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TECHNICAL VOLUME

**Grid Resilience & Innovation Partnerships - Grid Innovation Program, Topic Area 3
 Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio**

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Project Overview

The Minnesota Department of Commerce (Commerce) is applying for DOE funding on behalf of MISO, SPP, Evers, ITC Midwest (ITC), MidAmerican OPD, OTP, and Xcel to help move the JTIQ process forward as a template for future interregional transmission development and “affected systems” generator interconnection. The project team requests \$929 million to support development of the JTIQ Portfolio and execution of the proposed community benefits plan.

The Problem

The central United States has experienced unprecedented growth in the development of new electric generation, primarily driven by utility-scale wind, solar, and battery projects. The volume of new generation projects has triggered large, costly transmission upgrades in the SPP and in the MISO regions. In addition, affected system transmission upgrades are often necessary in the neighboring region. The costs and uncertainty of these identified system upgrades have become one of the biggest bottlenecks for developing new renewable energy projects in the upper Midwest.¹

Under the conventional affected systems study approach, proposed clean energy projects are being abandoned because the large cost of required transmission upgrades, or the cost and timing uncertainty inherent under the process, harm the financial viability of the project. The lack of continual forward progress in project development of energy generation projects puts long-term supply certainty and reliability at risk while also creating a burden of uncertainty on communities being asked to host infrastructure.

The State of Minnesota along with other states, communities, and utilities across the Midwest have clear clean energy goals that necessitate transmission expansion. MISO and SPP have shown themselves capable of planning needed transmission within their respective regions. But interregional transmission has proven more difficult, and multiple Coordinated System Planning studies since 2016 have not identified any viable interregional transmission projects.

The Innovative Joint Targeted Interconnection Queue Solution

To address the complex and multi-faceted problem of interregional transmission planning and affected systems interconnection studies, in late 2020, MISO and SPP developed (1) a new joint planning process focused on identifying the most critical interregional transmission projects needed to remedy historical interconnection challenges along their seam and (2) a new generator-interconnection cost allocation process to pay for them.

The JTIQ approach replaces the conventional affected systems studies between MISO and SPP with a coordinated, long-range, interregional assessment. This approach is regionally holistic,

¹ For example: [DPP-2017-FEB-West](#), [DPP-2017-AUG-West](#) and [DISIS-2017-001](#)

studying multiple projects at once, resulting in more regionally optimized transmission solutions and an opportunity to share the cost of those solutions over a larger number of interconnection customers.

The First Joint Targeted Interconnection Queue Portfolio

Figure 1. JTIQ Portfolio Map



<https://www.spp.org/documents/68518/spp-miso%20jtiq%20study%20updated%20white%20paper%2020221220.pdf>

The RTOs completed the first cycle of the innovative Joint Transmission Interconnection Queue (JTIQ) planning process in early 2022² and have now identified an initial JTIQ Portfolio of five 345 kV transmission projects in North Dakota, South Dakota, Minnesota, Iowa, Missouri, Kansas, and Nebraska (see Figure 1).

Once successfully demonstrated, the JTIQ process can serve as a replicable template for other regions across the country to address the transmission planning and cost allocation challenges faced by large inter-regional transmission upgrade projects while also facilitating clearance of the large backlog of wind and solar generation interconnection requests.

In addition to the planning process described above, SPP and MISO are developing an innovative cost allocation process to pay for the projects and solve the interconnection dilemma described above. While still subject to FERC

approval, the new cost allocation approach proposes to fund the major, critical interregional network upgrades by charging interconnection customers 90% of the costs through a fixed cost per MW charge beginning when the JTIQ projects are placed into service. The remaining costs would be recovered through transmission rates paid by transmission service customers pursuant to the SPP or MISO tariff. The 90%/10% project-cost split between interconnection customers and load is based on the historical cost split between interconnection and load for network upgrades identified through interconnection studies. The per MW charge and overall design of the cost allocation scheme is a completely new concept for the JTIQ Process.

² <https://www.spp.org/engineering/spp-miso-jtiq/>

Project Goal

The goal of this project is to develop a new generation-interconnection affected system study process for regional transmission organizations (RTOs) that is faster than the existing approach and results in much lower per-megawatt upgrade costs per interconnecting generation project. With DOE assistance, the project will result in a replicable method to facilitate interregional transmission upgrades and reduce the cost and uncertainty of affected system upgrade costs facing transmission interconnection customers. More broadly, the anticipated benefits from the JTIQ Portfolio closely align with the DOE's programmatic objectives; these benefits are addressed in detail under Technical Description, Innovation, and Impact.

DOE Impact

The development risks for the JTIQ Portfolio are largely procedural and financial, rather than technical in nature. As described in more detail below, under the current JTIQ cost allocation proposal, interconnection customers would eventually pay for ninety percent of total design and construction costs for the JTIQ Portfolio on a per-megawatt subscription basis. However, the transmission-owner utilities could be required to carry some of these upfront construction costs until the new transmission lines are paid for through the interconnection customer subscription fees.

The funding available through the DOE GRIP program would incent generators to "subscribe" to JTIQ transmission capacity for interconnecting new generation resources by directly reducing cost for these interconnection customers. Perhaps more importantly, the up-front cost risk to utility customers who would ultimately bear the project cost if generators do not subscribe, would be reduced. The use of DOE grant funding to supply the participating RTOs and utilities with cost and risk reduction will improve stakeholder support for the novel cost allocation methodology. In addition, the direct and indirect benefits delivered to communities throughout the region will improve stakeholder support for the forthcoming cost allocation FERC filing and an improved likelihood of approval in state and local regulatory processes. Without DOE grant funding, the likelihood of timely completion of the first JTIQ Portfolio will be less likely, and the regional and national collaboration contemplated in this application will not occur. Simply put, DOE support is critical to the success of this interregional solution and its application as a national model.

Community Benefits Plan

Our Community Benefits Plan provides an overview of the project team's approach to engage with affected and disadvantaged communities (DAC), and for these transmission projects to support labor engagement, job quality, workforce development and training, diversity, equity, inclusion and accessibility, and Justice40 objectives..

Long-Term Constraints on Community Access to Natural Resources & Tribal cultural resources

Each of the JTIQ projects will have unique environmental and cultural constraints, impacts, and considerations. Because the RTOs have not yet issued their respective authorizations to begin

construction, the project team has not yet conducted a complete review of potential constraints, nor the community and stakeholder engagement and technical engineering work needed to successfully navigate them. We provide a brief overview of the expected considerations for each project below:

Bison-Hankinson-Big Stone South 345 KV line: This project is the largest in the JTIQ portfolio and will be developed in partnership between Xcel and OTP. For the OTP portion, the project's potential effects (if any) on natural and Tribal cultural resources will be evaluated in detail. OTP has demonstrated a strong commitment to and relationship with its rural and tribal communities, with a history of project collaboration. OTP expects any potential impacts, if identified, to be short-term and/or minor, and the company will engage with its rural and tribal community partners throughout the project to both provide updates and determine acceptable impact mitigation. For the Xcel portion, the impact on tribal nations has yet to be determined. Xcel's strategy is to assess initial and ongoing stakeholder reaction to the proposed project and the plan for addressing any project issues raised by local communities, DAC, and the state. In doing so, Xcel will abide by its commitment to provide meaningful opportunities for affected communities to participate in the project.

Brookings Co – Lakefield 345 kV line: This is the second largest project in the JTIQ portfolio and will be constructed by Xcel and ITC. Xcel plans to follow a similar engagement process and expects similar environmental and cultural impacts for both projects. Route options and detailed analysis of impacts are ongoing.

Raun – S3452 345 KV line: The Raun – S3452 project will be built by MidAmerican Energy and OPPD. It is anticipated that the new line will be constructed by rebuilding an existing 161 kV line consisting of two-legged structures to a double-circuit 345/161 kV single-pole configuration. This will significantly mitigate impacts to landowners and other members of the community.

The portion of this project that is located within Nebraska is anticipated to be routed along the corridor of an existing 161kV transmission line, minimizing any land impact beyond what currently exists. This project could double-circuit portions of such existing transmission line, which should reduce any impacts. Additionally, OPPD has experience working with local governments and landowners on similar projects in the past, which could aid in mitigating any concerns that may arise. This project also includes a river crossing. OPPD and MidAmerican have collaborated on four similar projects that have crossed the Missouri River and will use the knowledge and experience gained from these successful projects to aid in the facilitation and development of the Raun-S3452 project.

Auburn – Hoyt 345 KV line: The Auburn – Hoyt project will be constructed by Evergy and OPPD. The utilities intend to build the portions of the projects in their proportionate states and transfer ownership at the Nebraska/Kansas state line, though route options are not yet developed. Neither Evergy nor OPPD anticipate the Auburn-Hoyt project will create any long-term environmental or cultural constraints.

Sibley 345 KV bus reconfiguration: To be built by Evergy, the Sibley project is a brownfield substation rebuild which will have no community impacts (and no routing required).

Climate Resilience Strategy

The JTIQ Portfolio, by its very nature, inherently provides climate mitigation and resiliency benefits to communities across the Midwest by providing greater access to renewable energy over a wide geographic area. Because the JTIQ projects enable the development and interconnection of new generating resources across a multi-state region, the risks of any single severe weather event to regional grid reliability are lessened by geographic diversity. The projects will provide additional sources of supply to the project areas where they are located, providing redundancy and resilience benefits.

Aboveground electrical infrastructure can be vulnerable to climate hazards such as tornados, high-speed winds, ice storms, wildfires, and floods. The project region, and the MISO and SPP regions more broadly, are experiencing increasing severity of winter weather as well as increased flood risk and significant wind and hail events. The project team has a long history of building, maintaining, and operating high-voltage transmission projects in extreme conditions found across the MISO and SPP footprints.

Technical Description, Innovation, and Impact

The proposed project includes the completion of the first cycle of the JTIQ Process, construction of the first JTIQ Portfolio, and execution of the Community Benefits Plan, which is described in detail separate from this Technical Volume. See the Workplan below for additional needed on remaining steps before construction can begin.

The first JTIQ Portfolio consists of five 345 kV AC transmission solutions (four lines and one substation upgrade) totaling well over 300 miles. The forecasted total cost of approximately \$1.8 billion will address approximately 50 reliability constraints along the MISO – SPP seam. At the time of this application, detailed routes have not been identified. Table 1 includes the approximate straight-line length of the known endpoints of the lines, shown in Figure 1.

Table 1. JTIQ Transmission Project Portfolio Summary					
Project Name	Building Utility	RTO	State(s)	Straight-line distance (mi)	Estimated Cost (\$M)
Bison – Hankinson – Big Stone South 345 kV line	Xcel, Otter Tail Power	MISO	ND, SD	119	660
Brookings Co – Lakefield 345 kV line	Xcel, ITC	MISO	SD, MN	94	566
Raun – S3452 345 kV line	MidAmerican, OPPD	MISO/SPP	IA, NE	40	268.2
Auburn – Hoyt 345 kV line	OPPD, Evergy	SPP	NE, KS	79	269.5
Sibley 345 Bus Reconfiguration	Evergy	SPP	MO	0	45.8

The project team notes the 70% increase in the expected cost of the JTIQ Portfolio compared to the \$1.06B that was included in the submitted concept paper. The planning-level cost estimates in the concept paper were developed by MISO and SPP in 2021 using straight-line and generic design assumptions for tower design, conductors, span lengths, site preparation, and construction labors, all based on straight-line routes. For this application, the utility team members developed preliminary bottom-up project cost estimates, taking local land use constraints into account as well as more realistic routing assumptions—but still not reflecting a full routing process. The cost figures presented in Table 1 above also factor in inflation and potential equipment supply-chain cost escalation between now and when construction is likely to begin.

Innovation and Impacts

The existing transmission system and interconnection processes in MISO and SPP—or in any RTO—were not originally designed to interconnect the large volumes of new generation, located far from demand centers, and currently seeking to interconnect. Under the existing approach, the RTOs' affected system studies are one of the last steps in their respective generation interconnection processes. Over the last several years, this step has resulted in high and unpredictable network upgrade costs on neighboring RTO systems being identified very late in the generation interconnection queue process, leading to late-stage dropouts that result in costly restudies that exacerbate interconnection queue backlogs.

The proposed JTIQ process—the innovation—is to replace the cluster-by-cluster affected system study coordination currently in place between MISO and SPP with the new forward-looking approach. The new approach is intended to eliminate the longstanding issue of major backbone transmission upgrade costs being assigned in a 'musical-chair-like process' to the next, often smaller, interconnecting customer.

Going forward, MISO and SPP plan to evaluate all generator interconnection requests within a given cluster through a screening analysis to evaluate if those interconnection requests will have an impact on the other RTOs' facilities and if those requests impact the JTIQ Portfolio.

Interconnection requests determined to have an impact will therefore be allocated predictable per-megawatt costs for the JTIQ upgrades using the new process. The per-megawatt costs charged will still be subject to the 90%/10% generator/load cost allocation approach.

The result of this innovative approach will be a simpler, more predictable, repeatable process, replacing the existing affected systems studies process used today. The JTIQ innovation will:

- End delayed, unpredictable RTO-to-RTO interconnection-queue affected system studies,
- Support a long-term solution to generation interconnection projects dropping out of the interconnection queue due to high and uncertain affected system network upgrade costs by improving cost and certainty,

- Provide a method by which backbone transmission upgrades can facilitate generation to interconnect, significantly increase grid reliability and resilience, and to increase interregional transfer capacity,
- Allocate upgrade costs in a fair and transparent manner to generation projects seeking to interconnect across RTOs and to loads within each RTO's region.

Relevance and Outcomes

The innovative JTIQ process aims to:

- Identify more comprehensive, cost-effective, and efficient network upgrades than would otherwise be identified in the current interconnection queue and affected system coordination processes where upgrades are identified in the time sequence by either RTO;
- Identify solutions that meet the needs of interconnection customers and provide benefits to load in both SPP and MISO near the seam;
- Streamline and shorten the interconnection study process and provide greater cost certainty that will better enable the development of new generation; and
- Identify opportunities to improve coordination between the RTOs' planning processes and affected system coordination both in this instance and on an ongoing basis.

The resulting first JTIQ Portfolio, once constructed, will:

- enable construction of approximately 30 GW of new generation capacity that would otherwise likely not be constructed
- Successfully demonstrate of a replicable method to facilitate interregional transmission upgrades that reduces capacity interconnection time and improves bulk transmission system reliability at reduced cost compared to industry standard methods.

These outcomes are directly relevant to all five DOE objectives listed for Topic Area 3. Each of these is described in more detail below.

DOE Objectives 1 and 2 - The JTIQ Portfolio will improve interregional grid resilience, provide reliability benefits, and enable a more efficient generator interconnection queue.

The JTIQ Portfolio will resolve approximately fifty identified reliability constraints.³ Resolving these constraints will allow newly interconnecting generation to inject more energy into the Bulk Electric System and will provide interconnection customers greater cost certainty throughout the interconnection study process.⁴ In addition, the JTIQ Portfolio⁵ will:

³ Id. Pg. 5-6

⁴ JTIQ Reliability matrix spreadsheet.

<https://cdn.misoenergy.org/JTIQ%20Reliability%20Performance%20Matrix623124.xlsx>

⁵ Joint Targeted Interconnection Queue Study, March 2022.

<https://cdn.misoenergy.org/JTIQ%20Report623262.pdf>

- Enable at least 30 GW of additional interregional generation capacity from generator interconnection projects in both regional transmission organization (RTO) regions. The study process utilizes future generation representing multiple queue study cycles and clusters, rather than single project or single cluster studies. As a result, JTIQ identified larger and longer-term optimized backbone transmission solutions rather than piecemeal network upgrades
- Provide greater cost and timing certainty for generator interconnection requests in MISO and SPP: Generator interconnection customers will know affected system costs earlier in the queue process (prior to beginning their interconnection studies) and completion of different queue study phases can conclude without having to wait for separate affected system study results and costs. As a result, timing delays on affected system study coordination (which has been significant) will be reduced or eliminated because the JTIQ concept provide interconnection customers with a known set of upgrades and a known cost for affected systems upgrades
- Provide energy cost savings of roughly \$190 million over just the first ten-year period the projects are in service
- Increase interregional transfer capability between the RTOs enabling SPP and MISO to better optimize operations along the seam, especially during extreme weather conditions.

DOE Objective 3 - Enhancing collaboration between and among eligible entities and private and public sector owners and operators on grid resilience

Success is not *just* getting the JTIQ Portfolio approved and constructed within budget and the allowable time, though that itself is a challenging yet realistic goal. Success for this project is leveraging DOE support to show how transmission can be planned and built better than the industry standard today through innovative planning approaches and deep collaboration with the communities and people who live and work in the region. DOE funding would greatly expand the opportunity to try new approaches for collaboration and communication among all parties and to share the lessons learned. The proposed Community Benefits Plan contemplates a large-scale energy literacy education initiative rooted in collaboration with Tribal Nations, state energy offices, governor offices, utilities, RTOs, local governments, community groups, and labor organizations across the Midwest.

Within the regional transmission organizations, MISO and SPP have already laid the groundwork for enhanced private and public collaboration. MISO and SPP have already greatly improved collaboration as they have held more than 30 weekly MISO and SPP staff meetings to date, including 2 in-person MISO and SPP internal staff workshops, and jointly held 14 stakeholder meetings to discuss the JTIQ study and cost allocation concepts.

Building upon this success, broader outreach will be conducted to state planning agencies, the Organization of MISO States and SPP Regional States Committee, local governments, Tribal Nations, impacted communities, labor groups, and supply chain experts, among others, as

practicable in Phase 1 of the project to inform the design of the Community Benefits Plan as well as through the development of the JTIQ Portfolio.

DOE Objective 4 – Contributing to the decarbonization of the electricity and broader energy sector

MISO and SPP’s analysis estimates that at least 30 GW of new generation could benefit from increased cost certainty and faster queue processing because of the JTIQ Portfolio. Initial estimates of CO₂ emissions reductions, based on planning model analysis by MISO and SPP, show that the JTIQ Portfolio is expected to avoid over 7 million metric tons of CO₂ emissions in MISO and over 15 million metric tons of CO₂ emissions in SPP over the first twenty years after the projects go into service⁶. These JTIQ projects will therefore support the timely achievement of the state, local, and Tribal decarbonization goals within the MISO and SPP footprints and support grid decarbonization more broadly.

DOE Objective 5 – Providing enhanced system value, improving current and future system cost-effectiveness, and delivering economic benefits

The JTIQ Portfolio is expected to provide \$55.7 million in benefits to load from the reduction in electricity production costs within the MISO footprint and \$132.9 million in the SPP footprint over ten years of operation⁷. Note that the benefits captured in this estimate only reflect the economic benefits to load of the JTIQ Portfolio and do not reflect other benefits related to reliability, resilience, and reduced cost for generator interconnection.

Feasibility

All work to date indicates that both the JTIQ planning approach, the cost allocation process, and resulting transmission projects are viable—but hurdles remain. The project team utilities will use industry-standard materials with construction managed by experienced transmission execution teams and contractors. Each utility team member’s unique qualifications and experience developing similar transmission projects are discussed below. Nevertheless, siting and supply chain challenges are possible. The potential for DOE support to improve the likelihood of timely approval and siting of the JTIQ Portfolio is discussed throughout this application. The project team expects to work closely with DOE to navigate any supply chain constraints or cost increases due to inflation, Buy America requirements, or any other causes.

⁶ Note that the respective RTO emissions reduction estimates are for their respective footprints over the first twenty years of the JTIQ projects’ lives. These numbers cannot necessarily be added to estimate the total emissions reductions as these separate models have aligned, but different assumptions and methods as developed by each RTO and their respective stakeholders.

⁷ MISO-SPP JTIQ Joint Stakeholder Feedback following August 22, 2022. September 30, 2022.
<https://cdn.misoenergy.org/20220930%20MISO%20SPP%20JTIQ%20Presentation626463.pdf>

State, Tribal, National Resilience and Decarbonization goals

In addition to the emissions reduction benefits described under DOE objective 4, the JTIQ Portfolio meets several of the outlined reliability and resilience benefits noted by the FERC Report on Barriers and Opportunities for High Voltage Transmission.⁸ The JTIQ Portfolio increases the interregional power transfer capability, provides geographically disperse transmission solutions which create a more robust transmission network from North Dakota to Missouri.

Many communities also receive property tax or production tax credits from the production of energy in their local communities. In some solar and wind rich areas, these payments to local communities are significant, sometimes millions of dollars per year. These dollars help fund local, economic, and resiliency projects that would otherwise not be possible.

Workplan

The primary goal of this project is to leverage federal funding and technical support to demonstrate the feasibility of an innovative, replicable model to plan and build new interregional high-voltage transmission lines via the construction of the JTIQ Portfolio.

Project Objectives

The project has the following five approximately sequential objectives:

Objective 1. To obtain SPP and MISO board approval for the JTIQ Portfolio in 2024, thereby validating and demonstrating general support for the JTIQ study process and cost allocation methodology.

Objective 2. To demonstrate that the JTIQ process can improve overall transmission planning and coordination between neighboring regional transmission organization planning processes.

Objective 3. To demonstrate that the JTIQ process provides a more comprehensive, cost-effective, and faster path to interregional transmission network upgrades than the current interconnection queue and affected system coordination processes.

Objective 4. To develop new approaches to community, labor, and disadvantaged community engagement, education, and involvement in transmission development to reduce timelines, reduce overall project costs, and improve community support; and to deploy a regional energy literacy initiative to bolster long-term public acceptance of needed energy infrastructure

⁸ FERC *Report on Barriers and Opportunities for High Voltage Transmission*, June 2020.
<https://www.congress.gov/116/meeting/house/111020/documents/HHRG-116-II06-20200922-SD003.pdf>

Objective 5. To permit, site, construct, and energize the JTIQ Portfolio to facilitate the development of approximately 30 gigawatts of new generation, almost all of which is expected to be new renewable energy projects and thereby reduce CO₂ emissions by over 15 million metric tons in the SPP region and over 7 million metric tons in the MISO region over the first 20 years of project life with demonstrable benefits for all communities in the region in both short and long terms.

[Buy America Requirements for Infrastructure Projects](#)

This project will include the construction of infrastructure within the United States, as defined by the US DOE in this FOA. The project team expects to need to seek waivers for certain components of the transmission projects, including but not limited to conductors, insulators, and other sub-components needed for the JTIQ transmission projects. However, the project team will seek to maximize the use domestic equipment and materials to the degree they are available, technically adequate, and cost-effective.

[Technical Scope Summary](#)

The work under this proposal is expected to occur over a 96-month period across three phases. Each 12-month period of the project will be considered a budget period (BP), with eight total BPs for the project. The three project phases are:

- Phase 1 – Pre-RTO approval activities (BP 1)
- Phase 2 – Detailed design, regulatory, and stakeholder engagement processes (BP 2 & 3)
- Phase 3 – JTIQ project Construction (BP 4-8)

Over the course of the project, the team will obtain FERC approval for the innovative JTIQ cost allocation model, conduct detailed JTIQ transmission project design, routing, and siting with exhaustive stakeholder and community input, and construct five high-voltage interregional transmission projects across seven states to address long-standing reliability constraints between the MISO and SPP regional transmission grids. In parallel, the team will build and deploy a far-reaching energy literacy education initiative to connect peoples’ lives with the benefits and opportunities of needed clean energy infrastructure deployment.

[Work Breakdown Structure and Task Description](#)

Work Breakdown Structure	
Phase 1 – Budget Period 1	
Task 1.0	Project Management and Planning
Subtask 1.1	Project Management Plan development and submission to DOE
Subtask 1.2	National Environmental Policy Act (NEPA) compliance
Subtask 1.3	Cybersecurity Plan

Subtask 1.4	Continuation briefing(s)
Task 2.0	Pre-FERC approval for JTIQ cost allocation project development activities
Task 3.0	Develop an energy literacy initiative framework
Subtask 3.1	Energy literacy framework advisory group convening & tool development
Subtask 3.2	IMPLAN Jobs and economic impact analysis of project area
Subtask 3.3	Emissions and health impact analysis
Subtask 3.4	Convening to share JTIQ Portfolio economic and health impact analyses
Phase 2 – Budget Periods 2 & 3	
Task 4.0	Project Management and Planning
Task 5.0	Develop energy literacy initiative strategy
Subtask 5.1	Working group convening and materials development
Subtask 5.2	In-person outreach with JTIQ area communities
Task 6.0	Workforce Development Plan
Subtask 6.1	Inventory existing project team workforce development efforts
Subtask 6.2	Convene workforce development working group to identify critical workforce needs
Subtask 6.3	Develop a workforce development plan
Task 7	Stakeholder engagement for the JTIQ Portfolio
Task 8	JTIQ Portfolio routing and detailed design
Task 9	JTIQ Portfolio regulatory approvals
Subtask 9.1	Submission of applications for state, local, or other certificate of need, franchise, or other approvals
Subtask 9.2	Subsequent participation in regulatory proceedings for project approvals
Phase 3 – Budget Periods 4-8	
Task 10	Project Management and Planning
Task 11	JTIQ Portfolio construction
Task 12	Regional and national expansion of the energy literacy initiative
Subtask 12.1	Working group convening to improve and expand upon Phase 2 outreach
Subtask 12.2	Outreach & education expansion

Subtask 12.3	National convening to share findings and recommendations
Task 13	JTIQ subscription evaluation

Milestones (Go/No Go Decision Points)

Table 1. Project Milestones and Go/No Go Decision Points							
Task Number	Task Title	Type	Number	Description	Verification Process	Anticipated Month ⁹	Anticipated Quarter
2	Pre-approval activities	Milestone	M 1	FERC approves the cost allocation methodology for the JTIQ Process	FERC order	3	1
2	Pre-approval activities	Milestone/GNG	M 2/GNG1	MISO and SPP boards approve JTIQ Portfolio – Notices to Construct issued	Public RTO board decisions	9	3
3	Jobs & benefits analysis	Milestone	M 3	Publication of economic and health impact analyses	Delivery of summary reports	12	4
5	Energy literacy initiative strategy	Milestone	M 4	Publication of energy literacy initiative educational materials	Project website (to be created)	24	8
5	Energy literacy initiative strategy	Milestone	M5	Initiative first phase of energy literacy program outreach	Public webinars, summary memo	36	12
6	Workforce Development Plan	Milestone	M 6	Project Workforce Development Plan is adopted by the project team	WDP document & memo	36	12
7	Stakeholder engagement for JTIQ projects	Milestone/GNG	M7 / GNG2	Utilities complete pre-filing stakeholder and community engagement activities	Memo & publicly	24	8

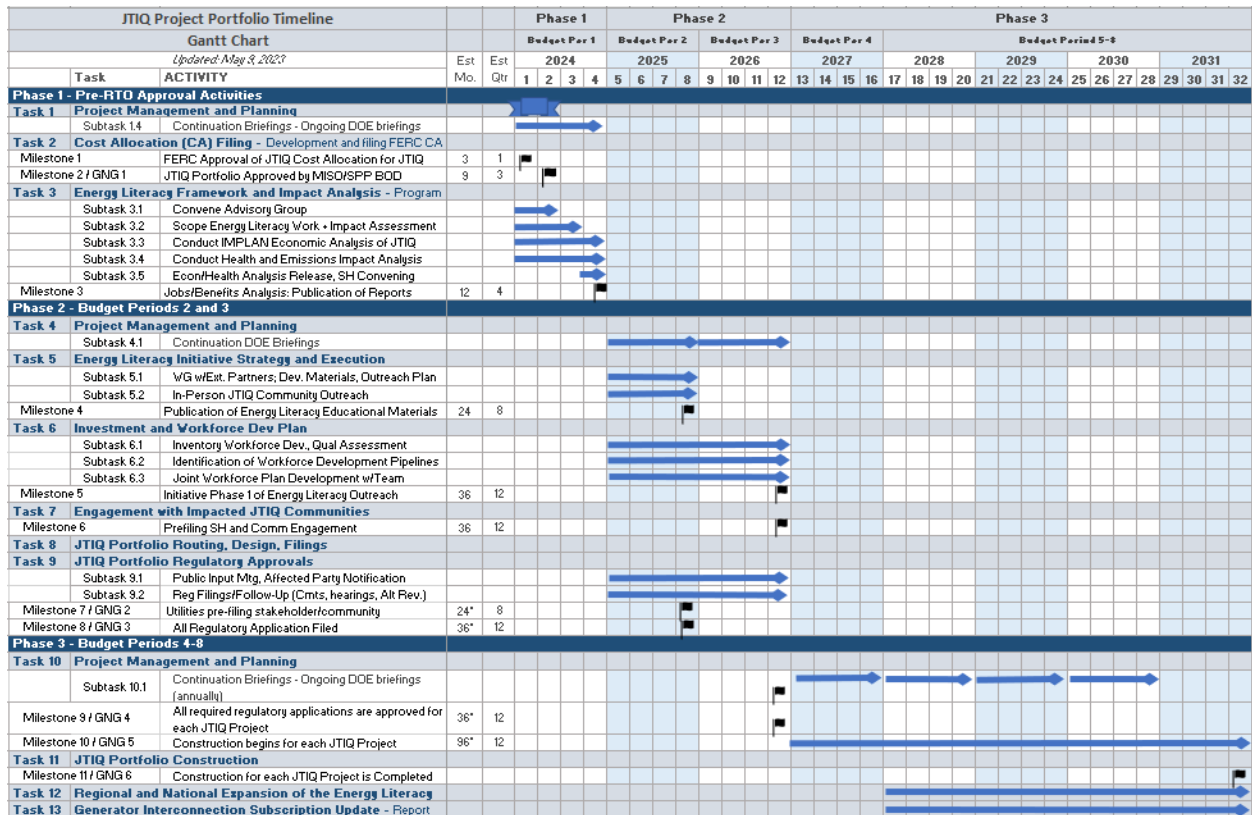
⁹ Note the Bison-Hankinson-Big Stone South line, the largest in the JTIQ Portfolio, is expected to require significant environmental and regulatory review, particularly for NEPA, which may extend the timeline of the project. For this project, Milestones 8, 9, 10, and 11 may take until months 36, 72, 96, and 132 respectively. The project team will make all efforts to complete the entire JTIQ Portfolio within 96 months of an award and will work closely with DOE to avoid delays throughout the entire project.

					available summary		
9	Regulatory filings	Milestone/GNG	M8 / GNG 3	All required regulatory applications are filed for each JTIQ project	Memo	24*	8
9	Regulatory filings	Milestone/GNG	M 9 / GNG 4	All required regulatory applications are approved for each JTIQ project	Memo	36*	12
11	JTIQ Construction	Milestone	M10 / GNG 5	Construction begins for each JTIQ project	Memo	36*	12
11	JTIQ Construction	Milestone	M 11 / GNG 6	Construction for each JTIQ project is completed	Memo	96*	32

End of Project Goal

The goal of this project is to demonstrate the successful completion of the innovative, replicable JTIQ Study Process by leveraging federal funding and technical support to construct the MISO-SPP JTIQ transmission portfolio. All five JTIQ transmission projects will be constructed and energized, having gone through a successful stakeholder and regulatory process and having been sited in a manner such that disadvantaged and other impacted communities have shared in the benefits of the projects. The JTIQ Study process is successful, demonstrating the potential for adoption by other regions and repetition by MISO and SPP in coming years.

Project Schedule/Gantt Chart



Project Management Plan

The complexity of this project necessitates leveraging existing RTO-utility coordination mechanisms and processes, along with internal and third-party project management and grant execution support to ensure timely reporting and compliance with DOE requirements.

Team Roles and Responsibilities

The project team is structured to 1) comply with legislative and other eligibility requirements and 2) to maximize efficiency of funding allocation and fulfilling reporting requirements for the project. Commerce is serving as the prime applicant/recipient for the project. MISO and SPP are direct sub-grantees to Commerce and will serve as the technical lead entities responsible for managing the execution of the project with the partner utilities and reporting to Commerce. The partner utilities will be sub-grantees to MISO and SPP based on their respective RTO memberships. The utilities use a variety of contractors to construct transmission lines for activities from vegetation clearing to traffic management. If the project is awarded, each party will pass down the applicable requirements associated with the cooperative agreements with the DOE.

Commerce, MISO, and SPP will provide direct guidance and oversight to Great Plains Institute as the primary contractor to execute the CBP. The CBP will include participation from the entire

project team along with numerous external partners as detailed in the Statement of Project Objectives (SOPO).

Critical Handoffs and Interdependencies

Due to the complex nature of planning and constructing five high-voltage transmission projects, there are a number of critical handoffs and interdependencies among the project team members and with outside vendors.

A Notification to Construct (NTC) letter is a formal document issued by SPP directing a transmission owner to begin the commencement of construction of transmission projects that have been approved by the RTO's board of directors. This process is the "handoff" that SPP will use to direct its utilities to construct its portion of the JTIQ projects. The NTC issuance process is outlined in SPP's Business Practice 7060¹⁰.

MISO uses the Board of Directors approval of a MISO Transmission Plan as a certification which begins the handoff for project development and construction. Once a project, or portfolio of projects receive the MISO Board of Director's approval, per the MISO Transmission Owner Agreement, the affected Transmission Owner shall design, certify, and build the designated facilities to fulfill the MISO Transmission Plan.¹¹

Each JTIQ project, once directed to be constructed, will have to go through its respective regulatory proceedings to develop a route, site the line, and ultimately move forward toward construction. All of the linear JTIQ projects have multiple owning utilities. At the current stage in the planning and design process, construction agreements have not been fully executed. However, all the project partner utilities have experience working together to construct transmission projects and will rely on that past experience to manage JTIQ project construction.

Leveraging existing cost recovery and reporting systems

SPP and MISO currently have processes in place that track the cost of projects being built in their regions. SPP tracks all of its cost variables for projects that receive Notifications to Construct (NTC) through its Transmission Reporting and Communication (TRAC) tool.¹² The TRAC tool is used by SPP staff and SPP transmission owning members to facilitate quarterly project tracking reports,¹³ the SPP Transmission Expansion Plan (STEP), and issuance NTCs as described in SPP Business Practice 7060, Attachments O and Y of the SPP Open Access Transmission Tariff (SPP Tariff).

¹⁰ SPP Open Access Transmission Tariff Business Practices, pp. 89, 106-110.

<https://www.spp.org/documents/64300/spp%20oatt%20business%20practices.pdf>

¹¹ MISO Transmission Owners Agreement – Appendix B: Planning Framework, MISO Transmission Plan,

[https://cdn.misoenergy.org/MISO%20TOA%20\(for%20posting\)47071.pdf](https://cdn.misoenergy.org/MISO%20TOA%20(for%20posting)47071.pdf)

¹² <https://trac.spp.org/>

¹³ <https://www.spp.org/documents/56611/2023%20spp%20transmission%20expansion%20plan%20report.pdf>

SPP's TRAC also supports planning processes described in Attachments AQ, O, V, and Z1 of the SPP Tariff by allowing transmission owning members to submit estimated costs for proposed transmission solutions before a directive to construct the project occurs. This tool is a key component in SPP's effort to determine optimal transmission solutions for our members.

TRAC is the central tool in SPP's reporting functions, and it enables SPP's transmission owning members to submit cost estimate information, construction schedule updates, and technical data in a single web-based location. After an NTC is issued, staff consolidates quarterly updates provided during the construction process and provides a transparent report to our membership of changes to the project portfolio.

MISO's current business practice requires Transmission Owners to provide quarterly updates on project status for Generator Interconnection Projects. These updates generally require most recent milestone achieved, in-service dates, planning status and total project cost estimate.

Additional provisions exist for any project that meets an outlined set of criteria. Mainly: facility cost greater than \$50 million, regionally cost shared transmission facility and facility cost shared beyond the MISO footprint. Any project that meets one or more of the criteria listed above must also include: detailed cost estimates for each line and substation, any regulatory or miscellaneous cost, project expenditures to date and comments describing any current variances.

This information is tracked using MISO's MTEP Database that is currently undergoing significant changes with an anticipated go live later this year. These changes are likely to impact the user experience but will have limited to no impact on the data provided on these projects.

Risk management, systems, practices, community and labor disputes

There are a number of risk management tools regularly employed by MISO, SPP, and the utility team members to ensure timely and on-budget completion of similar transmission projects. Risk mitigation systems include but are not limited to transparency through open RTO stakeholder processes, reporting requirements for approved transmission projects via SPP's TRAC tool, and SPP's Credit Policy¹⁴.

Please note that the project team has identified the allowable award timeline of 96 months as a risk for project completion. Long-distance high-voltage transmission lines can take over ten years to plan and build. Even though these projects are nearly through the RTO planning processes, NEPA review requirements and the sensitive nature of siting high-voltage transmission lines may lead to the need to extend the project timeline. In the case of an award, the project team will maintain close coordination with its DOE program officer on construction progress and timelines.

¹⁴ <https://www.spp.org/documents/27178/spp%20credit%20policy%202022.pdf>

Handling of Project Changes

Given the complexity of the proposed project and the regulatory, design, and siting processes yet to be completed, changes to the proposed project are likely. The potential changes and risks associated with constructing the JTIQ projects are similar to other high-voltage transmission projects the project team has built before. MISO and SPP are developing a framework that will require the constructing utility to provide construction timelines and cost estimates prior to construction and at intervals during the construction process. The RTOs will facilitate transparency into this information so that stakeholders have early notice of any changes to project cost or timelines.

The project partner utilities will make all reasonable efforts to meet project timelines and manage costs within estimates. MISO and SPP will periodically review member-utility construction schedules, risk registers, and cost information as it evolves during the development process and identifying potential risks to project costs and timeline. Scope changes that lead to challenges with timeline, cost, location, community impacts, will be shared with the project team and DOE and any corrective actions will be coordinated with the rest of the project team.

Quality Assurance & Quality Control

Quality assurance and control in transmission planning, design, and construction is achieved by applying good engineering principles in design, procuring proven quality materials, and competitively bidding/selecting the best resource to do the field construction. SPP's Minimum Design Standards¹⁵ facilitate the design of transmission facilities in a manner that is compliant with NERC requirements and SPP Criteria; are consistent with Good Utility Practice as defined in the SPP Tariff; and are consistent with current industry standards. MISO's Tariff and Transmission Owner's Agreement requires Transmission Owners to follow all applicable laws and regulations, NERC requirements, and to follow Good Utility Practices, in developing projects. MISO's Transmission Owner's Agreement also has provisions to enable MISO to work with its Transmission Owner community to develop solutions in the unlikely event that a Transmission Owner with responsibility to develop a JTIQ project proves unable to do so, consistent with applicable laws and regulations.

The utilities also employ robust processes to select and oversee contractors needed for project construction, including vendor pre-qualification, robust RFP processes, use of an Owner's Engineer and Engineer, Procure and Construct model, and dedicated on-site inspection during construction.

¹⁵ <https://www.spp.org/documents/47424/minimum%20design%20standard%20revision%203.pdf>

Project Team Commitment, Communication, & Coordination

The project team's cost match will be provided by each of the project team members in proportion with their share of the award. Letters of Commitment for each team member are attached. Capital and construction cost match will be recovered by the utilities through their standard transmission cost recovery process, subject to applicable regulatory approvals. Additional cost match will be provided by in-kind contribution of labor and materials by project team members. To the extent a cost-of service rate-regulated utility receives grant funding related to a particular project, the utility would treat it as a reimbursement and not include in its rate base the portion of that project that was paid for by the grant funds. The project partners continue to evaluate the risks and benefits associated with the projects and potential impacts to utility customers.

Transmission owner participation in a project through this application and any resulting grant funding does not exempt it from any standard approval procedures, and Commerce does not presuppose that any project proposed in this application will be approved through the relevant state processes. Each sub-project will still need to go through standard state approval processes regarding siting, routing, and any other relevant licensing before it may move forward. Similarly, any rate treatments or new tariffs associated with a proposed project will need to be approved through the relevant regulatory approval processes.

In the event of an award, the project team plans to continue to hold weekly team meetings if an award is made to support award negotiations and project initiation. During negotiations, the project team will finalize all reporting requirements, including timing cadence and reporting channels, and include these details in the team's internal award structure.

The project team will also hold regular briefings with partner organizations and interested parties including Tribal Nations, state energy offices, state regulators, and others, to provide progress updates. Some of these project updates are contemplated in our community benefits plan. The team is prepared to offer additional public updates and communications as needed.

Technical Qualifications and Resources

Qualifications and Expertise

Minnesota Department of Commerce

As lead applicant, Commerce has extensive experience and expertise in executing complex federal grants with multiple partners. Once funded, the Minnesota Department of Commerce, Energy Resources team members with the following expertise may be assigned to the project:

- Project development manager and project support specialist: responsible for fiscal agency project involvement and co-coordination of planning, design, and implementation assistance

- Grant and contracts manager: (through-out life of project). Involved in all planning activities, responsible for tracking progress, monitoring, reporting, and managing day-to-day operations
- Technical subject matter expert: Commerce, technical/building, and science expert, involved in program design and on-going technical support throughout the life of the project.

The State of Minnesota has also been a state leader on climate related actions, such as the development of its Climate Action Framework.¹⁶ In addition, Commerce's support for underserved communities in the past five years include working to integrate Justice40 principles across the agency and branches of government, direct funding, and program enhancements. Commerce created a Director of Outreach and Equity Projects to ensure that the needs of disadvantaged and Justice40 communities are centered in Commerce's work. Finally, Commerce has supported Tribal-led efforts around development of a Tribal Advisory Council on Energy's (TACE) as well as supporting the staffing of a second Commerce Tribal Liaison, one solely focused on tribal energy issues. All this experience and expertise is available for this project.

Finally, regarding electric transmission planning, Commerce has been an active stakeholder participant throughout the JTIQ planning process. Leadership and staff from Commerce were also active participants with the RTOs in the Midwestern Governors Association's MID-GRID 2035 process from 2019 through 2021. That process helped establish the vision that led to MISO's Long Range Transmission Planning process and the JTIQ process. These prior collaborative efforts have forged strong relationships and shared vision necessary to execute the proposed project.

MISO and SPP

The technical analysis and cost-allocation approach development process are being led by two of the nation's leading transmission planning entities, and the primary grant award recipient, in MISO and SPP. The MISO Transmission Expansion Plan (MTEP), which has been published annually since 2003 and contains more than \$54.3 billion of investment across MISO's 15-state footprint. MISO has more than 135 technical staff members supporting the development of transmission plans. This includes creating models, performing reliability and economic analysis, analyzing generation interconnection and retirements, and evaluating the region's resource adequacy.

MISO has long been a leader in broad, multi-state transmission planning. This was reflected in the first Multi-Value Project portfolio in 2011, which was a total of 17 high-voltage transmission projects with an estimated investment cost over \$6 billion. SPP also has extensive experience

¹⁶ [Climate Action Framework | Our Minnesota Climate \(state.mn.us\)](https://www.state.mn.us/climate/climate-action-framework)

planning, tracking construction, and operating high voltage transmission. Since 2006 SPP has identified and approved for construction over \$12 billion dollars in transmission projects.

Great Plains Institute

The Great Plains Institute is a non-partisan non-profit corporation based in Minneapolis, dedicated to promoting a prosperous, peaceful world powered by clean, inexhaustible energy, and a society that is sustainable over generations. GPI specializes in convening and professionally facilitating diverse groups in ways that foster collaboration, consensus, and then action on complex energy issues. GPI works with local, regional and state governments to support education and capacity build initiatives on transmission planning and siting issues. GPI also has extensive experience and expertise in managing large, complex federal grants with multiple partner organizations. GPI's knowledgeable staff on grant application, funding allocation, participation in the MISO stakeholder process, and extensive stakeholder engagement experience is well-suited to assist in grant execution, management, and community benefits plan implementation for this project.

Constructing Utilities

The project team utilities are members of MISO and SPP and have a long history of transmission expansion at the direction of the RTO planning process. These utilities maintain multiple permanently-staffed engineering, project- and land-management departments dedicated to transmission line project management, engineering, surveying, permitting, procurement, construction management, ROW, siting, and stakeholder engagement. Members of these teams maintain professional certifications including PE (Professional Engineers), PMP (Project Management Professionals) and SRWA (Senior Right of Way Professionals).

Evergy's transmission system spans over 10,000 miles and its forecasted annual transmission investments are between \$600 and 700 million. These investments include many projects which are analogous to those identified through the JTIQ. As a recent example, Evergy constructed a new (rebuilt) 345 kV line between Stranger Creek and Iatan (approximately 15 miles) near the Kansas-Missouri border.

ITC Midwest (ITC) is a transmission-owning member of the MISO, SPP, and PJM Regional Transmission Organizations (RTO). Since 2007, ITC has invested more than \$4.5 billion in grid infrastructure, resulting in a 70% reduction in transmission outages for dramatically improved reliability. ITC's investments have also facilitated more than 4,900 megawatts of generation interconnections—mostly wind and solar renewable energy—and improved grid efficiency and resilience. The ITC footprint is largely rural and includes 34.5 kV, 69 kV, 115 kV, 161 kV and 345 kV facilities. ITC completes hundreds of transmission projects annually.

MidAmerican has successfully completed many projects with scopes significantly more complex than the Raun – S3452 project. For example, MidAmerican completed the construction of more than 200 miles of 345 kV lines associated with MISO's Multi-Value Projects originally approved

in 2011, completing all projects on time and within budget. MidAmerican has significant expertise in navigating the Iowa transmission line regulatory and right of way environment, MidAmerican does not anticipate the need to purchase new equipment for the Raun – S3452 project. An existing 161 kV transmission line corridor will be utilized for the new transmission line including replacement supporting structures, conductor, shield wire, and ancillary equipment directly related to the operation of the line. The rebuild of the existing 161 kV transmission line to a double-circuit 345/161 kV configuration is well within MidAmerican's expertise.

From the 1970s to today OPPD has completed hundreds of electric transmission line projects (typically 30-50 per year) ranging from simple relocations of existing structures to the construction of 50+ mile 345kV lines, and everything in between. One recent project resulted in a 40+ mile 345 kV line that traversed a similar path as the Auburn – Hoyt JTIQ project, including combined routing with Evergy's predecessor, KCP&L, and combined construction coordination. OPPD may consider double-circuiting portions of the Raun line to utilize Right-Of-Ways from existing transmission lines which could streamline the project by minimizing the siting and regulatory burdens.

OTP has a history of successful project management for large, high-voltage transmission projects including building the lowest cost per mile line from the 2011 MISO MVP portfolio. The Big Stone South to Ellendale which include 163 miles of 345 kV line, two utility owners, two states, and is sited through the historical reservation boundary of the Sisseton Wahpeton Oyate Tribal Nation (very comparable to the Bison – Hankinson – Big Stone South JTIQ project). Other comparable successes include Bemidji - Grand Rapids (70 miles of 230 kV, five owners) and Pillsbury – Fargo (63 miles of 230 kV). Through these projects OTP has developed strong relationships with the state agencies, regulatory staff, and neighboring utilities.

Xcel Energy operates over 300,000 miles of electric transmission and distribution lines and over 40,000 miles of natural gas transmission and distribution lines. Xcel Energy participated in CapX2020¹⁷, a joint initiative to upgrade and expand the transmission grid in the Upper Midwest, resulting in more than 800 miles of new high voltage transmission infrastructure of which Xcel Energy constructed and over 200 miles of 345kV transmission lines.

