

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

I. INSTRUCTIONS

The proposer shall prepare this Environmental Questionnaire (EQ) as accurately and completely as possible. Supporting information can be provided as attachments. The proposer must identify the location of the project and specifically describe the activities that would occur at that location. The proposer must provide specific information and quantities, regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer must submit with this EQ a FINAL copy of the project's statement of work (SOW) or statement of project objective (SOPO) that will be used in the contract/agreement between the proposer and the U.S Department of Energy (DOE).

II. QUESTIONNAIRE

A. PROJECT SUMMARY

1. Solicitation/Project Number: DE-FOA-0002740 Proposer: Xcel Energy Services, Inc.
2. This Environmental Questionnaire pertains to a: ☒ Recipient or Prime Contractor ☐ Sub-recipient or Subcontractor
3. Principal Investigator: Jason Mauch Telephone Number: (b) (4)
4. Project Title: Wildfire Mitigation and Extreme Weather Resilience for Xcel Energy
5. Expected Project Duration: 60 months; Jan 1, 2024 – Dec 31, 2028
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Multiple areas across the Xcel Energy service territory, specifically in the states of Colorado, Minnesota, Texas, New Mexico and Wisconsin as shown in the included map entitled Appendix A.
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Xcel Energy will complete a variety of wildfire and resiliency projects as a part of this application's scope:
 - Fire Spread Modeling Software: Project will install industry leading wildfire risk modeling software with advanced fire spread prediction algorithms and dynamic weather data inputs to achieve enhanced wildfire risk identification and consequence estimates to identify electric assets with the greatest potential wildfire risk (CO, TX, NM).
 - Wind Strength Testing: Project will perform wind strength reviews to identify the physical strength of the existing distribution structures and verify the clearances of overhead lines. This is accomplished by using LiDAR data to build accurate models using Power Line System Computer-Aided Drafting and Design ("PLS-CADD") software (TX, NM)
 - Wildfire Safety Settings (WSS) Restoration Response Program: Project will utilize UAS (drones) to enhance the speed and efficiency of restoration response and inspections on both distribution and transmission lines, as compared to the conventional methods of using foot patrols and helicopter flights (TX, NM, CO).
 - Unmanned Aerial System (UAS) Pole Inspection for Distribution Assets: Project will utilize UAS technology (drones) to perform a streamlined 'virtual inspection' process along with an automated process to generate downstream work notifications. This will enable scaled operations for pre-wildfire season inspection and mitigation work related to poles and associated distribution equipment (TX, NM, CO).
 - Undergrounding High Risk Circuits on the Distribution System: Undergrounding of distribution lines removes the fire ignition risk and improves the overall system reliability and resiliency against extreme weather events. This program will convert overhead distribution line conductors to underground cables to harden the system (CO, MN, WI).
 - Non-Expulsion Fuses: Project will replace traditional fuses (also called cut-out fuses) and lightning arresters that have the potential to cause ignition as hot, metallic material can be expelled from the fuse tube when it operates. Project will install non-expulsion fuses designed, tested, and proven to not expel hot, metallic particles (TX, NM).
 - Hazard Tree Clearing Program: Project is a collaborative effort with the United States Forest Service to support vegetation management on electric assets located within USFS lands. This project seeks to expand and accelerate the tree clearing program by increasing the frequency of inspection and mitigation of dead and dying trees (CO).
 - Hazard Tree Identification Using Satellite Imagery: Project will utilize data from a satellite technology vendor, AiDash, to analyze recently procured high resolution satellite imagery to identify fall-in risk trees and/or trees that are dead or declining in health that pose a risk to electric lines (TX, NM, MN, WI).

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- Vegetation Management Mainline Reclamation: Project will target areas of repeated vegetation outages and/or low tolerance for outages for the removal of larger trees and/or the establishment of wider clearances between the conductor and vegetation. This will improve the electric reliability of the system by reducing the likelihood of vegetation-caused faults, including long duration outages due to damaged poles and conductors (TX, NM, MN, WI).
- Wood Pole Fire Resistant Coating: Project involves installing a fire-resistant coating to electric transmission wood pole infrastructure. Treatment will increase the resiliency and survivability of structures against wildfire (TX, NM, CO).
- Microgrids Supporting Black, Indigenous, People of Color (BIPOC) Community Resilience: Project will install solar/battery microgrids at four BIPOC community centers that will serve as “resilience hubs” to provide critical services (cooling/heating, food services, communications, medical services, etc.) to vulnerable populations in the event of an electric system outage (MN).
- LaCrosse, Wisconsin Water Treatment Plant Resiliency Project: The City of La Crosse is working with Xcel Energy to install a microgrid - including a battery energy storage system, advanced microgrid controls, and system enhancements - to leverage renewable digester gas-fueled combined heat and power and standby generation to support the wastewater treatment plant in the event of a utility outage. A future phase would support additional grid modifications and components to include other facilities, including the all-electric municipal bus charger (WI).
- Efficient and Effective Public Safety Power Shutoffs Solutions: In the event of immediate fire danger to assets and communities, public safety power shutoffs (PSPS) may be necessary and deployed.
 - In collaboration with its technology partner, WeaveGrid, Xcel Energy will enhance these tools to ensure that electric vehicle drivers are alerted, and the company is aware of their charging needs as PSPS is deployed.
 - In collaboration with World Resources Institute (WRI) and their bidirectional electric school bus (ESB) initiative, utilize those vehicles for a backup energy supply to provide a community with power while the broader grid is disabled (CO).

