity vision. If achieved, the community benefits will contribute to:

- A more livable and inclusive city
- A healthier, stronger, and more resilient community
- Opportunities for careers in clean energy for BIPOC and low-income residents
- Greater racial equity and environmental justice
- Community-wealth building opportunities for BIPOC and low-income residents
- Advancing clean energy and mitigating the impacts of climate change

²⁷ Equity or Equitable is defined as creating a system that is just and everyone receives the needed resources to succeed. Whereas equal or equality means everyone gets the same opportunities and resources and overlooks the existing disparities.

ADVANCING THE 100 RE BLUEPRINT: POLICIES AND STRATEGIES

The City, based upon input from residents, has identified policies and strategies to fill the gap between Xcel Energy's renewable plans and the community-wide 100% goal by 2030. Residents framed how the City could pursue community-wide renewable electricity such that it creates community wealth-building and ownership opportunities and addresses social inequities in health, jobs, and energy cost. The City prioritized these desired community benefits as the foundation against which the City could be bold in pursuit of policies, strategies, and investment opportunities. The residents who engaged in informing this blueprint viewed community-owned and controlled electricity sources as having inherent economic and community benefits. For example, residents strongly preferred investments in locally sited solar projects owned by residents over utility-owned renewable infrastructure.

Community members also expressed a desire for energy democracy, a more distributed electricity system that is affordable, and resident-controlled under a participatory governance structure. There was recognition by residents that these local energy democracy principles intersect with other issues like housing, jobs, livability, health, wealth, etc. There are significant social costs caused using fossil fuels, including health impacts to our communities through adverse effects on air quality and the uncertain, long-term negative effects of climate change.²⁸

One way to promote energy democracy and support the 100RE goal is through the [Community Choice Aggregation \(CCA\)](#) model. CCA is an option that local jurisdictions with clean energy goals have successfully used in other states. Nationwide, more than 100 CCAs are delivering renewable electricity to millions of customers, often at a cost savings. However, opting into a CCA requires legislative authorization in Minnesota.

Analysis of Community Choice Aggregation was first discussed as an option to achieve our energy goals in the 2014 Minneapolis Energy Pathways²⁹ study (figure 11) which the city has used as one of its guides to achieving our climate goals. However, implementing CCA in Minneapolis would be a significant undertaking - the City would need to work with a broad coalition of cities and Community Energy Organizations (CEO) to achieve state legislative approval. Even so, the City should consider this option if significant progress has not been made by 2024 toward achieving the 100 RE goals. As another example of energy system innovation, Boulder, CO included performance contracting metrics in their most recent franchise

²⁸ Minneapolis Resolution establishing a 100% renewable electricity goal for Minneapolis 2018

²⁹ Minneapolis Energy Pathways: A Framework for Local Energy Action, MN Center for Energy, and the Environment 2014

agreement with Xcel Energy. Minneapolis should consider including performance metrics in a new franchise agreement, which, if not met, would trigger the city's active pursuit of CCA.



Figure 11: Energy Pathway Options

PRIORITIES FOR IMPLEMENTATION

With the community desire for greater energy democracy and local energy generation, the following are proposed priorities for the implementation of the 100% Renewable Electricity Vision:

- Energy efficiency first to reduce energy burden
- Equity to ensure that front line communities directly benefit and are prioritized
- Local generation to increase investment in the community
- Cost savings to capture the savings from renewables for the community
- Additionality to increase the amount of energy above what is required
- Resiliency to adapt to the inevitable extreme weather conditions
- Health to improve quality of life and resiliency to viruses

- Community wealth-building to implement new ways of community ownership such as cooperatives and other forms of community ownership.
-

BLUEPRINT RECOMMENDATIONS

Based on the preceding findings of this report, the Blueprint recommends strategies to achieve 100 RE by 2030, organized into three sections:

1. Utility-Focused
2. Consumer-Focused
3. Supportive Actions (Other actions that support 100RE)

UTILITY-FOCUSED STRATEGIES

The following are strategies for Minneapolis to influence Xcel Energy's renewable electricity generation, programs, and policies, either directly or indirectly.

- **Advocate for accelerated renewable energy resources** through ongoing IRP engagement/intervention. In particular, the City should advocate for the following adjustments to the Xcel Energy 2020-2034 IRP:
 - Increasing the deployment of distributed solar, including rooftop and community solar, at six (6) times larger than what the IRP and historical data predict,
 - Advancing all the new utility-scale solar and wind generation planned for 2031-2034 to pre-2030, and
 - Continued cancellation of Xcel Energy's once-proposed new Becker, MN fossil gas power plant.
- **Be an Active Stakeholder in Increased Energy Efficiency Requirements and Investment spurred by the Energy Conservation and Optimization (ECO) Act of 2021**
 - Advocate for transformative, effective, and equitable increased Conservation Improvement Program (CIP) investment in renewables, especially solar for low income participants.
 - Continue support for more funding for weatherization through federal, state and Inclusive Utility Investments (Inclusive Financing)
- **Pursue Sleeved Power Purchase Agreement through Xcel Energy**
 - Pursue a long-term contract to develop a new, additive renewable electricity project within the Xcel Energy-owned Minnesota distribution

system to serve the City municipal operations and potentially other private Minneapolis customers, wherein a developer receives a payment for their energy generation value from Xcel Energy and a payment from the City, and in exchange the City receives renewable energy credits (RECs) and Xcel Energy receives renewable energy with no transmission costs.

- **Advocate for an All-Electric, All-Renewable Tariff**
 - Work with Xcel Energy to develop a new green tariff to allow customers to pair electrification of their home or business exclusively and automatically with 100% renewable resources.
 - Co-develop with Xcel Energy a 100% renewable green tariff for Xcel Energy-owned streetlighting.
- **Reduce Barriers for Community Solar Gardens (CSG)**
 - Maintain and Expand financial incentives for community solar gardens especially for low income residential customers.
 - Advocate for Xcel Energy to reduce administrative and siting hurdles, with enabling state policy if necessary.
- **Encourage development of a cost neutral green pricing program**, developed through collaboration between Xcel Energy, the City, and community-based organizations.
- **Promote the Expanded Use of Virtual Net Metering (VNM)** to maximize the use of rooftops for Solar Generation.
- **Co-create programs and incentives with Xcel Energy and the community that default consumers to 100% renewable electricity when fuel switching**, such as at the point of the addition of an electric vehicle or the electrification of a home's heating system.
- **Advocate for extensions of and increased funding for popular solar incentive programs**
 - Lobby with Xcel Energy to extend the Solar*Rewards incentive program through 2030, establish increased, dedicated funding through 2030, and adopt a greater emphasis on low income solar.
 - Lobby for an extension of federal investment tax credits for renewable energy generation through 2030.

- **Focus the primary activity between the City and Xcel Energy in future Clean Energy Partnership workplans on achieving 100% RE**
 - Emphasize primarily the 30 % local generation goal with a focus on equitable local benefits for BIPOC communities.
- **Establish a performance-based franchise agreement with Xcel Energy that links future term renewal to the City's renewable electricity goals.**

CONSUMER-ORIENTATED STRATEGIES

The following are strategies Minneapolis can leverage to enable energy consumers, including City residents and businesses, to procure or generate their own renewable electricity on-site or off-site. This includes strategies that impact community-wide electricity consumption, including energy efficiency and building/vehicle electrification.

- **Regularly update analyses regarding progress toward the local generation goal,** including a gap analysis of what additional policies, programs, and incentives may be needed.³⁰
- **Increase financial support for climate action**
 - Establish policies that incorporate the social cost of carbon (adopted by the City in 2019) to fund energy efficiency programs and curb carbon emissions.
 - Support the establishment of a Green Bank that would foster investment in renewables.
- **Utilize Carbon Pricing in City Budgeting to Encourage Carbon-Free Activities**
 - Include cost of carbon accounting in enterprise budgeting, financing, and accounting decisions to encourage the use of renewable electricity and discourage the use of carbon-producing energy supplies.
- **Explore Community Choice Aggregation (CCA) Options,** which would allow the City's residents and businesses to procure power from alternative renewable electricity suppliers while still receiving transmission and distribution service from Xcel Energy.

³⁰ The City will continue to leverage solar funding and investment to meet environmental justice goals and create community wealth-building and ownership opportunities. See Appendix F – NRDC Solar Analysis

- **Pursue Inclusive Utility Investment programs, such as a tariffed on bill/inclusive financing program**, which would make it easier for all residents and businesses to access investment in solar energy and energy conservation while reducing energy burden.
- **Promote group bulk purchasing programs for renewable generation**, such as the Solarize campaign for solar panel installations.
- **Support accelerated building energy codes with a path toward net zero energy buildings**, creating buildings that consume less electricity and supply that electricity from renewable generation.
 - Support the Better Buildings state legislation to establish a building code that requires net zero energy buildings by 2036
- **Support Federal legislation to establish a nationwide carbon-free electric grid by 2035**
- **Accelerate the installation of rooftop solar on all municipal buildings by 2025 in support of the [City of Minneapolis Municipal Operations 100% Renewable Electricity Blueprint](#)**
- **Require equity strategies be embedded in renewable projects** that receive City funding and/or have land-lease/land-use agreement.
 - Utilize the City of Minneapolis Racial Equity Impact Analysis (REAI) universally.
- **Utilize the existing Minneapolis Benchmarking Program to promote renewable electricity consumption by large buildings.**
 - Establish annual and 5-year goals for energy conservation and efficiency for all Benchmarked Buildings
 - Add a reporting requirement to disclose the share of a building's annual electricity consumption that was supplied by renewables.
 - Support financing and incentives to help property owners achieve these goals
- **Increase financial incentives through the Minneapolis Green Cost Share and Rebuild Resilient Programs** to support energy efficiency and local renewable energy for benchmarked buildings and small businesses.

- **Encourage Clearway Energy to develop a plan to decarbonize their downtown district energy chilled water-cooling service by powering it entirely with renewable electricity.**
 - Utilize the City’s numerous contracts to require that Clearway Energy provide carbon-free building cooling services to municipal facilities and encourage that this carbon-free cooling option be extended to all other customers on the downtown system.

SUPPORTIVE ACTIONS

The following are strategies help enable, reinforce, and improve the utility-focused and consumer-focused strategies outlined above.

- **Strengthen the Climate Action Plan by adopting a Greenhouse Gas Emission Goal of net zero carbon emissions by 2050**, in line with the latest IPCC science-based reporting.
 - Adopt a science-based “fair share” interim reduction goal for 2030.
- **Support systemic policy changes at the state and federal level**, such as legislation that supports energy efficiency, net zero energy building codes, renewable energy, electrification, and low-income weatherization.
 - **Help develop a coalition of Minnesota cities and counties to lobby for broad climate action via state legislation. Consider the successful [Colorado Cities for Climate Action \(CC4CA\)](#) model as an example**
- **Invest in Green Jobs and Workforce Development** by establishing a BIPOC participation requirement in all City-supported renewable energy projects.
- **Prioritize benefits for BIPOC communities** by ensuring that all benefits created by the renewable electricity projects and investment are inclusive and foster equitable opportunities, especially for the communities that have borne the brunt of past environmental racism and injustice.
- **Utilize Federal Justice 40 recommendations to guide City investment and prioritization** by requiring that 40 percent of the overall benefits flow to disadvantaged communities.³¹

³¹ Equitable and Just National Climate Platform, [Justice40 recommendations](#)

- **Expand Energy Literacy and Education**, integral parts of a just fossil-to-renewable transition and necessary for building equitable outcomes.
- **Provide dedicated and ongoing City funding for Implementation of the 100RE Blueprint**
 - Support funding for a Community-led process to update the Climate Action Plan and center it in the lived-experiences of communities that are marginalized and bear environmental racism.
 - Work with resident-led initiatives to address how to raise financial revenues and resources necessary to achieve the 100RE and Climate Action Plan, including the investment necessary to achieve these visions. The grassroots-led effort should help the City establish a climate action fund and influence the City's investment in climate actions.
 - Evaluate the efficacy of current City boards and commissions to understand the best way to engage and be accountable to the community.
 - Hire a dedicated Renewable Program Coordinator and a support position housed within the City's Division of Sustainability for implementation of the 100RE, both to support community engagement and to implement RE projects.

CONCLUSION

Achieving the vision of 100% renewable electricity is ambitious and will necessarily require partnerships with and support from the City, Xcel Energy, residents, and businesses. This blueprint is intended to be a living document, which shall evolve along the path to 100% renewable electricity. Implementation of the 100% renewable electricity vision is grounded in community-benefits through a racial equity and environmental justice lens, potential strategies and policies are informed by the lived-experiences of the residents, and the advancement of the policies and strategies creating a just and inclusive transition. The transition to renewable electricity that is more community-centered will lead to more equitable benefits for the communities that bear environmental racism and are most affected by disinvestment and climate change.

APPENDICES LIST

APPENDIX A: Minneapolis 100% Renewable Electricity Resolution

APPENDIX B: Energy Burden Map

APPENDIX C: Blueprint for Community Engagement

APPENDIX D: Community-Centered Meeting List, Engagement Plan, and Process

APPENDIX E: Racial Equity Impact Analysis

APPENDIX F: NRDC Analysis of 10% and 30% Local Solar Goals

DRAFT

RESOLUTION
By Gordon, Fletcher, and Schroeder

Establishing a 100% renewable electricity goal for Minneapolis.

