

February 11, 2021

William Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, MN 55101

RE: 2020-2034 Xcel Energy Upper Midwest Integrated Resource Plan, Docket No. E002/RP-19-368

Dear Mr. Seuffert:

The City of Minneapolis ("Minneapolis"), a municipality as defined in Minn. Stat. § 216B.02, subd. 2b, thanks the Commission for the opportunity to comment on Xcel Energy's ("Xcel") Integrated Resource Plan ("IRP").

Minneapolis is home to Xcel Energy's headquarters, and our population of more than 425,000 residents and 40,000 businesses represents nearly 14 percent of Xcel Energy's electricity sales in Minnesota.¹ Minneapolis has multiple volunteer environmental justice and energy-focused commissions whose responsibilities are relevant to this IRP: Northside Green Zone Task Force, Southside Green Zone Council, the Energy Vision Advisory Committee, and the Community Environmental Advisory Commission.

Minneapolis centers our comments on racial equity to advance equitable outcomes for the people we serve and to address the disproportionate impacts that pollution and climate change have on low-income communities and communities of color.

Minneapolis supports the Commission's priorities for resource planning outcomes that achieve specific goals:²

- A. maintain or improve the adequacy and reliability of utility service;
- B. keep customers' bills and utility's rates as low as practicable;
- C. minimize adverse socioeconomic effects and adverse effects upon the environment;
- D. enhance the utility's ability to respond to changes in the financial, social, and technological factors affecting its operations; and
- E. limit the risk of adverse effects on the utility and its customers from financial, social, and technological factors that the utility cannot control.

Emphasizing the State of Minnesota and Minneapolis's socioeconomic priorities in this process will help more customers benefit from a justice-centered clean energy transition and achieve our climate goals.³ Since 2014, Minneapolis has been part of an innovative Clean Energy Partnership⁴ ("CEP") with Xcel Energy and CenterPoint Energy to jointly plan, implement, and track clean energy activities in pursuit of

¹ Per a response from Xcel Energy regarding an email inquiry from Minneapolis staff. Jan 15, 2021

² Minn. Rule 7843.0500, Subp. 3.

³ 2013 Minneapolis Climate Action Plan. <http://minneapolismn.gov/sustainability/climate>; Minneapolis Energy Pathways Study. Feb 24, 2014. <http://www2.minneapolismn.gov/energyfranchise/WCMS1P-113782>; Minneapolis 100% Renewable Resolution.

⁴ Minneapolis Clean Energy Partnership: <https://mplscleanenergypartnership.org>

Minneapolis's greenhouse gas reduction goals, adopted to align with those of the State of Minnesota.⁵

Minneapolis has extensively studied how to “provide the best, and most immediate, opportunity toward a clean, reliable and equitable future energy system.”^{6,7} Our studies guide our work, including Recommendations 2, 3, and 4 from the Pathways study, that led to our intervention in this proceeding:

2. Pursue additional, broader “Clean Energy Agreements” with utilities in which Minneapolis suspends its right to municipalize **in exchange for utility commitment to meet Minneapolis’s clean energy goals**. These agreements would include the formation of a **Clean Energy Coordinating Partnership**, made up of Minneapolis and utility leadership.
3. Use this Clean Energy Coordinating Partnership to **leverage statewide policies, Minneapolis municipal regulatory authority and community relationships**, and **utility expertise** and funding to increase the penetration rate of **efficiency and renewable energy, reliability, and equity of energy services**.
4. Continue to **engage in state energy policy decisions** that can improve Minneapolis’s ability to meet its goals. Policy decisions made at the **Public Utilities Commission**, the Minnesota Department of Commerce, and Minnesota Legislature have a direct impact on energy outcomes. Minneapolis should continue to dedicate attention and resources to legislative issues and **participate in regulatory proceedings...including utility resource planning**.

Our city government’s engagement in this docket is as a voice for the public interest.⁸ As a local government, we are familiar with the priorities and needs of our residents and businesses. We understand the need to balance priorities around health, affordability, and economic activity.

Our analysis indicates that focusing on equity in this process will promote the public good; we believe an equity lens will support a more environmentally friendly, reliable, affordable system.

Finally, Minneapolis wishes to acknowledge support from the Bloomberg Philanthropies American Cities Climate Challenge grant, including technical assistance from a number of nationally recognized energy non-profit leaders - National Resources Defense Council, Institute for Market Transformation, Rocky Mountain Institute, World Resources Institute, and GridLab.

On behalf of our residents and businesses, Minneapolis appreciates the opportunity to offer input on Xcel Energy’s Upper Midwest Integrated Resource Plan. Thank you for your consideration.

Sincerely,



Kim W. Havey, LEED AP, AICP
Director, Division of Sustainability
he/him/his

⁵ Minneapolis Climate Goals. <http://www2.minneapolismn.gov/sustainability/climate-action-goals/index.htm>

⁶ Minneapolis Energy Pathways: A Framework for Local Energy Action. Center for Energy and Environment, McGrann Shea Carnival Straughn & Lamb, Chartered, and CR Planning published Feb 2014.

<http://www2.minneapolismn.gov/www/groups/public/@citycoordinator/documents/webcontent/wcms1p-121587.pdf>

⁷ National Association of State Energy Officials. Minneapolis Renewable Energy Efficiency Workforce Assessment. May 2019. <https://naseo.org/data/sites/1/documents/publications/Minneapolis%20Workforce%20Development%20Assessment.pdf>

⁸ Local Government Engagement with Public Utility Commissions. Kelly Crandall and Jake Duncan, Institute for Market Transformation, under contract with National Association of Regulatory Utility Commissioners. <https://pubs.naruc.org/pub/41BBF1F5-ED6E-79C8-CC25-14E9721A6E8B>

Table of Contents

City Coordinator	1
I. INTRODUCTION	5
II. PRIORITIZING EQUITY IN UTILITY REGULATORY PROCESSES	5
A. <i>Regulatory Assistance Project on the “Public Good” in Utility Regulation</i>	5
B. <i>Regulators’ Role in an Equitable Energy Future</i>	5
C. <i>Equity and Environmental Justice in Resource Planning</i>	6
III. CITY OF MINNEAPOLIS RECOMMENDATIONS TO PROMOTE EQUITY AND THE PUBLIC GOOD	6
IV. COMMUNITY INPUT REGARDING XCEL’S IRP.....	8
A. <i>Northside Green Zone Task Force</i>	8
B. <i>Southside Green Zone Council</i>	9
C. The Energy Vision Advisory Committee	10
D. <i>Community Environmental Advisory Commission</i>	10
E. <i>American Indian Leaders</i>	10
F. Climate Justice and Community Organizations Input.....	12
V. MINNEAPOLIS ANALYSIS	12
1. Center equity in Xcel Energy’s resource decisions.....	13
1.a. Xcel should design for the equitable delivery of electricity services and programs for energy burdened customers in this IRP.	13
1.b. Xcel Energy should conduct a comprehensive planning process to advance a just and equitable clean energy transition as part of the next IRP planning cycle.....	14
1.c. Xcel should create new options to improve customer access to energy efficiency and renewable energy	14
1.d. Xcel Energy should be required to submit a plan by January 2022 to bring its workforce’s racial and gender diversity in line with the population it serves and Xcel’s stated goals.	15
2. The Commission should require Xcel Energy to expand its economic analysis to include retiring the King and Sherco 3 coal plants earlier than 2028 and 2030.	17
3. If new capacity is needed, clean energy portfolio approaches should be used in a competitive bidding process	17
The City of Minneapolis offers to support Xcel Energy’s efforts to address the transmission barriers that threaten further development of renewable energy or find alternative strategies.....	19
4. Xcel should be required to fully analyze black start options that do not require natural gas and share this analysis with stakeholders prior to the next RFP for new generation or IRP planning cycle. 19	
5. Xcel Energy should use a consistent societal discount rate to analyze both energy efficiency and demand response resources.....	20
6. The City of Minneapolis requests that the Commission require Xcel Energy to model demand side resources at a more granular level in the next IRP filing.	20
7. Assign value to equity impacts and non-energy benefits of DSM programs.....	21
8. Xcel Energy should model demand flexibility programs separately from traditional demand	

response programs in the next IRP filing.....	22
9. Include more local generation and distributed energy resources in the plan.....	22
10. Align distribution system planning and resource planning processes.....	23
11. Incorporate beneficial electrification with grid flexibility in the next IRP plan	24
12. Nuclear extension should be re-evaluated in the next IRP cycle.....	25
13. Xcel may wish to work with local governments to explore options to help them achieve community-wide renewable electricity goals	25
VI. CONCLUSION AND RECOMMENDATIONS.....	25

Comments of the City of Minneapolis

I. INTRODUCTION

Minneapolis appreciates this opportunity to comment on Xcel Energy’s Integrated Resource Plan (“IRP”). We also appreciate Xcel’s and other parties’ investments in updated modelling to better consider distributed energy and demand-side resources, a priority for Minneapolis and other local governments striving to improve resiliency and energy affordability.

Energy planning is about people—consumers, workers, businesses, and communities.⁹ This IRP is an exciting opportunity to not only address long-term energy affordability and environmental responsibility, but also to pursue a more equitable energy future that reduces gaps in health, housing, public safety, and economic disparities associated within our energy sector.

With the public good in mind, we center our comments in this IRP on racial equity to improve people’s lives and help address the disproportionate impacts that pollution and climate change associated with electricity generation have on low-income households and communities of color.