8. List all other locations where work would be performed by the primary contractor of the project and subcontractor(s). Each of the following must have an individual Environmental Questionnaire.

Subcontractor or sub-recipient	Location of activities for this project
Not Applicable at time of application	

9. Identify and select the checkbox with the predominant project work activities under Group A, B, or C

Group A

- ☐ Routine administrative, procurement, training, and personnel actions. Contract activities/awards for management support, financial assistance, and technical services in support of agency business, programs, projects, and goals. Literature searches and information gathering, material inventories, property surveys; data analysis, computer modeling, analytical reviews, technical summary, conceptual design, feasibility studies, document preparation, data dissemination, and paper studies. Technical assistance including financial planning, assistance, classroom training, public meetings, management training, survey participation, academic contribution, technical consultation, and stakeholders’ surveys. Workshop and conference planning, preparation, and implementation which may involve promoting energy efficiency, renewable energy, and energy conservation.

STOP! If all work activities related to this project can be classified and described within categories under Group A, proceed directly to Section III CERTIFICATION BY PROPOSER. No additional information is required. If project work activities are described in either Group(s) B or C; then continue filling out questionnaire.

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Group B

- ☐ Laboratory Scale Research, Bench Scale Research, Pilot Scale Research, Proof-of-Concept Scale Research, or Field Test Research. Work DOES NOT involve new building/facilities construction and site excavation/groundbreaking activities. This work typically involves routine operation of existing laboratories, commercial buildings/properties, offices and homes, project test facilities, factories/power plants, vehicles test stands and components, refueling facilities, utility systems, or other existing structures/facilities. Work will NOT involve major change in facilities missions and operations, land use planning, new/modified regulatory/operating permit requirements. Includes work specific to routine DOE Site operations and Lab research work activities, but NOT building construction and site preparation. DOE work typically involves laboratory facilities and lab equipment operations, buildings and grounds management activities; and buildings and facilities maintenance, repairs, reconfiguration, remodeling, equipment use and replacement.

Group C

- X Pilot Test Facilities Construction, Pilot Scale Research, Field Scale Demonstration, or Commercial Scale Application. Work typically involves facility construction, site preparation/excavation/groundbreaking, and/or demolition. This work would include construction, retrofit, replacement, and/or major modifications of laboratories, test facilities, energy system prototypes, and power generation infrastructure. Work may also involve construction and maintenance of utilities system rights-of-way, roads, vehicle test facilities, commercial buildings/properties, fuel refinery/mixing facilities, refueling facility, power plants, underground wells, and pipelines, and other types of energy research related facilities. This work may require new or modified regulatory permits, environmental sampling and monitoring requirements, master planning, public involvement, and environmental impact review. Includes work specific to DOE Site Operations and Lab operation activities involving building and facilities construction, replacement, decommissioning/demolition, site preparation, land use changes, or change in research facilities mission or operations.

B. PROPOSED PROJECT ALTERNATIVES

1. If applicable, list any project alternatives considered to achieve the project objectives.

Not applicable in this case, no alternatives were considered.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures). Multiple areas across the Xcel Energy service territory, specifically in the states of Colorado, Minnesota, Texas, New Mexico, and Wisconsin. Known micro grid locations are:
- Sabathani Community Center – 310 East 38th Street Ste 200, Minneapolis MN
 - Minneapolis American Indian Center- 1530 East Franklin Ave, Minneapolis MN
 - North Minneapolis Resiliency Hub (Franklin Middle School) - 1501 N Aldrich Ave, Minneapolis MN
 - Fourth microgrid location to be determined
2. Attach a project site location map of the project work area. See appendix A for Service Territory by Wildfire Risk and DAC and appendix B for a general overview of the proposed microgrids is found (figure 1) and the proposed layout for the three identified microgrids (figures 2-4). A fourth microgrid will be installed at a location to be determined (site selection process to be conducted post-award).

D. ENVIRONMENTAL IMPACTS

NEPA procedures require evaluations of possible effects (including land use, energy resource use, natural, historic and cultural resources, and pollutants) from proposed projects on the environment.

