BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY
WESTERN MINNESOTA MUNICIPAL POWER AGENCY AND MISSOURI RIVER ENERGY SERVICES FOR A FACILITY PERMIT FOR AN ENERGY CONVERSION FACILITY AND ASSOCIATED FACILITIES INCLUDING AN ELECTRIC TRANSMISSION LINE IN DEUEL COUNTY, SOUTH DAKOTA

PRE-FILED DIRECT TESTIMONY OF BECKY BAKER
ON BEHALF OF WESTERN MINNESOTA MUNICIPAL POWER AGENCY
AND MISSOURI RIVER ENERGY SERVICES

August 7, 2025

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name, employer, and business address.

A. My name is Becky Baker. I am employed by HDR Engineering, Inc. ("HDR") as a Senior Environmental Project Manager. My business address is 101 S. Phillips Ave., Suite 401, Sioux Falls, South Dakota 57104.

Q. On whose behalf are you providing this testimony?

A. I am providing this testimony on behalf of Western Minnesota Municipal Power Agency ("WMMPA") and Missouri River Energy Services ("MRES") (collectively, "Applicants") in support of their Facility Permit Application ("Application") to the South Dakota Public Utilities Commission.

Q. Briefly describe your educational and professional background.

A. I received a Bachelor of Science ("BS") from South Dakota State University ("SDSU") in 2003, majored in Environmental Management and Biology with a minor in Chemistry. I have over twenty years of experience in environmental compliance. I am currently working as a senior project manager, leading environmental processes and assisting clients in meeting environmental regulations for infrastructure projects. My resume is attached as **Exhibit A**.

Q. Are you familiar with the Toronto Power Plant Project ("Project")?

A. Yes, the Project includes an energy conversion facility and associated facilities being developed by WMMPA, through its agent MRES. The Project is located within Deuel County, South Dakota, approximately 2 miles north of Toronto, South Dakota. The transmission line component of the Project extends from the power plant site to the existing Astoria 345-kV substation owned by Otter Tail Power Company ("OTP Substation").

Q. What is your role with respect to the TPP Project?

A. I provide support to the Applicants for the Project as a project manager and subject matter expert on environmental related issues. My support consists of assisting with the drafting of the Application and subsequent activities such as information requests and hearing testimony. I also assist with outreach and coordination with agencies, local units of government and the Tribes. Finally, I support planning, approval, and execution of the field survey plan including surveys for cultural resources, wetlands, threatened and endangered species, and other wildlife and habitats.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your Direct Testimony?

A. The purpose of my testimony is to provide an overview of the environmental and land use analysis conducted by the Applicants when selecting the proposed power plant site and right-of-way ("ROW") for the Project's 345-kV transmission line depicted on Figure 5, including agency consultation and a summary of studies that have been or will be conducted. Additionally, my testimony discusses the measures that have been or will be implemented to avoid, minimize, and/or mitigate potential impacts to existing land use and the environment.

Q. What exhibits are attached to your Direct Testimony?

A. The following exhibit is attached to my Direct Testimony:

- Exhibit A: B. Baker Resume.

Q. Please identify which sections of the Application you are sponsoring for the record.

A. I am sponsoring the following portions of the Application:

- Section 1.0: Introduction
- Section 7.0: Alternative Sites and Siting Criteria (10.1 and 10.2)
- Section 8.0: Environmental Information
- Section 9.0: Effect on Physical Environment
- Section 10.0: Effects on Hydrology
- Section 11.0: Effect on Terrestrial Ecosystems
- Section 12.0: Effect on Aquatic Ecosystems
- Section 13.0: Land Use
- Section 14.0: Water Quality
- Section 15.0: Air Quality
- Section 17.0: Community Impact (17.6)
- Section 23.0: List of Potential Permits and Approvals
- Section 24.1: Summary List of Mitigation and Measures Required
- Appendix A: Agency Coordination
- Appendix B: Tribal Coordination
- Appendix C: Wetland Delineation
- Appendix D: Threatened and Endangered Species Report
- Appendix G: Level III Cultural Survey (confidential)

