



Categorical Exclusion Determination

Western Area Power Administration

U.S. Department of Energy



<u>Proposed Action Title:</u>	Denison Substation Expansion and Point of Interconnection
<u>WAPA Region:</u>	Upper Great Plains (UGP)
<u>Location (County/State):</u>	Crawford County, IA
<u>CX Determination Number:</u>	2026-UGP-006
<u>CX Determination Expiration Date*:</u>	12/31/2030

**CX is valid until the date above (no longer than five years from when document was signed) or completion of work started prior to the expiration of the CX Determination, unless there are substantial changes to the scope of work, location, or applicable regulations. If such changes occur prior to the expiration of the CX, the Region Environmental Program will review the analysis to ensure the CX is still applicable.*

Proposed Action Description:

Western Area Power Administration (WAPA) proposes to construct a new Point of Interconnection (POI) at the existing Denison Substation to accommodate the interconnection requests submitted by Silver Queen Wind Farm, LLC (Silver Queen) to the Southwest Power Pool (SPP; see attached maps). This would require upgrading and expanding the substation within WAPA's currently owned property, located approximately 13 miles southeast of Denison, Iowa. Additionally, construction of a temporary tap transmission line would be used while the substation is being upgraded. The POI would be constructed in accordance with the Generator Interconnection Agreement between SPP, WAPA, and Silver Queen. Execution of the interconnection agreement is an activity foreseeably necessary for the proposal (10 CFR 1021.102(d)). WAPA would retain ownership and management of the Denison Substation.

Expansion of the substation on the north side and construction of the POI would permanently alter 1.2 acres of land within the existing WAPA-owned property. Following grading and fill placement in the expansion area, WAPA would install circuit breakers, disconnect switches, capacitor coupled voltage transformers, a take-off structure, transformer oil containment membranes, and a control building with appurtenant infrastructure (e.g., grounding system and conduit system) for the substation bay construction. Underground utilities, such as existing conduits, grounding, and drain system piping, would be extended to the new equipment within the expansion area. New fencing would be installed around the perimeter of the expansion and connect to the existing fence surrounding the substation. Equipment used for construction would include typical construction equipment such as grading equipment, trailers, and vehicles. Mobile equipment would be stored on the existing substation pad when not in use. Hazardous materials would not be stored during construction or operations.

To the north of the existing substation pad, one small basin, one palustrine emergent wetland, and several drainages are within the pad expansion area for stormwater capture and treatment. The features in the pad expansion area would be filled during construction and replacement basins or



treatment systems redesigned as needed to meet Section 402 of the Clean Water Act (CWA) requirements.

The Denison Substation pad expansion and interconnection is anticipated to begin as early as spring 2027 with an estimated completion in 2030. The duration of construction is dependent upon contractor and supply availability, outage restrictions, and weather. Active construction is anticipated to take between 18 to 24 months, not including breaks in construction due to the aforementioned variables.

Operations and maintenance (O&M) at the expansion area would be similar to existing activities at the substation, including monthly visits for equipment inspection and/or replacement, typically conducted by a single worker. All repair work would occur within WAPA property or at the permanent poles within WAPA's existing right-of-way (ROW).

To enable Silver Queen to interconnect while the substation is being upgraded, a temporary tap would be constructed to the northwest of the Denison Substation outside both the existing substation footprint and WAPA property. WAPA would acquire new temporary easements for the land to accommodate the approximately 650-foot-long temporary tap.

The temporary tap would require installation of three new single wood pole structures and two switches (Denison Substation and Silver Queen Line), consisting of four new 40-foot-tall wood supporting poles for each switch structure. The switch poles would be secured with guy anchors. Final structure type and design for the single pole structures would be determined during the detailed engineering phase and may be self-supported or require guy anchors. The three poles and one switch would be located west of Westcott Road and connect to an existing pole west of the road. The other switch would be about 130 feet north of the expansion footprint area and east of Westcott Road. A drill rig would drill new pole holes 30 inches in diameter and six feet deep. The existing conductor line crossing Westcott Road would be removed to route power through the temporary tap. Wire would then be strung to connect the temporary tap to the existing Denison Substation. Equipment used for construction would include typical construction equipment such as a drill rig and vehicles. Mobile equipment would be stored on the existing substation pad when not in use.