Upon further review we believe that DOE may find that some of the proposed activities would qualify for one or more of the categorical exclusions applicable to specific actions as defined in Appendix B to Subpart D of 10 CFR Chapter X Part 1021. Those categorical exclusions that we have identified that may apply include:

- B1.11 Fencing – Installation of fence around microgrid installations

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- B1.17 Polychlorinated biphenyl removal – Removal of existing pole mounted transformers some of which may contain regulated quantities of PCBs
- B1.31 Installation or Relocation of Machinery and Equipment - In response to DOE's December 2009 Request for Information, one commentor suggested that DOE categorically exclude projects (e.g., residential, commercial, and industrial) that involve retrofitting or retooling of existing structures, provided that the projects do not include new construction, disturb previously undisturbed areas, or require new or significantly modified environmental permits. Further, the commentor explained that such a categorical exclusion would help facilitate alternative energy manufacturing projects (e.g., batteries, solar equipment, and wind turbines) that are proposed to be located in existing manufacturing/industrial facilities and complexes. We understand that during the course of the final rulemaking DOE adopted several changes to this categorical exclusion that address these comments.
- B4.10 Removal of electrical transmission facilities - Deactivation, dismantling, and removal of electric transmission facilities (including, but not limited to, electric powerlines, substations, and switching stations) and abandonment and restoration of rights-of-way (including, but not limited to, associated access roads).
- B4.12 Construction of powerlines - Construction of electric powerlines approximately 10 miles in length or less, or approximately 20 miles in length or less within previously disturbed or developed powerline or pipeline rights-of-way.
- B4.13 Upgrading and rebuilding existing power lines - Upgrading or rebuilding approximately 20 miles in length or less of existing electric power lines, which may involve minor relocations of small segments of the power lines.
- B5.1 Actions to conserve energy or water – Actions to conserve energy or water, demonstrate energy or water conservation and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of harmful substances. We understand that this includes power storage including the installation of batteries generally less than 10 megawatts.

1. Land Use

- a. Characterize present land use where the proposed project would be located.

<input checked="" type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input type="checkbox"/> Rural	<input type="checkbox"/> Residential	<input type="checkbox"/> Research Facilities
	<input type="checkbox"/> Forest	<input type="checkbox"/> University Campus	<input type="checkbox"/> Other:

Most of the work on the distribution system is expected to occur within existing right of way. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The project also includes the installation of four proposed microgrid projects that will be installed in urban areas on property associated with the host that is installing and owning solar generation. Three microgrids are at locations already determined; see appendix B in figures 1-4. The fourth microgrid location will be determined through a site selection process post-award.

- b. Identify the total size of the facility, structure, or system and what portion would be used for the proposed project.

This collection of projects will involve the modification and replacement of existing pieces of electrical equipment (e.g. fuses, conductor, etc.) and the removal of vegetation in close proximity to existing electric distribution and transmission assets. The total size of the facility cannot be estimated at this time. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The project also includes three microgrids located in Minneapolis that are associated with the Resilient Minneapolis Project. A general layout of a typical site is found in Figure 1. The three known locations are: at the Sabathani Community Center (Figure 2), the Minneapolis American Indian Center (Figure 3) and a microgrid at the Franklin Middle school in North Minneapolis that will link three Minneapolis Public School buildings. We are also proposing an

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installation at a BIPOC community center yet to be identified. Our project is limited to installing batteries and associated hardware (transformers, microgrid controllers, switchgear etc.), which will integrate with the hosts' solar.

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system rights-of-way, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.
- ☐ No construction would be anticipated for this project.

Installation of new electrical equipment and components on existing electric distribution lines and the modification of existing wood poles with fire resistant coating will occur within existing rights-of-ways. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

There will also be construction activities for the installation of microgrids and associated components. The installation of the microgrid is limited to the installation of batteries and associated hardware (transformers, microgrid controllers, switchgear etc.), which will integrate with the hosts' solar.

- d. Describe how land use would be affected by operational activities associated with the proposed project.
- ☐ No land areas would be affected.

Our intention is to minimize land areas that would be affected. Minor modifications of existing electric distribution equipment and assets. In some cases, it would involve the installation/modification of existing electric transmission equipment. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The microgrids will be installed at locations to support community resilience, i.e., provide backup power for critical services in an emergency, with associated solar generation installed and owned by the project hosts.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.
- X No land areas would be affected.
- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
- X No ☐ Yes (describe)

- g. Would the proposed project be located in or near local, state, or federal parks; forests; monuments; scenic waterways; wilderness; recreation facilities; or tribal lands? ☐ No X Yes (describe)

Yes, it is possible due to the nature of this work being focused on wildfire mitigation that the installation of non-expulsion fuses and removal of hazard trees could occur near areas that would fall under the categories of "local, state, or federal parks; forests", "wilderness", or "recreation facilities". It is not anticipated that any work will be near monuments, or scenic waterways.

2. Construction Activities and/or Operation

- a. Identify project structure(s), power line(s), pipeline(s), utilities system(s), right-of-way(s) or road(s) that will be constructed and clearly mark them on a project site map or topographic map as appropriate. X None (Not available at this time.)

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- b. Would the proposed project require the construction of waste pits or settling ponds?
X No ☐ Yes (describe and identify location, and estimate surface area disturbed)

- c. Would the proposed project affect any existing body of water? X No ☐ Yes (describe)

We do not anticipate that the proposed project will adversely impact any existing body of water.

- d. Would the proposed project impact a floodplain or wetland? X No ☐ Yes (describe)

We do not anticipate that the proposed project will adversely impact a floodplain or wetland.

- e. Would the proposed project potentially cause runoff/sedimentation/erosion? ☐ No X Yes (describe)

Project includes removal of distribution poles and trenching activities to install new underground distribution lines. Regardless of whether specific project elements will be subject to construction stormwater and/or erosion control requirements we will employ practices to minimize runoff, sedimentation and erosion.