Project staff commitments

The project team plans to leverage existing processes, staff, and third-party consultant support to ensure timely implementation of any DOE award. Each team member will use existing staff and hire additional staff to take responsibility for the reporting requirements and execution of the grant award. Each utility team member has multiple staff and managers for each part of the

¹⁷ See *Transmission Planning and CapX2020: Building Trust to Build Regional Transmission System*, April 2016. View here: https://gridnorthpartners.com/wp-content/uploads/2021/03/uofm-humphrey_capx2020_final_report.pdf

transmission development and regulatory processes in place already. Some of the RTO and utility team members have grants teams in place and those who do not have dedicated grants staff will receive additional support from GPI and hire additional staff as necessary. Each utility will assign a project manager to coordinate with all these parties internally and the other project partners to ensure ongoing reporting and compliance, collaboration with the project team and DOE, and participation in execution of the Community Benefits Plan.

Technical services to be provided by DOE

The project team seeks advisory and analytical support for the implementation of the JTIQ project portfolio and execution of the proposed community benefits plan. These include DOE providing input on benefit analyses and methodologies, best practices for community engagement, guidance on transmission system impact and benefits analysis and collaborating with peer awardees under the GRIP program to share community engagement learnings. The project team has rich experience in transmission planning and development and does not expect to need substantive federal support for transmission line design or construction.

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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: ITC Midwest (ITCMW)
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Transmission Study Process and Portfolio
5. Expected Project Duration: 96-120 months
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):

ITCMW and its partners have not identified potential routes for the proposed transmission projects. ITCMW and Xcel Energy are partners in the proposed project between Brookings County and Lakefield. Figure 1 below shows an approximation of the routes.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

ITCMW’s proposed project includes the siting/routing, permitting, obtaining land rights, and construction of a 345 KV transmission projects as shown in table 1 below. ITCMW will be a partner in this project with Xcel Energy.

Project Name	Responsible Utility	Regional Transmission Organization	State(s)	Estimated Cost (\$M)
Brookings County-Lakefield 345 kV Line	ITCMW and Xcel Energy	MISO	SD, MN	\$283M (ITCMW portion only)

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	

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

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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.

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

- 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.

The objective of ITCMW's portion of the project is effectively site and construct the transmission system needed to provide for a reliable grid. During this project we will evaluate numerous factors, many of which are identified in this environmental questionnaire to develop preferred and alternative routes for the transmission systems between the defined end points.

Whether our transmission project is assessed via the NEPA process or during the state regulatory approval process, our objective is to identify routes that are safe, avoid, minimize, and mitigate impacts to the environment and affected communities, and are cost effective for the rate payer. Through this project we will identify alternative routes that starts with an opportunity and constraints analysis followed by a comparative analysis and quantification of potential impacts to help guide the route selection process. In part the final route is dependent upon our ability to obtain land rights to construct and operate a transmission system, and is also driven by the presence of sensitive receptors, whether features such as wetlands, critical habitat for federal and state listed species, or the presence of historic, tribal, and cultural resources are encountered.

Alternative projects analyzed in the development of these projects can be found in Tables 8 and 9 in the Joint Target Interconnection Queue Study Report found at the link below.

[JTIQ Report623262.pdf \(misoenergy.org\)](#)

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C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

The 345-kV transmission projects comprising the JTIQ portfolio are in North Dakota, South Dakota, Minnesota, Iowa, Missouri, Kansas, and Nebraska. ITCMW's proposed project is located in South Dakota and Minnesota.

2. **Attach** a project site location map of the project work area.



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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.

1. Land Use

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

- Urban Industrial Commercial Agricultural
 Suburban Rural Residential Research Facilities
 Forest University Campus Other: The land uses impacted by this type of linear

project can vary considerably, including potentially limited impacts to residential areas, but primarily expected to be rural and agricultural. Sensitive land features in the project area are avoid to the greatest extent practicable.

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

Total scale of these projects is dependent upon final route selection and design considerations. General information on the scale of 345 kV transmission lines can be found here in the fact sheet at the link below prepared for a similar size transmission line project that was constructed by Xcel Energy. The project is owned 50/50 by ITCMW and Xcel Energy.

[GRNews Sep 2016 \(huntleywilmarth.com\)](http://huntleywilmarth.com)

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.

Construction of electrical transmission infrastructure within yet to be determined utility right of way.

d. Describe how land use would be affected by operational activities associated with the proposed project.

- No land areas would be affected.

Land use disturbances will be temporary and short-term in duration. Land use disturbances will be limited to equipment necessary to access the utility corridor to drill and install footing for transmission towers as well as any other equipment necessary to clip the conductor wire to the structure. There may also be some clearing of vegetation required to establish new utility corridor and stay in compliance with NERC and NESC clearance requirements. Temporary access routes to access the construction corridor are also anticipated but will be returned to pre-construction condition upon completion of construction. In addition, both projects include expansions of existing substations. For example, the Hankinson substation needs a new voltage level, would require an extension of the existing substation.

The link below presents a fact sheet prepared by our project partner Xcel Energy outlining the transmission construction process for a similar size project. ITCMW's construction process is very similar to that of Xcel Energy's process.

[Transmission-Line-Construction-fact-sheet -.pdf \(xcelenergy.com\)](#)

e. Describe any plans to reclaim areas that would be affected by the proposed project.

- No land areas would be affected.

All impacts related to construction would be temporary in nature. Any areas disturbed during construction would be restored to pre-existing conditions after construction is complete.

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- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?
 No Yes (describe)

ITCMW standard practice is to avoid unique and unusual landforms such as cliffs and waterfalls during the siting of transmission line projects, to the greatest extent practicable.

- 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 Yes (describe)

While the siting of the project has not yet occurred, to the extent it is feasible, ITCMW's standard practice is to avoid local, state or federal parks, forests, monuments, scenic waterways, wilderness, recreation facilities or tribal lands to the greatest extent practicable. If our routes should impact one of these features, ITCMW will reach out to the appropriate jurisdiction to discuss potential avoidance, minimization, or mitigation options in advance of selecting a route. ITCMW has a history of working in collaboration with tribal governments on transmission infrastructure projects.

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. None

ITCMW and its partners have not identified potential routes for the proposed transmission project. Transmission towers are typically 125-170 feet tall and will be set atop engineered concrete foundations. The transmission structures will be spaced approximately 800-1,200 feet apart. In addition, ITCMW will be stringing 345 kV conductor which will be suspended from the transmission towers. The design of the transmission towers and line will be in adherence National Electric Safety Code (NESC) standards.

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

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

It is possible that the planned transmission line will cross existing bodies of water, but ITCMW does not anticipate permanent impacts to these surface waters.

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

To the extent that it is feasible ITCMW tries to avoid work within wetlands, to the extent practicable. However, there is potential that transmission towers may need to be sited within a wetland. If this is the case, we will work with the appropriate federal, state, and local permitting authorities to obtain the appropriate approvals and execute this construction project using best management practices (BMPs) that minimize impacts on the affected wetlands. For instance, the use of timber matting placed across wetlands can reduce impacts and also the use of tracked equipment with low ground pressure would also reduce impacts to wetlands.

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

ITCMW will review the National Pollution Discharge Elimination System regulations and acquire a storm water permit prior to construction. The Project specific Storm water Pollution Prevention Plan will outline all BMPs to reduce and control erosion, sedimentation, runoff.

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

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- 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?

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.

None

Not yet determined. The siting of potential routes for the 345 kV project has not been initiated. Final siting decisions will in part be informed by a review of the U. S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) databases which will identify federally listed threatened or endangered species. The state department of natural resources will also be consulted for any state listed threatened or endangered species. While not yet initiated, this activity will occur early in the planning phase of the project.

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

Not yet determined. The siting of potential routes for the 345 kV project has not been initiated. Final siting decisions will in part be informed by a review of the U. S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) databases which will identify federally listed threatened or endangered species. The state department of natural resources will also be consulted for any state listed threatened or endangered species. While not yet initiated, this activity will occur early in the planning phase of the project.

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

Not yet determined. If unique or sensitive habitats are encountered, impacts will be short term temporary disturbances occurring during construction activities. ITCMW will work with regulatory agencies to develop mitigation and restoration plans if sensitive or unique habitats cannot be avoided.

- 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)

The only substance introduced to the soil would be concrete and rebar used for the engineered foundations. During the operation of the transmission system, we will be managing vegetation within the utility right-of-way using practices herbicides approved for use to control vegetation within the right-of-way.

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

In general, the proposed projects are in either the Central Flyway Migration Corridor or the Mississippi Flyway. Since these migration corridors are prominent in our service territories, we are proficient in siting and designing these transmission systems so that impacts to migratory corridors are minimized to the extent practicable. ITCMW utilizes design standards developed by the Avian Power Line Interaction Committee (APLIC) to avoid and reduce avian impacts.

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4. Socioeconomic and Infrastructure Conditions

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

The proposed project will improve bulk transmission interconnection-que backlogs and increase capacity and network upgrades that would otherwise be too costly for individual or small groups of interconnection projects to proceed. This will allow more interconnected energy projects to be developed within the project area which will spur job creation and local tax revenue through new energy projects.

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

Effects to transportation resulting from construction of the Project are not expected to be significant and will be temporary in nature. Construction crews will utilize public and private roads to access the Project.

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

The Project would not require construction of any new permanent roads.

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

The project is being proposed to provide transmission services to utility grade renewable generation facilities. The project will help facilitate the implementation of the national objective to transition to cleaner energy sources and reduce greenhouse gas emissions.

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

Not yet determined, the siting of the transmission routes has not been completed. It is unknown at this time whether any historical, archeological, or cultural sites will be in the vicinity of the proposed project. It is ITCMW's practice to site transmission lines to avoid these sites, to the extent practicable.

- 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)

Not yet determined, the siting of the transmission routes has not been completed. It is unknown at this time whether any historical, archeological, or cultural sites will be in the vicinity of the proposed project. It is ITCMW's practice to site transmission lines to avoid these sites, to the extent practicable.

- 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)

Not yet determined, the siting of the transmission routes has not been completed. It is unknown at this time whether any scenic views will be impacted by the proposed project. Man-made modifications in the project area include dispersed residences associated with agricultural lands and associated ancillary structures (e.g., barns, maintenance sheds, fences,

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and animal feeding operations). Local infrastructure modifications within the area include state highways, county roads, local paved and unpaved roads, and various electric transmission lines.

Overall, effects to the landscape are anticipated to be minor because vertical elements similar to the project already exist in the landscape, so the project would not be out of character with the existing landscape.

- 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.

Unknown at this time since the siting of proposed transmission routes has not been completed. It is ITCMW's standard practice to avoid tribal lands, lands considered sacred, or lands used for traditional purposes, to the greatest extent practicable. ITCMW has a history of working collaboratively with the tribes and is respectful of their needs. As applicable, we set up direct lines of communication with affected tribes and engage in meetings to discuss the project's tribal coordination process for the project and future tribal engagement during operation of the project to understand individual tribal needs and priorities. ITCMW will work with Tribal Traditional Cultural Specialists and archaeological consulting firms, many of which we have worked with in the past, to complete a Traditional Cultural Properties (TCP) inventory of the project footprint to identify and avoid direct impacts to sensitive cultural areas.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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	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?

Not Applicable.

7. **Hydrologic Conditions/Water Quality**

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

Not yet determined. Route selection for the proposed project has not been completed. It is uncertain whether any water bodies would be affected by the proposed project. Typically, impacts to adjacent water bodies are minimal and temporary in nature from these types of projects. Most waterbodies will be spanned by the project and waterbodies that cannot be spanned are typically avoided, to the extent practicable, during the routing process.

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

Not Applicable.

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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)

Any incidental precipitation runoff from equipment or stock piled soil temporarily stored for construction will be managed properly per the construction stormwater permit and Stormwater Pollution Prevention Plan.

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

No Yes (describe)

ITCMW anticipates that the project will comply with all state construction stormwater requirements. If dewatering is required during drilling of the engineered foundation the Stormwater Pollution Prevention Plan will contain all the appropriate procedures that are required to remain in compliance with the stormwater permit. Dewatering directly into a wetland, lake, or stream is prohibited. All dewatering would be conducted in accordance with the stormwater permit.

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)

See response to 7h above.

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

No Yes (describe)

ITCMW would acquire a NPDES Construction Stormwater Permit for the project. ITCMW would also prepare a Stormwater Pollution Prevention Plan which is a requirement prior to obtaining the NPDES permit.

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

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- 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)

Not yet determined. Route selection for the proposed project has not been completed. It is uncertain whether any wellhead protection areas, drinking water protection areas, or a sole source aquifer or underground source of drinking water (USDW) would be affected by the proposed project. These areas are typically associated with urban and suburban areas such as towns and cities. ITCMW typically avoids populated areas during the siting and routing process, to the extent practicable.

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste – Identify:	
<input checked="" type="checkbox"/> None	

- 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)

All solid waste generated onsite during construction would be collected daily and disposed of offsite at a nearby approved solid waste facility.

- d. How would wastes for disposal be transported?

Small amounts of solid waste would be collected in trash bags and transported via pickup truck to a nearby approved offsite solid waste facility.

- 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

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- 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.
 None Hazardous or toxic materials that would be used (identify):
- 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
 •Arc Flash and energized electrical hazards for overhead line work
 •Noise during construction activities
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
ITCMW requires all contractors to adhere to the company safety plan that is provided prior to the start of construction.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)

Project construction would result in audible noise from the transmission line and temporary short-term noise increases in areas where construction and staging are taking place. Indirect effects from operation of the Project would be insignificant because of their short duration and infrequency.

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
 No construction planned No Yes (describe)

It is a potential that the selected route for the transmission line may result in the removal of some trees that act as natural sound barriers between adjacent properties. However, the operation of the transmission lines should not result in any discernable increase in ambient noise.

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

See response to item 9d above. All circumstances where hearing protection are required are outlined in the ITC safety plan.

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:
- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:
- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:
- d. Clean Water Act (CWA): None New Required Modification Required
Describe:

ITCMW will coordinate with state and federal agencies to determine if any Clean Water Act permits would be required for the Project and would obtain them prior to construction (NPDES Construction Stormwater, Wetland/Waterways).
- 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:

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- h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

ITCMW will coordinate with state and federal agencies to determine if any threatened or endangered species would be affected by the by the Project. If species are identified ITCMW would work with the agencies to determine appropriate avoidance, minimization, and mitigation measures.

- i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

ITCMW does not anticipate impacts to floodplains. ITCMW will coordinate with the state and federal agencies to determine if any wetland permits are required for temporary impacts from timber mat placement. All permits would be obtained prior to construction, if required.

- j. Fish and Wildlife Coordination Act (FWCA): None New Required Modification Required
Describe:

ITCMW will coordinate with the state and federal agencies to avoid, minimize, or mitigate any unforeseen impacts to fish and wildlife. All permits would be obtained prior to construction, if required.

- k. National Historic Preservation Act (NHPA): None New Required Modification Required
Describe:

ITCMW will coordinate with the state and federal agencies to avoid, minimize, or mitigate any unforeseen impacts to cultural resources. All permits/clearances would be obtained prior to construction, if required.

- 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.

The project is being submitted to Department of Energy for possible funding through the Infrastructure Investment Jobs Act (IIJA). Therefore, the project must undergo National Environmental Policy Act (NEPA) review. In addition, the project will be required to be approved through both the South Dakota Public Utilities Commission (SDPUC) Facility Permit Application process and Minnesota Public Utility Commission (MnPUC) Route Permit Application process for electrical transmission lines. These state level processes both require extensive siting/routing to avoid sensitive and unique resources, require public meetings, and also require in depth environmental analysis prior to being approved.

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

Some individuals may object to transmission lines sited near their residence or business. During the siting/routing process ITCMW will provide several opportunities for public involvement.

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

No Yes (describe)

The JTIQ projects are intended to produce a more cost-effective approach to mitigating transmission system limitations. These transmission system limitations are impeding the ability for new wind and solar resources to interconnect to the MISO and SPP regional transmission systems and markets. Completion of the JTIQ projects will allow for significant levels of clean energy resources to be developed. The JTIQ report states "MISO's contingency analysis results estimates that 28,325 MW of additional generation interconnected along the seam could benefit from the JTIQ Portfolio; SPP's contingency analysis results estimates that 53,481 MW of new generation could benefit."

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The additional generation that is projected to benefit from these projects represents more than double the currently installed capacity of wind and solar in the combined MISO and SPP regions.

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

- None (provide supporting detail) Significant impacts (describe)

The project is comprised of the installation of below ground foundations to support above ground transmission towers, the establishment of a utility corridor and the installation of electric conductor (cables) capable of the transmission of 345 kV. ITCMW and its partners are very experienced in the siting, permitting, and construction of electrical transmission infrastructure. We have well established practices to ensure that we receive the appropriate authorizations before work is commenced, to utilize practices that minimize impacts from the construction operation of the transmission systems. In addition, we utilize a siting process to help ensure that the final route selected for these projects takes into consideration current land use, the presence of historical, archeological, cultural and tribal resources, landowner input, and minimizes impacts to protected species and their habitat.

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

Once a transmission system is constructed, they are operational for very long periods of time. Occasionally they may be updated to increase their capacity and only relocated and removed if it becomes necessary to facilitate more effective operations. Transmission systems are comprised of materials that are readily recyclable including the electrical cable, towers, support cables, etc. Depending upon the location the concrete foundation and associated rebar may be removed to a depth of approximately 4 feet with the remainder remaining in place. This is because we have found that the level of effort to completely remove these structures has a higher potential for impacting adjacent lands than the initial installation. Typically, the circumference of the excavation necessary to remove the foundations in their entirety is equal to twice the depth of the foundation. During installation, the only below grade land disturbance is limited to the diameter of the auger that is being utilized to excavate the hole for the foundation.

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: (b) (6) Date (mm/dd/yyyy): 5/16/2023

Typed Name: (b) (6)

Title: Permitting Specialist, Lead

Organization: ITC Midwest

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: _____

Project/Performance Site Location(s)

Project/Performance Site Primary Location I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 1 I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location 2 I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code: * Project/ Performance Site Congressional District:

Project/Performance Site Location(s)

Project/Performance Site Location 3

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name:

UEI:

* Street1:

Street2:

* City: County:

* State:

Province:

* Country:

* ZIP / Postal Code:

* Project/ Performance Site Congressional District:

Additional Location(s)

Application for Federal Assistance SF-424

* 1. Type of Submission: <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	* 2. Type of Application: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	* If Revision, select appropriate letter(s): <input type="text"/> * Other (Specify): <input type="text"/>
--	--	--

* 3. Date Received: <input type="text" value="05/19/2023"/>	4. Applicant Identifier: <input type="text" value="TA3-064-E"/>
--	--

5a. Federal Entity Identifier: <input type="text"/>	5b. Federal Award Identifier: <input type="text"/>
--	---

State Use Only:

6. Date Received by State: <input type="text"/>	7. State Application Identifier: <input type="text" value="- state -"/>
---	---

8. APPLICANT INFORMATION:

* a. Legal Name: <input type="text" value="Minnesota Department of Commerce"/>	
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="41-6007162"/>	* c. UEI: <input type="text" value="W6J6NATNK6J5"/>

d. Address:

* Street1:	<input type="text" value="MN Department of Commerce"/>
Street2:	<input type="text" value="85 7th Place East, Suite 280"/>
* City:	<input type="text" value="Saint Paul"/>
County/Parish:	<input type="text" value="Ramsey"/>
* State:	<input type="text" value="MN: Minnesota"/>
Province:	<input type="text"/>
* Country:	<input type="text" value="USA: UNITED STATES"/>
* Zip / Postal Code:	<input type="text" value="55101-2198"/>

e. Organizational Unit:

Department Name: <input type="text" value="Commerce"/>	Division Name: <input type="text" value="Energy Division"/>
---	--

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: <input type="text"/>	* First Name: <input type="text" value="Jessica"/>
Middle Name: <input type="text"/>	
* Last Name: <input type="text" value="Burdette"/>	
Suffix: <input type="text"/>	

Title: <input type="text" value="Energy Reliability, Security & Policy Advisor"/>

Organizational Affiliation: <input type="text"/>

* Telephone Number: <input type="text" value="(b) (6)"/>	Fax Number: <input type="text"/>
--	----------------------------------

* Email: <input type="text" value="(b) (6)"/>

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

A: State Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

National Energy Technology Laboratory

11. Catalog of Federal Domestic Assistance Number:

81.254

CFDA Title:

Grid Infrastructure Deployment and Resilience

*** 12. Funding Opportunity Number:**

DE-FOA-0002740

* Title:

BIL Grid Resilience and Innovation Partnerships (GRIP)

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

1234-JTIQ_Areas Affected by Project.pdf

Add Attachment

Delete Attachment

View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="928,954,720.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="928,954,720.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="1,857,909,440.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

a. This application was made available to the State under the Executive Order 12372 Process for review on

b. Program is subject to E.O. 12372 but has not been selected by the State for review.

c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

Yes No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Budget Period 1	81.254	\$	\$	\$ 38,503,558.00	\$ 37,257,915.00	\$ 75,761,473.00
2. Budget Period 2	81.254			108,145,104.00	108,523,482.00	216,668,586.00
3. Budget Period 3	81.254			107,713,786.00	107,936,308.00	215,650,094.00
4. Budget Period 4-5	81.254			674,592,272.00	675,237,015.00	1,349,829,287.00
5. Totals		\$	\$	\$ 928,954,720.00	\$ 928,954,720.00	\$ 1,857,909,440.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) Budget Period 1	(2) Budget Period 2	(3) Budget Period 3	(4) Budget Period 4-5	
a. Personnel	\$ 159,650.00	\$ 159,650.00	\$ 159,650.00	\$ 616,144.00	\$ 1,095,094.00
b. Fringe Benefits	47,895.00	47,895.00	47,895.00	184,843.00	328,528.00
c. Travel	0.00	0.00	0.00	0.00	0.00
d. Equipment	0.00	0.00	0.00	0.00	0.00
e. Supplies	0.00	0.00	0.00	0.00	0.00
f. Contractual	75,430,208.00	216,337,321.00	215,318,829.00	1,348,658,851.00	1,855,745,209.00
g. Construction	0.00	0.00	0.00	0.00	0.00
h. Other	25,000.00	25,000.00	25,000.00	125,000.00	200,000.00
i. Total Direct Charges (sum of 6a-6h)	75,662,753.00	216,569,866.00	215,551,374.00	1,349,584,838.00	\$ 1,857,368,831.00
j. Indirect Charges	98,720.00	98,720.00	98,720.00	244,449.00	\$ 540,609.00
k. TOTALS (sum of 6i and 6j)	\$ 75,761,473.00	\$ 216,668,586.00	\$ 215,650,094.00	\$ 1,349,829,287.00	\$ 1,857,909,440.00
7. Program Income	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

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SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Budget Period 1	\$ 0.00	\$ 37,257,915.00	\$ 0.00	\$ 37,257,915.00
9.	Budget Period 2	0.00	108,523,482.00	0.00	108,523,482.00
10.	Budget Period 3	0.00	107,936,308.00	0.00	107,936,308.00
11.	Budget Period 4-5	0.00	675,237,015.00	0.00	675,237,015.00
12. TOTAL (sum of lines 8-11)		\$ 0.00	\$ 928,954,720.00	\$ 0.00	\$ 928,954,720.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 38,503,557.60	\$ 9,625,889.40	\$ 9,625,889.40	\$ 9,625,889.40	\$ 9,625,889.40
14. Non-Federal	\$ 37,257,915.00	9,314,478.75	9,314,478.75	9,314,478.75	9,314,478.75
15. TOTAL (sum of lines 13 and 14)	\$ 75,761,472.60	\$ 18,940,368.15	\$ 18,940,368.15	\$ 18,940,368.15	\$ 18,940,368.15

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. JTIQ Project	\$ 108,145,104.00	\$ 107,713,786.00	\$ 90,677,565.00	\$ 583,914,709.00
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	\$ 108,145,104.00	\$ 107,713,786.00	\$ 90,677,565.00	\$ 583,914,709.00

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges: \$1,857,368,831	22. Indirect Charges: \$540,609
-------------------------------------	---------------------------------

23. Remarks: Total in line 21 represents Commerce's (prime) total direct costs.
 Total in line 22 represents the indirect charges for only the Primary entity.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2025

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input checked="" type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:

Prime SubAwardee

* Name: Minnesota Department of Commerce

* Street 1: MN Department of Commerce * Street 2: 85 7th Place East, Suite 280

* City: Saint Paul * State: MN: Minnesota * Zip: 55101

Congressional District, if known: MN-004

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency: US DOE	7. * Federal Program Name/Description: Grid Infrastructure Deployment and Resilience
	CFDA Number, if applicable: 81.254

8. Federal Action Number, if known: 	9. Award Amount, if known: \$
--	---

10. a. Name and Address of Lobbying Registrant:

Prefix: * First Name: none Middle Name: * Last Name: none Suffix: * Street 1: none * Street 2: * City: none * State: * Zip:

b. Individual Performing Services (including address if different from No. 10a)

Prefix: * First Name: none Middle Name: * Last Name: none Suffix: * Street 1: MN Department of Commerce * Street 2: * City: none * State: * Zip:

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: Kari Moeller

* Name: Prefix: * First Name: Michelle Middle Name: * Last Name: Gransee Suffix:

Title: Deputy Commissioner, Energy Resources Telephone No.: (b) (6) Date: 05/19/2023

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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-FOA2740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Process and Portfolio
5. Expected Project Duration: 3 years
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Jackson and Brown Counties, Kansas, numerous S-T-R
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Build new 345 kV transmission line from the existing Hoyt substation in the SW/4 S7-T9S-R16E north approximately 53 miles to the interconnect located north of the Nebraska border. New line will have a new 200' right-of-way.
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

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

Alternate routes may be considered. Project will go through an extensive routing study to limit environmental and socioeconomic affects.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Greenfield 345 kV transmission line starting approximately 1.75 miles NE of Hoyt, KS and continuing approximately 53 miles north to an interconnect north of the Nebraska border.

2. **Attach** a project site location map of the project work area.

See attached

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.

1. Land Use

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

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input checked="" 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:	

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

Approximately 53 miles of 345 kV transmission line in greenfield 200' right-of-way. New ROW will be maintained for life of project.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

53 miles of new transmission poles within new 200' ROW. Existing city and county roads will be used when possible, temporary access will be created during construction

- d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

Land will be cleared of trees and mowed during construction, temporary access will be created as needed. Temporary or permanent laydown yards will be used for construction

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

All disturbed areas will be restored after construction. Temporary access will be removed, site regraded and natural vegetation planted. ROW will be maintained free of trees.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

Project will be adjacent to the Pottawatomie, Sac & Fox, Kickapoo and Iowa Tribal lands. Project will also be adjacent to local, state and federal conservation lands.

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. None

Survey will be needed to show all utilities, ROWs, and structures within project areas.

- b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

Project will not affect any body of water but will likely span several water bodies.

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

Several floodplain areas will be crossed within the project area. Permanent impacts to wetland areas will be avoided if possible.

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

Construction and ROW clearing will disturb more than 1 acre of soil. Sediment control will be installed and maintained as required in the state stormwater runoff permit.

- 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 deepwater operations?

No Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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?
 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.

None

Northern Long Eared Bat, Tricolored bat (Proposed Endangered), Pallid Sturgeon, Monarch Butterfly (candidate)

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

No critical habitat defined

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

Gravel and concrete foundation material. No affect on resources.

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

Might affect migratory corridor of the Bald Eagle. Bird flight diverters will be used around rivers and water bodies, known eagles nests will be avoided.

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)

Traffic will increase during construction. No increase in traffic will occur after the project is complete.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

No Yes (describe)

Temporary access roads may be necessary during project construction. Roads will be removed during project restoration.

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

Historic or archaeological sites are likely to be within or adjacent to the proposed route. SHPO consultation will be conducted to eliminate or minimize impact.

- 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)

Project will likely cross historic or archaeological sites. Project will be submitted for review with the SHPO and impacts will be limited.

- c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

Project will be submitted to SHPO for review prior to project construction.

- d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?

No Yes (describe)

Transmission poles will be added to the existing landscape.

- 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.

Project will be located adjacent to the Pottawatomie, Sac & Fox, Kickapoo, and Iowa tribal lands.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellowed area for response to question d]

- 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)

[Yellowed area for response to question f]

- g. How would emissions be vented?

NA

[Yellowed area for response to question g]

7. Hydrologic Conditions/Water Quality

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

Project will span several rivers, creeks and water bodies. Power poles will not be placed in rivers, creeks, or water bodies.

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

NA

[Yellowed area for response to question b]

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ENVIRONMENTAL QUESTIONNAIRE

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)

A National Pollution Discharge Elimination System stormwater permit will be required for construction stormwater runoff.

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)

NPDES Stormwater permit will be required.

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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 checked="" type="checkbox"/> Municipal solid waste (e.g., paper, plastic, etc.)	deminimus
<input type="checkbox"/> Coal or coal by-products	
<input type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input type="checkbox"/> None	

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)

On site waste will be disposed of in on site dumpsters and picked up by local landfill company

d. How would wastes for disposal be transported?

Trash truck to haul to local landfill

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):

Fuel in construction vehicles

- 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)

- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)

Evergy has a worker safety program that complies with OSHA standards. Company employees and contractors are required to comply with Evergy's safety program.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)

- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)

Ambient noise would increase during construction only. Noise would come from construction equipment on site. Ambient noise levels would not increase from pre-construction levels when construction is complete.

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
 No construction planned No Yes (describe)

Tree removal along the ROW will be necessary.

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

Hearing protection would be required during situations during construction when noise levels exceed safety standards.

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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

- d. Clean Water Act (CWA): None New Required Modification Required
Describe:

NPDES Stormwater permit, US Corps of Engineers Section 404 Pre-construction Notification for Nationwide Permit 57

- 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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

No critical habitat, no take expected

- i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

Local floodplain permits will be required. USACE Section 404 PCN for NWP 57

- j. Fish and Wildlife Coordination Act (FWCA): None New Required Modification Required
Describe:

No affect on critical habitat

- k. National Historic Preservation Act (NHPA): None New Required Modification Required
Describe:

Section 106 consultation likely required.

- 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.

Compliance with local permitting authorities as well as Kansas Corporate Commission siting study will be required.

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

New transmission line corridors will require negotiations with land owners affected by the new line.

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

Minimal project impacts are expected. An extensive routing study with public comment periods will be conducted prior to determining the final route. Land owner negotiations with affected land owners will be conducted prior to construction. Federal and state agency consultation will occur with the project.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

All areas disturbed during construction will be restored and reseeded prior to project completion. All construction equipment and materials will be removed from the project area upon completion.

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: (b) (6) Date (mm/dd/yyyy): 05/04/2023

Typed Name: (b) (6)

Title: Mgr Permitting & Civil Engineering

Organization: Evergy, Inc.

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:

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-FOA2740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Process and Portfolio
5. Expected Project Duration: 3 years
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):
Jackson County, Missouri, S01-T50N-R30W
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Expand the existing Sibley substation in the SE/4 S01-T50N-R30W to a breaker and a half configuration. Expansion will be approximately 23 acres to the west of the existing substation.
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

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

Alternative would be to select a new substation site and rebuild the existing substation and expansion on greenfield site and decommission the existing substation.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Approximately 2.25 miles North of Buckner and 1.4 miles east of Sibley, surrounded by cropland and a landfill to the north

2. **Attach** a project site location map of the project work area.

See attached

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.

1. Land Use

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

<input type="checkbox"/> Urban	<input type="checkbox"/> Industrial	<input type="checkbox"/> Commercial	<input checked="" type="checkbox"/> Agricultural
<input type="checkbox"/> Suburban	<input checked="" 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:	

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

Existing substation sits on approximately 6 acres, expansion would consist of approximately 23 acres to the west.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

Construct new substation pad and equipment on company owned property. Aside from electric substation equipment, no additional utilities will be installed with the project.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

Existing cropland to the west of the existing substation would be converted from cropland to a substation. Substation pad will be rocked.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

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. None

Survey is needed to determine this.

- b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

Temporary construction storm water runoff basin will need to be installed for this project.

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

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

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

During construction, project would require a State land disturbance permit to limit sediment runoff.

- 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 deepwater operations?

No Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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?
 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.

None

Northern Long Eared Bat, Gray Bat, Indiana Bat, and Tricolored bat might be affected by the proposed project

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

No critical habitat has been designated for the Gray, Northern Long Eared, or Tricolored bats. Critical habitat has been designated for the Indiana bat but outside our project area.

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

Gravel and concrete foundation material will be used. Material will have no affect on resources.

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

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)

Traffic in the area would be increased during construction only. No increase in traffic would occur after construction is complete.

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

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

>1 mile to nearest site listed in National Register of Historic Places

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)

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

Notification to the SHPO will occur prior to construction of proposed project.

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape?

No Yes (describe)

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.

No

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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.

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ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

- 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)

[Redacted area]

- g. How would emissions be vented?

NA

[Redacted area]

7. Hydrologic Conditions/Water Quality

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

Missouri River approximately 2000' north of project area

[Redacted area]

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

NA

[Redacted area]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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)

Missouri Land Disturbance Permit will be required

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)

New Land Disturbance Permit will be required.

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

Site is approximately 2000' south of Missouri River

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

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)

On site waste will be disposed of in on site dumpsters and picked up by local landfill company

d. How would wastes for disposal be transported?

Local landfill haul trucks

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
Fuel will be used in construction vehicles
- 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)
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
Evergy has a worker safety program that complies with OSHA standards. Company employees and contractors are required to comply with Evergy's safety program.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
Ambient noise would increase during construction only. Noise would come from construction equipment on site. Ambient noise levels would not increase from pre-construction levels when construction is complete.
- 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)
Hearing protection would be required during situations during construction when noise levels exceed safety standards.

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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

d. Clean Water Act (CWA): None New Required Modification Required
Describe:

NPDES Missouri Land Disturbance Permit will be required

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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

Local planning and zoning permitting as well as local access and construction permitting may be required.

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

Expanding existing or building new substations might cause local opposition to the project. Energy will work with adjoining or affected land owners to achieve the best possible outcome.

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

Improved electric reliability and capacity in Jackson county Missouri and the surrounding areas.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

After construction is complete, all areas outside the expanded substation area will be regraded and reseeded to achieve pre-construction conditions.

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: (b) (6)

Date (mm/dd/yyyy): 05/04/2023

Typed Name: (b) (6)

Title: Manager, Permitting & Civil Engineering

Organization: Evergy, Inc

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:

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-00002740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Portfolio and Process
5. Expected Project Duration: 8 years
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):
Carmel, Hamilton County, Indiana
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Clerical, administrative, analytical assessments, financial tracking and miscellaneous reporting.
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
Duane Morris, Attorney	Washington DC

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

[Yellowed area for project alternatives]

C. PROJECT LOCATION

- 1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

[Yellowed area for project location description]

- 2. Attach a project site location map of the project work area.

[Yellowed area for project site location map]

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.

1. Land Use

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

- Urban Industrial Commercial Agricultural
- Suburban Rural Residential Research Facilities
- Forest University Campus Other: _____

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

[Yellowed area for facility size and portion used]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

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. None

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

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

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

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 deepwater operations?

No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

- 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?
- 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.

None

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

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

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

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)

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

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)

[Yellow response area]

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

[Yellow response area]

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? No Yes (describe)

[Yellow response area]

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.

[Yellow response area]

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 type="checkbox"/>
SO _x	<input type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input type="checkbox"/>
CO	<input type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>

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)

[Yellow response area]

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

[Yellow response area]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

- 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 type="checkbox"/> None		

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

[Yellow response area]

- g. How would emissions be vented?

[Yellow response area]

7. Hydrologic Conditions/Water Quality

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

[Yellow response area]

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

[Yellow response area]

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ENVIRONMENTAL QUESTIONNAIRE

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 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)

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input type="checkbox"/> None	

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)

d. How would wastes for disposal be transported?

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

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ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
- 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)
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
- 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)
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)

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ENVIRONMENTAL QUESTIONNAIRE

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:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

d. Clean Water Act (CWA): None New Required Modification Required
Describe:

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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

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

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

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: (b) (6)

Date (mm/dd/yyyy): 05/15/2023

Typed Name: (b) (6)

Title: Senior Customer Manager

Organization: MISO

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:

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-00002740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Portfolio and Process
5. Expected Project Duration: 8 years
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Eagan, Dakota County, Minnesota
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Clerical, administrative, analytical assessments, financial tracking and miscellaneous reporting.
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
Duane Morris, Attorney	Washington DC

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

[Yellowed area for project alternatives]

C. PROJECT LOCATION

- 1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

[Yellowed area for project location description]

- 2. Attach a project site location map of the project work area.

[Yellowed area for project site location map]

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.

1. Land Use

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

- | | | | |
|-----------------------------------|--|--------------------------------------|--|
| <input 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: | [Yellowed area] |

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

[Yellowed area for facility size and portion used]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

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. None

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

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

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

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 deepwater operations?

No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

- 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?
- 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.

None

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

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

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

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)

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

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)

[Yellow response area]

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

[Yellow response area]

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? No Yes (describe)

[Yellow response area]

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.

[Yellow response area]

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 type="checkbox"/>
SO _x	<input type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input type="checkbox"/>
CO	<input type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>

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)

[Yellow response area]

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

[Yellow response area]

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ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

- 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 type="checkbox"/> None		

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

[Yellow response area]

- g. How would emissions be vented?

[Yellow response area]

7. **Hydrologic Conditions/Water Quality**

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

[Yellow response area]

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

[Yellow response area]

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ENVIRONMENTAL QUESTIONNAIRE

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 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)

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input type="checkbox"/> None	

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)

d. How would wastes for disposal be transported?

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

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ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
- 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)
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
- 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)
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)

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ENVIRONMENTAL QUESTIONNAIRE

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:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

d. Clean Water Act (CWA): None New Required Modification Required
Describe:

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:

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h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

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

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

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: (b) (6)

Date (mm/dd/yyyy): 05/15/2023

Typed Name: (b) (6)

Title: Senior Customer Manager

Organization: MISO

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: (b) (6)

Date (mm/dd/yyyy):

Typed Name:

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-FOA2740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Process & Portfolio
5. Expected Project Duration: Completion is expected 2032
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):
Auburn, Nemaha, Nebraska to Hoyt, Jackson, Kansas
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Construct 345kV transmission line from Auburn, NE to Hoyt, Kansas.
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
TBD	Auburn, NE
TBD	Hoyt, KS

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Construct 345kV infrastructure

2. Attach a project site location map of the project work area.

Routing is TBD.

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.

1. Land Use

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

- | | | | |
|--|--|--------------------------------------|--|
| <input type="checkbox"/> Urban | <input type="checkbox"/> Industrial | <input type="checkbox"/> Commercial | <input checked="" type="checkbox"/> Agricultural |
| <input checked="" type="checkbox"/> Suburban | <input checked="" 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: | |

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

TBD. Liner transmission project.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

Liner transmission project.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

TBD. Liner transmission project. Limited impacts to existing land use are anticipated.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

TBD.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

No Yes (describe)

TBD.

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 Yes (describe)

TBD

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. None

TBD.

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

TBD. Not Anticipated.

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

TBD. Not Anticipated.

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

TBD.

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

If needed, appropriate CSW Permitting will be in place to control runoff.

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 deepwater operations?

No Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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?
 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.

None

TBD. Not anticipated.

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

TBD. Not anticipated.

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

TBD. Not anticipated.

- 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)

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

No corridors are anticipated to be impacted or disturbed. Migratory Bird Treaty Act and Endangered Species Act compliance will be maintained.

4. Socioeconomic and Infrastructure Conditions

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

TBD. Not anticipated.

- 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)

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

TBD. Not anticipated.

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)

TBD. Not anticipated.

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)

TBD. Not 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.

TBD. Depending on routing Tribal Lands may be affected.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellowed area for response to question d]

- 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)

[Yellowed area for response to question f]

- g. How would emissions be vented?

[Yellowed area for response to question g]

7. Hydrologic Conditions/Water Quality

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

TBD.

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

TBD. Minimal anticipated.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow shaded area for response]

e. Identify the local treatment facility that would receive wastewater from the proposed project.

No discharges to local treatment facility

TBD. Not Anticipated.

[Yellow shaded area for response]

f. Describe how wastewater would be collected and treated. No wastewater produced

[Yellow shaded area for response]

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? No Yes (describe source)

[Yellow shaded area for response]

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

No Yes (describe)

[Yellow shaded area for response]

i. Where would wastewater effluents from the proposed project be discharged? No wastewater produced

[Yellow shaded area for response]

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

No Yes (describe water use and effluent impact)

[Yellow shaded area for response]

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

No Yes (describe)

TBD. Construction Stormwater Permit may be required.

[Yellow shaded area for response]

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

[Yellow shaded area for response]

ENVIRONMENTAL QUESTIONNAIRE

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)

TBD.

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

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)

TBD. Not anticipated.

d. How would wastes for disposal be transported?

In accordance with all state and federal requirements.

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

TBD. Not anticipated.

f. How would hazardous or toxic waste be collected and stored? None used or produced

In accordance with all state and federal requirements.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
TBD. Not anticipated.
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
 None
TBD. Not anticipated.
- c. Would there be any special physical hazards or health risks associated with the project? No Yes (describe)
TBD. Not anticipated.
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
TBD. Appropriate safety program will be established for the project.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
TBD. Not anticipated.
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
TBD. Minimal anticipated.
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
 No construction planned No Yes (describe)
TBD. Not anticipated.
- h. Would hearing protection be required for workers? No Yes (describe)
TBD. PPE requirements will be established and enforced per safety program requirements.

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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

- d. Clean Water Act (CWA): None New Required Modification Required
Describe:

TBD. Construction Stormwater Permit may be required.

- 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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

TBD.

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

TBD.

j. Fish and Wildlife Coordination Act (FWCA): None New Required Modification Required
Describe:

TBD.

k. National Historic Preservation Act (NHPA): None New Required Modification Required
Describe:

TBD.

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.

Construction Stormwater Permit may be required.

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

Depending on routing and ROW agreements in place, some controversy may arise crossing the Tribal Lands.

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

No Yes (describe)

TBD. Not anticipated.

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

None (provide supporting detail) Significant impacts (describe)

TBD. Not anticipated.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

TBD. In accordance with all state and federal requirements.

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: (b) (6)

Date (mm/dd/yyyy): 05/15/2023

Typed Name: (b) (6)

Title: Director-Environmental & Regulatory Affairs

Organization: Omaha Public Power District

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: _____

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-FOA2740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Process and Portfolio
5. Expected Project Duration: completion 2032
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Liberty Township, Woodbury, Iowa and Bennington, Douglas, Nebraska
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Rebuild or replace transmission infrastructure
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
TBD	Raun Substaion
TBD	Substation S3452

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

[Redacted area]

C. PROJECT LOCATION

- 1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Rebuild or replace transmission infrastructure

- 2. **Attach** a project site location map of the project work area.

Routing is TBD.

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.

1. Land Use

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

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

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

TBD. Liner transmission project.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

Liner transmission project.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

TBD. Liner transmission project. Limited impacts to existing land use are anticipated.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

TBD.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

No Yes (describe)

TBD.

- 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 Yes (describe)

TBD.

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. None

TBD.

- b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

TBD. Not anticipated.

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

TBD. Not anticipated.

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

TBD.

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

If needed, appropriate CSW Permitting will be in place to control runoff.

- 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 deepwater operations?

No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

- 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?
 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.

None

TBD. Not anticipated.

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

TBD. Not anticipated.

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

TBD. Not anticipated.

- 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)

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

No corridors are anticipated to be impacted or disturbed. Migratory Bird Treaty Act and Endangered Species Act compliance will be maintained.

4. Socioeconomic and Infrastructure Conditions

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

TBD. Not anticipated.

- 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)

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

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ENVIRONMENTAL QUESTIONNAIRE

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

TBD. Not anticipated.

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)

TBD. Not anticipated.

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)

TBD. Not 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.

TBD. This project will cross Tribal Land.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellowed area for response to question d]

- 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)

[Yellowed area for response to question f]

- g. How would emissions be vented?

[Yellowed area for response to question g]

7. **Hydrologic Conditions/Water Quality**

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

Missouri River crossing. Others TBD.

[Yellowed area for response to question 7a]

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

TBD. Minimal anticipated.

[Yellowed area for response to question 7b]

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ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow shaded area for response]

e. Identify the local treatment facility that would receive wastewater from the proposed project.

No discharges to local treatment facility

TBD. Not Anticipated.

[Yellow shaded area for response]

f. Describe how wastewater would be collected and treated. No wastewater produced

[Yellow shaded area for response]

g. Would any run-off or leachates be produced from storage piles or waste disposal sites? No Yes (describe source)

[Yellow shaded area for response]

h. Would project require issuance of new or modified water permits to perform project work or site development activities?

No Yes (describe)

[Yellow shaded area for response]

i. Where would wastewater effluents from the proposed project be discharged? No wastewater produced

[Yellow shaded area for response]

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

No Yes (describe water use and effluent impact)

[Yellow shaded area for response]

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

No Yes (describe)

TBD. Construction Stormwater Permit may be required.

[Yellow shaded area for response]

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

[Yellow shaded area for response]

ENVIRONMENTAL QUESTIONNAIRE

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)

TBD

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

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)

TBD. Not anticipated.

d. How would wastes for disposal be transported?

In accordance with all state and federal requirements.

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

TBD. Not anticipated.

f. How would hazardous or toxic waste be collected and stored? None used or produced

In accordance with all state and federal requirements.

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ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
TBD. Not anticipated.
- b. Describe the potential impacts of this project's hazardous materials on human health and the environment.
 None
TBD. Not anticipated.
- c. Would there be any special physical hazards or health risks associated with the project? No Yes (describe)
TBD. Not anticipated.
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
TBD. Appropriate safety program will be established for the project.
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
TBD. Not anticipated.
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
TBD. Minimal anticipated.
- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
 No construction planned No Yes (describe)
TBD. Not anticipated.
- h. Would hearing protection be required for workers? No Yes (describe)
TBD. PPE requirements will be established and enforced per safety program requirements.

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)

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ENVIRONMENTAL QUESTIONNAIRE

- 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:

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

- d. Clean Water Act (CWA): None New Required Modification Required
Describe:

TBD. Construction Stormwater Permit may be required.

- 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:

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h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

TBD.

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

TBD.

j. Fish and Wildlife Coordination Act (FWCA): None New Required Modification Required
Describe:

TBD.

k. National Historic Preservation Act (NHPA): None New Required Modification Required
Describe:

TBD.

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.

Construction Stormwater Permit may be required.

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

Depending on routing and ROW agreements in place, some controversy may arise crossing the Tribal Lands.

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

No Yes (describe)

TBD. Not anticipated.

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

None (provide supporting detail) Significant impacts (describe)

TBD. Not anticipated.

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ENVIRONMENTAL QUESTIONNAIRE

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

TBD. In accordance with all state and federal requirements.