Whereas, there is overwhelming scientific consensus that climate change is a real and major threat to human civilization and is caused primarily by the combustion of fossil fuels; and

Whereas, the greatest burden resulting from an inadequate response to the climate crisis will be borne by young people, future generations, and the poorest and most vulnerable communities around the globe; and

Whereas, on June 28, 2013 Minneapolis adopted a Climate Action Plan, which seeks to reduce greenhouse gas emissions by 15% by 2015, 30% by 2025, and 80% by 2050 (all from a 2006 baseline); and

Whereas, the Climate Action Plan further commits the City to “increase electricity from local and directly purchased renewables to 10 percent of the total consumed by 2025”; and

Whereas, the percentage of Minneapolis community-wide electricity use from local and directly purchased renewable energy has declined in recent years; and

Whereas, Minneapolis has adopted an Energy Vision that states, “in 2040, Minneapolis’s energy system will provide reliable, affordable, local and clean energy services for Minneapolis homes, businesses, and institutions: sustaining the city’s economy and environment and contributing to a more socially just community”; and

Whereas, the collaboration between Minneapolis Sustainability staff and the Siemens City Performance Tool shows that “it is possible for Minneapolis to achieve its 80 by 50 target, if the City, its utilities, and its inhabitants work aggressively to clean the local energy supply,” among other measures; and

Whereas, the cost of wind and solar energy is rapidly falling, and a number of alternative approaches like community solar are making renewable electricity easier to access; and

Whereas, for the purposes of this resolution “renewable electricity” includes electricity derived from wind, solar, geothermal, and wave technology sources, and may include low-impact, small hydro and some forms of biomass after these projects are evaluated for sustainability and environmental justice implications, but specifically excludes electricity derived from fossil fuels, nuclear, incineration of non-biogenic municipal and medical waste, and large-scale future hydroelectric development; and

Whereas, the renewable energy economy presents opportunities for workers in manufacturing, construction, and service sectors and it is essential that workers play a role in helping drive innovation towards a cleaner energy economy while creating and maintaining family-sustaining jobs; and

Whereas, this energy transition is an opportunity to build equity for communities of color and indigenous communities that have been underrepresented in the energy field and marketplace, and the City of Minneapolis is committed to making the most of this opportunity; and

Whereas, the financial and environmental benefits of renewable energy must be shared equitably across all economic and racial groups; and

Whereas, the City of Minneapolis is committed to ensuring that all residents and businesses, no matter their race, income, wealth, or credit history, can access and benefit from renewable energy and energy efficiency, through processes such as community solar and inclusive financing; and

Whereas, on April 28, 2017, Minneapolis approved the establishment of two Green Zones aimed at improving health and supporting economic development using environmentally conscious efforts in communities that face the cumulative effects of environmental pollution, as well as social, political and economic vulnerability; and

Whereas, there are significant social costs caused by the use of fossil fuels, including health impacts to our communities through adverse effects on air quality and the uncertain, long term negative effects of climate change; and

Whereas, there is demonstrated potential to leverage significant investment in renewable energy and energy efficiency through the Health Department's Green Business/Housing Cost Share Program; and

Whereas, the City Council has received a report from Finance and Property Services staff, "Blueprint for Powering Minneapolis Municipal Operations with 100% Renewable Electricity by 2022"; and

Whereas, Minneapolis, Xcel Energy, and CenterPoint Energy have entered into the Minneapolis Clean Energy Partnership with goals of making utility customers more energy-efficient, expanding access to and use of clean and renewable energy, increasing the effective collaboration between the City of Minneapolis, Xcel Energy, and CenterPoint Energy to address energy and climate-related issues, and pursuing collaboration in a way that advances equity and other environmental benefits; and

Whereas, Xcel Energy's projected 2021 fuel mix for the Upper Midwest includes 30% wind and 10% other renewables, resulting from a strategy of increasing the use of wind and solar power and offering customers additional renewable and energy-saving options; and

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

Whereas, Minneapolis recently agreed to acquire 17.8 million kWh annually (nearly 18% of annual City enterprise electricity usage) of renewable electricity from Xcel Energy's Renewable*Connect program for municipal operations as a bridge to 100% renewable electricity use; and

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

Whereas, Minneapolis and Xcel Energy have begun work on the concept of a City-owned renewable energy facility, which could serve both enterprise and community-wide energy needs,

Now, Therefore, Be It Resolved by The City Council of The City of Minneapolis:

Minneapolis reaffirms and formally adopts a goal of reaching one hundred percent (100%) renewable electricity for municipal facilities and operations by 2022. Finance and Property Services staff are directed to bring forward an annual report on the City's progress towards implementing the adopted "Blueprint for Powering Minneapolis Municipal Operations with 100% Renewable Electricity by 2022."

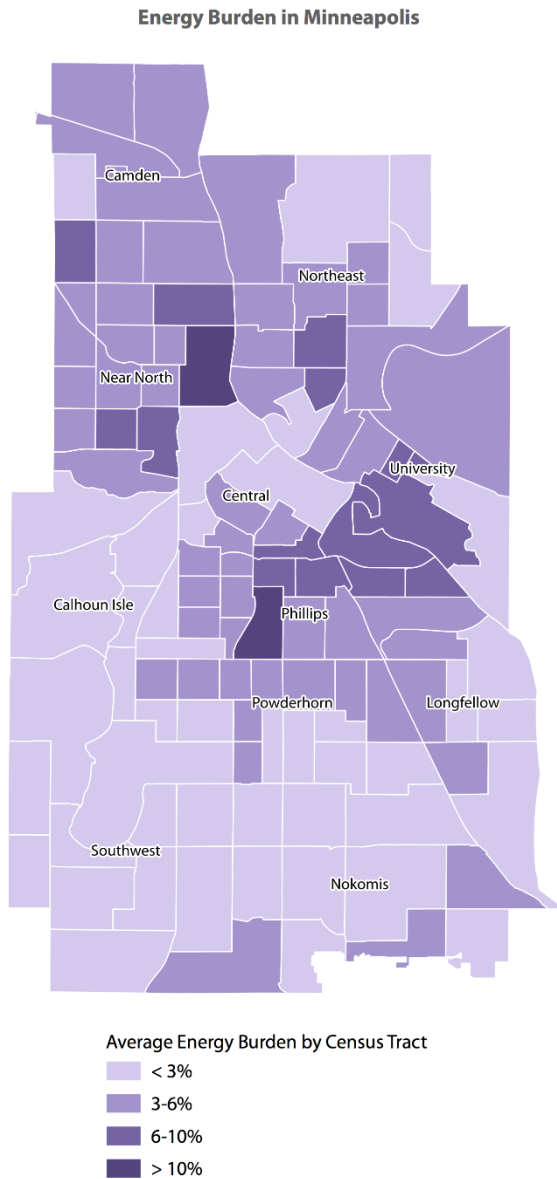
Be it Further Resolved that, as a strategy to meet its aggressive adopted carbon emission reduction and climate change goals and move away from fossil fuels in all sectors of the energy economy, Minneapolis adopts a goal of getting one hundred percent (100%) of community-wide electricity use from renewable sources by 2030, and directs the City Coordinator's Office to bring forward a blueprint by the first quarter of 2019 for reaching this goal. This blueprint should identify the following:

- The impact of this goal on already adopted climate policy, including the adopted carbon emission reduction goals of 80% by 2050, and the strategies identified in the adopted Climate Action Plan, including the goal of reaching 10% local renewably generated electricity by 2025, Energy Pathways Study, and City Performance Tool study;
- Ways in which this blueprint may support and/or require an update to the adopted Climate Action Plan;
- Potential policies and programs that the City will need to implement in order to achieve this goal, and a prioritization of these policies and programs;
- The financial resources necessary to create this blueprint and implement these policies and programs, suggested sources for these revenues, and projected leverage of external resources;
- Timelines, milestones and metrics for reaching this goal;
- The community outreach and engagement necessary to reach this goal, including the ongoing inclusion of young people in this process;
- Necessary regulatory reforms at the Public Utilities Commission and in Minnesota statute;
- Energy efficiency strategies that could help meet this goal by reducing the overall amount of electricity being consumed;
- The ways that implementing this goal might impact the necessary transition away from fossil fuels across all sectors of the energy economy, including building heating and cooling and transportation, which may increase electricity usage even as energy efficiency increases;
- Strategies to ensure that all consumers, especially those who have been left out of the benefits of energy programs in the past, communities of color, low-income communities, renters, and communities that have borne the brunt of past environmental racism, receive equitable benefit from this transition;
- Strategies that the City can employ to facilitate training and hiring people from within communities of color and women who have traditionally been under-represented in the energy economy, and targets for labor participation from these demographic groups;
- The ways in which implementing this goal can improve individual and community-wide health outcomes;
- The ways in which this energy transition can increase the resilience of our communities and save Minneapolis residents and businesses from increasing energy costs;
- Specific strategies to be implemented in the adopted Green Zones;
- The role of the Clean Energy Partnership in reaching this goal.

Be It Further Resolved that the City opposes the rollback of climate policy at the federal level and reaffirms its ongoing commitment to the goals of the Paris Climate Agreement.

APPENDIX B

Energy Burden in Minneapolis



According to the United States Department of Energy, “energy burden is defined as the percentage of gross household income spent on energy costs”¹ (specifically, electricity and gas). Energy burden is a socio-economic indicator that tells us the livability of homes and resiliency of vulnerable communities within the City. Researchers and the American Council for an Energy-Efficient Economy (ACEEE) defines households that pay 6% or more of their annual household income on energy bills as having high energy burden, while households that pay over 10% of their annual household income are severely energy burdened². Households with low incomes pay proportionally more than the average household for energy costs.³ To Minneapolis residents, energy affordability and reliability are critical to a successful community transition to renewable electricity and to meeting the City’s ambitious climate goals.

Energy Burden⁴

This first map shows energy burden in Minneapolis by Census Tract. The map divides the city’s Census Tracts into four categories based on the percent of annual median income that households in that tract spend on energy bills. The data shows that households in the Phillips, University, Northeast, Camden, and Near North communities spend a higher percentage of their income on energy bills, making them more highly energy burdened.

¹ <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>

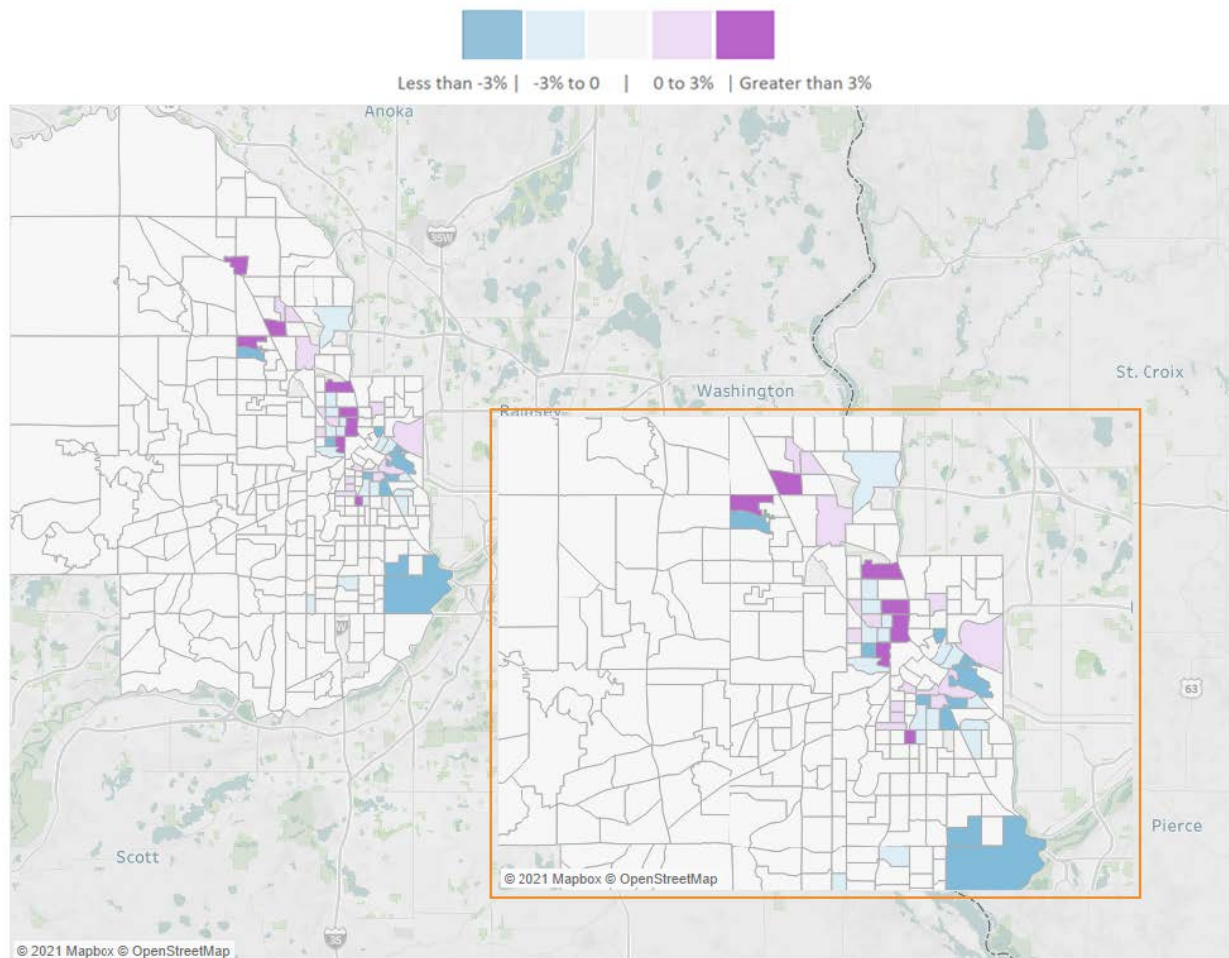
² https://www.aceee.org/sites/default/files/pdfs/aceee-01_energy_burden_-_minneapolis.pdf

³ <https://www.energyefficiencyforall.org/resources/lifting-the-high-energy-burden-in-americas-largest-cities-how-energy/>

⁴ Map sources: US Census Bureau. (2018). 2018 TIGER/Line Shapefiles: Census Tracts. [Shapefile]. Available at [census.gov](https://www.census.gov); Open Minneapolis. (2015). Communities. [Shapefile]. Available at opendata.minneapolismn.gov; Greenlink Analytics. 2018. Utility Burden: Neighborhood Average. [CSV]. Available at gem.equitymap.org

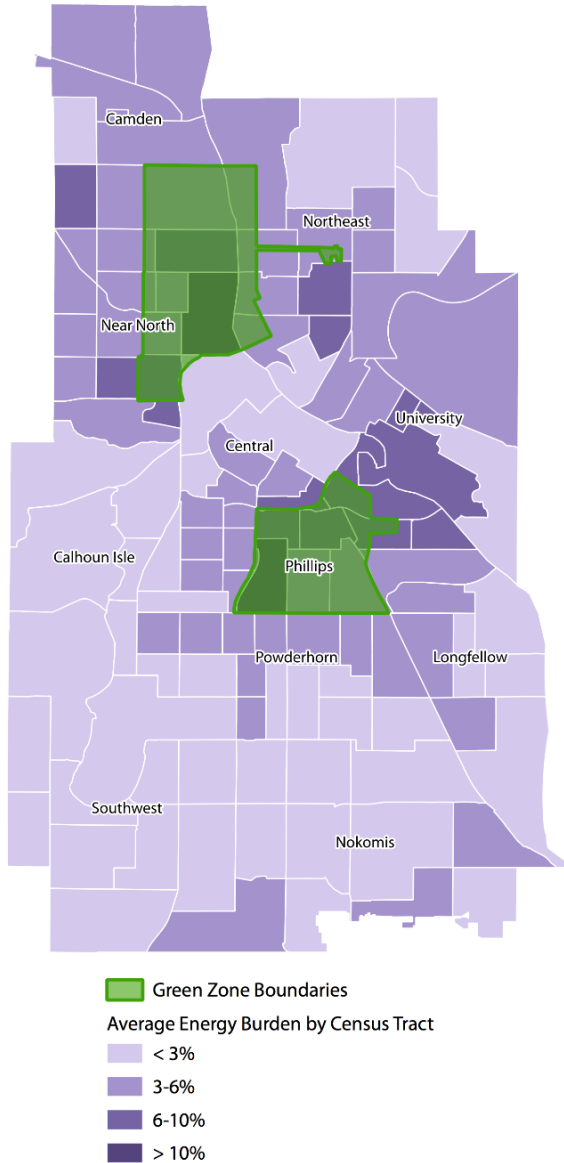
Some households in Phillips and Near North are severely energy burdened, spending over 10% of their income on energy costs.