II. PRIORITIZING EQUITY IN UTILITY REGULATORY PROCESSES

Multiple energy thought leaders encourage regulators to increase equity and socioeconomic considerations in decision-making. Below are three recent examples that support our recommendation to center Xcel’s IRP analysis on increasing racial and economic equity.

A. *Regulatory Assistance Project on the “Public Good” in Utility Regulation*

The Regulatory Assistance Project (RAP) recommends that Public Utilities Commissions “take a fresh look at the public good” and offers the following guidance to utility regulators:

- Regulators can use their expertise to make a difference in the lives of the public
- Look at existing regulatory authority with “renewed vigor, and a willingness to consider relevant demographic data.”
- Recognize that the differing impacts of the pandemic underscores that “the public is not a monolith. It is comprised of diverse communities with different strengths and vulnerabilities.”
- Fully understanding the many people and groups that make up the ‘public’ is more important than ever for utility regulators as they make decisions affecting the public good.¹⁰

B. *Regulators’ Role in an Equitable Energy Future*

In the article, *Parting Thoughts by a Regulatory Leader on a Clean and Equitable Energy Future*, the recently retired chair of the Colorado PUC and NARUC’s Committee on Energy Resources and the Environment highlights opportunities for utility regulators to respond to the changing

⁹ Real People, Real Change: Strategies for just energy transitions. International Institute for Sustainable Development. Dec 2018. <https://www.iisd.org/system/files/publications/real-people-change-strategies-just-energy-transitions.pdf?q=sites/default/files/publications/real-people-change-strategies-just-energy-transitions.pdf>

¹⁰ David Farnsworth. Regulatory Assistance Project. Revisiting the Public Good, Part 1: A Better Understanding of “Public.” Oct. 2020. <https://www.raponline.org/blog/revisiting-the-public-good-part-1-a-better-understanding-of-public/>.

landscape of regulatory impacts. Commissioner Ackermann argues for broader thinking about the role of regulators in decision-making that favors the public good:¹¹

- It's time to begin envisioning what is required of electric utilities with a focus on 2030 and beyond. This requires updating regulatory principles and practices.
- Given the prospect of persistent economic distress, regulators should consider how to better integrate equity and clean energy.
- Regulatory action needs to occur in the next twelve to twenty-four months in order to hit 2030 climate targets.
- Commissions should consider integrating scenario planning into planning efforts, particularly concerning the pursuit of clean and equitable energy in the utility sector

C. *Equity and Environmental Justice in Resource Planning*

Rocky Mountain Institute ("RMI") highlights the value of considering equity and environmental justice as criteria for resource planning. For example, in California IRPs must now include:

- an analysis of the disadvantaged communities served,
- air quality impacts of potential portfolios, and
- resources planned for procurement in disadvantaged communities.¹²

III. CITY OF MINNEAPOLIS RECOMMENDATIONS TO PROMOTE EQUITY AND THE PUBLIC GOOD

Below is a summary of our recommendations for promoting equity within our energy infrastructure and the public good. Our supporting analysis is in Section V.

For the current 2020-2034 Upper Midwest Plan, Minneapolis respectfully recommends the following:

1. Center Equity in Xcel Energy Resource Decisions
 - a. Xcel Should Design for the Equitable Delivery of Electricity Services and Programs for Energy Burdened Customers in This IRP.
 - b. Xcel Energy Should Conduct a Comprehensive Planning Process to Advance a Just and Equitable Clean Energy Transition as Part of the Next IRP Planning Cycle.
 - c. Xcel Should Create New Options to Improve Customer Access to Energy Efficiency and Renewable Energy.
 - d. Xcel Should Be Required to Submit a Plan by January 2022 to Bring Its Workforce's Racial and Gender Diversity In Line With the Population It Serves and With Xcel's Stated Goals.
 - 1.d.1 Diversity in workforce should start with leadership
 - 1.d.2 Promote intentional workforce development and hiring efforts in Minneapolis
2. Accelerate Proposed Coal plant Retirements
 - a. The Commission should require Xcel to retire the King and Sherco 3 coal plants earlier than 2028 and 2030, consistent with the Citizens Utilities Board "Consumers Plan".

¹¹ Ackermann, Jeffrey. Parting Thoughts by a Regulatory Leader: Clean and Equitable Energy Future. Public Utilities Fortnightly. p. 34. Jan. 2021.

¹² Lauren Shwisberg, Mark Dyson, Grant Glazer, Carl Linvill, and Megan Anderson, How to Build Clean Energy Portfolios: A Practical Guide to Next-Generation Procurement Practices, RMI, 2021, p. 41. <http://www.rmi.org/insight/how-to-build-clean-energy-portfolios>.

3. If New Capacity is Needed, Clean Energy Portfolio Approaches Should Be Required as Part of a Competitive Bidding Process
 - a. The City of Minneapolis offers support to Xcel Energy to address the transmission barriers that threaten further development of renewable energy or find alternative strategies.
4. Xcel Should Fully Analyze Black Start Options That Don't Require Natural Gas and Share This Analysis with Stakeholders Prior to the Next RFP for New Generation or IRP Planning Cycle.
5. Xcel Energy Should Be Required to Use a Consistent Societal Discount Rate to Analyze Both Energy Efficiency and Demand Response Resources in This and Future IRPs.

Recommendations for the next Xcel Upper Midwest IRP:

6. Xcel Energy Should Be Required to Model Demand Side Resources at a More Granular Level in the Next IRP Filing.
7. Assign Value to Equity Impacts and Non-energy Benefits of DSM Programs.
8. Xcel Energy Should Model Demand Flexibility Programs Separately from Traditional Demand Response Programs in the Next IRP Filing.
9. Include More Local Generation and Distributed Energy Resources in the Plan.
 - a. The City of Minneapolis requests the Commission require Xcel Energy to work with customers with local distributed solar goals to develop programs that can support their community, with an emphasis on low-income customers.
 - b. The City of Minneapolis would like to work with Xcel Energy to develop new local renewable resources for municipal loads and our community through special contracts, expanded community solar offerings, and on-site solar incentives.
10. Align Integrated Distribution System Planning and Integrated Resource Planning Processes.
11. Consider Beneficial Electrification and Grid Flexibility as Decarbonization Strategies.
 - a. The City of Minneapolis will support Xcel Energy to ensure new electric loads through vehicle electrification or fuel switching can be designed to be grid assets.
 - b. Minneapolis requests the Commission ensure electrification plans are built into any future high electrification scenario.
12. The Monticello Nuclear Extension Should be Re-Evaluated.
13. Xcel may wish to work with local units of government to explore options to help them achieve community-wide renewable electricity goals.

IV. COMMUNITY INPUT REGARDING XCEL'S IRP

Maximizing the benefits from a clean energy future requires gathering input on resource planning from the people who will be most impacted.^{13,14} To this end, City of Minneapolis staff met with numerous community-based organizations, BIPOC (Black, Indigenous, and People of Color) community leaders, and City of Minneapolis advisory groups regarding Xcel Energy's IRP over the past several months. We also drew from the direction provided by our two Green Zones¹⁵ - place-based community solutions initiatives - to aid in developing the City's positions on various topics related to the IRP.

Community members emphasized that the time is now for governments and corporate leaders to center decision-making based on the needs of historically marginalized people. They asked that we recognize their recommendations based on their lived experience as being valid.

Below are summaries of direction and feedback from our community members that offer context for the City's recommendations.

A. *Northside Green Zone Task Force*¹⁶

The *Minneapolis Northside Green Zone 5-Year Work Plan* was adopted in March 2020¹⁷ and includes the following priorities that relate to this IRP:

- **Improve air quality, livability, and pollinator habitat** through vegetation, clean energy, and energy efficiency.
- **Create career pathways to renewable energy, energy efficiency and construction.** From internships to apprenticeships to journeymen to management and business ownership, model pathways programs after existing efforts in Public Works, Police and Fire.
- **Advance opportunities in the Northern Green Zone as City leadership engages with our energy providers.** See the Clean Energy Partnership work plan, *WD.1: Improve Equitable Access to Clean Energy Jobs*.
- **Work with Xcel Energy to identify ways to obtain training and improve access to high quality local jobs for Northern Green Zone residents.** See Xcel's vision of diversity and corporate diversity policy, including a Council for Diversity And Inclusion.
- **Carbon Zero Homes / Sustainable Housing / Healthy housing.** Create a Sustainable Building Policy for all new housing development that includes requirements for solar panels or other renewable energy options and a ban on the use of harmful building materials.

¹³ Best Practices in Electric Utility Integrated Resource Planning. Regulatory Assistance Project. 2013.

¹⁴ Real People, Real Change: Strategies for just energy transitions. International Institute for Sustainable Development. Dec 2018. <https://www.iisd.org/system/files/publications/real-people-change-strategies-just-energy-transitions.pdf?q=sites/default/files/publications/real-people-change-strategies-just-energy-transitions.pdf>

¹⁵ City of Minneapolis Green Zones initiative: <http://www2.minneapolismn.gov/sustainability/policies/green-zones>

¹⁶ Resolution establishing the Northside Green Zone Task Force. March 5, 2019.

https://lms.minneapolismn.gov/Download/MetaData/11391/2019-00258%20Resl%20050_Id_11391.pdf

¹⁷ City of Minneapolis Northside Green Zone 5-Year Work Plan. Mar. 2020.

