DOE/EIS-0543-SA-1
Rail Tie Wind Project Environmental Impact Statement
Supplement Analysis

INTRODUCTION

The Department of Energy (DOE), Western Area Power Administration (WAPA), prepared the attached Supplement Analysis (SA) to evaluate the Rail Tie Wind Project Environmental Impact Statement (DOE/EIS-0543) (https://www.energy.gov/sites/default/files/2021-11/final-eis-0543-rail-tie-wind-wyoming-2021-11.pdf) in consideration of changes that could have bearing on the potential environmental impacts previously analyzed.

DOE's National Environmental Policy Act (NEPA) regulations state that "when it is unclear whether or not an EIS supplement is required, DOE shall prepare a Supplement Analysis" (10 Code of Federal Regulations [CFR] 1021.314(c)). This SA provides sufficient information for DOE to determine whether 1) to supplement an existing EIS, 2) to prepare a new EIS, or 3) to require no further NEPA documentation (10 CFR 1021.314(c)(2)).

CHANGES TO THE PROPOSED ACTION OR NEW CIRCUMSTANCES OR INFORMATION

Since July 2022, design and construction planning has continued for WAPA's Federal facilities and the Project Proponent's, ConnectGen Albany County LLC (ConnectGen), proposed Rail Tie Wind energy generation project (a private action), resulting in refinements to locations of WAPA and ConnectGen's facilities. WAPA does not have the authority to exercise siting control or discretion over ConnectGen's private action; however, ConnectGen's private action was analyzed and potential impacts disclosed in the Final EIS.

WAPA's refinement to the Federal action includes an adjustment to the location of the proposed switchyard necessary to accommodate the interconnection. The new location of the switchyard remains within the area analyzed in the Final EIS.

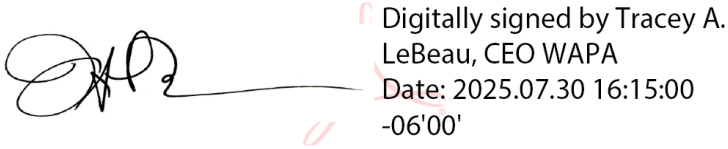
ConnectGen continued siting, design, and engineering of Phase I of the Project (see appendix A to the attached SA, ConnectGen's 2025 memorandum to file "Re: Rail Tie Wind Project Micro-siting and Engineering Refinements, Phase 1 (Western Construction Stage)" for additional details). ConnectGen's refinements address Albany County Wind Energy Conversion Permit setbacks from residences related to turbine placement, minimize impacts disclosed in the Final EIS, and integrate or optimize design of associated facilities with the turbine locations. Additional discussions with stakeholders, their needs, and considerations also necessitated changes.

Adjustments to ConnectGen's facilities' siting are occurring as anticipated by the Final EIS, with some adjustment locations falling outside the siting corridors or Project area analyzed in the Final EIS. The attached SA considers the environmental effects occurring in the adjustment locations falling outside the siting corridors or Project area.

The DOE NEPA implementing regulation at 10 CFR 1021.314 describes the requirements that WAPA must meet regarding potential to prepare supplemental NEPA analysis. DOE's regulations state that if there are substantial changes to the proposal or if significant new circumstances or information relevant to environmental concerns, then a supplemental EIS shall be prepared.

Based on the analysis in the attached SA, WAPA determined that the refinements to the Federal action analyzed in the Final EIS, as set forth in the Project refinements memorandum, do not constitute a substantial change nor present significant new circumstances or information relevant to environmental concerns warranting a supplemental EIS. No further NEPA documentation or agency decisions are required. This SA will be entered as part of the administrative record for the Project.

☒ Approve ☐ Do Not Approve



Tracey A. LeBeau **Date**
Administrator and Chief Executive Officer
Western Area Power Administration

RAIL TIE WIND PROJECT ENVIRONMENTAL IMPACT STATEMENT SUPPLEMENT ANALYSIS

DOE/EIS-0543-SA-1

May 2025

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ACRONYMS AND ABBREVIATIONS

ACE	Army Corps of Engineers
ADLS	Aircraft Detection Lighting System
CFR	Code of Federal Regulations
ConnectGen	ConnectGen Albany County LLC
DOE	Department of Energy
EIS	environmental impact statement
kV	kilovolt
MW	megawatt
NEPA	National Environmental Policy Act
O&M	operations and maintenance
Project	Rail Tie Wind Project
SCADA	Supervisory Control and Data Acquisition
Tariff	Open Access Transmission Service Tariff
U.S.	United States
U.S. 287	U.S. Highway 287
WAPA	Western Area Power Administration

1 PROJECT BACKGROUND

The Rail Tie Wind Project (Project) is a utility-scale wind energy facility under development by ConnectGen Albany County LLC (ConnectGen). The Project, which has been permitted by the Wyoming Industrial Siting Council, would be located in southeastern Albany County, Wyoming, and the Project area would encompass approximately 26,000 acres of ranchland on private and Wyoming State Lands located near Tie Siding, Wyoming. No Federally managed lands are located within the Project area (figure 1). The Project would have a generating capacity of up to 504 megawatts (MW) of renewable wind energy.

ConnectGen applied to interconnect the Project to the existing Ault-Craig 345-kilovolt (kV) transmission line that intersects the Project area, under the Western Area Power Administration's (WAPA's) Large Generator Interconnection Process. The Ault-Craig 345-kV transmission line is owned jointly by WAPA, Tri-State Generation and Transmission Association, and Platte River Power Authority. In accordance with its Open Access Transmission Service Tariff (Tariff), WAPA's consideration to grant an interconnection request is a Federal action subject to environmental review pursuant to the National Environmental Policy Act of 1969 (NEPA) and the DOE NEPA implementing regulations. Under the regulations in effect at the time of the Final Environmental Impact Statement (EIS) and Record of Decision, ConnectGen's Project was considered a connected action to WAPA's Federal decision of granting an interconnection to its transmission system.

1.1 Western Area Power Administration's Purpose and Need and Approved Federal Action

WAPA's purpose and need was to consider and respond to the request for an interconnection agreement in accordance with its Open Access Transmission Tariff and the Federal Power Act, 16 United States Code 791 et seq., as amended. Under the Tariff, WAPA offers capacity on its transmission system to deliver electricity when capacity is available and when it can ensure that existing reliability and service are not degraded.

WAPA's proposed Federal action was limited to consideration of the interconnection requests submitted by ConnectGen and the required system upgrades to accommodate the interconnection. Thus, the Federal actions previously approved by WAPA are the two interconnection requests. With the approval of ConnectGen's interconnection requests in WAPA's 2022 Record of Decision (WAPA 2022), WAPA would own, operate, and maintain an interconnection switchyard in the Project area to accommodate the interconnection requests, as described below.