III. ENVIRONMENTAL SITE ANALYSIS OVERVIEW

Q. What was the overall approach to environmental analysis of the Project?

A. As discussed in the Direct Testimony of Mr. Moeller, the Applicants started the siting and routing analysis for the Project by evaluating general locations in South Dakota, North Dakota, and Iowa for the power plant site and transmission line. The Applicants obtained land use and environmental data from local, state and federal agencies and entities. Using that data, the Applicants identified environmental and land use constraints and siting and routing opportunities, which were used to identify a potential power plant site and a range of route alignments for consideration (see Figure 4 of the Application). Field surveys for wetland/waterbodies and cultural resources were conducted in the fall of 2024 and spring of 2025 within the power plant site.

For the transmission line route, three landowners approved right-of-entry for the completion of surveys. A field wetland delineation was completed in these areas. The remaining eight landowners did not approve right-of-entry, so wetlands areas were noted from the roadway right-of-way and the wetland boundaries were identified using desktop delineation methods. A cultural resources survey will be completed along the transmission route once easements are obtained. Additionally, throughout the routing process, the Applicants sought landowner, agency, and other stakeholder input, which was used along with the desktop and environmental data to continually refine the route. Using all of this information, the Applicants identified the current 150-foot-wide ROW centered on the proposed route ("Route"), which are shown in Figure 5 of the Application.

Q. Please provide a general overview of area within and around the power plant site and transmission line ROW/Route from a land use perspective.

A. Land use surrounding the power plant site, including along the transmission line ROW/Route, is primarily agricultural consisting of cultivated land and some pasture/hay lands. As discussed in Mr. Moeller's Direct Testimony, the existing built landscape in the area includes existing linear infrastructure (e.g., SD Highway 15, SD Highway 28, and several local roads), existing transmission corridors (i.e., a 115-kV line and 345-kV line owned by Otter Tail), the Astoria Station Power Plant (a natural gas-fired electric generation facility), and Toronto, South Dakota (which consists of more densely developed residential, commercial, and industrial land use).

Q. Please discuss the Applicants' agency coordination efforts.

A. As noted above, the Applicants engaged with state and federal agencies to gather land use and environmental data to identify a potential power plant site and a range of route alignments for consideration and continued those coordination efforts as more detailed analysis was conducted of proposed routes. The agencies contacted include:

- Federal Aviation Administration
- South Dakota State Historical Society/State Historic Preservation Office ("SDSHPO")
- South Dakota Game, Fish and Parks ("SDGFP")
- South Dakota Department of Agriculture and Natural Resources ("SDDANR")
- U.S. Army Corps of Engineers ("USACE")
- U.S. Department of Agriculture ("USDA")/Natural Resources Conservation Service ("NRCS")
- U.S. Fish and Wildlife Service ("USFWS")

In addition to these agencies, the Applicants also coordinated with various Tribes regarding Tribal resource surveys, and with Deuel County regarding local zoning and permitting.

IV. ENVIRONMENTAL SURVEYS/STUDIES

Q. What environmental surveys and/or studies have been conducted for the Project?

A. In addition to analyzing desktop information on various resources, the Applicants conducted the following field studies/surveys:

- Aquatic Resource Delineation: Wetlands and waterbodies within a survey area that includes the proposed power plant site and proposed Route were identified using a combination of desktop analysis and field delineation. Field delineations and mapping were completed on September 30 and October 1, 2024. A copy of the associated report is provided as Appendix C to the Application.
- Level I Cultural Resources Records Search: Analysis of previously recorded cultural resources within a broader area that includes the proposed power plant site, and the proposed ROW/Route was conducted on August 23, 2024. The literature search results are included in the Level III Cultural Survey report, provided as Appendix G to the Application (confidential).
- Level III Cultural Resources Investigation and Report: Field surveys were conducted for cultural resources at the power plant site on November 21 and 22, 2024, and on April 14, 2025, by the Archeological Laboratory, Augustana University ("Augustana"). The report for the survey work conducted is provided as Appendix G to the Application (confidential).
- Tribal Cultural Resources Survey: Field surveys for tribal resources were conducted by representatives of the Flandreau Santee Sioux Tribe of South Dakota on November 21 and 22, 2024. No historic sites were identified in the survey. The report of their findings is included in Appendix B.

