



February 11, 2021

VIA ELECTRONIC FILING

Will Seuffert, Executive Secretary  
Minnesota Public Utilities Commission  
121 7th Place East, Suite 350  
St. Paul, MN 55101-2147

Re: In the Matter of Xcel Energy's 2020-2034 Upper Midwest Resource Plan - PUC Docket No. E002/RP-19-368

Dear Mr. Seuffert,

Clean Energy Economy Minnesota (CEEM) respectfully submits these comments In the Matter of Xcel Energy's 2020-2034 Upper Midwest Resource Plan (PUC Docket No. E002/RP-19-368). Our mission at CEEM is to provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies. We work to support and expand clean energy jobs and the economic opportunities provided by clean, reliable, and affordable energy on behalf of all Minnesotans.

Please feel free to contact us with any questions that you may have. We hope that the comments below provide you with useful insights.

Regards,

Benjamin Stafford  
Director of Government Affairs  
[bstafford@cleanenergyeconomymn.org](mailto:bstafford@cleanenergyeconomymn.org)

Gregg Mast,  
Executive Director  
[gmast@cleanenergyeconomymn.org](mailto:gmast@cleanenergyeconomymn.org)

**State of Minnesota  
Before the  
Minnesota Public Utilities Commission**

---

In the Matter of Xcel Energy's 2020-2034  
Upper Midwest Resource Plan

Docket E002/RP-19-368

**COMMENTS**

---

**INTRODUCTION**

Clean Energy Economy Minnesota (CEEM) appreciates the opportunity to provide these comments in response to the Minnesota Public Utilities Commission's (Commission) Notice of Comment Period on Xcel Energy's (Xcel) Integrated Resource Plan (IRP).

CEEM is a non-partisan, industry-led 501(c)(3) nonprofit representing the business case for clean energy in Minnesota. CEEM provides a unified voice for clean energy business across the state. Our mission is to provide educational leadership, collaboration, and policy analysis that accelerates clean energy market growth and smart energy policies. CEEM works to support and expand clean energy jobs and the economic opportunities provided by clean, reliable, and affordable energy on behalf of all Minnesotans. We are focused on sharing the stories and perspectives of clean energy businesses and employees. We are committed to working across industries and political divides to support a prosperous economy for Minnesotans.

CEEM is fueled by support of our member businesses, partners, and individuals working across Minnesota's sustainable energy economy. CEEM's members and partners represent a wide array of businesses providing and seeking energy solutions across energy technologies and business models. CEEM staff has significant experience in participating in regulatory reform, grid modernization, and "utility of the future" discussions and regulatory proceedings as well as educating state utility regulatory professionals across the country.

**Background**

Minnesota continues to lead nationally by focusing discussions on system evolutions and establishing nation-leading regulatory practices. For example, the Commission led efforts on grid modernization and the development of new requirements for integrated distribution planning, and we commend the Commission and stakeholders for their collective efforts in these dockets. CEEM greatly appreciates the opportunity to participate in this proceeding.

In 2016, Commission staff published the Staff Report on Grid Modernization established a definition of grid modernization in Minnesota:

"A modernized grid assures continued safe, reliable, and resilient utility network operations, and enables Minnesota to meet its energy policy goals, including the

integration of variable renewable electricity sources and distributed energy resources. An integrated, modern grid provides for greater system efficiency and greater utilization of grid assets, enables the development of new products and services, provides customers with necessary information and tools to enable their energy choices, and supports a standards-based and interoperable utility network.”<sup>1</sup>

While the 2016 grid modernization report focused primarily on distribution planning, Xcel’s IRP must also be understood as meeting similar objectives.