1.1.1 Interconnection Switchyard

A 345-kV interconnection switchyard would be required to connect the Project to the existing Ault-Craig 345-kV transmission line. WAPA coordinates with ConnectGen on the final design and construction of the interconnection switchyard based on the findings of WAPA's facilities study. The interconnection switchyard would be located adjacent to the existing Ault-Craig 345-kV transmission line within a fenced area of up to 8 acres. It would consist of breakers, switches, buswork, other typical substation equipment, and a small control building, and it would be funded and constructed by ConnectGen next to the westernmost Project substation. WAPA would own, operate, and maintain the switchyard as part of WAPA's transmission system.

WAPA's Federal resource impacts would be limited to the interconnection switchyard and its associated interconnection facilities, which were analyzed in the Final EIS.

1.2 ConnectGen's Rail Tie Wind Project

ConnectGen's Project was considered a connected action to the approved interconnection in the Final Environmental Impact Statement (EIS) (WAPA 2021). The Project would be developed on private and State lands within the Project area according to State and landowner agreements. The Project facilities listed below and described in the EIS would be sited and constructed away from public roads, with minimal public access points to the facilities.

- Wind Turbine Generators (turbines): between 84 and 149 turbines, each with a capacity of between 3.0 and 6.0 MW.
- Electrical Collection System: underground collection lines connecting wind turbines to the Project substations.
- Electrical Substations: two 345-kV substations; one to connect generation facilities east of U.S. Highway 287 (U.S. 287) and one for facilities west of U.S. 287.
- 345-kV Electric Generation-Tie Line: approximately 4 miles of new, single circuit, 345-kV overhead gen-tie lines connecting the eastern substation to WAPA's interconnection switchyard.
- Operations and Maintenance (O&M) Facility: an approximately 7,000-square-foot building, complete with sanitary and electrical services, located within an approximately 5-acre, security-fenced area.
- Supervisory Control and Data Acquisition (SCADA) System: the central SCADA computers would be located on-site within the O&M building, and fiber-optic cables would be co-located with the low-voltage electrical collection system.
- Meteorological Equipment: three self-supported, lattice-mast style towers up to 344.5 feet tall.
- Access Roads: new, permanent, all-weather access roads would be needed to access each wind turbine location during operations, and existing or improved public roadways could be used as well.
- Crane Paths: compacted ground used to "walk" the cranes to each turbine pad site during construction. These would be reclaimed following completion of construction.
- Construction Laydown Yards: two temporary laydown yards of approximately 15 acres each consisting of graveled storage and parking areas and including concrete batch plants, one for construction activities east of U.S. 287 and one for construction activities west of U.S. 287. Additional smaller laydown yards of 2 acres each were also considered and may be implemented. All laydown yards would be reclaimed following completion of construction.

For construction planning and site optimization, the Project consists of two separate stages, each approximately 252 MW. These are defined as the Eastern Stage and the Western Stage, as differentiated by U.S. 287.

The wind turbines would be arranged in collinear strings, and the Final EIS analysis was completed assuming that each would be located within 1,000-foot-wide wind turbine siting corridors (figure 2). This corridor design approach provided flexibility in turbine placement during the design stage to avoid and minimize impacts to wetlands, water bodies, cultural sites, and other environmentally sensitive areas, to the extent practicable. It was also assumed that access roads and electrical collection lines would be

located within these corridors where feasible to minimize the Project's overall footprint. For the portions of the Project where it was not feasible to locate access roads and electrical collection lines within the turbine siting corridors, 100-foot-wide and 50-foot-wide siting corridors (i.e., non-turbine siting corridors), respectively, were identified in these areas (see figure 2).

The disturbance estimates for the Final EIS were calculated using an analytic methodology based on individual facility dimensions represented in a geographic information system as a representative Project layout. This approach accounts for locations where overlap between facilities would occur. The Rail Tie Wind Project Description referenced in the Final EIS calculated disturbance estimates by facility type, also based on individual facility dimensions but then multiplied by the number of expected facilities. This provides an accurate estimate of disturbance by facility type, but it did not account for locations where facility types overlap one another. The Final EIS methodology used the same individual facility dimensions, but due to consideration of the overlap, results in a more accurate accounting of overall Project disturbance than that found in the Project Description.

2 PROPOSED ADJUSTMENTS

2.1 Reasons for the Changes to the Proposed Action

ConnectGen has continued to develop the siting, design, and engineering of the Project, as documented by ConnectGen's memorandum to file "Re: Rail Tie Wind Project Micro-siting and Engineering Refinements, Phase 1 (Western Construction Stage)" (ConnectGen 2025), which is included as appendix A. ConnectGen completed these refinements to accommodate Albany County Wind Energy Conversion Permit setbacks from residences related to turbine placement, to minimize impacts disclosed in the Final EIS, and to integrate and optimize design of associated facilities with the turbine locations. In addition, discussions with stakeholders, and their needs and considerations also necessitated changes.

In doing so, adjustments to ConnectGen's facilities' siting have occurred as anticipated by the Final EIS, with some adjustment locations falling outside the siting corridors or Project area analyzed in the Final EIS (figure 3).

2.2 Overview of the Non-Federal Connected Action Changes

Turbine locations have been micro-sited as part of the refinement process, but all turbines remain within the turbine siting corridors, thus maintaining consistency with the Final EIS analyses. Refinements to location of facilities that fall outside the siting corridors within the Project area include ConnectGen's western substation, portions of temporary turbine construction pads, access roads, electrical collection lines, crane paths, and meteorological towers (see figure 3; figures 4 through 6).

In addition, the location of two Aircraft Detection Lighting System (ADLS) tower sites and the O&M Facility have been defined outside the Project area. The ADLS towers will be approximately 150-foot-tall, self-supported, lattice-mast style towers similar to the meteorological towers. The northeastern ADLS tower site, located approximately 0.25 mile northeast of the Project area boundary, known as the American Tower ADLS site, is proposed for installation on private land along Monument Road where a 225-foot-high wireless communication tower was located from 1989 to 2024 (Federal Communications Commission Antenna Structure Registration 1022853; Federal Communications Commission 2025) (figure 7). The southwestern ADLS site, located approximately 2 miles southwest of the Project area boundary, known as Snowflea Ranch ADLS site, is proposed for installation on private land along Boulder Ridge Road (figure 8).

ConnectGen's refinements have minimized the overall disturbance when compared to the disclosure in the Final EIS. The main facility that would minimize disturbance is the reduction of wind turbine generators; although the Final EIS analyzed up to 85 turbines in the Western Stage, the refined design would include up to 60 turbines. Other facilities that have reduced disturbance include access roads (from 32 miles in the Final EIS to 29.4 miles in the refined design), meteorological tower sites (from three sites in the Final EIS to two sites in the refined design), and crane paths (from 5 miles in the Final EIS to 4.2 miles in the refined design) (ConnectGen 2025). Overall, considering the relocation, the ADLS towers, and the minimizations, the outcome is a design that would require less disturbance than what was disclosed in the Final EIS.

ConnectGen committed to numerous environmental protection and impact minimization measures in the Final EIS (see section 2.2.6 and table 2.6 of the Final EIS). These measures would be applied to the refined design as applicable to each facility.