<http://www2.minneapolismn.gov/www/groups/public/@citycoordinator/documents/webcontent/wcmsp-226440.pdf>.

B. Southside Green Zone Council¹⁸

The Minneapolis Southside Green Zone's (SSGZ) *Achieving Climate and Environmental Justice in the Southside Green Zone: Recommendations for City of Minneapolis Work Plan Action (2020-2025)*¹⁹ was adopted in December 2019 and includes priorities that relate to this IRP. Issues identified in the SSGZ Work Plan include:

- The cost of electric and heating utility bills is too high
- Energy and climate resources/planning are not for our housing needs and could displace us
- Displacement and green gentrification have been shown to be the path of many cities moving toward sustainability planning. The SSGZ Council feels strongly that Minneapolis must do things differently and understand that these are integral pillars to this being a climate and environmental *justice* plan.

"A suite of solutions is proposed that are intended to work together to address this historic legacy of environmental racism in the city and transition hotspot pollution areas into healthy, regenerative spaces for those that live, work, play and pray there."

Energy solutions the SSGZ recommends the City of Minneapolis pursue include:

- **Advocate for Inclusive Financing for Energy Measures and ensure accessed by SSGZ Residents/Small Businesses.** Many energy improvements have high upfront costs (refrigerator, insulation, heat pumps, solar, etc.) which are a barrier to adoption. The City should ensure implementation of the pilot CenterPoint Energy committed to doing and expand inclusive financing to electric utilities.
- **Ensure Clean Energy Partnership (CEP) 2021-2023 Workplan in 2020 is Accountable to SSGZ.** The Clean Energy Partnership is a City partnership with CenterPoint and Xcel Energy. The next workplan for the timeframe 2021-2023, will be developed in 2020. When designing and implementing the Clean Energy Partnership workplan, the City, EVAC and Sustainability Office must show benefit to low-income residents and specifically the SSGZ. Clean Energy Partnership programs targeted in SSGZ must be coupled with priorities on Green Economy & Anti-Displacement and Self-Determination & Accountability (see full SSGZ workplan). Reports should break down benefits to Green Zones, housing affordability, and health benefits by income, renter/homeowner, race.
- **Integrate Emergency Preparedness, Climate Change and Health Impacts into Energy Planning and Programs for SSGZ.** Low-income communities of color in the SSGZ are on the frontlines of climate change in Minneapolis. Energy planning should target emergency preparedness (solar, efficiency, onsite renewables for heating and cooling, battery storage) for households and critical community spaces (community centers, nonprofits, libraries, schools, pharmacies, clinics, etc.).
- **Tie Energy Projects Procured for City's Renewable Energy Goals to Prioritizing Community Ownership Models and Local Hiring.** The city has strong goals for purchasing to meet its renewable energy goals. These energy projects should prioritize community-owned green business and clean energy projects that incorporate job opportunities (solar, weatherization, energy efficiency) for residents in the Green Zones.

¹⁸ Resolution establishing the Southside Green Zone Council. November 10, 2018.

https://iims.minneapolismn.gov/Download/MetaData/11777/2019-00352%20Resl%20084_Id_11777.pdf

¹⁹ SouthSide Green Zone Work Plan. Dec 16, 2019.

<http://www2.minneapolismn.gov/www/groups/public/@citycoordinator/documents/webcontent/wcmssp-222057.pdf>

C. The Energy Vision Advisory Committee²⁰

The Energy Vision Advisory Committee (EVAC) advises the Clean Energy Partnership (Minneapolis, Xcel, and CenterPoint) to inform energy planning, funding, and resource deployment decisions.

EVAC's most recent recommendations are shaped by the challenges of the pandemic and include:²¹

- **Use an equitable and just process:** Ensure all relief and recovery efforts are guided by accountable input from communities most impacted, particularly BIPOC communities and low-income communities.
- **Provide economic relief for high energy burdens:** Ensure that vulnerable communities, particularly BIPOC and low-income communities, are held harmless for the unsustainable energy burdens that have accrued as a result of COVID-19 and recent uprisings. Ensure that at least [60%] of such relief within Minneapolis accrues to BIPOC residents and BIPOC-owned businesses.
- **Enable clean, resilient, and just rebuilding:** Ensure that at least [60%] of recovery and rebuilding investments benefit BIPOC residents and BIPOC-owned businesses and that recovery and rebuilding is done in a way that creates resilience to future challenges, reduces local air pollution and health risks, and fights climate change.
- **Create a racially just clean energy workforce:** Ensure that at least [60%] of clean energy job creation in Minneapolis creates meaningful and long-term career opportunities for BIPOC residents.

D. Community Environmental Advisory Commission

The Community Environmental Advisory Commission is especially concerned about new gas plants, GHG emissions, and meeting climate goals. In an Oct. 21, 2020 letter to City of Minneapolis elected officials, the Commission asked that “our City bring the following comments forward to the Public Utilities Commission regarding Xcel’s Integrated Resource Plan.” (The full letter is included as Attachment A.)

- **Determine the need for the proposed Becker gas plant to** avoid the use of fracked gas and avoid stranded assets.
- **Prioritize the use of renewables** for generation and to meet greenhouse gas reduction goals.
- **Consider the use of biogas** sourced from methane produced by livestock manure, food waste, landfills, and wastewater treatment plants instead of natural gas when a switch to renewable sources is not feasible in the short term.
- **Xcel should offer an inclusive financing program** as part of its resource planning to enable renters and low-income homeowners to make energy efficiency improvements in Minneapolis and throughout the state.

E. American Indian Leaders

The following input was offered to City staff during a January 2021 meeting with American Indian

²⁰ Minneapolis Clean Energy Partnership. About the Partnership. <https://mplscleanenergypartnership.org/about/>.

²¹ EVAC Energy Relief & Recovery Recommendations. <https://mplscleanenergypartnership.org/wp-content/uploads/2021/02/2021-EVAC-Energy-Relief-and-Recovery-Recommendations.pdf>

community leaders to inform the City's 100 percent renewable electricity vision.²² Minneapolis highlights feedback relevant to Xcel's resource planning:

- **Ensuring access to renewable energy is as important as accelerating renewable energy sources.** Local renewables are important for residents to have connection to the earth and the environment.
 - Our community of urban American Indians is disproportionately energy-burdened and does not have the wealth to own houses and/or own the wealth to meaningfully participate in renewable energy. We are disproportionately renters and are housing-cost burdened, thus we encourage renter-specific solutions for Native communities that increase access to both renewable and energy efficiency programs.
- **We want the Public Utilities Commission, Xcel Energy and the City of Minneapolis to figure out how to weave incentives for energy efficiency and renewables for tenants.** This will support customers participating in affordable housing and Tenant Opportunity to Purchase Assistance (TOPA). We encourage co-operatives and resident-owned opportunity models.
- **We're interested in opportunities for community ownership models of renewable infrastructure.** This can support homeownership and build wealth.
- **Energy storage is important to be resilient and to not waste energy produced.** Energy storage solutions should be piloted and supported in vulnerable communities.
 - In Little Earth of United Tribes in South Minneapolis, the entire community grid goes down during power outages and energy storage is a big need to address the race against the time when there are power outages because we have elders who are relying on oxygen and other health related machines.
- **The State of Minnesota needs to meaningfully and thoughtfully, in partnership with Tribal Governments, start addressing nuclear waste.** We have yet to, as a State, start a dialogue and create pathways to clean up nuclear waste. In the last few decades, Native American reservations have become nuclear waste dump sites, and disproportionately face health and environmental consequences for poor regulation of uranium mining. We want more energy from solar and wind and retiring nuclear plants as battery energy solutions improve.
- **Indigenous people make-up about 1% of the State's population, but 16% of the homeless population.** Energy cost- burden is precursor to homelessness. Inability to pay a high energy bill could lead to destabilizing a family's housing situation if they fall behind in paying rent or mortgage.

In short, the Native American Indian Community wants clean water, air, and access to clean energy so we can raise healthy families and live in healthy communities.²³

²² City of Minneapolis Sustainability Division staff met with American Indian community leaders in Jan. 2021 to discuss the Minneapolis 100% Renewable Electricity resolution and inform the development of our 100% Blueprint. Attendees included Margarita Ortega, Howasta Means, Binisekwe Means, Lance LaMont, and Robert Blake.

²³ The American Indian leaders added this final note specific to this IRP after reviewing this section for accuracy. Feb 3, 2021.