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: (b) (6)

Date (mm/dd/yyyy): 05/15/2023

Typed Name: (b) (6)

Title: Director-Environmental & Regulatory Affairs

Organization: Omaha Public Power District

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: _____

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-00002740 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue project
5. Expected Project Duration: 96 months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Little Rock, Pulaski County, Arkansas
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Administrative support of the requirements of the Department of Energy's grant under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.
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

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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ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

[Yellowed area for project alternatives]

C. PROJECT LOCATION

- 1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

[Yellowed area for project location description]

- 2. Attach a project site location map of the project work area.

[Yellowed area for project site location map]

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.

1. Land Use

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

- Urban Industrial Commercial Agricultural
- Suburban Rural Residential Research Facilities
- Forest University Campus Other: _____

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

[Yellowed area for facility size and portion used]

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ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

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. None

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

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

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

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 deepwater operations?

No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

- 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?
- 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.

None

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

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

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

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)

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

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ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

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)

[Yellow response area]

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

[Yellow response area]

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? No Yes (describe)

[Yellow response area]

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.

[Yellow response area]

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 type="checkbox"/>
SO _x	<input type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input type="checkbox"/>
CO	<input type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>

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)

[Yellow response area]

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

[Yellow response area]

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ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

- 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 type="checkbox"/> None		

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

[Yellow response area]

- g. How would emissions be vented?

[Yellow response area]

7. Hydrologic Conditions/Water Quality

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

[Yellow response area]

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

[Yellow response area]

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ENVIRONMENTAL QUESTIONNAIRE

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 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)

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input type="checkbox"/> None	

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)

d. How would wastes for disposal be transported?

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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.
- None Hazardous or toxic materials that would be used (identify):
- 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)
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
- No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
- None Increase in ambient noise level (describe)
- 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)
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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

d. Clean Water Act (CWA): None New Required Modification Required
Describe:

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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

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

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

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: (b) (6) Date (mm/dd/yyyy): 05/16/2023
Typed Name: (b) (6)
Title: Vice President of Engineering
Organization: Southwest Power Pool, Inc.

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: [Redacted] Date (mm/dd/yyyy): [Redacted]
Typed Name: [Redacted]

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-0002736 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: _____ Telephone Number: _____
4. Project Title: Joint Targeted Interconnection Queue Transmission Study Process and Portfolio
5. Expected Project Duration: 8 years
6. Location of Activities covered by **this** Environmental Questionnaire: (City/Township, County, State):
Saint Paul, Minnesota
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Administration of grant award; strategic planning; technical and programmatic management; reporting and analysis; outreach, education and stakeholder engagement.
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
Midcontinent Independent System Operator	Eagan, MN
Southwest Power Pool	Little Rock, AR

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

[Yellowed area for project alternatives]

C. PROJECT LOCATION

- 1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

[Yellowed area for project location description]

- 2. Attach a project site location map of the project work area.

[Yellowed area for project site location map]

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.

1. Land Use

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

- Urban Industrial Commercial Agricultural
- Suburban Rural Residential Research Facilities
- Forest University Campus Other: _____

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

[Yellowed area for facility size and portion used]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

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. None

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

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

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

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 deepwater operations?

No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

- 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?
- 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.

None

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

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

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

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)

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

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)

[Yellow response area]

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

[Yellow response area]

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? No Yes (describe)

[Yellow response area]

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.

[Yellow response area]

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 type="checkbox"/>
SO _x	<input type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input type="checkbox"/>
CO	<input type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>

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)

[Yellow response area]

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

[Yellow response area]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

- 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 type="checkbox"/> None		

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

[Yellow response area]

- g. How would emissions be vented?

[Yellow response area]

7. Hydrologic Conditions/Water Quality

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

[Yellow response area]

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

[Yellow response area]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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 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)

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input type="checkbox"/> None	

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)

d. How would wastes for disposal be transported?

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
- 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)
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
- 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)
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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

d. Clean Water Act (CWA): None New Required Modification Required
Describe:

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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

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

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

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: (b) (6)

Date (mm/dd/yyyy): 05/18/2023

Typed Name: (b) (6)

Title: Deputy Commissioner of Energy

Organization: MN Department of Commerce

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: [Redacted]

Date (mm/dd/yyyy): [Redacted]

Typed Name: [Redacted]

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: 2470 Proposer: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Process and Portfolio
5. Expected Project Duration: 2024 - 2032 (96 months total)
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Minneapolis, Minnesota
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
office work, routine administrative and project management work, all electronic and computer-based
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

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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

[Redacted area for project alternatives]

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

[Redacted area for project location description]

2. Attach a project site location map of the project work area.

[Redacted area for project site location map]

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.

1. Land Use

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

- | | | | |
|-----------------------------------|--|--------------------------------------|--|
| <input 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: | <input type="text"/> |

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

[Redacted area for facility size and usage]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

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. None

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

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

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

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 deepwater operations?

No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

- 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?
- 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.

None

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

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

- 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)

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

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)

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow response area]

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)

[Yellow response area]

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

[Yellow response area]

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? No Yes (describe)

[Yellow response area]

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.

[Yellow response area]

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 type="checkbox"/>
SO _x	<input type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input type="checkbox"/>	<input type="checkbox"/>
CO	<input type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input type="checkbox"/>	<input type="checkbox"/>
Lead	<input type="checkbox"/>	<input type="checkbox"/>

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)

[Yellow response area]

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

[Yellow response area]

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

[Yellow response area]

- 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 type="checkbox"/> None		

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

[Yellow response area]

- g. How would emissions be vented?

[Yellow response area]

7. Hydrologic Conditions/Water Quality

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

[Yellow response area]

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

[Yellow response area]

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ENVIRONMENTAL QUESTIONNAIRE

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 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)

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input type="checkbox"/> None	

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)

d. How would wastes for disposal be transported?

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

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ENVIRONMENTAL QUESTIONNAIRE

- 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.
 None Hazardous or toxic materials that would be used (identify):
- 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)
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)
- 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)
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)

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ENVIRONMENTAL QUESTIONNAIRE

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:

b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

d. Clean Water Act (CWA): None New Required Modification Required
Describe:

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:

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h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

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

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

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ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

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:

Date (mm/dd/yyyy):

Typed Name:

Title:

Organization:

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:

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: MN Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: Dehn Stevens Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Process and Portfolio: Raun-S3452 (MEC)
5. Expected Project Duration: Eight years total, 3 years of construction work expected
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Sergeant Bluff, Woodbury County, Iowa
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Construction of 345 kV terminal in existing Raun substation. New 345kV transmission line to be added to existing 161 kV line route for 1.75 miles from the Raun substation to the Missouri River. Omaha Public Power District will construct the Missouri River crossing and the portion of the line located in Nebraska.
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
MidAmerican Energy	Raun Substation and vicinity near Salix, Iowa

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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ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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

C. PROJECT LOCATION

- 1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

Raun substation is on or adjacent to the George Neal Energy Center near Sergeant Bluff, Iowa. Line project is on property/easement currently owned by MidAmerican Energy Company.

- 2. Attach a project site location map of the project work area.

Attached

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.

1. Land Use

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

- | | | | |
|-----------------------------------|--|--------------------------------------|--|
| <input type="checkbox"/> Urban | <input checked="" 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: | |

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

Existing facility is approximately 1,021 acres. Project would include work within the existing 16 acre Raun Substation and along a 1.75 mile path of an existing transmission line from the Raun Substation to the Missouri River.

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ENVIRONMENTAL QUESTIONNAIRE

c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

Work would include equipment installation within the existing Raun substation and addition of 345 kV line to existing 161 kV line.

d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

No land use will be affected for work inside the Raun Substation. For the line, land-use is improved as existing two-legged structures will be replaced with single pole structures.

e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

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 Yes (describe)

The Missouri River borders the west side of the existing facility. The new transmission line will be built to the Missouri River.

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. None

See project site location map.

b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

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

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

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

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 deepwater operations?

No Yes (describe)

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ENVIRONMENTAL QUESTIONNAIRE

- 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?
 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.
 None

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

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

- 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)

- e. Would any migratory animal corridors be impacted or disrupted by the proposed project? No Yes (describe)
The Missouri River borders the facility on the west. Transmission project will utilize the existing route. Any structures will be constructed per the current APLIC guidelines.

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)

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Yellow shaded area for response]

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)

[Yellow shaded area for response]

c. Has the State Historic Preservation Office been contacted with regard to this project? No Yes (describe)

[Yellow shaded area for response]

d. Would the proposed project interfere with visual resources (e.g., eliminate scenic views) or alter the present landscape? No Yes (describe)

[Yellow shaded area for response]

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.

None

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)

[Yellow shaded area for response]

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

[Yellow shaded area for response]

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ENVIRONMENTAL QUESTIONNAIRE

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

- 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

7. **Hydrologic Conditions/Water Quality**

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

It is not anticipated that the project will have any impact on a water body. The Missouri River is located adjacent to the facility.

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

Potable and process water are not anticipated to be needed for the project.

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ENVIRONMENTAL QUESTIONNAIRE

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)

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

ENVIRONMENTAL QUESTIONNAIRE

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)

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: Wood Utility Pole Structures	Unknown
<input type="checkbox"/> Hazardous waste – Identify:	
<input type="checkbox"/> None	

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)

Nearby municipal solid waste landfill.

d. How would wastes for disposal be transported?

Unknown

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

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- 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.

None Hazardous or toxic materials that would be used (identify):

- 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)

Expected hazards associated with excavation, heavy construction, motorized equipment, and working at heights. These are typical hazards for this type of work.

- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)

Industry standard worker and contractor safety programs are in place.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?

No Yes (describe)

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

None Increase in ambient noise level (describe)

- 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)

Hearing protection would be required with the operation of heavy construction equipment.

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)

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ENVIRONMENTAL QUESTIONNAIRE

- 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:

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

None New Required Modification Required

Describe:

- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

- d. Clean Water Act (CWA): None New Required Modification Required
Describe:

- 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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

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.

None

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

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

No Yes (describe)

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

None (provide supporting detail) Significant impacts (describe)

The project includes construction of a 345 kV terminal within an existing substation and the addition of 345 kV conductor to an existing 161 kV. The project's use of existing facilities and infrastructure will eliminate/minimize any impacts.

U.S. DEPARTMENT OF ENERGY

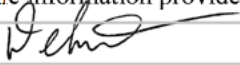
ENVIRONMENTAL QUESTIONNAIRE

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

The project is intended to be permanent.

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: 

Date (mm/dd/yyyy): 05/17/2023

Typed Name: Dehn Stevens

Title: V.P. Transmission Development and Planning

Organization: MidAmerican Energy Company

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

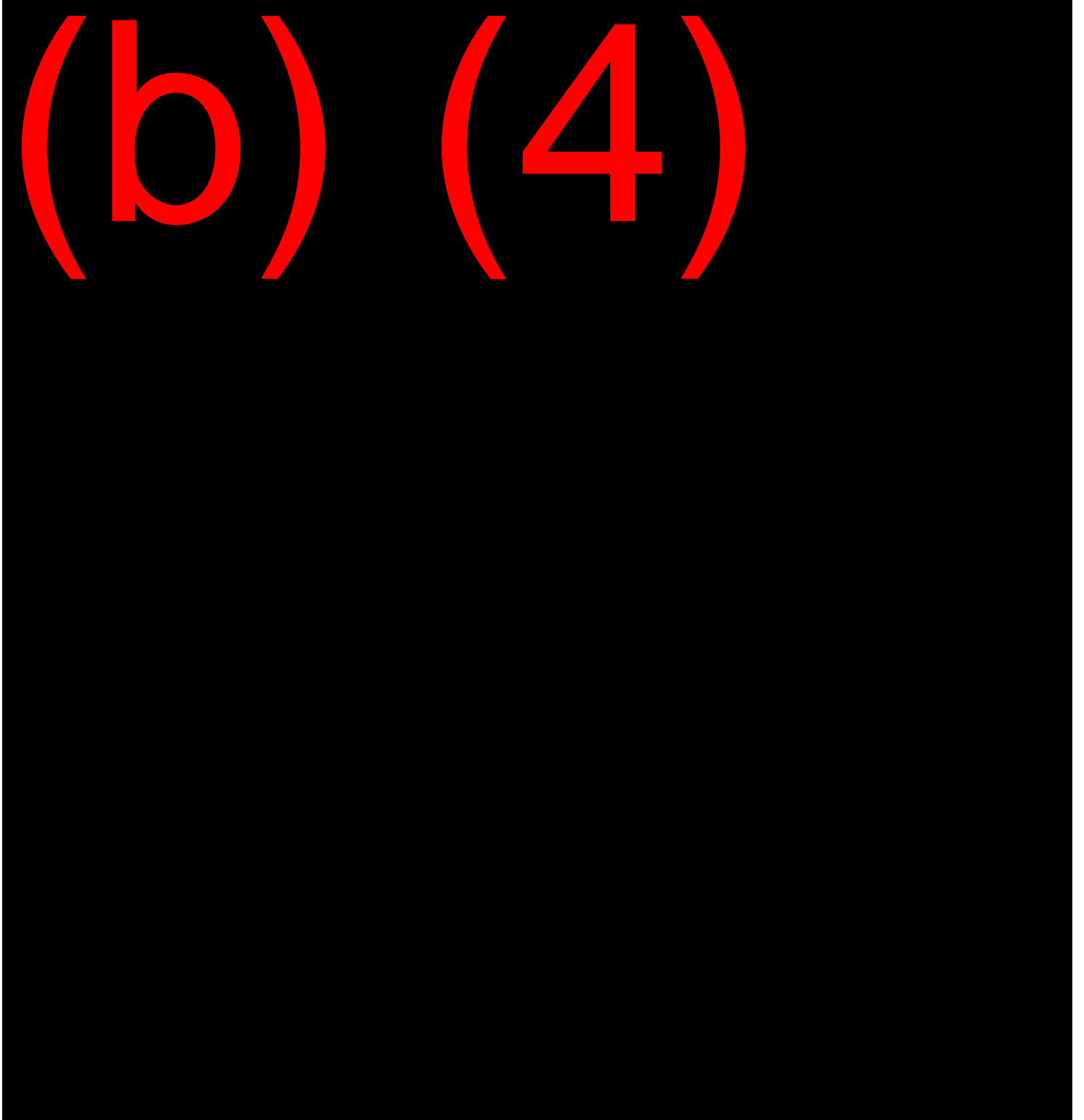
Signature: _____

Date (mm/dd/yyyy): _____

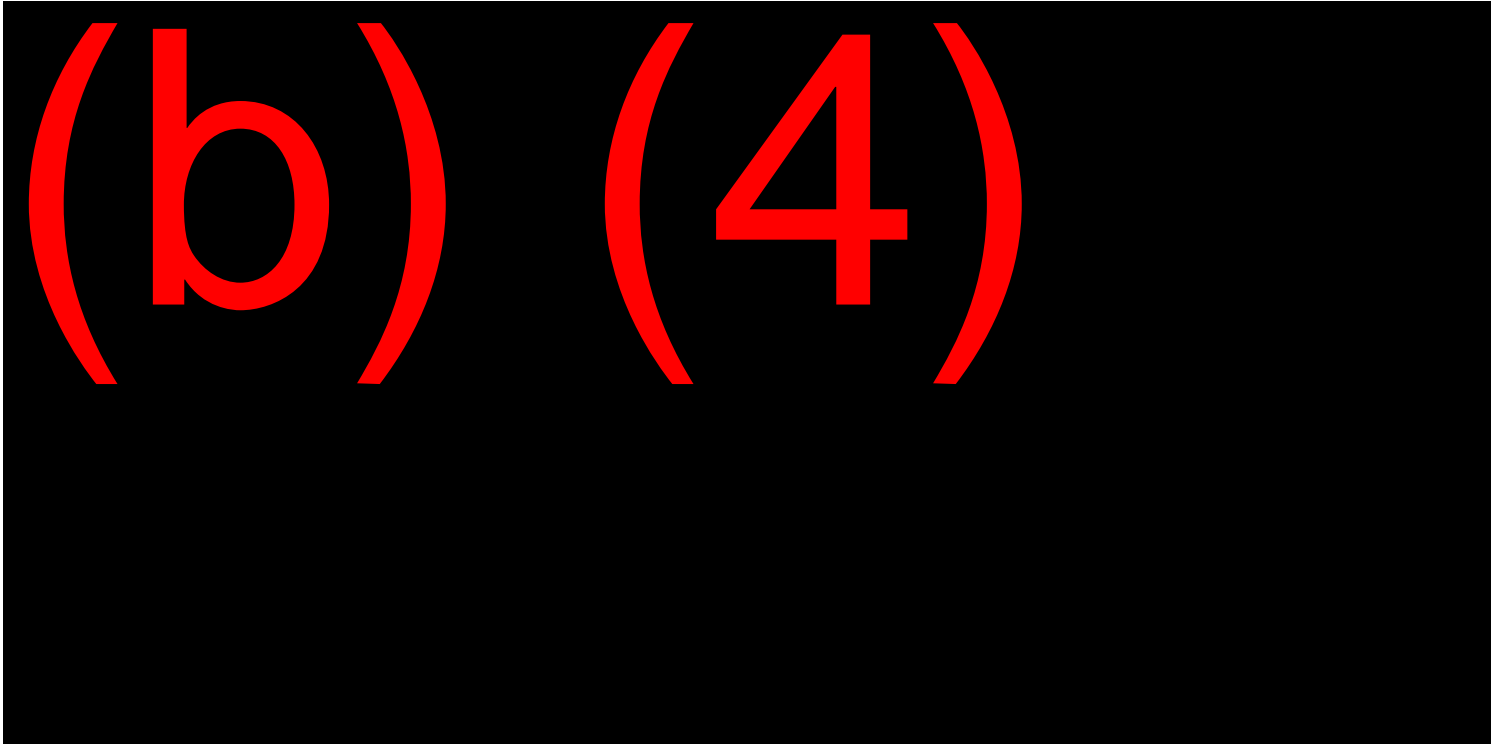
Typed Name: _____

MidAmerican Energy Company

Project Site Location Map of MidAmerican's Raun Substation



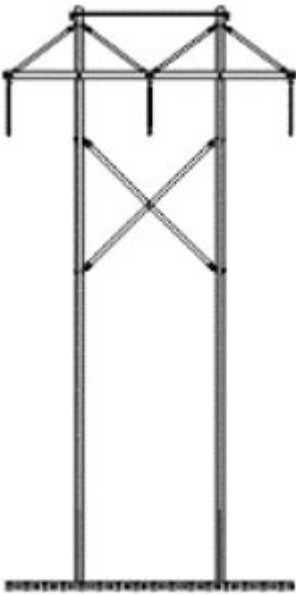
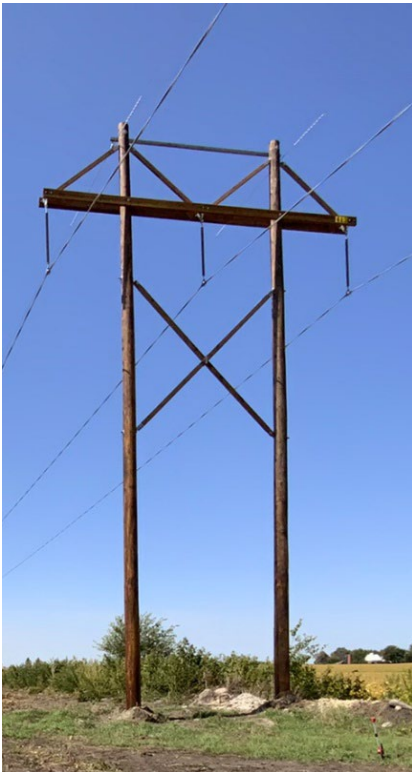
Project Site Location Map of Raun – S3452 345 kV Line



The yellow line is the anticipated route of the new 345 kV line

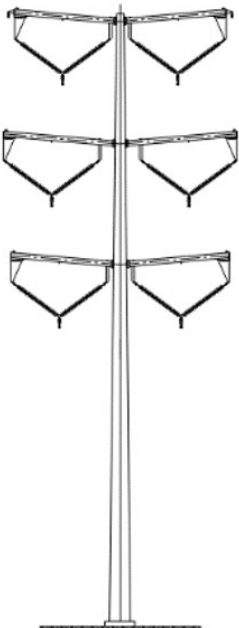
The red dots are existing two-legged structure locations. New single-pole double-circuit structures will be located in approximately the same locations.

Existing Two-Legged Wood Structures



TYPICAL HEAVY
TANGENT WOOD POLE
H-FRAME STRUCTURE

New Single-Pole Double-Circuit Steel Structures



TYPICAL DOUBLE CIRCUIT 245 KV TANGENT
STEEL STRUCTURE
LINE POST FRAMING

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: Minnesota Department of Commerce
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: (b) (6) Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Transmission Study Process and Portfolio
5. Expected Project Duration: 96 mo., could extend beyond this for larger projects in portfolio
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):
Otter Tail Power Company and its partner have not identified the potential project route.
7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).
Siting, permitting, obtaining land rights, and construction of a new 345kV Transmission Line running from the existing Big Stone South substation near Big Stone South Dakota, to a new 345kV substation near Hankinson ND to an existing substation near Mapleton, ND.
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 the 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.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

- 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 right-of-ways, 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.

Alternative projects that were analyzed in the development of the JTIQ projects can be found in Tables 8 and 9 in the Joint Targeted Interconnection Queue Study Report.

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).

This project will be a transmission line routed between existing substations located near Mapleton, North Dakota (Cass County) and Big Stone City, South Dakota (Grant County).

2. Attach a project site location map of the project work area.

Couldn't attache file. See Xcel's Environmental Questionnaire.

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.

1. Land Use

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

Urban Industrial Commercial Agricultural
 Suburban Rural Residential Research Facilities
 Forest University Campus Other: See C.1 description

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

The transmission line will be approximately 160 miles. The exact route between the Big Stone South substation (near Big Stone City, SD) and the Bison substation (near Mapleton, ND) is not yet defined. The structure size will depend on route and design considerations.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- c. Describe planned construction, installation, and/or demolition activities, i.e., roads, utilities system right-of-ways, parking lots, buildings, laboratories, storage tanks, fueling facilities, underground wells, pipelines, or other structures.

No construction would be anticipated for this project.

Construction activities would occur that are typical of transmission line development. Otter Tail Power Company has extensive experience with these projects.

- d. Describe how land use would be affected by operational activities associated with the proposed project.

No land areas would be affected.

There will be temporary land use impacts from construction (such as travel impacts and laydown areas) and lesser permanent impacts from the new transmission structure footprints.

- e. Describe any plans to reclaim areas that would be affected by the proposed project.

No land areas would be affected.

OTP will work closely with landowners in finalizing transmission structure locations. Disturbed areas will be returned as near as possible to pre-construction conditions.

- f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

No Yes (describe)

None anticipated.

- 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 Yes (describe)

To be determined. As part of obtaining the necessary route permits OTP will consult with state, federal, and tribal stakeholders as applicable.

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. None

Exact transmission structure locations would be determined during the state route permitting process. See project map for a general location.

- b. Would the proposed project require the construction of waste pits or settling ponds?

No Yes (describe and identify location, and estimate surface area disturbed)

OTP will follow applicable regulations under the state or National Pollutant Discharge Elimination System General Permit for Stormwater Discharges associated with construction.

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

Most wetland impacts can be avoided through careful routing of the project. OTP will attempt to span all wetlands where possible.

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

Most wetland impacts can be avoided through careful routing of the project. OTP will attempt to span all wetlands where possible.

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

OTP will follow applicable regulations under the state or National Pollutant Discharge Elimination System General Permit for Stormwater Discharges associated with construction.

- 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 deepwater operations?

No Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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?

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.

None

During the route permit process, State and Federal agencies will be consulted to determine listed species and the route will be designed to mitigate impacts.

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

- c. Describe any impacts that construction would have on any other types of sensitive or unique habitats.

No planned construction No habitats None Impact (describe)

The transmission line will be routed to minimize or avoid impacts to sensitive habitat.

- 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)

To the extent that transmission structures and foundations are considered a "foreign substance/material", this would be introduced into the ground.

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

The proposed project is in/near the Central Flyway Migration Corridor and Mississippi Flyway. Any impacts to migratory corridors will be minimized to the extent practicable.

4. Socioeconomic and Infrastructure Conditions

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

Local job creation may positively impact socio-economic circumstances.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

No Yes (describe)

Increased traffic would be temporary in nature during construction. Local townships and counties would be consulted.

- c. Would the proposed project require new transportation access (roads, rail, etc.)? Describe location, impacts, costs.

No Yes (describe)

Temporary transportation access would be needed for construction.

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

There are likely cultural sites in the vicinity of the proposed project. These would be identified by pre-construction surveys to avoid impacts.

- 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)

Following the completion of a Class III survey, OTP will seek to avoid impacts to NRHP-eligible cultural resources and properties of traditional cultural importance.

- 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)

Structure heights will average roughly 150' feet tall. Efforts are made when working with the public and local government agencies to take all factors into account in the design.

- 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.

OTP will provide notification of the project to any area Tribal offices and meet to discuss the project as applicable.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
O ₃ - 8 Hour	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SO _x	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 2.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PM - 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CO	<input checked="" type="checkbox"/>	<input type="checkbox"/>
NO ₂	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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)

Numerous State, Federal, and Local permits would be needed. OTP is familiar with obtaining these permits as part of developing similar transmission projects.

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

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

[Redacted area]

- 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)

Not applicable.

- g. How would emissions be vented?

Not applicable.

7. Hydrologic Conditions/Water Quality

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

There are numerous waterbodies in the vicinity of the project. These would be identified during project permitting in order to avoid and minimize impacts.

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

Not applicable.

[Redacted area]

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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)

OTP will follow applicable regulations under the state or National Pollutant Discharge Elimination System General Permit for Stormwater Discharges associated with construction.

i. Where would wastewater effluents from the proposed project be discharged? No wastewater produced

OTP will follow applicable regulations under the state or National Pollutant Discharge Elimination System General Permit for Stormwater Discharges associated with construction.

j. Would the proposed project be permitted to discharge effluents into an existing body of water?

No Yes (describe water use and effluent impact)

OTP will follow applicable regulations under the state or National Pollutant Discharge Elimination System General Permit for Stormwater Discharges associated with construction.

k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?

No Yes (describe)

OTP will follow applicable regulations under the state or National Pollutant Discharge Elimination System General Permit for Stormwater Discharges associated with construction.

l. Would the proposed project adversely affect the quality or movement of groundwater? No Yes (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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)

While there may be these areas in the vicinity of the project, no adverse impacts are 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: Timber, tree tops, etc.	TBD
<input type="checkbox"/> Hazardous waste – Identify:	
<input type="checkbox"/> None	

- 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)

Disposal of timber, tree tops, limbs, and slash will comply with state and local ordinances and the desires of landowners.

- d. How would wastes for disposal be transported?

Routine handling.

- 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

None anticipated

- f. How would hazardous or toxic waste be collected and stored? None used or produced

None anticipated.

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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.

None Hazardous or toxic materials that would be used (identify):

- 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, arc flash and energized electrical hazards for overhead line work, noise during construction.

- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
Yes, Otter Tail has an extensive safety program and conducts pre-job briefs.

- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)

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

None Increase in ambient noise level (describe)

Construction activities will generate short-term and intermittent noise. The project will be modeled to evaluate audible noise from the transmission line; this will be further evaluated during project permitting.

- 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.

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)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- 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:

Any timber disposal will be in accordance with local regulations.

- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:

- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:

- d. Clean Water Act (CWA): None New Required Modification Required
Describe:

To be determined based on final route.

- 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:

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

- h. Endangered Species Act (ESA): None New Required Modification Required
Describe:

To be determined based on pre-construction field surveys and agency consultation.

- i. [Floodplains and Wetlands Regulations](#): None New Required Modification Required
Describe:

To be determined based on pre-construction field surveys and agency consultation.

- 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:

To be determined based on pre-construction field surveys and agency consultation.

- 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.

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

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

No Yes (describe)

This project is one of seven projects to better enable interconnection between MISO and SPP. Therefore this will enable additional clean energy to connect to the grid and mitigate reliability issues across both regions.

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

None (provide supporting detail) Significant impacts (describe)

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

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

When the installed line reaches end of life, the materials will be recycled or properly disposed. No hazardous materials are anticipated.

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: (b) (6) Digitally signed by (b) (6)
Date: 2023.05.10 07:48:24 -0500

Date (mm/dd/yyyy): 05/10/2023

Typed Name: (b) (6)

Title: Manager, Environmental Services

Organization: Otter Tail Power Company

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: _____

Information redacted pursuant to 5 USCS § 552(b)(6): personal and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. The Company has taken steps to restrict access-both internal and external-on a need-to-know basis only, and has taken other steps to prevent inadvertent disclosure.

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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: Northern States Power Company (a subsidiary of Xcel Energy Inc)
2. This Environmental Questionnaire pertains to a: Recipient or Prime Contractor Sub-recipient or Subcontractor
3. Principal Investigator: Andrew Siebenaler Telephone Number: (b) (6)
4. Project Title: Joint Targeted Interconnection Queue Transmission Study Process and Portfolio
5. Expected Project Duration: 96 months
6. Location of Activities covered by this Environmental Questionnaire: (City/Township, County, State):

Xcel Energy and its partners have not identified potential routes for the proposed transmission projects. The two proposed 345 kV transmission lines will be sited near the Eastern Boundary of North Dakota and South Dakota and the Southwestern Boundary of Minnesota. Figure 1 below shows an approximation of the routes. Xcel Energy and Otter Tail Electric are partners in the project between Bison, Hankinson and Big Stone. Xcel Energy and ITC are partners in the proposed project between Brookings County and Lakefield. See Figure 1 below in the response to question C.2.

7. List the full scope of activities planned (only for the location that is the subject of this Environmental Questionnaire).

Xcel Energy projects include the siting, permitting, obtaining land rights, and construction of two 345 KV transmission projects as shown in table 1 below. Xcel Energy will be a partner in these projects with Otter Tail Power and ITC.

Table 1. JTIQ Transmission Project Portfolio Summary

Project Name	Building Utility	RTO	State(s)
Bison – Hankinson – Big Stone South 345 kV line	Xcel, Otter Tail Power	MISO	ND, SD
Brookings Co – Lakefield 345 kV line	Xcel, ITC	MISO	SD, MN

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 the time of application	

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

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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.

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

- 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.

The objective of Xcel Energy's portion of the project is effectively site and construct the transmission system needed to connect utility scale wind and solar projects so that their products can be safely delivered to the end user. During this project we will evaluate numerous factors, many of which are identified in this environmental questionnaire to develop preferred and alternative routes for the transmission systems between the defined end points.

Whether our transmission projects are assessed via the NEPA process, or our state regulators, our objective is to identify routes that are safe, have minimal impacts to the environment and affected communities, and are cost effective. Through this project we will identify alternative routes and have a systematic process to choose that route that is deemed most acceptable. In part the final route is dependent upon our ability to obtain land rights to construct and operate a transmission system, and is dependent upon the presence of sensitive receptors, whether features such as wetlands, critical habitat, or the presence of historic and cultural resources.

ENVIRONMENTAL QUESTIONNAIRE

(b) (4)

(b) (4)

C. PROJECT LOCATION

1. Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
The 345-kV transmission projects comprising the JTIQ portfolio are in North Dakota, South Dakota, Minnesota, Iowa, Missouri, Kansas, and Nebraska. Xcel Energy's segments are primarily in North Dakota, South Dakota and Minnesota.
2. Attach a project site location map of the project work area.

Figure 1. JTIQ Portfolio Map



D. ENVIRONMENTAL IMPACTS

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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.

1. Land Use

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

- Urban Industrial Commercial Agricultural
 Suburban Rural Residential Research Facilities
 Forest University Campus Other: The land uses for the property potentially impacted by this linear project can vary considerably, including potentially limited impacts to residential areas, but primarily expected to be Rural and Agricultural. Sensitive land features in the project areas include waterfowl production areas, wildlife management areas, and prairie pothole surface water features.

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

Total scale of these projects is dependent upon final route and design considerations. General information on the scale of 345 kV transmission lines can be found here in this fact sheet prepared for a similar project:



Transmission-Line-Infrastructure-facts

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

Construction of transmission tower and above ground transmission lines within newly identified utility right of ways.

d. Describe how land use would be affected by operational activities associated with the proposed project.

- No land areas would be affected.

Land disturbances are limited to equipment necessary to drill and install footing for transmission towers. There may be some clearing of vegetation to establish new utility corridors. In addition, equipment will be used to string 345 KV power line on the newly constructed transmission towers. Temporary access routes to access the construction corridor are also anticipated. In addition, both projects include expansions of existing substations. For example, the Hankinson substation needs a new voltage level, would require an extension of the existing substation. Attached below is another fact sheet for a similar project.



HW-Transmission-Line-Construction.pdf

e. Describe any plans to reclaim areas that would be affected by the proposed project.

- No land areas would be affected.

Any land disturbances will likely be covered by Construction Stormwater Pollution Prevention Plan (SWPPP). During construction we will adhere to the requirements of the applicable SWPPP. For small projects that are not required to adhere to the Construction Stormwater program we utilize best management practices to reduce stormwater runoff. At the end of construction disturbed land will be restored to match the surrounding landscape and revegetated. Crop damages caused by the construction activities will be addressed and compensated to the landowners.

f. Would the proposed project affect any unique or unusual landforms (e.g., cliffs, waterfalls, etc.)?

- No Yes (describe)

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While the siting of the two transmission systems has not yet occurred, our practice is to avoid unusual landforms such as cliffs and waterfalls.

- 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 Yes (describe)

While the siting of the two transmission systems has not yet occurred, to the extent it is feasible we will avoid local, state or federal parks, forests, monuments, scenic waterways, wilderness, recreation facilities or tribal lands. If our routes should impact these features, we will reach out to the appropriate authorities to discuss potential impacts in advance of finalizing route selection. In addition, per our community benefits plan, we have a history of working in collaboration with tribal governments.

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. None

Transmission towers including the installation of foundations below ground surface and the installation of towers are generally 90-170 feet tall. In addition we will be installing 345kV line which will be suspended from the transmission towers. The design of the transmission towers and line will be in adherence with Xcel Energy's avian protection standards to reduce potential impacts to birds.

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

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

It is possible that the planned transmission line will cross existing bodies of water, but we anticipate no permanent impacts to these surface waters.

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

To the extent that it is feasible we try to avoid work within wetlands. However, it is a potential that transmission towers may need to be sited within a wetland. If this is the case, we will work with the appropriate governmental authorities to obtain the appropriate approvals and execute this construction project using practices that minimize to the extent practicable impacts on the affected wetlands.

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

Project includes the installation of below ground foundations, above ground transmission towers and the stringing of wire between the poles. 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?
 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?
 No Yes (describe)

3. Biological Resources

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- a. Identify any State or Federally listed endangered or threatened plant or animal species potentially affected by the proposed project.
 None

Not yet determined. The siting of potential routes for these two 345kV projects has not been initiated. Final siting decisions will in part be informed by a review of the Information for Planning and Consultation (IPaC) databases. While not yet completed, this activity will occur early in the planning phase of the project. As described below we will plan to consult with the United States Fish and Wildlife Service to identify project elements that may potentially affect protected resources.

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

Not yet determined. While the siting of potential routes for these two 345kV projects has not been initiated, we will complete a review of the National Heritage Inventory (NHI) and Information for Planning and Consultation (IPaC) databases for potential impact to protected species, habitats, or. We plan to consult with the United States Fish and Wildlife Service as necessary to evaluate potential impacts to fish and wildlife should we identify elements of this project that could potentially affect these protected resources.

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

Not yet determined. If unique or sensitive habitats are encountered impacts are limited to temporary disturbance occurring when the transmission towers foundations are constructed, during transmission tower erection, and stringing of the lines between the towers. As a best practice transmission towers and lines are designed to incorporate features to reduce contact with energized lines and in-flight collisions.

- 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)

The only substance introduced to the soil would be concrete and rebar. During the operation of the transmission system, we will be managing vegetation within the utility right-of-way using practices and chemicals approved for use for line maintenance.

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

In general, the proposed projects are in either the Central Flyway Migration Corridor or the Mississippi Flyway. Since these migration corridors are prominent in our service territories, we are proficient in siting and designing these transmission systems so that impacts to migratory corridors are minimized to the extent practicable.

4. Socioeconomic and Infrastructure Conditions

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

Yes, this project can impact indirect local socio-economic change. The proposed projects will improve bulk-transmission interconnection-que backlogs and increase capacity and network upgrades that would otherwise be too costly for individual or small groups of interconnection projects to proceed. This will allow more interconnected energy projects to be developed within the project area which will spur job creation and local tax revenue through new energy projects.

- b. Would the proposed project generate increased traffic use of roads through local neighborhoods, urban or rural areas?

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- No Yes (describe)

During construction there may be a slight increase to traffic use of roads, but it will be only temporary and not significant.

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

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

Project is being proposed to provide transmission services to Utility Grade wind and solar generation facilities. Project will help facilitate the implementation of the national objective to transition to cleaner energy sources and reduce greenhouse gas emissions.

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

Not yet determined, the siting of the transmission routes has not been completed. It is unknown at this time whether any historical, archeological, or cultural sites will be in the vicinity of the proposed project. It is our practice to site transmission lines to avoid these sites to the extent that it is feasible to do so.

- 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)

Not likely, however the siting of the transmission routes has not been completed. It is unknown at this time whether any historical, archeological, or cultural sites will be in the vicinity of the proposed project. It is our practice to site transmission lines to avoid these sites to the extent that it is feasible to do so.

- 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)

We are proposing to construct two new 345 kV transmission systems to support the transmission of clean energy from utility grade wind and solar generation facilities to the end user. The presence of transmission lines and towers will alter the present landscape.

- 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. Equipment to be installed on existing structures.

Unknown at this time since the siting of proposed transmission routes has not been completed. If the routes are to be located on or adjacent to tribal lands, lands considered to be sacred, or lands used for traditional purposes we will proactively engage the tribal governments. Xcel Energy has a history of working collaboratively with the tribes and is respectful of their needs. As applicable, we set up direct lines of communication with affected tribes and engage in meetings to discuss the project's tribal coordination process for the project and future tribal engagement during operation of the Project to understand individual tribal needs and priorities. As applicable, Xcel Energy will work with Tribal Traditional Cultural Specialists and archaeological consulting firms, many of which we have worked with in the past, to complete a Traditional Cultural Properties (TCP) inventory of the project footprint to identify and avoid direct impacts to all sensitive cultural areas. If necessary, we will also create and execute an unanticipated discovery plan for all employees and contractors to provide training on how to avoid TCPs and what to do about new discoveries.

6. Atmospheric Conditions/Air Quality

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- 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"/>	<input type="checkbox"/>

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 \(state.mn.us\)](#)].

ii– MN 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](#)].

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

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- 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? NA, no emissions

7. **Hydrologic Conditions/Water Quality**

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

Not yet determined. Route selection for the proposed transmission systems has not been completed. It is uncertain whether any water bodies would be affected by the proposed project. The proposed project consists of the installation of new transmission towers and a 345KV transmission line. Typically, impacts to adjacent water bodies are minimal and temporary in nature from these types of projects.

- b. What sources would supply potable and process water for the proposed project? Not applicable

- 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		

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- 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)
 Any incidental precipitation runoff from equipment or materials temporarily stored for construction will be managed properly per the construction stormwater permit and Stormwater Pollution Prevention Plan
- h. Would project require issuance of new or modified water permits to perform project work or site development activities?
 No Yes (describe)

We anticipate that the project will comply with state Construction Stormwater requirements and applicable local erosion control requirements. It is uncertain if the drilling of the transmission tower foundations would require dewatering of infiltrated groundwater and thus the appropriate discharge authorizations. Dewatering is typically handled via infiltration rather than a direct discharge to surface waters.

- 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)

It is uncertain if the drilling of the transmission tower foundations would require dewatering of infiltrated groundwater and thus the appropriate discharge authorizations. Dewatering is typically handled via infiltration rather than a direct discharge to surface water.

- k. Would a new or modified National Pollutant Discharge Elimination System (NPDES) permit be required?
 No Yes (describe)
- 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)

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 type="checkbox"/> Other -- Identify:	
<input type="checkbox"/> Hazardous waste -- Identify:	
<input checked="" type="checkbox"/> None	

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- 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)
- d. How would wastes for disposal be transported? No waste, we are installing a new 345 kV transmission line
- 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.
 None Hazardous or toxic materials that would be used (identify):
- 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
 - Arc Flash and energized electrical hazards for overhead line work
 - Noise during construction activities
- d. Does a worker safety program exist at the location of the proposed project? No Yes (describe)
- Yes, Xcel Energy has an extensive safety program and conducts pre-job briefs
- e. Would additional safety training be necessary for any new laboratory, equipment, or processes involved with the project?
 No Yes (describe)
- f. Describe any increases in ambient noise levels to the public from construction and operational activities.
 None Increase in ambient noise level (describe)

The operations of the equipment used to construct the transmission system is likely to cause a temporary increase in noise levels in the vicinity of the active construction site.

- g. Would project construction result in the removal of natural or other barriers that act as noise screens?
 No construction planned No Yes (describe)

It is a potential that the selected route for the transmission line may result in the removal of some trees that act as natural sound barriers between adjacent properties. However, the operation of the transmission lines should not result in any discernable increase in ambient noise.

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- 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:
- b. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA):
 None New Required Modification Required
Describe:
- c. Toxic Substance Control Act (TSCA): None New Required Modification Required
Describe:
- d. Clean Water Act (CWA): None New Required Modification Required
Describe:
Construction Stormwater Permit and Storm Water Pollution Prevention Plan will be required.
- 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:

Early in this project we plan to complete an NHI and IPaC review and identify what general protected habitat, species or land features may be present. Our practice has been to locate and install transmission systems that minimize impact to

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protected habitat, species, or land features. This may include the use of design criteria meant to minimize avian collisions with transmission lines and avoiding key seasonal restrictions during construction activities.

- i. Floodplains and Wetlands Regulations: None New Required Modification Required
Describe:

While siting of the new transmission systems has not been completed there is a potential that there is some minor impact to wetlands. If it is necessary to disturb a wetland to either install a transmission tower or string, the associated line we will need to obtain the appropriate approvals and take steps to minimize potential impacts.

- j. Fish and Wildlife Coordination Act (FWCA): None New Required Modification Required
Describe:

The proposed project is not a water-related project and should not have a significant effect on fish and other aquatic wildlife resources. We will complete a review of the National Heritage Inventory (NHI) and Information for Planning and Consultation (IPaC) databases for potential impact to protected species We plan to consult with the United States Fish and Wildlife Service as necessary to evaluate potential impacts to fish and wildlife should we identify elements of this project that could potentially affect these protected resources.

- k. National Historic Preservation Act (NHPA): None New Required Modification Required
Describe:

Construction of the project is not expected to conflict with the cultural values of the area. The planning stage of the Project will include consultation with agencies such as the United States Fish and Wildlife Service and State Historic Preservation Office to identify sensitive natural and cultural features and avoid/mitigate any impacts.

- 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.

These projects would help meet the new 2040 clean energy legislation in Minnesota, since we are seeking funding from the Department of Energy (DOE), we anticipate that this project will be subject to a NEPA review. The proposed project consists of the siting, permitting, construction and operation of new 345 Kv transmission lines that we anticipate will result in a Findings of No Significant Impact by DOE.

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

Project involves the construction of a new transmission lines to provide capacity on grid to move the electricity generated from renewable generation to customers. While the purpose of the transmission line is to support the new 2040 clean energy legislation in Minnesota, some individuals may object to transmission lines sited near their residence or business.

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

No Yes (describe)

The JTIQ projects are intended to produce a more cost-effective approach to mitigating transmission system limitations. These transmission system limitations are impeding the ability for new wind and solar resources to interconnect to the MISO and SPP regional transmission systems and markets. Completion of the JTIQ projects will allow for significant levels of clean energy resources to be developed. The JTIQ report states "MISO's contingency analysis results estimates that 28,325 MW of additional generation interconnected along the seam could benefit from the JTIQ Portfolio; SPP's contingency analysis results estimates that 53,481 MW of new generation could benefit."¹ The additional generation that

¹ <https://cdn.misoenergy.org/JTIQ%20Report623262.pdf>

U.S. DEPARTMENT OF ENERGY

ENVIRONMENTAL QUESTIONNAIRE

is projected to benefit from these projects represents more than double the currently installed capacity of wind and solar in the combined MISO and SPP regions.

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

X None (provide supporting detail) Significant impacts (describe)

We anticipate no significant adverse impacts from the proposed project. The project is comprised of the installation of below ground foundations to support above ground transmission towers, the establishment of a utility corridor and the installation of electric cables capable of the transmission of 345 KV. Xcel Energy and its partners very experienced in the siting, permitting, and construction of these structures. We have well established practices to ensure that we receive the appropriate authorizations before work is commenced, to utilize practices that minimize impacts from the construction operation of the transmission systems. In addition, we utilize a siting process to help ensure that the final route selected for these projects takes into consideration current land use, the presence of historical, archeological, cultural and tribal resources, and minimizes impacts to protected species and their habitat.

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

Once a transmission system is constructed, they are operational for very long periods of time. Occasionally they may be updated to increase their capacity and only relocated and removed if it becomes necessary to accommodate the landowner or to facilitate more effective operations. Transmission systems are comprised of materials that are readily recyclable including the electrical cable, towers, support cables, etc. Depending upon the location the concrete foundation and associated rebar may be removed to a depth of 4 or 5 feet with the remainder remaining in place. This is because we have found that the level of effort to completely remove these structures has a higher potential for impacting adjacent lands than the initial installation. Typically, the circumference of the excavation necessary to remove the foundations in their entirety is equal to twice the depth of the foundation. During installation, the only below grade land disturbance is limited to the diameter of the auger that is being utilized to excavate the hole for the foundation.

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 2023.05.11 14:36:28 -06'00' Date (mm/dd/yyyy): 05/11/2022

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: _____

STATE AND LOCAL GOVERNMENT RATE AGREEMENT

EIN: 41-6007162
ORGANIZATION:
Minnesota Department of Commerce
85 7th Place, Suite 800
St. Paul, MN 55101-2198

Date: 02/13/2023
FILING REF.: The preceding
agreement was dated
04/04/2022

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

RATE TYPES:		FIXED	FINAL	PROV. (PROVISIONAL)	PRED. (PREDETERMINED)
<u>EFFECTIVE PERIOD</u>					
<u>TYPE</u>	<u>FROM</u>	<u>TO</u>	<u>RATE(%)</u>	<u>LOCATION</u>	<u>APPLICABLE TO</u>
FIXED	07/01/2022	06/30/2023	10.60	On-Site	All Programs
FIXED	07/01/2023	06/30/2024	10.20	On-Site	All Programs
PROV.	07/01/2024	06/30/2026			Use same rates and conditions as those cited for fiscal year ending June 30, 2024

*BASE

Total direct costs excluding capital expenditures (building, individual items of equipment; alterations and renovations), and that portion of each subaward in excess of \$25,000.

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

The fringe benefits are specifically identified to each employee and are charged individually as direct costs. The directly claimed fringe benefits are listed below.

TREATMENT OF PAID ABSENCES:

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.