Increasingly, sophisticated technologies are part of energy system planning on multiple levels. Technologies, including distributed energy resources (DERs),<sup>2</sup> demand response (DR), energy storage solutions, the active use of customer energy usage information, and engaging utility customer programs, must factor into the IRP. Businesses delivering these system solutions are growing jobs and attracting investment across Minnesota. Prior to the COVID-19 crisis, there were more than 61,800 clean energy jobs in Minnesota. Across the state, the industry grew 2.5 times faster than overall statewide employment, adding over 1,140 jobs in 2019.<sup>3</sup>

## Summary

CEEM applauds Xcel’s commitment to carbon-free electricity by 2050. Planned retirements will allow Xcel to exceed its carbon reduction statewide goal for 2030 in Minnesota’s Next Generation Energy Act.<sup>4</sup> CEEM is also pleased that Xcel is increasing its energy efficiency, DR, solar, and wind resources, and is open to new technologies to meet grid needs. Because Xcel’s preferred IRP already includes substantial increases in EE, CEEM’s comments are more focused on other customer-sided resources and clean energy resources. Overall, CEEM supports a customer-focused approach as Xcel embarks on this next phase of its clean energy transition.

---

<sup>1</sup>Minnesota Public Utilities Commission Staff Report on Grid Modernization, at 13 (March 2016).

<sup>2</sup> This includes aggregated DERs and market opportunities for DERs in wholesale electricity markets as addressed in FERC Order No. 2222.

<sup>3</sup> Clean Jobs Midwest Report(2020), [https://www.cleanjobsmidwest.com/wp-content/uploads/2020/06/Minnesota\\_ExecSum\\_CJM2020.pdf](https://www.cleanjobsmidwest.com/wp-content/uploads/2020/06/Minnesota_ExecSum_CJM2020.pdf).

<sup>4</sup> Minn. Stat. § 216H.02, subd. 1.

## NEED FOR FIRM DISPATCHABLE RESOURCES

The conceptual role of baseload energy resources is undergoing a paradigm shift as more communities and utilities commit to a 100% renewable energy future. By the end of 2019, more than 200 cities and counties, 11 states, Puerto Rico, and the District of Columbia were committed to 100% clean energy targets.<sup>5</sup> Those commitments are being met by utilities and market participants gaining experience in system planning and implementation. Today, nearly 40% of all U.S. power generation comes from carbon-free resources,<sup>6</sup> and much can be learned by looking at how other utilities are accomplishing their clean energy goals. For example, the Los Angeles Department of Water and Power (LADWP) plans to reach a 100% renewable energy supply by 2045. To accomplish this, LADWP partnered with the National Renewable Energy Laboratory (NREL) to study how it can achieve its goal by exploring emerging technologies and applying state-of-the-art utility planning tools among other things (i.e., the “Los Angeles 100% Renewable Energy Study” or “LA 100 Study”).<sup>7</sup> The LA 100 Study is expected to be the most comprehensive and detailed analysis of an all-renewable grid to date.

Similarly, Xcel could engage expertise to study the most effective pathway to achieve 100% carbon-free electricity by 2050 that would consider the resource potential for the Upper Midwest. It may be possible to avoid planning techniques that risk excluding nontraditional resource options, which could leave customers with stranded costs. Instead of relying on conventional methods to replace baseload resources, there may be potential for clean energy options such as utility-scale storage and interregional transmission for renewables. Perhaps demand response should play an even bigger role to offset any decreases in system performance when integrating variable resources. Demand response could also help reduce costs by reducing capacity needs. It is important to keep in mind that how we view firm dispatchable resources is changing across the country.

Xcel has proposed an 800 MW combined cycle (CC) natural gas unit at its Sherco site and is considering combustion turbine (CT) gas units for peaking and black start.<sup>8</sup> Firm dispatchable resources are important to Xcel’s clean energy future, but it is unclear how Xcel determined its future firm dispatchable needs. Xcel plans to address black start resources in its next IRP,<sup>9</sup> but added in its supplemental filing that its Sherco site is a critical piece of its black start plans.<sup>10</sup> Further, Xcel included black start resources in its supplemental modeling.<sup>11</sup>

---

<sup>5</sup> UCLA LUSKIN CENTER FOR INNOVATION, PROGRESS TOWARD 100% CLEAN ENERGY IN CITIES & STATES ACROSS THE U.S. (November 2019), <https://innovation.luskin.ucla.edu/wp-content/uploads/2019/11/100-Clean-Energy-Progress-Report-UCLA-2.pdf>.