F. Climate Justice and Community Organizations Input

Since this IRP includes decisions that will define all Xcel customers' energy futures for decades to come, Minneapolis worked in partnership with local²⁴ and national partners²⁵ to discuss priorities regarding Xcel's IRP from environmental justice and community leaders. These positions do not represent the positions of the City of Minneapolis but rather what staff heard during multiple meetings:

- **No new gas plants;** instead consider meeting any need with distributed energy resources like energy efficiency, solar, demand side management, battery storage; this will avoid stranded gas plants that customers pay for.
- **Include more significant levels of local solar production** with programs to support it; small scale solar creates more local jobs and local ownership
- **Close Xcel's two remaining Minnesota coal plants** earlier than planned.
- **Intentionally plan opportunities for workforce training and career pathways in BIPOC communities.**
- **Xcel should offer an inclusive financing program to greatly help low-income people do [energy] efficiency and access rebates.** It also allows renters to pay the cost during their occupancy when they benefit from the improvement.
- **The PUC should consider how the IRP will improve equitable outcomes** to avoid creating greater economic disparities.
- **Increase the amount of renewable energy in the grid mix faster than proposed.**
- **Recognize that the IRP can reduce energy burden for low-income customers** who pay a high percentage of income for energy costs; address needs in low-income housing in poorly insulated places. This will improve housing security and increase equity.
- **[The Commission, Xcel and the City of Minneapolis have a role to] ensure BIPOC communities share equitably in the energy transition.**
- **Xcel should close the waste-to-energy facility in Minneapolis, Hennepin Energy Recovery Center,** to reduce local pollution impacts that nearby residents experience.
- **The Monticello nuclear plant license should not be extended by 10 years.** The land we reside on and develop is stolen from Indigenous people. We can respect Indigenous people and the land they share with us by being responsible stewards when making decisions that impact the environment. Nuclear power is expensive and leads to radioactive waste that we don't have a way to store permanently.

V. MINNEAPOLIS ANALYSIS

The City of Minneapolis developed recommendations for Xcel's IRP based on:

- Community input;
- Collaboration with non-profit energy organizations, including National Resources Defense Council, Institute for Market Transformation, Rocky Mountain Institute, World Resources Institute, and GridLab;
- Existing state laws and policies;
- Existing city regulations and policies; and
- Staff analysis

²⁴ Center for Earth Energy and Democracy, Citizens Utility Board-MN, Community Power, Sierra Club, and City of Saint Paul

²⁵ Bloomberg Philanthropies American Cities Climate Challenge partners, including National Resources Defense Council Action Fund, Institute for Market Transformation, Rocky Mountain Institute, and World Resources Institute. GridLab also contributed..

Our analysis and recommendations follow.

1. Center equity in Xcel Energy's resource decisions

Minneapolis applied an equity lens throughout our evaluation of Xcel Energy's plan. An equitable resource plan for public infrastructure is consistent with the interests of under-resourced and marginalized people. It promotes energy affordability, reliability, environmental responsibility, public health, and socioeconomic opportunities for the benefit of a broader group of people. An equity-centered IRP will complement the standard economic metrics that regulators historically evaluate while reversing existing disparities.

Inequality in the U.S.²⁶ and especially in Minnesota²⁷ is persistent and increasing. Inequitable conditions across essential interconnected systems contribute to socioeconomic hardship. Examples include access to energy services, healthcare, financing, and transportation. Reducing these systemic inequities are in the public interest, and the IRP is an opportunity to better serve energy-burdened customers.

1.a. Xcel should design for the equitable delivery of electricity services and programs for energy burdened customers in this IRP.

Minneapolis appreciates that Xcel Energy included diversity, equity, and inclusion (DEI) as an explicit topic within this IRP, with Attachment C to the June 30, 2020 supplemental filing.²⁸ This provides an important opportunity to consider how these shared DEI priorities can provide more equitable access to the benefits of the clean energy economy.

Xcel Energy defines equity as "systems and processes that create a workplace free of bias, where all people are treated fairly and as individuals."²⁹

This framing focuses on workforce diversity, which is valuable, but does not acknowledge the equitable design and delivery of programs and services for energy burdened customers that are relevant to this plan. Designing for equity in energy programs and services for energy-burdened customers will improve socioeconomic outcomes for the people that Xcel serves.

When we talk to community members about energy policy, programs, and workforce opportunities, they often prioritize efficiency over other resources. But societal inequities make it hard for some customers to access clean energy programs, technologies, and jobs. The energy burden among low-income households is more than three times higher than for the average household, as they pay

²⁶ U.S. Census Bureau American Community Survey. U.S. Median Household Income 2019.

<https://data.census.gov/cedsci/table?q=US%20household%20income%202019&tid=ACSST1Y2019.S1903&hidePreview=false>

²⁷ U.S. Census Bureau American Community Survey. Minnesota Median Household Income 2019.

https://data.census.gov/cedsci/table?t=Income%20and%20Poverty&g=0400000US27_310M400US33460&tid=ACSST1Y2018.S1903&hidePreview=false

²⁸ Docket 19-368. 2020-2034 Xcel Energy Upper Midwest Resource Plan Supplement Attachment C – Inclusion, Diversity, and Equity. Jun 30, 2020.

²⁹ City of Minneapolis Information Request 1.2 response, dated September 30, 2020

approximately 8 percent of their total gross income on energy bills.³⁰ Low-income households – along with renters and communities of color – pay more for utilities per square foot than the average household, according to national research that shows they tend to live in less energy efficient housing.³¹ Often the upfront costs of energy efficiency improvements that could reduce energy burden for low-income households are a barrier to participating.

Low-income households are also more likely to live in rental properties, creating the issue of a split incentive with landlords responsible for housing improvements having incentive to supply these at the least cost (not the highest efficiency) because they do not pay the energy bills. Tenants, who have an interest in efficiency because they pay the energy bills, don't control property. This is a racial justice issue in Minnesota, where Black homeownership rates are among the lowest in the country.³²

The American Council for an Energy Efficient Economy (ACEEE) recognizes equity as a priority and launched the 'Leading with Equity Initiative' in January 2021:

Our ... research on energy burdens—the percent of income spent on energy—shows that high burdens fall disproportionately on marginalized communities, particularly in areas that have been subjected to other systemic racial and environmental injustices. Within the energy industry itself, Black, Latino, Native American, and other historically marginalized groups represent a small fraction of workers and decision makers. This perpetuates the cycle of exclusion, underinvestment, and inequitable clean energy policies and program outcomes.³³

An equitable energy transition must include energy efficiency programs that are accessible to low income households and renters who contribute to these programs. Expanding access to clean energy programs for more customers can reduce system costs associated with capacity and generation needs under an equitable resource plan.

1.b. Xcel Energy should conduct a comprehensive planning process to advance a just and equitable clean energy transition as part of the next IRP planning cycle.

Unless there is an intentional proactive strategy to address equity in the energy workforce, marginalized residents will not have access to economic opportunities associated with the transition to a low-carbon economy. Applying distributive and procedural justice, the clean energy transition can reverse existing inequalities.

1.c. Xcel should create new options to improve customer access to energy efficiency and renewable energy

³⁰ *Low-Income Community Energy Solutions*, U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy: <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>

³¹ *Lifting the High Energy Burden in America's Largest Cities*, American Council for an Energy-Efficient Economy, April 2016: <https://www.energyefficiencyforall.org/resources/lifting-the-high-energy-burden-in-americas-largest-cities-how-energy/>

³² *Divided Decade - How the Housing Market Changed in the Last 10 Years*: <https://www.apmresearchlab.org/housingcost>

³³ ACEEE Launches Leading with Equity Initiative to Better Measure Progress on Energy Equity. Jan. 28, 2021 <https://www.aceee.org/blog-post/2021/01/aceee-launches-leading-equity-initiative-better-measure-progress-energy-equity>

Nationwide low- to moderate-income households earning less than \$40,000 per year represent 40 percent of the population, but account for less than 5 percent of solar installations.³⁴ In addition to the financial challenges that limit access to solar adoption, the split incentive issue also applies here, as home ownership is a key driver for differences in solar adoption.

Fully funded low-income programs or new programs that don't require taking on individual debt are necessary to help more people benefit from energy efficiency and renewables. A tariffed on-bill program (inclusive financing) is an example of a program model that has successfully helped renters and low- to moderate-income homeowners make energy efficiency improvements.³⁵ This approach is widely supported by Minneapolis community members.

1.d. Xcel Energy should be required to submit a plan by January 2022 to bring its workforce's racial and gender diversity in line with the population it serves and Xcel's stated goals.

Given the anticipated growth in clean energy jobs in Minnesota,³⁶ future efforts by Xcel Energy to diversify its workforce are more likely to be successful and take less time to accomplish. Xcel is committed to "having a diverse workforce that reflects the communities we serve"³⁷ but there are significant gaps between the demographics of Minnesota's population and Xcel's Minnesota workforce, even when compared with the available workforce for utility jobs in the state (see Table 1 below).

In Minnesota, people of color (those who identify as a race other than white alone) make up approximately 22 percent of the total population, but just 7.2 percent of Xcel Energy's workforce in the state. From 2015 to 2018, the increase in people of color in Xcel Energy's Minnesota workforce was less than a half a percentage point (from 6.72 percent to 7.18 percent).³⁸

In information request responses, Xcel Energy compared its workforce demographics to statewide demographics, but according to its stated commitment should set workforce goals and comparisons to the demographics of its service area, which is largely the Twin Cities area where there is a higher percentage of people of color (closer to 28 percent).³⁹

³⁴ Bridging the Solar Income Gap, GW Solar Institute: <https://solar.gwu.edu/bridging-solar-income-gap>

³⁵ The Minneapolis Clean Energy Partnership Board. 2019-2021 Work Plan Approved Nov. 8, 2018. Work Plan Activity IF.1: Improve Access to Energy Efficiency by Providing Inclusive Financing. https://mplscleanenergypartnership.org/wp-content/uploads/2018/11/CEP-2019-2021-Work-Plan_FINAL-APPROVED.pdf.