Fringe Benefits:

FICA

Retirement

Life Insurance

Severance Allowance

Workers Compensation

Unemployment Insurance

Health Insurance

Your next proposal based on actual costs for FYE 6/30/2023 is due in our office by 12/31/2023.

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its indirect cost pool as finally accepted: such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as indirect costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from indirect to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Title 2 of the Code of Federal Regulations, Part 200 (2 CFR 200), and should be applied to grants, contracts and other agreements covered by 2 CFR 200, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing indirect costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of indirect costs allocable to these programs.

BY THE INSTITUTION:

Minnesota Department of Commerce

(b) (6)

(SIGNATURE)

(NAME)

(TITLE)

(DATE)

ON BEHALF OF THE GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(AGENCY)

Darryl W. Mayes - S **(b) (6)**

(SIGNATURE)

Darryl W. Mayes

(NAME)

Deputy Director, Cost Allocation Services

(TITLE)

02/13/2023

(DATE)

HHS REPRESENTATIVE: Pamela Page

TELEPHONE: **(b) (6)**

Instructions and Summary

Award Number: Concept paper#TA3_CP064_E
Award Recipient: MN Dept. of Commerce (Prime)

Date of Submission: 15-May-23
Form submitted by: MidAmerican Energy Company
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	\$18,161	\$18,365			\$36,526	50.28%	Example!!!01/01/2014 - 12/31/2014
	Budget Period 2	\$8,694	\$8,792			\$17,486	50.28%	
	Budget Period 3	\$5,757	\$5,822			\$11,580	50.28%	
	Budget Period 4	\$5,543	\$5,606			\$11,150	50.28%	
	Budget Period 5	\$13,084,125	\$13,231,492			\$26,315,616	50.28%	
	Total	\$13,122,280	\$13,270,078			\$26,392,357	50.28%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$21,182	\$10,129	\$6,622	\$6,622	\$44,397	\$88,952	0.34%	
b. Fringe Benefits	\$14,484	\$6,926	\$4,528	\$4,528	\$30,359	\$60,825	0.23%	
c. Travel	\$860	\$430	\$430	\$0	\$860	\$2,580	0.01%	
d. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor	\$0	\$0	\$0	\$0	\$26,240,000	\$26,240,000	99.42%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$0	\$0	\$0	\$0	\$26,240,000	\$26,240,000	99.42%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$36,526	\$17,486	\$11,580	\$11,150	\$26,315,616	\$26,392,357	100.00%	
i. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Costs	\$36,526	\$17,486	\$11,580	\$11,150	\$26,315,616	\$26,392,357	100.00%	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5-8			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
Executive Management	4,537	68.38%	\$3,102	2,269	68.38%	\$1,551	2,269	68.38%	\$1,551	2,269	68.38%	\$1,551	9,074	68.38%	\$6,205	\$13,961
Project Development Director	4,271	68.38%	\$2,921	1,780	68.38%	\$1,217	1,780	68.38%	\$1,217	1,780	68.38%	\$1,217	6,407	68.38%	\$4,381	\$10,953
Project Engineer	4,561	68.38%	\$3,119	2,737	68.38%	\$1,871	1,824	68.38%	\$1,248	1,824	68.38%	\$1,248	12,771	68.38%	\$8,733	\$16,218
Project Analyst	2,622	68.38%	\$1,793	749	68.38%	\$512	749	68.38%	\$512	749	68.38%	\$512	2,247	68.38%	\$1,536	\$4,866
Environmental Analyst	5,191	68.38%	\$3,550	2,596	68.38%	\$1,775	0	68.38%	\$0	0	68.38%	\$0	1,298	68.38%	\$887	\$6,212
Legal Counsel	0	68.38%	\$0	0	68.38%	\$0	0	68.38%	\$0	0	68.38%	\$0	5,816	68.38%	\$3,977	\$3,977
RoW Agent/Local Liaison	0	68.38%	\$0	0	68.38%	\$0	0	68.38%	\$0	0	68.38%	\$0	3,652	68.38%	\$2,497	\$2,497
RoW Manager	0	68.38%	\$0	0	68.38%	\$0	0	68.38%	\$0	0	68.38%	\$0	3,133	68.38%	\$2,142	\$2,142
			\$0			\$0			\$0			\$0			\$0	\$0
Total	\$21,182		\$14,484	\$10,129		\$6,926	\$6,622		\$4,528	\$6,622		\$4,528	\$44,397		\$30,359	\$60,825

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
Domestic Travel		Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
1, 2, 3, 4	Visit to project site (auto) - public engagements, landowner visits, site walkthroughs	Des Moines	Sioux City	2	2	\$250	\$0	\$100	\$80	\$860	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 1 Total										\$860	
Domestic Travel		Budget Period 2									
7	Visit to project site (auto) - public engagements, landowner visits, site walkthroughs	Des Moines	Sioux City	1	1	\$250	\$0	\$100	\$80	\$430	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 2 Total										\$430	
Domestic Travel		Budget Period 3									
8	Visit to project site (auto) - public engagements, landowner visits, site walkthroughs	Des Moines	Sioux City	1	1	\$250	\$0	\$100	\$80	\$430	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 3 Total										\$430	
Domestic Travel		Budget Period 4									
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 4 Total										\$0	
Domestic Travel		Budget Period 5									
11	Visit to project site (auto) - public engagements, landowner visits, site walkthroughs	Des Moines	Sioux City	4	2	\$250	\$0	\$100	\$80	\$860	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 5 Total										\$860	
PROJECT TOTAL										\$2,580	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.

2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.

3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.

4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$0		
	PROJECT TOTAL			\$0		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

- The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
- Subrecipients (partners, sub-awardees):** Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
- Vendors (including contractors):** List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
- Federal Funded Research and Development Centers (FFRDCs):** FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400
	TBD based on competitive bidding requirements	Construct 345 kV transmission line from the MidAmerican Raun Substation south of Sioux City Iowa to the Iowa side of the Missouri River. Route to involve double-circuiting the existing 161 kV line as a double-circuit 345/161 kV line where the 345 kV line is the JTIQ project. Omaha Public Power District to construct the Missouri River crossing and the portion of the 345 kV line located in Nebraska from the river crossing to the Omaha metro area. Line work also includes relocating three existing MidAmerican 345 kV lines to the north in order to accommodate the new 345 kV line connection.						(b) (4)
	TBD based on competitive bidding requirements	Construct a new 345 kV line terminal position at MidAmerican's existing Raun Substation. This terminal will accommodate a relocated 345 kV line which in turn will free-up line terminals for additional relocations to accommodate the new JTIQ line to Omaha						(b) (4)
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$26,240,000	\$26,240,000

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual			\$0	\$0	\$0	\$0	\$26,240,000	\$26,240,000
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Additional Explanation (as needed): Costs are in 2028-2030 U.S. dollars. Cash flows assume a 2030 in-service date of the projects to match up to the timing of OPPD's construction schedule.

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5				
	Budget Period 5 Total	\$0		
	PROJECT TOTAL	\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
General & Administrative (G&A)	9.25%	9.25%	9.25%	9.25%	9.25%		G&A rate included in contractual cost
FCCM Rate, if applicable	7.05%	7.05%	7.05%	7.05%	7.05%		FCCM rate included in contractual cost
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs						\$0	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$0	\$0	\$0	\$0	\$0	\$0	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
MidAmerican Energy Company	Cash	50.28% of the total Midamerican Energy Company budgeted amount, including JTIQ project construction costs born by MidAmerican Energy Company and project management and community benefits support provided by GPI and the Minnesota Department of Commerce	\$18,365	\$8,792	\$5,822	\$5,606	\$13,231,492	\$13,270,078
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Totals			\$18,365	\$8,792	\$5,822	\$5,606	\$13,231,492	\$13,270,078

Total Project Cost: \$26,392,357

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Dept. of Commerce (Prime) Award Number: Concept paper#TA3_CP064_E

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1				(b)	(4)		
2. Budget Period 2							
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals							
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b)	(4)					
b. Fringe Benefits							
c. Travel							
d. Equipment							
e. Supplies							
f. Contractual							
g. Construction							
h. Other							
i. Total Direct Charges (sum of 6a-6h)							
j. Indirect Charges							
k. Totals (sum of 6i-6j)							
7. Program Income							

Instructions and Summary

Award Number: Concept Paper ID# TA3_CP064_E

Award Recipient: MN Department of Commerce

Date of Submission: 5/19/2023

Form submitted by: Northern States Power Company MN (NSP), an Xcel Energy subsidiary

(May be award recipient or sub-recipient)

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED								
The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry								
Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	(b) (4)	(4)			(b) (4)	50.28%	01/01/2024 - 12/31/2024
	Budget Period 2			50.28%	01/01/2025 - 12/31/2025			
	Budget Period 3			50.28%	01/01/2026 - 12/31/2026			
	Budget Period 4			50.28%	01/01/2027 - 12/31/2027			
	Budget Period 5			50.28%	01/01/2028 - 12/31/2031			
	Total					50.28%		
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	(b) (4)						9.07%	
b. Fringe Benefits						6.23%		
c. Travel						0.00%		
d. Equipment/Materials						26.59%	Based on Material Cost per Mile for 345kV Single Circuit	
e. Supplies						\$0	\$0	\$0
f. Contractual						\$0		All work assumed executed by Xcel Staff
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
g. Construction	\$0	\$0	\$0	\$0	\$208,196,747	\$208,196,747	45.94%	Based on Labor Cost per Mile for 345kV Single Circuit
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	(b) (4)						87.83%	
i. Indirect Charges						12.17%		
Total Costs						100.00%		

Additional Explanation (as needed): Application project costs for Xcel Energy (SOPO Task 11 activities) reflect the percentage of the transmission line project Xcel Energy is building in partnership with other utilities. 25% of project cost estimates are included for the Bison-Hankinson-Big Stone South line (indicated as SOPO task # 11.A) and 50% of project cost estimates are included for the Brookings Co-Lakefield line (indicated as SOPO task # 11.B). The remainder of the project costs are reflected in the Otter Tail and ITC subrecipient budgets respectively.

total direct costs 11.A	\$	(b) (4)
11.B	\$	
calculated indirect 11.A	\$	
11.B	\$	
XE project cost est. 11.A	\$	
11.B	\$	
	\$	

Instructions and Summary

Award Number: CP#: TA3_CP064_E

Date of Submission: 5/19/2023

Award Recipient: MN Department of Commerce

Form submitted by: Northern States Power Company MN, an Xcel Energy subsidiary

Project: Bison - Hankinson-Big Stone South 345 kV

(May be award recipient or sub-recipient)

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED									
The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry									
Section A - Budget Summary									
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates	
	Budget Period 1	(b) (4)	(4)			(b) (4)	51.00%	01/01/2024 - 12/31/2024	
	Budget Period 2			51.00%	01/01/2025 - 12/31/2025				
	Budget Period 3			51.00%	01/01/2026 - 12/31/2026				
	Budget Period 4			51.00%	01/01/2027 - 12/31/2027				
	Budget Period 5			51.00%	01/01/2028 - 12/31/2031				
	Total						51.00%		
Section B - Budget Categories									
	CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
	a. Personnel	(b) (4)	(4)					9.20%	
	b. Fringe Benefits			6.32%					
	c. Travel			0.00%					
	d. Equipment/Materials			24.24%	Based on Material Cost per Mile for 345kV Single Circuit				
	e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	f. Contractual						\$0		All work assumed executed by Xcel Staff
	Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	Vendor	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	Total Contractual	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	g. Construction	\$0	\$0	\$0	\$0	\$79,333,954	\$79,333,954	48.07%	Based on Labor Cost per Mile for 345kV Single Circuit
	h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	Total Direct Costs	(b) (4)	(4)					87.83%	
	i. Indirect Charges			12.17%					
	Total Costs			100.00%					

Additional Explanation (as needed):

Instructions and Summary

Award Number: CP#: TA3_CP064_E

Date of Submission: 5/19/2023

Award Recipient: MN Department of Commerce

Form submitted by: Northern States Power Company MN, an Xcel Energy subsidiary

Project: Brookings Co - Lakefield 345 kV

(May be award recipient or sub-recipient)

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED									
The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry									
Section A - Budget Summary		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates	
	Budget Period 1	(b) (4)	(4)			(b) (4)	51.00%	01/01/2024 - 12/31/2024	
	Budget Period 2	(b) (4)	(4)			(b) (4)	51.00%	01/01/2025 - 12/31/2025	
	Budget Period 3	(b) (4)	(4)			(b) (4)	51.00%	01/01/2026 - 12/31/2026	
	Budget Period 4	(b) (4)	(4)			(b) (4)	51.00%	01/01/2027 - 12/31/2027	
	Budget Period 5	(b) (4)	(4)			(b) (4)	51.00%	01/01/2028 - 12/31/2031	
	Total	(b) (4)	(4)			(b) (4)	51.00%		
Section B - Budget Categories	CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
	a. Personnel	(b) (4)	(4)					8.94%	
	b. Fringe Benefits	(b) (4)	(4)					6.14%	
	c. Travel	(b) (4)	(4)					0.00%	
	d. Equipment/Materials	(b) (4)	(4)					27.97%	Based on Material Cost per Mile for 345kV Single Circuit
	e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	f. Contractual						\$0		All work assumed executed by Xcel Staff
	Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	Vendor	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	Total Contractual	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	g. Construction	\$0	\$0	\$0	\$0	\$128,862,793	\$128,862,793	44.78%	Based on Labor Cost per Mile for 345kV Single Circuit
	h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
	Total Direct Costs	(b) (4)	(4)					87.83%	
	i. Indirect Charges	(b) (4)	(4)					12.17%	
	Total Costs	(b) (4)	(4)					100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!!

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis															
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5																		
1	Sr. Engineer (EXAMPLE!!!)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	Actual Salary															
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	Actual Salary															
1, 4, 10	Sr. Project Manager	(b) (4)																	Internal job grade range of position title															
1, 4, 10	Project Analyst																																	Internal job grade range of position title
3, 5, 6, 7, 12	Community Relations Manager																																	Internal job grade range of position title
3, 5, 6, 7, 12	Community Relationship Specialist																																	Internal job grade range of position title
11.A	Manager, Regional Planning																																	Internal job grade range of position title
11.A	Engineering Managers																																	Internal job grade range of position title
11.A	Assistant General Council																																	Internal job grade range of position title
11.A	Siting & Land Rights																																	Internal job grade range of position title
11.A	Engineers																																	Internal job grade range of position title
11.A	Project Managers																																	Internal job grade range of position title
11.A	Manager, Project Management																																	Internal job grade range of position title
11.A	Cost Analyst																																	Internal job grade range of position title
11.A	Operations Scheduler																																	Internal job grade range of position title
11.B	Manager, Regional Planning																																	Internal job grade range of position title
11.B	Engineering Managers																																	Internal job grade range of position title
11.B	Assistant General Council																																	Internal job grade range of position title
11.B	Siting & Land Rights																																	Internal job grade range of position title
11.B	Engineers																																	Internal job grade range of position title
11.B	Project Managers																																	Internal job grade range of position title
11.B	Manager, Project Management																																	Internal job grade range of position title
11.B	Cost Analyst																		Internal job grade range of position title															
11.B	Operations Scheduler																		Internal job grade range of position title															
				\$0			\$0			\$0			\$0			\$0	0	\$0																
	Total Personnel Costs	(b) (4)																																

Additional Explanation (as needed): Costs for SOPO task 11 reflect the percentage of project Xcel Energy is building in partnership with other utilities. 25% for the Bison-Hankinson-Big Stone South line (indicated as SOPO task # 11.A) and 50% for the Brookings Co-Lakefield line (indicated as SOPO task # 11.B).

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
 2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
 3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
2022 Labor Loading Rate, Year To Date Average, Project 11.A	(b) (4)															
2022 Labor Loading Rate, Year To Date Average, Project 11.B																
2022 Labor Loading Rate, Year To Date Average Non-Project, Non-project labor																
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	(b) (4)															

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.
 Labor Loadings: The following costs are budgeted and processed through the labor loading process and distributed or direct charged to the business units where labor was charged:

(b) (4)

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
11.A	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
11.B	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total					
Budget Period 2						
11.A	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
11.B	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total					
Budget Period 3						
11.A	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
11.B	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total					
Budget Period 4						
11.A	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
11.B	345kV Single Circuit Transmission Line Materials	(b) (4)			Historic values + cost per mile estimates	materials for new construction required
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total					
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total					
	PROJECT TOTAL				(b) (4)	

Additional Explanation (as needed): Costs for SOPO task 11 reflect the percentage of project Xcel Energy is building in partnership with other utilities. 25% for the Bison-Hankinson-Big Stone South line (indicated as SOPO task # 11.A) and 50% for the Brookings Co-Lakefield line (indicated as SOPO task # 11.B).

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE!!! Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.

2. **Subrecipients (partners, sub-awardees):** Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.

3. **Vendors (including contractors):** List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.

4. **Federal Funded Research and Development Centers (FFRDCs):** FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual			\$0	\$0	\$0	\$0	\$0	\$0
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Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5				
11.A	Land Aquisition	(b) (4)	Historic values + cost per mile estimates	using historical (b) (4) acre aquisition cost
11.A	Site Preparation		Historic values + cost per mile estimates	includes access, matting, and vegetation clearing
11.A	Pole construction & erection		Historic values + cost per mile estimates	concrete foundation construction, pole setting and framing
11.A	Wire Stringing		Historic values + cost per mile estimates	wire stringing
11.A	Substion Modifications		Historic values + cost per beaker/position	addition of 345kV terminations to substation bus
11.A	Site clean-up and restoration		Historic values + cost per mile estimates	restoration efforts and demobilize
11.A	Energize the Lines		Historic values + cost per mile estimates	coordinated energization study work
11.B	Land Aquisition		Historic values + cost per mile estimates	using historical (b) (4) /acre aquisition cost
11.B	Site Preparation		Historic values + cost per mile estimates	includes access and matting
11.B	Pole construction & erection		Historic values + cost per mile estimates	concrete foundation construction, pole setting and framing
11.B	Wire Stringing		Historic values + cost per mile estimates	wire stringing
11.B	Substion Modifications		Historic values + cost per beaker/position	addition of 345kV terminations to substation bus
11.B	Site clean-up and restoration		Historic values + cost per mile estimates	restoration efforts and demobilize
11.B	Energize the Lines		Historic values + cost per mile estimates	coordinated energization study work
	Budget Period 5 Total			
	PROJECT TOTAL			

Additional Explanation (as needed): Costs for SOPO task 11 reflect the percentage of project Xcel Energy is building in partnership with other utilities. 25% for the Bison-Hankinson-Big Stone South line (indicated as SOPO task # 11.A) and 50% for the Brookings Co-Lakefield line (indicated as SOPO task # 11.B).

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	(b) (4)						January 2023 E&S rates between applicable business areas across Northern States Power Company (MN)
	(b) (4)						January 2023 A&G rates between applicable business areas across Northern States Power Company (MN)
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs	(b) (4)						
G&A Costs	(b) (4)						
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	(b) (4)						

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

(b) (4)

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
Northern States Power Company (MN)	Cash	Project cost covered by subrecipient	(b) (4)					
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Totals			(b) (4)					

Total Project Cost: (b) (4)

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: Concept Paper ID# TA3_CP064_E

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		Total (g)
1. Budget Period 1				(b)	(4)		
2. Budget Period 2							
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals							

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity					Total (5)
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	
a. Personnel	(b)	(4)				
b. Fringe Benefits						
c. Travel						
d. Equipment						
e. Supplies						
f. Contractual						
g. Construction						
h. Other						
i. Total Direct Charges (sum of 6a-6h)						
j. Indirect Charges						
k. Totals (sum of 6i-6j)						
7. Program Income						

Instructions and Summary

Award Number: _____
Award Recipient: MN Department of Commerce _____

Date of Submission: 5/17/2023 _____
Form submitted by: Evergy _____
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1		\$99,020	\$100,135			\$199,155	50.28%	6/1/2024-12/31/2024
Budget Period 2		\$1,278,831	\$1,293,234			\$2,572,065	50.28%	1/1/2025 - 12/31/2025
Budget Period 3		\$4,155,852	\$4,202,659			\$8,358,511	50.28%	1/1/2026 - 12/31/2026
Budget Period 4		\$13,357,344	\$13,507,789			\$26,865,133	50.28%	1/1/2027 - 12/31/2027
Budget Period 5		\$85,956,572	\$86,924,708			\$172,881,280	50.28%	1/1/2028 - 12/31/2031
Total		\$104,847,619	\$106,028,525			\$210,876,144	50.28%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$55,672	\$239,927	\$256,702	\$866,940	\$1,144,438	\$2,563,679	1.22%	
b. Fringe Benefits	\$11,190	\$48,225	\$51,597	\$174,255	\$0	\$285,267	0.14%	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$0	\$0	\$0	\$12,454,486	\$81,628,156	\$94,082,642	44.62%	
e. Supplies	\$0	\$0	\$5,295,150	\$5,295,150	\$9,264,742	\$19,855,042	9.42%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	44.46%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	44.46%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$191,399	\$2,538,639	\$8,322,748	\$26,744,355	\$172,748,525	\$210,545,666	99.84%	
i. Indirect Charges	\$7,756	\$33,426	\$35,763	\$120,779	\$132,755	\$330,478	0.16%	
Total Costs	\$199,155	\$2,572,065	\$8,358,511	\$26,865,133	\$172,881,280	\$210,876,144	100.00%	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5-8			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
Total Personnel	\$ 55,671.54	20.10%	\$11,190	\$ 239,926.92	20.10%	\$48,225	\$ 256,701.92	20.10%	\$51,597	\$ 866,940.38	20.10%	\$174,255	\$ 1,144,438.46	20.10%	\$230,032	\$515,300
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$55,672		\$11,190	\$239,927		\$48,225	\$256,702		\$51,597	\$866,940		\$174,255	\$1,144,438		\$0	\$285,267

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
3										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5-8									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 5-8 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

- Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
- List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
- Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
- Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$0		
Budget Period 3						
	{ROW Easement Payments}			(b) (4)		
	Budget Period 3 Total			(b) (4)		
Budget Period 4						
	{ROW Easement Payments}			(b) (4)		
	Budget Period 4 Total			(b) (4)		
Budget Period 5-8						
	Transmission Line Construction					
	Access - Gates, Culverts, etc. Auburn - Hoyt					
	Access Matting - Auburn - Hoyt					
	Damage Settlement Payments					
	Access Matting - Sibley					
	Access - Gates, Culverts, etc. Sibley					
	Budget Period 5-8 Total			(b) (4)		
	PROJECT TOTAL			\$19,855,042		

Additional Explanation (as needed): All supply estimates based on estimating template used for all of our projects. Final values will not be known until a detailed design is completed.

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. **Subrecipients (partners, sub-awardees):** Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. **Vendors (including contractors):** List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. **Federal Funded Research and Development Centers (FFRDCs):** FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
2.4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400
								\$0
	TBD	Vendor for Auburn - Hoyt routing study. Estimate based on past experience	(b) (4)	(4)	(4)	(4)	(4)	(4)
	TBD	Vendor for Engineering & Permitting Services Transmission Line Design - Auburn - Hoyt						
	TBD	Vendor for Land Surveying and Pot Holing - Auburn - Hoyt						
	TBD	Vendor Aerial Surveying for Transmisison line Auburn - Hoyt						
	TBD	Vendor Geotechnical Investigations for Transmission line - Auburn - Hoyt						
	TBD	Vendor for acquing easements. Auburn - Hoyt Estimate based on past experience						
	TBD	Vendor Contract Agents to settle damage claims Auburn - Hoyt						
	TBD	Vendor for vegetation clearing - Auburn - Hoyt						
	TBD	Vendor for construction of Auburn - Hoyt transmisison line. Estimate based on past experience						
	TBD	Vendor for Construction Mgt Auburn - Hoyt						
	TBD	Vendor for construction of Hoyt substation modifications. Estimate based on past experience						
	TBD	Vendor for Engineering services to design Hoyt substation modifications						
	TBD	Vendor to settle Damage claims for Transmission Line - Auburn - Hoyt						
	TBD	Vendor for vegetation clearing - Sibley						
	TBD	Vendor for Line Construction - Sibley						
	TBD	Vendor for Construction Sibley Substation						
		Vendor Engineering of Sibley Substation						
		Sub-total	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

	Total Contractual		\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036
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Additional Explanation (as needed): All Contractual values are based on estimating template used for all of our projects. Final values will not be known until a detailed design is complete and bid. These are our best engineering estimates at this time.

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5-8				
Budget Period 5-8 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5-8				
Budget Period 5 - 8 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	11.00%	11.00%	11.00%	11.00%	11.00%		
General & Administrative (G&A)	0.60%	0.60%	0.60%	0.60%	0.60%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs	\$7,355	\$31,697	\$33,913	\$114,531	\$125,888	\$313,384	
G&A Costs	\$401	\$1,729	\$1,850	\$6,247	\$6,867	\$17,094	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$7,756	\$33,426	\$35,763	\$120,779	\$132,755	\$330,478	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

All Budget Periods are calculated as follows:
 Total BP1 Indirect Costs requested equals = BP1 Total Personnel: (E80, worksheet A) + BP1 Fringe: (D12, worksheet b) + BP1 Travel: (K12, worksheet c) + BP1 Other: (C9, worksheet h) x indirect Rate of 11.5%

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
Everyy	Cash	All	\$100,135	\$1,293,234	\$4,202,659	\$13,507,789	\$86,924,708	\$106,028,525
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Totals			\$100,135	\$1,293,234	\$4,202,659	\$13,507,789	\$86,924,708	\$106,028,525

Total Project Cost: \$210,876,144

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		
1. Budget Period 1				\$99,020	\$100,135		\$199,155
2. Budget Period 2				\$1,278,831	\$1,293,234		\$2,572,065
3. Budget Period 3				\$4,155,852	\$4,202,659		\$8,358,511
4. Budget Period 4				\$13,357,344	\$13,507,789		\$26,865,133
5. Budget Period 5				\$85,956,572	\$86,924,708		\$172,881,280
6. Totals				\$104,847,619	\$106,028,525		\$210,876,144

Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	\$55,672	\$239,927	\$256,702	\$866,940	\$1,144,438	\$2,563,679	
b. Fringe Benefits	\$11,190	\$48,225	\$51,597	\$174,255	\$0	\$285,267	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$0	\$0	\$0	\$12,454,486	\$81,628,156	\$94,082,642	
e. Supplies	\$0	\$0	\$5,295,150	\$5,295,150	\$9,264,742	\$19,855,042	
f. Contractual	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	
h. Other	\$0	\$0	\$0	\$0	\$0	\$0	
i. Total Direct Charges (sum of 6a-6h)	\$191,399	\$2,538,639	\$8,322,748	\$26,744,355	\$172,748,525	\$210,545,666	
j. Indirect Charges	\$7,756	\$33,426	\$35,763	\$120,779	\$132,755	\$330,478	
k. Totals (sum of 6i-6j)	\$199,155	\$2,572,065	\$8,358,511	\$26,865,133	\$172,881,280	\$210,876,144	
7. Program Income						\$0	

Instructions and Summary

Award Number: Concept Paper-TA3_CP064_E□
Award Recipient: MN Department of Commerce

Date of Submission: 5/19/2023
Form submitted by: Southwest Power Pool (SPP)
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. **must include both Federal (DOE) and Non-Federal (cost share) portions.**
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	\$1,143,597	\$1,151,792			\$2,295,389	50.18%	
	Budget Period 2	\$9,617,636	\$9,723,256			\$19,340,892	50.27%	
	Budget Period 3	\$6,714,090	\$6,787,074			\$13,501,164	50.27%	
	Budget Period 4	\$54,712,679	\$55,326,420			\$110,039,099	50.28%	
	Budget Period 5	\$210,019,414	\$212,374,912			\$422,394,326	50.28%	
	Total	\$282,207,415	\$285,363,455			\$567,570,870	50.28%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$434,226	\$401,956	\$390,196	\$364,424	\$1,457,696	\$3,048,498	0.54%	
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
c. Travel	\$2,020	\$0	\$0	\$0	\$0	\$2,020	0.00%	
d. Equipment	\$200,000	\$0	\$0	\$0	\$0	\$200,000	0.04%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$1,464,143	\$18,860,936	\$13,032,968	\$109,596,675	\$420,624,630	\$563,579,352	99.30%	
Vendor	\$195,000	\$78,000	\$78,000	\$78,000	\$312,000	\$741,000	0.13%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$1,659,143	\$18,938,936	\$13,110,968	\$109,674,675	\$420,936,630	\$564,320,352	99.43%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$2,295,389	\$19,340,892	\$13,501,164	\$110,039,099	\$422,394,326	\$567,570,870	100.00%	
i. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Costs	\$2,295,389	\$19,340,892	\$13,501,164	\$110,039,099	\$422,394,326	\$567,570,870	100.00%	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
 2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
 3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
*Fringe benefits are included in the hourly rate on the personnel tab.			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

- A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*
- There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!
 1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
 2. All listed travel must be necessary for performance of the Statement of Project Objectives.
 3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
 4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
Domestic Travel		Budget Period 1									
	Kick-Off Meeting	Little Rock, AR	DC	2	2	\$250	\$500	\$100	\$160	\$2,020	Flight estimate includes possible luggage fees and airport parking fees. Vehicle estimates taxi or shuttle services. GSA for per diem and lodging. Meal and incidentals per diem at \$69 per day per traveler.
										\$0	
										\$0	
										\$0	
	International Travel										
	Budget Period 1 Total									\$2,020	
Domestic Travel		Budget Period 2									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 2 Total									\$0	
Domestic Travel		Budget Period 3									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 3 Total									\$0	
Domestic Travel		Budget Period 4									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 4 Total									\$0	
Domestic Travel		Budget Period 5									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$2,020	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

- Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
- List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
- During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
1, 9, 11, 12, 13	Update to SPP's Transmision Reporting and Communication (TRAC) software to the system to receive and verify costs and reporting requirements coming from SPP's Tos.	1	\$200,000	\$200,000	Cost to design and develop additional functionality necessary to expand the TRAC system in order to support DOE level project cost tracking. This will require vendor support to augment current staff workload or independently design, develop, and deliver system changes.	The SPP TRAC system has the ability to receive, track, and report specific categories of costs from Designated Transmission Owners as defined by SPP Business Practices and required by the SPP Board approved Notification to Construct. The current technical design and construct of the SPP TRAC system does not have the functionality to satisfy the cost and reporting requirements of all the categories and details under the JTIQ proposal at their current defined level. These additional JTIQ requirements can be designed and developed within the current TRAC system, but will require IT vendor support for technical and staff augmentation.
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$200,000		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$0		
	PROJECT TOTAL			\$200,000		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.

2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.

3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.

4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. **Each budget period is rounded to the nearest dollar.**

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
1 - 13	Omaha Public Power District	All project costs associated with sub-recipient award	\$1,264,988	\$16,288,871	\$4,674,457	\$82,731,542	\$247,743,350	\$352,703,208
1 - 13	Evergy	All project costs associated with sub-recipient award	\$199,155	\$2,572,065	\$8,358,511	\$26,865,133	\$172,881,280	\$210,876,144
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$1,464,143	\$18,860,936	\$13,032,968	\$109,596,675	\$420,624,630	\$563,579,352

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2	External Attorneys; Wright and Talisman Law Firm	Support for JTIQ Cost Allocation Filing to FERC	\$195,000	\$78,000	\$78,000	\$78,000	\$312,000	\$741,000
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$195,000	\$78,000	\$78,000	\$78,000	\$312,000	\$741,000

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual			\$1,659,143	\$18,938,936	\$13,110,968	\$109,674,675	\$420,936,630	\$564,320,352
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Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities:

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs						\$0	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$0	\$0	\$0	\$0	\$0	\$0	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.
- There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
SPP		Personnel for implementing JTIQ project	\$217,111	\$200,978	\$195,098	\$182,212	\$728,848	\$1,524,247
SPP		Travel	\$1,010					\$1,010
SPP		Equipment (upgrade to TRAC system)	\$100,000					\$100,000
SPP		Contractor: External Attorneys, Wright and Tailisman Firm	\$97,500	\$39,000	\$39,000	\$39,000	\$156,000	\$370,500
OPPD	Cash	50.3% Project cost covered by subrecipient (Omaha Public Power District)	\$636,036	\$8,190,044	\$2,350,317	\$41,597,419	\$124,565,356	\$177,339,173
Evergy	Cash	50.3% Project cost covered by subrecipient (Evergy)	\$100,135	\$1,293,234	\$4,202,659	\$13,507,789	\$86,924,708	\$106,028,525
								\$0
								\$0
								\$0
								\$0
Totals			\$1,151,792	\$9,723,256	\$6,787,074	\$55,326,420	\$212,374,912	\$285,363,455

Total Project Cost: \$567,570,870

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: Concept Paper-TA3_CP064_E

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Budget Period 1				\$1,143,597	\$1,151,792	\$2,295,389
2. Budget Period 2				\$9,617,636	\$9,723,256	\$19,340,892
3. Budget Period 3				\$6,714,090	\$6,787,074	\$13,501,164
4. Budget Period 4				\$54,712,679	\$55,326,420	\$110,039,099
5. Budget Period 5				\$210,019,414	\$212,374,912	\$422,394,326
6. Totals				\$282,207,415	\$285,363,455	\$567,570,870

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity					Total (5)
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	
a. Personnel	\$434,226	\$401,956	\$390,196	\$364,424	\$1,457,696	\$3,048,498
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0
c. Travel	\$2,020	\$0	\$0	\$0	\$0	\$2,020
d. Equipment	\$200,000	\$0	\$0	\$0	\$0	\$200,000
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0
f. Contractual	\$1,659,143	\$18,938,936	\$13,110,968	\$109,674,675	\$420,936,630	\$564,320,352
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0
h. Other	\$0	\$0	\$0	\$0	\$0	\$0
i. Total Direct Charges (sum of 6a-6h)	\$2,295,389	\$19,340,892	\$13,501,164	\$110,039,099	\$422,394,326	\$567,570,870
j. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0
k. Totals (sum of 6i-6j)	\$2,295,389	\$19,340,892	\$13,501,164	\$110,039,099	\$422,394,326	\$567,570,870
7. Program Income						\$0

Instructions and Summary

Award Number: Concept Paper-TA3_CP064_E

Date of Submission: 5/19/2023

Award Recipient: MN Department of Commerce

Form submitted by: Great Plains Institute for Sustainable Development

(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	\$1,274,237	\$0			\$1,274,237	0.00%	
	Budget Period 2	\$487,464	\$0			\$487,464	0.00%	
	Budget Period 3	\$638,196	\$0			\$638,196	0.00%	
	Budget Period 4	\$837,800	\$0			\$837,800	0.00%	
	Budget Period 5	\$4,828,643	\$0			\$4,828,643	0.00%	
	Total	\$8,066,340	\$0			\$8,066,340	0.00%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$280,190	\$200,937	\$229,379	\$376,473	\$2,300,381	\$3,387,361	41.99%	
b. Fringe Benefits	\$75,651	\$54,253	\$101,648	\$101,648	\$621,103	\$954,303	11.83%	
c. Travel	\$0	\$0	\$20,079	\$0	\$11,155	\$31,234	0.39%	
d. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor	\$455,000	\$55,000	\$55,000	\$55,000	\$220,000	\$840,000	10.41%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$455,000	\$55,000	\$55,000	\$55,000	\$220,000	\$840,000	10.41%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$810,841	\$310,190	\$406,106	\$533,121	\$3,152,639	\$5,212,898	64.63%	
i. Indirect Charges	\$463,396	\$177,274	\$232,090	\$304,679	\$1,676,003	\$2,853,441	35.37%	
Total Costs	\$1,274,237	\$487,464	\$638,196	\$837,800	\$4,828,643	\$8,066,340	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!!

- 1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
- 2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
- 3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
- 4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
- 5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5-8			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Project manager (grant execution, reporting support,)	1500	\$63.63	\$95,445	1000	\$66.81	\$66,812	1000	\$70.15	\$70,152	1500	\$73.66	\$110,490	6000	\$83.24	\$499,413	11000	\$842,311	Salary rates are based on an average of employees within a each given cohort
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	Compliance associate (grant execution & reporting support)	1500	\$58.36	\$87,540	1000	\$61.28	\$61,278	1000	\$64.34	\$64,342	1500	\$67.56	\$101,338	8000	\$76.34	\$610,733	13000	\$925,232	Salary rates are based on an average of employees within a each given cohort
1, 4, 10, 11	Executive leadership (CFO)	150	\$100.67	\$15,100	50	\$105.70	\$5,285	50	\$110.99	\$5,549	100	\$116.53	\$11,653	400	\$131.68	\$52,673	750	\$90,261	Salary rates are based on an average of employees within a each given cohort
3, 5, 6, 7, 12	Community & stakeholder engagement manager	500	\$63.63	\$31,815	300	\$66.81	\$20,043	300	\$70.15	\$21,046	500	\$73.66	\$36,830	2000	\$83.24	\$166,471	3600	\$276,205	Salary rates are based on an average of employees within a each given cohort
3, 5, 6, 7, 12	Program coordinator	500	\$47.08	\$23,538	500	\$49.43	\$24,715	500	\$51.90	\$25,951	500	\$54.50	\$27,248	4000	\$61.58	\$246,324	6000	\$347,776	Salary rates are based on an average of employees within a each given cohort
3, 5, 6, 12	Executive leadership (VP - Communities Team)	100	\$100.67	\$10,067	50	\$105.70	\$5,285	50	\$110.99	\$5,549	100	\$116.54	\$11,654	200	\$131.69	\$26,338	500	\$58,893	Salary rates are based on an average of employees within a each given cohort
3, 5, 6, 7, 12	Program associates	500	\$33.37	\$16,685	500	\$35.04	\$17,519	1000	\$36.79	\$36,790	2000	\$38.63	\$77,260	16000	\$43.65	\$698,429	20000	\$846,684	Salary rates are based on an average of employees within
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
	Total Personnel Costs	4750		\$280,190	3400		\$200,937	3900		\$229,379	6200		\$376,473	36600		\$2,300,381	54850	\$3,387,361	

Additional Explanation (as needed): Salary rates are based on an average of employees within a each given cohort

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
Project manager (grant execution, reporting support,)	95,445	27.00%	\$25,770	66,812	27.00%	\$18,039	110,490	27.00%	\$29,832	110,490	27.00%	\$29,832	499,413	27.00%	\$134,841	\$238,315
Compliance associate (grant execution & reporting support)	87,540	27.00%	\$23,636	61,278	27.00%	\$16,545	101,338	27.00%	\$27,361	101,338	27.00%	\$27,361	610,733	27.00%	\$164,898	\$259,802
Executive leadership (CFO)	15,100	27.00%	\$4,077	5,285	27.00%	\$1,427	11,653	27.00%	\$3,146	11,653	27.00%	\$3,146	52,673	27.00%	\$14,222	\$26,019
Community & stakeholder engagement manager	31,815	27.00%	\$8,590	20,043	27.00%	\$5,412	36,830	27.00%	\$9,944	36,830	27.00%	\$9,944	166,471	27.00%	\$44,947	\$78,837
Program coordinator	23,538	27.00%	\$6,355	24,715	27.00%	\$6,673	27,248	27.00%	\$7,357	27,248	27.00%	\$7,357	246,324	27.00%	\$66,507	\$94,250
Executive leadership (VP - Communities Team)	10,067	27.00%	\$2,718	5,285	27.00%	\$1,427	11,654	27.00%	\$3,147	11,654	27.00%	\$3,147	26,338	27.00%	\$7,111	\$17,549
Program associates	16,685	27.00%	\$4,505	17,519	27.00%	\$4,730	77,260	27.00%	\$20,860	77,260	27.00%	\$20,860	698,429	27.00%	\$188,576	\$239,531
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$280,190		\$75,651	\$200,937		\$54,253	\$376,473		\$101,648	\$376,473		\$101,648	\$2,300,381		\$621,103	\$954,303

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Fringe rates are based on average benefits within a given position cohort, including health, dental, vision, retirement savings, and life insurance are included in the fringe rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOP/Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
Domestic Travel		Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 1 Total									\$0	
Domestic Travel		Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 2 Total									\$0	
Domestic Travel		Budget Period 3									
5.2	In-person outreach for energy literacy initiative strategy development	MN	ND	2	3	\$425	\$508	\$151	\$44	\$3,384	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); actual car rental, hotel and air fare rates used
5.2	In-person outreach for energy literacy initiative strategy development	MN	SD	2	3	\$400	\$458	\$147	\$44	\$3,147	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); actual car rental, hotel and air fare rates used
5.2	In-person outreach for energy literacy initiative strategy development	MN	NE	2	3	\$455	\$500	\$208	\$44	\$3,621	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); actual car rental, hotel and air fare rates used
5.2	In-person outreach for energy literacy initiative strategy development	MN	MO	2	3	\$480	\$468	\$203	\$44	\$3,585	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); actual car rental, hotel and air fare rates used
5.2	In-person outreach for energy literacy initiative strategy development	MN	IA	2	3	\$433	\$438	\$226	\$44	\$3,423	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); actual car rental, hotel and air fare rates used
5.2	In-person outreach for energy literacy initiative strategy development	MN	KS	2	3	\$450	\$339	\$140	\$44	\$2,919	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); actual car rental, hotel and air fare rates used
	International Travel									\$0	
	Budget Period 3 Total									\$20,079	
Domestic Travel		Budget Period 4									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 4 Total									\$0	
Domestic Travel		Budget Period 5									
12.2	in-person outreach for energy literacy regional and national expansion	MN	TBD	2	10	\$441	\$452	\$179	\$44	\$11,155	Based on State of MN Travel Policy (https://dps.mn.gov/divisions/ojp/grants/Documents/2020%20Travel%20Policy.pdf); Average value from BP3 travel used to estimate BP5 rates as specific locations are not yet determined
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 5 Total									\$11,155	
	PROJECT TOTAL									\$31,234	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.

2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.

3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.