2.3 Adjustment Areas

ConnectGen's memorandum describes individual refinements by sub-areas of the Project area, as depicted in figure 3 (ConnectGen 2025). Although these sub-areas are used in the refinements memorandum and the Supplement Analysis (SA) relies on the refinements memorandum, the SA does not rely specifically on the sub-area descriptions.

- Northwest sub-area – this is the area northwest of Cherokee Park Road. It includes the Snowflea Ranch ADLS tower location that is outside of the Project area (see figures 6 and 7).
- Central North sub-area – this area falls southeast of Cherokee Park Road and north of the two existing WAPA transmission lines. The refinements memorandum includes the O&M Facility location (adjacent to but north of Cherokee Park Road) and the American Tower ADLS tower (approximately 0.3 mile east of the Eastern Stage of the Project, on Monument Road) that are both outside of the Project area (see figures 4 and 8).
- Substation sub-area – this is the area directly adjacent to and south of the two existing WAPA transmission lines where the Project's western substation and WAPA's interconnection switchyard would be located. This includes the western substation (see figures 5 and 6).
- Central South sub-area – this area is south of the two existing WAPA transmission lines (see figure 5).

2.4 Additional Surveys and Studies Completed

Project refinements triggered a cultural resources variance with the Wyoming State Historic Preservation office, according to Stipulation III.D.2 of the Programmatic Agreement. ConnectGen determined the need for a variance and additional cultural resources survey of approximately 64 acres, which proceeded in September 2024 adjacent to previously surveyed areas, to allow flexibility for refinements and ConnectGen's ability to work around and avoid previously documented sites of potential Tribal importance, as well as in locations for two ADLS towers for the ADLS system referenced in the Final EIS and Historic Properties Treatment Plan. This additional survey was conducted by Tetra Tech archaeologists, who were accompanied by Rosebud Sioux, Standing Rock Sioux, and Northern Arapaho Tribal cultural specialists. Although no archaeological sites were identified, two sites of potential Tribal importance were newly documented. Tribes and Tetra Tech recorded the two sites of potential Tribal importance in the same manner as others previously recorded for the Project, with sensitive information redacted.

Wetland and water body surveys were updated in 2022 to include the areas being considered for Project refinements. Additional wetland and waterbody surveys were also completed in September 2024, at the same time as the cultural resources surveys referenced above, for potential new areas of disturbance not already surveyed for wetland and waterbody resources. These surveys were conducted in accordance with the U.S. Army Corps of Engineers *Wetlands Delineation Manual* and *Regional Supplement for Western Mountains, Valleys, and Coast Region* (ACE 1987, 2010). Review of the additional areas and the refined design indicate that wetland impacts would be minimized by avoiding larger wetland occurrences. Additionally, crossings of ephemeral stream reaches have been relocated to cross at areas of least impact.

The refinements completed by ConnectGen and described in the memorandum considered these resource surveys as inputs to the siting and design, allowing ConnectGen to avoid and minimize impacts.

3 DISCUSSION OF RESOURCES CONSIDERED

3.1 Introduction

The following sections consider the non-Federal connected action refinements related to environmental resources that were considered in the Final EIS.

3.2 Aesthetics and Visual Resources

The main visual impact disclosed in the Final EIS would be from visual changes associated with the wind turbines, and the analysis considered the viewshed up to 30 miles beyond the Project area. All wind turbine locations identified in the 2025 Project Refinements memorandum remain within the 1,000-foot-wide turbine siting corridors analyzed in the Final EIS. Therefore, impacts to aesthetics and visual resources from ConnectGen's facilities within the Project area would be consistent with those disclosed in the Final EIS.

The O&M building would be located adjacent to Cherokee Park Road in a location that also is adjacent to but outside the Project area. This location would be directly across the street from the location analyzed in the Final EIS, and as such would not have impacts that differ from those disclosed in the Final EIS.

The Snowflea Ranch ADLS tower would be located on private property approximately 2 miles east of the Project area along Boulder Ridge Road. There are approximately three residences within 1 mile of this ADLS tower (based on aerial photography interpretation) with potential visibility of the tower according to the viewshed analysis; approximately 10 additional residences are between 1 and 2 miles with visibility. Multiple additional factors should minimize the visual impact, including the following:

- setting of the homes being within lightly forested areas,
- the location of the existing high-voltage transmission lines between the residences, and
- the ADLS tower that establishes the type of form, line, and color in the environment already.

The American Tower ADLS tower would be located on private property along Monument Road approximately 0.3 mile northeast of the Project area at a site that housed a communications tower until it was decommissioned in 2024. There are approximately nine residences within 1 mile of the site where a portion of the tower would be visible as defined by a viewshed analysis. An additional approximately 12 residences would fall in the viewshed between 1 and 2 miles from the site. These residences are

generally in open areas with high visibility, but because this location historically has been the site of a similar tower; therefore, no additional impacts are anticipated beyond those disclosed in the Final EIS.

3.3 Air Quality and Climate

Emission estimates were calculated in the Final EIS based on types and duration of equipment needed for construction of the Project, and those emissions estimates were compared with air quality standards within portions of five counties surrounding the Project area (Albany and Laramie counties in Wyoming; Jackson, Larimer, and Weld counties in Colorado). The 2025 Project Refinements memorandum does not include any updates to equipment rosters or other reasons to recalculate the emissions estimates. Therefore, no additional impacts to air quality and climate are anticipated beyond those disclosed in the Final EIS.

3.4 Aquatic and Terrestrial Wildlife and Special-Status Species

Impacts to wildlife included analysis of disturbance and fragmentation to habitats, as well as consideration for mortality from vehicular traffic to big game, small game, and non-game species. The majority of the wildlife analyses were based on the Project area and therefore have included consideration of the areas outside the siting corridors. The three locations outside the Project area have no distinguishing characteristics or specific habitat attributes related to these types of issues that would cause a greater impact from the areas analyzed.

Impacts from Project disturbance of native habitats, potential equipment collisions, and human activities were analyzed within the siting corridors. The areas noted above outside of the siting corridors and Project area have no distinguishing characteristics or specific habitat attributes that would cause a greater impact from the areas analyzed. No additional equipment or human activities would occur outside those included in the Final EIS analysis.

3.5 Avian and Bat Species

Similar to terrestrial wildlife, the majority of analyses in the Final EIS of avian and bat species were based on the Project area plus buffers extending beyond the Project area for many impact concerns, such as habitat impacts and direct impacts on individuals. Because the number of overall turbines is decreasing from the highest-turbine number design considered in the Final EIS (and within the range considered), total windswept area would be less, thus decreasing the potential risk of bird strikes. These resource issues were covered adequately for the refinements in the Final EIS based on the analysis areas.

Impacts from Project disturbance of native habitats, potential equipment collisions, and human activities were analyzed within the siting corridors. The areas noted above outside of the siting corridors and Project area have no distinguishing characteristics or specific habitat attributes that would cause a greater impact from the areas analyzed. No additional equipment or human activities would occur outside those included in the Final EIS analysis.