Q. Is there any environmental study/survey work yet to be completed for the Project?

A. A Level III Cultural Resources Survey will be completed for the transmission line route once the final Route has been determined and right of entry has been obtained. Project infrastructure will be sited to avoid sites determined eligible for the National Register of Historic Places ("NRHP"). If a site is not able to be avoided, further coordination will occur with SDSHPO to determine next steps.

Prior to construction, the Applicants will conduct surveys for bald eagle, golden eagle, other raptors, and migratory bird nests along the Project ROW.

Q. Please describe the environmental survey area used for wetlands and waterbodies.

A. Wetland and waterbody surveys were conducted in September and October 2024. At that time, the power plant site and 500-foot corridor centered on the proposed transmission line route were surveyed. This survey area is shown in the Aquatic Resources Delineation Report (Appendix C to the Application).

Q. What were the results of the wetland/waterbody surveys?

A. Four wetlands totaling 6.21 acres were identified within the power plant site. A total of 24.59 acres of wetlands were identified through field and desktop delineation within the Route ROW. The wetlands identified within the power plant site and the Route are shown in the Application on Figure 12 and Figure 13, respectively.

Wetlands in the proposed power plant site and transmission line route were identified using a combination of desktop analysis and field delineation. Field delineation was completed in areas where right-of-entry was obtained from three landowners along the proposed transmission line and power plant site. Desktop analysis and observations from the right-of-way identified suspect wetlands along the remaining area of the transmission line route. Field-delineated wetland boundaries were defined using the guidelines provided in the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region* (USACE 2010). An area was considered a wetland if it met the three USACE-defined requisite criteria provided in the Manual and Supplement (USACE 1987, USACE 2010): hydrophytic vegetation, hydric soils, and wetland hydrology.

Q. What steps have the Applicants taken to avoid, minimize, and/or mitigate impacts to wetlands and waterbodies?

A. The proposed power plant will avoid permanent impacts on wetlands. The power plant site will have approximately 5.49 acres of temporary impacts. Wetlands 3 and 4 (referenced in Appendix C to the Application) will be restored from farmed wetlands to natural on-site wetlands that have additional water retention capacity and natural vegetation. These wetlands are non-jurisdictional; therefore, a Section 404 permit is not required. Wetland restoration approval will be coordinated with SDDANR during final design.

Currently, the Route will have less than 0.02 acre of permanent impacts on wetlands. The Applicants will analyze structure placement for the transmission line during final design to determine if permanent wetland impacts can be further minimized and avoided. The temporary impact on wetlands is approximately 1.17 acres. These areas are for the construction of the transmission line and are anticipated to return to pre-existing conditions.

With respect to potential indirect impacts to waterbodies due to construction activities, the Project will obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities issued by SDDANR, which includes the development and implementation of a Stormwater Pollution Prevention Plan ("SWPPP"). The SWPPP will outline best management practices ("BMPs") to control erosion and sedimentation, and the Applicants will implement these BMPs to avoid and/or minimize the potential for sediment to reach surface waters.

Q. Please discuss the Level I cultural resource literature review conducted.

A. The Level I records search identified five previous cultural resources surveys that have been conducted within one mile of the project area (discussed further below), with three of the previous surveys overlapping the survey area. Fifteen archeological sites and 16 structures were previously recorded within one mile of the project area; none of these were within the power plant site.