4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400
3.3	Consultant (TBD)	To conduct IMPLAN or other economic impact tool modeling for the JTIQ Portfolio	\$200,000					\$200,000
3.4	Consultant (TBD)	to conduct GHG and other pollutant emissions reductions and subsequent health benefits for the JTIQ Portfolio	\$200,000					\$200,000
3, 5, 12	Consultants (Community partner organizations, CBP advisory group, community members participating in direct outreach and input to the CBP's energy literacy initiative design and execution)	To support time, travel, child care, food, and other costs necessary to reduce barriers to participation in development of the energy literacy initiative	\$55,000	\$55,000	\$55,000	\$55,000	\$220,000	\$440,000
								\$0
								\$0
		Sub-total	\$455,000	\$55,000	\$55,000	\$55,000	\$220,000	\$840,000

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual		\$455,000	\$55,000	\$55,000	\$55,000	\$220,000	\$840,000
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Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
 2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
 3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	57.15%	57.15%	57.15%	57.15%	57.15%		
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs	\$463,396	\$177,274	\$232,090	\$304,679	\$1,676,003	\$2,853,441	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$463,396	\$177,274	\$232,090	\$304,679	\$1,676,003	\$2,853,441	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.
 There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Methodology
 Based on 2 CRF 200 with reference to OMB Circular A-122 and Appendix B, the following methodology was used calculate the Federal Indirect Cost Rate for 2022.
 The general ledger trial balance for the most recent audited financial statements (FY 2021) was used for the calculations.
 The totals were divided into three separate categories: direct, indirect and unallowable costs. The indirect cost total was divided by the direct cost total to get the final Indirect Rate.
 Direct, indirect and unallowable costs were determined with the following general criteria:
 •Direct project costs
 •All salary expense directly related to the programs.
 •All contracts, materials, supplies, and office expense related to the programs.
 •There were no distorting contracts
 •All travel and conference expense directly related to the programs
 •Indirect project costs
 •Indirect costs are expenses incurred "for common or joint objectives that cannot be identified with a particular cost objective". (Federal Register page 51929.C)
 •Accounting (not audit)
 •Business insurance
 •Contracted services for general organization operation (as opposed to contracted services that are direct project costs)
 •Communications and outreach as related to the programs
 •Depreciation
 •Memberships, subscriptions, professional licenses
 •Meetings and conferences
 •Office supplies and equipment except for fundraising
 •Postage except for fundraising or general PR purposes.
 •Recruitment/Job posting fees
 •Rent
 •Printing except for fundraising materials—annual report, donor appeals
 •Telephone
 •Unallowable costs:
 •All Fundraising Expense
 •Audit
 •Capital expenditures for computers

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Totals			\$0	\$0	\$0	\$0	\$0	\$0

Total Project Cost: \$8,066,340

Cost Share Percent of Award:

0.0%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: Concept Paper-TA3_CP064_E

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		
1. Budget Period 1				\$1,274,237	\$0		\$1,274,237
2. Budget Period 2				\$487,464	\$0		\$487,464
3. Budget Period 3				\$638,196	\$0		\$638,196
4. Budget Period 4				\$837,800	\$0		\$837,800
5. Budget Period 5				\$4,828,643	\$0		\$4,828,643
6. Totals				\$8,066,340	\$0		\$8,066,340

Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	\$280,190	\$200,937	\$229,379	\$376,473	\$2,300,381	\$3,387,361	
b. Fringe Benefits	\$75,651	\$54,253	\$101,648	\$101,648	\$621,103	\$954,303	
c. Travel	\$0	\$0	\$20,079	\$0	\$11,155	\$31,234	
d. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	
f. Contractual	\$455,000	\$55,000	\$55,000	\$55,000	\$220,000	\$840,000	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	
h. Other	\$0	\$0	\$0	\$0	\$0	\$0	
i. Total Direct Charges (sum of 6a-6h)	\$810,841	\$310,190	\$406,106	\$533,121	\$3,152,639	\$5,212,898	
j. Indirect Charges	\$463,396	\$177,274	\$232,090	\$304,679	\$1,676,003	\$2,853,441	
k. Totals (sum of 6i-6j)	\$1,274,237	\$487,464	\$638,196	\$837,800	\$4,828,643	\$8,066,339	
7. Program Income						\$0	

Instructions and Summary

Award Number: _____
Award Recipient: MN Department of Commerce _____

Date of Submission: 5/11/2023 _____
Form submitted by: Omaha Public Power District (OPPD) _____
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	\$628,952	\$636,036			\$1,264,988	50.28%	
	Budget Period 2	\$8,098,826	\$8,190,044			\$16,288,871	50.28%	
	Budget Period 3	\$2,324,140	\$2,350,317			\$4,674,457	50.28%	
	Budget Period 4	\$41,134,123	\$41,597,419			\$82,731,542	50.28%	
	Budget Period 5	\$123,177,993	\$124,565,356			\$247,743,350	50.28%	
	Total	\$175,364,034	\$177,339,173			\$352,703,207	50.28%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$1,254,988	\$40,900	\$39,260	\$38,230	\$100,720	\$1,474,098	0.42%	
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$0	\$0	\$0	\$0	\$130,428,739	\$130,428,739	36.98%	
e. Supplies	\$10,000	\$10,000	\$10,000	\$10,000	\$0	\$40,000	0.01%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor	\$0	\$0	\$0	\$0	\$117,213,891	\$117,213,891	33.23%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$0	\$0	\$0	\$0	\$117,213,891	\$117,213,891	33.23%	
g. Construction	\$0	\$16,237,971	\$4,625,197	\$82,683,312	\$0	\$103,546,480	29.36%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$1,264,988	\$16,288,871	\$4,674,457	\$82,731,542	\$247,743,350	\$352,703,207	100.00%	
i. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Costs	\$1,264,988	\$16,288,871	\$4,674,457	\$82,731,542	\$247,743,350	\$352,703,207	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!!
 1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
 2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
 3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
 4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
 5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
1	Sr. Engineer (EXAMPLE!!!)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	Actual Salary
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	Actual Salary
5,7,11,12	Grants Analyst (2)	259	\$82.00	\$21,238	300	\$82.00	\$24,600	280	\$82.00	\$22,960	200	\$82.00	\$16,400	480	\$82.00	\$39,360	1519	\$124,558	Salary+overhead+inflation
3,5,11,12	Grants Manager	40	\$118.00	\$4,720	50	\$118.00	\$5,900	50	\$118.00	\$5,900	30	\$118.00	\$3,540	40	\$118.00	\$4,720	210	\$24,780	Salary+overhead+inflation
6	HC Specialist			\$0	40	\$83.00	\$3,320	40	\$83.00	\$3,320			\$0			\$0	80	\$6,640	Salary+overhead+inflation
1	NEPA - Dir Engineering	100	\$172.00	\$17,200			\$0			\$0			\$0			\$0	100	\$17,200	Salary+overhead+inflation
1	NEPA - Eng. VP	25	\$200.00	\$5,000			\$0			\$0			\$0			\$0	25	\$5,000	Salary+overhead+inflation
1	NEPA - Engineer (2)	1600	\$91.00	\$145,600			\$0			\$0			\$0			\$0	1600	\$145,600	Salary+overhead+inflation
1	NEPA - Env. Analyst (4)	8000	\$82.00	\$656,000			\$0			\$0			\$0			\$0	8000	\$656,000	Salary+overhead+inflation
1	NEPA - Env. Dir	500	\$172.00	\$86,000			\$0			\$0			\$0			\$0	500	\$86,000	Salary+overhead+inflation
1	NEPA - Env. Program Administrat	2000	\$109.00	\$218,000			\$0			\$0			\$0			\$0	2000	\$218,000	Salary+overhead+inflation
1	NEPA - Env. VP	125	\$200.00	\$25,000			\$0			\$0			\$0			\$0	125	\$25,000	Salary+overhead+inflation
1	NEPA - Mgr Engineering	400	\$136.00	\$54,400			\$0			\$0			\$0			\$0	400	\$54,400	Salary+overhead+inflation
1,5,6,12,1	Policy Engineer	155	\$118.00	\$18,290	20	\$118.00	\$2,360	20	\$118.00	\$2,360	15	\$118.00	\$1,770			\$0	210	\$24,780	Salary+overhead+inflation
3,4,5,10,1	Project Manager	30	\$118.00	\$3,540	40	\$118.00	\$4,720	40	\$118.00	\$4,720	140	\$118.00	\$16,520	480	\$118.00	\$56,640	730	\$86,140	Salary+overhead+inflation
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
	Total Personnel Costs	13234		\$1,254,988	450		\$40,900	430		\$39,260	385		\$38,230	1000		\$100,720	15499	\$1,474,098	

1 1207200
 12 0
 12.1 0
 12.2 0
 12.3 0
 13 0

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total						
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total						
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total						
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total						
Budget Period 5						
11	Substation - Materials - S3452-Raun	1	\$17,423,686	\$17,423,686	Estimate from prior experience	All equipment and materials excluding materials from Outside services contracts (i.e dirt, or concrete for foundations).
11	Substation - Materials - Aub-Hoyt	1	\$18,917,145	\$18,917,145	Estimate from prior experience	All equipment and materials excluding materials from Outside services contracts (i.e dirt, or concrete for foundations).
11	Transmission - Materials - S3452-Raun	1	\$70,939,295	\$70,939,295	Estimate from prior experience	All equipment and materials like structures, conductors, hardware, etc
11	Transmission - Materials - Aub-Hoyt	1	\$23,148,612	\$23,148,612	Estimate based on experience, and input from project partner	All equipment and materials like structures, conductors, hardware, etc
				\$0		
				\$0		
Budget Period 5 Total						
PROJECT TOTAL					\$130,428,739	

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE!!! Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
3.5	Venue, Food, and Supplies	2	\$5,000.00	\$10,000		Venue, supplies, materials, & food for hosting public meetings.
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$10,000		
Budget Period 2						
5.2	Venue, Food, and Supplies	2	\$5,000.00	\$10,000		Venue, supplies, materials, & food for hosting public outreach
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$10,000		
Budget Period 3						
5.2	Venue, Food, and Supplies	2	\$5,000.00	\$10,000		Venue, supplies, materials, & food for hosting public outreach
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$10,000		
Budget Period 4						
12	Venue, Food, and Supplies	2	\$5,000.00	\$10,000		Venue, supplies, materials, & food for hosting public outreach
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$10,000		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$40,000		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

- The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
- Subrecipients (partners, sub-awardees):** Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
- Vendors (including contractors):** List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
- Federal Funded Research and Development Centers (FFRDCs):** FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Sub-total			\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400
11	Vendor - Substation - Construction and Outside Services - S3452-Raun	Vendors for grading, FDG, and electrical equipment based on previous experience					\$10,137,418	\$10,137,418
11	Vendor - Substation - Construction and Outside Services - Aub-Hoyt	Vendors for grading, FDG, and electrical equipment based on previous experience					\$11,006,339	\$11,006,339
11	Vendor - Transmission - Construction - S3452-Raun	Vendors for ROW and site prep, and construction based on previous experience					\$70,939,295	\$70,939,295
11	Vendor - Transmission - Construction - Aub-Hoyt	Vendors for ROW and site prep, and construction based on previous experience					\$23,148,612	\$23,148,612
11	Vendor - Substation - Site Prep - S3452-Raun	Vendor for Site prep of substations. Based on previous experience					\$950,383	\$950,383
11	Vendor - Substation - Site Prep - Aub-Hoyt	Vendor for Site prep of substations. Based on previous experience					\$1,031,844	\$1,031,844
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Sub-total			\$0	\$0	\$0	\$0	\$117,213,891	\$117,213,891

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
								\$0
Sub-total			\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual			\$0	\$0	\$0	\$0	\$117,213,891	\$117,213,891
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Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
	Budget Period 1 Total	\$0		
Budget Period 2				
4	Substation Engineering and Admin - S3452-Raun	\$950,383	Estimate from prior experience	Preliminary engineering and admin work for substation
4	Substation Engineering and Admin - Aub-Hoyt	\$1,031,844	Estimate from prior experience	Preliminary engineering and admin work for substation
8	Routing and Engineering - Transmission - Aub-Hoyt	\$3,507,365	Estimate from prior experience	conduct preliminary engineering and routing work
8	Routing and Engineering - Transmission - S3452-Raun	\$10,748,378	Estimate from prior experience	conduct preliminary engineering and routing work
	Budget Period 2 Total	\$16,237,971		
Budget Period 3				
4	Substation Engineering and Admin - S3452-Raun	\$2,217,560	Estimate from prior experience	Additional engineering and admin work for substation
4	Substation Engineering and Admin - Aub-Hoyt	\$2,407,637	Estimate from prior experience	Additional engineering and admin work for substation
	Budget Period 3 Total	\$4,625,197		
Budget Period 4				
6	IFB Engineering - Transmission - S3452-Raun	\$25,796,107	Estimate from prior experience	IFB Engineering for bids for work on transmission line
6	IFB Engineering - Transmission - Aub-Hoyt	\$8,417,677	Estimate from prior experience	IFB Engineering for bids for work on transmission line
8	Field surveying - Transmission - S3452-Raun	\$12,898,054	Estimate from prior experience	Field survey and alignment determination on transmission line
8	Field surveying - Transmission - Aub-Hoyt	\$4,208,839	Estimate from prior experience	Field survey and alignment determination on transmission line
9	Permitting, easements, development - Transmission -S3452-Raun	\$23,646,432	Estimate from prior experience	Permitting (both environmental and non-environmental),
9	Permitting, easements, development - Transmission -Aub-Hoyt	\$7,716,204	Estimate from prior experience	Permitting (both environmental and non-environmental),
	Budget Period 4 Total	\$82,683,312		
Budget Period 5				
	Budget Period 5 Total	\$0		
	PROJECT TOTAL	\$103,546,480		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs						\$0	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$0	\$0	\$0	\$0	\$0	\$0	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
OPPD	Cash	Project cost covered by subrecipient	\$636,036	\$8,190,044	\$2,350,317	\$41,597,419	\$124,565,356	\$177,339,173
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Totals			\$636,036	\$8,190,044	\$2,350,317	\$41,597,419	\$124,565,356	\$177,339,173

Total Project Cost: \$352,703,207

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		
1. Budget Period 1				\$628,952	\$636,036		\$1,264,988
2. Budget Period 2				\$8,098,826	\$8,190,044		\$16,288,871
3. Budget Period 3				\$2,324,140	\$2,350,317		\$4,674,457
4. Budget Period 4				\$41,134,123	\$41,597,419		\$82,731,542
5. Budget Period 5				\$123,177,993	\$124,565,356		\$247,743,350
6. Totals				\$175,364,034	\$177,339,173		\$352,703,208

Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	\$1,254,988	\$40,900	\$39,260	\$38,230	\$100,720	\$1,474,098	
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$0	\$0	\$0	\$0	\$130,428,739	\$130,428,739	
e. Supplies	\$10,000	\$10,000	\$10,000	\$10,000	\$0	\$40,000	
f. Contractual	\$0	\$0	\$0	\$0	\$117,213,891	\$117,213,891	
g. Construction	\$0	\$16,237,971	\$4,625,197	\$82,683,312	\$0	\$103,546,480	
h. Other	\$0	\$0	\$0	\$0	\$0	\$0	
i. Total Direct Charges (sum of 6a-6h)	\$1,264,988	\$16,288,871	\$4,674,457	\$82,731,542	\$247,743,350	\$352,703,207	
j. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	
k. Totals (sum of 6i-6j)	\$1,264,988	\$16,288,871	\$4,674,457	\$82,731,542	\$247,743,350	\$352,703,207	
7. Program Income						\$0	

Instructions and Summary

Award Number: Concept Paper-TA3_CP064_E

Date of Submission: 5/17/2023

Award Recipient: MN Department of Commerce

Form submitted by: Midcontinent Independent System Operator (MISO)

(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	\$35,754,461	\$36,106,121			\$71,860,582	50.24%	Example!!! 01/01/2014 - 12/31/2014
	Budget Period 2	\$97,708,739	\$98,800,226			\$196,508,965	50.28%	
	Budget Period 3	\$100,030,235	\$101,149,234			\$201,179,469	50.28%	
	Budget Period 4	\$34,795,821	\$35,181,485			\$69,977,306	50.28%	
	Budget Period 5	\$368,227,477	\$372,354,200			\$740,581,677	50.28%	
	Total	\$636,516,734	\$643,591,265			\$1,280,107,999	50.28%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$1,182,980	\$1,470,680	\$1,228,490	\$1,017,730	\$3,303,300	\$8,203,180	0.64%	
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$100,000	\$0	\$0	\$0	\$0	\$100,000	0.01%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$70,163,602	\$194,908,285	\$199,820,979	\$68,868,576	\$736,914,377	\$1,270,675,819	99.26%	
Vendor	\$414,000	\$130,000	\$130,000	\$91,000	\$364,000	\$1,129,000	0.09%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$70,577,602	\$195,038,285	\$199,950,979	\$68,959,576	\$737,278,377	\$1,271,804,819	99.35%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$71,860,582	\$196,508,965	\$201,179,469	\$69,977,306	\$740,581,677	\$1,280,107,999	100.00%	
i. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Costs	\$71,860,582	\$196,508,965	\$201,179,469	\$69,977,306	\$740,581,677	\$1,280,107,999	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!

- 1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under 1. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

Table with columns: SOPO Task #, Position Title, Budget Period 1 (Y1) (Time, Pay Rate, Total Budget), Budget Period 2 (Y2) (Time, Pay Rate, Total Budget), Budget Period 3 (Y3) (Time, Pay Rate, Total Budget), Budget Period 4 (Y4) (Time, Pay Rate, Total Budget), Budget Period 5 (Y5-8) (Time, Pay Rate, Total Budget), Project Total Hours, Project Total Dollars, Rate Basis. Rows include various roles like Project Manager, Budget Analyst, Executive Management, Communications Specialist, Administrative, Attorney, etc.

Additional Explanation (as needed): Task 2 is projected out through several years - while the JTIQ BOD approval is proposed for 2024, the implementation and systems set up to implement JTIQ systems and tracking will occur post 2024, including post-FERC filing regulatory requirements included in Task 2. If needed, the BFD-8 hours could be included in the general admin under each budget phase. Additionally, MSO currently does not have an inflation estimate for budgetary purposes and therefore personnel hours have not been adjusted for inflation. The MSO salaries reflect the weighted average of earnings for MSO employees that work on projects by classification, plus 35% cost adder for fringe benefits. MSO Fringe benefits include: employer-paid taxes (Unemployment Insurance, Medicare, Federal Unemployment Tax, Social Security Tax), and Employer paid other benefits such as (Performance Compensation, retirement benefits, medical benefits, and Group Term Insurance).

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.

2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.

3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.

4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer																
<i>Fringe benefits are included in the hourly rate on the personnel tab.</i>			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
	NA									\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
1, 9, 11, 12, 13	Update to MISO's Transmission Reporting and Communication Systems to receive and verify costs and reporting requirements from MISO's TOs.	1	\$100,000	\$100,000	Estimated IT cost to update systems and create tracking systems, in conjunction with SPP.	MISO's systems to date receive costs from TOs for and compare costs to high level estimates. New tracking mechanisms are needed to track cost against estimates, track time spend on JTIQ efforts, ensure DOE requirement compliance, and other reporting requirements.
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$100,000		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$100,000		

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.

2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.

3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.

4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
1 - 13	Otter Tail Power	All project costs associated with Tier 2 sub-recipient award	\$30,891,354	\$77,603,086	\$80,258,109	\$30,602,838	\$288,817,771	\$508,173,158
1 - 13	MidAmerican Energy	All project costs associated with Tier 2 sub-recipient award	\$36,526	\$17,486	\$11,580	\$11,150	\$26,315,616	\$26,392,358
1 - 13	Xcel Energy	All project costs associated with Tier 2 sub-recipient award	\$28,332,744	\$73,772,641	\$76,029,826	\$27,331,504	\$247,736,597	\$453,203,312
1 - 13	ITC Midwest	All project costs associated with Tier 2 sub-recipient award	\$10,902,978	\$43,515,072	\$43,521,464	\$10,923,084	\$174,044,393	\$282,906,991
								\$0
								\$0
		Sub-total	\$70,163,602	\$194,908,285	\$199,820,979	\$68,868,576	\$736,914,377	\$1,270,675,819

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
1, 9, 11, 12, 13	3rd Party Financial and Grant Compliance Assistance	Partner to assist MISO and SPP with grant administration reporting requirements that will pass from MISO and SPP's transmission owners through MISO and SPP to the Minnesota Department of Commerce.	\$52,000	\$52,000	\$52,000	\$52,000	\$208,000	\$416,000
3, 4-8, 11-13	3rd Party Contractor to Assist in Community Benefits Plan Execution and Development	Pending GPI						\$0
3, 12	Health and Jobs Analysis Contractor	Consultant to conduct 3rd party assessment of jobs and health benefits *presumed split cost 9-ways (SPP, MISO, 7-utilities)	\$50,000					\$50,000
2	Duane Morris Attorney at Law (Invoice)	Support for JTIQ Cost Allocation Filing to FERC	\$312,000	\$78,000	\$78,000	\$39,000	\$156,000	\$663,000
								\$0
		Sub-total	\$414,000	\$130,000	\$130,000	\$91,000	\$364,000	\$1,129,000

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual			\$70,577,602	\$195,038,285	\$199,950,979	\$68,959,576	\$737,278,377	\$1,271,804,819
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Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5				
	Budget Period 5 Total	\$0		
	PROJECT TOTAL	\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs						\$0	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$0	\$0	\$0	\$0	\$0	\$0	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.
- There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
MISO	Cash	Project partner MISO will provide a match of 50% for all personnel and contractor hours for the JTIQ project (Personnel)	\$570,862	\$735,340	\$614,245	\$508,865	\$1,651,650	\$4,080,962
MISO	Cash	Project partner MISO will provide a match of 50% for all personnel and contractor hours for the JTIQ project. (Contractors)	\$207,000	\$65,000	\$65,000	\$45,500	\$182,000	\$564,500
	Cash	MTEP Database Update for Cost Reporting and Tracking	\$50,000					\$50,000
Otter Tail Power	Cash	50.3% of Project cost covered by subrecipient at (Otter Tail Power Co.)	\$15,532,173	\$39,018,832	\$40,353,777	\$15,387,107	\$145,217,575	\$255,509,465
MidAmerican Energy	Cash	50.3% of Project cost covered by subrecipient (MidAmerican Energy)	\$18,365	\$8,792	\$5,822	\$5,606	\$13,231,492	\$13,270,078
Xcel Energy	Cash	50.3% of Project cost covered by subrecipient (Xcel Energy)	\$14,245,703	\$37,092,884	\$38,227,797	\$13,742,280	\$124,561,961	\$227,870,625
ITC Midwest	Cash	50.3% of Project cost covered by subrecipient (ITC Midwest)	\$5,482,017	\$21,879,378	\$21,882,592	\$5,492,127	\$87,509,521	\$142,245,635
								\$0
								\$0
								\$0
		Totals	\$36,106,121	\$98,800,226	\$101,149,234	\$35,181,485	\$372,354,200	\$643,591,264

Total Project Cost: \$1,280,107,999

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: Concept Paper-TA3_CP064_E

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Budget Period 1				\$35,754,461	\$36,106,121	\$71,860,582
2. Budget Period 2				\$97,708,739	\$98,800,226	\$196,508,965
3. Budget Period 3				\$100,030,235	\$101,149,234	\$201,179,469
4. Budget Period 4				\$34,795,821	\$35,181,485	\$69,977,306
5. Budget Period 5				\$368,227,477	\$372,354,200	\$740,581,677
6. Totals				\$636,516,734	\$643,591,265	\$1,280,107,999

Section B - Budget Categories						
6. Object Class Categories	Grant Program, Function or Activity					Total (5)
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	
a. Personnel	\$1,182,980	\$1,470,680	\$1,228,490	\$1,017,730	\$3,303,300	\$8,203,180
b. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0
d. Equipment	\$100,000	\$0	\$0	\$0	\$0	\$100,000
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0
f. Contractual	\$70,577,602	\$195,038,285	\$199,950,979	\$68,959,576	\$737,278,377	\$1,271,804,819
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0
h. Other	\$0	\$0	\$0	\$0	\$0	\$0
i. Total Direct Charges (sum of 6a-6h)	\$71,860,582	\$196,508,965	\$201,179,469	\$69,977,306	\$740,581,677	\$1,280,107,999
j. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0
k. Totals (sum of 6i-6j)	\$71,860,582	\$196,508,965	\$201,179,469	\$69,977,306	\$740,581,677	\$1,280,107,999
7. Program Income						\$0

Instructions and Summary

Award Number: _____
 Award Recipient: MN Department of Commerce

Date of Submission: 5/19/2023
 Form submitted by: Otter Tail Power
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary	Federal	Cost Share	Total Costs	Cost Share %	Proposed Budget Period Dates
(b) (4)					1/1/2024 - 12/31/2024
					1/1/2025 - 12/31/2025
					1/1/2025 - 12/31/2026
					1/1/2025 - 12/31/2027
					1/1/2028 - 12/31/2034
Section B - Budget Categories					
CATEGORY					Comments (as needed)
a. Personnel					
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
Sub-recipient					
Vendor					
FFRDC					
Total Contractual					
g. Construction					
h. Other Direct Costs					
Total Direct Costs					
i. Indirect Charges					
Total Costs					

Additional Explanation (as needed):

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a. Personnel

INSTRUCTIONS - PLEASE READ!!!

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.

2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.

3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).

4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
1	Project Manager (3.2)																		
1	Business Specialist (2.2)																		
3, 5, 12	Communications Coordinator (2.2)																		
1	Principal Project Developer (3.1)																		
6	HR Employment Coordinator (3.2)																		
1	Cybersecurity plan (2.3)																		
3	Communications Coordinator (2.2)																		
3, 13	Project Engineer (3.1)																		
11	Project Management (3.2)																		
10, 11	Project Management (3.2)																		
10, 11	Senior Transmission Engineer (2.3)																		
10, 11	Associate General Counsel (3.3)																		
10, 11	Senior Project Control Supervisor (2.3)																		
10, 11	Manager, Land Rights/Surveying (3.2)																		
3, 10, 11	Manager, Environmental (3.2)																		
10, 11	Manager, Communications (3.1)																		
10, 11	Principal Engineer (3.1)																		
Total Personnel Costs																			

(b) (4)

Additional Explanation (as needed):

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b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
 2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
 3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
Total Personnel	(b) (4)															
Total:																

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

- A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*
- There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

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c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
Domestic Travel		Budget Period 1									
3	Project Meeting	Fergus Falls, MN	St. Paul, MN	(b) (4)							
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 1 Total										
Domestic Travel		Budget Period 2									
3	Project meeting	Fergus Falls, MN	St. Paul, MN								
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 2 Total										
Domestic Travel		Budget Period 3									
3	Project meeting	Fergus Falls, MN	St. Paul, MN								
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 3 Total										
Domestic Travel		Budget Period 4									
3	Project meeting	Fergus Falls, MN	St. Paul, MN								
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 4 Total										
Domestic Travel		Budget Period 5									
3	Project meeting	Fergus Falls, MN	St. Paul, MN								
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
	Budget Period 5 Total										
	PROJECT TOTAL										

Additional Explanation (as needed):

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d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.

2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.

3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.

4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 1 Total			\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 2 Total			\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 3 Total			\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 4 Total			\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
	Budget Period 5 Total			\$0		
	PROJECT TOTAL			\$0		

Additional Explanation (as needed):

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e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.

2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.

3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.

4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

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f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
Sub-total			\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
11	TBD	Contract with Project Manager to construct OTP's portion of the project	(b) (4)					\$0
								\$0
								\$0
1, 7	Communications/PR Firm	Assist in execution of Community Benefits Plan						\$0
1	Environmental Firm	Support NEPA requirements						\$0
1	Tribal/Environmental Monitors for NEPA	Onsite inspection during NEPA and construction activities						\$0
								\$0
Sub-total								\$0

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
Sub-total			\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual								
--------------------------	--	--	--	--	--	--	--	--

Additional Explanation (as needed):

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g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities:

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5				
	Budget Period 5 Total	\$0		
	PROJECT TOTAL	\$0		

Additional Explanation (as needed):

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h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).

2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.

3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

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i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
 2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
 3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate							
General & Administrative (G&A)	(b) (4)						
FCCM Rate, if applicable							
OTHER Indirect Rate							
Indirect Costs (As Applicable):							
Overhead Costs							
G&A Costs							
FCCM Costs, if applicable							
OTHER Indirect Costs							
Total indirect costs requested:							

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.
- There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): ***IMPORTANT:** Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

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Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, are not allowable as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. NOTE: A Recipient who elects to employ the 10% de minimis Indirect Cost rate cannot claim the resulting indirect costs as a Cost Share contribution.
7. NOTE: A Recipient cannot claim "unrecovered indirect costs" as a Cost Share contribution, without prior approval.
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
(b) (4)								
								\$0
								\$0
								\$0
								\$0
								\$0
Totals								

Total Project Cost: [REDACTED]

Cost Share Percent of Award: [REDACTED]

Additional Explanation (as needed):

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Applicant Name: MN Department of Commerce Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Budget Period 1				(b) (4)		
2. Budget Period 2						
3. Budget Period 3						
4. Budget Period 4						
5. Budget Period 5						
6. Totals						

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity					Total (5)
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	
a. Personnel						
b. Fringe Benefits						
c. Travel						
d. Equipment						
e. Supplies						
f. Contractual						
g. Construction						
h. Other						
i. Total Direct Charges (sum of 6a-6h)						
j. Indirect Charges						
k. Totals (sum of 6i-6j)						
7. Program Income						\$0

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SF-424A (Rev. 4-92)
Prescribed by OMB Circular A-102

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Instructions and Summary

Award Number: Concept Paper-TA3_CP064_E
Award Recipient: MN Department of Commerce

Date of Submission: 5/19/2023
Form submitted by: MN Department of Commerce
(May be award recipient or sub-recipient)

**Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!
 Do not modify this template or any cells for formulas!**

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. **must include both Federal (DOE) and Non-Federal (cost share) portions.**
5. All costs incurred by the preparer's sub-recipients, contractors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows and columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
	Budget Period 1	\$38,503,558	\$37,257,915			\$75,761,473	49.18%	Example!!! 01/01/2014 - 12/31/2014
	Budget Period 2	\$108,145,104	\$108,523,482			\$216,668,586	50.09%	
	Budget Period 3	\$107,713,786	\$107,936,308			\$215,650,094	50.05%	
	Budget Period 4	\$90,677,565	\$90,507,905			\$181,185,470	49.95%	
	Budget Period 5	\$583,914,709	\$584,729,110			\$1,168,643,819	50.03%	
	Total	\$928,954,720	\$928,954,720			\$1,857,909,440	50.00%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$159,650	\$159,650	\$159,650	\$159,650	\$456,494	\$1,095,094	0.06%	
b. Fringe Benefits	\$47,895	\$47,895	\$47,895	\$47,895	\$136,948	\$328,528	0.02%	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
f. Contractual								
Sub-recipient	\$75,430,208	\$216,337,321	\$215,318,829	\$180,854,205	\$1,167,804,646	\$1,855,745,209	99.88%	
Contractor	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$75,430,208	\$216,337,321	\$215,318,829	\$180,854,205	\$1,167,804,646	\$1,855,745,209	99.88%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$25,000	\$25,000	\$25,000	\$25,000	\$100,000	\$200,000	0.01%	
Total Direct Costs	\$75,662,753	\$216,569,866	\$215,551,374	\$181,086,750	\$1,168,498,088	\$1,857,368,831	99.97%	
i. Indirect Charges	\$98,720	\$98,720	\$98,720	\$98,720	\$145,731	\$540,609	0.03%	
Total Costs	\$75,761,473	\$216,668,586	\$215,650,094	\$181,185,470	\$1,168,643,819	\$1,857,909,440	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!!

1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and contractors must be included under f. Contractual.
2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base hourly rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., rate negotiated for each hour worked on the project, labor distribution report, state civil service rates, etc.) must also be identified.
3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Hourly Rate (\$/Hr)	Total Budget Period 5			
1	Sr. Engineer (EXAMPLE!!!)	2000	\$85.00	\$170,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	200	\$50.00	\$10,000	2400	\$190,000	
2	Technicians (2)	4000	\$20.00	\$80,000	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	0	\$0.00	\$0	4000	\$80,000	
1,3,5,6	COMM, Deputy Commissioner Energy	25	\$72.00	\$1,800	25	\$72.00	\$1,800	25	\$72.00	\$1,800	25	\$72.00	\$1,800	52	\$72.00	\$3,744	152	\$10,944	
1,3,5,6	COMM Assistant Energy Commissioner	25	\$70.00	\$1,750	25	\$70.00	\$1,750	25	\$70.00	\$1,750	25	\$70.00	\$1,750	52	\$70.00	\$3,640	152	\$10,640	
1,2,3,4,5,6,7,8,9	COMM Energy , Reliably and Security Advisor	250	\$68.00	\$17,000	250	\$68.00	\$17,000	250	\$68.00	\$17,000	250	\$68.00	\$17,000	500	\$68.00	\$34,000	1500	\$102,000	
1,2,3,4,5,6,7,8,9	COMM Energy Development Section Director	100	\$66.00	\$6,600	100	\$66.00	\$6,600	100	\$66.00	\$6,600	100	\$66.00	\$6,600	400	\$66.00	\$26,400	800	\$52,800	
1,2,3,4,5,6,7,8,9	Commerce Project Manager	1200	\$38.00	\$45,600	1200	\$38.00	\$45,600	1200	\$38.00	\$45,600	1200	\$38.00	\$45,600	3000	\$38.00	\$114,000	7800	\$296,400	
1,4,5,6	Commerce Project Support	1000	\$34.00	\$34,000	1000	\$34.00	\$34,000	1000	\$34.00	\$34,000	1000	\$34.00	\$34,000	2100	\$34.00	\$71,400	6100	\$207,400	
1,2,7	Transmission Planning Director	300	\$68.00	\$20,400	300	\$68.00	\$20,400	300	\$68.00	\$20,400	300	\$68.00	\$20,400	600	\$68.00	\$40,800	1800	\$122,400	
1	Commerce Grants Administrator	500	\$65.00	\$32,500	500	\$65.00	\$32,500	500	\$65.00	\$32,500	500	\$65.00	\$32,500	2500	\$65.00	\$162,510	4500	\$292,510	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
				\$0			\$0			\$0			\$0			\$0	0	\$0	
	Total Personnel Costs	3400		\$159,650	3400		\$159,650	3400		\$159,650	3400		\$159,650	9204		\$456,494	22804	\$1,095,094	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
 2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
 3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
COMM, Deputy Commissioner Energy	1,800	30.00%	\$540	1,800	30.00%	\$540	1,800	30.00%	\$540	1,800	30.00%	\$540	3,744	30.00%	\$1,123	\$3,283
COMM Assistant Energy Commissioner	1,750	30.00%	\$525	1,750	30.00%	\$525	1,750	30.00%	\$525	1,750	30.00%	\$525	3,640	30.00%	\$1,092	\$3,192
COMM Energy , Reliability and Security Advisor	17,000	30.00%	\$5,100	17,000	30.00%	\$5,100	17,000	30.00%	\$5,100	17,000	30.00%	\$5,100	34,000	30.00%	\$10,200	\$30,600
COMM Energy Development Section Director	6,600	30.00%	\$1,980	6,600	30.00%	\$1,980	6,600	30.00%	\$1,980	6,600	30.00%	\$1,980	26,400	30.00%	\$7,920	\$15,840
Commerce Project Manager	45,600	30.00%	\$13,680	45,600	30.00%	\$13,680	45,600	30.00%	\$13,680	45,600	30.00%	\$13,680	114,000	30.00%	\$34,200	\$88,920
Commerce Project Support	34,000	30.00%	\$10,200	34,000	30.00%	\$10,200	34,000	30.00%	\$10,200	34,000	30.00%	\$10,200	71,400	30.00%	\$21,420	\$62,220
Transmission Planning Director	20,400	30.00%	\$6,120	20,400	30.00%	\$6,120	20,400	30.00%	\$6,120	20,400	30.00%	\$6,120	40,800	30.00%	\$12,240	\$36,720
Commerce Grants Administrator	32,500	30.00%	\$9,750	32,500	30.00%	\$9,750	32,500	30.00%	\$9,750	32,500	30.00%	\$9,750	162,510	30.00%	\$48,753	\$87,753
Total:	\$159,650		\$47,895	\$159,650		\$47,895	\$159,650		\$47,895	\$159,650		\$47,895	\$456,494		\$136,948	\$328,528

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <https://www.energy.gov/eere/funding/downloads/sample-indirect-rate-proposal-and-profit-compliance-audit>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Only travel that is directly associated with this award should be included as a direct travel cost to the award.
4. Federal travel regulations are contained within the applicable cost principles for all entity types.
5. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
6. Columns E, F, G, H, I, J, and K are per trip.
7. The number of days is inclusive of the day of departure and the day of return.
8. Recipients should enter City and State (or City and Country for International travel) in the Depart from and Destination fields.
9. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
Domestic Travel		Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 1 Total										\$0	
Domestic Travel		Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 2 Total										\$0	
Domestic Travel		Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 3 Total										\$0	
Domestic Travel		Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 4 Total										\$0	
Domestic Travel		Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
International Travel										\$0	
Budget Period 5 Total										\$0	
PROJECT TOTAL										\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a contractor quote for all equipment items over \$50,000 in price. If the contractor quote is not an exact price match, provide an explanation in the additional explanation section below. If a contractor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3,4,5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total						
				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total						
				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total						
				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total						
				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total						
				\$0		
TOTAL EQUIPMENT					\$0	

Additional Explanation (as needed):

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

- Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
- List all proposed supplies below, providing a basis of costs (e.g. contractor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
- Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
- Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE!!! Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
TOTAL SUPPLIES				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to sub-recipients, contractors, and FFRDC partners in the applicable boxes below.
2. Sub-recipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 25% of total award costs. These sub-recipient forms may be completed by either the sub-recipients themselves or by the preparer of this form. The budget totals on the sub-recipient's forms must match the sub-recipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. contractor status.
3. Contractors: List all contractors supplying commercial supplies or services used to support the project. For each Contractor cost with total project costs of \$100,000 or more, a Contractor quote must be provided. A contractor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. contractor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Sub-Recipient Unique Entity Identifier (UEI)	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2.4	EXAMPLE!!! XYZ Corp.		Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
1,2,3,4,5,6,7,8,9	Midcontinent Independent System Operator (MISO)	S3J7SZPY3CR2	Primary Sub-recipient DOE Budget Justification Workbook Provided	\$71,860,582	\$196,508,965	\$201,179,469	\$69,977,306	\$740,581,677	\$1,280,107,999
1,2,3,4,5,6,7,8,9	Southwest Power Pool (SPP)	XE8JMAKL9E93	Primary Sub-recipient DOE Budget Justification Workbook Provided	\$2,295,389	\$19,340,892	\$13,501,164	\$110,039,099	\$422,394,326	\$567,570,870
1,2,3,4,5,6,7,8,9	Great Plains Institute (GPI)	L33KNMTHJED6	Primary Sub-recipient DOE Budget Justification Workbook Provided - Partner will provide Grant project execution, monitoring and reporting support. Project partner will provide program coordination for stakeholder development and community engagement efforts.	\$1,274,237	\$487,464	\$638,196	\$837,800	\$4,828,643	\$8,066,340
									\$0
									\$0
									\$0
			Sub-total	\$75,430,208	\$216,337,321	\$215,318,829	\$180,854,205	\$1,167,804,646	\$1,855,745,209

SOPO Task #	Contractor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Contractor for developing robotics to perform lens inspection. Estimate provided by contractor.	\$32,900	\$86,500				\$119,400
								\$0
								\$0
								\$0
								\$0
								\$0
			Sub-total	\$0	\$0	\$0	\$0	\$0

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
								\$0
			Sub-total	\$0	\$0	\$0	\$0	\$0

Total Contractual	\$75,430,208	\$216,337,321	\$215,318,829	\$180,854,205	\$1,167,804,646	\$1,855,745,209
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Additional Explanation (as needed):

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a contractor or subrecipient should be entered under f. Contractual.

2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.

3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
TOTAL CONSTRUCTION		\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
1 thru 9	Statewide Finacial System Resource Allocated Costs	\$12,500		50 Financial Service Hours per year x \$250/hr
1 thru 9	Department Legal Service projected cost	\$12,500		50 Legal Service Hours per year x \$250/hr
Budget Period 1 Total		\$25,000		
Budget Period 2				
1 thru 9	Statewide Finacial System Resource Allocated Costs	\$12,500		50 Financial Service Hours per year x \$250/hr
1 thru 9	Department Legal Service projected cost	\$12,500		50 Legal Service Hours per year x \$250/hr
Budget Period 2 Total		\$25,000		
Budget Period 3				
1 thru 9	Statewide Finacial System Resource Allocated Costs	\$12,500		50 Financial Service Hours per year x \$250/hr
1 thru 9	Department Legal Service projected cost	\$12,500		50 Legal Service Hours per year x \$250/hr
Budget Period 3 Total		\$25,000		
Budget Period 4				
1 thru 9	Statewide Finacial System Resource Allocated Costs	\$12,500		50 Financial Service Hours per year x \$250/hr
1 thru 9	Department Legal Service projected cost	\$12,500		50 Legal Service Hours per year x \$250/hr
Budget Period 4 Total		\$25,000		
Budget Period 5				
1 thru 9	Statewide Finacial System Resource Allocated Costs	\$50,000		200 Financial Service Hours per year x \$250/hr (3yr)
1 thru 9	Department Legal Service projected cost	\$50,000		200 Legal Service Hours per year x \$250/hr (3yr)
Budget Period 5 Total		\$100,000		
1-		\$200,000		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim resulting cost as a Cost Share contribution, nor can the Recipient claim "unrecovered indirect costs" as a Cost Share contribution.** Neither of these costs can be reflected as actual indirect cost rates realized by the organization, and therefore are not verifiable in the Recipient records as required by Federal Regulation (200.306(b)(1))
- 5.. **Each budget period is rounded to the nearest dollar.**

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	10.20%	10.20%	10.20%	10.20%	10.20%		<i>Example: Labor + Fringe</i>
General & Administrative (G&A)	0.00%	0.00%	0.00%	0.00%	0.00%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs	\$98,720	\$98,720	\$98,720	\$98,720	\$145,731	\$540,609	
G&A Costs						\$0	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$98,720	\$98,720	\$98,720	\$98,720	\$145,731	\$540,609	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

- An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application and will be provided electronically to the Contracting Officer for this project.
- The organization does not have a current, federally approved indirect cost rate agreement and has provided an indirect rate proposal in support of the proposed costs.
- This organization has elected to apply a 10% de minimis rate in accordance with 2 CFR 200.414(f).

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total). Commerce's indirect rate agreement is attached to the application.

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. **Contractors may not provide cost share.** Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. **Contractors may not provide cost share.** Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
Midcontinent Independent System Operator (MISO)	Cash	Project partner MISO will provide a match of 50.3% for all personnel and contractor hours for the JTIQ project (for Personnel and Contractors) MISO will also contractually collect cost share from Project Partners (Sub recipients: OtterTail Power, ITC Midwest, Xcel and ITC Midwest) for 50.3% of total project costs	\$36,106,121	\$98,800,226	\$101,149,234	\$35,181,485	\$372,354,199	\$643,591,265
Southwest Power Pool (SPP)	Cash	Project partner SPP will provide a match of 50.3% for all personnel and contractor hours for the JTIQ project (for Personnel and Contractors) SPP will also contractually collect cost share from Project Partners (Sub recipients: Evergy and Omaha Public Power District) for 50.3% of total project costs	\$1,151,794	\$9,723,256	\$6,787,074	\$55,326,420	\$212,374,911	\$285,363,455
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		TOTAL COST SHARE	\$37,257,915	\$108,523,482	\$107,936,308	\$90,507,905	\$584,729,110	\$928,954,720

Total Project Cost: \$1,857,909,440

Cost Share Percent of Award:

50.0%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: Concept Paper-TA3_CP064_E

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		
1. Budget Period 1				\$38,503,558	\$37,257,915		\$75,761,473
2. Budget Period 2				\$108,145,104	\$108,523,482		\$216,668,586
3. Budget Period 3				\$107,713,786	\$107,936,308		\$215,650,094
4. Budget Period 4				\$90,677,565	\$90,507,905		\$181,185,470
5. Budget Period 5				\$583,914,709	\$584,729,110		\$1,168,643,819
6. Totals				\$928,954,720	\$928,954,720		\$1,857,909,442

Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	\$159,650	\$159,650	\$159,650	\$159,650	\$456,494	\$1,095,094	
b. Fringe Benefits	\$47,895	\$47,895	\$47,895	\$47,895	\$136,948	\$328,528	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	
e. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	
f. Contractual	\$75,430,208	\$216,337,321	\$215,318,829	\$180,854,205	\$1,167,804,646	\$1,855,745,209	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	
h. Other	\$25,000	\$25,000	\$25,000	\$25,000	\$100,000	\$200,000	
i. Total Direct Charges (sum of 6a-6h)	\$75,662,753	\$216,569,866	\$215,551,374	\$181,086,750	\$1,168,498,088	\$1,857,368,831	
j. Indirect Charges	\$98,720	\$98,720	\$98,720	\$98,720	\$145,731	\$540,609	
k. Totals (sum of 6i-6j)	\$75,761,473	\$216,668,586	\$215,650,094	\$181,185,470	\$1,168,643,819	\$1,857,909,440	
7. Program Income						\$0	

Instructions and Summary

Award Number: _____
Award Recipient: MN Department of Commerce

Date of Submission: 5/17/2023
Form submitted by: Everygy
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary								
		Federal	Cost Share			Total Costs	Cost Share %	Proposed Budget Period Dates
Budget Period 1		\$99,020	\$100,135			\$199,155	50.28%	6/1/2024-12/31/2024
Budget Period 2		\$1,278,831	\$1,293,234			\$2,572,065	50.28%	1/1/2025 - 12/31/2025
Budget Period 3		\$4,155,852	\$4,202,659			\$8,358,511	50.28%	1/1/2026 - 12/31/2026
Budget Period 4		\$13,357,344	\$13,507,789			\$26,865,133	50.28%	1/1/2027 - 12/31/2027
Budget Period 5		\$85,956,572	\$86,924,708			\$172,881,280	50.28%	1/1/2028 - 12/31/2031
Total		\$104,847,619	\$106,028,525			\$210,876,144	50.28%	
Section B - Budget Categories								
CATEGORY	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Costs	% of Project	Comments (as needed)
a. Personnel	\$55,672	\$239,927	\$256,702	\$866,940	\$1,144,438	\$2,563,679	1.22%	
b. Fringe Benefits	\$11,190	\$48,225	\$51,597	\$174,255	\$0	\$285,267	0.14%	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
d. Equipment	\$0	\$0	\$0	\$12,454,486	\$81,628,156	\$94,082,642	44.62%	
e. Supplies	\$0	\$0	\$5,295,150	\$5,295,150	\$9,264,742	\$19,855,042	9.42%	
f. Contractual								
Sub-recipient	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Vendor	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	44.46%	
FFRDC	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Contractual	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	44.46%	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
h. Other Direct Costs	\$0	\$0	\$0	\$0	\$0	\$0	0.00%	
Total Direct Costs	\$191,399	\$2,538,639	\$8,322,748	\$26,744,355	\$172,748,525	\$210,545,666	99.84%	
i. Indirect Charges	\$7,756	\$33,426	\$35,763	\$120,779	\$132,755	\$330,478	0.16%	
Total Costs	\$199,155	\$2,572,065	\$8,358,511	\$26,865,133	\$172,881,280	\$210,876,144	100.00%	

Additional Explanation (as needed):

a. Personnel

INSTRUCTIONS - PLEASE READ!!!
 1. List project costs solely for employees of the entity completing this form. All personnel costs for subrecipients and vendors must be included under f. Contractual.
 2. All personnel should be identified by position title and not employee name. Enter the amount of time (e.g., hours or % of time) and the base pay rate and the total direct personnel compensation will automatically calculate. Rate basis (e.g., actual salary, labor distribution report, state civil service rates, etc.) must also be identified.
 3. If loaded labor rates are utilized, a description of the costs the loaded rate is comprised of must be included in the Additional Explanation section below. DOE must review all components of the loaded labor rate for reasonableness and unallowable costs (e.g. fee or profit).
 4. If a position and hours are attributed to multiple employees (e.g. Technician working 4000 hours) the number of employees for that position title must be identified.
 5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Position Title	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5-8			Project Total Hours	Project Total Dollars	Rate Basis
		Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 1	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 2	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 3	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 4	Time (Hrs)	Pay Rate (\$/Hr)	Total Budget Period 5			
Task 1: Project Management & Planning																			
1.1	Project Manager			\$24,154			\$0			\$0			\$0				\$24,154	Mid point salary for position	
1.1	Analyst		(b) (4)	\$16,923			\$0			\$0			\$0				\$16,923	Mid point salary for position	
1.2	Permit and Compliance analyst II			\$3,246			\$0			\$0			\$0				\$3,246	Mid point salary for position	
1.2	Mgr T&S Permit & Civil			\$5,162			\$0			\$0			\$0				\$5,162	Mid point salary for position	
				\$0			\$0			\$0			\$0				\$0		
Task 2: Pre-FERC Approval for JTIQ cost allocation																			
	VP Planning			\$1,200			\$0			\$0			\$0				\$1,200	Mid point salary for position	
	VP Transmission & Substation			\$1,200			\$0			\$0			\$0				\$1,200	Mid point salary for position	
	Director Transmission & Substation			\$693			\$0			\$0			\$0				\$693	Mid point salary for position	
				\$0			\$0			\$0			\$0				\$0		
Task 3: Develop an energy literacy initiative framework																			
3.1	VP Planning			\$1,200			\$0			\$0			\$0				\$1,200	Mid point salary for position	
3.1	VP Transmission & Substation			\$1,200			\$0			\$0			\$0				\$1,200	Mid point salary for position	
3.1	Director Transmission & Substation			\$693			\$0			\$0			\$0				\$693	Mid point salary for position	
				\$0			\$0			\$0			\$0				\$0		
Task 4: Project Management & Planning																			
	Project Manager			\$0			\$6,038			\$6,038			\$0				\$12,077	Mid point salary for position	
	Analyst			\$0			\$4,231			\$4,231			\$0				\$8,462	Mid point salary for position	
	VP Planning			\$0			\$6,000			\$6,000			\$0				\$12,000	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 5: Develop energy literacy initiative strategy																			
	VP Planning			\$0			\$6,000			\$6,000			\$0				\$12,000	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 6: Workforce Development Plan																			
	VP Planning			\$0			\$6,000			\$6,000			\$0				\$12,000	Mid point salary for position	
Task 7: Stakeholder engagement for JTIQ Transmission Portfolio																			
	Sr Manager community Relations			\$0			\$6,977			\$6,977			\$0				\$13,954	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 8: JTIQ Portfolio routing and detailed design																			
	Project Manager			\$0			\$12,077			\$12,077			\$12,077				\$36,231	Mid point salary for position	
	Project Cost Analyst			\$0			\$25,385			\$25,385			\$0				\$76,154	Mid point salary for position	
	Sr Manager Real Estate Services			\$0			\$64,615			\$64,615			\$0				\$193,846	Mid point salary for position	
	Mgr Real Estate Services			\$0			\$16,775			\$16,775			\$0				\$67,100	Mid point salary for position	
	Manager Engineering Transmission			\$0			\$11,546			\$11,546			\$0				\$34,638	Mid point salary for position	
	Mgr T&S Permit & Civil			\$0			\$20,800			\$20,800			\$0				\$62,400	Mid point salary for position	
	Principal Engineer Transmission			\$0			\$30,969			\$30,969			\$0				\$92,908	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 9: JTIQ Portfolio regulatory approvals																			
	Regulatory Affairs Manager			\$0			\$11,546			\$11,546			\$0				\$23,092	Mid point salary for position	
	Lead Regulatory Analyst			\$0			\$9,223			\$9,223			\$0				\$18,446	Mid point salary for position	
	Sr Manager community Relations			\$0			\$1,744			\$1,744			\$0				\$3,488	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 10: Project Management and Planning																			
	Project Manager			\$0			\$0			\$0			\$12,077				\$12,077	Mid point salary for position	
	Project Cost Analyst			\$0			\$0			\$0			\$16,923				\$16,923	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0	Mid point salary for position	
Task 11: JTIQ Portfolio Construction																			
Line & Sub Activities																			
	Sr Manager community Relations			\$0			\$0			\$0			\$1,744				\$1,744	Mid point salary for position	
	Project Manager			\$0			\$0			\$0			\$125,600				\$376,800	Mid point salary for position	
	Project Cost Analyst			\$0			\$0			\$0			\$88,000				\$264,000	Mid point salary for position	
Auburn Hoyt Line (KS portion only)																			
	Manager Engineering Settings			\$0			\$0			\$0			\$0				\$0	Mid point salary for position	
	Manager Engineering Transmission			\$0			\$0			\$0			\$0				\$0	Mid point salary for position	
	Principal Engineer Settings			\$0			\$0			\$0			\$0				\$0	Mid point salary for position	
	Principal Engineer Transmission			\$0			\$0			\$0			\$0				\$0	Mid point salary for position	
	Lead Engineering Tech			\$0			\$0			\$0			\$9,223				\$18,446	Mid point salary for position	
	Sr Manager Real Estate Services			\$0			\$0			\$0			\$70,000				\$35,000	Mid point salary for position	
	Mgr Real Estate Services			\$0			\$0			\$0			\$134,200				\$67,100	Mid point salary for position	
	T&S Construction Supervisor			\$0			\$0			\$0			\$66,358				\$127,800	Mid point salary for position	
Substation Upgrades																			
	Mgr T&S Permit & Civil			\$0			\$0			\$0			\$2,600				\$2,600	Mid point salary for position	
	Manager Engineering Mechanical			\$0			\$0			\$0			\$2,887				\$2,887	Mid point salary for position	
	Manager Engineering P&C			\$0			\$0			\$0			\$2,887				\$2,887	Mid point salary for position	
	Manager Engineering Settings			\$0			\$0			\$0			\$2,887				\$2,887	Mid point salary for position	
	Principal Engineer Civil			\$0			\$0			\$0			\$10,323				\$20,646	Mid point salary for position	
	Principal Engineer Mechanical			\$0			\$0			\$0			\$10,323				\$20,646	Mid point salary for position	
	Principal Engineer P&C			\$0			\$0			\$0			\$10,323				\$20,646	Mid point salary for position	
	Principal Engineer Settings			\$0			\$0			\$0			\$10,323				\$20,646	Mid point salary for position	
	Principal Engineer Transmission			\$0			\$0			\$0			\$5,162				\$10,323	Mid point salary for position	
	Lead Engineering Tech			\$0			\$0			\$0			\$4,612				\$9,223	Mid point salary for position	
	T&S Construction Supervisor			\$0			\$0			\$0			\$63,900				\$127,800	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 12: Regional and national expansion of the energy literacy initiative																			
	Sr Manager community Relations			\$0			\$0			\$0			\$3,488				\$3,488	Mid point salary for position	
	VP Planning			\$0			\$0			\$0			\$12,000				\$12,000	Mid point salary for position	
	VP Transmission & Substation			\$0			\$0			\$0			\$12,000				\$12,000	Mid point salary for position	
	Director Transmission & Substation			\$0			\$0			\$0			\$6,935				\$6,935	Mid point salary for position	
				\$0		\$0.00	\$0			\$0			\$0				\$0		
Task 13: JTIQ Generator Interconnection Customer Subscription Evaluation																			
				\$0			\$0			\$0			\$0				\$0		
				\$0			\$0.00			\$0			\$0				\$0		
	Total Personnel Costs	848		\$55,672			\$239,927			\$256,702			\$866,940				\$1,144,438		
																		\$2,563,679	