The average energy burden across Hennepin County is 3.1% and has decreased 0.4 percentage points (or 11%) in recent years – a change driven by incomes rising faster than energy costs. However, many of the highest burdened neighborhoods are seeing increases in their energy burden, primarily in North Minneapolis, but also in Whittier, Central, Ventura Village, Cedar Riverside and parts of Northeast.



Source: Greenlink Minneapolis Energy Burden Impacts, report, February 2021

Energy Burden in Minneapolis



Energy Burden and Green Zones⁵

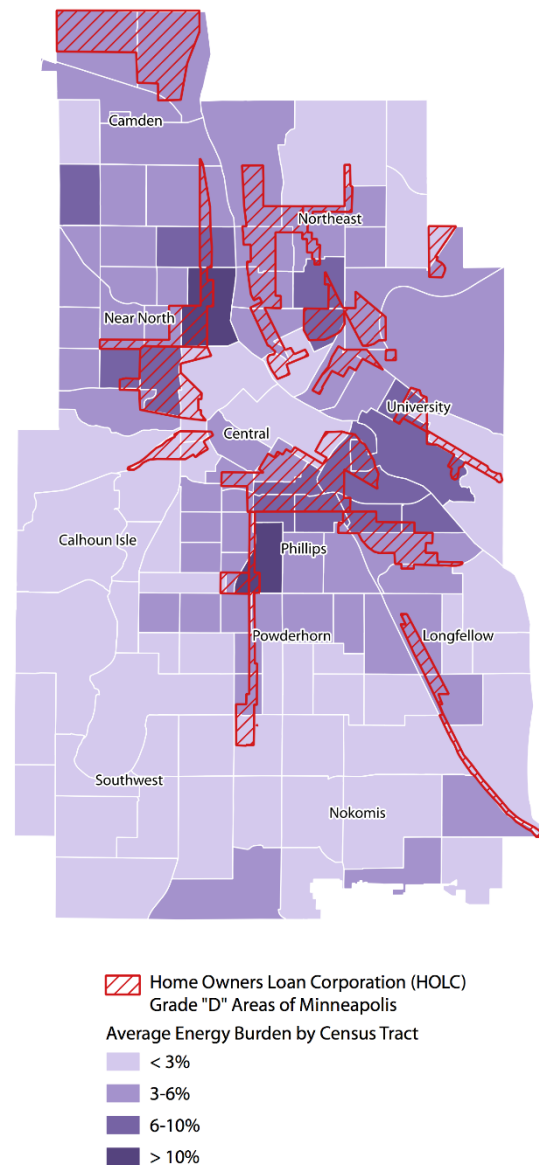
The highest energy burdened neighborhoods in Minneapolis also coincide with the city's Green Zones. A [Green Zone](#) is an environmental justice initiative aimed at improving health and supporting economic development using environmentally conscious efforts in communities that face the cumulative effects of environmental pollution, as well as racial, social, political and economic marginalization. The City Council established two Green Zones in 2017: the Northside Green Zone and the Southside Green Zone. One of the core goals of the Green Zone initiative is to advance equity and prevent gentrification and displacement while addressing environmental burdens. Opportunities for equitably designed and distributed energy efficiency and renewable energy programs are important for the success of the Green Zones.

⁵ Map sources: US Census Bureau. (2018). 2018 TIGER/Line Shapefiles: Census Tracts. [Shapefile]. Available at [census.gov](https://www.census.gov); Open Minneapolis. (2015). Communities. [Shapefile]. Available at opendata.minneapolismn.gov; Greenlink Analytics. 2018. Utility Burden: Neighborhood Average. [CSV]. Available at gem.equitymap.org

Energy Burden and Redlining⁶

This next map shows the overlay of current energy burden and the historical discrimination of redlining⁷. In Minneapolis, energy burden is not felt equally across neighborhoods and residents. The neighborhoods that are highly and severely burdened by energy cost are also those impacted by the legacy of redlining in Minneapolis⁸. The Federal Housing Administration classified neighborhoods for mortgage loan risk for the Home Owner's Loan Corporation (HOLC) under four categories: A - "Best", B - "Still Desirable", C - "Declining", and D - "Hazardous". Grade D or Hazardous areas were shaded red and consisted of neighborhoods populated by Black, immigrant and Jewish populations – those codified as undesirable. Redlining was the start of racial covenants, amplified racial segregation, and increased discrimination. The legacy of redlining is structural racism that is now persistent in income inequality, wealth gaps, and disparities in homeownership and health outcomes.

Minneapolis Energy Burden and Redlining



⁶ Map sources: US Census Bureau. (2018). 2018 TIGER/Line Shapefiles: Census Tracts. [Shapefile]. Available at [census.gov](https://www.census.gov); Open Minneapolis. (2015). Communities. [Shapefile]. Available at opendata.minneapolismn.gov; Greenlink Analytics. 2018. Utility Burden: Neighborhood Average. [CSV]. Available at gem.equitymap.org; Robert K. Nelson, LaDale Winling, Richard Marciano, Nathan Connolly, et al., "Mapping Inequality," *American Panorama*, ed. Robert K. Nelson and Edward L. Ayers, accessed February 12, 2021,

<https://dsl.richmond.edu/panorama/redlining/#loc=11/44.973/-93.411&city=minneapolis-mn>

⁷ <https://www.arcgis.com/apps/MapSeries/index.html?appid=8b6ba2620ac5407ea7ecfb4359132ee4> or

<https://dsl.richmond.edu/panorama/redlining/#loc=11/44.973/-93.411&city=minneapolis-mn>

⁸ Redlining is Federal sponsored and sanctioned racial segregation and housing discrimination practice established by the national Housing Act of 1934 and implemented by the Federal Housing Administration (FHA) .

<https://www.arcgis.com/apps/MapSeries/index.html?appid=8b6ba2620ac5407ea7ecfb4359132ee4>

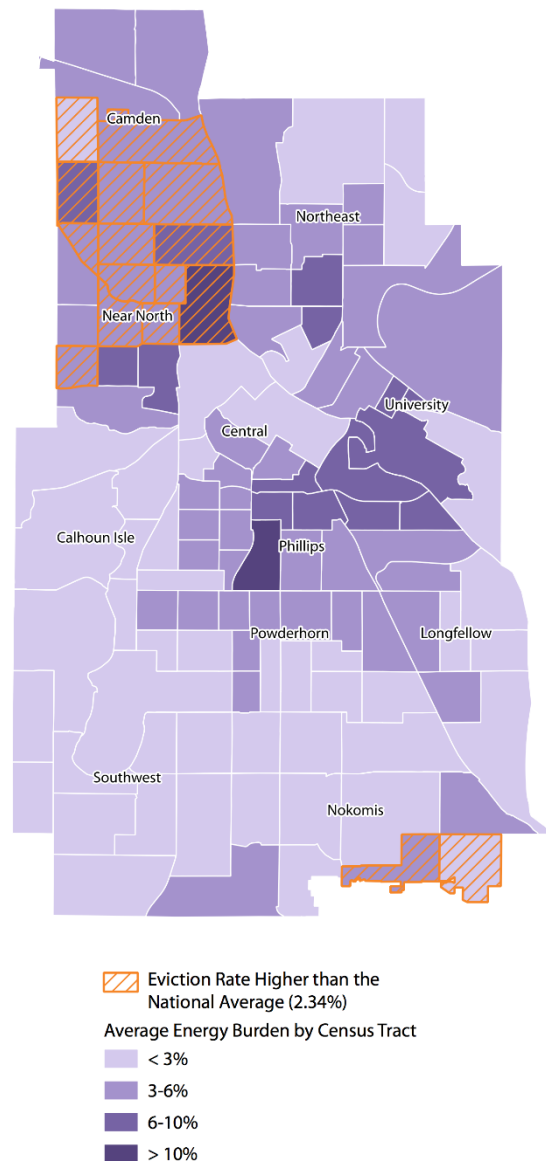
Energy Burden and Evictions⁹

The conventional wisdom is that households should spend less than 30% of their income on housing costs. This measure often does not consider the cost of utility bills. In households with high or severe energy burden, these extra costs represent a significant amount of income spent that may not be planned or budgeted.

For households with lower incomes, a high cost of energy may cause housing unaffordability and put residents at-risk of facing eviction and becoming homeless¹⁰. The 2016 Evictions in Minneapolis report showed that nearly half of renter households in Minneapolis experienced at least one eviction with long-term implications for housing stability and accessibility¹¹.

The following map shows energy burden by census tract together with eviction data. Census tracts in Minneapolis with a higher percentage of evictions than the national average (2.34%)¹² are shown overlaid with orange hatching. In 2016, Minnesota was ranked 44th¹³ in eviction rate compared to other states¹⁴. Despite the low statewide eviction rate, visualizing the data makes it clear that many census tracts with high and severe energy burden, and particularly those in North Minneapolis, also have high rates of evictions.

Minneapolis Energy Burden and Evictions



⁹ Map sources: US Census Bureau. (2018). 2018 TIGER/Line Shapefiles: Census Tracts. [Shapefile]. Available at [census.gov](https://www.census.gov); Open Minneapolis. (2015). Communities. [Shapefile]. Available at opendata.minneapolismn.gov; Greenlink Analytics. 2018. Utility Burden: Neighborhood Average. [CSV]. Available at gem.equitymap.org; Greenlink Analytics. 2016. Housing: Eviction Rate. [CSV]. Available at gem.equitymap.org

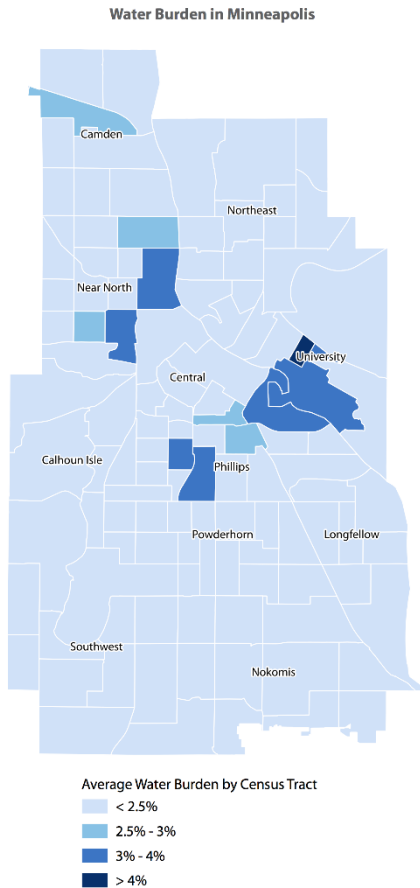
¹⁰ <https://www.hud.gov/topics/energy>

¹¹ <http://homelinemn.org/wp-content/uploads/Evictions%20in%20Minneapolis%20Report.pdf>

¹² The national eviction rate was 2.34 percent, which meant that 2.34 in 100 renter homes were evicted in that year. <https://www.statista.com/statistics/942681/eviction-rate-usa/>

¹³ <https://www.mhponline.org/blog/connect/832-evictions-lab#:~:text=According%20to%20the%20Evictions%20Lab,years%20to%203%2C377%20in%202016.>

¹⁴ Eviction filings in Minnesota and the twin-cities area remained well-below national average due to COVID statewide moratorium on evictions. <https://evictionlab.org/eviction-tracking/minneapolis-saint-paul-mn/>



Water Burden¹⁵

The focus of this report is on the transition of our energy, and specifically electricity, to renewable sources. The cost of water is currently not considered as an energy cost, and it is not counted as part of housing affordability. But water bills do affect a household's ability to cope with the rising cost of housing in Minneapolis. The price of water has risen for Americans over the last decade and rose at a higher rate than utility cost¹⁶. Access to safe and clean drinking water is a basic right. However, aging infrastructure and climate change could impact ability to afford water and access to clean water, posing a huge public health risk and water crisis.

This map of water burden shows the city's census tracts split into four categories based upon the percent of annual median income that households in that tract spend on water bills. There is no one standard water burden that is considered too high or "unaffordable". The Environmental Protection Agency deems spending more than 2.5% of AMI on water bills to be unaffordable, whereas the United Nations puts the number at 3%¹⁷ and an independent study at 4%¹⁸. These differing standards are used as breakpoints for the map categories. In most of the City's census tracts,

the average household spends less than 2.5% of AMI on water bills. However, certain tracts do have higher water burden, particularly in Phillips, University, and areas of North Minneapolis, neighborhoods that also struggle with high energy burden. In addition, averaging the AMI of each census tract may obscure lower-income households who would have higher water burdens.

Energy Efficiency – A solution to energy burden

While the 100% Renewable Electricity Blueprint is laser-focused on the transition of our electricity sources to renewables, the energy efficiency of housing stock is a more direct way to influence a household's energy burden. EEFA's study shows that low-income households, renters, African-American

¹⁵ Map sources: US Census Bureau. (2018). 2018 TIGER/Line Shapefiles: Census Tracts. [Shapefile]. Available at [census.gov](https://www.census.gov); Open Minneapolis. (2015). Communities. [Shapefile]. Available at opendata.minneapolis.gov; Greenlink Analytics. 2018. Utility Burden: Neighborhood Average. [CSV]. Available at gem.equitymap.org

¹⁶ <https://www.consumerreports.org/personal-finance/millions-of-americans-cant-afford-water-as-bills-rise-80-percent-in-a-decade/#ednote>

¹⁷ <https://pacinst.org/wp-content/uploads/2013/01/water-rates-affordability.pdf>

¹⁸ https://www.scribd.com/document/465846248/Water-Report?secret_password=T6F6aUH8JqAPtTg5J1aW#fullscreen&from_embed

households, and Latinx¹⁹ households paid more for utilities per square foot than the average household, indicating that they reside in less efficient housing.²⁰

The City of Minneapolis has supported or led several efforts over the past five years to increase residents' awareness of and access to existing weatherization and energy efficiency programs. Through community engagement pilot projects in 2017 and 2018,²¹ the City and several partners identified barriers and opportunities to support more BIPOC, renter and lower-income households' participation in energy- and cost-saving activities.