Q. Please describe the environmental survey area used for Level III cultural resource surveys.

A. As discussed above, cultural resource surveys were conducted in phases. The surveys in November 2024 and April 2025 took place at the proposed power plant site (an approximately 70-acre parcel) to which the Applicants had been granted survey access under an option to purchase real estate agreement between WMMPA and the landowner. That survey area is depicted in Appendix G to the Application. A viewshed analysis was also conducted within a one-mile-radius of the project area.

Q. What were the results of the cultural resource field surveys?

The Level III survey identified two potential cultural sites within the power plant site. Also, the viewshed analysis identified two unevaluated Native American lithic scatter sites within a one-mile-radius of the project area.

Q. How have the Applicants incorporated the cultural resource data into Project design?

To the extent possible, the design of the power plant will avoid any eligible cultural sites or Tribal resources. After evaluating the two potential cultural sites within the power plant site, Augustana recommended the two sites be considered not eligible for NRHP-listing. The Native American lithic scatters within the viewshed have not undergone formal evaluation for NRHP eligibility. Further coordination of these sites will occur with SDSHPO to determine next steps, if any.

A Level III Cultural Resources Survey will be completed for the transmission line Route and access roads once the final Route has been determined. Project infrastructure will be sited to avoid sites determined eligible for the NRHP during final design of the power plant and Route. If a site is not able to be avoided, further coordination will occur with SDSHPO to determine the next steps.

Q. Will the Applicants have procedures in place to address previously unidentified cultural resources encountered during construction?

A. Yes. Prior to beginning construction, the Applicants will develop an unanticipated discovery plan, which will be followed during construction in the event that potential cultural resources or human remains are encountered. Once prepared, the plan will be submitted to SDSHPO for review.

Q. Please discuss the Project's Tribal coordination.

A. As discussed in the Application, the Applicants voluntarily engaged in coordination with 28 Tribes, and two of the Tribes expressed an interest in the Project. Flandreau Santee Sioux Tribe completed a Traditional Cultural Property Survey concurrently with the Level III survey and determined that the Project site has no cultural, material, and/or human remains in this area that will be affected by the proposed Project. Coordination with the Tribes is on-going. Based on the survey results, the Project is sited to avoid potential impacts to Tribal resources. See Appendix B to the Application for the Tribal coordination materials.

Q. Please discuss the Project's coordination with the SDSHPO.

A. In addition to more general outreach to the SDSHPO regarding the Project, the Applicants submitted a Level III cultural resources survey report (Appendix G to the Application) to SDSHPO on June 20, 2025. Additional cultural resource field surveys will be completed for the Route once right of entry has been obtained. An addendum Level III cultural resources survey report will be prepared for the Route and submitted to SDSHPO for review.

V. ADDITIONAL ENVIRONMENTAL RESOURCES

Q. You have described the analysis of and minimization measures implemented to minimize impacts to surface waters. Please also discuss the measures the Project is implementing to minimize potential impacts to existing groundwater.

A. To minimize potential impacts to groundwater from construction activities, the Project will have a SWPPP outlining pollution prevention measures. A Water Permit for Non-irrigation Uses will be obtained through SDDANR for the Altamont aquifer for the two permanent wells that will be used for the operation of the power plant. The Applicants will comply with all terms and conditions of the Water Permit for Non-irrigation Uses for the Project.

Q. What steps have been or will be employed to avoid, minimize, and/or mitigate potential impacts to geologic and soil resources?

A. The Project has been routed to minimize impacts to geological resources. Geologic data indicate that the Project will not significantly affect soil conditions or bedrock geology. The risk of seismic activity and subsidence are low. No extractive resources (e.g., gravel/sand pits or oil/gas wells) are located within the Project ROW.

Prior to construction, the Applicants will conduct geotechnical soil borings at the power plant site and transmission line structure locations. This information will be incorporated into the structure foundation design to ensure the design is appropriate for the soil conditions.