<sup>6</sup> Edison Electric Institute, Our Clean Energy Vision, <https://www.eei.org/issuesandpolicy/Pages/CleanEnergy.aspx> (last visited Jan. 28, 2021).

<sup>7</sup> The Los Angeles 100% Renewable Energy Study is expected to be released in 2021. More information is available at <https://www.nrel.gov/analysis/los-angeles-100-percent-renewable-study.html> and [https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-cleanenergyfuture/a-p-renewableenergystudy.jsessionid=J6GkgGzPG7JdDpQsz3cdfzJmXx2xbsCGCq98KPW1OvJYpJPvVWxl-2049878718?\\_afzWindowid=null&\\_afzLoop=358601804759447&\\_afzWindowMode=0&\\_adf.ctrl-state=1gptn1ucm\\_4#%40%3F\\_afzWindowid%3Dnull%26\\_afzLoop%3D358601804759447%26\\_afzWindowMode%3D0%26\\_adf.ctrl-state%3Dg72hukza\\_4](https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-cleanenergyfuture/a-p-renewableenergystudy.jsessionid=J6GkgGzPG7JdDpQsz3cdfzJmXx2xbsCGCq98KPW1OvJYpJPvVWxl-2049878718?_afzWindowid=null&_afzLoop=358601804759447&_afzWindowMode=0&_adf.ctrl-state=1gptn1ucm_4#%40%3F_afzWindowid%3Dnull%26_afzLoop%3D358601804759447%26_afzWindowMode%3D0%26_adf.ctrl-state%3Dg72hukza_4).

<sup>8</sup> Xcel IRP Supplement at 64 (June 30, 2020).

<sup>9</sup> Xcel Initial IRP Filing at 22 (July 1, 2019).

<sup>10</sup> Xcel IRP Supplement at 16.

<sup>11</sup> *Id.* at 113.

Starting in 2030, Xcel plans to add 2,600 MW of firm peaking resources by the end of 2034 to support grid reliability and resiliency to better integrate renewables and compensate for the baseload units being retired.<sup>12</sup> Xcel implied that at least some of these peaking resources would be used as black start resources, but Xcel has not provided sufficient justification on how much, and where on the system, black start resources would be needed.<sup>13</sup>

CEEM is pleased that Xcel is flexible on how it will meet future firm dispatchable resource needs, especially its serious consideration of utility-scale storage and additional DR to meet these needs.<sup>14</sup> CEEM encourages Xcel to pursue resources that meet Minnesota's clean energy goals rather than investing in new resources with significant carbon and/or greenhouse gas emissions, many of which will face financial challenges in an increasingly carbon-free economy.

## RESOURCE REPLACEMENTS FOR RETIRED ASSETS

CEEM fully supports Xcel's decision to retire many carbon-intensive generation units by 2030. Xcel's goal to achieve an 80% reduction in carbon emissions from 2005 levels by 2030 and to be 100% carbon-free by 2050 exceeds the targets in the Next Generation Energy Act.<sup>15</sup> Unfortunately, Minnesota as a whole is not on track to meet its carbon reduction goals, including its interim goals.<sup>16</sup> Governor Walz issued Executive Order 19-37 to establish a Climate Change Subcabinet to put Minnesota back on track to meet or exceed these goals. With its large service territory, Xcel is in a unique position to further contribute to help Minnesota meet its goals, and is doing so with its 2030 and 2050 targets. In the mid-2020s, however, Xcel plans to construct an 800 MW CC gas plant and is considering adding CT gas peaking plants to its system. CEEM encourages Xcel to consider the appropriate scale of any plants with significant carbon and/or greenhouse gas emissions, or alternatively, replacing such plants with carbon-free resources. Further, utility customers, investors, and corporate demands are all pushing toward a low or near-zero carbon economy. Utilities that continue to invest in resources with significant carbon and/or greenhouse gas emissions in their system plans run the risk of stranding these assets as they are increasingly unattractive and undesired in a broader economic context. As discussed above, there may be a path forward that does not include building any new resources with significant carbon and/or greenhouse gas emissions.