³⁶ Before COVID-19, clean energy jobs were growing 2.5 times faster than the overall economy, according to the Clean Energy Economy MN's Clean Jobs Midwest 2020 report: <https://www.cleanjobsmidwest.com/state/minnesota>

³⁷ Xcel Energy – Company Diversity: https://www.xcelenergy.com/community/economic_sustainability/company_diversity

³⁸ Xcel Energy MN Workforce Demographics based on employee voluntary self-identification, Minneapolis IR 1.2 response.

³⁹ Persons of Color as a percent of total population, Twin Cities 7-county region, Minnesota: <https://www.mncompass.org/demographics/race#7-5081-g>

Table 1: Comparison of Minnesota Population, Total Available Workforce, and Xcel Energy MN Workforce Demographics

	White	Female	Minority	Black	Hispanic	Asian, P. Islander	American Indian	Two or More
Population *	78.1%	50.2%	21.9%	7.0%	5.6%	5.1%	1.4%	2.6%
Total Available Workforce **	91%	29.4%	9.0%	2.2%	2.1%	3.1%	0.7%	1.0%
Xcel Energy MN Workforce ***	92.8%	23.01%	7.20%	2.09%	1.95%	1.93%	0.32%	0.90%

* - "Population" is provided by the US Census Bureau and is based on 2019 estimates for the state of Minnesota.

** - "Total Workforce Availability" is provided by the US Census Bureau and is based on 2010 Census Codes for jobs specific to the Xcel Energy workforce located in the state of Minnesota.

*** - Includes full and part time employees, temporary and craft workers. Data as of 09/30/2020

Successful companies increasingly value a diverse workforce that reflects the customers they serve. This is important for the employment opportunities it provides and also the ways in which a more representative workforce will influence the culture and perspective that employees bring to the work.

1.d.1 Start at the top with diverse leadership

It's important that diversity exists at all levels of the workforce, including management. This is important not only to model representation from the top, but also to benefit from diversity at the executive level where some of the most important decisions are made. Currently Xcel Energy's management in Minnesota is disproportionately male and white (see Table 2 below), compared to the demographics of the company's overall workforce.

Table 2: Distribution of Total MN Workforce and MN Management by Gender and Ethnicity

	White	Female	Minority	Black	Hispanic	Asian, P. Islander	American Indian	Two or More
Xcel Energy MN Workforce *	92.82%	19.98%	7.18%	2.15%	1.78%	1.99%	0.34%	0.92%
[Xcel] MN Management Workforce **	93.87%	19.73%	6.13%	1.2%	2.27%	1.33%	0.27%	1.07%

*Includes full and part time employees, temporary and craft workers for 2018. Excludes contract workers.

**Management includes: Executive Officer, VP, Director, Manager, Supervisor, and Team Lead for 2018

1.d.2 Promote intentional workforce development and hiring efforts in Minneapolis

Despite being the headquarters city for Xcel Energy, less than 6 percent of the company's Minnesota-based workforce lives in Minneapolis.⁴⁰ There is optimism that jobs in energy efficiency and renewable energy will grow in the coming years.⁴¹ Employers cite challenges in finding and recruiting qualified workers based on lack of experience, training, or technical skills.⁴² Addressing these challenges involves

⁴⁰ City of Minneapolis Information Request 1.2 response, dated September 30, 2020

⁴¹ 2020 Clean Jobs Midwest - Minnesota Fact Sheet:

https://www.cleanenergyeconomymn.org/sites/default/files/minnesota_execsum_cjm2020.pdf

⁴² Energy Utility Diversity Stakeholder Group Report - January 15, 2020:

addressing structural barriers to a more diverse workforce, such as access to training programs.

Electricity and related industries employ fewer women and minorities than the national average, but have a higher proportion of veterans. Xcel could use some of the same strategies and incentives they employ for veteran recruitment and hiring to improve gender, racial, and geographic representation in its workforce. Over the last year, Minneapolis has made efforts to work with Xcel through the Clean Energy Partnership to apply effective strategies developed in other industries, such as IT and engineering, to careers in energy.

2. The Commission should require Xcel Energy to expand its economic analysis to include retiring the King and Sherco 3 coal plants earlier than 2028 and 2030.

Minneapolis commends Xcel Energy's plans to retire coal plants earlier than the last IRP. However, Xcel's analysis did not consider retiring earlier than 2028 for King and 2030 for Sherco 3. Based on the "Consumers Plan" scenario modeled by Vibrant Clean Energy as an alternative to Xcel's "Preferred Plan", retiring all coal in 2025 would yield favorable economic outcomes without the need for new gas plants.^{43,44} The longer these coal plants remain online past their economic life, the more customers overpay and the more they negatively impact public health. Along with contributing to climate change, pollution from coal plants is linked to asthma attacks, heart problems, and other diseases.⁴⁵

3. If new capacity is needed, clean energy portfolio approaches should be used in a competitive bidding process

Best practices require that if new capacity is needed, Xcel should pursue an all-source procurement,^{46,47} a unified resource acquisition process that allows a full range of potential resources to compete on equal footing, instead of a gas only RFP for new capacity. Today, combinations of clean energy portfolios (CEP) can deliver all grid services typically provided by fossil power plants at lower costs and with less risk.⁴⁸ If Xcel Energy retires coal plants and builds new natural gas, there is a high risk that Xcel is replacing one stranded asset with another.

<https://www.leg.mn.gov/docs/2020/mandated/200077.pdf>

⁴³ Vibrant Clean Energy. A "Consumer Plan" for Clean Energy Across NSPM by 2035.

<https://drive.google.com/file/d/1gjWamGcvVCJTgkHysBlqXSiz8wyX5hSG/view>

⁴⁴ After analysis showed that new fossil fuel plants were not needed to operate the system, modeling did not allow for the addition of new coal or gas generation in Minnesota to protect future consumers from paying for stranded assets.

⁴⁵ <https://coal.sierraclub.org/the-problem/how-coal-damages-your-health>

⁴⁶ Making The Most Of The Power Plant Market: Best Practices For All-Source Electric Generation Procurement. Energy Innovation Policy and Technology. Apr 2020. <https://energyinnovation.org/wp-content/uploads/2020/04/All-Source-Utility-Electricity-Generation-Procurement-Best-Practices.pdf>

⁴⁷ Lauren Shwisberg, Mark Dyson, Grant Glazer, Carl Linvill, and Megan Anderson, How to Build Clean Energy Portfolios: A Practical Guide to Next-Generation Procurement Practices, RMI, 2021. <http://www.rmi.org/insight/how-to-build-clean-energy-portfolios>.

⁴⁸ Dyson, Mark. The decade of clean energy: Trends, opportunities, and risks that will shape the 2020s. Rocky Mountain Institute presentation to the Minnesota Legislative Energy Commission. Nov 13, 2020. <https://www.leg.mn/2020/Dyson%20-%20MN%20LEC%2020201113.pptx>

An October 2019 report from the Rocky Mountain Institute (RMI) found that new clean energy portfolios have not only declined in cost by 80 percent since 2010, but are “now lower-cost on a levelized basis than new gas plants” and projected to “undercut operating costs of existing gas plants” within 10-20 years.⁴⁹ RMI analyzed the economics of every proposed gas-fired power plant in the United States and found over 90 percent of proposed gas-fired capacity would be more expensive than an equivalent CEP. The risk of new gas becoming stranded is widely recognized. Utilities in Arizona,⁵⁰ Michigan,⁵¹ Oregon,⁵² New Mexico,⁵³ and Utah⁵⁴ plan to replace retiring coal fleets with portfolios of renewable energy, storage, energy efficiency, and demand flexibility to modernize infrastructure and improve grid resiliency. This reduces the risk of stranded assets, decreases pollution, and saves customers money.

Further, we encourage all-source procurements to run candidate resources through a portfolio model in order to understand their capacity value as compared to a single-source solution. It should also include a robust assessment of energy efficiency and demand response programs to identify the most cost-effective projects.

The Commission should consider a review of bidding procedures to revisit rules for fairness and objectivity.⁵⁵ The Commission should ensure that utility ownership of generation is not at odds with competitive bidding, and that clear codes of conduct are in place to ensure that all bidders have symmetric data and information.

The Commission has the opportunity to codify the CEP approach by making all-source procurement a requirement. The requirement is in place in Colorado⁵⁶ and Washington.⁵⁷

Xcel Energy Colorado successfully ran an all-source procurement and demonstrated the market can provide cost competitive responses to RFPs.⁵⁸ All-source procurement can also improve equity outcomes and support local workforce development.