- f. Would the proposed project include activities located on perma-frost, near fault zones, or involve fracturing, well drilling, geologic stimulation, sequestration, active seismic data collection, and/or deep-water operations?
X No ☐ Yes (describe)

- g. Would the proposed project involve any of the following: nanotechnology; recombinant DNA or genetic engineering; facility decommissioning or disposition of equipment/materials; or management of radioactive wastes/materials?
X No ☐ Yes (describe)

3. Biological Resources

- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
X None, unless rerouting of the distribution line is required to best serve our customers, the expectation is that we will work within existing utility corridors.

- b. Would any designated critical habitat be affected by the proposed project? X No ☐ Yes (describe)

Unless rerouting of the distribution line is required to best serve our customers, the expectation is that we will work within existing utility corridors.

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.
☐ No planned construction ☒ X No habitats ☐ None ☐ Impact (describe)

Unless rerouting of the distribution line is required to best serve our customers, the expectation is that we will work within existing utility corridors.

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- d. Would any foreign substances/materials be introduced into ground or surface waters, soil, or other earth/geologic resource because of project activities? How would these foreign substances/materials affect the water, soil, biota, and geologic resources? ☐ No ☒ Yes (describe)

Project consists of replacing above ground electric distribution lines with underground distribution lines. No adverse impact to water, soil, biota and geologic resources is anticipated from this activity. The microgrids will be sited on developed land to support community resilience, i.e., provide backup power for critical services in an emergency, with associated solar generation installed and owned by the site host.

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? ☒ No ☐ Yes (describe)

The scope of the project is such that we anticipated no impacts to animal migratory corridors, in fact, removing above ground electric distribution lines and replacing them with underground lines would reduce opportunities for adverse line contacts by avian species.

4. Socioeconomic and Infrastructure Conditions

- a. Would local socio-economic changes result from the proposed project? ☒ No ☐ Yes (describe)

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?
☒ No ☐ Yes (describe)

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.
☒ No ☐ Yes (describe)

Transportation should be unaffected.

- d. Would the proposed project create a significant increase in local energy usage? ☒ No ☐ Yes (describe)

No, the proposed project has no significant impact on local energy usage.

5. Historical/Cultural Resources

- a. Describe any historical, archaeological, or cultural sites in the vicinity of the proposed project; note any sites included on the National Register of Historic Places. ☒ None

Limited new land disturbance beyond what normally occurs to maintain existing infrastructure is currently planned. Project includes replacement/addition of new equipment on existing utility transmission and distribution lines and within existing utility right of ways. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

- b. Would construction or operational activities planned under the proposed project disturb any historical, archaeological, or cultural sites? ☐ No planned construction ☐ No historic sites ☐ Yes (describe) ☒ No Impact (discuss)

To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

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- c. Has the State Historic Preservation Office been contacted with regard to this project? ☒ No ☐ Yes (describe)
- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?
☒ No ☐ Yes (describe)

Project includes replacement/addition of new equipment on existing utility transmission and distribution lines. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The microgrids will be located within Minneapolis, with a fourth location to be determined that may be within or outside Minneapolis. to support community resilience, i.e., provide backup power for critical services in an emergency, with associated solar generation that the host has installed and owns. No impact on visual resources or alteration of the present landscape is anticipated.

- e. Would the proposed project be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes? Describe any known tribal sensitivities for the proposed project area.

To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

6. Atmospheric Conditions/Air Quality

- a. Identify air quality conditions in the immediate vicinity of the proposed project with regard to attainment of National Ambient Air Quality Standards (NAAQS). This information is available under the Green Book Non-Attainment Areas for Criteria Pollutants located at <http://www.epa.gov/air/oaqps/greenbk/astate.html>

	Attainment	Non-Attainment
O ₃ - 1 Hour	<input type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SO _x	i	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	ii	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	iii

i – Minnesota is in attainment for the previous SO₂ standards; however, some areas of the state remain in an SO₂ maintenance area. In these situations, the SO₂ 24-Hour and Annual standards remain in effect. [Source: [MPCA Air Quality Dispersion Modeling Practices Manual \(state.mn.us\)](#)]. In Texas and New Mexico, the only non-attainment area in our service territory is for SO₂ in Hutchinson County

ii– CO has maintenance designations for the 1971 CO NAAQS for portions of Carver, Dakota, Scott and Wright Counties [Source: [Green Book Carbon Monoxide \(1971\) Area Information | US EPA](#)]. In Colorado the following areas were redesignated to maintenance for Carbon Monoxide (1971) Colorado Springs, Denver, Fort Collins, Greeley and Longmont

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iii – Lead (2008) NAAQS nonattainment designation for Eagan, MN near a lead battery recycling facility. [Source: [Green Book Lead \(2008\) Area Information | US EPA](#)]

b. Would proposed project require issuance of new or modified local, state, or federal air permits to perform project related work and activities? ☒ No ☐ Yes (describe)

c. Would the proposed project be in compliance with local and state air quality requirements? ☒ Yes
If not, please explain.