3.6 Cultural Resources and Native American Concerns

Cultural resources were considered in the Final EIS using the “area of potential effects” as defined by the Project’s National Historic Preservation Act Section 106 process, which was the Project area and a 10-mile buffer viewshed. ConnectGen completed additional cultural resources Class III on-the-ground

surveys within the disturbance areas inside the additions to the siting corridors and found no archaeological sites or historic properties as part of that survey. Based on the Final EIS analysis and the additional survey information, no new impacts are anticipated.

3.7 Geology, Soil, and Mineral Resources

Geology, soil, and mineral resources were analyzed using the Project area in the Final EIS. The two ADLS tower sites and the O&M Facility locations have the same characteristics related to these resources (e.g., landslide areas, soils lacking suitable construction characteristics, highly erodible soils, prime farmland, low reclamation potential soils; restriction to mineral exploration/development) as the Project area, and as such would have impacts that are consistent with those reported in the Final EIS.

3.8 Land Use

Land use issues considered in the Final EIS analysis included conflicts or preclusion of existing local land use plans, ordinances, and zoning regulations within the Project area. The two ADLS tower sites and the O&M Facility locations would be consistent with the local land use regulations. Therefore, no additional impacts to land use are anticipated beyond those disclosed in the Final EIS.

3.9 Paleontological Resources

Paleontological resources were analyzed in the Final EIS considering the siting corridors and 0.5-mile buffer. The facilities that have been refined that fall outside that area include the two ADLS tower sites. Each of these sites would be located in a potential fossil yield classification of 1, or the lowest risk of containing paleontological resources. Therefore, no additional impacts to paleontological resources are anticipated beyond those disclosed in the Final EIS.

3.10 Public Health and Safety

Public health and safety analysis examined an area based on the siting corridors in the Final EIS since that was anticipated to be the location of the Project facilities. The issues considered were generalized and included industry accident and injury rates and risk of criminal activities. These general analyses contained in the Final EIS are applicable to the adjusted facilities in the Project refinements memorandum.

Fire risk and sources of electric and magnetic field were considered within the Project area plus a 1-mile buffer. Noise levels and potential for vibrations at noise-sensitive receptors were considered within the Project area plus a 2-mile buffer. Demand for emergency service providers was considered within the provider response area. The only facility not falling within these analysis areas is the Snowflea Ranch ADLS tower, and the location of the site next to a county road and in an open, non-forested area would be consistent with the areas analyzed within the Project area. Therefore, no additional impacts to public health and safety are anticipated beyond those disclosed in the Final EIS.

3.11 Recreation Resources

Impacts to recreation resources such as degradation of recreation opportunities through increased demand, human presence, and construction noise were analyzed based on the Project area in the Final EIS. The O&M facility's refined location is situated across the County road from the location analyzed in the

Final EIS, and that County road was considered an access road between the Project and U.S. 287. Because the location is adjacent to the one analyzed and along the same road, there would be no difference from the impacts disclosed in the Final EIS.

The two ADLS tower sites may require a limited number of additional workers for a short-term and temporary period of time during installation. However, it is likely that the workforce would fall within the range anticipated in the Final EIS analysis because the estimates in the Final EIS were based on the workforce necessary to build the design with the maximum number of wind turbines, and that number has been reduced. Each of the ADLS tower sites are situated on private land next to County roads. The American Tower site would be along Monument Road, which was considered as a Project access route in the Final EIS. The Snowflea Ranch ADLS tower site would be located along Boulder Ridge Road, which was not considered in the Final EIS. An additional impact from increased human presence and construction noise on this road would occur for a temporary time during construction; this impact would be consistent with those disclosed in the Final EIS but in this new location.

3.12 Social and Economic Resources

Social and economic resources were analyzed considering Albany County, Wyoming, and Larimer County, Colorado, as the analysis area. Therefore, no additional impacts to social and economic resources are anticipated beyond those disclosed in the Final EIS.

3.13 Transportation and Access

Impacts to transportation were considered in the Final EIS using the Project area for aviation concerns and the Project area and surrounding transportation infrastructure for surface transportation. The refined Project design would be consistent with the Final EIS analysis with one exception noted below.

The Snowflea Ranch ADLS tower site would be accessed via Boulder Ridge Road (County Road 319) in an area located beyond the Project area, which was therefore not considered in the Final EIS as an access road for the Project. Boulder Ridge Road would be utilized by the construction crew and for delivery of equipment for the ADLS tower during the temporary construction period of up to two months. Daily construction traffic would include light-duty vehicle trips for workforce and service vehicles. Equipment deliveries would include tractor-trailer trips for ground facility and ADLS tower components as well as earthwork equipment and crane delivery for site preparation and tower erection. Materials deliveries would include concrete for tower and facility foundation and aggregate for the driveway and parking area.

Although the impacts would occur on approximately 2 to 3 additional miles of existing road, those impacts would be consistent with the impacts disclosed in the Final EIS. This does not constitute a substantial new circumstance or information about the significance of adverse effects that bear on the analysis.

3.14 Vegetation

The vegetation analysis considered the siting corridors for impacts from disturbance to general vegetation using National Land Cover Database land cover types. Land cover types analyzed in the siting corridors are inclusive of all vegetation types found in the Project area and the additional areas for the O&M facility and two ADLS tower sites. Overall disturbance from the refined design has decreased from the disturbance disclosed in the Final EIS due to fewer wind turbines and fewer miles of access roads in the refined design (ConnectGen 2025), thus reducing the overall impact from the refined design to general

vegetation. Therefore, no additional impacts to vegetation are anticipated beyond those disclosed in the Final EIS.

3.15 Wetlands and Water Resources

Wetlands and water resources were analyzed within the siting corridor plus a 300-foot buffer. Project refinements would be located outside this previously analyzed area. Review of the additional areas and the refined design indicate that an access road crossing of Willow Creek has been relocated upstream of the previously analyzed location; the updated location would cross in an area where associated wetland impacts would be minimized due to a smaller Project footprint across a constricted area of surveyed wetlands. In addition, crossings of ephemeral stream reaches have been relocated along Government Creek, Forest Creek, Boulder Creek, and multiple unnamed drainages of Willow Creek and Fish Creek. Each of these drainages were previously surveyed, and many of the unnamed drainages were documented to be upland swales that did not contain the physical characteristics to be considered a stream, water body, or wetland. Although there are wetlands that would be crossed by the refined design, the siting was completed with the survey information in-hand, and impacts were minimized by avoiding larger wetland occurrences and by crossing at areas of least impact. Therefore, no additional impacts are anticipated to wetland and water resources beyond those disclosed in the Final EIS.