⁴⁹ Dyson, Mark, Grant Glazer, and Charles Teplin. The Growing Market for Clean Energy Portfolios + Prospects for Gas Pipelines in the Era of Clean Energy. 2019. <https://rmi.org/insight/clean-energy-portfolios-pipelines-and-plants>

⁵⁰ Arizona New-Build Gas Moratorium to Continue. Feb 11, 2019. <https://www.greentechmedia.com/articles/read/arizona-new-build-gas-moratorium-to-continue#gs.culf5w>

⁵¹ Lovins, Amory. Reinventing Fire. 2014. <https://rmi.org/insight/reinventing-fire/>

⁵² Integrated Resource Planning: Leading the way to Oregon’s clean energy future. 2019. <https://www.portlandgeneral.com/our-company/energy-strategy/resource-planning/integrated-resource-planning>

⁵³ NM Docket 19-00018-UT. New Mexico approves 100% renewables + storage replacement for San Juan coal capacity. July 30, 2020. <https://www.utilitydive.com/news/new-mexico-approves-100-renewable-replacement-for-san-juan-coal-capacity/582557/>

⁵⁴ Walton, Robert. PacifiCorp to add 7 GW renewables + storage, close 20 of 24 coal plants. Oct 3, 2019. <https://www.utilitydive.com/news/pacificcorp-to-add-7-gw-renewables-storage-close-20-of-24-coal-plants/564299/>

⁵⁵ *Id.* p.3

⁵⁶ <https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=8835&fileName=4%20CCR%20723-3>

⁵⁷ <https://www.utc.wa.gov/docs/Pages/DocketLookup.aspx?FilingID=190837>

⁵⁸ Making The Most Of The Power Plant Market: Best Practices For All-source Electric Generation Procurement. Energy Innovation Policy and Technology. Apr 2020. <https://energyinnovation.org/wp-content/uploads/2020/04/All-Source-Utility-Electricity-Generation-Procurement-Best-Practices.pdf>

The City of Minneapolis offers to support Xcel Energy's efforts to address the transmission barriers that threaten further development of renewable energy or find alternative strategies.

Minneapolis adopted a goal to reach 100% renewable electricity communitywide by 2030 and 10 percent local generation by 2025.⁵⁹ We value the commitment by Xcel Energy through the Clean Energy Partnership to work with us to achieve this and other clean energy goals.⁶⁰ The renewable grid mix in the latest IRP targets 58 percent renewable energy by 2030. For renewables to be integrated at very high penetrations, transmission barriers should be addressed.

We understand that barriers to transmission planning exist at the regional level and require system-wide coordination. We offer to support Xcel Energy in requesting MISO assistance with addressing near-term transmission planning. For example, we are willing to support Xcel in seeking transmission planning that accounts for customer demand for renewable energy.

4. Xcel should be required to fully analyze black start options that do not require natural gas and share this analysis with stakeholders prior to the next RFP for new generation or IRP planning cycle.

Xcel Energy's analysis of options for black start-critical resources in light of Sherco retirements has been underway since the 2016-2030 resource plan.⁶¹ Batteries have been shown to provide black start capabilities for natural gas plants,⁶² but we also encourage Xcel to consider existing research on the ability of storage to provide black start capabilities without natural gas plants. Examples include NREL's recent research on black start services from inverter-based resources⁶³ and the National Grid study on the use of distributed resources, including batteries, to provide black start.⁶⁴

Finally, Xcel Energy should also evaluate entering agreements with neighboring utilities to share black start resources given the low frequency of black start events. Xcel should make this analysis available to stakeholders early in the next IRP process and provide details on how battery-based black start services impact emissions along with a cost/benefit analysis that includes the ability of battery-based black start resources to provide additional grid services.

⁵⁹ Minneapolis renewable goals. <https://www.minneapolismn.gov/government/programs-initiatives/100-percent-renewable-electricity/>

⁶⁰ Minneapolis Clean Energy Partnership. <https://mplscleanenergypartnership.org/about/>

⁶¹ 15-21 Xcel 2016-2030 Upper Midwest Resource Plan. <https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPop&documentId=%7bE27E8B2D-4D81-46B4-B5DE-1B3661850243%7d&documentTitle=20161-117855-02>

⁶² Imperial Irrigation District (IID)'s 33MW/20MWh lithium-ion battery storage system successfully provided black start [in a 2017 demonstration](#) and Entergy's 7.4 MW / 7.4 MWh lithium-ion battery storage also acted as a black start in 2020. Additional batteries have been deployed to act as black start resources including projects by [Calpine](#) and [FlexGen](#).

⁶³ NREL Blackstart of Power Grids with InverterBased Resources. Aug 2020. <https://www.nrel.gov/docs/fy20osti/75327.pdf>.

⁶⁴ Distributed ReStart. <https://www.nationalgrideso.com/document/159801/download>

5. Xcel Energy should use a consistent societal discount rate to analyze both energy efficiency and demand response resources.

The data underlying the EE and DR bundles were developed using different discount rates, creating an unequal comparison between EE and DR. Xcel Energy modeled energy efficiency using the results from the Minnesota Department of Commerce’s study of statewide energy efficiency potential for 2020–2029,⁶⁵ which utilizes a societal discount rate of 2.55 percent according to the Department’s recommendations. This is in line with many industry experts who argue that demand side management programs should use a societal discount rate as opposed to the capital market because customers are the source of capital, and because of their nature as small projects with little financial risk.^{66,67,68,69}

But Xcel’s DR bundles were developed using a different discount rate. The modelling assumptions used to determine the cost effectiveness of DR programs,⁷⁰ a discount rate of 6.44 percent was used, similar to the Weighted Average Cost of Capital of 6.47 percent used in the IRP. This difference in discount rates for EE and DR creates an inherent difference in how energy efficiency and demand response are valued in the model, perhaps underutilizing DR as a resource.

6. The City of Minneapolis requests that the Commission require Xcel Energy to model demand side resources at a more granular level in the next IRP filing.

The City recognizes that Xcel Energy is using challenging new modeling techniques and acknowledges Xcel Energy’s efforts to model demand side management as a resource. However, the bundling process used by Xcel Energy limits the granularity with which energy efficiency (EE) and demand response (DR) can participate in the model. Fully representing the benefits and costs of each resource in the model is crucial to creating realistic plans that minimize customer costs and risks while maintaining reliability.

Xcel Energy’s method of creating “portfolios of EE or DR measures at an assumed average cost”⁷¹ eliminates a model’s ability to select individual programs that have a specific load impact that is highly valued by the model. For instance, a lighting program and a cooling efficiency program may be contained in the same bundle according to their assumed average cost. However, if Xcel Energy used EnCompass to model the DSM resources at a more granular level, the model may uncover different levels of value between the programs according to their load impact and the predicted needs of the electric system. For example, cooling programs may be selected at higher rates than lighting programs due to their peak demand reduction impact if there were sufficient granularity in the DSM modeling approach.

To fully value energy efficiency and demand response and fairly represent them as resources in the

⁶⁵ <https://mn.gov/commerce-stat/pdfs/mn-energy-efficiency-potential-study.pdf>

⁶⁶ <https://media.rff.org/documents/RFF-Rpt-Burtraw-Duncan-2.pdf>

⁶⁷ <https://www.raponline.org/wp-content/uploads/2016/05/rap-lazarcolburn-layercakepaper-2013-sept-09.pdf>

⁶⁸ https://www.nationalenergyscreeningproject.org/wp-content/uploads/2017/05/NSPM_May-2017_final.pdf

⁶⁹ https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DERs_08-24-2020.pdf

⁷⁰Xcel Supplement. The Potential for Load Flexibility in Xcel Energy’s Northern States Power Service Territory. .

<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId=%7b10FBAE6B-0000-C040-8C1D-CC55491FE76D%7d&documentTitle=20197-154051-03>

⁷¹ Xcel Energy 2020-2034 Upper Midwest Resource Plan Supplement. Attachment A. June 30, 2020. p. 5 of 176.

model, Xcel Energy should develop load shapes and associated costs for each program. The load shapes would describe the anticipated average impact of the DSM measure on average days per season. This would enable EnCompass to select cost-effective DSM interventions according to anticipated grid needs in each scenario. This process would be similar to using assumptions to describe how solar or wind energy will perform over the lifetime of the resource. In practice, the Northwest Power and Conservation Council has developed⁷² load shape recommendations for energy efficiency and Indianapolis Power and Light developed⁷³ load shapes to inform their DSM bundles for use in IRP modelling in 2018.

Using these or similar approaches, Xcel Energy can introduce DSM resources that can be more accurately compared to supply side investments in the model as individual resources or as more granular bundles to minimize computing costs, grouped by load shape similarities, customer class, costs, or other variables. In support, a white paper from Duke's Nicholas Center for Environmental Policy Solutions found that creating a granular, 16-step supply function for energy efficiency allows it to respond to changes in marginal costs or other constraints in a more dynamic fashion than a 3-step supply curve alternative, which mirrors Xcel Energy's bundle approach.⁷⁴

Further, while Xcel Energy included Bundle 3, which represents the Maximum Achievable Potential, in the initial filing, the Company did not include Bundle 3 in the EnCompass model. While Xcel has a history of providing energy efficiency savings, there is still untapped potential for additional cost-effective energy efficiency that provides significant energy and non-energy benefits to customers when compared to other utilities that achieve a higher annual EE savings rates.⁷⁵ Minneapolis believes it's important to fully evaluate DSM measures in future resource modeling.

7. Assign value to equity impacts and non-energy benefits of DSM programs

Well-designed EE and DR programs can have significant non-energy benefits that minimize adverse socioeconomic and environmental effects⁷⁶ which may not be captured by the current modeling process. For instance, energy efficiency programs can reduce energy burden,⁷⁷ which is a central issue in Minneapolis as low-income households have a 3.3x higher energy burden than non-low-income households according to ACEEE.^{78,79} Societal benefits from efficiency programs include reduced respiratory symptoms and improved mental health from building upgrades⁸⁰ and reduced air pollution from power plants.⁸¹

⁷² <https://rtf.nwccouncil.org/capacity-benefits-efficiency-load-shape-recommendation-memos>

⁷³ <https://www.in.gov/iurc/files/2018%20NIPSCO%20IRP%20Appendix%20B.pdf>

⁷⁴ https://nicholasinstitute.duke.edu/sites/default/files/publications/ni_wp_17_06.pdf

⁷⁵ 2020 Utility Energy Efficiency Scorecard. The Scorecard gives utilities, regulators, and other stakeholders benchmarking data and a roadmap to track performance and strengthen utility-sector energy efficiency. <https://www.aceee.org/utility-scorecard>

⁷⁶ <https://www.revisor.mn.gov/rules/7843.0500/>

⁷⁷ <https://www.aceee.org/sites/default/files/publications/researchreports/u1602.pdf>

⁷⁸ https://www.aceee.org/sites/default/files/pdfs/aceee-01_energy_burden_-_minneapolis.pdf

⁷⁹ See a new interactive energy burden map for Minneapolis by census tract by GreenLink Analytics.