Partially building off of these pilot projects, a collaboration of organizations²² came together in 2018 to launch the Energy Efficiency Cohort, centered on addressing barriers to participation for BIPOC, renters, and households with lower incomes in energy efficiency activities. Going into its second year of funding from the McKnight Foundation, the Energy Efficiency Cohort is focused on three areas of work: 1) inclusive program design, 2) policy intervention, and 3) community engagement and education. The policy intervention work includes both energy efficiency and renewable energy policies, with an overarching goal of changing who benefits from and who is burdened by the energy system.

In 2020-2021, several members of the Energy Efficiency Cohort (and additional community leaders) participated in workshops on the Xcel Energy Integrated Resource Plan and the energy education and capacity building support provided by the Bloomberg Philanthropies American Cities Climate Challenge and the NRDC Action Fund.

The learnings from the Energy Efficiency Cohort and the IRP engagement pilot process can inform how the City involves the community in decision-making and regulatory processes as it adopts policies and strategies to achieve the renewable electricity vision.

¹⁹ <https://www.merriam-webster.com/dictionary/Latinx>

²⁰ <https://www.energyefficiencyforall.org/resources/lifting-the-high-energy-burden-in-americas-largest-cities-how-energy/>

²¹ City of Minneapolis, Center Point Energy and Xcel Energy funded an engagement pilot project in 2017 that partnered with Neighborhood Hub and Minneapolis Renters Coalition, including the neighborhoods of Nokomis East, Corcoran and Holland. In 2018, the City of Minneapolis funded Guardian Property Management with partner Monica Nilsson to conduct outreach specifically to rental property owners in the Minneapolis Green Zones.

²² Center for Earth, Energy and Democracy, Citizens Utility Board of Minnesota, Community Power, Neighborhood Hub, and a representative from the City of Minneapolis



Appendix C

An Inclusive Process: A Blueprint for Community Engagement

City of Minneapolis

This community engagement blueprint is an iterative “Roadmap to a Roadmap” – a planning guide to how to create the City’s Blueprint to achieve 100% Renewable Energy vision of community-wide by 2030.

The Planning Process: Developing a Community Engagement Blueprint to Achieve 100% Renewable Electricity Community-Wide by 2030

Why an Inclusive Community-engagement Process?

The City of Minneapolis adopted goals in 2018 to achieve 100% renewable electricity for municipal facilities and operations by 2023 and communitywide by 2030, with 10% locally generated renewable electricity.

The transition from fossil fuels to renewable electrification offers the City the golden opportunity to ask, “how does this transition to renewable energy transform and benefit our community”?

There are communities within our city who are more vulnerable to the impact of climate change, are energy-burdened, and have been historically under-invested in by both the public and private sectors. These under-investments have resulted in inequitable distribution of resources and access to opportunities, and exacerbated disparities in health, wealth and more.

The transition to renewable energy systems can be a tool to reverse these systemic inequities and foster economic and community-wealth building opportunities.

This document is the blueprint for inclusive community engagement to lay the foundation for how the City could aim to achieve the 100% renewable electricity goal and prioritize community-benefits.

We wanted the community engagement process to foster deeper levels of engagement, inclusion, ownership of solutions by the residents and empowerment for communities who had borne environmental racism.

Establish Community Engagement Guiding Principles and Blueprint Process

The city established guiding principles to elevate the voices of our diverse communities in the blueprint engagement and implementation. These principles and the engagement plan were shared with the City’s advisory groups for input and feedback.

Community Engagement Guiding Principles:

- A community-centered and community-first approach to planning.
- Policies and recommendations are driven by the lived experiences of the residents.
- Apply an equity lens to planning, policies and recommendations.
- A commitment to fostering collaboration with residents, especially with the BIPOC residents.
- A commitment to fostering co-decision making with residents.

Acknowledging Past Engagement Processes – Reflecting Back What We Have Heard

The 100% renewable energy blueprint and community engagement is a continuation of the Sustainability division’s previous and ongoing engagement. To lay the foundation for this engagement effort, staff reviewed goals from previous plans and work including: the Minneapolis Climate Action Plan, Energy Vision, Energy Pathway study, and the environmental justice work with the Green Zones’ work plans and recommendations, and other plans.

The review resulted in a list of community-benefits and definitions (see *Table 1*). This tool was meant to be a starting place to understand how the transition to renewable electricity could benefit communities and bring transformation and equitable outcomes to those who have borne past environmental racism.

The community-benefits list was created so that the City would have a clear understanding and motivations behind the renewable strategies and policies it considers and pursues to achieve the vision of 100% renewable

electricity vision. The full list of community benefits is provided in Attachment A. These community-benefits, if achieved, should contribute positively to:

- A livable and inclusive city
- A healthier, stronger and resilient community
- Achieve racial equity and environmental justice goal
- Create community-wealth building opportunities for BIPOC and low-income residents
- Advance clean energy and mitigate the impacts of climate change

Table 1: Community-Benefits and Definitions

Goals	City Definition
Energy Transformation	Energy sources would be 100% renewable, and low to no-carbon.
Jobs and Community-Wealth Building	New energy economy expands economic opportunities, including investment and business opportunities, and facilitates growth of good paying job opportunities.
Affordability and Accessibility of Energy	Energy is reliable and affordable. New renewable energy tools are affordable to all income and communities. And all communities, including low-income and renters have accessibility to renewable energy and new energy opportunities.
Health and Well-being	New energy economy reduces economic and health disparities and improves health outcomes for all residents by reducing air pollution and the impacts of climate change. The investment in new energy improves the livability and strength of the neighborhoods without displacing the residents.
Equity and Inclusion of Disfranchised Communities	New energy economy creates equitable benefits and is inclusive and fosters opportunities specially for the communities that have borne the brunt of past environmental racism and injustice.
Resilience and Climate Change	New energy economy reduces green-house gas emissions, improves energy efficiency and adds renewable energy sources to make the city resilient to climate change, and is strong on climate adaptation strategies.

In addition to the community benefits, staff developed a list of community-strategies and utility-strategies to achieve the 100% renewable goal (Attachment B), as well as an evaluation questionnaire tool (Attachment C).

This inventory of community benefits, technical and policy strategies and evaluation tool, were used at the community engagement meetings as an opportunity to first, report-back and reflect-back to the community what we have heard from engaged stakeholders over the past several years and second, ask if we correctly captured the energy vision, goals, priorities and community-benefits.

Engagement Step 1: Inform and Consult the City's Community Advisory Bodies

The City staff started the community engagement meetings with the Sustainability Division's existing advisory committees and traditional environmental partners and stakeholders. These groups included the Community Environmental Advisory Commission, the Energy Vision Advisory Committee to the Minneapolis Clean Energy Partnership, the Northside and Southside Green Zone advisory bodies. The purpose was to inform the advisory bodies about the vision of the 100% Renewable Electricity Resolution and what we were trying to achieve. The staff also asked input on the community engagement plan and process, and the initial list of community-benefits and policies and strategies.

Engagement Step 2: Communitywide Meetings in Partnership with Stakeholder Groups

Following the advisory committee meetings, City staff held meetings for Minneapolis residents in collaboration with stakeholder groups and the City's environmental advisory bodies. The meetings were facilitated by the City staff, a staff from the World Resources Institute and a community organizer. During the meetings, the attendees were asked to help co-define the desired community benefits and outcomes, and help the City prioritize the benefits and help formulate an evaluation criterion. The attendees were also asked to review the portfolio of potential renewable electricity policies and strategies and provide feedback.

Staff observed the lack of participation from the City's Black, Indigenous, Immigrants, and Communities of Color (BIPOC) and residents with low-income. Additionally, when we asked, "who else should we engage on this topic", overwhelmingly we received the feedback that equity is important, and the City needs to engage the BIPOC residents. In response, we extended our timeline of engagement to work with leaders and community-organizations from diverse communities. These leaders created their own engagement strategy, advised the City, and led the community-meetings. And overwhelming, we learned two main issues: first, the City needs to commit resources and dedicate time for community education, and second, that the energy and policy language we used was inaccessible to the communities.

Engagement Step 3: Community-specific Meetings in Collaboration with Community Partners

While the city informs and engages residents through various venues, Minneapolis is diverse and the City's traditional approaches to engagement left certain communities behind. The City staff had to immediately pivot and be intentional in creating community-centered outreach designs to connect with the targeted communities.

The Sustainability staff relied on the City's Neighborhood and Community Relations Department to connect with trusted community organizations or community leaders serving specific communities. The City found trusted partners and leaders in the following communities: youth, African American, Asian immigrants, African immigrants, Latinx, and residents with low incomes. The City invited community leaders and organizations to be co-collaborators to inform and engage their communities and create an engagement process that fosters education and decision-making by community members. The City provided interpreters and when feasible, translated materials in other languages with guidance and advice from the community organizers.

Co-create Engagement Plan

Community organizations and leaders were invited to become co-collaborators with the City to design an education and engagement process that was tailored and relevant to their specific community. Community leaders advised the engagement process to prioritize education to empower the communities and increase their capacity to participate in the City's 100% renewable electricity vision and to provide feedback to desired community benefits and definitions and react to renewable policies and strategies.

There were a few key findings through these Community-Specific meetings:

- The City's BIPOC and low-income residents, we engaged with, many of them were not aware of the city's 100% renewable electricity resolution.
- A majority of the BIPOC residents we engaged had never been involved in the City's previous energy and climate planning.
- The documents the City staff prepared were not in accessible language, and many of the energy and climate-related vocabulary did not translate into other languages.
- The community leaders emphasized the need for the City to commit financial resources and time for community education and engagement.
- BIPOC is not a monolithic group, therefore, the engagement designs should be different and the community needs that are addressed through strategies, policies, etc. should also be different.
- Invest in energy education as a necessary dogma in order fulfill the renewable vision.
- Recognizing the intersectionality of energy cost with housing affordability, jobs, wealth, etc.; thus, a renewable electricity vision needs to address the complexity and the intersectionality of energy affordability, accessibility and reliability with housing, jobs, wealth, community, etc.

- The City needs to adopt a transparent process explaining how the community would be involved in the decision-making process as the City's move forward in considering numerous policies and strategies to achieve 100% renewable electricity.
- A recognition of power-imbalance between the City staff and community members. The City staff are well-paid for their expertise and community members wanted their input to be reflected in the City's policy and program designs.

Citizens Utility Board of Minnesota (CUB-MN) partnered with the City of Minneapolis to deliver energy efficiency education in many of the specific-community's meetings. CUB-MN did not receive any funding for this partnership.

The final list of meetings is included as APPENDIX E of the 100% Renewable Blueprint.

The Process Map along with evaluation of the community-led meetings is included as APPENDIX H of the 100% Renewable Blueprint.

Funding for Community Engagement

A consistent ask from the City residents is need for a stronger community engagement as the City develops planning and policies. An authentic community engagement requires building relationships with the residents and strong partnerships with community organizations and leaders who serve the residents. This requires time commitment and financial resources.

The City's Sustainability office dedicated a budget of \$25,000 to support the community engagement for the 100% renewable electricity project. The initial community engagement timeline was 3 months. **Up to \$2500 for each community partner/ leader was made available and the staff relied on the City's Neighborhood and Community Relations (NCR) to recommend trusted leaders and organizations to conduct the engagement.** The City's current contracting system is complicated and **not** easy to navigate. Staying below a budget of \$2500 allowed the staff to circumvent the contracting process. This is not the best approach to funding community engagement. Additionally, the Bloomberg Philanthropies American Cities Climate Challenge provided food at all the community meetings because the meetings were usually held during dinner time, and none of the meeting attendees were financially compensated.

Planning a long-term vision requires input from the public. However, when, where, and how those meetings happen lead to barriers in participation from the residents, especially for the BIPOC and residents with low-income. Also, community members are not compensated for their time with the meetings, and the City staff rely on their expertise and lived experiences to inform the planning and the policies. This creates an inherent power difference and the residents strongly push for their input to be surfaced in policy solutions.

Here are a few key things to consider for the City:

- The City should consider creating an **easy contracting** process for organizations to work with the City and get paid for their work.
- The Sustainability Division needs a dedicated funding for community engagement for **all** of sustainability's projects, many of which require active residents' participation.
- The Sustainability division will follow the best practices laid by the [Minneapolis Blueprint for Equitable Engagement](#) and the recent [Community Engagement Evaluation Report recommendations](#). Recommendations include staff training, internal culture change around the value of community engagement, and policy changes to allow food, compensation and vouchers for transportation and childcare.
- The Sustainability division will utilize the City's Racial Equity Impact Analysis to plan for the engagement.

Piloting Energy Education: Prioritizing Equity and Environmental Justice

The City's residents have very little input in the electricity system, generation and cost, and who they get their energy from. During the community engagement process, especially with the BIPOC leaders, City staff consistently heard about the need to invest in energy education. The City has a role in ensuring that our most vulnerable communities are educated about the electricity system, energy efficiency and the energy issues so that they can proactively decide and participate in a renewable electricity future. Furthermore, during communitywide meetings, residents who are more knowledgeable about the electricity system and energy issues advocated for the City's involvement as an intervenor on Xcel Energy's Integrated Resource Plan (IRP) and rate cases and wanted residents to have opportunities to participate in the utility regulatory process.

Because of COVID-19 impact, the blueprint process was delayed. Additionally, the timing was such that the City of Minneapolis filed to intervene with the Xcel Energy's Integrated Resource Plan- 2020-2034.

Following a delay from its initial 2018 draft, Xcel Energy filed its IRP for the Upper Midwest region on July 1, 2019, covering the 2020-2034 planning period. Xcel Energy's IRP is one of the most determinative planning tools to create a roadmap for future electricity generation over the next 15 years. Xcel's decisions about electricity generation resources have a substantial environmental impact on Minnesota's air, water, and land and economic development of Minneapolis and the region. The State of Minnesota's utility regulatory processes generally and the IRP process specifically are unclear and inaccessible to the general public. But, understanding an IRP plan and participating in the process is an important platform to advocate for affordable and reliable electricity, cleaner air, inclusive economic benefits, equitable outcomes, and the most efficient use of resources. This presented an opportunity to pilot a model of community education and capacity building to support community leaders' involvement in the energy regulatory process, specifically Xcel Energy's IRP to support their vision of transition to renewable electricity sources and advocate for stronger economic development opportunities and an equitable share of resources. It also provided an opportunity for the City of Minneapolis to practice being a vessel for its constituents' feedback by incorporating direct community input into its own comments to the Public Utilities Commission.