3.16 Wildland Fire

The wildland fire analysis was completed considering the Project area with the main issue stemming from additional sources of ignition. The refined design that is located within the Project area is considered within the Final EIS analysis. The O&M building would be located directly adjacent to the site considered in the Final EIS, and no differences relating to wildland fire risk or ignitions are apparent. The two ADLS sites located outside the Project area would create two potential ignition risks associated with the lightning strikes to tall structures, similar to meteorological towers and wind turbines. This potential risk would be offset by the decrease in wind turbine generators (also tall structures) in the area as defined by the refinements memorandum. Therefore, no additional impacts are anticipated to wildland fire beyond those disclosed in the Final EIS.

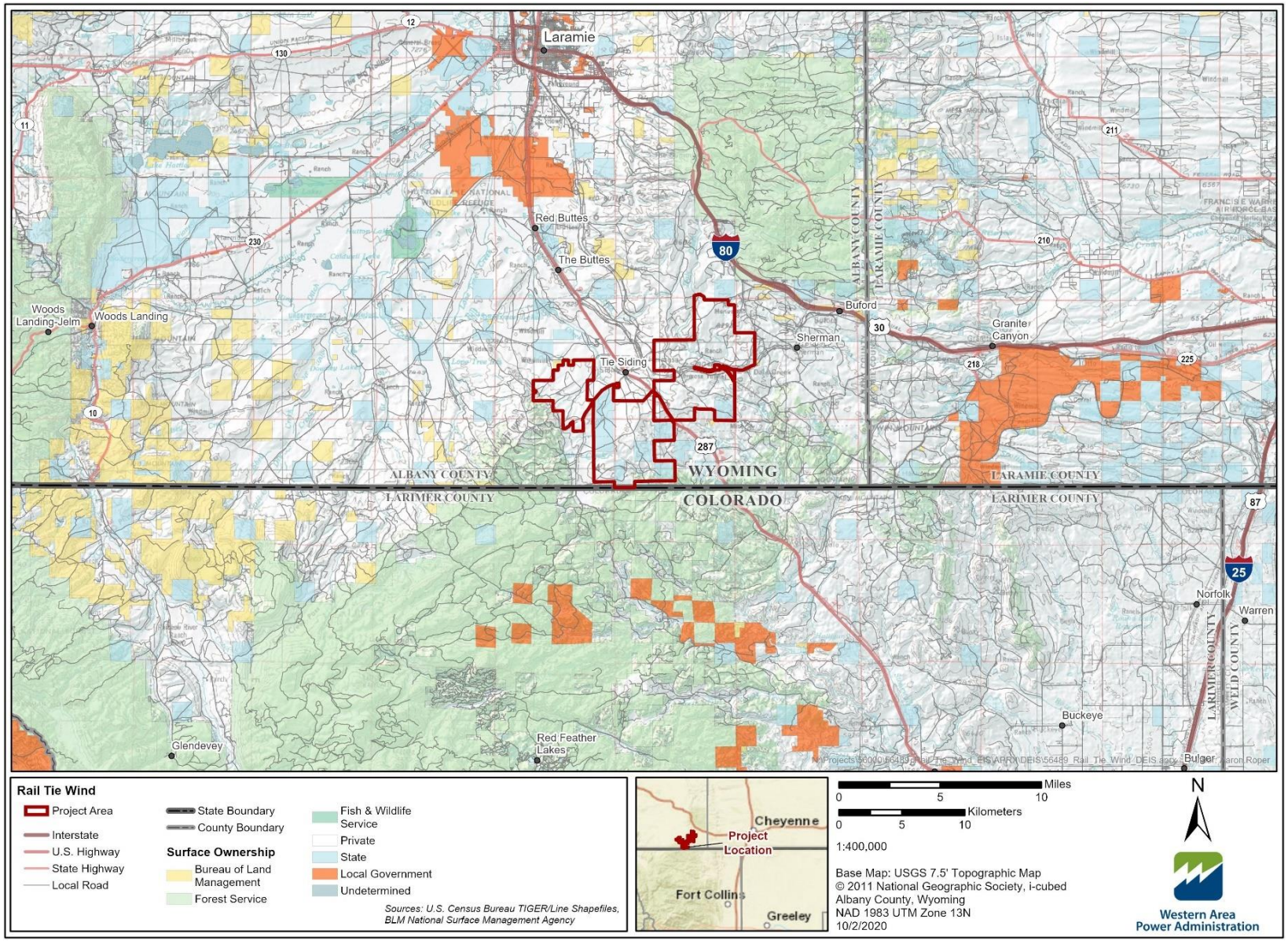


Figure 1. Project location.