<https://public.tableau.com/profile/greenlinkanalytics#!/vizhome/MinneapolisTableau/Dashboard1>

⁸⁰ <https://e4thefuture.org/wp-content/uploads/2016/11/Occupant-Health-Benefits-Residential-EE.pdf>

⁸¹ <https://www.aceee.org/research-report/h1801>

8. Xcel Energy should model demand flexibility programs separately from traditional demand response programs in the next IRP filing.

The City is encouraged that Xcel Energy commissioned and used the Brattle Load Flexibility Report to begin to model demand flexibility, or the ability for end-uses, such as building systems and electric vehicles, to provide real time grid services without impeding normal operations for customers. As Xcel and Minneapolis strive to meet our decarbonization goals, higher levels of variable renewable energy will require a more dynamic grid. Widespread smart distributed energy resources, like smart buildings and electric vehicles, can provide load-balancing services that minimize customer costs while increasing resiliency and reducing environmental harms. These programs can also reduce the need for firm peaking resources.

However, demand flexibility⁸² programs operate in a more continuous fashion and deliver different system value than traditional discrete demand response programs. Therefore, demand flexibility should not be bundled with traditional demand response.

Furthermore, the recent FERC Order 2222⁸³ indicates there will be increasing pathways for utilities and DER aggregators to provide demand flexibility services to MISO. The City of Minneapolis believes Xcel Energy should anticipate and prepare for increased participation of flexible DER services within the timeframe of this resource plan.

The Department of Energy has developed guidance⁸⁴ on determining utility system value for grid-interactive efficient buildings that can support Xcel Energy in responding to this request.

9. Include more local generation and distributed energy resources in the plan

Xcel Energy should work with stakeholders with local distributed solar goals to develop programs that can support local communities, with an emphasis on low-income customers. Minneapolis would like to work with Xcel Energy to develop new local renewable resources through special contracts, expanded community solar offerings, and on-site solar incentives.

Xcel Energy's distributed solar assumptions seem too low with all distributed solar after 2023 coming from the community solar garden program and no new rooftop solar. Minneapolis encourages Xcel Energy to update these assumptions to more accurately reflect the distributed solar that will be brought online in the coming years based on local government distributed solar goals and predicted market demand.

Minneapolis's communitywide goal includes a goal to "increase electricity from local and directly

⁸²Reinventing Demand Response. Dec 2018.

https://brattlefiles.blob.core.windows.net/files/15059_reinventing_demand_response_for_the_age_of_renewable_energy_12-12-2018.pdf

⁸³ FERC Order No. 2222 Fact Sheet. <https://www.ferc.gov/media/ferc-order-no-2222-fact-sheet>

⁸⁴ <https://www.energy.gov/sites/prod/files/2020/04/f74/bto-see-action-GEBs-valuation-20200410.pdf>

purchased renewables to 10 percent of the total electricity consumed by 2025”.⁸⁵ Additionally, Minneapolis has a goal of achieving 100 percent renewable energy for our municipal load by 2023. Achieving these local goals requires nearly 300 MW of distributed solar by 2025, which is more than half of the total proposed by Xcel Energy. Even in the “High Distributed Solar” futures sensitivity reference scenario, Minneapolis alone would still be more than 25 percent of the total proposed distributed solar.

Combining the in-boundary renewable goals for the Cities of Minneapolis, Saint Paul, St. Louis Park, Eden Prairie, Northfield, and Red Wing results in 580 MW of local solar, capturing the entire distributed solar capacity estimated by Xcel.⁸⁶

Minneapolis views distributed solar as important from an equity perspective. Distributed solar builds wealth locally and boosts resilience in communities. Our residents express excitement about opportunities for local solar.

Increasing distributed solar is a job creation tool. While the current pandemic has increased unemployment, Xcel Energy can be a job creator with renewables resulting in 2.5X as many jobs as the fossil fuel industry dollar for dollar. Minneapolis has resources to support Xcel Energy in developing workforce training to build a diverse clean energy workforce, as discussed previously.

Further, if transmission issues delay new utility scale renewable projects from coming online, Xcel Energy should be prepared to invest in more distributed solar. The advanced grid improvements that Xcel Energy proposed in the Integrated Distribution Plan (IDP) include advanced meters, communication networks and data processing and management systems that can support safely integrating more distributed energy resources⁸⁷ if vendor and utility systems are coordinated. In order to justify the cost recovery of these investments from customers, there should be a proactive approach to support DER integration and more accuracy in forecasting DER adoption.

10. Align distribution system planning and resource planning processes

Xcel Energy’s IRP and IDP processes are not yet integrated. The National Association of Regulatory Utility Commissioners (NARUC) plans to publish information on how to align IDP and IRP processes this winter.⁸⁸ We encourage use of this information and taking steps to integrate the IRP and IDP for future planning cycles. Combining distribution grid and resource planning can proactively improve energy equity by decreasing overall system costs and allowing for local economic participation through distribution level resource solutions.⁸⁹

⁸⁵ Minneapolis 100% Renewable Electricity . <https://www.minneapolismn.gov/government/programs-initiatives/100-percent-renewable-electricity/>

⁸⁶ Estimated solar by city: Minneapolis: 300 MW, Saint Paul: 200 MW, St. Louis Park: 37 MW, Eden Prairie: 25 MW, Northfield: 20 MW, Red Wing: 2.5 MW

⁸⁷ Docket No. E002/M-19-666: Xcel Energy Integrated Distribution Plan (2020-2029).

<https://www.xcelenergy.com/staticfiles/xe-responsive/Company/Rates%20&%20Regulations/IntegratedDistributionPlan.pdf>

⁸⁸ Joint NARUC-NASEO Task Force on Comprehensive Electricity Planning. <https://www.naruc.org/taskforce/background/>

⁸⁹ Ackermann, Jeffrey. Parting Thoughts by a Regulatory Leader: Clean and Equitable Energy Future. Public Utilities Fortnightly. p. 37. Jan. 2021.

11. Incorporate beneficial electrification with grid flexibility in the next IRP plan

Minneapolis requests the Commission require electrification plans be included in future electrification scenarios. Building and vehicle electrification are strategies to minimize adverse environmental impacts if paired with renewables. But electrification needs to be carefully managed to avoid substantial grid costs. If properly designed, new electrified end-uses can provide considerable grid services to contribute to reliability, renewable integration and enable a more flexible resilient grid.

Minneapolis is encouraged by the Transportation Electrification Plan Xcel Energy developed.⁹⁰ We would like to continue to partner with Xcel Energy to bring more electric vehicles (EV) into service. However, we are concerned that Xcel Energy is not properly accounting for the likely EV penetration within the timeframe of this resource plan. We believe electric vehicles are on the innovation curve, like a smart phone 15 years ago, and that utility rates that support grid flexibility should be designed now. Missing the opportunity to get ahead of increased EV adoption may also exacerbate adverse socioeconomic impacts by creating a cross subsidy from non-EV owners to EV owners for grid infrastructure. There may also be reliability concerns if large new and uncontrolled loads are introduced over a short period of time.

The current planned scenario does not include building electrification. By Xcel Energy's own estimates, "our current electric system would need to be built out to twice or more its current size to deliver the same amount of energy that our natural gas system delivers on a peak winter day."⁹¹ The State of Minnesota and cities like Minneapolis have GHG reduction goals that require significant building electrification efforts. These goals should be better integrated into the assumptions.

As Minneapolis begins to electrify buildings and transportation, we would like to work with Xcel Energy to integrate these new resources so they can be a grid asset. This includes innovative rate design, demand response program design, and educating our community members. Additionally, if electrification is paired with energy efficiency (i.e. high efficiency heat pumps) it can significantly reduce the burden that will be added to the grid. To better prepare for new loads, programs that reduce grid impacts will be required.

Minneapolis would like to partner with Xcel Energy in designing programs that increase beneficial electrification with a focus on low-income households and communities. Since low-income households have higher energy burdens and often reside in rental properties, providing education and incentives to encourage building owners of low-income properties to pursue electrification technology that may have a higher initial price but result in lower utility bills will be important. Minneapolis could also partner to promote grid-interactivity in large commercial and residential buildings.

Designing programs to encourage beneficial electrification will benefit the communities Xcel Energy

⁹⁰ Docket No. E999/Ci-17-879. Xcel Energy 2020 Transportation Electrification Plan. Jun 1, 2020.