With the support of the Bloomberg Philanthropies American Cities Climate Challenge, the City of Minneapolis Sustainability's office collaborated with the local partners (listed below) to provide educational workshops around the IRP with environmental justice organizations, community-based organizations, and community leaders from Black, Indigenous, Immigrants, and communities of color. The workshops were held to increase the community-wide capacity to understand and participate in the IRP regulatory process administered by the Minnesota Public Utilities Commission. The goals of the pilot were:

- To promote and support community-based and environmental justice organizations, and communities' participation in the utility regulatory process.
- To resource these organizations who already had some amount of energy knowledge to mobilize their communities
- To advance racially and economically equitable goals in the IRP and energy policies.
- To influence Xcel Energy's IRP through an equity lens, based on priorities and desired community-benefits from the communities that have borne the brunt of past environmental racism and classism.

The partners are: Center for Earth, Energy, and Democracy (CEED); Community Power ; Sierra Club ; and Citizens Utilities Board of Minnesota (CUB Minnesota), Rocky Mountain Institute (RMI), World Resources Institute (WRI), Institute for Market Research (IMT), the City of Saint Paul, Natural Resources Defense fund (NRDC)/ American Cities Climate Challenge (ACCC). As a result of the community leaders who participated in the IRP workshops, as well as the City's 100% renewable electricity community engagement and the Green Zones councils' recommendations, the City of Minneapolis's IRP comments to the Public Utilities Commission centered equity and environmental justice.

Additionally, Bloomberg Philanthropies American Cities Climate Challenge via the NRDC Action Fund made \$45,000 funding available to support community-based organizations serving neighborhoods with low-incomes and community leaders from the Indigenous, Black, Immigrant, and communities of color, to support energy education and training, and capacity building on both energy issues and integrated resource plans to advance equity and clean energy goals. Center for Earth, Energy and Democracy (CEED) advised the development of the funding program and graciously agreed to administer the funding to support community leaders and community organizations. CEED also advised and will collaborate on the post-project evaluation.

Community leaders and organizations were invited to develop mini-project proposals to advance their goals for energy in the community. This pilot was rooted in the idea that residents can play a bigger role in influencing electricity resources and advocate for community benefits that they want to see from the renewable transition, such as greater access to energy efficiency and renewable services, resiliency, jobs, community wealth-building opportunities and equitable outcomes. This capacity building pilot provided participants with flexible funding and optional one-on-one support (each participant was partnered with a member of the planning team familiar with the IRP process and Xcel's specific plans). Community leaders and organizations determined their own scope of work, interest, and funding and technical support needed. Thirteen leaders and organizations received funding to support their own and/or their organization's energy education and training. Eight leaders and organizations were funded to bring that capacity building and education into their communities.

A series of bi-weekly gatherings emerged as a spin off from the pilot with community leaders and volunteer facilitation by staff from local organizations. The City did not lead or regularly participate in the bi-weekly community organizations' space and the coalition-building. Through these bi-weekly conversations, participants in this group are working to:

- develop shared priorities for Xcel's IRP (and beyond) that are added to by others in the community
- sharing these priorities in meetings with key power-brokers like Department of Commerce, Xcel staff guiding the IRP submission, the Attorney General's office, and advocacy organizations who are recognized at the PUC
- mount a larger-scale awareness campaign using multi-lingual video resources, press conference and other actions, door-knocking, and more
- develop original educational content designed for inform and solicit feedback from their constituents and communities

The learnings from this pilot process can inform how the City involves, listens to, and takes direction from the foundational priorities of the community in decision-making and regulatory processes as it adopts policies and strategies to achieve the just and renewable electricity vision.

Partnership with the Residents

Achieving the vision of 100% communitywide electricity use powered by renewable energy is ambitious and would require partnerships and support of the City's residents. The City needs to create an accountability process that is transparent for how the community will be involved in the decision-making process as different strategies and policies are pursued. In 2030, the City should plan on re-convening with the community leaders and the residents to assess if and how the City has achieved 100% Renewable Electricity and how and if it achieved community benefits from the energy transition. As the City moves forward:

- The community engagement must be inclusive.
- The engagement strategies need to be designed in collaboration with the BIPOC communities.
- The city needs to invest in resources on community's education and foster on-going partnerships with the community leaders.
- The City will engage community and technical advisory bodies as programs are being implemented and policies are pursued.

- The City will need to create a process to report back-to and be accountable to residents.
- The City should pursue 100% renewable electricity policies and strategies in collaboration with stakeholders.

Desired Community Benefits and Definitions

The community-benefits are created to help guide the City in having clear goals, understanding and motivations as it pursues various and multiple paths through strategies and policies to achieve the vision of 100% renewable electricity vision. The City can adopt a bolder vision of creating a new electricity ecosystem that is affordable, accessible and reliable.

Electricity Transition

- The City's communitywide electricity consumption must be powered 100% by renewable energy sources. Renewable is defined as solar, wind and hydro.
- Energy sources must be safe, clean and sustainable.

Electricity Affordability

- Electricity costs must be affordable for all residents.
- Renewable electricity and energy efficiency programs and services are affordable to all residents.
- Investment in renewable electricity projects must lead to reduction in electricity cost to low-income residents.
- Reduce energy burden amongst residents, homeowners and renters, to be lower than 6% threshold .
- The combined cost of housing and energy must not exceed 30% of an individual or household's income.

Electricity Accessibility

- Electricity is reliable for all residents.
- Renewable electricity and energy efficiency programs and services must be accessible to all residents
- Renewable electricity and energy efficiency programs and services must be accessible to the City's BIPOC residents.

Health

- All residents have the inherent right to clean air and water.
- Renewable electricity must reduce air, water and land pollution.
- There should be no disparities in health status and outcomes tied to air and water quality amongst residents based on socio-economic, demographic and zip codes.
- Renewable electricity must reduce disparities in health outcomes related to air pollution for the City's BIPOC, marginalized and low-income residents.
- Investment in renewable electricity projects must have measurable reduction in air pollution.
- The city must document and be transparent in the sources of air and water pollution in low-income and BIPOC neighborhoods, including the Green Zones.

Social Well-being

- All residents must have access to high-quality and resilient housing.
- All residents have the right to have reliable electricity.
- Investment in renewable electricity projects should improve the livability of the low-income neighborhoods.
- Investment in energy efficiency programs must improve the living conditions of low-income residents, homeowners and renters.
- Investment in renewable electricity and energy efficiency projects must not displace the residents, and the City should measure and track the impact of these projects.
- The City must measure and track the impact of investment in renewable electricity and energy efficiency projects for risk of increasing rent, housing, and displacement for the current neighborhood residents.

Equity

- Be explicit about equity goals.
- Racial equity must be embedded in planning and implementation of the 100% renewable electricity vision.

- All benefits created by the renewable electricity projects and investment must be inclusive and foster equitable opportunities, especially for the communities that borne the brunt of past environmental racism and injustice.
- Renewable electricity projects and investments must have clear desired benefits and outcomes for the City's BIPOC and marginalized residents.
- Access to renewable electricity programs and opportunities must be equitable, not equal.
- Matrix to weigh and measure the policies, programs, and investments must include consultation with the City's BIPOC and marginalized residents.

Community-Wealth

- The residents reserve the right for the community to buy and generate their own electricity.
- Transition to renewable electricity must create green business and job opportunities for Minneapolis residents.
- Foster investment in renewable projects that expand economic opportunities, including business opportunities and facilitation of good paying job growth, especially for the City's BIPOC and marginalized communities.
- Invest in renewable electricity infrastructures that are community (residents) owned and controlled.
- The City must be transparent in spending and investments made in renewable and energy efficiency projects and track which neighborhoods and communities are getting funded.
- For City funded renewable and energy efficiency projects, the City must establish targeted contracting goals for the BIPOC and marginalized residents.

Jobs

- Create a holistic and integrated workforce and pipeline plan for the renewable electricity transition, that includes growth of green jobs that are well-paid and sustainable.
- Renewable electricity and energy efficiency jobs and training must be accessible to all residents, including those with criminal records, limited access to transportation, childcare needs, and housing instability.
- Renewable electricity and energy efficiency training should be accessible and located in the community (City).
- For City funded renewable and energy efficiency projects, the City must establish job creation/ targeted workforce goals for BIPOC and marginalized residents.
- The renewable electricity and energy efficiency workforce must reflect the diversity of the City's residents.

Resilience and Climate Adaptation

- Investment in renewable electricity and energy efficiency projects increases the resiliency of all housing.
- All homeowners must have access to renewable electricity and energy efficiency programs and services to make the housing climate resilient.
- All renters must have access to renewable electricity and energy efficiency programs and services to live in housing that are climate resilient.

Ecosystem

- Renewable electricity projects should be evaluated for negative impact to the ecosystem.
- Renewable electricity projects should be encouraged to support healthy habitats for pollinators and animals and promote growth of native plants.
- The City should adopt the State's voluntary pollinator-friendly vegetation requirement for solar farms.

Appendix D

100% Renewable Electricity Community-wide by 2030

Community-Centered Meeting List, Engagement Plan, and Process

To create the Minneapolis' blueprint to achieve 100% renewable electricity by 2030, we piloted a community-centered planning through the City's Racial Equity Assessment and implemented an engagement plan centered on communities impacted by environmental racism and previously didn't fully participate in the City's past energy planning process. We used the Public Participation Spectrum¹ created by the International Association for Public Participation to measure the City staff's efforts and the direct participation by the impacted communities. Our goal in embracing a community-centered planning was to achieve collaboration² with the Minneapolis residents and impacted communities in co-creating the plans (aka the blueprint) to lay the foundation in the City's achieving 100% renewable electricity goal. For each meeting, the lead staff captured the purpose of the meeting and the outcomes of the meeting based on direct participation of the attendees.

City of Minneapolis Advisory Bodies – Shared the community engagement principles and plan, and asked for input in engagement design.

<u>Meeting</u>	<u>Purpose of the meetings</u>	<u>Outcome of the meetings</u>	<u>Date/ Time</u>	<u>Location</u>
Northern Green Zone Task Force	Inform and consult commission members	Inform and consult	September 4, 2019 5:30 – 7:30 pm	Northside Economic Opportunity Network
Community Environmental Advisory Commission (CEAC)	Inform and consult commission members	Inform and consult commission members	September 5, 2019 6:00 – 8:00 pm	Roosevelt Library
Energy Vision Advisory Committee (EVAC)	Inform and consult commission members	Inform and consult commission members	September 16, 2019 4:00 – 6:00 pm	Minneapolis City Hall
Southside Green Zone Council	Inform and consult commission members	Inform and consult	September 19, 2019 5:30 – 8:00 pm	Division of Indian Work
Metropolitan of Urban American Indian Directors	Inform and consult commission members	Inform and consult commission members	October 29, 2019 2:30 – 4:00 pm	American Minneapolis Indian Center

¹ The Spectrum of Community Engagement <https://movementstrategy.org/b/wp-content/uploads/2019/09/Spectrum-2-1-1.pdf>

² Collaboration - Ensure community capacity to play a leadership role in implementation of decisions. Community leadership and expertise are critical to how we address the issue.

Community-wide and Working Group Meetings- Shared pre-written technical strategies and asked for input³.

<u>Meeting</u>	<u>Purpose of the meetings</u>	<u>Outcome of the meetings</u>	<u>Date/ Time</u>	<u>Location</u>	<u>Attendee s</u>
Meeting for Minneapolis residents and members of CEAC, North and Southside Green Zones ⁴ Partners: RMI/WRI and Anne Gomez (community organizer)	Involve and collaborate with commission members	Inform and consult commission members	October 23, 2019 6:00 – 7:30 pm	Phillips Community Center	12
Meeting in Minneapolis businesses Partners: Minneapolis Business Chamber, RMI/WRI and Anne Gomez (community organizer)	Involve and collaborate	Involve	October 24, 2019 10:00 – 11:30 am	Minneapolis City Hall	15
Meeting for Minneapolis residents, youth and members of CEAC, EVAC, and environmental organizations Partners: I-Matter/ Climate Strike Youth	Involve and collaborate	Involve	October 24, 2019 3:30 – 5:00 pm	Walker Church	10
Windom Park Neighborhood Association	Inform and involve association members	Inform and involve	November 19, 2019 6:30 – 7:30 pm	Windom Park Recreation Center	??
Meeting with partners and community leaders to review the approached and strategies of the blueprint	Inform and collaborate with leaders we worked with		TBD		

³ No BIPOC residents participated in the communitywide meetings. The City had to extend the engagement timeline and partner with BIPOC community leaders to engage the City's diverse residents.

⁴ Green Zones members were invited, but none attended.

Specific Community Outreach Meetings -Partnered with community leaders for energy education and followed their advice to gather input.

Meeting	Purpose of the meetings	Outcome of the meetings	Date/ Time	Location	Attendees
Youth Partner: Minneapolis Youth Congress	Involve and collaborate with the youth congress	Inform and consult	November 14, 2019 5:30 – 7:00 pm	Central Library	43
North Minneapolis/African American Community Partner: One Family One Community	Collaboration with the community members	Collaboration with the community members	November 15, 2019 5:00 – 7:00 pm	John B. Davis Center Education	17
Somali Community Partner: Bosteya Jama	Training Somali women and youth leaders on renewable energy	Education on electricity bills, energy efficiency, renewable energy, and health	December 12, 2019 4:30 – 7:00 pm	Brian Coyle Center	13
	Collaboration with the community members	Education and engagement on renewable electricity	December 20, 2019 4:30 – 7:00 pm		
Oromo Community Partner: Girma Hassan	Collaboration with the community members	Engagement and involvement with community members	December 19, 2019 5:00 – 7:30 pm	Katar Restaurant	21
Hmong Community Partner: Advancement of Hmong Americans	Training session with community ambassadors on renewable energy	Training session with community ambassadors on renewable energy and energy efficiency	February 7, 2020 5:00 – 8:00 pm	John B. Davis Center	10
	Collaboration with the community members	Education about renewable energy and collaboration with community members	February 15, 2020 10:00 am – 12:00 pm		32

Latinx Community Partner: Navigate MN	Information workshop on renewable energy	Education and engagement on renewable energy, the electric system, and climate change	February 5, 2020 5:00 – 8:00 pm	El Colegio Charter School	28
	Collaboration with the youth	Collaboration with the youth	February 12, 2020 5:00 – 8:00 pm		10
Lao Community Partner: Lao Center of Minnesota	Training session with Lao Center of Minnesota staff on renewable energy	Training session with Lao Center and Harrison neighborhood staff on renewable energy and energy efficiency	February 10, 2020 10:30 am – 12:30 pm	Lao Center of Minnesota	11
	Collaboration with the Lao Community	Education and engagement with community members	March 4, 2020 5:30 – 7:00 pm		30
American Indian Leaders⁵ Partner: Native Sun Community	Collaboration with the American Indian Leaders	Collaboration with the American Indian Leaders	January 21, 2021 5:00-6:30 pm	Online	5

⁵ COVID impacted the City's ability to engage with the American Indian leaders.