Q. Will the Project implement measures to minimize potential impacts to air quality?

A. Yes. To minimize the potential for fugitive dust during construction, the Applicants will implement dust control measures, such as watering unpaved roads and loose gravel areas, implementing spray-on amendments (e.g., calcium chloride), staging construction activities to limit soil disturbance, limiting construction traffic speeds, and other applicable measures, as necessary. Upon completion of construction activities, measures

will be taken to revegetate disturbed areas (outside of areas that will return to active cultivation) to permanently stabilize soil and prevent further fugitive dust emissions. During the operation of the Project, air pollution control through limiting the hours of operation and equipment selection will keep emissions of regulated air pollutants below the major source threshold of the SDDANR Prevention of Significant Deterioration program.

Q. Discuss the vegetation present within the proposed power plant site and transmission line ROW, and how impacts have been or will be avoided, minimized, and/or mitigated.

A. Land use within the proposed power plant site and transmission line ROW is primarily cultivated agricultural land, with some developed, open space, and pasture and hay land. After reviewing the impacts of the Project, the U.S. Department of Agriculture, Natural Resources Conservation Service ("NRCS") indicated that the Project will have no impact on prime farmland or farmland of statewide importance.

Given the limited vegetation within the proposed power plant site and transmission line ROW, impacts to vegetation will be limited. In vegetated areas impacted by temporary construction activities, the Applicants will reseed the areas with a seed mix recommended by the NRCS or other resource agency, unless otherwise requested by the landowner. Tree removal will be minimal and will be limited to the extent possible.

Noxious weeds have the potential to be spread through construction activities. The Applicants will minimize the potential for the spread of noxious weeds by using weed-free seed mixes and applying herbicides, where allowed, as necessary. Additionally, the Applicants will develop and implement a noxious weed control plan to minimize the potential for introduction and spread of noxious and invasive weeds.

Q. Is the Project anticipated to impact federally-listed species, federally-designated critical habitat, or state-listed species?

A. No. As discussed above, the proposed power plant site and transmission line ROW contain primarily disturbed lands. No potentially undisturbed grasslands are within the power plant site and only 2.12 acres are within the ROW, which minimizes the potential to impact grassland wildlife species.

The Northern Long-eared Bat ("NLEB") have the potential to occur within the vicinity of the Project. However, trees within and near the power plant site and the Route are planted shelterbelts or small clusters less than 10 acres located more than 1,000 feet from any forested/wooded areas. Therefore, no suitable habitat for NLEB was identified within the power plant site or the Route. Applicants will minimize tree removal to the extent possible.

Tree removal, if required, will be restricted to periods outside of bat roosting and summer pup rearing periods (April 1 – October 31), in accordance with tree restrictions for the NLEB per the Endangered Species Act. A Determination Key review through the USFWS Information for Planning and Conservation ("IPaC") for potential effects of the Project on NLEB resulted in a "no effect" finding; a Proposed Species Effects and Survey Plan memo was completed on February 5, 2025, and provided to the USFWS, with additional information provided via email on February 20, 2025. As such, the Project is not anticipated to impact bats generally, or the NLEB, specifically.

Other species, such as eagles, rufa red knot, Suckley's cuckoo bumble bee, western regal fritillary, and the monarch butterfly, also have the potential to pass through the project area. However, since the proposed power plant site and transmission line ROW contain primarily disturbed areas (cultivated crops and linear infrastructure), suitable habitat is either unlikely to be present or is limited. Based on consultations with USFWS, the Project is not anticipated to impact these species.

Q. Are aquatic ecosystems present within the proposed power plant site and transmission line ROW and, if so, what measures will the Applicants employ to avoid, minimize, and/or mitigate potential impacts?

A. Aquatic species/habitat within the proposed power plant site and transmission line ROW is limited. No federally-listed or state-listed aquatic species have the potential to occur in proximity to the Project.

The transmission line structures will span the streams/drainages crossed by the Route. Therefore, no permanent impacts to aquatic ecosystems as a result of the Project are anticipated. During construction, the Project will implement erosion and sediment control measures to minimize the potential for runoff into surface waters and wetlands.