CEEM is pleased that Xcel expressed interest in adding up to 460 MW of solar at its Sherco site although it is not included in its Preferred Plan.<sup>17</sup> Xcel could consider a combination of solar and storage resources at the Sherco site to meet its need for firm dispatchable resources. Solar-plus-storage projects have financially competed and outperformed natural gas plants in some states, and are already competitive against new gas peaking plants.<sup>18</sup> Moreover, not only is solar-plus-storage carbon-free, it is also more

---

<sup>12</sup> *Id.* at 64.

<sup>13</sup> *Id.*

<sup>14</sup> Xcel Initial IRP Filing at 21; Xcel IRP Supplement at 64.

<sup>15</sup> Minn. Stat. § 216H.02, subd.1.

<sup>16</sup> Minnesota Pollution Control Agency (2021) Greenhouse Gas Emission Inventory 2005-2018, at 3 (January 2021).

<sup>17</sup> Xcel IRP Supplement at 3. Xcel expressed its interest in this potential solar resource in its report filed in Docket E,G999/CI-20-492 to address how it can assist in the economic recovery efforts from the COVID-19 pandemic.

<sup>18</sup> Bloomberg New Energy Finance (2020) How PV-Plus Storage Will Compete with Gas Generation in the US. at p. 5. (Nov. 23, 2020)

<https://assets.bbhub.io/professional/sites/24/BloombergNEF-How-PV-Plus-Storage-Will-Compete-With-Gas-Generation-in-the-U.S.-Nov-2020.pdf>; Bloomberg New Energy Finance 2020 Sustainable Energy in American Factbook. at p. 8 <https://bcse.org/factbook/>.

flexible than gas peaking plants.<sup>19</sup> As a result, solar-plus-storage is a strong alternative to resources with significant carbon and/or greenhouse gas emissions.

CEEM, alongside industry partners Business Council for Sustainable Energy (BCSE) and Bloomberg New Energy Financing (BNEF), track industry opportunities and trends. BCSE and BNEF recently released the Minnesota State Energy Factsheet, which included analysis of the levelized cost of electricity (LCOE) to compare the cost of producing electricity from different technologies in the U.S.<sup>20</sup> This analysis indicated:

“LCOE analysis suggests that new wind build in the state is likely already cheaper than new combined-cycle natural gas plants even without incentives (i.e., "unsubsidized"). 2019 estimates for Minnesota wind LCOEs came in at \$37/MWh unsubsidized, compared to a U.S.-wide mid-case estimate of \$48/MWh for combined-cycle natural gas. With subsidies, Minnesota wind LCOEs came in even lower, at around \$26/MWh.”<sup>21</sup>

The Factsheet also quoted the 2019 study by the Energy and Environmental Economics for the Minnesota Department of Commerce which found that “solar plus storage is cost-effective today and stand-alone storage could become cost-effective in 2025.”<sup>22</sup>

Another recent BNEF report found that solar-plus-storage could also perform identical to a gas plant if it is oversized and dispatched at lower power output in a continuous manner, but solar-plus-storage is not yet a cost-competitive alternative to a new CC gas plant.<sup>23</sup> That said, costs could be competitive by the mid-2020s. Further, a combination of wind, solar, storage, and DR could provide the equivalent service in some cases.<sup>24</sup> Currently, there are over 8.9 GW of solar-plus-storage projects being developed in the U.S., and most of those are expected to come online by 2023.<sup>25</sup> Additionally, CEEM is concerned about possible stranded costs by overinvesting ratepayer money in an asset with significant carbon and/or greenhouse gas emissions that is contrary to Xcel’s and Minnesota’s carbon-free goals. BNEF predicted that as more renewables are integrated, CC gas plants would run for only a few hours a year as we get closer to 2050.<sup>26</sup>

## THE CRUCIAL ROLE OF DEMAND RESPONSE

As flexible, multi-purpose resources, both storage and DR should be important tools to Xcel to meet its firm dispatchable resource needs. As Xcel acknowledged, storage is needed to integrate renewable resource additions and support the grid.<sup>27</sup> Yet Xcel’s IRP places less emphasis on DR to perform these functions. As Commissioner Schuerger recently stated at a load flexibility symposium, “[l]oad flexibility can shift energy use to when it costs less, shape energy use to match renewables’ availability, and to

---

<sup>19</sup>*Id.* at 5.