The project does not include the installation of any air emission sources

d. Would the proposed project be classified as either a New Source or a major modification to an existing source?
☒ No ☐ Yes (describe)

The project does not include the installation of any air emission sources

e. What types of air emissions, including fugitive emissions, would be anticipated from the proposed project, and what would be the maximum annual rate of emissions for the project?

	Maximum per Year	Total for Project
<input type="checkbox"/> SO _x		
<input type="checkbox"/> NO _x		
<input type="checkbox"/> PM - 2.5		
<input type="checkbox"/> PM - 10		
<input type="checkbox"/> CO		
<input type="checkbox"/> CO ₂		
<input type="checkbox"/> Lead		
<input type="checkbox"/> H ₂ S		
<input type="checkbox"/> Organic solvent vapors or other volatile organic compounds--List:		
<input type="checkbox"/> Hazardous air pollutants -- List:		
<input type="checkbox"/> Other -- List:		
<input checked="" type="checkbox"/> None		

f. Would any types of emission control or particulate collection devices be used?
☒ No ☐ Yes (describe, including collection efficiencies)

g. How would emissions be vented? No emissions from the proposed projects

7. Hydrologic Conditions/Water Quality

a. What nearby water bodies may be affected by the proposed project? Provide distance(s) from the project site.

N/A - Project includes replacement/addition of new equipment on existing utility transmission and distribution lines. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs,

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maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The microgrids will be installed on previously developed property. No impacts to this category anticipated.

- b. What sources would supply potable and process water for the proposed project?

N/A - Project includes replacement/addition of new equipment on existing utility transmission and distribution lines. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The microgrids consist of batteries and additional ancillary equipment which should not require potable or processed water. No impacts to this category anticipated.

- c. Quantify the wastewater that would be generated by the proposed project.

	Gallons/day	Gallons/year
<input type="checkbox"/> Non-contact cooling water		
<input type="checkbox"/> Process water		
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Other -- describe:		
<input checked="" type="checkbox"/> None		

- d. What would be the major components of each type of wastewater (e.g., coal fines)? ☒ No wastewater produced
- e. Identify the local treatment facility that would receive wastewater from the proposed project.
☒ No discharges to local treatment facility
- f. Describe how wastewater would be collected and treated.
☒ No wastewater produced
- g. Would any run-off or leachates be produced from storage piles or waste disposal sites? ☒ No ☐ Yes (describe source)
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
☒ No ☐ Yes (describe)
- i. Where would wastewater effluents from the proposed project be discharged? ☒ No wastewater produced
- j. Would the proposed project be permitted to discharge effluents into an existing body of water?
☒ No ☐ Yes (describe water use and effluent impact)
- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
☒ No ☐ Yes (describe)

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- l. Would the proposed project adversely affect the quality or movement of groundwater? ☒ No ☐ Yes (describe)
- m. Would the proposed project require issuance of an [Underground Injection Control \(UIC\)](#) permit?
☒ No ☐ Yes (describe)
- n. Would the proposed project be located in or near a wellhead protection area, drinking water protection area, or above a sole source aquifer or underground source of drinking water (USDW)?
☐ No ☐ Yes (describe)

N/A - Project includes replacement/addition of new equipment on existing utility transmission and distribution lines. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights. No impacts to this category anticipated.

8. Solid and Hazardous Wastes

- a. Identify and estimate wastes that would be generated from the project. Solid wastes are defined as any solid, liquid, semi-solid, or contained gaseous material that is discarded, has served its intended purpose, or is a manufacturing or mining by-product (See [EPA Municipal Solid Waste](#) and [Municipal Solid Waste by State](#)).

	Annual Quantity
<input type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	
<input type="checkbox"/> Coal or coal by-products	
<input checked="" type="checkbox"/> Other -- Identify: pole mounted transformers, arrestors, fuses and cutouts	643500 lbs.
<input type="checkbox"/> Hazardous waste – Identify:	
<input type="checkbox"/> None	

Assume treated wood poles will remain in service to connect service to customers. All coated wire will be either reused or recycled. All pole mounted transformers removed from service will be assessed to determine whether they can be repurposed within our distribution system or sold to approved vendors. For waste disposal while we anticipate several will be repurposed, we conservatively assumed that all transformers will be removed from service and will be disposed of by using approved vendors. We are also assuming that all arrestors, fuses and cutouts will also be disposed.

- b. Would project require issuance of new or modified solid waste and/or hazardous waste related permits to perform project work activities? ☒ No ☐ Yes (explain)
- c. How and where would solid waste disposal be accomplished?
☐ None generated
☐ On-site (identify and describe location)
☒ Off-site (identify location and describe facility and treatment)

The waste generated from this project should be minimal and are routinely generated through the course of our normal business activities. The pole mounted transformers and ancillary equipment on the poles will be evaluated to determine if they can be reused. For the material that can't be reused we will utilize our approved vendor program to facilitate the selection of vendors that have been vetted for their compliance record, financial strength and other risks associated with

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the management of regulated waste streams. Wire and electrical equipment will likely be recycled or reclaimed. The mineral oil from any pole mounted transformers that are removed from service will be recycled.