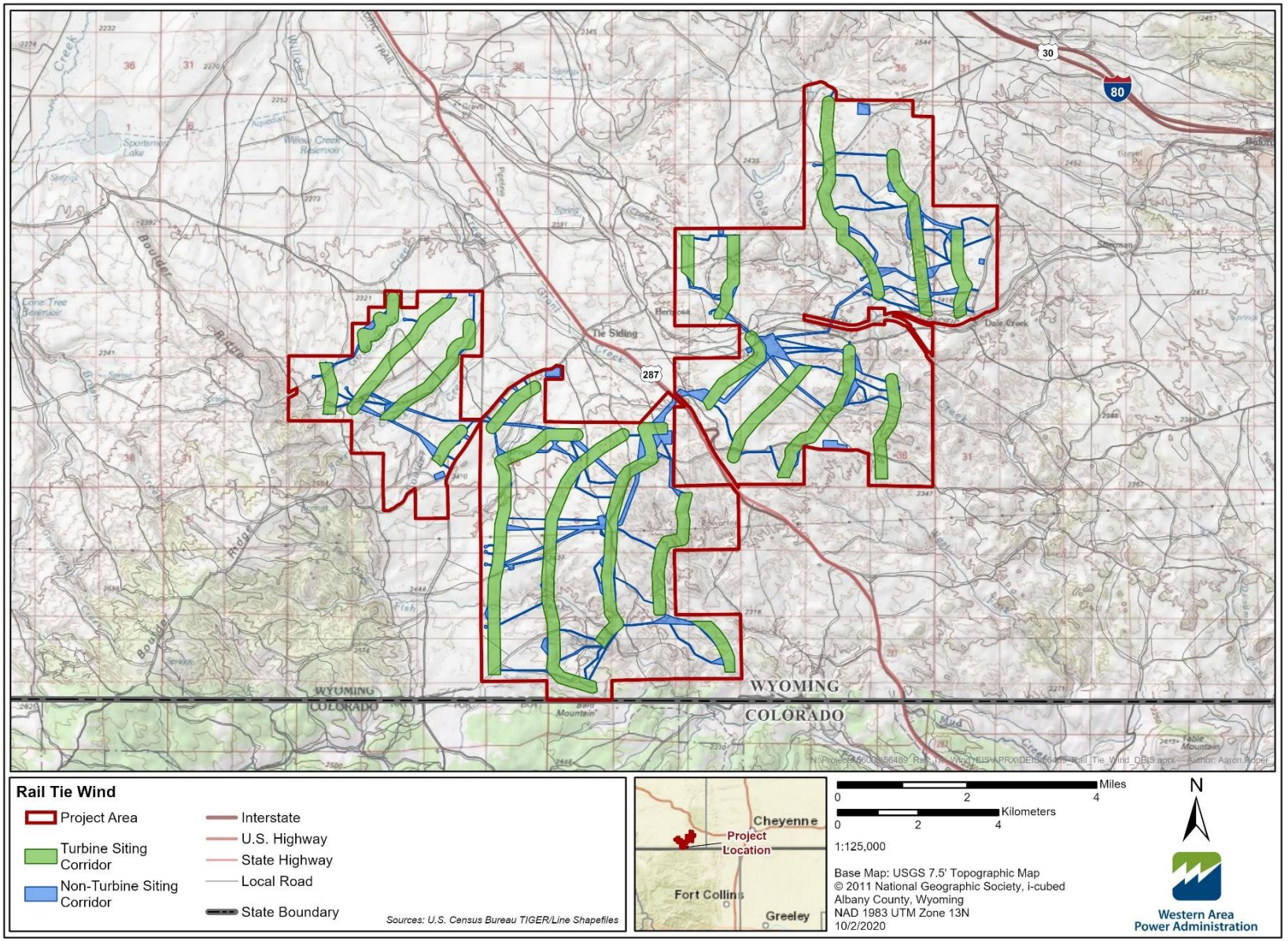


Figure 2. Project siting corridors considered in the Final EIS.

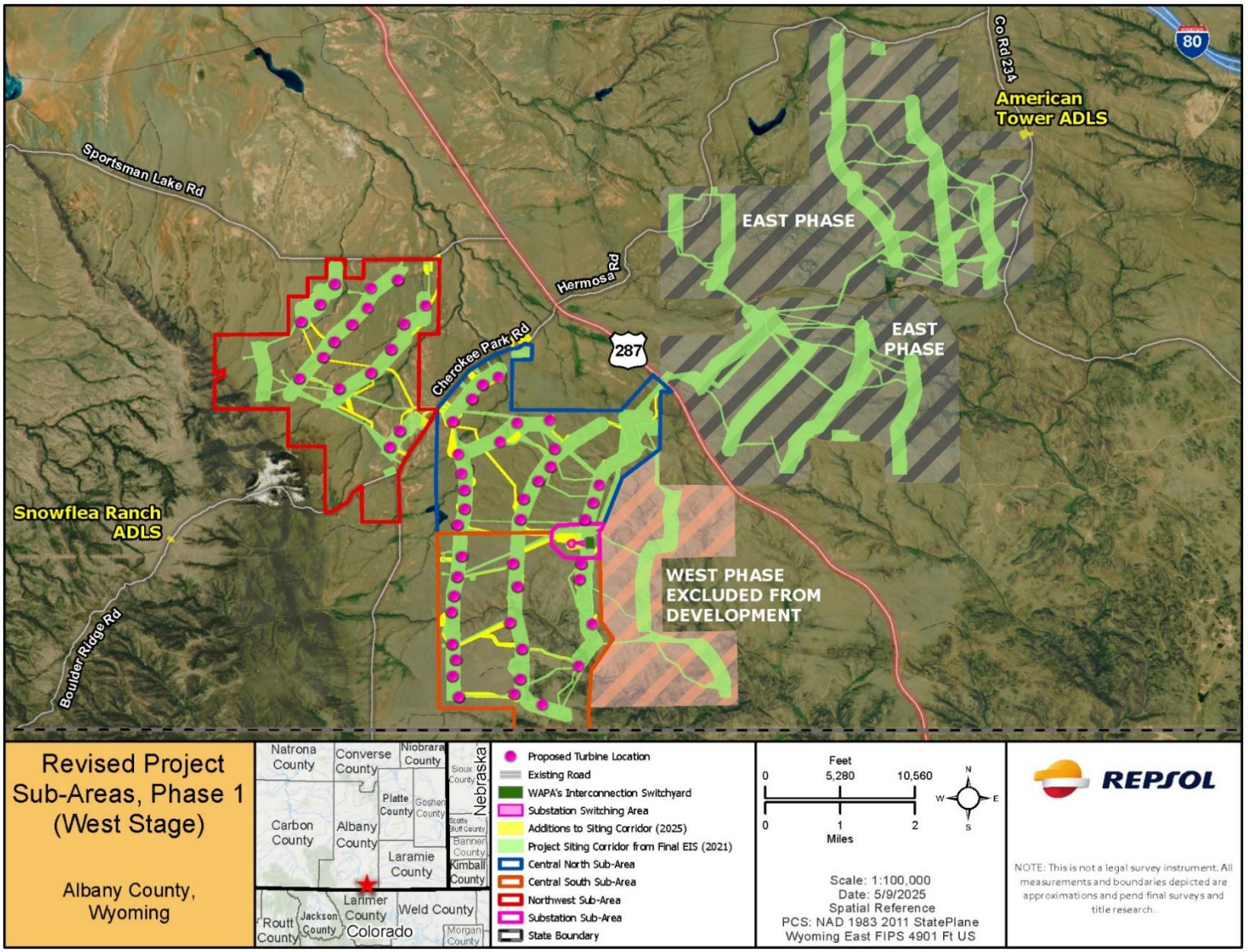


Figure 3. Revised Project Sub-Areas, Phase 1 (Western Stage).