The temporary tap would be constructed and removed in accordance with a Temporary Tap Agreement between WAPA and Silver Queen. The temporary tap installation is anticipated to take up to four days and occur in summer 2028.

Following construction of the permanent interconnection facility, the temporary poles and switch structures would be removed from the ground, via crane lift, and the holes backfilled with the previously augured materials. The conductor wire between the two permanent pole structures would be returned to service. Removal of the temporary tap transmission line structures would take up to two days and occur at the completion of the pad expansion work and interconnection.

All construction activities would be conducted in accordance with WAPA's Construction Standards.



Environmental Requirements during Project Implementation:

Should cultural resources, including buried human remains, be inadvertently discovered during construction activities, the following would be implemented in accordance with Federal and State requirements and WAPA's Construction Standards:

- If human remains are found within the project area, work would cease immediately within a 200-foot radius of the find, the location would be secured, and the remains protected.
- The appropriate WAPA personnel (e.g., Federal or Regional Preservation Officer) and appropriate law enforcement agencies would be notified immediately of the location and nature of the findings. Based on the land status where the discovery is made, the appropriate Federal or state laws (i.e., Native American Graves Protection and Repatriation Act [43 CFR 10] or Iowa Code) would be invoked. WAPA would make notifications to the appropriate agencies within the required timeframes.
- No materials would be handled, altered, damaged, or removed from the find location. If a professional archaeologist determines the remains are archaeological, WAPA would work with the Office of the State Archaeologist to determine how the remains should be addressed.
- Archaeological resources (excluding human remains) discovered during construction would immediately be brought to the attention of the appropriate WAPA personnel (e.g., Federal or Regional Preservation Officer). Work would be halted within a 200-foot radius of the find to avoid further disturbance of the resources while the resources are evaluated and appropriate mitigation plans are developed in consultation with interested tribes and SHPO. No materials would be handled, altered, damaged, or removed from the find location.

Should paleontological resources be inadvertently discovered during construction activities, the project would implement the following in accordance with WAPA's Construction Standards:

- If evidence of a paleontological site is discovered in the project area, work would cease immediately within a 200-foot radius of the find and the area would be protected.
- The appropriate WAPA personnel (e.g., Federal or Regional Preservation Officer) would be notified of the location and nature of the findings.
- Materials would not be removed, handled, altered, or damaged. Work would not resume until appropriate approvals are received.

Implementation of the environmental requirements listed below would help to avoid or minimize impacts on wildlife and protected species during construction and O&M:

- Adherence to WAPA's Construction Standards, including measures to reduce impacts on wildlife and protected species.
- WAPA and Silver Queen would adhere to their respective conservation measures outlined in the biological assessment, reasonable and prudent measures outlined in the biological opinion



and conference opinion, and terms and conditions of the incidental take statement.

- Ground disturbing activities will minimize the size of areas in which soil would be disturbed or vegetation would be removed.
- All trash in containers would be covered. All garbage or human waste generated on site would be promptly disposed of to avoid attracting nuisance wildlife.
- Lights on the substation pad would be downcast, where possible.
- Worker awareness training would be provided to employees and contractors working on site for identifying and responding to encounters with protected species.
- If unanticipated protected species or habitats are discovered during project construction activities, activities within 100 feet of the protected species or habitat would stop and not restart until directed to do so by the appropriate project authorities.
- Employees, contractors, and site visitors would be instructed to avoid harassment and disturbance of wildlife, especially during the primary nesting season (May 15 to August 1 for non-raptors).
- Construction would avoid impacts to potentially suitable nesting habitats (i.e., grasslands, woody habitat, riparian areas) during the primary nesting season (May 15 to August 1 for non-raptors). If construction activities occur during migratory bird nesting windows, WAPA would survey the construction area for active migratory bird nests prior to work and would establish avoidance buffers around nests that may potentially be disturbed.
- WAPA would comply with the Bald and Golden Eagle Protection Act, including implementation of measures necessary to protect eagles and their nests (e.g., disturbance buffers), as appropriate.
- WAPA would reassess potential risk to eagles, as needed, during O&M to ensure compliance with the Bald and Golden Eagle Protection Act.
- Project personnel and project contractors would not bring unleashed dogs on the project site.