Environmental Justice and BIPO⁶CI Community Leaders Meeting – Engaged on Xcel Energy’s Integrated Resource Plan to understand communities’ priorities ⁷

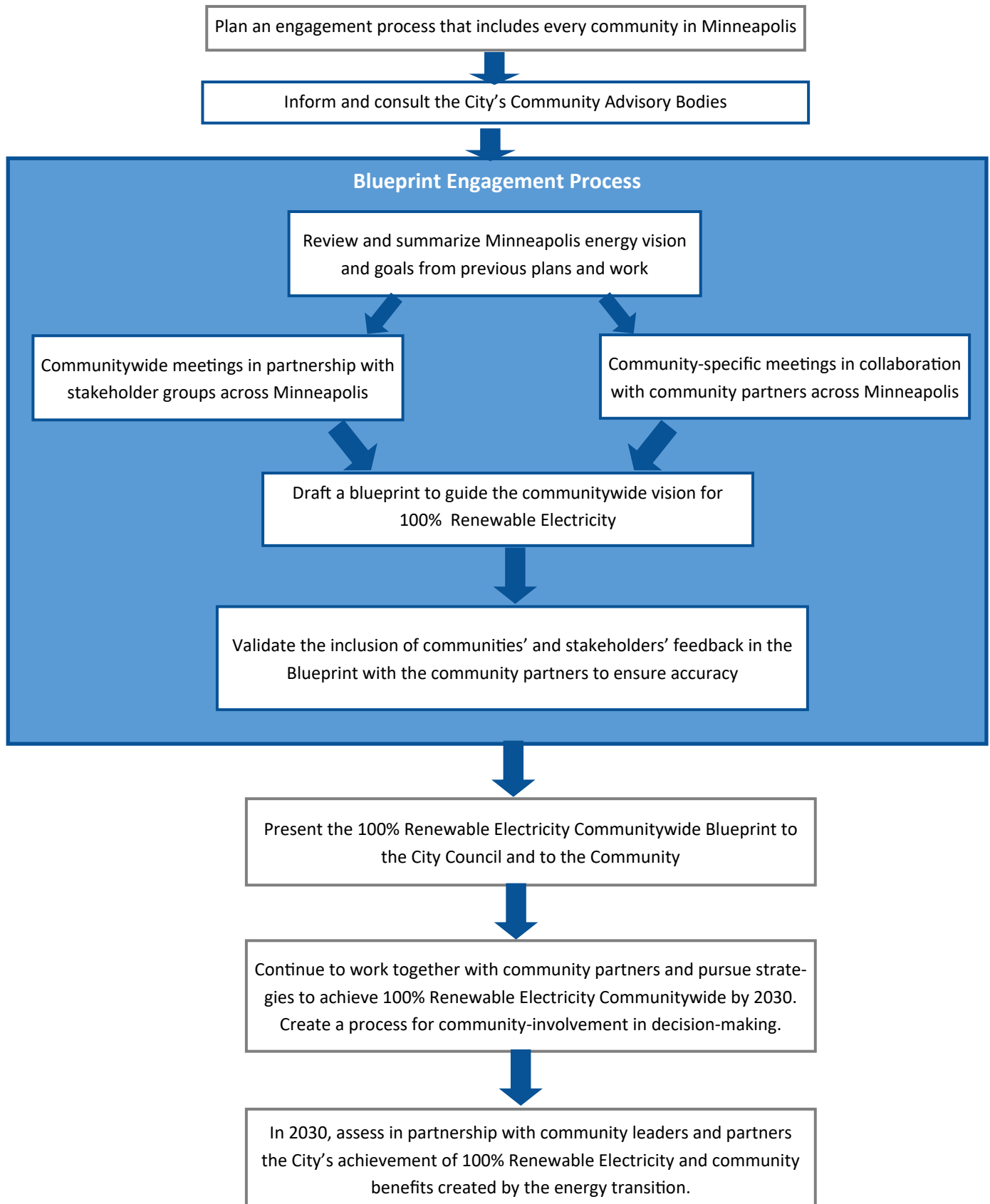
<u>Meeting</u>	<u>Purpose of the meetings</u>	<u>Outcome of the meetings</u>	<u>Date/ Time</u>	<u>Location</u>	<u>Attendees</u>
Educational workshop Xcel Energy’s Integrated Resource Plan Partner: CEED, Sierra Club, Community Partners, CUB-MN, RMI, WRI, IMT and City of Saint Paul	Collaboration with the community members	Collaboration with the community members	October 9, 2020 10:00am – 12:00 pm	Online	37
Educational workshop Xcel Energy’s Integrated Resource Plan Partner: CEED, Sierra Club, Community Partners, CUB-MN, RMI, WRI, IMT and City of Saint Paul	Collaboration with the community members	Collaboration with the community members	October 23, 2020 10:00am – 12:00 pm	Online	24

⁶ Black, Indigenous, Immigrants and Communities of Color

⁷ The IRP workshops are not formally part of the 100% Renewable Community Engagement Plan. The workshops helped informed the City of Minneapolis’ Integrated Resource Plan comment.

Community-Centered Engagement Plan and Process

For Creating and Implementing 100% Renewable Electricity Vision Communitywide By 2030



Assessment of Minneapolis Community Engagement Process for 100% Renewable Electricity Communitywide Vision

Desired Goals for Community Meetings	Engagement with the City's Advisory Bodies, Stakeholders and Residents		Engagement with the Minneapolis City's Community-Specific and BIPOC Residents (not part of previous energy planning and engagement)	
	Goal achieved?	Outcomes	Goal achieved?	Outcomes
1. Define what the community would like to see and how they would like to benefit from renewable electricity.	Yes	Community advisory boards and stakeholders defined additional benefits they would like to see from renewable electricity.	Mixed	<p>The topic of renewable electricity was new to many communities. Community members wanted to spend time learning about renewable energy, solar, and technical terms. Community members also wanted to learn about the potential impact and opportunities for renewable and solar energy.</p> <p>Community partners from the African American, Latinx and Hmong communities reviewed how benefits were defined and suggested changes to have more concrete goals. The groups collectively provided feedback stating that every benefit should meet equity goals.</p>
2. Ask the community to prioritize which benefits are most important to them.	Yes	Community advisory boards and stakeholders ranked which benefits were most important to them.	Mixed	<p>Community partners led the effort to define and review the benefits. They chose if and how the benefits would be assessed, including how to rank the benefits. Many chose not to rank the benefits.</p> <p>The Latinx and Somali community-partners chose to translate the materials. Other communities thought the terms were too technical to translate.</p> <p>Community partners spent time educating community members about renewable energy and its potential benefits.</p> <p>The African American community partner and facilitator led a process of redefining the benefits through an equity lens.</p>
3. Work with the community to develop criteria and tools to evaluate strategies to achieve renewable electricity and the desired community benefits.	Mixed	The advisory committees reviewed the criteria and the evaluation tool that City staff developed. Very little time was spent providing feedback.	Partial	<p>Because the topic of renewable electricity is new to most of the communities, they did not discuss evaluation criteria and tools.</p> <p>Only the African American community members reviewed the evaluation criteria. They said that we need to set concrete quantitative numbers to our goals and that we must have equity across all benefits and aim to create equitable distribution of resources.</p>
4. Seek community feedback on menu of strategies to achieve the 100% Renewable Electricity Communitywide by 2030.	Partial	We received feedback on strategies from the meeting attendees. We also received strategy recommendations from stakeholders. However, most participants thought the strategies were too technical to provide tangible feedback	No	<p>The community partners decided on whether the strategies list created by City staff should be shared with community members or not.</p> <p>Most partners chose not to share the list, citing it as too technical and dense. Additionally, the strategies are limited by the State law and the monopoly of Xcel as the electricity utility provider.</p> <p>Only the Latinx community partner translated the document into Spanish and said that the translation was extremely difficult for most of the words.</p>

Evaluation of Minneapolis Community Engagement Process - The Role of the Community in Planning and Decision-Making

Intention of the Community Engagement	The Spectrum of Community Engagement Assessment	
	Participation Outcomes	Assessment
Inform and Consult the City's Community Advisory Bodies	Inform and Consult	<p>City staff created a roadmap to community engagement and community engagement principles. Staff also developed a summary of community benefits, an evaluation tool, and renewable strategies based on previous work, i.e. the Green Zones work plan, Energy Visio, Climate Action Plan, etc.</p> <p>The information and the roadmap to engagement was shared with the advisory bodies for their feedback.</p> <p>The staff informed and consulted with: Northern Green Zone Task Force (NSGZ), Southside Green Zone Council (SSGZ), Energy Vision Advisory Committee (EVAC), Community Environmental Advisory Commission (CEAC) and Metropolitan Urban Indian Director.</p>
Collaborate with the community, the City's advisory body members, and stakeholders	Involve	<p>The City held three community-wide meetings intended to reach all residents interested in energy work. The City hired a community member as the co- facilitator.</p> <p>While the meetings were meant to be communitywide, the meetings were organized to encourage participation from specific stakeholder groups:</p> <ul style="list-style-type: none"> • Members of the NSGZ, SSGZ, CEAC, and EVAC • Businesses in collaboration with the Minneapolis Business Chamber • Environmental and youth organizations <p>The meeting discussions were robust. The stakeholders provided feedback and shared their perspectives and expertise with City staff.</p> <p>The meeting attendees were not racially diverse. No members of the NSGZ and SSGZ attended. A majority of the meeting participants were individuals who were knowledgeable about renewable energy and had engaged with the City on the topic before.</p>
Collaborate with the Community Partners	Collaborate	<p>The City wanted the engagement process to be inclusive. When City staff realized that we were not hearing from a diverse residents, we intentionally created community-specific outreach.</p> <p>The City's Neighborhood and Community Relations staff helped identify specific-communities and recommended community-partners to make sure we included the voices of diverse residents, low-income residents, and renters.</p> <p>City staff invited community organizations/leaders to propose their own scope of work and design an education and engagement process that would be tailored and relevant to their respective communities.</p> <p>City staff dedicated time to educate the community partners about renewable energy and included time for community organizing.</p> <p>City staff relied on the expertise and leadership of the community partners in organizing the meetings, determining the structure of the meetings, providing materials for the meetings, and facilitating the meetings.</p>

Evaluation of Minneapolis Community Engagement Process - The Role of the Community in Planning and Decision-Making

Intention of the Community Engagement	The Spectrum of Community Engagement Assessment	
	Participation Outcomes	Assessment
<p>Collaborate with the African American and North Minneapolis Residents</p> <p>Partner: One Family One Community</p>	Inform and Consult	<p>City staff informed community members of the City’s vision for renewable electricity.</p> <p>The community members were very familiar with renewable energy and knew exactly what types of community benefits they wanted to see from the City’s investment in solar and renewables.</p> <p>The community members prioritized community wealth-building, ownership of renewable assets by the community, and investment in workforce development.</p> <p>The facilitators created a robust process to review the community benefits and ensure that the community members gave tangible feedback.</p>
<p>Collaborate with the Minneapolis Youth Congress</p>	Inform and Consult	<p>Minneapolis Youth Congress invited City staff to attend their meeting on renewable energy.</p> <p>City staff informed Youth Congress members of the City’s vision for renewable electricity.</p> <p>The Youth Congress members were extremely knowledgeable about renewable energy. They provided feedback about community benefits and provided questions to be used in planning and achieving 100% Renewable Electricity.</p>
<p>Collaborate with the Latino Community</p> <p>Partner: Navigate MN</p>	Inform	<p>The community partner focused on organizing youth as a priority. An educational meeting was held for youth and their parents on renewable energy and the electric system, how they connect with climate change, and issues of forced migration due to climate change.</p> <p>The meeting was also streamed live on Facebook .</p> <p>The Latinx youth community members believed in achieving equitable renewable energy and a healthy environment for all.</p> <p>City staff and the Citizens Utility Board educated Latinx youth community members on renewable energy and the City’s vision for renewable electricity.</p> <p>The community partner co-facilitated the meeting with a youth member who is pursuing electrical engineering.</p>
<p>Collaborate with the Somali Community</p> <p>Partner: Bosteya Jama</p>	Inform	<p>The community partner held a renewable energy training for a group of Somali women and youth. Somali staff from the Minneapolis Health Department attended the meeting to educate and be a resource for the group.</p> <p>The trained women and youth brought more community members for the second community meeting.</p> <p>Because the topic of renewable energy was new to the community and many of the concepts were so technical, the community partner chose to spend time on community education and building capacity to understand more about renewable energy.</p> <p>City staff and the Citizens Utility Board educated Somali community members on renewable energy and the City’s vision for renewable electricity.</p>

Evaluation of Minneapolis Community Engagement Process - The Role of the Community in Planning and Decision-Making

Intention of the Community Engagement	The Spectrum of Community Engagement Assessment	
	Participation Outcomes	Assessment
<p>Collaborate with the Oromo Community</p> <p>Partner: Girma Hassan</p>	Inform	<p>The community partner held the meeting for community and religious leaders from the Oromo community.</p> <p>The community leaders wanted to know how to access the benefits of renewable energy. The meeting was a combination of providing solar education and receiving feedback.</p> <p>City staff and the Citizens Utility Board educated Oromo community members on renewable energy and the City's vision for renewable electricity.</p>
<p>Collaborate With the Hmong Community</p> <p>Partner: Advancement of Hmong Americans</p>	Inform	<p>The community partner organized a group to be energy ambassadors. They were trained on renewable energy, energy efficiency, and available City resources. A Hmong staff member from the Minneapolis Health Department attended the meeting to share resources on energy efficiency and other programs.</p> <p>The trained community ambassadors reached out to the Hmong households (mainly in North Minneapolis) and invited them to the community meeting. The ambassadors led the discussions at the community meeting.</p> <p>The community members wanted to know how they could have access to renewable resources and own them.</p> <p>City staff and the Citizens Utility Board educated Hmong community members on renewable energy and the City's vision for renewable electricity.</p>
<p>Collaborate With the Lao Community</p> <p>Partner: Lao Center of Minnesota</p>	Inform	<p>The community partner wanted to have a training session for the organization's staff. The training was attended by the Lao Center and Harrison neighborhood staff.</p> <p>Because renewable energy and energy efficiency is new to the community, the community partner focused on education and sharing resources with the community.</p> <p>City staff and the Citizens Utility Board educated Lao community members on renewable energy and the City's vision for renewable electricity.</p>
<p>Collaborate with the American Indian Community</p>	Collaborate	<p>Because of COVID shut-down in March and the impact from it, the City staff was not able to engage a wider American Indian community. Therefore, we partnered with an American Indian leader to organize a small group of American Indian leaders for the City to have a dialogue with.</p> <p>The five American Indian leaders are well-known leaders, organizers and advocates within the City. They are also very knowledgeable about climate, energy and workforce issues.</p> <p>Thus, we had a well-informed facilitated discussion. The City elevated the notes from this meeting in the City's comment to the Xcel Energy's Integrated Resource Plan to elevate the issue of workforce, solar battery, and nuclear waste.</p>

Evaluation of Minneapolis Community Engagement Process - The Role of the Community in Planning and Decision-Making

Intention of the Community Engagement	The Spectrum of Community Engagement Assessment	
	Participation Outcomes	Assessment
Notes		<ul style="list-style-type: none"> Community partners were recommended by the City's Neighborhood and Community Relations. Community partners were offered \$2,500 to develop a tailored community engagement plan and help implement it. Community leaders guided the meeting discussion and structure. The \$2500 was set by the City of Minneapolis policy to not trigger a lengthy contracting process. Many of the community leaders chose to use this funding to pay for transportation and child care for meeting attendees. Food was provided at every meeting, but were not paid by the City funding. The food budget was made available by the Bloomberg Philanthropies' American Cities Climate Challenge. The Citizens Utility Board of Minnesota (CUB) is a nonprofit advocacy organization for Minnesota's utility consumers. The City relied on their expertise in educating the public about electricity bill as part of the energy education. CUB-MN was not offered any financial or other support for this partnership.