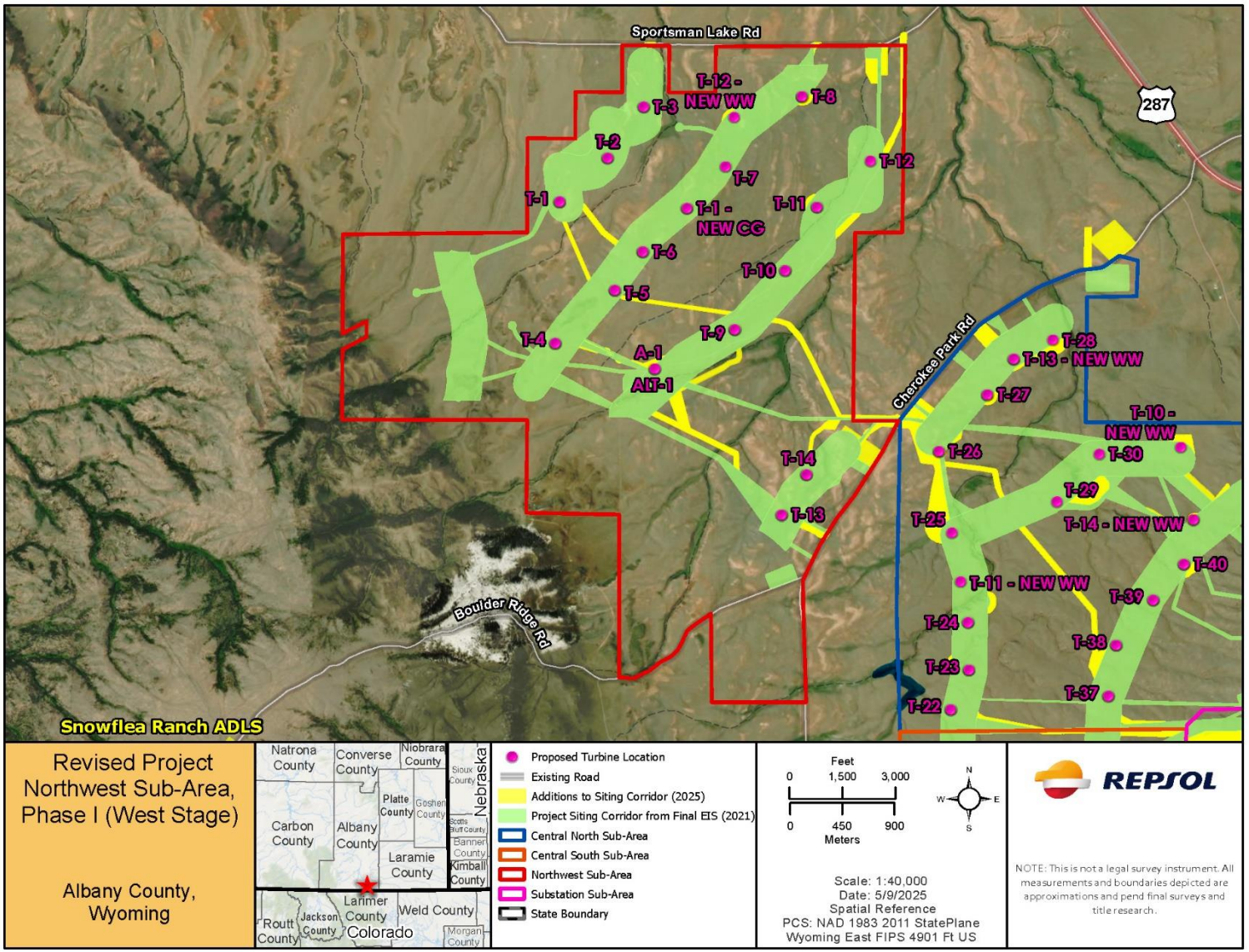


Figure 4. Revised Project details – Northwest Sub-Area.

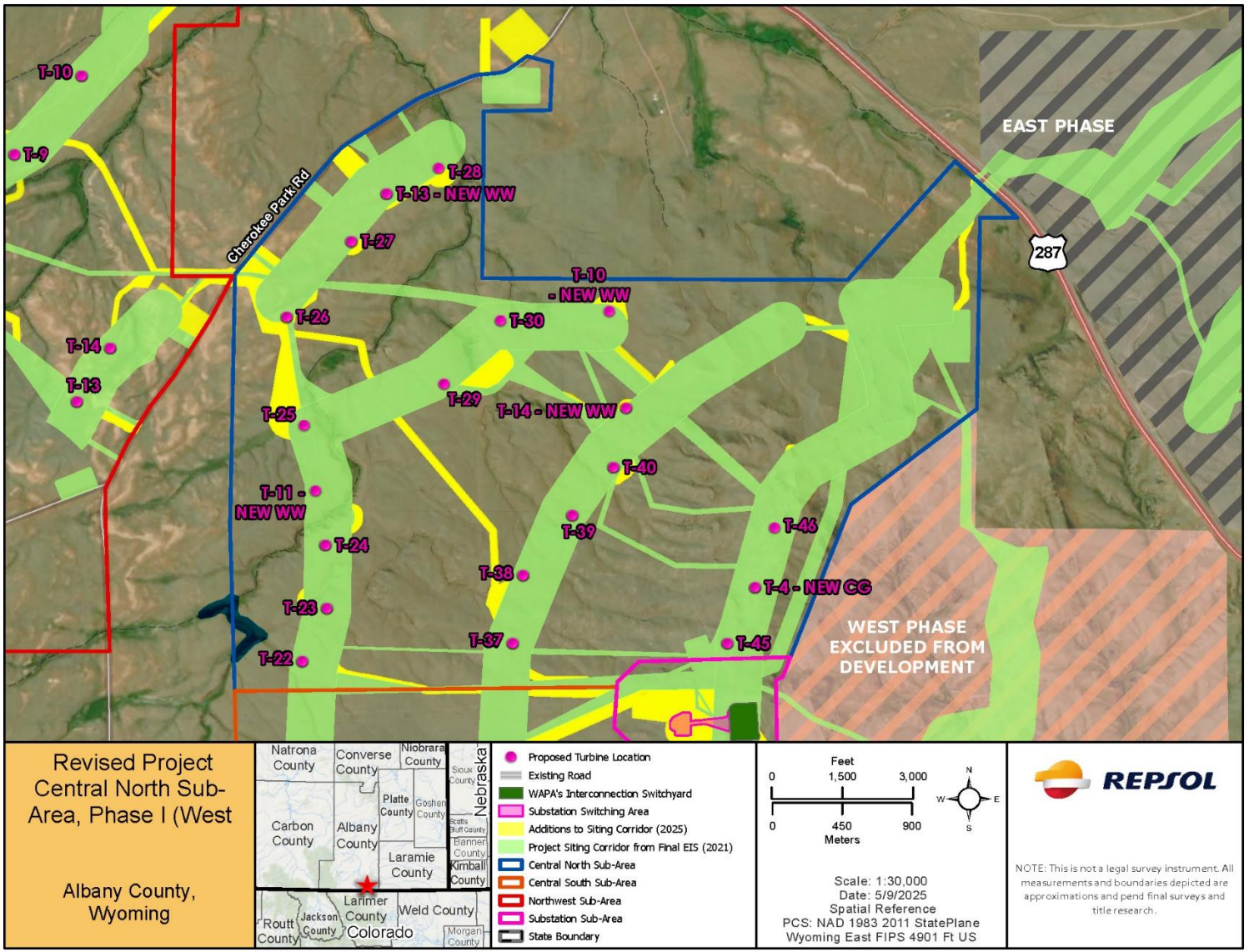


Figure 5. Revised Project details – Central North Sub-Area.