Implementation of WAPA's Construction Standards, adherence to the conditions of the Iowa Department of Natural Resources (IDNR) Clean Water Act (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) General Permit No. 2, including implementation of the Storm Water Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMP), would address potential risks associated with stormwater runoff (i.e., turbidity and sedimentation), contaminants, and use of pesticides. These requirements include the following:

- Stormwater treatment systems (e.g., basins and drainages) would be modified and/or installed and maintained in accordance with Section 402 of the CWA requirements.
- A SWPPP would be developed and certified prior to the start of construction and Notice of



Intent to the IDNR. A copy of the SWPPP would be retained on site and made available for inspection upon request in accordance with Iowa General (storm water) Permit #2. Implementation of the SWPPP would minimize construction activity disturbance to land and water sources nearby.

- The pad expansion area would be constructed of compacted backfill at stable side slopes in accordance with WAPA's Construction Standards to avoid erosion of backfill material.
- Standard erosion control BMPs would be applied to construction activities and disturbed areas, as applicable, to minimize erosion and sediment transport by surface runoff to protect water quality.
- Dust abatement measures would be applied to control dust from vehicular traffic that could enter stormwater runoff. Potential environmental impacts from the use of dust suppressants would be minimized by applying the suppressants only to pad areas.
- Pesticide use would be applied by properly certified applicators in accordance with label requirements.
- Runoff from excavated areas and piles of excavated material; construction material or wastes (to include truck washing and concrete wastes); and chemical products such as oil, grease, solvents, fuels, pesticides, and pole treatment compounds would be controlled.
- Excavated material, stockpiled onsite during construction, must be stored on plastic with appropriate thickness and covered to prevent wind and rain erosion.
- Excavated material or other construction material would not be stockpiled or deposited near or on streambanks, lake shorelines, ditches, irrigation canals, or other areas where run-off could impact the environment.

To avoid or minimize impacts from soil erosion during excavating and grading activities, the following environmental requirements would be implemented:

- Ground-disturbing construction activities would be minimized during rainy periods.
- As feasible, construction activities would be conducted when soils are dry.
- Disturbed areas that are not actively under construction would be stabilized using methods such as erosion matting or soil aggregation, as site conditions warrant.
- Excess excavation materials would be disposed of in approved areas to control erosion.
- Earth dikes, swales, and lined ditches could be used to divert local runoff around the work site, if site conditions warrant.
- Substation areas would be regularly inspected for damage from erosion, washouts, corrugations, waves, and rutting. Corrective measures would be taken immediately upon



evidence of damage.

- Drainage problems caused by construction would be corrected to avoid damage to agricultural fields from water erosion.
- Soils in cultivated fields compacted during construction activities would be decompacted following completion of construction.
- Coverage under the NPDES General Permit No. 2 issued by the IDNR (IDNR; 2023) would be obtained. This permit requires development and implementation of a SWPPP. The SWPPP would be developed during the civil engineering design of the project and include BMPs to control erosion and sedimentation.

Implementation of environmental requirements for air quality would avoid or minimize air quality impacts during construction and O&M. These measures address energy consumption and potential risks associated with air quality from dust and emissions. These measures include the following:

- Surface areas of the substation would be maintained in compacted conditions to reduce dust generation.
- Vehicle and equipment speeds would be controlled on unpaved surfaces to minimize airborne fugitive dust.
- Dust suppressants would be used on the substation pad to control fugitive dust and checked by WAPA's environmental staff. Oil would not be used as a dust suppressant.
- Machinery would have and use air emissions control devices as required by state and Federal requirements. Routine preventive maintenance would be conducted, including tune-ups to manufacturer specification for efficient combustion and minimum emissions. If possible, equipment with more stringent emission controls would be leased or purchased.
- Excavated material, stockpiled onsite during construction, must be stored on plastic with appropriate thickness and covered to prevent wind and rain erosion.
- Vehicles transporting loose materials would be covered when traveling on public roads, and/or loads would be kept sufficiently wet and below the freeboard of the truck to minimize wind dispersal.
- Tires of construction-related vehicles would be cleaned and inspected, as necessary, so the tires are free of dirt prior to entering paved public roadways.
- Visible tracks or runoff dirt would be cleaned (e.g., through street vacuum sweeping) from the construction site off public roadways.
- Energy consumption would be reduced by using energy-efficient and/or sustainable vehicles and building materials such as motion-sensor lighting and Energy Star certified materials, to the greatest extent possible, for the O&M facility.