Additional Explanation (as needed):

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!
 1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
 2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
 3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
 4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5-8			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
EXAMPLE!!! Sr. Engineer	\$170,000	20%	\$34,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$10,000	20%	\$2,000	\$38,000
Total Personnel	\$ 55,671.54	20.10%	\$11,190	\$ 239,926.92	20.10%	\$48,225	\$ 256,701.92	20.10%	\$51,597	\$ 866,940.38	20.10%	\$174,255	\$ 1,144,438.46	20.10%	\$230,032	\$515,300
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$55,672		\$11,190	\$239,927		\$48,225	\$256,702		\$51,597	\$866,940		\$174,255	\$1,144,438		\$0	\$285,267

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
1	EXAMPLE!!! Visit to PV manufacturer			2	2	\$250	\$500	\$100	\$160	\$2,020	Current GSA rates
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
3										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5-8									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel									\$0	
										\$0	
	Budget Period 5-8 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

d. Equipment

INSTRUCTIONS - PLEASE READ!!!
 1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
 2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
 3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
 4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3.4.5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3
Budget Period 1 Total				\$0		
Budget Period 2						
Budget Period 2 Total				\$0		
Budget Period 3						
Budget Period 3 Total				\$0		
Budget Period 4						
Sibley Substation Modifications				\$0		
	Cable				Estimate based on current information	Material to construct the project
	Communications - Misc			(b) (4)	Estimate based on current information	Material to construct the project
	Communications - Wave Trap Equipment				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Bolted Fittings (Stranded Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Compression Fittings (Tubular Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Strain Bus Conductor				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Tubing				Estimate based on current information	Material to construct the project
	Control Building				Estimate based on current information	Material to construct the project
	Engineering				Estimate based on current information	Material to construct the project
	Foundations				Estimate based on current information	Material to construct the project
	Grounding				Estimate based on current information	Material to construct the project
	Insulators & Hardware				Estimate based on current information	Material to construct the project
	Metering and Relay PTs/CTs				Estimate based on current information	Material to construct the project
	Protective Devices - Lightning Arrestors				Estimate based on current information	Material to construct the project
	Relays and Switchboard Devices				Estimate based on current information	Material to construct the project
	Security				Estimate based on current information	Material to construct the project
	Site Design				Estimate based on current information	Material to construct the project
	Structural Steel				Estimate based on current information	Material to construct the project
	Substation Battery				Estimate based on current information	Material to construct the project
	Switching Equipment - AB Switches, GOABs				Estimate based on current information	Material to construct the project
	Switching Equipment - Circuit Breakers				Estimate based on current information	Material to construct the project
	Wiring Supplies				Estimate based on current information	Material to construct the project
	Yard Lighting				Estimate based on current information	Material to construct the project
	Yard Load Centers/Junction Boxes				Estimate based on current information	Material to construct the project
Budget Period 4 Total				\$12,454,486		
Budget Period 5-8						
SUBSTATION - Hoyt modifications				\$0		
	Cable				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Bolted Fittings (Stranded Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Compression Fittings (Stranded Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Compression Fittings (Tubular Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Strain Bus Conductor				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Tubing				Estimate based on current information	Material to construct the project
	Foundations				Estimate based on current information	Material to construct the project
	Grounding				Estimate based on current information	Material to construct the project
	Insulators & Hardware				Estimate based on current information	Material to construct the project
	Metering and Relay PTs/CTs				Estimate based on current information	Material to construct the project
	Misc Substation Equipment				Estimate based on current information	Material to construct the project
	Protective Devices - Lightning Arrestors				Estimate based on current information	Material to construct the project
	Relays and Switchboard Devices				Estimate based on current information	Material to construct the project
	Structural Steel				Estimate based on current information	Material to construct the project
	Supervisory Equipment				Estimate based on current information	Material to construct the project
	Switching Equipment - AB Switches, GOABs				Estimate based on current information	Material to construct the project
	Switching Equipment - Circuit Breakers				Estimate based on current information	Material to construct the project
	Wiring Supplies				Estimate based on current information	Material to construct the project
	Yard Load Centers/Junction Boxes				Estimate based on current information	Material to construct the project
TRANSMISSION LINE Hoyt - Nebraska line						
	Steel Poles / Structures & Anchor Bolts				Estimate based on current information	Material to construct the project
	Conductor				Estimate based on current information	Material to construct the project
	Insulators & Hardware				Estimate based on current information	Material to construct the project
	OPGW / Shield Wire				Estimate based on current information	Material to construct the project
Sibley Substation Modifications						
	Cable				Estimate based on current information	Material to construct the project
	Communications - Misc				Estimate based on current information	Material to construct the project
	Communications - Wave Trap Equipment				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Bolted Fittings (Stranded Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Compression Fittings (Tubular Bus)				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Strain Bus Conductor				Estimate based on current information	Material to construct the project
	Conductor and Fittings - Tubing				Estimate based on current information	Material to construct the project
	Control Building				Estimate based on current information	Material to construct the project
	Engineering				Estimate based on current information	Material to construct the project
	Foundations				Estimate based on current information	Material to construct the project
	Grounding				Estimate based on current information	Material to construct the project
	Insulators & Hardware				Estimate based on current information	Material to construct the project
	Metering and Relay PTs/CTs				Estimate based on current information	Material to construct the project
	Protective Devices - Lightning Arrestors				Estimate based on current information	Material to construct the project
	Relays and Switchboard Devices				Estimate based on current information	Material to construct the project
	Security				Estimate based on current information	Material to construct the project
	Site Design				Estimate based on current information	Material to construct the project
	Structural Steel				Estimate based on current information	Material to construct the project
	Substation Battery				Estimate based on current information	Material to construct the project
	Switching Equipment - AB Switches, GOABs				Estimate based on current information	Material to construct the project
	Switching Equipment - Circuit Breakers				Estimate based on current information	Material to construct the project
	Wiring Supplies				Estimate based on current information	Material to construct the project
	Yard Lighting				Estimate based on current information	Material to construct the project
	Yard Load Centers/Junction Boxes				Estimate based on current information	Material to construct the project
Sibley TRANSMISSION LINE PROCUREMENT						
	Steel Poles / Structures & Anchor Bolts				Estimate based on current information	Material to construct the project
	Conductor				Estimate based on current information	Material to construct the project
	Insulators & Hardware				Estimate based on current information	Material to construct the project
	OPGW / Shield Wire				Estimate based on current information	Material to construct the project
Budget Period 5-8 Total				\$81,628,156		
PROJECT TOTAL				\$94,082,642		

Additional Explanation (as needed): All material based on estimating template used for all of our projects. Final values will not be known until a detailed design is completed.

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

- Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
- List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
- Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
- Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
	(b) (4)			(b) (4)		
Budget Period 3 Total				\$5,295,150		
Budget Period 4						
Budget Period 4 Total				\$5,295,150		
Budget Period 5-8						
	Transmission Line Construction					
	Access - Gates, Culverts, etc. Auburn - Hoyt					
	Access Matting - Auburn - Hoyt					
	Damage Settlement Payments					
	Access Matting - Sibley					
	Access - Gates, Culverts, etc. Sibley					
Budget Period 5-8 Total				\$9,264,742		
PROJECT TOTAL				\$19,855,042		

Additional Explanation (as needed): All supply estimates based on estimating template used for all of our projects. Final values will not be known until a detailed design is completed.

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

- The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
- Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
- Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
- Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
- Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
Sub-total			\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total	
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400	
								\$0	
	TBD	Vendor for Auburn - Hoyt routing study. Estimate based on past experience	(b) (4)						
	TBD	Vendor for Engineering & Permitting Services Transmission Line Design - Auburn - Hoyt							
	TBD	Vendor for Land Surveying and Pot Holing - Auburn - Hoyt							
	TBD	Vendor Aerial Surveying for Transmisison line Auburn - Hoyt							
	TBD	Vendor Geotechnical Investigations for Transmission line - Auburn - Hoyt							
	TBD	Vendor for acquing easements. Auburn - Hoyt Estimate based on past experience							
		Vendor Contract Agents to settle damage claims Auburn - Hoyt							
	TBD	Vendor for vegetation clearing - Auburn - Hoyt							
	TBD	Vendor for construction of Auburn - Hoyt transmisison line. Estimate based on past experience							
	TBD	Vendor for Construction Mgt Auburn - Hoyt							
	TBD	Vendor for construction of Hoyt substation modifications. Estimate based on past experience							
	TBD	Vendor for Engineering services to design Hoyt substation modifications							
	TBD	Vendor to settle Damage claims for Transmission Line - Auburn - Hoyt							
	TBD	Vendor for vegetation clearing - Sibley							
	TBD	Vendor for Line Construction - Sibley							
	TBD	Vendor for Construction Sibley Substation							
		Vendor Engineering of Sibley Substation							
Sub-total			\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Project Total
								\$0
Sub-total			\$0	\$0	\$0	\$0	\$0	\$0

Total Contractual			\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036
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Additional Explanation (as needed): All Contractual values are based on estimating template used for all of our projects. Final values will not be known until a detailed design is complete and bid. These are our best engineering estimates at this time.

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5-8				
	Budget Period 5-8 Total	\$0		
	PROJECT TOTAL	\$0		

Additional Explanation (as needed):

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5-8				
Budget Period 5 - 8 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5-8	Total	Explanation of BASE
Provide ONLY Applicable Rates:							
Overhead Rate	11.00%	11.00%	11.00%	11.00%	11.00%		
General & Administrative (G&A)	0.60%	0.60%	0.60%	0.60%	0.60%		
FCCM Rate, if applicable	0.00%	0.00%	0.00%	0.00%	0.00%		
OTHER Indirect Rate	0.00%	0.00%	0.00%	0.00%	0.00%		
Indirect Costs (As Applicable):							
Overhead Costs	\$7,355	\$31,697	\$33,913	\$114,531	\$125,888	\$313,384	
G&A Costs	\$401	\$1,729	\$1,850	\$6,247	\$6,867	\$17,094	
FCCM Costs, if applicable						\$0	
OTHER Indirect Costs						\$0	
Total indirect costs requested:	\$7,756	\$33,426	\$35,763	\$120,779	\$132,755	\$330,478	

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

All Budget Periods are calculated as follows:

Total BP1 Indirect Costs requested equals = BP1 Total Personnel: (E80, worksheet A) + BP1 Fringe: (D12, worksheet b) + BP1 Travel: (K12, worksheet c) + BP1 Other: (C9, worksheet h) x indirect Rate of 11.5%

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. **Each budget period is rounded to the nearest dollar.**

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600
Evergy	Cash	All	\$100,135	\$1,293,234	\$4,202,659	\$13,507,789	\$86,924,708	\$106,028,525
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
								\$0
		Totals	\$100,135	\$1,293,234	\$4,202,659	\$13,507,789	\$86,924,708	\$106,028,525

Total Project Cost: \$210,876,144

Cost Share Percent of Award:

50.3%

Additional Explanation (as needed):

Applicant Name: MN Department of Commerce Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		
1. Budget Period 1				\$99,020	\$100,135		\$199,155
2. Budget Period 2				\$1,278,831	\$1,293,234		\$2,572,065
3. Budget Period 3				\$4,155,852	\$4,202,659		\$8,358,511
4. Budget Period 4				\$13,357,344	\$13,507,789		\$26,865,133
5. Budget Period 5				\$85,956,572	\$86,924,708		\$172,881,280
6. Totals				\$104,847,619	\$106,028,525		\$210,876,144
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	\$55,672	\$239,927	\$256,702	\$866,940	\$1,144,438	\$2,563,679	
b. Fringe Benefits	\$11,190	\$48,225	\$51,597	\$174,255	\$0	\$285,267	
c. Travel	\$0	\$0	\$0	\$0	\$0	\$0	
d. Equipment	\$0	\$0	\$0	\$12,454,486	\$81,628,156	\$94,082,642	
e. Supplies	\$0	\$0	\$5,295,150	\$5,295,150	\$9,264,742	\$19,855,042	
f. Contractual	\$124,538	\$2,250,487	\$2,719,299	\$7,953,524	\$80,711,188	\$93,759,036	
g. Construction	\$0	\$0	\$0	\$0	\$0	\$0	
h. Other	\$0	\$0	\$0	\$0	\$0	\$0	
i. Total Direct Charges (sum of 6a-6h)	\$191,399	\$2,538,639	\$8,322,748	\$26,744,355	\$172,748,525	\$210,545,666	
j. Indirect Charges	\$7,756	\$33,426	\$35,763	\$120,779	\$132,755	\$330,478	
k. Totals (sum of 6i-6j)	\$199,155	\$2,572,065	\$8,358,511	\$26,865,133	\$172,881,280	\$210,876,144	
7. Program Income						\$0	

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SF-424A (Rev. 4-92)
Prescribed by OMB Circular A-102

Instructions and Summary

Award Number: _____
Award Recipient: MN Department of Commerce

Date of Submission: 5/19/2023
Form submitted by: ITC Midwest
(May be award recipient or sub-recipient)

Please read the instructions on each worksheet tab before starting. If you have any questions, please ask your DOE contact!

1. If using this form for award application, negotiation, or budget revision, fill out the blank white cells in workbook tabs a. through j. with total project costs. If using this form for invoice submission, fill out tabs a. through j. with total costs for just the proposed invoice and fill out tab k. per the instructions on that tab.
2. Blue colored cells contain instructions, headers, or summary calculations and should not be modified. Only blank white cells should be populated.
3. Enter detailed support for the project costs identified for each Category line item within each worksheet tab to autopopulate the summary tab.
4. The total budget presented on tabs a. through i. must include both Federal (DOE) and Non-Federal (cost share) portions.
5. All costs incurred by the preparer's sub-recipients, vendors, and Federal Research and Development Centers (FFRDCs), should be entered only in section f. Contractual. All other sections are for the costs of the preparer only.
6. Ensure all entered costs are allowable, allocable, and reasonable in accordance with the administrative requirements prescribed in 2 CFR 200, and the applicable cost principles for each entity type: FAR Part 31 for For-Profit entities; and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
7. Add rows as needed throughout tabs a. through j. If rows are added, formulas/calculations may need to be adjusted by the preparer. Do not add rows to the Instructions and Summary tab. If your project contains more than five budget periods, consult your DOE contact before adding additional budget period rows or columns.
8. **ALL budget period cost categories are rounded to the nearest dollar.**

BURDEN DISCLOSURE STATEMENT

Public reporting burden for this collection of information is estimated to average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of Information Resources Management Policy, Plans, and Oversight, AD-241-2 - GTN, Paperwork Reduction Project (1910-5162), U.S. Department of Energy 1000 Independence Avenue, S.W., Washington, DC 20585; and to the Office of Management and Budget, Paperwork Reduction Project (1910-5162), Washington, DC 20503.

SUMMARY OF BUDGET CATEGORY COSTS PROPOSED

The values in this summary table are from entries made in subsequent tabs, only blank white cells require data entry

Section A - Budget Summary		Federal	Cost Share		Total Costs	Cost Share %	Proposed Budget Period Dates
							01/01/2024 - 12/31/2024
							01/01/2025 - 12/31/2025
							01/01/2026 - 12/31/2026
							01/01/2027 - 12/31/2027
							01/01/2028 - 12/31/2031
Section B - Budget Categories	CATEGORY						Comments (as needed)
	a. Personnel						
	b. Fringe Benefits						
	c. Travel						
	d. Equipment						Xcel Energy estimate based on Material Cost per Mile for 345kV Single Circuit
	e. Supplies						
	f. Contractual						
	Sub-recipient						
	Vendor						
	FFRDC						
	Total Contractual						
	g. Construction						Xcel Energy estimate based on Labor Cost per Mile for 345kV Single Circuit
	h. Other Direct Costs						
	Total Direct Costs						
	i. Indirect Charges						
	Total Cost						

(b) (4)

Construction costs are lumped together within the workbook's "Budget Period 5", which actually reflects period 5 - 8 per the Statement of Project Objectives (SOPO).

Given that the Brookings County – Lakefield project to be shared 50/50 between Xcel and ITCMW is planned, but not approved, ITCMW has not developed a detailed project-specific estimate. The project cost estimate used as source information to populate ITCMW's Budget Workbook was developed by ITCMW's project partner, Xcel Energy, and utilizes Xcel Energy-specific cost information. ITC Midwest has reviewed the project estimate and it appears to be reasonable, particularly given the limited information currently available to either ITCMW or Xcel. ITCMW projects that ITCMW's project costs are unlikely to materially deviate from the joint project cost estimate used to inform this Budget Workbook. Please note, however, that personnel and indirect cost may vary between the two companies to account for differences in internal approaches.

b. Fringe Benefits

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below by position title. If all employees receive the same fringe benefits, you can show "Total Personnel" in the Labor Type column instead of listing out all position titles.
2. The rates and how they are applied should not be averaged to get one fringe cost percentage. Complex calculations should be described/provided in the Additional Explanation section below.
3. The fringe benefit rates should be applied to all positions, regardless of whether those funds will be supported by Federal Share or Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

Labor Type	Budget Period 1			Budget Period 2			Budget Period 3			Budget Period 4			Budget Period 5			Total Project
	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	Personnel Costs	Rate	Total	
(b) (4)																
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
			\$0			\$0			\$0			\$0			\$0	\$0
Total:	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0		\$0	\$0

A federally approved fringe benefit rate agreement, or a proposed rate supported and agreed upon by DOE for estimating purposes is required at the time of award negotiation if reimbursement for fringe benefits is requested. Please check (X) one of the options below and provide the requested information if not previously submitted.

A fringe benefit rate has been negotiated with, or approved by, a federal government agency. A copy of the latest rate agreement is/was included with the project application.*

There is not a current federally approved rate agreement negotiated and available.**

*Unless the organization has submitted an indirect rate proposal which encompasses the fringe pool of costs, please provide the organization's benefit package and/or a list of the components/elements that comprise the fringe pool and the cost or percentage of each component/element allocated to the labor costs identified in the Budget Justification (Form EERE 335.1).

**When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided in the Sample Rate Proposal at <http://www1.eere.energy.gov/financing/resources.html>, or a format that provides the same level of information and which will support the rates being proposed for use in the performance of the proposed project.

Additional Explanation (as necessary): Please use this box (or an attachment) to list the elements that comprise your fringe benefits and how they are applied to your base (e.g. Personnel) to arrive at your fringe benefit rate.

Fringe costs are captured within the pay rate reflected in the 'a. Personnel' worksheet. Those pay rates reflect the loaded cost of each employee, including compensation and health benefit programs that ITC provides it's employees. Compensation for employees is made up of a combination of base salary, short-term incentive and long-term incentive pay structures. In addition, ITC offers a comprehensive package of health benefits for all of our employees.

c. Travel

INSTRUCTIONS - PLEASE READ!!!

1. Identify Foreign and Domestic Travel as separate items. Examples of Purpose of Travel are subrecipient site visits, DOE meetings, project mgmt. meetings, etc. Examples of Basis for Estimating Costs are past trips, travel quotes, GSA rates, etc.
2. All listed travel must be necessary for performance of the Statement of Project Objectives.
3. Federal travel regulations are contained within the applicable cost principles for all entity types. Travel costs should remain consistent with travel costs incurred by an organization during normal business operations as a result of the organizations written travel policy. In absence of a written travel policy, organizations must follow the regulations prescribed by the General Services Administration.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Purpose of Travel	Depart From	Destination	No. of Days	No. of Travelers	Lodging per Traveler	Flight per Traveler	Vehicle per Traveler	Per Diem Per Traveler	Cost per Trip	Basis for Estimating Costs
	Domestic Travel	Budget Period 1									
(b) (4)										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 1 Total									\$0	
	Domestic Travel	Budget Period 2									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 2 Total									\$0	
	Domestic Travel	Budget Period 3									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 3 Total									\$0	
	Domestic Travel	Budget Period 4									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 4 Total									\$0	
	Domestic Travel	Budget Period 5									
										\$0	
										\$0	
										\$0	
										\$0	
	International Travel										
										\$0	
	Budget Period 5 Total									\$0	
	PROJECT TOTAL									\$0	

Additional Explanation (as needed):

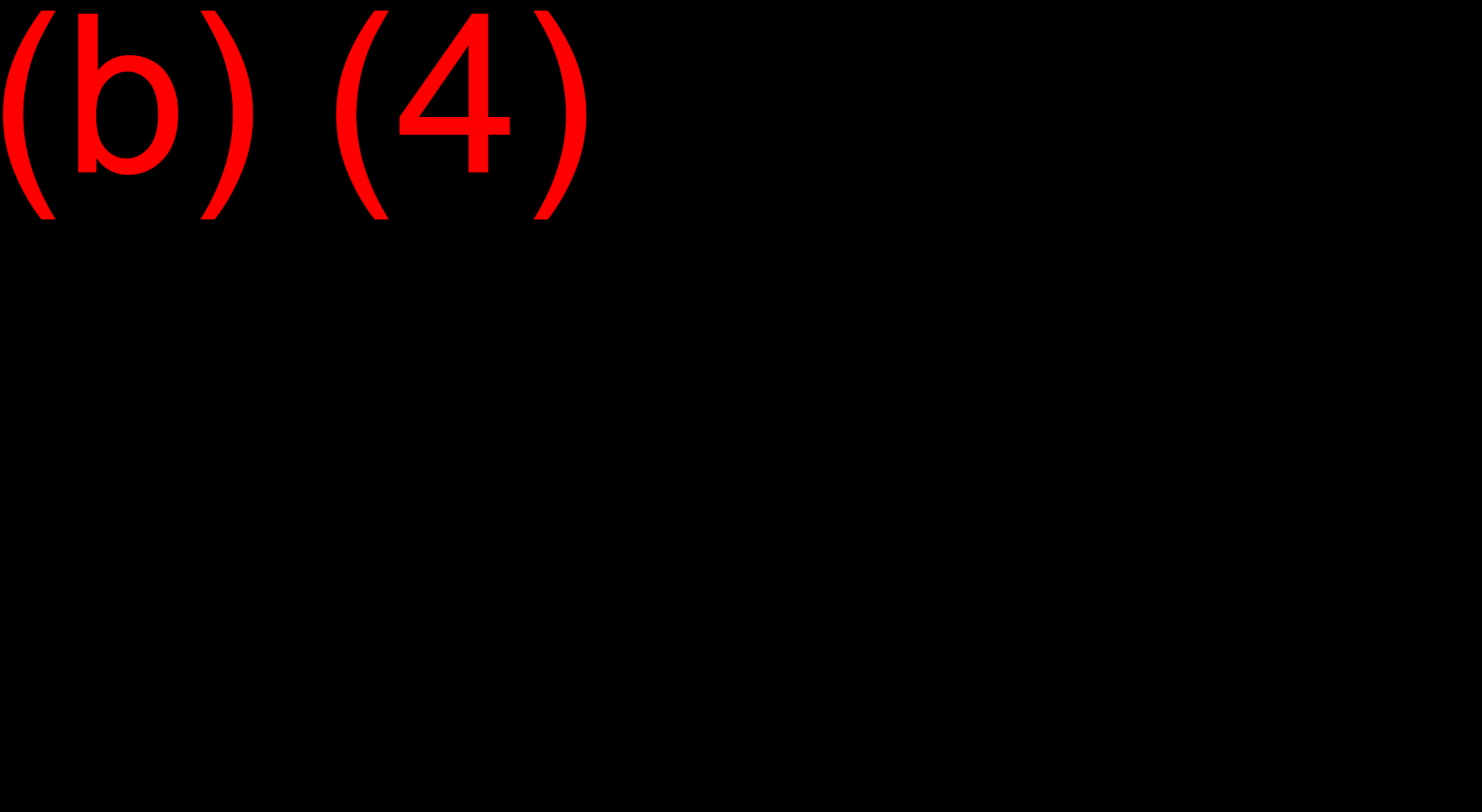
ITC Midwest does not expect travel expenses required for this project. This is in our local electric service territory.

d. Equipment

INSTRUCTIONS - PLEASE READ!!!

1. Equipment is generally defined as an item with an acquisition cost greater than \$5,000 and a useful life expectancy of more than one year. Please refer to the applicable Federal regulations in 2 CFR 200 for specific equipment definitions and treatment.
2. List all equipment below, providing a basis of cost (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify items as they apply to the Statement of Project Objectives. If it is existing equipment, provide logical support for the estimated value shown.
3. During award negotiations, provide a vendor quote for all equipment items over \$50,000 in price. If the vendor quote is not an exact price match, provide an explanation in the additional explanation section below. If a vendor quote is not practical, such as for a piece of equipment that is purpose-built, first of its kind, or otherwise not available off the shelf, provide a detailed engineering estimate for how the cost estimate was derived.
4. Each budget period is rounded to the nearest dollar.

SOPO Task #	Equipment Item	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
3.4.5	EXAMPLE!!! Thermal shock chamber	2	\$70,000	\$140,000	Vendor Quote - Attached	Reliability testing of PV modules- Task 4.3



Additional Explanation (as needed):

Given that the Brookings County – Lakefield project to be shared 50/50 between Xcel and ITCMW is planned, but not approved, ITCMW has not developed a detailed project-specific estimate. The project cost estimate used as source information to populate ITCMW’s Budget Workbook was developed by ITCMW’s project partner, Xcel Energy, and utilizes Xcel Energy-specific cost information. ITC Midwest has reviewed the project estimate and it appears to be reasonable, particularly given the limited information currently available to either ITCMW or Xcel. ITCMW projects that ITCMW’s project costs are unlikely to materially deviate from the joint project cost estimate used to inform this Budget Workbook

e. Supplies

INSTRUCTIONS - PLEASE READ!!!

1. Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance. Please refer to the applicable Federal regulations in 2 CFR 200 for specific supplies definitions and treatment.
2. List all proposed supplies below, providing a basis of costs (e.g. vendor quotes, catalog prices, prior invoices, etc.). Briefly justify the need for the Supplies as they apply to the Statement of Project Objectives. Note that Supply items must be direct costs to the project at this budget category, and not duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.
3. Multiple supply items valued at \$5,000 or less used to assemble an equipment item with a value greater than \$5,000 with a useful life of more than one year should be included on the equipment tab. If supply items and costs are ambiguous in nature, contact your DOE representative for proper categorization.
4. Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Category of Supplies	Qty	Unit Cost	Total Cost	Basis of Cost	Justification of need
Budget Period 1						
4,6	EXAMPLE!!! Wireless DAS components	10	\$360.00	\$3,600	Catalog price	For Alpha prototype - Task 2.4
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 1 Total				\$0		
Budget Period 2						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 2 Total				\$0		
Budget Period 3						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 3 Total				\$0		
Budget Period 4						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 4 Total				\$0		
Budget Period 5						
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
				\$0		
Budget Period 5 Total				\$0		
PROJECT TOTAL				\$0		

Additional Explanation (as needed):

f. Contractual

INSTRUCTIONS - PLEASE READ!!!

1. The entity completing this form must provide all costs related to subrecipients, vendors, and FFRDC partners in the applicable boxes below.
2. Subrecipients (partners, sub-awardees): Subrecipients shall submit a Budget Justification describing all project costs and calculations when their total proposed budget exceeds either (1) \$100,000 or (2) 50% of total award costs. These subrecipient forms may be completed by either the subrecipients themselves or by the preparer of this form. The budget totals on the subrecipient's forms must match the subrecipient entries below. A subrecipient is a legal entity to which a subaward is made, who has performance measured against whether the objectives of the Federal program are met, is responsible for programmatic decision making, must adhere to applicable Federal program compliance requirements, and uses the Federal funds to carry out a program of the organization. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
3. Vendors (including contractors): List all vendors and contractors supplying commercial supplies or services used to support the project. For each Vendor cost with total project costs of \$250,000 or more, a Vendor quote must be provided. A vendor is a legal entity contracted to provide goods and services within normal business operations, provides similar goods or services to many different purchasers, operates in a competitive environment, provides goods or services that are ancillary to the operation of the Federal program, and is not subject to compliance requirements of the Federal program. All characteristics may not be present and judgment must be used to determine subrecipient vs. vendor status.
4. Federal Funded Research and Development Centers (FFRDCs): FFRDCs must submit a signed Field Work Proposal during award application. The award recipient may allow the FFRDC to provide this information directly to DOE, however project costs must also be provided below.
5. Each budget period is rounded to the nearest dollar.

SOPO Task #	Sub-Recipient Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
2,4	EXAMPLE!!! XYZ Corp.	Partner to develop optimal lens for Gen 2 product. Cost estimate based on personnel hours.	\$48,000	\$32,000	\$16,000			\$96,000
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	Vendor Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
6	EXAMPLE!!! ABC Corp.	Vendor for developing robotics to perform lens inspection. Estimate provided by vendor.	\$32,900	\$86,500				\$119,400
								\$0
								\$0
								\$0
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

SOPO Task #	FFRDC Name/Organization	Purpose and Basis of Cost	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Project Total
								\$0
								\$0
		Sub-total	\$0	\$0	\$0	\$0	\$0	\$0

	Total Contractual	\$0	\$0	\$0	\$0	\$0	\$0
--	--------------------------	-----	-----	-----	-----	-----	-----

Additional Explanation (as needed):

Construction costs will utilize contractors, however the engagement of ITC Midwest's contractors will not begin until the project is approved by MISO through the MTEP process. The estimates are thus included in the g. Construction worksheet for now.

g. Construction

PLEASE READ!!!

1. Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient should be entered under f. Contractual.
2. List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.
3. Each budget period is rounded to the nearest dollar.

Overall description of construction activities: Example Only!!! - Build wind turbine platform

SOPO Task #	General Description	Cost	Basis of Cost	Justification of need
Budget Period 1				
3	EXAMPLE ONLY!!! Three days of excavation for platform site	\$28,000	Engineering estimate	Site must be prepared for construction of platform.
	Budget Period 1 Total	\$0		
Budget Period 2				
	Budget Period 2 Total	\$0		
Budget Period 3				
	Budget Period 3 Total	\$0		
Budget Period 4				
	Budget Period 4 Total	\$0		
Budget Period 5				
11	Project engineering and construction cost	\$128,862,793	Xcel Energy estimate based on historic values + cost per mile estimates	Captures all aspects of construction costs
	Budget Period 5 Total	(b) (4)		
	PROJECT TOTAL	(b) (4)		

Additional Explanation (as needed):

Given that the Brookings County – Lakefield project to be shared 50/50 between Xcel and ITCMW is planned, but not approved, ITCMW has not developed a detailed project-specific estimate. The project cost estimate used as source information to populate ITCMW’s Budget Workbook was developed by ITCMW’s project partner, Xcel Energy, and utilizes Xcel Energy-specific cost information. ITC Midwest has reviewed the project estimate and it appears to be reasonable, particularly given the limited information currently available to either ITCMW or Xcel. ITCMW projects that ITCMW’s project costs are unlikely to materially deviate from the joint project cost estimate used to inform this Budget Workbook

h. Other Direct Costs

INSTRUCTIONS - PLEASE READ!!!

1. Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs must not be included in the indirect costs (for which the indirect rate is being applied for this project). Examples are: tuition, printing costs, etc. which can be directly charged to the project and are not duplicated in indirect costs (overhead costs).
2. Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.
3. Each budget period is rounded to the nearest dollar.

SOPO Task #	General Description and SOPO Task #	Cost	Basis of Cost	Justification of need
Budget Period 1				
5	EXAMPLE!!! Grad student tuition - tasks 1-3	\$16,000	Established UCD costs	Support of graduate students working on project
Budget Period 1 Total		\$0		
Budget Period 2				
Budget Period 2 Total		\$0		
Budget Period 3				
Budget Period 3 Total		\$0		
Budget Period 4				
Budget Period 4 Total		\$0		
Budget Period 5				
Budget Period 5 Total		\$0		
PROJECT TOTAL		\$0		

Additional Explanation (as needed):

i. Indirect Costs

INSTRUCTIONS - PLEASE READ!!!

1. Fill out the table below to indicate how your indirect costs are calculated. Use the box below to provide additional explanation regarding your indirect rate calculation.
2. The rates and how they are applied should not be averaged to get one indirect cost percentage. Complex calculations or rates that do not correspond to the below categories should be described/provided in the Additional Explanation section below. If questions exist, consult with your DOE contact before filling out this section.
3. The indirect rate should be applied to both the Federal Share and Recipient Cost Share.
4. Each budget period is rounded to the nearest dollar.

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total	Explanation of BASE
Provide ONLY Applicable Rates:	(b) (4)						
Overhead Rate							
General & Administrative (G&A)							
FCCM Rate, if applicable							
OTHER Indirect Rate							
Indirect Costs (As Applicable):	(b) (4)						
Overhead Costs							
G&A Costs							
FCCM Costs, if applicable							
OTHER Indirect Costs							
Total indirect costs requested:							

A federally approved indirect rate agreement, or rate proposed (supported and agreed upon by DOE for estimating purposes) is required if reimbursement of indirect costs is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed.

An indirect rate has been approved or negotiated with a federal government agency. A copy of the latest rate agreement is included with this application, and will be provided electronically to the Contracting Officer for this project.

There is not a current, federally approved rate agreement negotiated and available*.

*When this option is checked, the entity preparing this form shall submit an indirect rate proposal in the format provided by your DOE contact, or a format that provides the same level of information and which will support the rates being proposed for use in performance of the proposed project. Additionally, any non-Federal entity that has never received a negotiated indirect cost rate, except for those non-Federal entities described in Appendix VII to Part 200—States and Local Government and Indian Tribe Indirect Cost Proposals, paragraph D.1.b, may elect to charge a de minimis rate of 10% of modified total direct costs (MTDC) which may be used indefinitely. As described in §200.403 Factors affecting allowability of costs, costs must be consistently charged as either indirect or direct costs, but may not be double charged or inconsistently charged as both. If chosen, this methodology once elected must be used consistently for all Federal awards until such time as a non-Federal entity chooses to negotiate for a rate, which the non-Federal entity may apply to do at any time.

You must provide an explanation (below or in a separate attachment) and show how your indirect cost rate was applied to this budget in order to come up with the indirect costs shown.

Additional Explanation (as needed): *IMPORTANT: Please use this box (or an attachment) to further explain how your total indirect costs were calculated. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total).

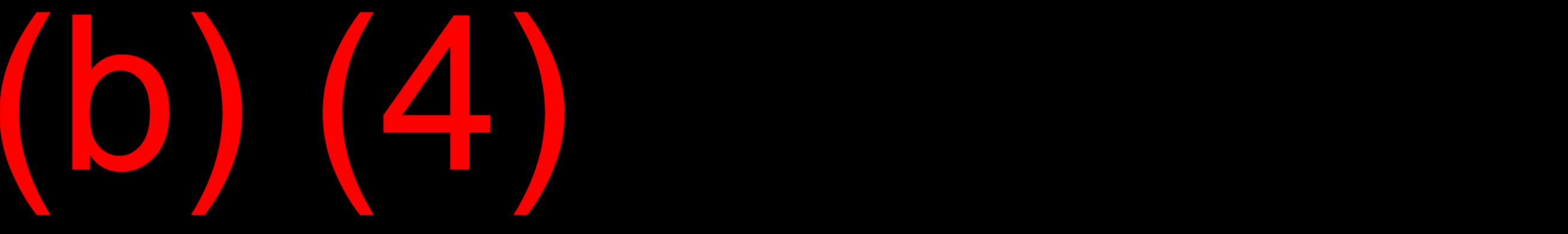
ITC Midwest's indirect costs are calculated using an internal factor on the direct costs. This is an estimate determined over many years of experience building transmission projects across the United States. The indirect cost rate (all applied to the "overhead rate" above) includes capitalized funds used during construction and costs related to the project but not directly chargeable to the specific job. Those include personnel support costs (general & administrative expenses), payroll taxes, and retirement plans.

Cost Share

PLEASE READ!!!

1. A detailed presentation of the cash or cash value of all cost share proposed must be provided in the table below. All items in the chart below must be identified within the applicable cost category tabs a. through i. in addition to the detailed presentation of the cash or cash value of all cost share proposed provided in the table below. Identify the source organization & amount of each cost share item proposed in the award.
2. Cash Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) for costs incurred and paid for during the project. This includes when an organization pays for personnel, supplies, equipment, etc. for their own company with organizational resources. If the item or service is reimbursed for, it is cash cost share. All cost share items must be necessary to the performance of the project. Any partial donation of goods or services is considered a discount and is not allowable.
3. In Kind Cost Share - encompasses all contributions to the project made by the recipient, subrecipient, or third party (an entity that does not have a role in performing the scope of work) where a value of the contribution can be readily determined, verified and justified but where no actual cash is transacted in securing the good or service comprising the contribution. In Kind cost share items include volunteer personnel hours, the donation of space or use of equipment, etc. The cash value and calculations thereof for all In Kind cost share items must be justified and explained in the Cost Share Item section below. All cost share items must be necessary to the performance of the project. If questions exist, consult your DOE contact before filling out In Kind cost share in this section. Vendors may not provide cost share. Any partial donation of goods or services is considered a discount and is not allowable.
4. Funds from other Federal sources MAY NOT be counted as cost share. This prohibition includes FFRDC sub-recipients. Non-Federal sources include any source not originally derived from Federal funds. Cost sharing commitment letters from subrecipients and third parties must be provided with the original application.
5. Fee or profit, including foregone fee or profit, **are not allowable** as project costs (including cost share) under any resulting award. The project may only incur those costs that are allowable and allocable to the project (including cost share) as determined in accordance with the applicable cost principles prescribed in FAR Part 31 for For-Profit entities and 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities.
6. **NOTE:** A Recipient who elects to employ the 10% de minimis Indirect Cost rate **cannot claim the resulting indirect costs as a Cost Share contribution.**
7. **NOTE:** A Recipient **cannot claim "unrecovered indirect costs"** as a Cost Share contribution, **without prior approval.**
8. Each budget period is rounded to the nearest dollar.

Organization/Source	Type (Cash or In Kind)	Cost Share Item	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5	Total Project Cost Share
ABC Company EXAMPLE!!!	Cash	Project partner ABC Company will provide 20 PV modules for product development at the price of \$680 per module	\$13,600					\$13,600



Total Project Cost: \$0

Cost Share Percent of Award:

0.0%

Additional Explanation (as needed):

ITC Midwest's desire is for the 33% of total project cost be provided to the company by the Department of Energy upon completion of the project's construction.

Applicant Name: MN Department of Commerce Award Number: 0

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary							
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget			Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)		
1. Budget Period 1				(b)	(4)		
2. Budget Period 2							
3. Budget Period 3							
4. Budget Period 4							
5. Budget Period 5							
6. Totals							
Section B - Budget Categories							
6. Object Class Categories	Grant Program, Function or Activity					Total (5)	
	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4	Budget Period 5		
a. Personnel	(b)	(4)					
b. Fringe Benefits							
c. Travel							
d. Equipment							
e. Supplies							
f. Contractual							
g. Construction							
h. Other							
i. Total Direct Charges (sum of 6a-6h)							
j. Indirect Charges							
k. Totals (sum of 6i-6j)							
7. Program Income						\$0	

Locations of Work (DE-FOA-0002740)

Prime or Sub	Name	City	State	Zip Code + 4
Prime	Minnesota Department of Commerce	St Paul	MN	55101-2143
Sub	Midcontinent Independent System Operator	Eagan	MN	55121-2498
Sub	Midcontinent Independent System Operator	Carmel	IN	46032-3826
Sub	Southwest Power Pool	Littlerock	AR	72223-4936
Sub	Great Plains Institute	Minneapolis	MN	55407-1229
Sub	ITC Midwest, IA Headquarters	Cedar Rapids	IA	52401-4700
Sub	Xcel Energy	Minneapolis	MN	55401-1993
Sub	Otter Tail Power	Fergus Falls	MN	56537-2802
Sub	Omaha Public Power District	Omaha	NE	68102-2247
Sub	MidAmerican Energy	Des Moines	IA	50306-0657
Sub	Eergy	Topkea	KS	66601-1203
Sub	Great Plains Institute	Minneapolis	MN	55407-1226
Sub	Lakefield Substation	Lakefield	MN	56150-3006
Sub	Auburn Substation	Auburn	NE	68305-8216
Sub	Raun Substation	Sergeant Bluff	IA	51054-7739
Sub	Brookings Substation	Brookings	SD	57276
Sub	Bison Substation	Mapleton	ND	58059
Sub	Hankinson Substation	Hankinson	ND	58041
Sub	Big Stone South Substation	Big Stone Township	SD	57216
Sub	Hoyt Substation	Hoyt	KS	66440-9121
Sub	S3452 Substation	Omaha	NE	68142-1204
Sub	Sibley Substation	Sibley	MO	64088-9686

STATEMENT OF PROJECT OBJECTIVES (SOPO)

Grid Resilience & Innovation Partnerships - Grid Innovation Program, Topic Area 3
Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio

A. OBJECTIVES

DOE GRIP funding would support the following five (approximately sequential) objectives:

Objective 1. To obtain SPP and MISO board approval for the JTIQ Portfolio in 2024.

Objective 2. To demonstrate that the JTIQ process can improve overall transmission planning and coordination between neighboring regional transmission organization planning processes.

Objective 3. To demonstrate that the JTIQ process provides a more comprehensive, cost-effective, and faster path to interregional transmission network upgrades than the current interconnection queue and affected system coordination processes.

Objective 4. To develop new approaches to community, labor, and disadvantaged community engagement, education, and involvement in transmission development and bolster long-term public acceptance of needed energy infrastructure.

Objective 5. To permit, site, construct, and energize the JTIQ Portfolio.

B. SCOPE OF WORK (For Each of the JTIQ Portfolio Projects)

Phase 1 – Pre-RTO approval activities

Prior to starting detailed design and permitting, the novel JTIQ cost allocation methodology must be approved by the Federal Energy Regulatory Commission (FERC) and then the projects must be approved by MISO and SPP's respective boards of directors. The project team will begin designing its energy literacy initiative.

Phase 2 – Detailed design, regulatory, and stakeholder engagement processes

The project team utilities will conduct preliminary project management and design and route analysis, and prepare documentation for federal, state, and local regulatory processes, including National Environmental Policy Act (NEPA) review and pursue needed regulatory approvals. In parallel the team will begin the deployment phase of the energy literacy initiative.

Phase 3 – JTIQ project construction

Once regulatory approvals are granted, the project team will commence construction of the JTIQ Transmission Portfolio while expanding the energy literacy initiative beyond the JTIQ host areas. Following project completion, the project team will monitor, evaluate, and report on whether the project objectives, including the level of community involvement and support, and interconnection customer subscription rates and costs.

C. TASKS TO BE PERFORMED

Phase 1 – Budget Period 1

Task 1.0: Project Management and Planning

- **Subtask 1.1 – Project Management Plan (PMP):**

Within 30 days of award, the Recipient shall submit a Project Management Plan (PMP) to the designated Federal Project Officer (FPO) for approval. The PMP shall be revised and resubmitted as often as necessary to capture changes to the planned approach, budget, key personnel, or major resources.

- **Subtask 1.2: National Environmental Policy Act (NEPA) Compliance**

The project team, working with the transmission owner subrecipients shall provide the documentation necessary for NEPA compliance.

- **Subtask 1.3: Cybersecurity Plan (CSP)**

The Recipient will prepare an initial Cybersecurity Plan to be revised and resubmitted as often as necessary, during the project, to capture any significant changes.

- **Subtask 1.4: Continuation Briefing(s):**

The Recipient will brief DOE on roughly an annual basis to explain the plans, progress, and results of the technical effort. The briefing shall also describe performance relative to project success criteria, milestones, and the Go/No-Go Decision point that are documented in the Project Management Plan (PMP).

Task 2.0: Pre-FERC approval for JTIQ cost allocation project development activities

Task summary: MISO and SPP will file a new cost allocation mechanism for the JTIQ Portfolio with FERC in early 2024. Once FERC approves the cost allocation mechanism, the MISO and SPP Boards of Directors will approve the projects enabling MISO and SPP to issue notifications to construct the JTIQ Portfolio.