<sup>20</sup> BloombergNEF (2020) State Energy Factsheet: Minnesota (April 2, 2020), <https://www.bcse.org/images/2020%20Factbook/2020%20Minnesota%20Energy%20Factsheet.pdf>.

<sup>21</sup> *Id.* at 10.

<sup>22</sup> *Id.* at 8 (quoting Energy and Environmental Economics, Inc. Minnesota Energy Storage Cost-Benefit Analysis, prepared for the Minnesota Department of Commerce, Division of Energy Resources at 10 (Dec. 31, 2019)).

<sup>23</sup> *Id.* at 5.

<sup>24</sup> *Id.* at 5.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 6.

<sup>27</sup> Xcel Initial IRP Filing at 18.

allow them to meet other system needs.”<sup>28</sup> He added that advanced demand response and load flexibility have been found to be cost effective.<sup>29</sup>

The Brattle Group’s load flexibility study generally concluded that when a greater mix of renewables are added, the value of DR increases, and Xcel’s market may evolve to create more economically favorable conditions for DR than it expected at the time the study was conducted.<sup>30</sup> Ryan Hledik, Principal of the Brattle Group, recently stated that some utilities, regulators, and stakeholders “are starting to understand how demand-side resources can lower system costs and increase their systems’ flexibility.”<sup>31</sup>

CEEM encourages Xcel to consider DR, along with solar-plus-storage, to meet system needs. Additionally, in contrast to a new generation resource with significant carbon and/or greenhouse gas emissions, DR would not leave customers with potentially significant stranded costs. Lastly, DR would not have to go through the overburdened interconnection process at the Midcontinent Independent System Operator (MISO), which has been known to hold back development of renewable energy due to grid constraints.

In its IRP, Xcel expressed concern that its DR capacity accreditation could be reduced by MISO because it is considering more stringent testing requirements, which could yield lower benefits in future years.<sup>32</sup> Since Xcel’s filing, FERC approved MISO’s proposal to enhance its capacity accreditation requirements that apply to DR to reduce the disparity between resources that cleared and resources that responded to calls for deployment.<sup>33</sup> As a result, this concern has been settled and Xcel can plan accordingly.

Demand response is a known, reliable, and affordable resource. Increasing DR by offering flexible, transparent programs to attract additional customer participation could go a long way toward balancing the variability in renewables’ output. Xcel should focus on offering more DR options to its customers, including allowing customers to work with third-party aggregators.

## INTERCONNECTION CHALLENGES

It is common knowledge that congestion on the transmission grid is a serious issue in MISO-North, and clean energy developers face many challenges in the interconnection queue. Xcel points to MISO’s recent tariff changes that allow new generating facilities to be developed on or near the same site of a retiring generating facility and avoid bottlenecks in MISO’s queue; specifically, these projects would be studied outside the Definitive Planning Phase timeline.<sup>34</sup> Additionally, MISO’s “Net Zero” interconnection option takes advantage of surplus availability at an existing interconnection point.<sup>35</sup> CEEM is pleased that Xcel is considering using its existing interconnection rights to support future project hybridization for renewables and storage.<sup>36</sup> Storage and renewable resources should be given priority over any

---

<sup>28</sup> Herman K. Trabish, *Two Barriers to Utility and Customer Savings with Flexible Loads and How Regulators Can Help*, UTILITY DIVE, Jan. 6, 2021, <https://www.utilitydive.com/news/two-barriers-to-utility-and-customer-savings-with-flexible-loads-and-how-re/592084/>.