The following environmental requirements for hazardous materials and waste management would be implemented to ensure proper handling and disposal of the materials:

- Use and disposal of hazardous materials and waste would be conducted in accordance with Federal and State requirements.
- A spill prevention, notification, and cleanup plan would be required that would include measures to prevent spills; procedures for notifying the appropriate state and/or federal entities in the event of a spill; employee awareness training of the plan; and identification of equipment, materials, and manpower needed to respond to a spill.
- No waste would be left on WAPA property, ROW, or easement to keep the areas clean of debris, garbage, fugitive trash, or waste.

Implementation of the following environmental requirements would help to avoid or minimize noise impacts associated with construction and O&M activities.

- Equipment with the lowest noise levels available and no prominent discrete tones would be selected, when possible.
- Equipment would be maintained in good working order in accordance with manufacturer specifications. Suitable mufflers and/or air-inlet silencers would be installed on internal combustion engines and certain compressor components.
- Project-related vehicles traveling within and around the project area would be operated in accordance with posted speed limits.
- Construction activities would occur during daytime hours.

The following requirements would address potential risks associated with vegetation damage and noxious weed infestation:

- Vegetation disturbance would be limited to areas where clearing is required for the substation pad expansion and preserved adjacent to the disturbed areas.
- The project would manage and control noxious weeds during construction to ensure compliance with the Iowa Weeds Law and, if applicable, landowner agreements. When reseeded is needed, the use of certified weed-free seed mixes and mulch would be required.
- A “clean vehicle policy” would be required for vehicles entering and leaving construction areas to prevent transport of noxious weed plants and/or seed. Construction equipment would be free of mud and vegetation when arriving at the project. Construction equipment would be visually inspected and seeds that may be adhering to tires and other equipment surfaces would be removed and contained.
- The substation pad would be regularly monitored for the establishment of noxious plant species. Noxious weeds would be controlled in accordance with the Iowa Weeds Law and



WAPA's Construction Standards.

- If a herbicide is applied, it would meet the requirements in WAPA's Construction Standards and be consistent with the manufacturer's label. Herbicides would be nonstaining and nonvolatile if applied near nontarget plants such as landscaping or field crops.
- Herbicides would be applied during periods of favorable weather conditions, or if favorable weather conditions are not occurring, measures to contain herbicide runoff inside the yard would be required. Herbicides would not be applied when winds could cause drifting of sprayed herbicide.
- Fill materials originating from areas with known invasive vegetation problems would not be used.

Implementation of the environmental requirements listed below would help to avoid and minimize visual impacts during construction and O&M. These environmental requirements address impacts from changes to the landscape and light pollution:

- Substation expansion and interconnection structures, materials, and surface treatments would be consistent with the existing materials, colors, and textures of the existing substation, in accordance with WAPA's Construction Standards.
- Lighting for facilities would not exceed the minimum required for safety and security, and downcast designs that minimize upward light scattering (light pollution) would be selected. Floodlights would be angled or diffusers added to keep lighting within the fenceline. Lights would be motion activated, where possible.
- The natural landscape would be preserved and activities conducted to prevent unnecessary destruction, scarring, or defacing of the natural surroundings in the project vicinity.
- Topsoil from excavation activities would be segregated and spread on slopes to reduce color contrast. Topsoil piles would not be left in sensitive viewing areas.
- Excess excavation materials would be disposed of in approved areas to avoid creating color contrast with existing vegetation/soils.
- The burning of trash would be prohibited during construction; trash would be stored in containers and hauled off-site.
- Litter would be controlled and removed regularly during construction.
- Facilities and off-site surrounding areas would be kept clean of debris, "fugitive" trash or waste, and graffiti. Scrap heaps and materials dumps would be prohibited and prevented. Materials storage yards, even if thought to be orderly, would be kept to an absolute minimum. Surplus, broken, or disused materials and equipment of any size would not be allowed to accumulate.
- Maintenance activities would include litter cleanup and noxious weed control.