Task 3.0: Develop an energy literacy initiative framework

Task summary: The project team, in partnership with outside academic and industry experts, will develop an education and outreach program designed to connect people and communities with energy infrastructure and the modern electric grid

- **Subtask 3.1:** Convene advisory group (four 1-hour virtual meetings) to identify target audiences, key messages and messengers, educational needs, and effective communication methods and practices and use results to develop a suite of energy literacy tools including written and video education materials, social media, and direct community engagement
- **Subtask 3.2** Conduct an analysis of economic and jobs impacts, both direct and induced, in the project area using IMPLAN or another economic analysis tool
- **Subtask 3.3:** Conduct a detailed-forward looking assessment of expected reductions in emissions harmful to human health and the environment and the associated reduction in deaths and other negative health outcomes in the project area
- **Subtask 3.4:** Public convening to share JTIQ Portfolio economic and health impact analysis results and findings from public outreach

Phase 2 – Budget Periods 2 & 3

Task 4.0 – Project Management and Planning

Task 5.0 - Develop energy literacy initiative strategy

Task summary: Informed by the Phase 1 advisory and public outreach findings, the project team will build an educational and outreach program targeted initially at disadvantaged communities in the project area and MISO and SPP more broadly.

- **Subtask 5.1:** Convene project team working group with community-facing supporting partners to develop education and outreach strategy and implementation plan
- **Subtask 5.2:** Launch the initiative with in-person outreach with communities in the JTIQ project area (targeting at least 2 in-person engagements in each of the JTIQ states in communities near the transmission projects)

Task 6.0 –Workforce Development Plan

Task Summary: The project team will develop a workforce investment and development plan to leverage JTIQ construction to provide additional training, apprenticeship, and other benefits to the region's communities.

- **Subtask 6.1:** Inventory existing workforce development activities and perform qualitative assessment of outcomes
- **Subtask 6.2:** Convene a working group of project team members' respective internal HR and workforce recruiting experts along with regional and national experts to identify collaboration opportunities to bolster critical worker pipelines (line worker, transmission planners, etc.) to identify key core competencies likely to be needed based on expected retirements, enrollment trends, worker retention trends and other relevant metrics.
- **Subtask 6.3:** Develop a joint workforce development plan outlining commitments and collaboration for long-term worker and workforce investment by the project team

Task 7.0 – Stakeholder engagement for JTIQ Transmission Portfolio

Task Summary: Each constructing utility will engage with local communities, local governments, landowners, and other parties to solicit community and stakeholder input and guide project deployment for the JTIQ Portfolio.

Task 8.0 – JTIQ Portfolio routing and detailed design

Task Summary: The project team utilities conduct preliminary transmission design, ROW option identification, and route option development for each of the JTIQ projects. Phase 2 public and landowner engagement, technical considerations (cost, performance, etc.), and state regulatory requirements inform route option development by utility transmission design teams.

Task 9.0 – JTIQ Portfolio regulatory approvals

Task Summary: Each constructing utility will compile the necessary information for their respective Certificate of Need, Franchise Agreement, or other local, state and federal approvals.

- **Subtask 9.1:** pre-filing public input meetings & notification to affected parties.
- **Subtask 9.2:** Regulatory filings and follow-up (responding to comments and data requests, attend public hearings, evaluate property owner alternatives, final route and siting review, other support).

Phase 3 – Budget Periods 4-8

Task 10.0 – Project Management and Planning

Task 11.0 – JTIQ Portfolio Construction

Task Summary: The project team utilities will solicit bids from and award contractors and sub-contracts for construction and pass down CBP and other requirements. Construction will commence and include site preparation (vegetation clearing, establishing site access, placing matting, pole assembly areas established), pole construction & erection, wire stringing, site restoration, and finally the lines will be energized. Substation construction will occur at the same time. Detailed plans for each project will be shared with DOE as available.

Task 12.0 – Regional and national expansion of the energy literacy initiative

Task Summary: The project team will expand the energy literacy program will to communities across the Midwest. The team will share its experience such that parallel efforts or further national expansion are possible.

- **Subtask 12.1:** Convene working group (see Task 5) to improve educational campaign work products and develop a regional and national outreach strategy (8 virtual meetings in BP 4).

- **Subtask 12.2:** Outreach and educational efforts in communities (community meetings, rotary clubs, etc.) in the states in which the JTIQ projects are being developed.
- **Subtask 12.3:** Convening of project team, DOE, advisory group, and national partners to assess viability of a national expansion of the energy literacy initiative (3 virtual meetings).

Task 13.0—JTIQ Generator Interconnection Customer Subscription Evaluation

Task Summary: MISO and SPP will monitor, evaluate, and report on the cost, amount and rate of generation interconnection customers subscribing for capacity on the new JTIQ Portfolio.

Table 1. Project Milestones and Go/No Go Decision Points

Task Number	Task Title	Type	Number	Description	Verification Process	Anticipated Month ¹	Anticipated Quarter
2	Pre-approval activities	Milestone	M1	FERC approves the cost allocation methodology for the JTIQ Process	FERC order	3	1
2	Pre-approval activities	Milestone/GNG	M2/GNG1	MISO and SPP boards approve JTIQ Portfolio – Notices to Construct issued	Public RTO board decisions	9	3
3	Jobs & benefits analysis	Milestone	M3	Publication of economic and health impact analyses	Delivery of summary reports	12	4
5	Energy literacy initiative strategy	Milestone	M4	Publication of energy literacy initiative educational materials	Project website (to be created)	24	8
5	Energy literacy initiative strategy	Milestone	M5	Initiative first phase of energy literacy program outreach	Public webinars, summary memo	36	12
6	Workforce Development Plan	Milestone	M6	Project Workforce Development Plan is adopted by the project team	WDP document & memo	36	12
7	Stakeholder engagement for JTIQ projects	Milestone/GNG	M7 / GNG2	Utilities complete pre-filing stakeholder and community engagement activities	Memo	24	8
9	Regulatory filings	Milestone/GNG	M8 / GNG 3	All required regulatory applications are filed for each JTIQ project	Memo	24*	8

¹ Note the Bison-Hankinson-Big Stone South line, the largest in the JTIQ Portfolio, is expected to require significant environmental and regulatory review, particularly for NEPA, which may extend the timeline of the project. For this project, Milestones 8, 9, 10, and 11 may take until months 36, 72, 96, and 132 respectively. The project team will make all efforts to complete the entire JTIQ Portfolio within 96 months of an award and will work closely with DOE to avoid delays throughout the entire project.

9	Regulatory filings	Milestone/GNG	M9 / GNG 4	All required regulatory applications are approved for each JTIQ project	Memo	36*	12
11	JTIQ Construction	Milestone	M10 / GNG 5	Construction begins for each JTIQ project	Memo	36*	12
11	JTIQ Construction	Milestone	M11 / GNG 6	Construction for each JTIQ project is completed	Memo	96*	32

D. DELIVERABLES

1. Subtask 1.1 Project Management Plan
2. Subtask 1.2 Environmental submittals for each JTIQ Portfolio project
3. Subtask 1.3 – Cybersecurity Plan
4. Subtask 1.4 – Pre-Continuation Briefing Document(s)
5. Subtask 3.6 – Publication of economic and health impact analyses
6. Task 4 – Pre-Continuation Briefing Document(s)
7. Subtask 6.2 – Report on identified industry labor needs and challenges
8. Subtask 6.3 – Workforce Development Plan agreement and summary report
9. Task 7 – Summary report of community outreach and outcomes in support of JTIQ projects
10. Task 10 – Pre-Continuation Briefing Document(s)
11. Task 13 – JTIQ subscription evaluation report

In addition to the deliverables listed above, the Recipient shall submit all periodic, topical, final, and other reports in accordance with the Federal Assistance Reporting Checklist and accompanying instructions.

E. BRIEFINGS/TECHNICAL PRESENTATIONS

As part of the project management plan the Recipient shall schedule, prepare, and present periodic briefings, technical presentations and demonstrations as requested by the Federal Project Officer, which may be held at a DOE or the Recipient’s facility, other mutually agreeable location, or via webinar. As part of the project management plan the Recipient shall schedule, prepare, and present periodic briefings, technical presentations and demonstrations as requested by the Federal Project Officer, which may be held at a DOE or the Recipient’s facility, other mutually agreeable location, or via webinar. Such meetings may include all or a combination of the following:

- **Kickoff Briefing** - Within 30 days after submission of the Project Management Plan,
- **Pre-Continuation Briefing** - Not less than 90 days prior to the planned start of a budget period.
- **Final Project Briefing** - Not less than 30 days prior to the end of the project
- **Other Briefings** – The Recipient shall prepare and present technical, financial, and/or administrative briefings as requested by the DOE.

(b) (6)

Email Address: [REDACTED]

Education

North Dakota State University, Fargo, ND
Electrical Engineering, Bachelor of Science with Power Emphasis
Dean's List

Training

Carlson School of Management, U of M – Finance for Non-Financial Managers Class
Dale Carnegie Class, Fergus Falls, MN – Skills for Success
Fred Pryor Seminar, Fargo, ND – How to Supervise People
Leading Leaders – Leadership program with Les McKeown through Predictable Success

Professional Experience

(b) (6)

Manager, Transmission Project Development, Transmission Project Dev. Dept. 2023 – Present

- Lead a cross-functional team of internal and external resources to draft permit applications for federal, state, and local jurisdictions.
- Obtain federal, state, and county permits that are required to authorize the construction, operation, and maintenance of new transmission projects.
- Oversee the negotiation and administration of agreements for jointly owned transmission projects.

Manager, Delivery Planning, Delivery Planning Department 2013 – 2023

- Oversaw a team of employees involved in developing long-range transmission projects.
- Supported regulatory proceedings by being an expert witness on transmission-related topics.
- Ensured compliance with multiple NERC reliability standards.

Supervisor, Delivery Studies, Delivery Planning Department 2007 – 2013

- Supported state regulatory rate cases for (b) (6) with highly contested transmission issues.
- Sponsored testimony and was an expert witness during MN regulatory hearings related to new transmission projects (Certificate of Need and Route Permits).
- Assisted in the analysis and review of distribution interconnection projects.

Transmission & Distribution Studies Engineer, Delivery Planning Department 2003 – 2007

- Maintained documentation for NERC Reliability Standards assigned to Delivery Planning.
- Assisted in the development of state regulatory processes for need and route permits for new transmission projects.
- Participated in the development of distributed generation rules in state jurisdictions.

Information redacted pursuant to 5 USCS § 522(b)(6): personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. The Company has taken steps to restrict access-both internal and external-on a need-to-know basis only, and has taken other steps to prevent inadvertent disclosure.

Engineer, Transmission Planning Department

2000 – 2003

- Learned sophisticated software programs to analyze the transmission system.
- Drafted detailed reports outlining assumptions, results, and recommendations from transmission studies.
- Performed regional transmission studies pivotal to the success of CapX2020 Group 1 projects.

Current Appointments

Registered Professional Engineer in the State of Minnesota, License Number (b) (6)
Midwest Reliability Organization (MRO) Reliability Advisory Committee (RAC)
Member of Institute of Electrical and Electronic Engineers (IEEE); Red River Valley Chapter
Alternate Management Committee representative for ownership in CapX2020 Projects
Alternate Vision Team representative in Grid North Partners initiative (formerly CapX2020)

Information redacted pursuant to 5 USCS § 522(b)(6): personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. The Company has taken steps to restrict access-both internal and external-on a need-to-know basis only, and has taken other steps to prevent inadvertent disclosure. Items redacted for reasons that if information is disclosed, it would invade another individual's personal privacy.

(b) (6)

Email Address:

Education

North Dakota State University, Fargo, ND
Bachelor of Science, Mechanical Engineering

Training

Leading Leaders – Leadership program with Les McKeown through Predictable Success

Professional Experience

(b) (6)

Manager, FERC/RTO Policy 2015 - Present

- Direct and manage the Company's Federal Energy Regulatory Commission ("FERC") regulatory policy program.
- Manage the identification, monitoring, analyzing, and communication of major FERC initiatives as they relate to federal regulatory policy/requirements and MISO policy/tariff (or related RTOs).
- Direct and manage the development of the strategic direction on FERC and MISO policy matters that support the Company's operational and financial goals.

FERC/RTO Policy Advisor 2014 - 2015

- Represent Company and lead interactions with FERC, MISO, EEI, and states as they relate to transmission policy and federal regulatory matters including providing public positions or testimony.
- Manage FERC regulatory filings, including directing and/or preparing written testimony and comments.
- Principal authority on transmission-related tariffs and related federal regulatory matters.

Principal Engineer and Manager, Supply Services 2004 – 2014

- Managed (b) (6) and generating facilities and staff.
- Represented the company's interests as operating agent of jointly owned plants.
- Established fuel procurement strategy and negotiated and administered coal contracts and railcar lease agreements.
- Plant Manager at (b) (6) on a rotational assignment.

Supervisor, Resource Planning 1997 – 2004

Resource Planning Engineer 1992 – 1997

Current Appointments

Our Lady of Victory Education Endowment Fund Board Member and Secretary (volunteer)

Information redacted pursuant to 5 USCS § 522(b)(6): personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. The Company has taken steps to restrict access-both internal and external-on a need-to-know basis only, and has taken other steps to prevent inadvertent

(b) (6)

Email Address:

Education

North Dakota State University, ND
Bachelor of Science, Electrical and Electronics Engineering

Training

University of Idaho – Utility Executive Course
NERC Reliability Coordinator Certification
Smith College – Specialist to Strategist

Professional Experience

(b) (6)

MN

2014 – Present

- Accountable for the company's electrical transmission and distribution lines, including system engineering, system infrastructure and reliability, substation design and maintenance, distribution and transmission planning, system operations, land rights and surveying, project management, FERC/RTO policy, system technology, metering and energy measurement, construction services, GIS, facilities and construction/building services, and central stores warehousing.

(b) (6)

2009 – 2014

- Responsible for directing FERC and MISO regulatory and transmission policy.
- Established and oversaw the company's compliance with FERC rules and regulations and NERC reliability standards.
- Represented (b) (6) at a variety of MISO and industry stakeholder meetings.

Policy and Compliance Advisor

2006 – 2009

Tariff Engineer

2000 – 2006

Electrical Engineer

1999 – 2000

Research Specialist

1997 – 1999

Current Appointments

North American Transmission Forum representative
Edison Electric Institute's Energy Delivery Executive Advisory Committee
Edison Electric Institute's Reliability Executive Advisory Committee
Midwest Reliability Organization (MRO) Board of Directors
MRO Organizational Group Oversight Committee Chair
North Dakota State University College of Engineering Executive Advisory Board
Underwood American Legion Auxiliary member

Information redacted pursuant to 5 USCS § 522(b)(6): personnel and medical files and similar files the disclosure of which would constitute a clearly unwarranted invasion of personal privacy. The Company has taken steps to restrict access-both internal and external-on a need-to-know basis only, and has taken other steps to prevent inadvertent disclosure.

Joint Targeted Interconnection Queue Study Process & Portfolio

JESSICA BURDETTE / MINNESOTA DEPARTMENT OF COMMERCE

Project Summary

This project will coordinate the planning, design, and construction of five 345 kV overhead alternating current transmission projects (four lines and one substation upgrade) known as the JTIQ Portfolio in seven states thereby solidifying the success of the first round of the JTIQ study process. In recent years, the central United States has experienced unprecedented growth in the development of new electric generation, primarily driven by utility-scale wind, solar, and battery projects. The volume of new generation projects has triggered large, costly transmission upgrades in the SPP and in the MISO regions. In addition, affected system transmission upgrades are often necessary in the neighboring region. The costs and uncertainty of these identified system upgrades have become one of the biggest bottlenecks for developing new renewable energy projects in the upper Midwest. In parallel the project will develop and deploy a regional energy literacy education and engagement initiative to connect people and their lives to the energy system of tomorrow.

Project Impact

JTIQ is a replicable and scalable solution to inter-regional interconnection and transmission planning studies. It leverages holistic, long-range studies of multiple generation projects to deliver large-scale, regionally optimized transmission solutions. It then pays for that transmission by spreading the cost across many generation projects over time through a novel fixed per-MW charge. Once constructed, the JTIQ Portfolio will unlock approximately 30 GWs of new generation, primarily wind and solar energy, which will support utility, state, and local clean energy goals, reduce emissions, and support local economic development across the seven-state region.

20 Year Emissions Reduction Due to JTIQ (2026-2046) (metric tons)

	NOX	CO2	SO2
MISO	17,548	7,301,483	6,262
SPP	11,388	15,582,402	5,808

Project Partners

Minnesota Department of Commerce, Southwest Power Pool, Midcontinent Independent System Operator, Great Plains Institute, Evergy Inc., ITC Midwest, MidAmerican Energy Inc., Omaha Public Power District, Otter Tail Power, and Xcel Energy



Budget

Federal: \$928,954,720 Cost share: \$ 928,954,720 Total: \$1,857,909,440

Project Objectives

Objective 1. To obtain SPP and MISO board approval for the JTIQ Portfolio in 2024, thereby validating and demonstrating general support for the JTIQ study process and cost allocation methodology.

Objective 2. To demonstrate that the JTIQ process can improve overall transmission planning and coordination between neighboring regional transmission organization planning processes.

Objective 3. To demonstrate that the JTIQ process provides a more comprehensive, cost-effective, and faster path to interregional transmission network upgrades than the current interconnection queue and affected system coordination processes.

Objective 4. To develop new approaches to community, labor, and disadvantaged community engagement, education, and involvement in transmission development to reduce timelines, reduce overall project costs, and improve community support; and to deploy a regional energy literacy initiative to bolster long-term public acceptance of needed energy infrastructure

Objective 5. To permit, site, construct, and energize the JTIQ Portfolio to facilitate the development of approximately 30 gigawatts of new generation, almost all of which is expected to be new renewable energy projects and thereby reduce CO₂ emissions by over 15 million metric tons in the SPP region and over 7 million metric tons in the MISO region over the first 20 years of project life with demonstrable benefits for all communities in the region in both short and long terms.

Project Timeline

Phase 1: Pre-RTO approval of the JTIQ Portfolio – Budget Period 1
 Phase 2: Detailed design, regulatory and stakeholder engagement processes – Budget Periods 2 & 3
 Phase 3 – JTIQ Project construction – Budget Periods 4-8

Summary for Public Release

Grid Resilience & Innovation Partnerships - Grid Innovation Program, Topic Area 3 Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio

The Minnesota Department of Commerce (prime applicant) is applying for DOE funding on behalf of the Midcontinent Independent System Operator (MISO) and Southwest Power Pool (SPP) (project managers), Great Plains Institute, Evergy, ITC Midwest, MidAmerican Energy, Omaha Public Power District, Otter Tail Power, and Xcel Energy to:

1. complete the first round of the innovative JTIQ transmission planning process,
2. complete construction of the first JTIQ Portfolio,
3. build and implement a regional energy literacy education initiative, and
4. move the JTIQ approach forward as a template for future interregional transmission development across the nation.

The unprecedented growth of utility-scale wind and solar projects in the central US has created a bottleneck in the generation interconnection process. MISO and SPP, two of the nation's largest grid operators, must study the electrical impacts of new projects seeking to connect in their own regions on their neighbors' grids. These studies, called "affected systems studies" are not designed to handle large volumes of projects. The cost and uncertainty of the resulting transmission upgrades create a situation in which generation developers wait for study results, are asked to pay for prohibitively expensive transmission upgrades, and then drop out of the interconnection queue causing the next project in line to shoulder the cost of the transmission upgrade¹. The JTIQ Process replaces this approach with a coordinated, long-range, interregional assessment that studies multiple projects at once, resulting in more regionally optimized transmission solutions and an opportunity to share the cost of those solutions over a larger number of interconnection customers through an innovative fixed cost per megawatt charge to generation projects that will use the new transmission capacity created by the JTIQ Portfolio.

The first JTIQ Portfolio of five 345 kV transmission projects in North Dakota, South Dakota, Minnesota, Iowa, Missouri, Kansas, and Nebraska has now been identified. Once successfully constructed with the assistance of DOE, the JTIQ process can serve as a replicable template for other regions across the country.

Through construction of the JTIQ Portfolio and paired community benefits plan, this project will deliver direct economic and jobs benefits to the seven-state region in which the projects will be built, both directly through construction and indirectly via the estimated 30 GWs of new generation capacity the Portfolio will enable. Over the first 20 years of service, the JTIQ Portfolio will also reduce CO2 emissions by over 7 million metric tons in MISO and by over 15 million metric tons in SPP.

¹ [For example: DPP-2017-FEB-West, DPP-2017-AUG-West and DISIS-2017-001](#)

Letters of Support
for

*Minnesota Department of Commerce’s application to the U.S. Department of Energy’s
Grid Resilience and Innovative Partnership program for funding for
the Joint Targeted Interconnection Queue Transmission Process and Portfolio*

The project team has included several letters of support from organizations we plan to partner with through the proposed community benefits plan and completion of the first JTIQ Process and Portfolio. Each of the organizations in this list has a stake in this project, either as a participant in the JTIQ stakeholder process at MISO, SPP, and FERC in Phase 1, as a state seeking to support electric reliability, affordability, and economic development via the JTIQ Portfolio, as the labor force that will be asked to build the JTIQ Portfolio, or as a partner with a specific role identified in the proposed community benefits plan. We have included the full text of a handful of these letters which we believe offer the strongest endorsement of this proposal from those we will most closely partner with; our community organization partners, the MISO Organization of MISO States, and the SPP Regional States Committee. Full text of every letter of support is available upon request.

Letter of Support Index			
	Entity	Date	Signatory
Governors			
1	Missouri Governor Parson	May 4, 2023	Governor Parson
2	Nebraska Governor Pillen	April 27, 2023	Governor Pillen
3	Kansas Governor Kelly	May 8, 2023	Governor Kelly
4	Minnesota Governor Walz	May 15, 2023	Governor Walz
5	Iowa Governor Reynolds	May 17, 2023	Governor Reynolds
Community Benefits Plan Partners			
6	Center for Rural Affairs	May 14, 2023	Heidi Kolbeck-Urlacher, Policy Manager
7	Clean Energy Resources Team	May 14, 2023	Joel Haskard, Co-director
8	Rural Minnesota Energy Board	May 12, 2023	Tom Apple, RMEB Chair and Cottonwood County Commissioner
State Congressional			
9	North Dakota Congressional Delegation	May 5, 2023	Sen. Hoeven Sen. Cramer Rep. Armstrong
10	Kansas Senator Delegation	May 2, 2023	Sen. Moran Sen. Marshall

11	Nebraska Rep. Adrian Smith	May 2, 2023	Rep. Adrian Smith
12	Nebraska Senator Deb Fischer	May 3, 2023	Sen. Fischer
13	Kansas Rep. Sharice Davids	May 4, 2023	Rep. Davids
State Commissions, Boards, Agencies			
14	North Dakota PSC	April 28, 2023	Chair Christmann Com. Fedorchak Com Haugen-Hoffart
15	Industrial Commission North Dakota	April 25, 2023	Gov. Burgum Attorney General Wrigley Agriculture Com. Goehring
16	Iowa Economic Development Authority	May 17, 2023	Debi V. Durham
17	City Utilities Springfield, Missouri	May 2, 2023	Gary Gibson, CEO
18	Nebraska Power Review Board	May 2, 2023	Frank Reida, Chair Chuck Hutchinson, Vice Chair
19	Municipal Energy Agency Nebraska	May 2, 2023	Robert Poehling, CEO
20	Missouri Department of Natural Resources	May 4, 2023	Craig Redmon, Director
	Missouri Public Service Commission	May 17, 2023	Com. Rupp, Com. Coleman, Com. Holsman
Regional Entities			
21	SPP Regional State Committee	April 28, 2023	12 state commissioners
22	Organization of MISO States	May 14, 2023	Dan Scripps, President
23	National Association of State Energy Offices (NASEO)	May 16, 2023	David Terry, President
24	Coalition of MISO Transmission Customers	April 30, 2023	Kenneth Stark Robert Wieshaar, Jr (McNees Wallace) Counsel
25	Midwestern Governors Association	May 4, 2023	Jesse Heier, Executive Director
26	Nebraska Utilities (Omaha Public Power District, Nebraska Public Power District, Lincoln Electric System)	May 10, 2023	Javier Fernandez, CEO OPPD; Tom Kent, President & CEO NPPD; Kevin Wailes, CEO LES
National and State Interest Groups			
27	International Brotherhood of Electrical Workers (IBEW) Local 304	May 17, 2023	
28	Grid Strategies	May 17, 2023	Rob Gramlich
29	Clean Energy Organizations (Clean Grid Alliance, Fresh Energy, Natural Resources Defense Council, Renew	May 5, 2023	Beth Soholt, Michael Noble, Samantha Williams, James Owen, Greg Wannier,

	Missouri, Sierra Club, Clean Wisconsin, Sustainable FERC Project, Southern Renewable Energy Association)		Mark Redsten, John Moore, Simon Mahan
30	Alliance for Affordable Energy	May 1, 2023	Logan Burke
31	Michigan Citizens Utility Board	April 26, 2023	John Liskey
32	Union of Concerned Scientists	May 17, 2023	Sam Gomberg
33	International Brotherhood of Electrical Workers (IBEW) Local No. 53		Allen Dixon
34	International Brotherhood of Electrical Workers (IBEW) Local Nos: 23, 160, 949, 953, 1426	May 4, 2023	Kurt Zimmerman, Jonathan Jacobson, Rick Batz, Brady Weiss, Jeremy Denault
35	Minnesota State Building and Construction Trades Council	May 11, 2023	Tom Dicklich, Executive Director
36	American Council on Renewable Energy (ACORE)	May 14, 2023	Elisa Caplan, VP Regulatory Affairs
37	WIRES	May 11, 2023	Larry Gasteiger, Executive Director
38	Advanced Power Alliance	May 12, 2023	Jeffery Clark, President
39	PRC Wind, EDF Renewable Energy, Enel North America, National Grid Renewables, Clearway Energy Group LLC, Pine Gate Renewables, RWE	May 17, 2023	Paul White, Virinder Singh, Gina Mace, Maggie Kristian, Hannah Muller, Brett White, Kevin Gresham



April 28, 2023

Grid Deployment Office
United States Department of Energy
RE: DE-FOA-00002740

To whom it may concern,

We, the members of the Southwest Power Pool (SPP) Regional State Committee (SPP RSC), appreciate the opportunity to submit this letter of support to the US Department of Energy's Grid Deployment Office in support of the Minnesota Department of Commerce's application under Grid Resilience and Innovative Partnerships (GRIP) program to support the innovative Joint Targeted Interconnection Queue (JTIQ) Transmission Project Portfolio.

The SPP RSC provides collective state regulatory agency input on matters of regional importance related to the development and operation of bulk electric transmission in SPP's footprint. The SPP RSC is comprised of retail regulatory commissioners from agencies in Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota and Texas.

The JTIQ project portfolio represents an innovative transmission planning and cost allocation solution to a persistent challenge of identifying interregional transmission projects and reliably interconnecting new generation resources in the region of the SPP – MISO seam. The innovative planning process developed by SPP and MISO, in tandem with utility, developer, and state partners, has led to a successful and repeatable process to continue to identify and implement needed grid infrastructure investments to improve grid reliability, resilience, and affordability in the region.

Further, the efforts of the project team in developing this GRIP application demonstrate a commitment to ensuring maximum benefits flow to all customers throughout the SPP and MISO regions. Specifically, through this GRIP application these JTIQ transmission projects will:

- Improve grid reliability and resilience by expanding interregional transfer capability between MISO and SPP;
- Support clean energy deployment in the SPP footprint to support achieving clean energy goals; and
- Support local economic development within and around communities in the SPP area.

The Federal Energy Regulatory Commission, through its acceptance of SPP's Bylaws, granted the SPP RSC specific authorities and responsibilities within the governance of the SPP, including cost allocation, planning for remote resources, and planning for resource adequacy. The cost of implementing the JTIQ Transmission Project Portfolio is of interest to all SPP's members and stakeholders, especially the regulatory commissions throughout the SPP's footprint, who oversee how these costs affect retail and end-use customers' rates. The SPP RSC approved the cost allocation policies related the JTIQ portfolio. Included in those policies was a direction to SPP staff to develop the JTIQ portfolio in a way that maximizes the ability to receive the applied for DOE funds to improve the benefit/cost ratio for all loads within the SPP region. The award of the GRIP application will help this valuable project come to fruition

For the reasons above, the SPP RSC members fully support this grant application and urge the Grid Deployment Office to award the GRIP application for the JTIQ Transmission Project Portfolio.

Sincerely,



Andrew French, President
Kansas Corporation
Commission



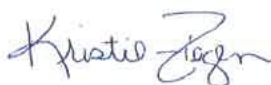
Will McAdams, Secretary,
Public Utilities Commission of
Texas



Joshua J. Byrnes
Iowa Utilities Board



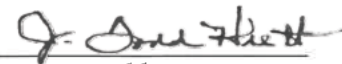
Randel Christmann
North Dakota Public Service
Commission



Kristie Fiegen
South Dakota Public Utilities
Commission



Mike Francis
Louisiana Public Service
Commission



Todd Hiatt
Oklahoma Corporation
Commission



Chuck Hutchison
Nebraska Power Review Board



Patrick O'Connell
New Mexico Public Regulation
Commission



Scott Rupp
Missouri Public Service
Commission



Justin Tate
Arkansas Public Service
Commission



John Tuma
Minnesota Public Utilities
Commission



May 11, 2023
Grid Deployment Office
United States Department of Energy
RE: DE-FOA-00002740

To whom it may concern,

The Organization of MISO States (OMS) appreciates the opportunity to submit this letter of support to the US Department of Energy's Grid Deployment Office in support of the Joint Targeted Interconnection Queue (JTIQ) Grid Resilience and Innovative Partnerships (GRIP) application.

The JTIQ project portfolio represents an innovative transmission planning and cost allocation solution to a challenge that state regulators have identified as a key priority for the collective MISO and SPP region. Through a joint committee of state regulators known as the Seams Liaison Committee, the regulators in the MISO and SPP regions defined goals of improving consideration of beneficial regional and interregional projects and supporting the timely interconnection of new resources.¹ The ensuing process to develop this portfolio of projects is an example of the importance of regulatory guidance in developing innovative approaches to meeting specific needs. OMS views this application as another important step in maintaining momentum toward implementing grid infrastructure investments to improve grid reliability, resilience, and affordability in pursuit of these goals.

OMS members appreciate the efforts of the project team in developing this application as it furthers our members role of protecting the public interest and ensuring maximum benefits flow to all customers. Specifically, through this GRIP application these JTIQ transmission projects will:

- Support resource adequacy of the MISO region by reducing the likelihood of delays in bringing new generation online
- Support clean energy deployment in the combined MISO and SPP footprint in pursuit of countless state, local, and utility clean energy and carbon reduction goals
- Improve grid reliability and resilience by expanding interregional transfer capability between MISO and SPP

¹ SPP-RSC/OMS Seams Liaison Committee Goals and Guiding Principles Document, October 2018.



For the reasons laid out above, OMS fully supports this grant application and urges the Grid Deployment Office to fully fund this application. By supporting this grant application, OMS is not taking a position on the merits of any one particular project. Nothing in this letter should be considered determinative in any member regulatory proceeding.

Sincerely,

Dan Scripps
President, Organization of MISO States



May 15, 2023
Grid Deployment Office
United States Department of Energy
RE: DE-FOA-00002740

To whom it may concern,

The Clean Energy Resource Teams (CERTs) partnership is happy to submit this letter of support to the US Department of Energy's Grid Deployment Office in support of the Joint Targeted Interconnection Queue (JTIQ) Transmission Project Portfolio Grid Resilience and Innovative Partnerships (GRIP) application.

CERTs is written into state statute to help Minnesota communities identify and implement energy efficiency and renewable energy projects. Since our creation 20 years ago, we have awarded over \$1.6 million to 467 energy projects across the state. CERTs is proud to be a Justice40 Accelerator organization. We have worked on energy projects with nearly all of Minnesota's Tribal Nations and have strong relationships with Minnesota's 180+ electric utilities.

We understand how important it is to work in partnership, early and often, with the communities who are working on energy projects. This project includes a robust plan to engage local stakeholders through broad public outreach, including developing educational materials and hosting online and in-person meetings. Additionally, the project will convene an expert advisory group to help identify priority communities for engagement, key messaging needs, effective communication strategies, and other strategies. While this work will be initially focused on communities around the JTIQ projects themselves, this model of engagement has the potential to be expanded to more states in the future.

We believe this is a well-designed and ambitious project that intersects with the Center's ongoing efforts to support the expansion of transmission across the Midwest. For the reasons laid out above, we fully support this grant application and urge the Grid Deployment Office to fully fund this application. Please contact me if you have any questions.

Sincerely,

Joel Haskard (b) (6)
CERTs Co-director, University of Minnesota Regional Sustainable Development Partnerships

(b) (6)



*Blue Earth Brown Cottonwood Faribault Freeborn
Jackson Lincoln Lyon Martin Mower
Murray Nicollet Nobles Pipestone Renville
Redwood Rock Sibley Watonwan*

*Tom Appel, Chair
Mic VanDeVere, Secretary*

*Dan Wildermuth, Vice Chair
Don Wachal, Treasurer*

2401 Broadway Ave Suite 1, Slayton, MN 56172

Phone 507/836-1631 FAX 507/836-8866

Email: (b) (6) website: <http://www.rmeb.org>

May 17, 2023

Grid Deployment Office

United States Department of Energy

RE: DE-FOA-00002740

To whom it may concern,

The Rural Minnesota Energy Board appreciates the opportunity to submit this letter of support to the US Department of Energy's Grid Deployment Office in support of the Joint Targeted Interconnection Queue (JTIQ) Transmission Project Portfolio Grid Resilience and Innovative Partnerships (GRIP) application.

The Rural Minnesota Energy Board (RMEB) is a Joint Powers Board of 18 counties in southern Minnesota; formed to provide policy guidance on issues surrounding energy development in rural Minnesota. This includes the lack of transmission capacity currently costing our communities.

The counties in the RMEB region are home to 93% of the wind towers in Minnesota. However, there is not enough transmission infrastructure to support the amount of energy generated, causing grid congestion. This energy traffic jam shuts down operational turbines. For example, in 2021 townships with older wind farms in the Buffalo Ridge area saw a more than 50% reduction in wind energy production due to curtailment. Expanded transmission will allow these functional wind systems to generate energy at their full potential, get it where it can be used, and contribute to climate goals.

We believe this project team's proposed approach and the robust and innovative planning of two of the nation's leading Regional Transmission Organizations, MISO and SPP, provides confidence that these JTIQ transmission projects will enable both current projects to reach their full economic and energy potential while unlocking numerous additional projects in the future.

The RMEB has a history of working with the Great Plains Institute to bring together stakeholders from the Minnesota Public Utilities Commission, MISO, utilities and local units of government to educate, inform and advocate for solutions to the issue of transmission constraints. We hosted a transmission summit with these stakeholders in October of 2020, and we invited these same people to a special RMEB meeting in April 2022. We would welcome the opportunity to continue this education and outreach work in-depth with federal funding assistance.

For the reasons laid out above, we fully support this grant application and urge the Grid Deployment Office to fully fund this application.

Sincerely,

Tom Appel, RMEB Chair and Cottonwood County Commissioner

May 12, 2023
Grid Deployment Office
United States Department of Energy
RE: DE-FOA-00002740

To whom it may concern,

The Center for Rural Affairs appreciates the opportunity to submit this letter of support to the US Department of Energy's Grid Deployment Office in support of the Joint Targeted Interconnection Queue (JTIQ) Transmission Project Portfolio Grid Resilience and Innovative Partnerships (GRIP) application.

The Center for Rural Affairs is a private non-profit organization that advocates for policies that strengthen rural communities in order to create a more vibrant future. We connect rural citizens with opportunities to engage in the decisions that affect their lives, and one of the biggest of these is the opportunity to decide how their electricity is generated.

This project includes a robust plan to engage local stakeholders through broad public outreach, including developing educational materials and hosting online and in-person meetings. Additionally, the project will convene an expert advisory group to help identify priority communities for engagement, key messaging needs, effective communication strategies, and other strategies. While this work will be initially focused on communities around the JTIQ projects themselves, this model of engagement has the potential to be expanded to more states in the future.

We believe this is a well designed and ambitious project that intersects with the Center's ongoing efforts to support the expansion of transmission across the Midwest. For the reasons laid out above, we fully support this grant application and urge the Grid Deployment Office to fully fund this application. Please contact me if you have any questions.

Sincerely,



Heidi Kolbeck-Urlacher, Policy Manager

PROJECT DESCRIPTION AND ASSURANCES DOCUMENT TEMPLATE (PDAD)

**Project title: Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio
Applicant Name: Minnesota Department of Commerce**

Applicant Address: 85 7th PI E # 280, St Paul, MN 55101

Names of all team member organizations: Midcontinent Independent System Operator, Southwest Power Pool, Great Plains Institute for Sustainable Research

Principal Investigator (Name, Address if different than Applicant's, Phone Number, E-mail):

(b) (6)

Business Point of Contact (Name, Address if different than Applicant's, Phone Number, E-mail):

(b) (6)

Include any statements regarding confidentiality.

**Federal Share: \$ 928,954,720
Cost Share: \$ 928,954,720
Total Estimated Project Cost: \$1,857,909,440**

Item 1: Specify (mark with "X") the FOA Topic Area and as applicable the Area of Interest (AOI):

_____ Topic Area 1: **Grid Resilience Grants** (BIL section 40101(c))

_____ Topic Area 2: **Smart Grid Grants** (BIL section 40107)

_____ Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 1
(**Transmission** System Applications)

_____ Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 2
(**Distribution** System Applications)

 X Topic Area 3: **Grid Innovation Program** (BIL section 40103(b)) – Area of Interest 3
(**Combination** System Applications)

TOPIC AREA 3 Specific

Item 6: Specify (mark with "X") the entity type of the applicant organization:

a State

a combination of 2 or more States

an Indian Tribe

a unit of local government

a public utility commission

If further description is needed for the specified entity type, please provide below:

Item 7: Authorized Organizational Representative (AOR): please provide name, address, phone number and email address for the authorized agent to bind the entity.

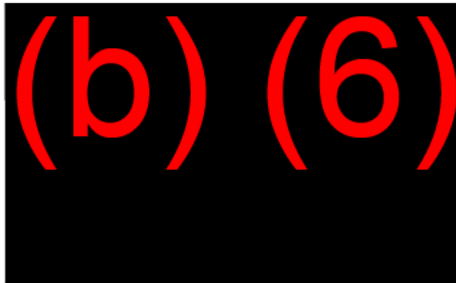
Authorized Organizational Representative (AOR):

Name:

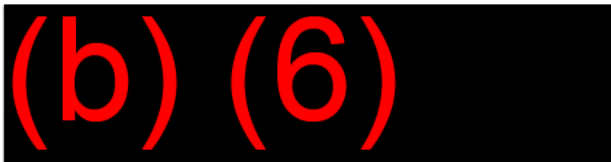
Address:

Phone:

E-mail:



Item 8: Signature of Authorized Organizational Representative (AOR)



Community Benefits Plan

Community Benefits Plan**Grid Resilience & Innovative Partnerships - Grid Innovation Program, Topic Area 3
Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio**

Building the JTIQ transmission portfolio provides this project team, and our region more broadly, a once in a generation opportunity to build a deeper relationship among infrastructure host communities, urban and rural residents, industrial customers and other businesses, labor representatives, state and local policy makers, and the public with their energy system. Decarbonizing the US economy on pace with the Biden Administration's stated goals will require an enormous expansion of energy infrastructure. From transmission lines to solar panels, electric vehicles to battery storage, all aspects of modern society, and peoples' lives in every corner of the nation, will be touched by this transformation. Regional Transmission Operator planning processes have identified both a need for transmission and have found that these projects are beneficial overall to the energy system. Yet despite the need, transmission, and other energy developers, including members of this team, have seen the rise in "Not-in-my-backyard" or NIMBY-ism and targeted efforts to defeat or delay needed transmission infrastructure projects. This viewpoint of these projects may be indicative of potential stakeholder lack of understanding of the projects overall benefit. The JTIQ team hopes to address and rectify this knowledge gap via the activities in this Community Benefits Plan.

Community & Labor Engagement

This Community Benefits Plan seeks to leverage the deployment of five high-voltage electric transmission infrastructure projects across seven states in the heart of America to build a foundational energy literacy and education program. Leveraging partnerships with local and national experts, this project seeks to implement a strategic initiative to connect people and their lives to the energy system of tomorrow. Community-partners for this effort include, but are not limited to, the Minnesota Clean Energy Resources Team, the Sisseston Wahpeton Oyate Tribal Nation, the Rural Minnesota Energy Board, the Iowa Economic Development Authority, and the Center for Rural Affairs.

Each transmission facility contained in the JTIQ Portfolio except the Sibley bus reconfiguration is required to go through a state regulatory process for certification or permitting, routing, and siting. These regulatory processes always require public engagement. The project team acknowledges the requirements and sensitive nature of these proceedings. Thus, this CBP will, as a matter of course, include many of the traditional expected stakeholders, landowners, and community engagement efforts that the project team utilities would conduct in association with their respective portions of the JTIQ portfolio. Additional information on the process each utility partner expects to conduct is available upon request. In addition to these efforts, we are proposing to build a broader, all-encompassing educational effort that will take place

Community Benefits Plan

throughout the entire duration of the project. To the extent the project-wide work can support and assist state and local regulatory proceedings, the project team may provide supplemental support.

Energy Literacy Program

Phase 1

During Phase 1, the project team will convene an expert advisory group focused on public perception and acceptance of energy infrastructure with the project team member companies for a series of three to four virtual meetings. This advisory group will be made up of experts from a variety of organizations including but not limited to 5 Lakes Energy, MN Clean Energy Resource Team (CERTs), Center for Rural Affairs (CRA), the Rural Minnesota Energy Board and other local government groups focused on energy issues, the Midwest Tribal Energy Resources Association, and others. Each of these entities have deep expertise and lived experience in energy infrastructure acceptance and perceptions. The group will be tasked with identifying:

- who needs to be engaged (critical/influential community and other groups),
- what are key educational needs for the general public,
- effective communication methods and practices

Following this convening, the project team and our CERTs and CRA partners will develop a menu of options for educational materials, social media campaigns, direct community support and engagement, and other opportunities to connect people and their lives to the energy system. The intent will be to hold up culturally relevant materials for the key audiences identified to allow people to see themselves in, and see the potential for engaging in, these discussions. For example, many tribal communities have been advancing conversations and project development around the concept of energy sovereignty. Energy sovereignty is a pathway for Native Nations to regain control over their own energy decisions; an energy literacy effort, if tailored appropriately, could be a complement to these efforts. The resources to be included in the menu of options will seek to explore the following:

- Why is transmission a key part of the clean energy future?
- How do these projects benefit and impact my local community?
- How can transmission and clean energy development provide jobs, tax income, and other direct financial benefits to my community?
- How can training and other workforce development in the electric industry help people losing their jobs in the energy transition or for other macro-economic reasons?
- What is energy security and resilience? What does it mean to people to have reliable, resilience energy supply? How do transmission and resilience connect?

Community Benefits Plan

Phase 2

During Phase 2 of the project, the team will develop a detailed education campaign plan to launch the energy literacy initiative by the end of Phase 2. Building on some of the [communications](#) work DOE has already done, the project team and additional partners will develop a replicable community outreach and education approach with supportive materials, identify target communities for outreach, and begin building the network of contacts needed within these priority communities to effectively reach our target audience.

A core component of the Phase 2 work is to begin working with the DACs surrounding the JTIQ projects. We will seek the input and assistance of these communities in refining our messaging and resources. Through this process we will 1) gain invaluable feedback and input from the exact people we want to reach across a much larger geographic area in Phase 3, and 2) begin the actual work of building a common understanding and vision for our energy future with these communities who may be asked to host transmission or other energy infrastructure in the near future. Preliminary work to identify these communities is discussed below under “Justice40 Initiative.” The project team will continually assess who we are, and are not yet, engaging and identify gaps to address based on the ultimate routing of the JTIQ transmission lines.

Phase 3

Phase 3 of the Transmission Literacy Initiative will focus on deploying our resources and educational campaign beyond top-priority JTIQ communities to all of MISO and SPP footprints and potentially beyond. There are a variety of ways to execute this, which we will explore with the advisory committee. At a minimum we foresee going to places where communities already gather such as meetings of community-based organizations and rotary clubs, participating in and hosting community events, and convening focus groups and community conversations. Our goal is to engage people in the “why” of our energy transition and get feedback from communities themselves about the benefit that matters most to them. Through continued collaboration with our Phase 1 advisory group and expanded partnerships with DOE and/or other regional and national entities, we will share our work and best practices as broadly as possible to support similar initiatives across the country.

Investing in the American Workforce

Planning, designing, and building the JTIQ transmission portfolio will require the labor of thousands of individuals across seven states. This project requires multiple engineering disciplines, construction crews, linemen, and other disciplines. The project team utilities have a long history of success employing and partnering with the needed labor force to construct comparable transmission projects in the region.

Workforce Development Plan

Each project team partner conducts ongoing recruitment and retention efforts to attract and retain the necessary workforce to plan, construct, and maintain the transmission grid. Beyond

Community Benefits Plan

these individual efforts, we propose to develop a comprehensive long-term workforce development plan during Phase 2 of the project that is not targeted at meeting the needs of these five specific transmission projects directly, but instead seeks to anticipate the transmission grid workforce needs of tomorrow. The project team will:

- Inventory ongoing workforce development efforts and approaches used by project team members and the industry more broadly.
- Identify existing and new opportunities to partner with tribal colleges, community colleges, workforce development centers, skilled labor groups, and other groups directly connected to communities seeking workforce development opportunities, especially historically disadvantaged communities. This information will be used by the project team to support our diversity, equity, inclusion, and accessibility (DEIA) goals in JTIQ construction identified below.
- Convene an advisory committee (virtual, three meetings total) including HR and recruiting experts within the project team as well as labor representatives, state and regional economic development offices, and the Midwestern Governors Association to identify best practices and inform qualitative assessment and expected workforce challenges
- Conduct qualitative assessment of the performance and outcomes of the approaches above
- Identify key core competencies likely to be in short supply within the industry in the next 5, 10 and 15 years based on expected retirements, enrollment trends, worker retention trends and other relevant metrics.
- Develop a report of all the findings from Phase 2 to DOE and to industry partners

There is potential overlap between the community engagement that occurs within the proposed energy literacy initiative and in the proposed workforce development plan, particularly in Phase 3 of the project. We believe these efforts are inherently complimentary, as job opportunities are one of the benefits we will discuss in our early community education and outreach efforts. By working with the same Tribal Nations, community groups, and community members themselves over multiple years, we can reinforce our messages with real actions and real opportunities. If we are successful by the end of this project, the members of communities asked to host transmission infrastructure, and those tasked with building it, will feel a sense of pride knowing they are helping secure a clean, affordable, resilient, and modern society for all of us.