- d. How would wastes for disposal be transported? Waste generated from this project should be limited to possibly a few utility poles that will be removed, pole mounted transformers, arrestors, fuses cutouts and coated wire. These are all items that our company is familiar with managing. Crews conducting this work will either bring these materials back directly to our existing service centers or other approved areas for aggregation for disposal. The treated wood poles that are removed may be temporary stored on the ground until they can be picked up and delivered to either the local service center or directly to an approved waste vendor.
- e. Describe hazardous wastes that would be generated, treated, handled, or stored under this project. Hazardous waste information can be found at [EPA Hazardous Waste](#) website. ☒ None
- f. How would hazardous or toxic waste be collected and stored? ☒ None used or produced
- g. If hazardous wastes would require off-site disposal, have arrangements been made with a certified TSD (Treatment, Storage, and Disposal) facility?
☒ Not required ☐ Arrangements not yet made ☐ Arrangements made with a certified TSD facility (identify)

9. Health/Safety Factors

- a. Identify hazardous or toxic materials that would be used in the proposed project.
☐ No ☒ Hazardous or toxic materials that would be used (identify):
The project will include the removal of treated wood poles that were treated likely with either Pentachlorophenol or Creosote. The project may also include the removal of an incidental number of pole mounted poles that may have PCBs above the regulated level of 50 ppm. The management of this waste stream is routine for our utility and will be consistent with state requirements and EPA's TSCA rules.
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
☒ ☐ None
- c. Would there be any special physical hazards or health risks associated with the project? ☐ No ☒ Yes (describe)
- Work at height – bucket trucks for overhead linework
 - Trenching and excavation for underground line work
 - Arc Flash and energized electrical hazards for overhead and underground line work
 - Hazards with Battery Energy Storage Systems to be decided based on the technology selected
 - Noise during construction activities
- d. Does a worker safety program exist at the location of the proposed project? ☐ No ☒ Yes (describe)
- Xcel Energy has an extensive worker safety program for generation and distribution work.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
☐ No ☒ Yes (describe)

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- There may be some additional safety training required for workers that will be installing and maintaining the battery energy storage system. Specifics for this training need will be identified once a battery manufacturer and technology has been identified for this project.

f. Describe any increases in ambient noise levels to the public from construction and operational activities.

☐ None ☒ Increase in ambient noise level (describe)

Activities to install new below ground distribution lines and to remove above ground distribution lines will require the use of motorized equipment. The use of this equipment is not unusual but there is likely to be more activity within a short period of time than usual during the implementation of this project.

g. Would project construction result in the removal of natural or other barriers that act as noise screens?

☐ No construction planned ☒ No ☐ Yes (describe)

h. Would hearing protection be required for workers? ☐ No ☒ Yes (describe)

There may be a need for the use of hearing protection for some of the construction activities in this project, but the use should be limited to short-term specific tasks that have higher noise levels. Use of hearing protection will be required for sound levels exceeding 85 dBA TWA for an 8-hour workday that cannot be reduced or eliminated through other means.

10. Environmental Restoration and/or Waste Management

a. Would the proposed project include CERCLA removals or similar actions under RCRA or other authorities?

☒ No ☐ Yes (describe)

b. Would the proposed project include siting, construction, and operation of temporary pilot-scale waste collection and treatment facilities or pilot-scale waste stabilization and containment facilities? ☒ No ☐ Yes (describe)

c. Would the proposed project involve operations of environmental monitoring and control systems?

☒ No ☐ Yes (describe)

d. Would the proposed project involve siting, construction, operation, or decommissioning of a facility for storing packaged hazardous waste for 90 days or less? ☒ No ☐ Yes (describe)

E. REGULATORY COMPLIANCE

1. For the following laws, describe any existing permits, new or modified permits, manifests, responsible authorities or agencies, contacts, etc., that would be required for the proposed project

a. Resource Conservation and Recovery Act ([RCRA](#)): ☒ None ☐ New Required ☐ Modification Required
Describe: The project will result in the generation of waste streams typical for our industry and with which we are very familiar and have practices to manage appropriately. For example, treated wood poles, coated wire, fuses, arrestors, cutouts, other electrical equipment and oil filled transformers.

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):

☒ None ☐ New Required ☐ Modification Required

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Describe:

- c. Toxic Substance Control Act (TSCA): ☒ None ☐ New Required ☐ Modification Required
Describe: While in general we have found that less than 6 percent of our transformers have PCB concentrations of 50 ppm or more we may encounter an oil filled pole mounted transformer that has a regulated quantity of PCBs (50 ppm). As a utility we have processes in place, and our staff have been trained to manage this equipment safely and in accordance with applicable TSCA regulations.
- d. Clean Water Act (CWA): ☐ None ☒ New Required ☐ Modification Required
Describe: A construction storm water permit will likely be required since this project includes subsurface disturbances in excess of the applicable jurisdictional thresholds. Xcel Energy has a robust construction stormwater permitting and compliance program and is familiar with local jurisdictional thresholds for construction stormwater permits and storm water pollution prevention plans.
- e. Underground Storage Tank Control Program (UST): ☒ None ☐ New Required ☐ Modification Required
Describe:
- f. Underground Injection Control Program (UIC): ☒ None ☐ New Required ☐ Modification Required
Describe:
- g. Clean Air Act (CAA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- h. Endangered Species Act (ESA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- i. [Floodplains and Wetlands Regulations](#): ☒ None ☐ New Required ☐ Modification Required
Describe: At this time since we are not anticipating any work within floodplains or wetlands.
- j. Fish and Wildlife Coordination Act (FWCA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- k. National Historic Preservation Act (NHPA): ☒ None ☐ New Required ☐ Modification Required
Describe:
- l. Coastal Zone Management Act (CZMA): ☒ None ☐ New Required ☐ Modification Required
Describe:
2. Identify any other environmental laws and regulations (Federal, state, and local) for which compliance would be necessary for this project, and describe the permits, manifests, and contacts that would be required.