Implementation of the following environmental requirements would avoid or minimize health and safety and ground transportation impacts associated with construction and O&M.

- A health and safety program would be developed to protect the safety and health of employees. The program would comply with the latest effective Occupational Safety and Health Administration (OSHA) regulations and include provisions for first aid, medical care of injured employees, and emergency response. Employee training, fire protection procedures, use of personal protective equipment, and activity hazard analysis with protective measures are examples of measures that would be included in the health and safety program, as well as the other requirements identified in WAPA's Construction Standards.
- Procedures for protecting the public would be implemented such as temporary fencing around work areas during construction, if needed. Extension of the fenceline around the substation expansion area would limit public access to facilities.
- Hauling over public highways, roads, and bridges would be in accordance with applicable local and state regulations and minimize interference with local traffic. The project would enter into county Road Use Agreements, if needed, and obtain the appropriate state access and use permits to minimize impacts to county and state roads. Where haul routes cross railroads, public highways, or roads, measures such as barricades, flag persons, and other necessary precautions would be implemented.
- Project personnel and contractors would be instructed and required to adhere to speed limits commensurate with road types, traffic volumes, vehicle types, and site-specific conditions to ensure safe and efficient traffic flow.
- During construction and O&M phases, traffic would be restricted to existing roads.

Categorical Exclusion(s) Applied (Number and Title):

B1.3 Routine maintenance

B1.6 Tanks and equipment to control runoff and spills

B1.11 Fencing

B1.15 Support buildings

B1.24 Property transfers

B1.33 Stormwater runoff control

B4.11 Electric power substations and interconnection facilities

B4.12 Construction of powerlines

B4.13 Upgrading and rebuilding existing powerlines



Findings:

For the DOE procedures regarding categorical exclusions, including the full text of each categorical exclusion, see 10 CFR 1021.102 and Appendix B to [10 CFR Part 1021](#), and also Section 5.4 (Applying one or more categorical exclusions to a proposal) and Appendices B and C of [DOE's National Environmental Policy Act Implementing Procedures](#) (Jun. 30, 2025).

Requirements and guidance in 10 CFR 1021.102 and DOE's NEPA Implementing Procedures: (See full text in regulation and in Implementing Procedures)

- The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B or C of DOE's NEPA Implementing Procedures (June 30, 2025).

To fit within the classes of actions listed in Appendix B to 10 CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures. Additionally, for CXs adopted pursuant to NEPA Section 109 (see DNIP, Appendix C), the originating Federal agency's integral elements or extraordinary circumstances must be in accordance with the applicable requirements.

- There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal. DOE or an applicant may modify the proposal to avoid reasonably foreseeable adverse significant effects such that the categorical exclusion would apply.

- The proposal has not been segmented to meet the definition of a categorical exclusion.