Q. Is the Project anticipated to permanently impact other wildlife species?

A. No. There is the potential for wildlife in the vicinity of the Project to be temporarily impacted during construction. However, following construction, wildlife species are expected to adapt to the presence of the Project, as they have to the existing infrastructure and agricultural uses.

Q. You mention above that you coordinated with USFWS and the SDGFP regarding the Project. Please discuss that coordination.

A. In June 2024, the Applicants sent coordination letters to the USFWS and SDGFP providing information regarding the Project and requesting data regarding environmental resources and public lands in the vicinity of the Project. In response, the USFWS and SDGFP provided information regarding managed lands, protected species/species of

concern, and associated habitats. Information was also obtained from online data sources, including the USFWS IPaC website and the SDGFP Environmental Review Tool. This information was considered by the Applicants in developing a survey plan, as well as identifying avoidance and minimization measures.

On February 20, 2025, the USFWS provided comments noting that they have no concern regarding threatened and endangered species being impacted by the Project (see Appendix A to the Application).

In an Environmental Review Report dated November 7, 2024, the SDGFP noted that no special status species were documented within the Project vicinity, and no environmental conflicts were detected for the proposed Project. On January 28, 2025, the SDGFP provided correspondence indicating it does not have natural heritage data for the project area. The SDGFP recommended that the Applicants consider implementing certain erosion control plans and offered siting and design recommendations. This information is discussed in more detail in Sections 10.3.1 and 11.1.5 of the Application and a copy of the SDGFP Environmental Review Report is provided in Appendix A.

Q. What measures have or will the Applicants implement to avoid, minimize, and/or mitigate impacts to wildlife species?

A. As noted above, the power plant site and transmission line Route proposed for the Project minimizes the potential for impacts to wildlife, including protected species. The proposed location of the power plant and transmission line structures avoids impacts on potentially undisturbed grasslands and critical habitat to the extent possible, contains limited trees and surface waters, and is primarily cultivated land.

The Project's design further minimizes potential impacts by spanning streams/drainages for the ROW, minimizing tree clearing, and minimizing potential wetland impacts. Additionally, in accordance with the USFWS and SDGFP recommendation, the Project will be designed in accordance with the Avian Power Line Interaction Committee ("APLIC") *Suggested Practices for Avian Protection On Power Lines: State of the Art in 2006* to minimize the potential for avian collisions and electrocution.

During construction, the Applicants' implementation of erosion and sediment control measures and compliance with applicable requirements of the USACE Nationwide Permitting Program and SDDANR wetland program will also minimize the potential to impact wetlands areas. Overall, minimal impacts to wildlife are anticipated.

VI. PERMITS AND APPROVALS

Q. In addition to an Energy Facility Permit from the Commission, what other permits or approvals are required for the Project?

A. Various federal, state, and local approvals may be required for the Project. Section 23 in the Application identifies potential permits or approvals required for the construction and operation of the Project and also identifies the status of each permit/approval.

Q. Will the Applicants obtain all local, state, and federal permits and approvals required for the Project prior to engaging in the activity requiring the permit?

A. Yes.

VII. CONCLUSION

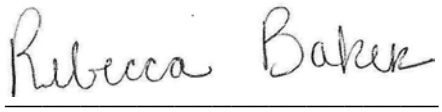
Q. Based on the analyses the Applicants have conducted, has the Project been sited to minimize potential human and environmental impacts?

A. Yes. As detailed in the Application, my Direct Testimony, and the Direct Testimony of Mr. Moeller, the Project components have been thoughtfully sited, routed and designed to avoid or minimize potential impacts to the community, land use, and environmental resources. A summary of avoidance, minimization, and mitigation measures is provided in Section 24.1 of the Application.

Q. Does this conclude your direct testimony?

A. Yes.

Dated this 7th day of August, 2025.



Rebecca (Becky) Baker