Racial Equity Impact Analysis (REIA)

PURPOSE OF THIS TOOL: To facilitate consideration of racial equity and examine how Black, Indigenous, and People of Color (BIPOC) could be affected by a proposed action or decision of the City. The questions are designed to lead to strategies that will prevent or mitigate impacts and unintended consequences on BIPOC communities. For resources and support in completing this analysis, visit the Division of Race & Equity's SharePoint site at minneapolismngov.sharepoint.com/sites/c00003/SREAP/REIA

SECTION 1: BACKGROUND

SUBJECT:

Community-Wide 100% Renewable Electricity Blueprint

WHO PARTICIPATED IN COMPLETING THIS ANALYSIS?

Dolkar, Kim, Kelly

IS THIS ANALYSIS FOR A NEW OR UPDATED: (Select only one per analysis process)

- ☐ ORDINANCE
- ☐ CHARTER AMENDMENT
- ☒ CITY ENTERPRISE POLICY

DOES THIS IMPACT ONE OF THE [CITY'S GOAL AREAS?](#) (Select all that apply)

Policy Goals

- ☐ Public Safety
- ☐ Housing
- ☒ Economic Development
- ☐ Public Services
- ☒ Environmental Justice
- ☐ Built Environment & Transportation
- ☒ Public Health
- ☐ Arts & Culture

Operational Goals

- ☒ Workforce
- ☐ Spending
- ☒ Data
- ☒ Community Engagement

WHAT IS THE DESIRED OUTCOME FOR THIS ORDINANCE, AMENDMENT, OR POLICY?

The desired outcome for the community-wide 100% Renewable Electricity Blueprint is to create a road map that outlines how the City will meet its goal for achieving 100% clean electricity and how the transition to renewable energy could deliver equitable benefits to individuals and communities that have historically borne the brunt of environmental injustice and racism, such as BIPOC communities, low-income communities, and renters.

The Blueprint should include a plan for public engagement, as well as the policy and technological strategies. Our goal is to write a blueprint that is community-centered and approach the planning as a co-creation with the City's diverse communities. We deployed a community engagement strategy to test the theory of what a co-creating and community-centered approach to planning could look like.

The desire for community-centered, transformational change will be constrained by the following factors:

- 1) The solutions on how to meet the goal of 100% RE would be based on and limited by technical solutions and strategies available.
- 2) Many of the strategies to meet 100% RE will happen within the confines of the regulatory environment.
- 3) The ability to fully implement the goal could be challenged by the political willingness to change the existing monopoly for delivery of electricity.
- 4) The cost and benefit implications of achieving the goal 100% as it pertains to the specific impacts to BIPOC communities and those residents and businesses with high energy burdens.
- 5) The even increasing load due the electrification of vehicles and heating loads heating load is greatly dependent on reducing energy use through efficiency and conservation as much as it is dependent on adding new renewables to the system.

SECTION 2: DATA

LIST THE SPECIFIC GEOGRAPHIES THAT WILL BE IMPACTED AND THE RACIAL DEMOGRAPHICS OF CONSTITUENTS IN THOSE AREAS:

This Blueprint is a roadmap for the electricity consumption of the communitywide (all of Minneapolis). This includes residents, property owners and businesses.

Residents of North and South Minneapolis have long borne the burden of environmental pollution and disinvestment from the City. The majority of the residents in these neighborhoods are Indigenous, Black, Immigrants, People of Color and earn well below the city's median income. These communities have traditionally had to advocate for themselves for environmental clean-up from the City and the State to address lead poisoning, industrial pollution, air pollution, etc.

In approaching this planning, we made the assumptions that most Minneapolis residents and small businesses would be less knowledgeable about renewable energy, have not participated in the past energy planning by the City, and lack the money to invest in renewable energy. These barriers might be greater for BIPOC residents and business owners due to past intentional exclusion from the environmental field and opportunities.

The concentrated Impact of fossil gas power generation plants within the city, such as the Riverside Plant and the HERC, on specific areas of Minneapolis also disproportionately affect BIPOC communities.

WHAT DOES AVAILABLE DATA TELL YOU ABOUT HOW CONSTITUENTS FROM BIPOC COMMUNITIES CURRENTLY RELATE TO THE DESIRED OUTCOME COMPARED TO WHITE CONSTITUENTS?

In Minneapolis:

- 40% of the City's population identify as Black, Indigenous, Asian, Latinx and non-white .
- 25% of the City of Minneapolis's energy efficiency and renewable energy workforce is BIPOC
- 53% of housing units in Minneapolis are occupied by renters (1.5 times higher than the rate in the Twin Cities). That number is significantly higher for BIPOC and low-income communities.
- Minneapolis has the lowest Black homeownership rates in the U.S; only 25% of Black owns house compared to 76% for Whites.
- Across the Twin Cities, 27 % of the households are house and rent-burdened (the cost of housing is more than 30% of gross monthly income). Energy cost is an additional cost burden.
- The median energy burden of low-income households in Minneapolis is 3.3 times higher than non-low-income households.
- 12% of Minneapolis households have a high energy burden (above 6%)
- Xcel Energy's workforce in Minnesota is not diverse.
- The median black family income is \$36,000 compared to \$83,000 for a white family. As a comparison, the Tesla model 3 cost starts at \$42,000. And in Minnesota, the average cost of a solar rooftop ranges from \$13,345 to \$18,055.

BIPOC and low-income participation in solar and other renewable programs (Xcel Wind*Source, community solar gardens, roof-top solar, etc.) are lower than white participation.

The City's solar program is successful in driving environmental justice projects in the Green Zones neighborhoods however, the City-subsidized solar PV group-buy for single-family homeowners has lower participation from BIPOC households / is predominantly white, upper-middle class.

WHAT DATA IS UNAVAILABLE OR MISSING? HOW CAN YOU OBTAIN ADDITIONAL DATA?

We know based on our community engagement strategies and partnerships, the demographics of the residents we engaged with. And we created a half a page demographic and feedback form, and the community leaders we partnered with chose not to use them. We will continue to find a balance in collecting data on community engagement participation based on organizer and participants' wants and needs.

We need better demographic data on the workforce and renewable program participation. Program participation data is collected and held by the utilities. They do not collect racial or ethnicity data for program participants, but often do have data on income or at least whether participants qualify for "low-income" programs based on their household income. Income data can be informative but limited in understanding whether renewable energy programs are serving marginalized households.

Demographic* Clean Energy Partnership

SECTION 3: COMMUNITY ENGAGEMENT

USING THE INTERNATIONAL ASSOCIATION OF PUBLIC PARTICIPATION (IAP2) [PUBLIC PARTICIPATION SPECTRUM](#), WHICH PARTICIPATION STRATEGY(S) WAS USED WHEN ENGAGING THOSE WHO WOULD BE MOST IMPACTED?

- ☒ INFORM
- ☒ CONSULT
- ☒ INVOLVE
- ☒ COLLABORATE
- ☐ EMPOWER

DESCRIBE THE ENGAGEMENT AND WHAT HAVE YOU LEARNED?

We intentionally designed the engagement to foster collaboration with community leaders and community-based organizations. However, the result of the engagement was mixed. For the most part, we ended up informing and consulting community members. There was some level of involving community members and very little collaboration.

We learned that:

- City-wide and stakeholder meetings do not result in participation from BIPOC communities
- One or two meetings with cultural communities was not enough time to inform them about renewable energy or utility bills and get input on the communities' interest or goals for renewable energy, let alone collaborate on goals or strategies.

To do community engagement well:

- We need to rely on existing community organizations and leaders to do community-specific engagement. We honor their partnership via compensation, as well as letting them design the engagement.
- The City needs to dedicate time and resources to education before an initiative. We learned through the process that many of the communities have never heard of and/or had no input in the resolution that the City Council passed.
- Acknowledge that engagement requires time and commitment from the City. We need to be flexible and adapt to recommendations from communities.

SECTION 4: ANALYSIS

HOW DOES THE OUTCOME FOR THIS ORDINANCE, AMENDMENT, OR POLICY HELP THE CITY ACHIEVE RACIAL EQUITY?

One challenge is that we did not spend time defining the desired outcomes of the Blueprint in the beginning. Through two years of work, we have come around to outcomes for the Blueprint that reflect many things we have heard from community members. It was critical to have community engagement to understand what outcomes and benefits the communities want to have and see from the energy transition.

The City could employ the easiest and the least time-consuming way to achieve 100% renewable electricity within the current regulatory framework. For example, the City could purchase Renewable Energy Credits to match the amount of electricity we consume community-wide or participate only in existing utility programs. However, the more transformative approach to planning and potentially room for transformative benefits could be explored if the City looks at centering community benefits and equitable outcomes for BIPOC, residents with lower incomes or higher energy burden, and other marginalized residents as the main priority. This shifts how strategies are considered and could take different investment levels and time commitments from the City. It will be important to include community members in the decision-making process when strategies are being developed to achieve the 100% RE goal.

SECTION 5: EVALUATION

HOW WILL IMPACTS BE MEASURED? WHAT ARE THE SUCCESS INDICATORS AND PROCESS BENCHMARKS?

The Blueprint and its renewable strategies do not have clear metrics for tracking impact or success.

For the Blueprint's engagement process, we outlined what our intention was and what was achieved. We will share with the community partners how we incorporated their input and ask them to grade us based on how they experienced the engagement process and the impact of their input.

HOW WILL THOSE WHO ARE IMPACTED BE INFORMED OF PROGRESS OVER TIME?

Currently, the engagement process map requires going back to our community partners and key stakeholders with a draft of the blueprint before it is finally adopted.

For the Blueprint, the communities overwhelmingly asked the City to dedicate resources for education and continuous community involvement in the effort to transform the energy system.

To create a more diverse advisory boards who receives regular input.



To: City of Minneapolis

Subject: Solar Incentives and Local Renewable Electricity Goals in 2025 and 2030

Date: June 16, 2021

Minneapolis Solar Incentives and the 10% Local Renewable Electricity Goal

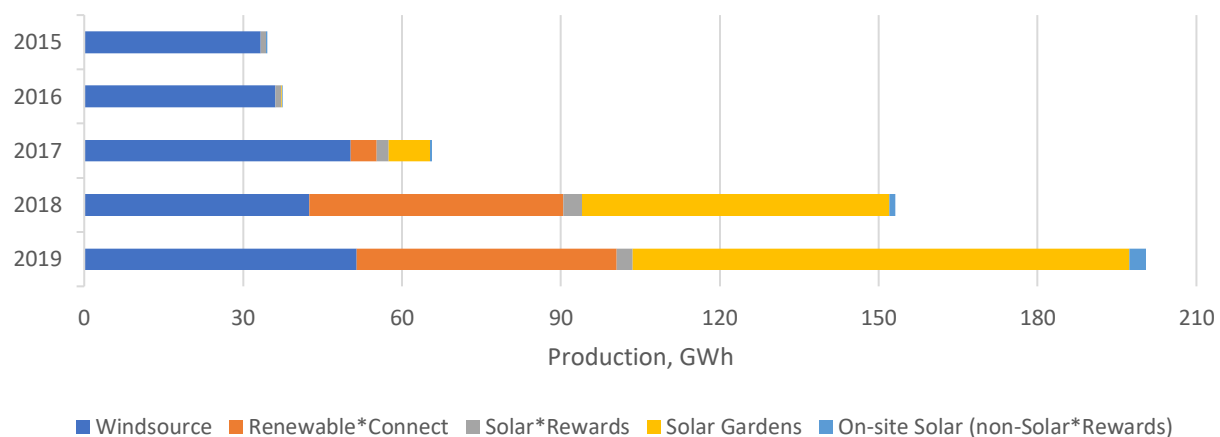
As a part of its 2013 Climate Action Plan, the City of Minneapolis aims to generate 10% of its electricity from local, renewable sources by 2025. In this context, “local” includes both solar installations located within city limits (referred to as “in-boundary”) and qualifying programs offered by Xcel Energy within their service territory. This local energy goal is tracked in partnership with Xcel Energy via data reporting in its annual Community Energy Reports detailing the production and uptake of renewable energy programs and installations.

The 2019 report¹ shows that the city needs to **generate or purchase 351 Gigawatt-hours (GWh)** of electricity from local renewable sources annually to meet its 10% by 2025 goal. That report also shows that local renewable production plus purchases equaled about 197 GWh. Combined with approximately 3 GWh² of “On-site Solar (non-Solar*Rewards)” production, the City of Minneapolis has a **local production gap of 151 GWh** to fill by 2025.

Xcel’s Renewables Offerings:

Windsor	51.5 GWh
Renewable*Connect	49.0 GWh
Solar*Rewards	3.1 GWh
Solar Gardens	93.8 GWh

Figure 1: Total Locally Produced or Purchased Renewable Energy, Minneapolis 2015-2019



Reaching the 10% by 2025 Goal

While it appears that the City may currently be on track to meet the 10% by 2025 goal, it is important to note that (a) Solar*Rewards and Windsor are both set to expire before 2025, and (b) in-boundary

¹ Xcel Energy’s next Community Energy Report is expected summer 2021.