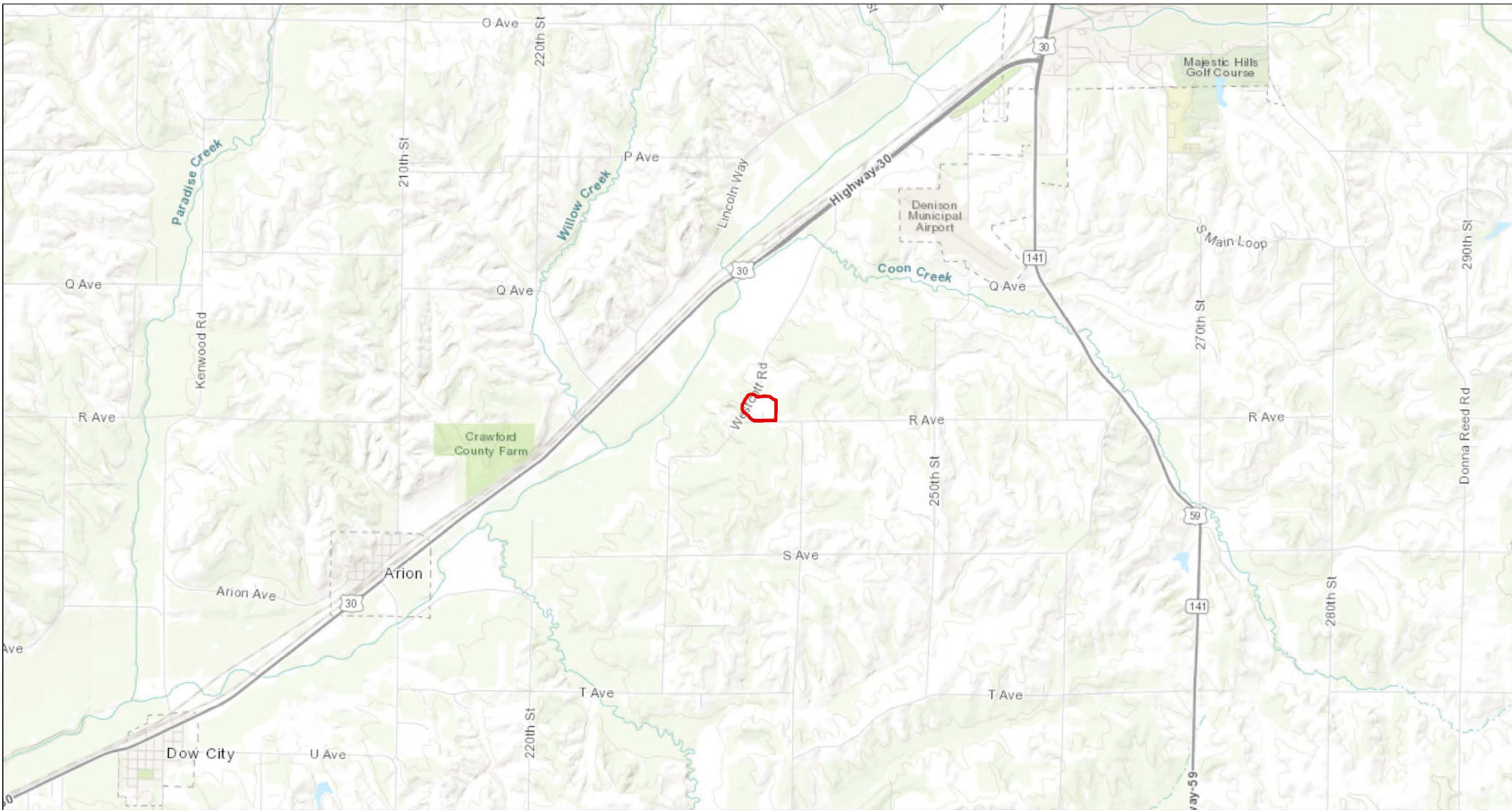
[Note: For proposals that fit within the categorical exclusions listed in Appendix C of DOE's NEPA Implementing Procedures, see DOE's notice of adoption for the subject Appendix C categorical exclusion for additional considerations. DOE notices of adoption for other agency categorical exclusions may be found on [DOE's Section 109 webpage](#).]

Determination:

Based on my review of the proposed action, I have determined that the proposed action fits within the specified class(es) of action, the other requirements and guidance set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

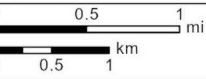
WAPA Authorized Official Signature:

Title: Upper Great Plains Regional Manager



**Silver Queen Wind Farm
Interconnection
Crawford County, Iowa**

Data Source: Esri
 Coordinate System: NAD 1983 UTM Zone 15N
 Date: 12/19/2025 Author: E. Coffey-Wick



 Project Area





Denison Substation Switch

Silver Queen Line Switch



Silver Queen Wind Farm Interconnection
 Crawford County, Iowa

Data Source: Esri
 Coordinate System: NAD 1983 UTM Zone 15N
 Date: 2/19/2026 Author: E. Coffey-Wick

0 100 200 ft
 0 50 100 m

<p> Project Area</p> <p> Substation Pad Expansion</p> <p>• Temporary Pole</p>	<p>Interconnection Facilities/ Infrastructure</p> <p> Conductor Line</p> <p> Temporary Tap Transmission Line</p>	<p> WAPA Parcels</p>
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