<sup>29</sup> *Id.*

<sup>30</sup> Hledik, R., The Brattle Group, et. al (2019) *The Potential for Load Flexibility in Xcel Energy’s Northern States Power Service Territory*. at p. iv *Note that assumptions were driven by avoided capacity costs, which may not appropriately capture costs and benefits.*

<sup>31</sup> Herman K. Trabish, *Two Barriers to Utility and Customer Savings with Flexible Loads and How Regulators Can Help*, UTILITY DIVE, Jan. 6, 2021.

<sup>32</sup> Xcel Initial IRP Filing at 29-30.

<sup>33</sup> *Midcontinent Independent System Operator, Inc.*, 172 FERC ¶ 61,138 (2020).

<sup>34</sup> Xcel Initial IRP Filing at 33.

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

carbon-emitting resources when these options are available. By taking advantage of its interconnection rights to build new storage and renewable facilities, Xcel would be creating new jobs that would support Xcel's efforts to spur economic development in locations where they are planning facility retirements.<sup>37</sup>

CEEM also recognizes the challenges in Xcel's distribution interconnection queue for DERs, specifically solar garden developers. Interconnection delays on the transmission and distribution grids are serious impediments to clean energy resource additions with the exception of DR resources. CEEM encourages the Commission to consider interconnection challenges facing independent power producers and DER customers and continue to gather information and address these challenges, as it has in other dockets.

## **NEED FOR ADDITIONAL TRANSMISSION**

Xcel acknowledged the need for additional transmission capacity, and CEEM supports additional transmission to support clean energy resources in addition to non-wires alternatives (NWAs). CEEM is encouraged that Xcel included developing additional regional transmission infrastructure during the 2025-2034 period.<sup>38</sup> This appears to be consistent with the efforts of the Midwestern Governors Association's (MGA) MID-GRID 2035 Initiative. As MGA's new chair, Governor Tim Walz emphasized that "[a]s energy production and consumption changes, we want the region to be in the best possible position to power our communities and have the energy resources to attract new business. Without a robust regional transmission plan, the region is at risk of being left in the dark."<sup>39</sup>

NWAs have been addressed in Xcel's Integrated Distribution Plan (IDP) and those efforts should be coordinated with this IRP. In its IDP, Xcel found that NWAs would be useful for capacity-related projects, and the Commission ordered further discussion to advance NWA analysis in stakeholder meetings.<sup>40</sup>

## **DISTRIBUTED ENERGY RESOURCES**

In the aggregate, distributed solar, distributed storage, dispatchable and non-dispatchable DR, EE, and smart charging of electric vehicles can play a significant role in Xcel's carbon-free future while alleviating transmission constraints and enhancing resiliency for local communities. Xcel's IDP will help Xcel enable more demand-side management and should be considered in conjunction with its IRP.

Although FERC Order 2222 applies to wholesale market operators by requiring them to develop rules and tariffs for the participation of DERs and aggregated DERs in wholesale electricity markets, this landmark order lays the foundation for the grid of the future. Xcel's IRP should be considered in the context of this changing landscape that is attempting to reduce barriers to entry for DERs and aggregated DERs.

In addition, the recent Local Solar For All study that found distributed solar and energy storage are essential to lowering costs along with utility-scale projects. The study found that savings would approach half a trillion dollars for consumers. This is important for regulators to consider because

---

<sup>37</sup> See *id.* 36.

<sup>38</sup> Xcel IRP Supplement at 68.