⁹¹ Xcel Energy 2019 Corporate Responsibility Report. https://www.xcelenergy.com/staticfiles/xcelresponsive/Company/Corporate%20Responsibility%20Report/2019%20CRR/2019_CorporateResponsibility_Report_Final.pdf

serves. Electrification reduces health impacts from local pollutants such as natural gas in a building or gas automobiles. Black and Hispanic Americans are exposed to 63 percent and 56 percent more pollution than they create.⁹² Indoor air pollution from burning fossil fuels in residential and commercial buildings (e.g., for space heating, hot water, cooking) causes more premature deaths (over 28,000 per year) in the U.S. than any other sector.⁹³

12. Nuclear extension should be re-evaluated in the next IRP cycle

The City of Minneapolis requests Xcel Energy analyze and compare options to phase out nuclear in the next IRP cycle. Xcel Energy's preferred scenario has Monticello nuclear plant operating through 2040, 10 years longer than its current license, which was originally extended from 2010 to 2030. In this IRP, Xcel Energy evaluated a scenario that retired all coal early while not extending the license of any nuclear facility. While this modeled scenario was not as cost effective as extending the nuclear plant, it was more cost effective than the reference case. Given the historic uncertainty associated with nuclear plant maintenance and the feasibility of clean energy portfolios, we request that Xcel run this scenario again in the next IRP.

13. Xcel may wish to work with local units of government to explore options to help them achieve community-wide renewable electricity goals.

Local units of government are increasingly pursuing and adopting community-wide renewable or carbon-free electricity goals. Currently there are not clear solutions for meeting these goals in Minnesota. There may be an opportunity for Xcel to play a role in partnering with interested communities to achieve their policy goals in a cost-effective way.

VI. CONCLUSION AND RECOMMENDATIONS

The City of Minneapolis acknowledges the effort Xcel Energy has taken to revamp the IRP process in response to stakeholder input and Commission direction. Minneapolis encourages Xcel Energy and the Commission to maintain this inertia of improvement and continue to refine the IRP process to meet standing requirements and address pressing climate, social, and racial justice issues.

We are available to work with Xcel Energy, the Commission, and other parties to operationalize the following recommendations:

1. Center Equity in Xcel Energy Resource Decisions
 - a. Xcel Should Design for the Equitable Delivery of Electricity Services and Programs for Energy Burdened Customers in This IRP.
 - b. Xcel Energy Should Conduct a Comprehensive Planning Process to Advance a Just and Equitable Clean Energy Transition as Part of the Next IRP Planning Cycle.

⁹² <https://www.pbs.org/newshour/health/african-americans-hispanics-exposed-to-more-air-pollution-than-whites>

⁹³ <https://www.nature.com/articles/s41586-020-1983-8/tables/3>

- c. Xcel Should Create New Options to Improve Customer Access to Energy Efficiency and Renewable Energy.
- d. Xcel Should Be Required to Submit a Plan by January 2022 to Bring Its Workforce’s Racial and Gender Diversity In Line With the Population It Serves and With Xcel’s Stated Goals.
 - 1.d.1 Diversity in workforce should start with leadership
 - 1.d.2 Promote intentional workforce development and hiring efforts in Minneapolis
- 2. Accelerate Proposed Coal plant Retirements
 - a. The Commission should require Xcel to retire the King and Sherco 3 coal plants earlier than 2028 and 2030, consistent with the Citizens Utilities Board “Consumers Plan.”
- 3. If New Capacity is Needed, Clean Energy Portfolio Approaches Should Be Required as Part of a Competitive Bidding Process
 - a. The City of Minneapolis offers support to Xcel Energy to address the transmission barriers that threaten further development of renewable energy or find alternative strategies.
- 4. Xcel Should Fully Analyze Black Start Options That Don’t Require Natural Gas and Share This Analysis with Stakeholders Prior to the Next RFP for New Generation or IRP Planning Cycle.
- 5. Xcel Energy Should Be Required to Use a Consistent Societal Discount Rate to Analyze Both Energy Efficiency and Demand Response Resources in This and Future IRPs.

Recommendations for the next Xcel Upper Midwest IRP:

- 6. Xcel Energy Should Be Required to Model Demand Side Resources at a More Granular Level in the Next IRP Filing.
- 7. Assign Value to Equity Impacts and Non-energy Benefits of DSM Programs.
- 8. Xcel Energy Should Model Demand Flexibility Programs Separately from Traditional Demand Response Programs in the Next IRP Filing.
- 9. Include More Local Generation and Distributed Energy Resources in the Plan.
 - a. The City of Minneapolis requests the Commission require Xcel Energy to work with customers with local distributed solar goals to develop programs that can support their community, with an emphasis on low-income customers.
 - b. The City of Minneapolis would like to work with Xcel Energy to develop new local renewable resources for municipal loads and our community through special contracts, expanded community solar offerings, and on-site solar incentives.
- 10. Align Integrated Distribution System Planning and Integrated Resource Planning Processes.
- 11. Consider Beneficial Electrification and Grid Flexibility as Decarbonization Strategies.
 - a. The City of Minneapolis will support Xcel Energy to ensure new electric loads through vehicle electrification or fuel switching can be designed to be grid assets.
 - b. Minneapolis requests the Commission ensure electrification plans are built into any future high electrification scenario.
- 12. The Monticello Nuclear Extension Should be Re-evaluated.
- 13. Xcel may wish to work with local units of government to explore options to help them achieve community-wide renewable electricity goals.

The City of Minneapolis is pleased to join many local governments in incorporating principles of equity

into their climate and clean energy planning and implementation. We believe that the power industry, non-profits, engaged residents, and all levels of government can collaborate closely to address both climate change and environmental justice. The IRP is opportunity to apply the principles of utility regulation to improve the lives of people by prioritizing clean energy development that is justice-oriented and advances clean, low-cost, and reliable energy for all.

Please contact Kim Havey at (612) 673-3666 or kim.havey@minneapolismn.gov is there is any further information we can provide.

Attachment A: Letter from Community Environmental Advisory Commission

From: City of Minneapolis Community Environmental Advisory Commission

To: City of Minneapolis Sustainability Division

Cc: City of Minneapolis City Council; Mayor Jacob Frey

Date: October 21, 2020

The Community Environmental Advisory Commission is writing to Council and the Mayor to request that our City bring the following comments forward to the Public Utilities Commission regarding Xcel's Integrated Resource Plan (IRP).

Use of Renewables

The original IRP, released in July 2019, called for the construction of an approximately 800 megawatt combined cycle gas plant in Becker, Minnesota. This latest IRP update retains this commitment, notwithstanding the facts that costs for solar and wind energy continue to decline, and that with continued advances in battery storage and other clean energy technologies, renewable energy is becoming more reliable. If the Becker plant is built, it is likely to become uncompetitive with wind and solar energy well before the end of its intended 30+ year life span. If retired early, ratepayers will be stuck with paying the unamortized cost of the plant. Meanwhile its operation will make it difficult for the City to reach its greenhouse gas (GHG) reduction goals while continuing to rely on Xcel as its main source of electricity.

As for Xcel's own GHG reduction goals, the company has a corporate goal of an 80 percent reduction in CO₂ emissions from 2005 levels by 2030 ("80 by 30"), but says nothing about reduction of emissions of methane, a gas that according to the EPA has 84-87 the global warming potential over a twenty-year time span. Even if Xcel succeeds in reaching its CO₂ reduction target, it would still have a significant harmful impact on climate due to the methane emissions which would be a byproduct of the fracking process used to produce the natural gas for the Becker plant.

In December of 2019, the St. Paul City Council passed a resolution that asked Xcel not to move forward with building the Becker natural gas plant because of its reliance on fracking. In addition to the significant GHGs that this plant will emit, it will negatively impact the health of those who live in Becker and nearby communities, all injustices that CEAC is strongly advising against here in Minneapolis. Fracking causes water pollution that harms human health. While this fracking isn't happening in Minnesota, we do not want our energy needs to be met at the cost of clean water for other communities. In addition, the methane and other pollutants emitted by the fracking process impact our global climate. It's imperative that Xcel move from fracked gas to renewable energy resources, especially now that the cost is so low for solar and wind.

We ask that the PUC conduct an analysis to determine whether the Becker gas plant, at least at the scale proposed, is needed, and prioritize the use of renewable sources for generation.

Use of Biogas

CEAC would prefer to see Xcel prioritize solar and wind, plus storage, for the long term. At present, in instances where Xcel is switching from coal to natural gas, we would like to see consideration of the use of biogas. Although biogas pencils out to be more expensive when using current financial models, biogas has a lower carbon footprint than natural gas and can be sourced from the methane produced by livestock manure, food waste, landfills, and wastewater treatment plants.

In instances where a switch to renewable sources is not feasible in the short term, we would ask that Xcel consider the use of biogas instead of natural gas.

Diversity and Equity Considerations

Although we are pleased to see that the supplement includes an Attachment on Inclusion, Diversity and Equity, which includes a section on low-income and multifamily energy efficiency, there is no discussion of the potential for inclusive financing. Low interest financing -- and financing that can account for federal, state and utility rebates and tax credits -- would go a long way to help more people be able to invest in energy efficiency and renewable energy technologies. These financing structures exist in other states, such as California, but the most we have here is the financing program at the Center for Energy and the Environment, which is good but not cost competitive.

Xcel should offer an inclusive financing program to enable renters and low-income homeowners to get financing, leading more residents to make energy efficiency improvements in Minneapolis and throughout the state.

Thank you for considering the inclusion of these comments in the City's response to Xcel's IRP with the PUC.

Best,

Erin Niehoff
Chair, Community Environmental Advisory Commission

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