Job creation, retention, and transition

The JTIQ Portfolio is expected to be a net creator of jobs both directly through transmission construction and indirectly through spurred generation resource development. The jobs and economic impact analysis planned in Phase 1 (see SOPO) will provide greater clarity on the number and type of expected jobs created and, if applicable, lost. To the degree the project team becomes aware of job losses associated with this project, we will seek to adapt this Workforce Development Plan to include targeted workforce transition opportunities.

Community Benefits Plan

Company-Specific Workforce Development Efforts

MISO was recently recognized as an industry leader in early career development by Ripple Match for nurturing early career talent in recruitment and developments focusing on diversity and inclusion.¹ MISO's recruitment team continuously looks for opportunities to build a diverse workforce with colleges and universities, tailoring its efforts to the needs of students. MISO's latest effort includes its ACES program – Accessing Careers in Energy Summit - a three-day program in partnership with SPP and other organizations established to work with five historically black colleges and universities (HBCUs) to introduce students to career opportunities in the energy field. MISO's career development personnel also work to build awareness in communities through its eight-employee resource groups which conduct science, technology, math, and science (STEM) outreach at local elementary schools and establish mentorship programs that partner employees with at-risk fifth graders in order to lay a strong foundation for the future. SPP also has numerous targeted programs to engage, educate, and recruit within educational institutions throughout Arkansas, including four-year colleges, community colleges, and primary through secondary schools.

Evergy has several initiatives focused on keeping employee skills current and recruiting new employees to build the pipeline of skilled craft employees. Both Kansas City, Missouri-based Metropolitan Community College and Pratt Community College in south central Kansas offer Evergy-supported lineman pre-apprenticeship programs² and in 2021, Evergy awarded six scholarships to Pratt Community College Electrical Power Technology Program students through our Craft Scholarship program. Evergy employees also help develop new entrants to the workforce by providing mentorship to students and providing advisory services to assist with course content at the Metropolitan Community College's Lineman program.

ITC Midwest prioritizes retention and development of its employees as a business development and sustainability priority. As of December 31, 2022, ITC Midwest had 726 employees, 115 of which live in the ITC Midwest operational footprint, and experienced no significant change in the number of employees from prior years. In addition, ITC Midwest has developed and maintained long-standing relationships with suppliers for contracted services including construction, transmission maintenance, field operations and other corporate functions. By identifying effective and successful partners and investing in them over the long term, ITC Midwest consistently provides employment and professional development opportunities throughout its operating area.

MidAmerican maintains a Department of Labor certified apprenticeship program for multiple classifications of electrical workers. MidAmerican's collective bargaining agreement applicable to the Sioux City area is with International Brotherhood of Electrical Workers (IBEW) Local 499.

¹ <https://www.misoenergy.org/about/miso-matters/miso-recognized-for-early-career-talent-development/>

² "Lineman Program Overview"

<https://mccckc.edu/programs/lineman/index.aspx>

Community Benefits Plan

MidAmerican, which requires contractors bidding on transmission projects to utilize represented members of the IBEW.

Xcel Energy has a long and successful history of collaborating with its community and labor partners to provide access to skilled, union jobs in the clean energy sector. In partnership with the IBEW, Xcel Energy's internal technical training department, and local educational providers it is committed to providing training and education opportunities for our local workforce. Xcel Energy commits to paying above the prevailing wage for all new all new contractors and employees as well as training to develop its current workforce to operate new resiliency technologies. To attract applicants, Xcel also works with diverse student groups, including the National Society of Black Engineers, Society of Women Engineers, Society of Hispanic Professional Engineers, and Society of Asian Scientists and Engineers. Through these partnerships, Xcel Energy continuously improves its candidate pool, reduces the need for candidate relocation and supports its local economies. More than 40 of its recruiting events in 2021 were focused on hiring diverse candidates. Approximately half (44%) of Xcel Energy's workforce is currently represented by unions. Most of Xcel Energy's bargaining workforce has had union representation for more than 70 years.

Otter Tail Power Company has begun growing its current line staff by approximately 10 percent in preparation for upcoming retirements that are expected throughout the company over the next few years. This timeline allows OTP to advance new hires from apprenticeship to journeyman prior to retirement of existing journeyman line workers. In addition, OTP recently redesigned its line worker apprenticeship program and is now using an IBEW offering for the program. OTP maintains ties to post-secondary programs and employee involvement in multiple advisory committees at over a dozen area institutions of higher learning include North Dakota State College of Science, Bismarck State College, Minnesota State University Moorhead, Northwest Technical College in Minnesota, Lakes Area Technical Institute, and others, collaborating on education and training programs.

Disclosures

The project team has identified only one violation to disclose. Xcel Energy had one reasonable cause finding under Title VII of the Civil Rights Act resulting in remedial actions taken including but not limited to: Annual Title VII training on location, poster notice for location, and annual reporting to EEOC for location.

Diversity, Equity, Inclusion, and Accessibility

The project team's approach is to include diversity, equity, inclusion, and accessibility (DEIA) into every aspect of the project as is practicable. Below we identify specific work products and tasks that will ensure fulfillment of the DEIA objectives of the project team and the DOE.

Community Benefits Plan

Project-wide Energy Literacy Initiative

The team will prioritize minority-owned, women-owned, Native American-owned, LGBTQ-owned, and veteran-owned businesses in selecting vendors and subcontracts for the development and execution of the project-wide energy literacy initiative proposed above. We will seek to partner with local community groups throughout the region to both design (Phases 1 & 2) the program and critically, to execute the program in Phase 3. We expect to provide direct financial, travel,

Transmission Project Construction

The project team utilities will prioritize minority-owned, women-owned, Native American-owned, LGBTQ-owned, and veteran-owned businesses in selecting vendors and subcontracts for the transmission construction process for each of the five JTIQ transmission projects.

The project team utilities will also target apprenticeship and training activities associated with the JTIQ transmission projects toward surrounding DACs, including targeted outreach and recruiting for training programs and financial and logistical support to enable DAC community members to participate in circumstances they may otherwise be unable to do so.

Justice40 Initiative

Targeting Benefits for Disadvantaged Communities

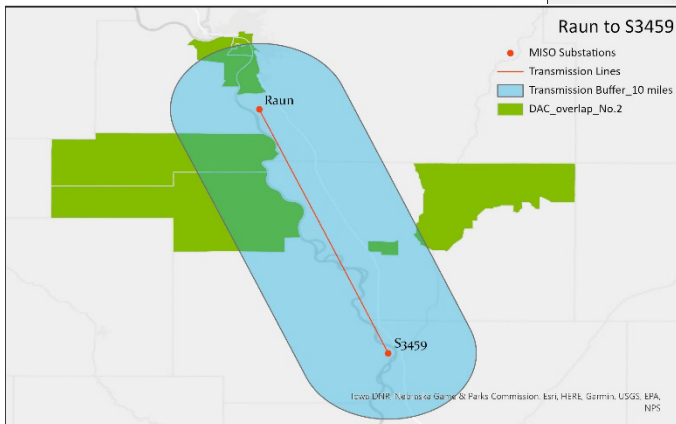
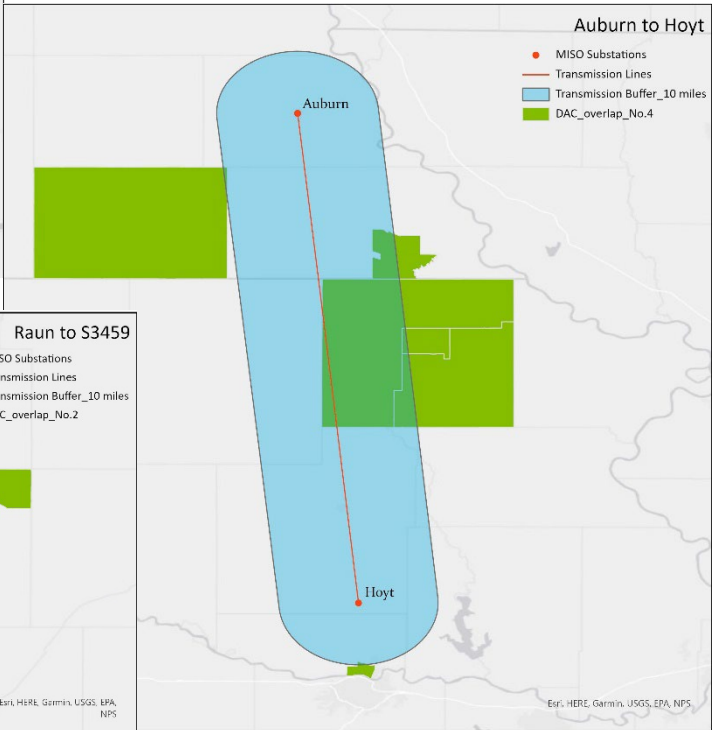
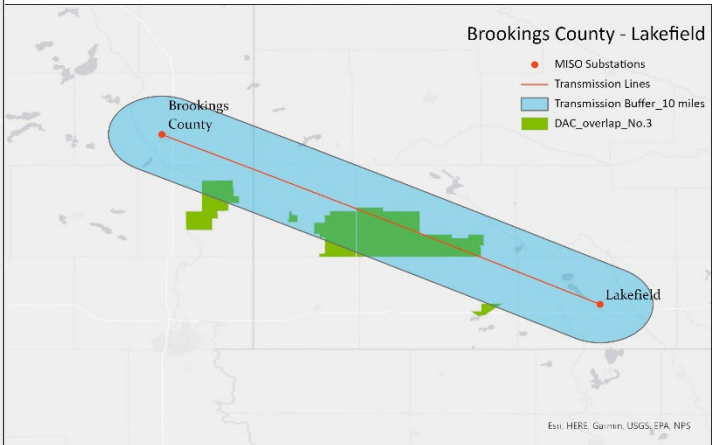
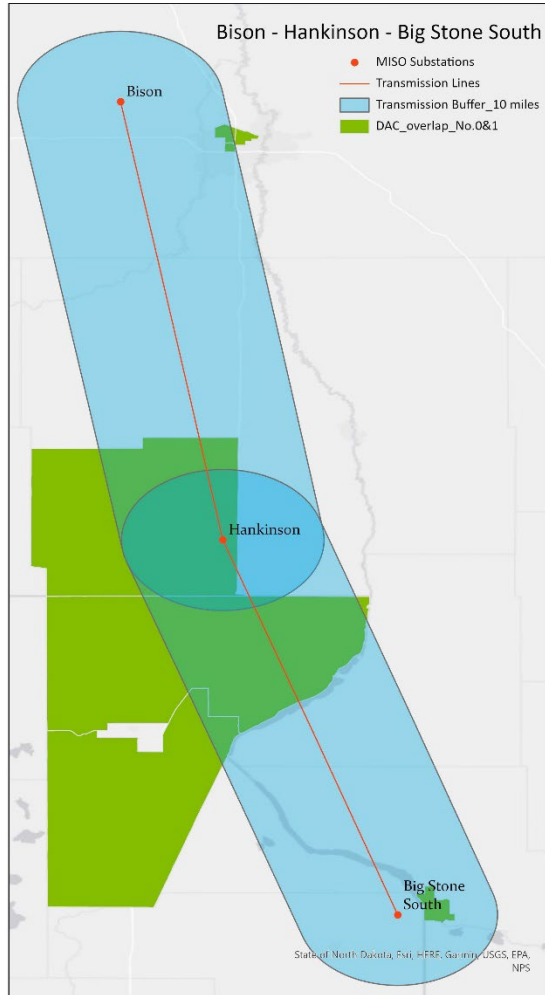
As part of this application, the project team has conducted preliminary analysis to identify disadvantaged communities (DACs) in the vicinity of each of the JTIQ transmission projects. The Sibley substation upgrade is expected to be fully within the existing substation boundary and was therefore not included in this preliminary analysis. The figures below were developed using a large buffer area around each project's identified endpoints and a straight-line connection while the specific routes are not yet known. As projects move forward, the project team utilities will conduct detailed design and siting for these lines. Part of this process will include identifying disadvantaged communities in the vicinity of each project and seeking input from these communities.

The project team seeks to quantify a variety of benefits, direct and indirect, for both those communities asked to host or otherwise directly impacted by the JTIQ transmission projects, as well as for DACs across the JTIQ region more broadly, as identified in our preliminary buffer zones. To understand which benefits may be of more value or concern to the affected DACs, the project team used the EJ screening tool³ to understand the underlying reasons why these communities are considered disadvantaged, and how this project may best be used to provide targeted benefits.

³ Climate and Economic Justice Screening Tool. <https://screeningtool.geoplatform.gov/en/#3.18/33.03/-93.44>

Community Benefits Plan

Figure 1. Preliminary Identification of Disadvantaged Communities in the JTIQ Portfolio Project Areas



Community Benefits Plan

Transmission Project Name		Auburn - Hoyt	Bookings County - Lakefield	Bison - Hankinson - Big Stone South	Raun - S3459
Number of Identified DACs		6	5	9	8
DACs with Identifier Threshold Exceeded	Climate	3	1	5	6
	Low Income Adjacency	6	3	9	8
	Tribal Overlap				2
	Energy			1	
	Housing	3	1	3	3
	Pollution	2	3	1	3
	Water			2	
	Health	2		4	3
	Workforce		1	1	4
	Low Income	5	1	7	5
Both Workforce &	2	5	6	6	

The project team will quantify the following benefits associated with the JTIQ portfolio (pending updates based on stakeholder and community input):

- Capital (dollars) spent in disadvantaged communities
- Air pollution reduction (CO₂, NO_x, SO₂, and PM 2.5 in disadvantaged communities) because of the JTIQ projects
- Dollars spent on career track training, apprenticeship programs, educational engagement, and recruitment within and toward individuals from disadvantaged communities
- Number of jobs created and filled by residents of disadvantaged communities
- Number of stakeholder events, participants, and dollars spent to engage with organizations and residents of disadvantaged communities
- Increase in clean energy production (MWh) within disadvantaged communities unlocked by the JTIQ transmission projects (clean energy access and adoption)
- Increase in energy resilience (reduced outage frequency/magnitude)

MISO and SPP's planning studies provided a preliminary assessment of reduction in air emissions. These figures are outputs from the RTO's respective transmission planning model production model cost analysis from the JTIQ transmission portfolio planning process. Their respective results below are for their respective footprints over the first twenty years of the JTIQ projects' lives. These numbers cannot necessarily be added to estimates the total emissions reductions as these separate models have aligned but different assumptions and methods as developed by each RTO and their respective stakeholders.

Community Benefits Plan

	NOX (metric tons)	CO2 (metric tons)	SO2 (metric tons)
MISO	17,548	7,301,483	6,262
SPP	11,388	15,582,402	5,808

Environmental Impacts

As described throughout this application, MISO and SPP have not yet issued notifications to construct to the project team utilities and therefore detailed planning and design has not yet occurred. Therefore, the full breadth and scale of existing and potential environmental challenges and impacts are not fully known. At the time of this application only two potentially significant environmental challenges have been identified: a potential crossing of the Red River of the North for the Brooking Co - Lakefield 345 kV line and a Missouri River crossing for the Raun – S3492 345 kV line.

Broadly speaking the project team anticipates no significant adverse impacts from the proposed projects. The projects are comprised of the establishment of a utility corridor, the installation of below ground foundations to support above ground transmission towers, and the installation of electric cables capable of the transmission of 345 kV. The project team members have experience successfully siting, permitting, and construction similar transmission projects and every utility team member has well-established practices to ensure that appropriate authorizations and received before work commences. In addition, each line will go through a siting process to ensure that the final routes minimize the impact to historical, archeological, cultural and tribal resources, as well as protected species and their habitat.

Each utility will take a project-specific approach to routing and siting their respective portions of the JTIQ Portfolio. As such, the approach to mitigate any known or expected negative environmental and social impacts will be unique. Through the development of the JTIQ Portfolio, the team will strive to understand the demographics, sensitive environmental and cultural sites, and designations under the Federal J40 Initiative associated with each JTIQ Project. We will use screening tools, i.e., DOE's Energy Justice Mapping Tool, combined with state, community, and Tribal government engagement, as applicable. Review will focus on census block group(s) located in the project area or adjacent to it, if applicable, based on the nature of potential impacts. We will prepare community engagement plans for the finalized projects that identify applicable government, community, and Tribal representatives that are diverse and representative. Engagement plans will include enhancements for any identified DAC and other culturally sensitive areas using principles from EJ Task Force Recommendations supplemented with guidance from DOE. Our engagement will aim to achieve the following.

Community Benefits Plan

- Develop initial understanding of potential project impacts, both beneficial and adverse
- Gather preliminary feedback and establish an ongoing two-way engagement process
- Create a process for disagreement resolution.

Anticipated project-specific approaches are provided below:

Bison-Hankinson-Big Stone South 345 KV line: Xcel Energy's strategy is to assess initial and ongoing stakeholder and community reaction to the proposed project and the plan for addressing any project issues raised by local communities, DACs, and the state. In doing so, Xcel Energy will abide by the objective of its Environmental Justice Position Statement to provide meaningful opportunities for affected communities to participate in the project and will engage communities through collaboration as we seek to align project outcomes with community-specific goals.

The Big Stone South – Hankinson – Bison Project will cross the Justice40 area in northeast South Dakota. In developing route options, Otter Tail will first develop a study area that would define where the line could be routed. This study area would then be shared with federal, state and local (city/community) jurisdictions, along with gathering feedback from public landowner meetings, to gain input about constraints and opportunities within the study area. Otter Tail would then select a final route for the line after considering input from all stakeholders in its drafting of a route permit application to the states.

Brookings Co – Lakefield 345 kV line: The proposed project is a 345 kilovolt (kV) transmission line to be developed, constructed, and owned by ITC Midwest and Xcel Energy. The line will connect Xcel Energy's Brookings County Station, located in Brookings County, South Dakota to ITC Midwest's Lakefield Station located in Jackson County, Minnesota and will traverse the wind-rich Buffalo Ridge region in the southwest corner of Minnesota for approximately 135 miles. The utilities participated in the Buffalo Ridge Incremental Generation Outlet projects, completed in 2005 in this same area, which included 50 miles of high-voltage transmission to enable between 825 and 1,27 MWs of wind generation in southwestern Minnesota. Through this work the utilities gained familiarity with the bird, wildlife, and other sensitive environmental considerations in this area for transmission development.

Raun – S3452 345 kV line: MidAmerican and OPPD will double-circuit an existing 161 kV line. It is anticipated that existing two-legged structures will be replaced with single-pole structures. This will reduce the impact on agricultural uses of the land as it is more efficient to farm around single-pole structures than the existing two-legged structures. The Iowa portion of the line corridor will go through an industrial area which has no residences or recreational areas. OPPD will also likely utilize double circuiting for portions of the project.

Auburn – Hoyt 345 kV line: Potential environmental impacts will be assessed during the routing study process and mitigated through project design and construction. This routing study

Community Benefits Plan

process will also include engagement with local communities (e.g., open houses) and potentially impacted landowners. In Kansas, the overall routing process and the resulting route application approval is governed by the Kansas Corporation Commission. OPPD and Evergy have worked together on other similar projects that have been successful. Experience from these past projects can be utilized if environmental impacts are found when siting the Auburn – Hoyt project.

Sibley 345 kV Bus Reconfiguration: The Sibley substation bus reconfiguration project is expected to be fully contained within the fence line of the existing substation.

Flow of Anticipated Benefits to DACs

The specific benefits listed above will flow directly and indirectly to disadvantaged communities in the JTIQ project area both during construction and after the JTIQ projects are in service. In building a new transmission project, hiring local contractors for tree clearing, concrete, road maintenance, laydown yards, right-of-way restoration and other work will provide economic benefits that stay in the regions where the lines are located. In addition to seeking to support local businesses through contracting services, local communities also benefit from a variety of needs that arise from construction activities (lodging, meals and fuel). Furthermore, each JTIQ project itself will create a large amount of local economic benefits from increased tax revenues (property, state and city) not only from the line itself but from future generation (or transmission) projects that will look to benefit from the increased transmission capacity. All of these aspects not only help generate revenue in the local communities along the project but also improve the public's acceptance of the project.

Once the JTIQ projects are constructed, significant additional energy generation development is expected to take place over the following decade and beyond. The broad geographic area of potential generation projects that will benefit means that communities across the Midwest, not just in the proximal project areas, will benefit from direct capital investment and induced economic activity. Over time, this will enable reduced emissions associated with electricity production in the two RTO areas and in the proximal geographic area of the JTIQ projects. Associated emissions reduction benefits will flow over time to the entire project area and the broader Midwest region. Preliminary estimates of 20-year emissions reductions are in Table 2 above.

The project team will use the economic impact and health analyses conducted in Phase 1 to inform the community engagement and workforce development plans discussed above. Both plans will include specific actions to drive benefits toward DACs to achieve the J40 Initiative's goal. Specific actions in these plans may include:

- Targeted contracting with businesses and workers from DACs
- Targeted training and other workforce development activities to DACs
- Direct support for travel and lodging for disadvantaged workers to access training
- Direct support for travel and childcare for DAC community members to attend community engagement activities

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2025

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:

Prime SubAwardee

* Name:

* Street 1: Street 2:

* City: State: Zip:

Congressional District, if known:

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency: <input type="text" value="UE DOE"/>	7. * Federal Program Name/Description: <input type="text" value="Grid Infrastructure Deployment and Resilience"/> CFDA Number, if applicable: <input type="text" value="81.254"/>
---	--

8. Federal Action Number, if known: <input type="text"/>	9. Award Amount, if known: \$ <input type="text"/>
--	--

10. a. Name and Address of Lobbying Registrant:

Prefix * First Name Middle Name

* Last Name Suffix

* Street 1 Street 2

* City State Zip

b. Individual Performing Services (including address if different from No. 10a)


Prefix * First Name Middle Name

* Last Name Suffix

* Street 1 Street 2

* City State Zip

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: 

* Name: Prefix * First Name Middle Name
* Last Name Suffix

Title: Telephone No.: Date:

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2025

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
--	--	--

4. Name and Address of Reporting Entity:

Prime SubAwardee Tier if known:

* Name: Southwest Power Pool

* Street 1: 201 Worthen Drive Street 2: _____

* City: Little Rock State: AR: Arkansas Zip: 72223-4936

Congressional District, if known: _____

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

* Name: MN Department of Commerce

* Street 1: 85 S 7th Pl E Street 2: _____

* City: St Paul State: MN: Minnesota Zip: 55101-2198

Congressional District, if known: MN-004

6. * Federal Department/Agency: US DOE	7. * Federal Program Name/Description: Grid Infrastructure Deployment and Resilience CFDA Number, if applicable: 81.254
--	--

8. Federal Action Number, if known: _____	9. Award Amount, if known: \$ _____
---	---

10. a. Name and Address of Lobbying Registrant:

Prefix: _____ * First Name: N/A Middle Name: _____

* Last Name: N/A Suffix: _____

* Street 1: _____ Street 2: _____

* City: _____ State: _____ Zip: _____

b. Individual Performing Services (including address if different from No. 10a)

Prefix: _____ * First Name: N/A Middle Name: _____

* Last Name: N/A Suffix: _____

* Street 1: _____ Street 2: _____

* City: _____ State: _____ Zip: _____

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

* Signature: Justin A. Hinton


* Name: Prefix: Mr. * First Name: Justin Middle Name: A.
 * Last Name: Hinton Suffix: _____

Title: Senior Attorney Telephone No.: (b) (6) Date: 05/18/2023

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

OMB Number: 4040-0013
Expiration Date: 02/28/2025

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input checked="" type="checkbox"/> SubAwardee Tier if known: <input type="checkbox"/> * Name: Midcontinent Independent System Operator * Street 1: 720 City Center Driv Street 2: <input type="text"/> * City: Carmel State: IN: Indiana Zip: 46032-3826 Congressional District, if known: <input type="text"/>		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: * Name: Minnesota Department of Commerce * Street 1: 85 S 7th Pl E Street 2: Suite 200 * City: St Paul State: MN: Minnesota Zip: 55101-2198 Congressional District, if known: MN-004		
6. * Federal Department/Agency: US DOE	7. * Federal Program Name/Description: Grid Infrastructure Deployment and Resilience CFDA Number, if applicable: 81.254	
8. Federal Action Number, if known: <input type="text"/>	9. Award Amount, if known: \$ <input type="text"/>	
10. a. Name and Address of Lobbying Registrant: Prefix <input type="text"/> * First Name N/A Middle Name <input type="text"/> * Last Name N/A Suffix <input type="text"/> * Street 1 <input type="text"/> Street 2 <input type="text"/> * City <input type="text"/> State <input type="text"/> Zip <input type="text"/>		
b. Individual Performing Services (including address if different from No. 10a) Prefix <input type="text"/> * First Name N/A Middle Name <input type="text"/> * Last Name N/A Suffix <input type="text"/> * Street 1 <input type="text"/> Street 2 <input type="text"/> * City <input type="text"/> State <input type="text"/> Zip <input type="text"/>		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. * Signature:  * Name: Prefix <input type="text"/> * First Name Christopher Middle Name <input type="text"/> * Last Name Supino Suffix <input type="text"/> Title: Managing Senior Corporate Counsel Telephone No.: (b) (6) Date: 05/19/2023		
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)

May 10, 2023

The Honorable Jennifer Granholm
Secretary, United States Department of Energy
1000 Independence Avenue SW
Washington, DC 20585

Re: Collaborative grant proposal under BIL GRIP 40103(b) program topic 3 for “Joint Transmission Interconnection Queue Project” (TA3-064-E)

Dear Secretary Granholm,

The Minnesota Department of Commerce is pleased to offer this letter of commitment for the Joint Transmission Interconnection Queue Project grant application in response to the U.S. Department of Energy’s Bipartisan Infrastructure Law Grid Innovation Program funding opportunity pursuant to program topic 3 (TA3-064-E). The Department of Commerce currently participates in or manages several federal grant awards and formula grant programs. The Department is well positioned to assist this project as a result of our state’s leadership in establishing clean energy policies and supporting federal clean energy objectives that provide community value, build resiliency and reliability, workforce development, and recognize economic benefits. The work which will be accomplished in this project supports and will us Minnesota meet goals laid out in Minnesota’s Climate Action Framework, and Minnesota’s State Energy Security Plan (previously filed with the DOE). Our ongoing work will both benefit greatly from and contribute to the management of the federal grant award.

The Department of Commerce will:

1. Provide a leadership role in management of the grant award to ensure the objectives of the award are met including implementation of the project objectives and the community benefits plan.
2. Commit staff resources that provide strategic direction, technical assistance, grants management, and community engagement to the project partners to ensure successful execution of this grant award.

The Department of Commerce encourages the DOE to support this proposal and looks forward to participating in this project should DOE award Minnesota this grant.

Regards,



Grace Arnold
Commissioner



May 16, 2023

Michelle Gransee, Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: DE-FOA-00002740

Dear Deputy Commissioner Gransee:

I am pleased to express the Midcontinent Independent System Operator’s (MISO) support for the Joint Targeted Interconnection Queue Portfolio proposal to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.

MISO is a not-for-profit, member-based organization focused on managing the flow of high-voltage electricity across 15 U.S. states and the Canadian province of Manitoba, facilitating one of the world’s largest energy markets with more than \$40 billion in annual transactions and 45 million customers and planning the grid of the future. If this project is funded, MISO will work with the project team including the Minnesota Department of Commerce, Southwest Power Pool, and other utility partners to contribute to the project’s success.

MISO commits to provide the necessary funding to ensure its role as a coordinated entity and project partner is fulfilled, funds will be secured through match via MISO’s annual budgeting process.

Source of Local Match Commitment Funds:	Local Agency Funding	Other Agency Funding	Private Funding	In-Kind Match
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Name of Local Match Commitment Funding Source:	Financial Match Source: MISO			
Total Project Cost:	\$9.423 million			
Requested Federal Share (%):	50%			
Match Commitment (%):	\$4.716 million			

MISO understands that any match it accepts must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. MISO is aware that appropriate documentation is required to record the cost match being provided. MISO will record all cash and in-kind contributions, including volunteer time. MISO is aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or are currently being utilized as a cost match toward another federal grant.

Please contact me at (b) (6) with questions.
Sincerely,

Aubrey Johnson
Vice President of System Planning and Competitive Transmission, MISO

May 10, 2023

Michelle Gransee
Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: DE-FOA-00002740

Dear Deputy Commissioner Gransee:

I am pleased to express the Southwest Power Pool, Inc.’s (SPP) support for the Joint Targeted Interconnection Queue proposal to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.

SPP is a regional transmission organization (RTO): a nonprofit corporation mandated by the Federal Energy Regulatory Commission to ensure reliable supplies of power, adequate transmission infrastructure, and competitive wholesale electricity prices on behalf of its diverse members and market participants. If this project is funded, SPP will work with the project team including: Mid-Continent Independent System Operator, the Minnesota Department of Commerce, and others to contribute to the project’s success.

As a project partner, SPP is committed to providing personnel resources, such as two full time employees, attorneys, administrative staff, communication staff, regulatory staff, and time of the Vice President of Engineering. Additionally, SPP will use its existing project tracking system to help track the transmission projects’ costs for cost matching provided by this grant and will pay the costs to upgrade this system to accommodate the enhanced reporting requirements under the GRIP Program.

Source of Local Match Commitment Funds:	Local Agency Funding <input type="checkbox"/>	Other Agency Funding <input type="checkbox"/>	Private Funding <input type="checkbox"/>	In-Kind Match <input checked="" type="checkbox"/>
--	---	---	--	---

Name of Local Match Commitment Funding Source:

- In-Kind Match Source:
- Two new full time employees:
 - Budget Period 1: 4160 hours of time, \$80 an hour for a total of \$166,400.
 - Budget Period 2: 4160 hours of time, \$80 an hour for a total of \$166,400.
 - Budget Period 3: 4160 hours of time, \$80 an hour for a total of \$166,400.
 - Budget Period 4: 4160 hours of time, \$80 an hour for a total of \$166,400.
 - Budget Period 5: 16,640 hours of time, \$80 an hour for a total of \$2,662,400.
 - SPP current staffs’ time:
 - Budget Period 1: 967 hours of time for a total of \$101,426.
 - Budget Period 2: 639 hours of time for a total of \$69,156.
 - Budget Period 3: 519 hours of time for a total of \$57,396.

- Budget Period 4: 256 hours of time for a total of \$31,624.
- Budget Period 5: 1,024 hours of time for a total of \$126,496.
- Travel for two SPP employees for a total estimated cost of \$2,020.
- Upgrades to project tracking software to properly track the JTIQ projects and the related GRIP Program reporting requirements: total cost of \$200,000.
- External Attorney Contractor for a total of \$741,000

Total Project Cost:

\$3,991,518

Requested Federal Share (%):

50%

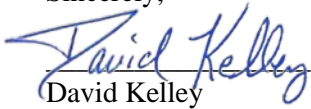
Match Commitment (%):

\$1,995,759

We understand that in order for the match to be accepted, it must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. We are aware that appropriate documentation is required to record the cost match being provided. The records of all cash and in-kind contributions, including volunteer time will be documented.

We are aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or currently being utilized as a cost match toward another federal grant.

Sincerely,



David Kelley
Vice President of Engineering
Southwest Power Pool Inc.

(b) (6)



April 20, 2023

Michelle Gransee
Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: DE-FOA-0002740

Dear Deputy Commissioner Gransee:

I am pleased to express Evergy, Inc.'s support for the Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio proposal to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.

Evergy, Inc. is a regulated electric utility provider, operating in Kansas and Missouri, providing electricity production, transmission, and delivery to meet customer needs. Evergy's mission is to empower a better future. We value innovation and adaptability to give our customers better ways to manage their energy use, to create a safe, diverse and inclusive workplace for our employees, and to add value for our investors. Headquartered in Kansas City, our employees are active members of the communities we serve. Evergy's involvement in the JTIQ is directly aligned with empowering a better future. If this project is funded, Evergy, Inc. will work with the project team including Southwest Power Pool, the Minnesota Department of Commerce, and others to contribute to the project's success.

As a project partner, Evergy is committed to executing on the JTIQ projects within our service territory. Specific support roles will manifest through project management (including management of community engagement and regulatory processes), engineering, procurement, and construction activities related to the Auburn-Hoyt line and the Sibley substation rebuild. Subject to FERC-approved cost allocation and the issuance of a Notification to Construct from SPP, Evergy will provide funding for 50.28% of these project costs.

Source of Local Match Commitment Funds:	Local Agency Funding <input type="checkbox"/>	Other Agency Funding <input type="checkbox"/>	Private Funding <input checked="" type="checkbox"/>	In-Kind Match <input type="checkbox"/>
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Name of Local Match Commitment Funding Source:

Financial Match Source: Evergy will fund the match commitment as part of its annual transmission capital budget
In-Kind Match Source: Evergy staff will provide project management, engineering, administrative, and procurement activities to support this project – these costs are embedded in Evergy's annual transmission capital budget

Total Project Cost:

\$ 210,876,144

Requested Federal Share (%):

49.72%

Match Commitment (%):

50.28%



We understand that in order for match to be accepted, it must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. We are aware that appropriate documentation is required to record the cost match being provided. The records of all cash and in-kind contributions, including volunteer time will be documented.

We are aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or currently being utilized as a cost match toward another federal grant.

Please contact me at (b) (6) with questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Kayla Mysamors". The signature is written in a cursive style with a horizontal line underneath.

Vice President
Strategy and Long-Term Planning



May 18, 2023

Michelle Gransee
Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: DOE-FOA-2470

Dear Deputy Commissioner Gransee:

I am pleased to express ITC Midwest, LLC's (ITC Midwest) support for the Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio proposal to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.

ITC Midwest, LLC is a Limited Liability Company headquartered in Cedar Rapids, Iowa. ITC Midwest operates more than 6,600 circuit miles of transmission lines in Iowa, Minnesota, Illinois, and Missouri. If this project is funded, ITC Midwest will work with other project participants as needed, including Minnesota Department of Commerce, Midcontinent Independent System Operator, Southwest Power Pool, Inc., Eversource Energy, Omaha Public Power District, MidAmerican Energy, Xcel Energy, Otter Tail Power, and others to contribute to the project's success.

The project team has requested the maximum allowable award under the GRIP program for 50.28% of the total capital cost of the JTIQ projects and the costs associated with construction and stakeholder and community outreach described in this application. Further details, to the extent currently known, are provided in ITC Midwest's project budget workbooks. As most relevant here, the aggregate project cost for ITCMW's portion of its JTIQ project is \$282,906,991, making ITC Midwest's requested award for DOE GRIP funding \$142, 245, 635. It is ITC Midwest's understanding that its cost match will be provided in proportion to ITC Midwest's share of the DOE award. Capital and construction cost match will be recovered by ITC Midwest through its standard transmission cost recovery process, subject to applicable regulatory approvals. Additional cost match will be provided for labor and materials provided in kind by ITC Midwest. To the extent that ITC Midwest receives grant funding related to a particular project, ITC Midwest would treat it as a reimbursement and not include in its rate base the portion of that project that was paid for by the grant funds. Relevant details regarding ITC Midwest's request are set forth, below:

ITC Share of Project Cost (\$M)	
Personnel	\$0.3
Equipment & Materials	\$81
Construction	\$129
Overhead	\$73
Total Cost of Project	\$283

Targeted DOE Funding 50.28% \$142, 245, 635

It is ITC Midwest's understanding that, should this project be selected to advance by DOE, the project team (including ITC Midwest) will have a prolonged negotiation period with DOE to discuss and better understand funding specifics. If this project is funded by DOE, ITC Midwest will use the time afforded by this negotiation process to internally vet and scale back flow downs in any participating contract as narrowly as possible for expedient participation.

ITC Midwest understands that in order for the match to be accepted, it must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. ITC Midwest is aware that appropriate documentation is required to record the cost match being provided. The records of all cash and in-kind contributions, including volunteer time will be documented, pursuant to requirements and protocols that are finalized during the post-selection negotiation period. ITC Midwest is also aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or currently being utilized as a cost match toward another federal grant.

Please contact Dusky Terry, President of ITC Midwest, at (b) (6) with questions.

Sincerely,

Dusky Terry
President, ITC Midwest



Christopher B. Clark
President, Xcel Energy-Minnesota
414 Nicollet Mall, 401-9
Minneapolis, MN 55401

May 18, 2023

The Honorable Jennifer M. Granholm, Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Subject: Letter of Commitment for MN Department of Commerce's Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio

Dear Secretary Granholm:

Northern States Power Co., a subsidiary of Xcel Energy Inc. (Xcel Energy), is pleased to participate in the Minnesota Department of Commerce's (MN DOC) proposal submitted to the U.S. Department of Energy (DOE) Grid Deployment Office's (GDO) Funding Opportunity Announcement, DE-FOA-0002740 Grid Innovation Program topic area 3, titled *Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio*.

Xcel Energy, a nation leading utility in renewable energy delivery, will be a subrecipient and cost-share provider for JTIQ, and with this letter commits to the DOE GDO and MN DOC to provide the cost-share indicated in the application as well as appropriate contingencies in support of the JTIQ application and associated infrastructure over the 8-year award period. This cost share will be provided upon successful award from the DOE, agreement on award terms, and per the project schedule set forth in the proposal, including approval by state and federal regulators and through our corporate governance approval process, including support of our Board of Directors. We anticipate Xcel Energy funding up to \$228 million of study costs, transmission lines and associated infrastructure construction and community benefits, representing 50.3% of full program costs for Xcel Energy's portion across all phases.

As a member of the JTIQ team, Xcel Energy is prepared to execute its role and fund our portion of executing the JTIQ projects focused on critical interregional transmission interconnection facilities. JTIQ includes construction of five interregional transmission projects, and a new generator-interconnection cost allocation process to pay for them. Xcel Energy will bring a proven record of project delivery experience, achieving our portion on two of the transmission line projects identified. We are supportive of the mission of the effort to provide safe, compliant, and efficient energy avenues across MISO and SPP for transmission upgrades to address the interconnections needed to move energy from renewable generation.

If you have any questions or concerns regarding our submittal, please contact the undersigned at (b) (6) or email at (b) (6). We look forward to a continued partnership supporting the DOE and the new GDO in its mission and working with the MN Department of Commerce on this exciting opportunity.

Sincerely,

A handwritten signature in blue ink that reads 'Chris B. Clark'.

Christopher B. Clark
President, Xcel Energy - Minnesota



MidAmerican Energy Company
4299 NW Urbandale Drive
Urbandale, IA 50322

(b) (6)

Dehn A. Stevens

Vice President – Transmission Development and Planning

May 18, 2023

Michelle Gransee
Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: *U.S. Department of Energy's Grid Resilience and Innovation Partnerships (GRIP) Funding Opportunity Announcement (DE-FOA-0002740)*

Dear Deputy Commissioner Gransee:

I am pleased to express MidAmerican Energy Company's commitment for the Joint Targeted Interconnection Queue (JTIQ) Transmission Portfolio application to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.

MidAmerican is an investor-owned utility and transmission-owning member of the Midcontinent Independent System Operator ("MISO"). MidAmerican is headquartered in Des Moines, Iowa and provides retail electric and natural gas service to residential, industrial, farm, commercial, and municipal customers in Iowa, Illinois, South Dakota, and Nebraska. MidAmerican is subject to regulation by the Federal Energy Regulatory Commission, the Iowa Utilities Board, the Illinois Commerce Commission, the South Dakota Public Utilities Commission and Nebraska municipalities. Transmission service over facilities owned by MidAmerican is provided pursuant to the MISO Tariff.

If this project is funded, MidAmerican will work with the project team including MISO, Omaha Public Power District, the Minnesota Department of Commerce, and others to contribute to the project's success. As a project partner, MidAmerican is committed to providing funding for its share of the project. MidAmerican's share of the project includes constructing a 345 kV line terminal at its Raun Substation near Sioux City, Iowa and constructing a 345 kV transmission line from that location a distance of about two miles to the Missouri River where the line segment will connect to a 345 kV line being constructed by Omaha Public Power District.

The total cost of MidAmerican's share of the project is estimated to cost \$26,392,357. MidAmerican's private funding match would be 50.28% of that total or \$13,270,077. MidAmerican understands that in order for the match to be accepted, it must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. MidAmerican is aware that appropriate documentation is required to record the cost match being provided. The records of all cash and in-kind contributions, including volunteer time will be documented.

Ms. Michelle Gransee


May 18, 2023

Page 2

MidAmerican is aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or currently being utilized as a cost match toward another federal grant.

Please contact me at (b) (6) with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Dehn Stevens", with a long horizontal flourish extending to the right.

Dehn Stevens

Vice President, Transmission Planning and Development



May 17, 2023

Michelle Gransee
Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: DE-FOA-00002740

Dear Deputy Commissioner Gransee:

I am pleased to express the support of Omaha Public Power District ("OPPDP") for the Joint Targeted Interconnection Queue (JTIQ) Transmission Study Process and Portfolio proposal to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP) Program Initiative.

OPPDP is a transmission owning and constructing member of Southwest Power Pool, as well as a public corporation and political subdivision of the State of Nebraska. If this project is funded, OPPDP will work with the project team including: Midcontinent Independent System Operator, Southwest Power Pool, Inc., Evergy, MidAmerican Energy, Xcel Energy, Otter Tail Power, ITC Midwest, the Minnesota Department of Commerce, and others to contribute to the project's success.


OPPDP is committing to \$177,339,173.00 or approximately half of the \$352,703,207.00 total project costs that OPPDP incurs from the JTIQ projects, and seeking DOE funds for the remainder of the project costs, and as a project partner, OPPDP is committed to constructing its assigned portions of the Raun – S3452 345kV project and its assigned portions of the Auburn – Hoyt 345kV project subject to the resolution of unresolved issues such as an acceptable cost allocation method of the project costs that ensures an equitable outcome that is acceptable to OPPDP and is approved by SPP and MISO and ultimately approved by FERC. JTIQ project capital and construction cost that is not matched would be recovered through the standard transmission cost recovery process pursuant to applicable regulatory standards and approvals.

OPPDP understands that in order for the match to be accepted, it must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. We are aware that appropriate documentation is required to record the cost match being provided. The records of all cash and in-kind contributions, including volunteer time, will be documented and available for review.

We are aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or currently are being utilized as a cost match toward another federal grant.

Please contact Joe Lang at (b) (6) with questions.

Sincerely,

DocuSigned by:

D78A6627FE154F8...
VP Systems Transformation
Omaha Public Power District

215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpc.com



May 18, 2023

Michelle Gransee
Deputy Commissioner of Energy
Minnesota Department of Commerce
85 East 7th Place, Suite 280
Saint Paul, MN 55101

Re: DE-FOA-0002740

Dear Deputy Commissioner Gransee:

I am pleased to express Otter Tail Power Company's support for the Joint Targeted Interconnection Queue Transmission Study Process and Portfolio proposal to the U. S. Department of Energy under the Grid Resilience and Innovation Partnerships (GRIP)-Program Initiative.

Otter Tail Power Company ("Otter Tail") is an investor-owned utility and transmission-owning member of the Midcontinent Independent System Operator, Inc. ("MISO"). It provides electricity to over 130,000 residential, industrial, farm, commercial, and municipal customers over an approximately 70,000 square mile area within Minnesota, North Dakota, and South Dakota. In the successful completion of many large-scale transmission projects, Otter Tail has demonstrated a strong commitment to and relationship with its rural and tribal communities, with a history of project collaboration. If this project is funded, Otter Tail Company will work with the project team including: Xcel Energy, our partner for the Bison-Hankinson-Big Stone South JTIQ transmission project, MISO, the Minnesota Department of Commerce, and others to contribute to the project's success.

As a project partner, Otter Tail is committed to providing a capital and construction cost match of 50.28% of OTP's total realized project cost to be recovered through standard transmission cost recovery process, subject to applicable regulatory approvals.

We understand that in order for match to be accepted, it must be allowable, reasonable, allocable, consistently applied, and included in the approved budget. We are aware that appropriate documentation is required to record the cost match being provided. The records of all cash and in-kind contributions, including volunteer time will be documented.

We are aware that none of the cash or in-kind contributions can be paid from a federally funded source (including salaries) or currently being utilized as a cost match toward another federal grant.

Please contact Stacie Hebert at (b) (6) with questions.

Sincerely,

A handwritten signature in cursive script that reads "JoAnn M. Thompson".

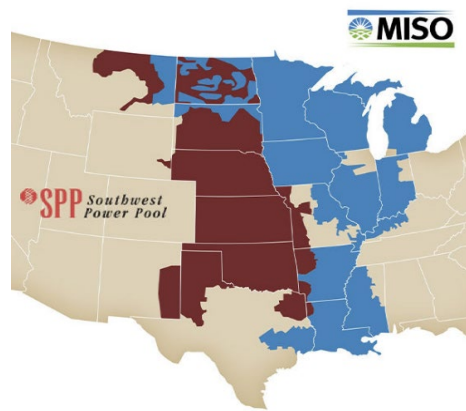
JoAnn M. Thompson
Vice President, Asset Management

Areas Affected by Project – Regions and Congressional Districts

Minnesota Department of Commerce
 UEI: W6J6NATNK6J5

Grid Infrastructure Deployment and Resilience
 Opportunity ID: DE-FOA-0002740

MN COMMERCE-MREA/MMUA GRIP (Topic 3)
 Concept Paper ID: TA3-064-E



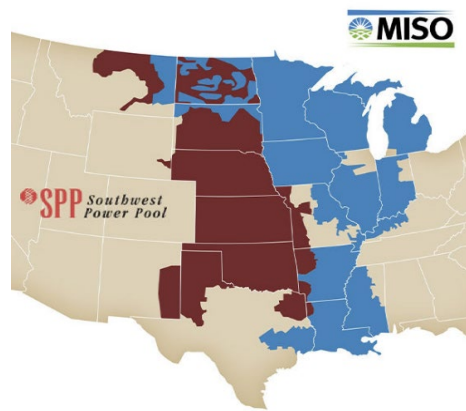
States Affected	Minnesota	Iowa	North Dakota	South Dakota	Indiana	Kansas	Arizona	Nebraska	Missouri
Areas affected	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory
Congress Districts	MN-001 MN-007	IA-003 IA-004	NDAL	SDAL	IN-001 IN-004 IN-008	KS-001 KS-002 KS-003 KS-004	AZ-002 AZ-006	NE-001 NE-002 NE-003	MO-001 MO-002 MO-003 MO-004 MO-005 MO-006 MO-007 MO-008

Areas Affected by Project – Regions and Congressional Districts

Minnesota Department of Commerce
 UEI: W6J6NATNK6J5

Grid Infrastructure Deployment and Resilience
 Opportunity ID: DE-FOA-0002740

MN COMMERCE-MREA/MMUA GRIP (Topic 3)
 Concept Paper ID: TA3-064-E



States Affected	Minnesota	Iowa	North Dakota	South Dakota	Indiana	Kansas	Arizona	Nebraska	Missouri
Areas affected	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory	All counties within territory
Congress Districts	MN-001 MN-007	IA-003 IA-004	NDAL	SDAL	IN-001 IN-004 IN-008	KS-001 KS-002 KS-003 KS-004	AZ-002 AZ-006	NE-001 NE-002 NE-003	MO-001 MO-002 MO-003 MO-004 MO-005 MO-006 MO-007 MO-008