<sup>39</sup> Press Release, Governor Walz Appointed Chair of Midwestern Governors Association (October 15, 2020), <https://mn.gov/governor/news/?id=1055-450179>

<sup>40</sup> *In re Xcel Energy's Integrated Distribution Plan and Advanced Grid Intelligence and Security Certification Request*, MPUC Docket No. E-002/M-19-666, Order Accepting Integrated Distribution Plan, Modifying Reports, and Certifying Certain Grid Modernization Projects at 5, 8, 16; see also MPUC Staff Summary, *Integrated Distribution Planning Stakeholder Discussion* (Jan. 8, 2021) (Docket nos. 19-674, -683, -693, -666).

overreliance on utility scale may not prove the lowest cost option, whereas a smart mix of utility and DG may create a more resilient grid and lowest prices for the ratepayers.<sup>41</sup>

## NEW TECHNOLOGIES

Xcel stated that substantial technological breakthroughs will be needed to achieve its carbon-free goal in a cost-effective manner.<sup>42</sup> Xcel further stated that these breakthroughs must include carbon-free dispatchable energy resources to help it balance variable renewables' output relative to customer demand.<sup>43</sup> Xcel mentioned these solutions could include carbon capture-plus-storage, advanced nuclear technologies, and hydrogen-fired generation.<sup>44</sup> Again, Xcel should not underestimate the value of existing clean energy technologies, such as DR and solar-plus-storage, to perform this task. Pilot projects could be utilized to determine which applications and programs are best suited to assist Xcel in integrating renewables.

The Commission may also want to consider its role in helping Xcel and Minnesota's other regulated utilities with research and development (R&D), in addition to the deployment of clean energy resources and enabling technologies. R&D activity may accelerate under the Biden Administration as a result of commitments to lower carbon on an economy-wide basis, and there could be targeted investments in the utility-sector via clean energy stimulus packages. Similarly, many state utility commissions actively helped guide energy sector spending by working alongside industry by guiding spending on grid investment and demonstration grants from the American Recovery and Reinvestment Act of 2009 (ARRA). States that guided these funds reaped significant clean energy benefits. The ARRA funds boosted economic activity, public benefits, and advancement of utility system technologies. A 2013 analysis by the Department of Energy found that smart grid projects funded from 2009 to 2012 created nearly \$7 billion of economic output and over \$1 billion in tax revenue, which resulted in more than a 2-to-1 return on investment while improving the performance of critical energy infrastructure.<sup>45</sup>

## EQUITY IN TRANSITION

CEEM encourages Xcel and the Commission to focus on developing equitable paths as Xcel transitions to a carbon-free future. It is important to prioritize efforts to identify where clean energy delivers the most public benefits. Planning for a future includes concerns for equitable deployment of energy infrastructure. Identifying system options should also identify and value potential deployment scenarios that would deliver benefits including but not limited to:

- disadvantaged, vulnerable, and low-income communities;
- black, indigenous, and peoples of color;
- communities that will be impacted by retirements; and
- landowners as land use changes to accommodate clean energy resources.

---

<sup>41</sup>Vibrant Clean Energy, et al. (2020) Why Local Solar for all Costs Less: A New Roadmap for the Lowest Cost Grid. December 2020 <https://www.localsolarforall.org/roadmap>

<sup>42</sup> Xcel Initial IRP Filing at 83.

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> U.S. DEPARTMENT OF ENERGY, ECONOMIC IMPACT OF RECOVERY ACT INVESTMENTS IN THE SMART GRID at 1, 15 (April 2013), <https://www.energy.gov/sites/prod/files/2013/04/f0/Smart%20Grid%20Economic%20Impact%20Report%20-%20April%202013.pdf>.

The clean energy transition should create opportunities across the state and across territories of regulated public utilities. More plainly, the clean energy transition must happen with and through communities, not to communities.

## **CONCLUSION**

CEEM applauds Xcel's commitment to carbon-free electricity by 2050. CEEM's member companies are providing system solutions today that are delivering public benefits, in tandem with Xcel. Planned retirements will allow Xcel to exceed its carbon reduction statewide goal for 2030 in Minnesota's Next Generation Energy Act, and Xcel has the opportunity to further contribute to shared policy goals. CEEM is also pleased that Xcel is increasing its energy efficiency, DR, solar, and wind resources, and is open to new technologies to meet grid needs. Overall, CEEM supports a customer-focused approach as Xcel embarks on this next phase of its clean energy transition.