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F. DESCRIBE ANY ISSUES THAT WOULD GENERATE PUBLIC CONTROVERSY REGARDING THE PROPOSED PROJECT. ☐ None

Our experience is that the removal of above ground distribution lines and installation of underground distribution lines should be very welcomed by the public. The microgrids will be collocated on property owned or leased by the host to support the solar generation that they have installed and own.

G. WOULD THE PROPOSED PROJECT PRODUCE ADDITIONAL DEVELOPMENT, OR ARE OTHER MAJOR DEVELOPMENTS PLANNED OR UNDERWAY, IN THE PROJECT AREA?

☐ No ☒ Yes (describe)

At one of the Resilient Minneapolis Project locations, the Minneapolis American Indian Center, a renovation and expansion of the existing building is underway. This renovation was planned prior to and independent of the microgrid installation and is unaffected by the microgrid. The Minneapolis American Indian Center has acquired all necessary local and state permits.

H. SUMMARIZE THE SIGNIFICANT IMPACTS THAT WOULD RESULT FROM THE PROPOSED PROJECT.

☒ None (provide supporting detail) ☐ Significant impacts (describe)

This project includes replacement/addition of new equipment on existing utility transmission and distribution lines. To the extent that it is possible, the installation of the underground lines would occur within existing utility right of way corridors. However, it may be necessary to reroute new underground distribution lines to accommodate customer needs, maintain design and construction standards, maintain minimum clearances for operational and safety purposes, and to ensure appropriate use of existing land rights.

The microgrids will be constructed to support community resilience, i.e., provide backup power for critical services in an emergency, with associated solar generation that the host has constructed and owns. No significant impacts are anticipated.

I. PROVIDE A DESCRIPTION OF HOW THE PROJECT WOULD BE DECOMMISSIONED, INCLUDING THE DISPOSITION OF EQUIPMENT AND MATERIALS.

The implementation of this project includes an upgrade of the affected distribution system. When it is time to remove the underground distribution lines and pad mounted transformers that were installed, they will be managed consistent with our current practices to ensure safe removal and the management of materials to recycle or reuse as appropriate and to ensure the proper management of waste materials. The underground distribution line is comprised of a coated cable that will be recycled. The pad mounted transformers will be drained of mineral oil. The mineral oil will be recycled, and the pad mounted transformer will be sent to our approved vendor for reclamation.

The microgrid installations will be comprised of batteries and associated hardware (transformers, microgrid controllers, switchgear etc.). At the conclusion of their useful life, the batteries and associated equipment will be decommissioned and removed from the sites. The batteries will likely be managed as a universal waste and directed for recycling. The electrical equipment will be recycled to the extent feasible. The remaining waste products will be directed to a vendor that has been reviewed by our waste vendor approval procedure to a properly licensed and well operated facility.

III. CERTIFICATION BY PROPOSER

I hereby certify that the information provided herein is current, accurate, and complete as of the date shown immediately below.

Signature: Jeff West

Digitally signed by Jeff West
Date: 2023.04.03 06:08:19 -06'00'

Date (mm/dd/yyyy): 4/3/2023

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Typed Name: Jeffrey L West

Title: Senior Director, Environmental Services

Organization: Xcel Energy

IV. REVIEW AND APPROVAL BY DOE

I hereby certify that I have reviewed the information provided in this questionnaire, have determined that all questions have been appropriately answered, and judge the responses to be consistent with the efforts proposed.