² Per City staff, On-site Solar (non-Solar*Rewards) installations totaled 3,129 kW from 2015-2019. This memo estimates the generation of this installed capacity at 2.8 GWh using a threshold of 900 kWh/kW.

installations represent just a small fraction of the total. Without significantly more customer-owned solar in Minneapolis, residents will not benefit from the local jobs and community wealth-building opportunities described in the City's Climate Action Plan.

With an additional 151 GWh required to reach the 10% local renewable electricity goal, it is important to consider the role of incentives in encouraging in-boundary deployment of renewable electricity generation. For this memo, we focus on solar photovoltaics as it is the most developed renewable energy technology applicable to local generation in an urban environment. However, it is important to note that energy efficiency plays an important role in reducing the city's total energy consumption, thereby decreasing the amount of renewable electricity needed to reach the 10% goal.

Role of Incentives in Solar Development

Rooftop solar in Minneapolis is a solid financial investment for anyone who has a roof with adequate exposure to sunlight, access to capital, and the time horizon to realize a positive return. However, the time and capital required to benefit financially from solar energy limits the number of people who can feasibly complete projects. Therefore, equitably reaching the 10% by 2025 goal will require broadening access to solar technologies and continued investment in project development across the city. It is worth noting that community solar is critical to equitably distributing the benefits of local solar to renters who do not have favorable conditions for rooftop solar.

To encourage solar development, the City offers upfront incentives based on the first year's estimated kilowatt-hour (kWh) electricity production through its Green Cost Share (GCS) program. In 2020, the program offered an expected performance-based incentive (PBI) of \$0.20/kWh across the city and \$0.35/kWh for projects that fit the program's environmental justice (EJ) criteria. GCS incentives effectively reduce project costs by 9% and 16%, respectively, for a representative solar installation costing \$3.00/Watt. These incentives serve to spur economic development, generating \$7-11 in private investment for each \$1 in incentive.

While GCS solar incentives have varied slightly since first offered in 2018, the program has helped support nearly 13 GWh annually (from 10.5 MWdc) of solar development. Within this memo, the Green Cost Share incentive rates are used as the basis for estimating the range of incentive dollars needed to develop enough local solar to fill the 151 GWh gap with local solar by 2025 and concludes with additional programs that Minneapolis could explore.

In addition to the Green Cost Share, Xcel Energy offers new solar installations sized between 0.5 and 40 kilowatts (kW) a PBI³ of \$0.06/kWh or \$0.07/kWh paid annually for 10 years through Solar*Rewards. Recently, the utility added additional upfront incentives for projects that serve or are owned by income-qualified customers.

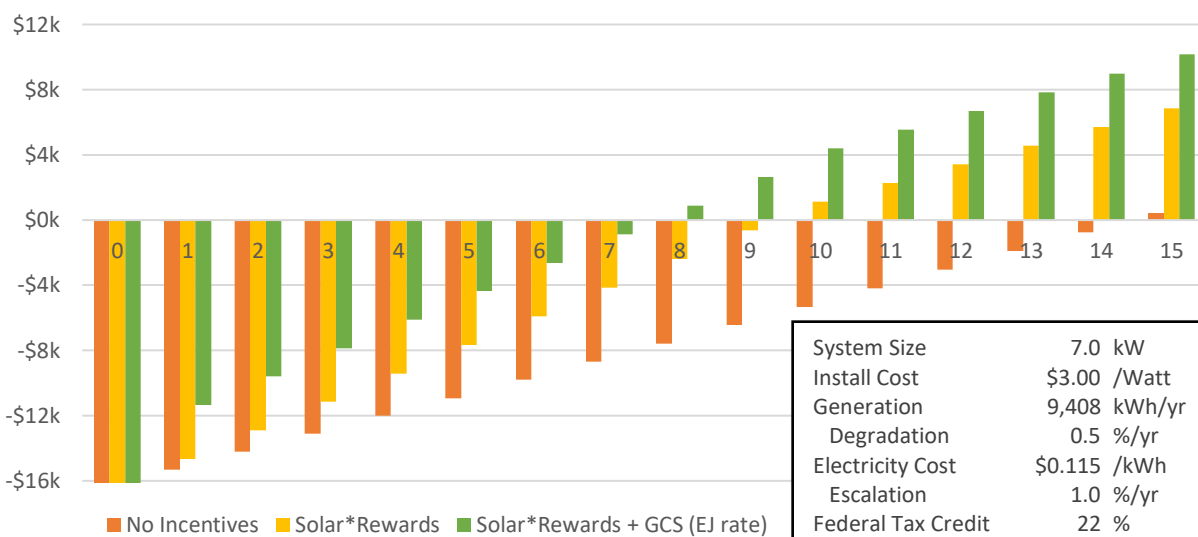
³https://www.xcelenergy.com/programs_and_rebates/residential_programs_and_rebates/renewable_energy_options_residential/solar/available_solar_options/on_your_home_or_in_your_yard/solar_rewards_for_residences

Table 1: Xcel Energy Solar*Rewards Incentives, 2020

	2020 Performance Incentive per kWh	2020 Up-front Incentive \$/W
Residential Systems	\$0.07	N/A
Income-Qualified Residential Systems	\$0.07	\$2.00
Income-Qualified Non-Profit and Multi-Family	\$0.06	\$1.00
Income-Qualified Solar Garden	\$0.06	\$0.50
Commercial Systems	\$0.06	N/A

Together, GCS and Solar*Rewards incentives reduce both solar installation costs and the time it takes for those investments to break even. Figure 2 demonstrates the effect incentives have on a model residential solar installation. Solar*Rewards alone accelerates the simple payback period from ~14 years to ~9 years. That period is reduced to just ~7 years when combined with GCS for projects qualifying for the \$0.35/kWh EJ rate.

Figure 2: Model Payback of Solar Installation, with and without Incentives

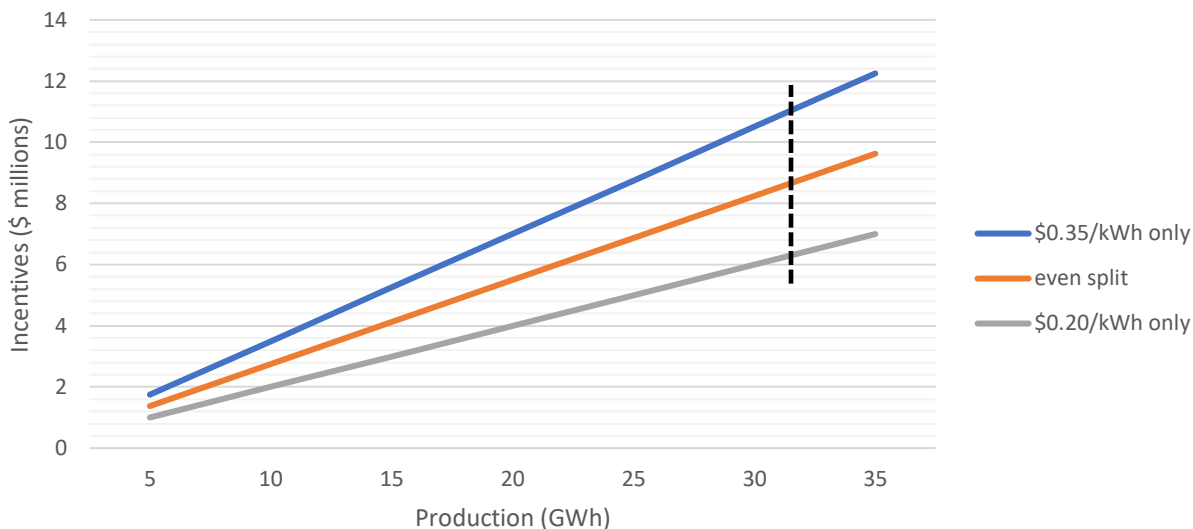


Solar Incentive Investment Analysis

Closing the 151 GWh gap by 2025 with in-boundary solar alone is a difficult, but not insurmountable, challenge. And for the benefits of solar to accrue to the city's citizens, it is important to close this gap with as much rooftop and community solar within city limits as feasible. An increase in local solar of 31 GWh annually, 2021-2025, is a conservatively high estimate needed to close the gap.

And while development will occur in the absence of incentives, incentives are necessary to encourage project development more quickly than natural adoption and to reach communities across the city. At current incentive rates, the level of Green Cost Share incentives needed to close the local production gap entirely with local rooftop and community solar ranges from **\$6.2 million to \$10.9 million annually** (from 2021-2025).

Figure 3: Total Annual Incentives Required to Drive New Solar Installations



New Approaches to Achieve 10% by 2025 Goal

City staff requested NRDC assistance in identifying alternative program design opportunities that would help fulfill the 10% local, renewable electricity production goal by 2025. Alternative incentive designs could help city funds go further and support projects that fulfill environmental justice goals in addition to those for carbon-reduction and energy production.

Additionally, even with the incentives provided by the City of Minneapolis and Xcel Energy, consumers still must cover the remaining upfront costs of a project. These costs are upwards of \$10,000 for an average-sized single-family house and can serve as a significant deterrent for low-to-moderate-income (LMI) customers who want solar. While third-party financing options are available, they often rely on strong personal credit ratings. Consumer loans do not work well for renters either, a population that makes up 53% of Minneapolis residents.

Financing: Tariffed On-Bill Financing

A promising utility program to support LMI customers in implementing clean energy solutions is tariffed on-bill financing. Tariffed on-bill financing, which is different from on-bill financing that uses third-party capital and relies on the customer's credit score, enables utilities to pay the upfront costs of eligible cost-effective residential clean energy improvements like energy efficiency and solar. The utility recovers the cost of the improvements over time through a monthly charge on the utility bill associated with the customer's meter—not the customer. The charge is normally set at an amount that is approximately 20% less than the anticipated savings from the clean energy improvement to ensure that the utility bill does not increase. Tariffed on-bill financing is thus a highly appropriate model to support both LMI customers as well as renters.

The City of Minneapolis and its utility partners CenterPoint Energy and Xcel Energy support the development of a tariffed on-bill financing program through their Clean Energy Partnership. In 2020, the City in partnership with CenterPoint Energy filed a residential pilot program proposal with the Minnesota Public Utilities Commission (PUC) that focused on supporting weatherization investments but

could be expanded to include cost-effective solar⁴. The PUC issued an Order on March 1, 2021, directing CenterPoint and the City to file a new pilot proposal with more program details in late spring.

Incentive Design: Reverse Auction⁵ and Size-Based Incentives

A modified reverse auction mechanism or incentives that decrease with the size of a project as larger projects typically are cheaper per watt than smaller projects can help the funding go further.

What is a Reverse Auction?

A reverse auction is an auction approach to procurement, wherein sellers which meet certain minimum criteria are eligible to submit non-negotiable price bids. The buyer (typically a utility) then selects winning sellers based on the lowest-priced bids first, and signs non-negotiable standard contracts with the winning sellers, incorporating the prices bid by that seller. Essentially, an auction is held as such so that developers of system-side renewable distributed generation projects bid the lowest incentive they would be willing to accept to develop renewable energy projects.

The projects are reviewed to ensure they meet the minimum project viability requirements. Typically, these programs have a standard-offer contract, to streamline the process and ensure developers are aware of the terms and conditions and bid their projects accordingly.

Examples of this approach include California's Renewable Auction Mechanism.

Why is the Reverse Auction Mechanism important to solar?

While the concept of a reverse auction mechanism is not new, it is a fairly new approach for procuring renewables. Where it has been deployed, it has been used to let the competitive market determine the price paid for renewables. This is attractive to policymakers, as developers are paid a price that is sufficient to bring projects online, but also provide ratepayer protection against “overpayment”. However, this approach does lead to developer uncertainty as there is no guarantee that the bid and project will be successfully contracted.

Implementation at the City Level

While discussing the potential use of a reverse auction, City staff expressed concern over its complexity and that the use of an auction (i.e., using an RFP) would not be inclusive of those who have fewer resources to invest in solar and would not be able to compete. The concern is that implementing such a mechanism would disadvantage more expensive projects that fulfill the cities other environmental justice goals. However, since the City would set the parameters of the request for proposal final design choice could borrow some of the ‘price finding’ ideas underpinning an auction and include other criteria while evaluating proposals.

For example, a reverse auction mechanism could be open to larger projects or portfolios of projects that capture economies of scale and are less expensive to build per watt than smaller projects. The city could also be explicit that price is not the only factor when determining who is awarded the incentive. Finally, incentives could be stepped down based on the size of the project to reflect economies of scale (i.e., projects greater than 100 kWdc would receive a lower incentive).

⁴ MN Public Utilities Commission Docket 19-524. Jun 2020.

⁵ <https://www.seia.org/initiatives/reverse-auction-mechanism>

Recommendations for Maximizing Local Solar Generation

NRDC recommends that the City of Minneapolis consider the following in to increase the amount of new, in-boundary solar installed:

- Increase the annual budget for the Green Cost Share Program;
- Implement a Reverse Auction Pilot Program targeted at larger-scale solar deployment; and
- Work with Xcel Energy to implement an inclusive financing program to expand LMI and renter access to solar.

But achieving the stretch goal of 30% of total electricity generation from rooftop solar and community solar gardens by 2030, exclusive of green tariff programs put forth by the 100% Renewable Electricity Blueprint will require additional measures. And while NRDC has not analyzed the feasibility of this ambitious new goal, a couple of significant factors weigh in its favor:

- Analyses performed by Metropolitan Council⁶ in 2017 and by Google Project Sunroof⁷ in 2018 both show that there is likely sufficient area within city limits suitable for solar installations capable of generating at least 30% of the city's total current electricity load. (Further study and analysis would be required to verify technical feasibility.)
- The pre-incentive cost to install a residential solar system is now half of what it was a decade ago, and significant cost reduction opportunities remain. However, soft costs - including installation labor, customer acquisition, permitting, inspection, and interconnection - in the U.S. continue to be much higher than those of other developed solar markets worldwide.

The City of Minneapolis can implement policies that reduce soft costs and other barriers that prevent local solar from reaching its full potential. Furthermore, the City can continue to advocate for state regulatory policy that values distributed solar for its full array of climate, cost, grid, and societal benefits.

⁶ https://metro council.org/Handbook/Files/Solar-Resource-Calculation/02395345_Minneapolis_SolarCalc.aspx

⁷ <https://www.google.com/get/sunroof/data-explorer/place/ChIJvbt3k5Azs1IRB-56L4TJn5M/>