DOE Project Manager

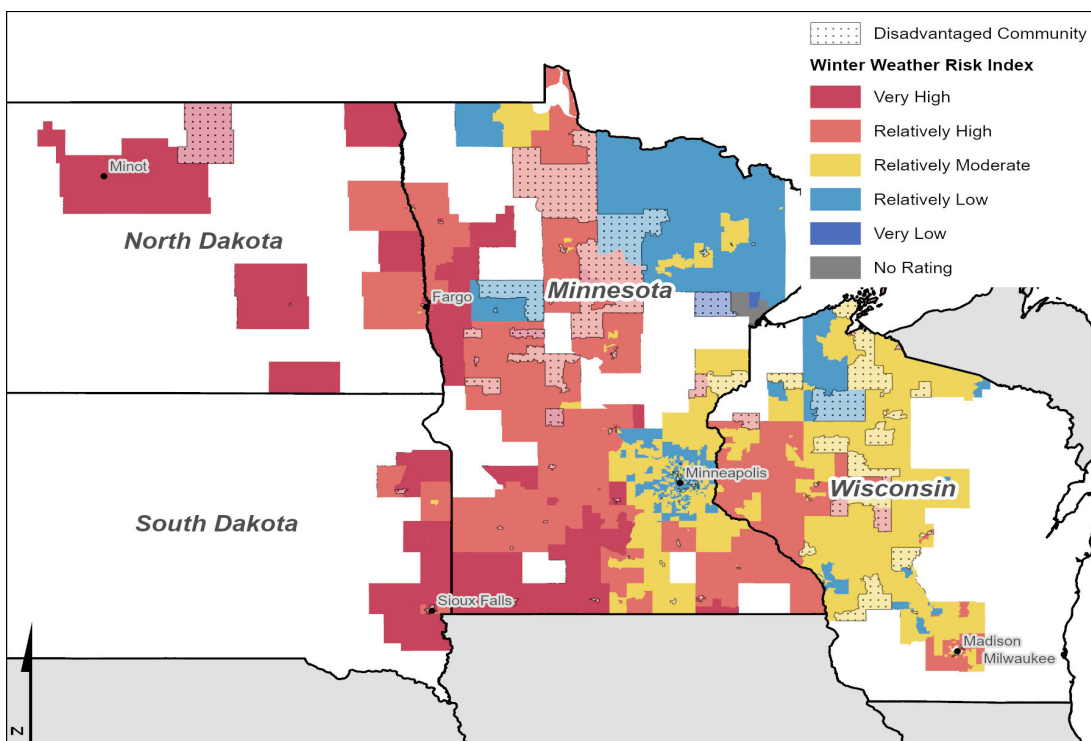
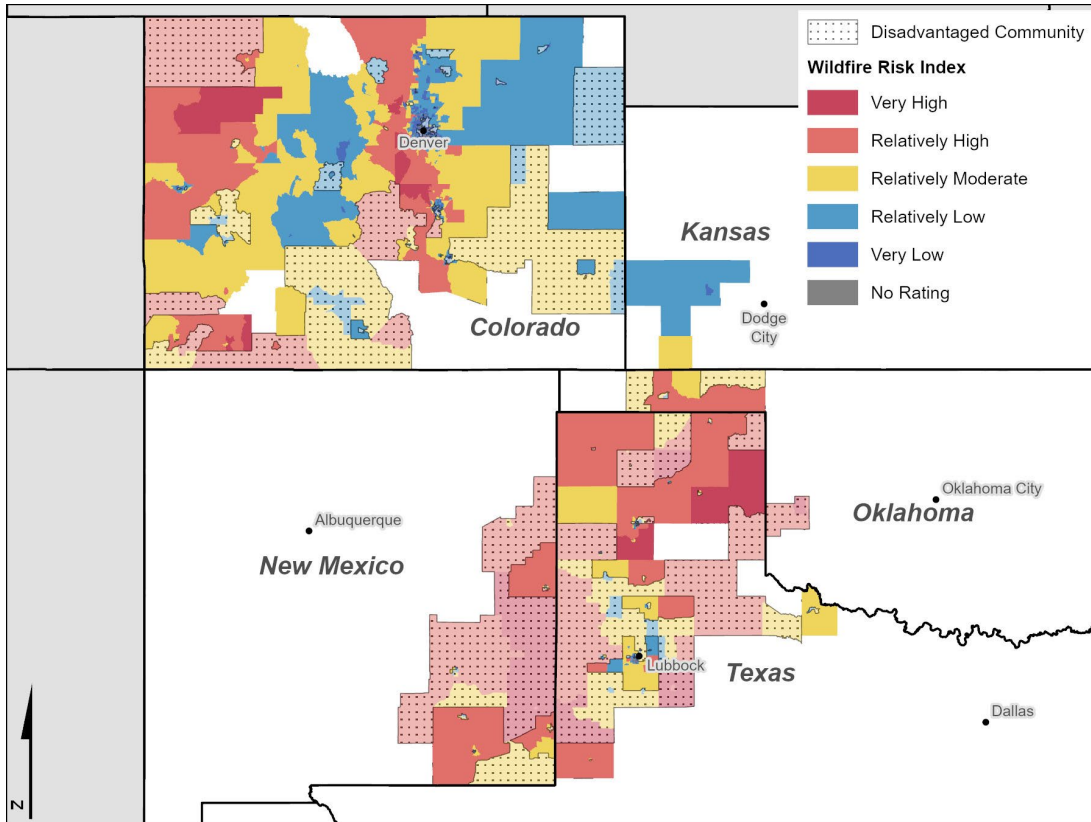
Signature: _____ Date (mm/dd/yyyy): _____

Typed Name: _____

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Appendix A – Service Territory by Wildfire Risk and DAC



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Appendix B – Site Maps of Microgrids in BIPOC Communities

Figure 1 - Microgrid General Site Overview

- Site dimensions are approximately 60ft x 40ft for the largest site (3 MWh)
- Each site has 1 to 3 batteries
 - Each battery stores 1 MWh
- Site operates at 480 Volts
- Only the battery is unique equipment (blue box)
 - The remainder of the equipment is standard distribution equipment
- The entire site is surrounded by a Concrete wall



(b) (4)

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(b) (4)