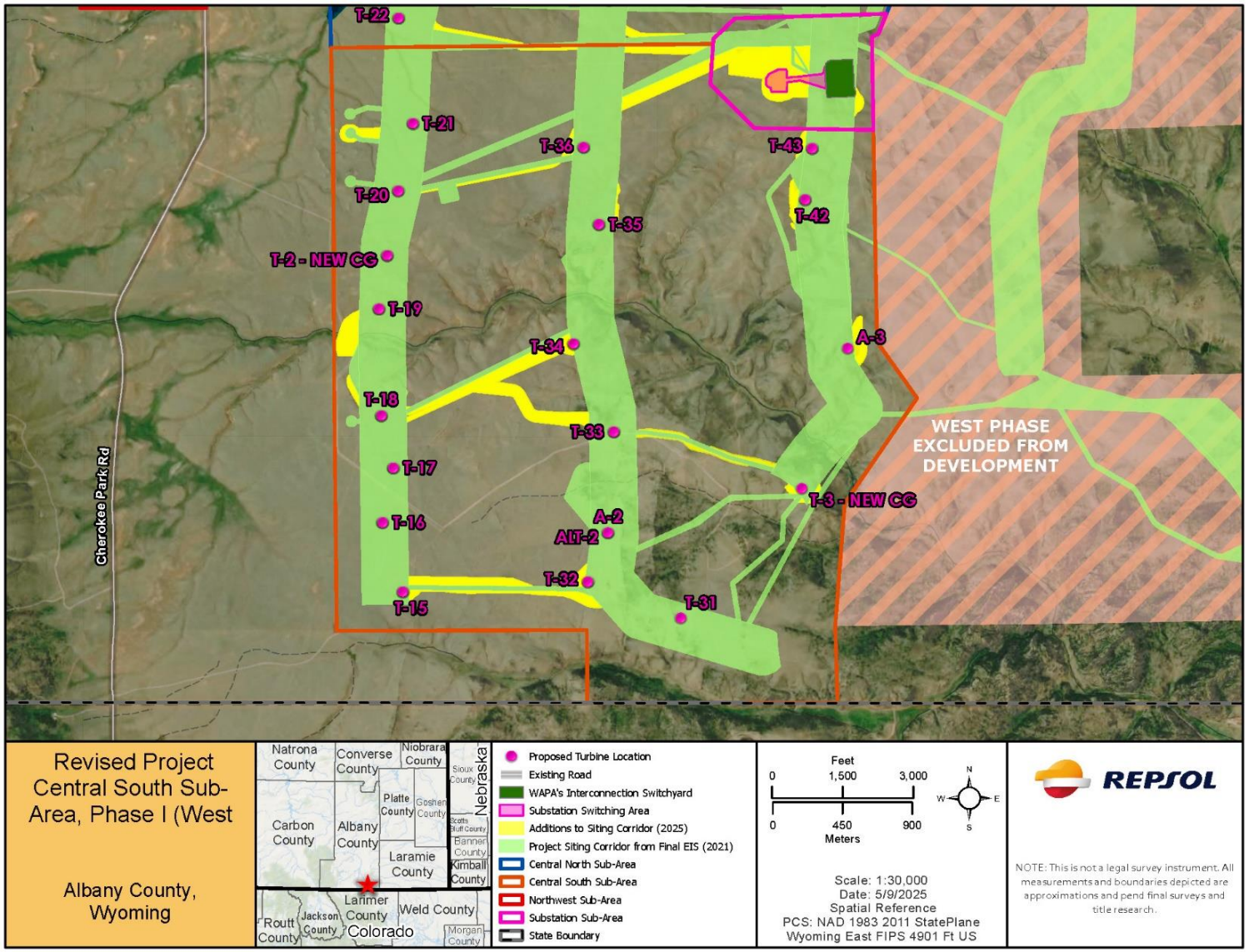


Figure 6. Revised Project details – Central South Sub-Area.

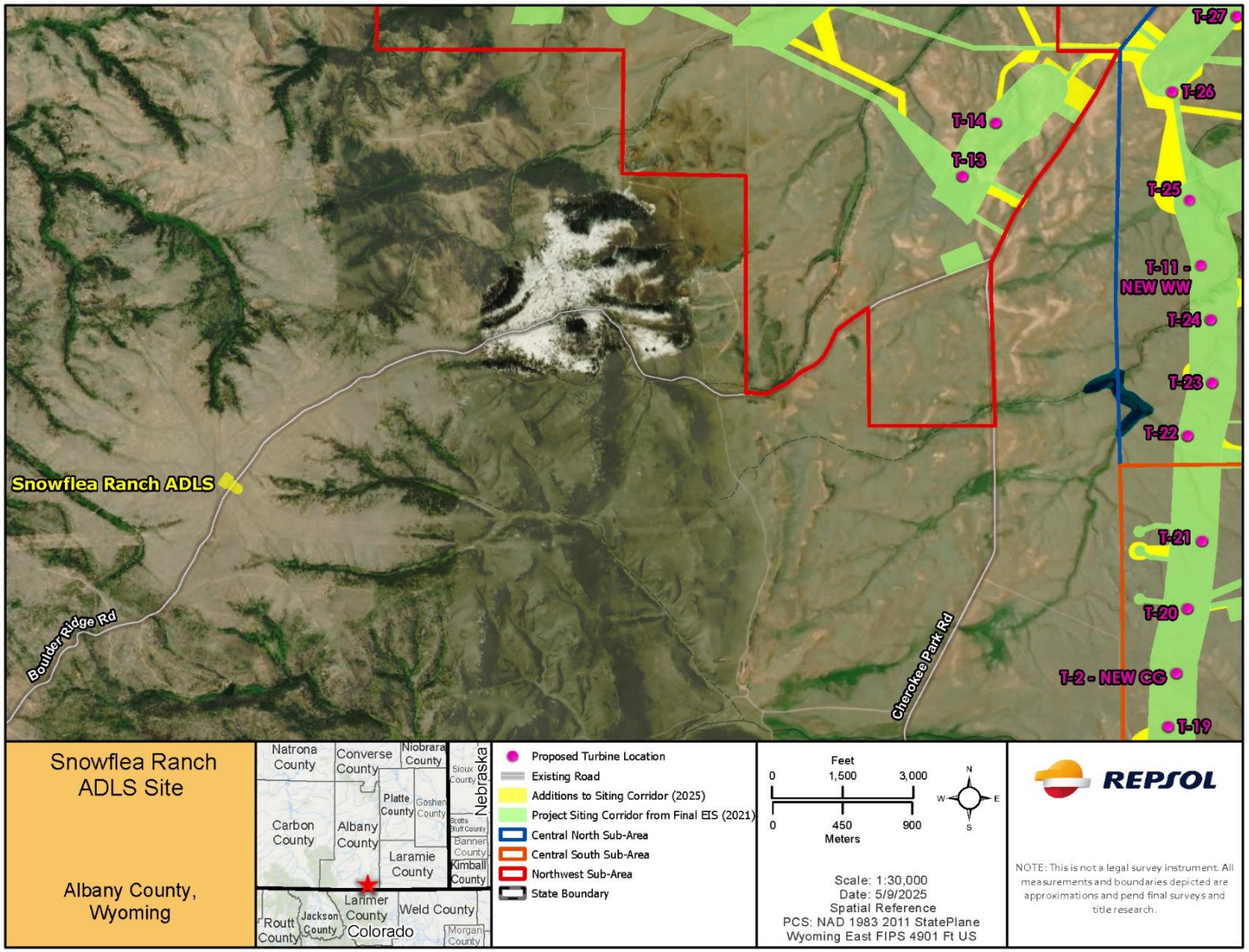


Figure 7. Revised Project details – Snowflea Ranch ADLS site.

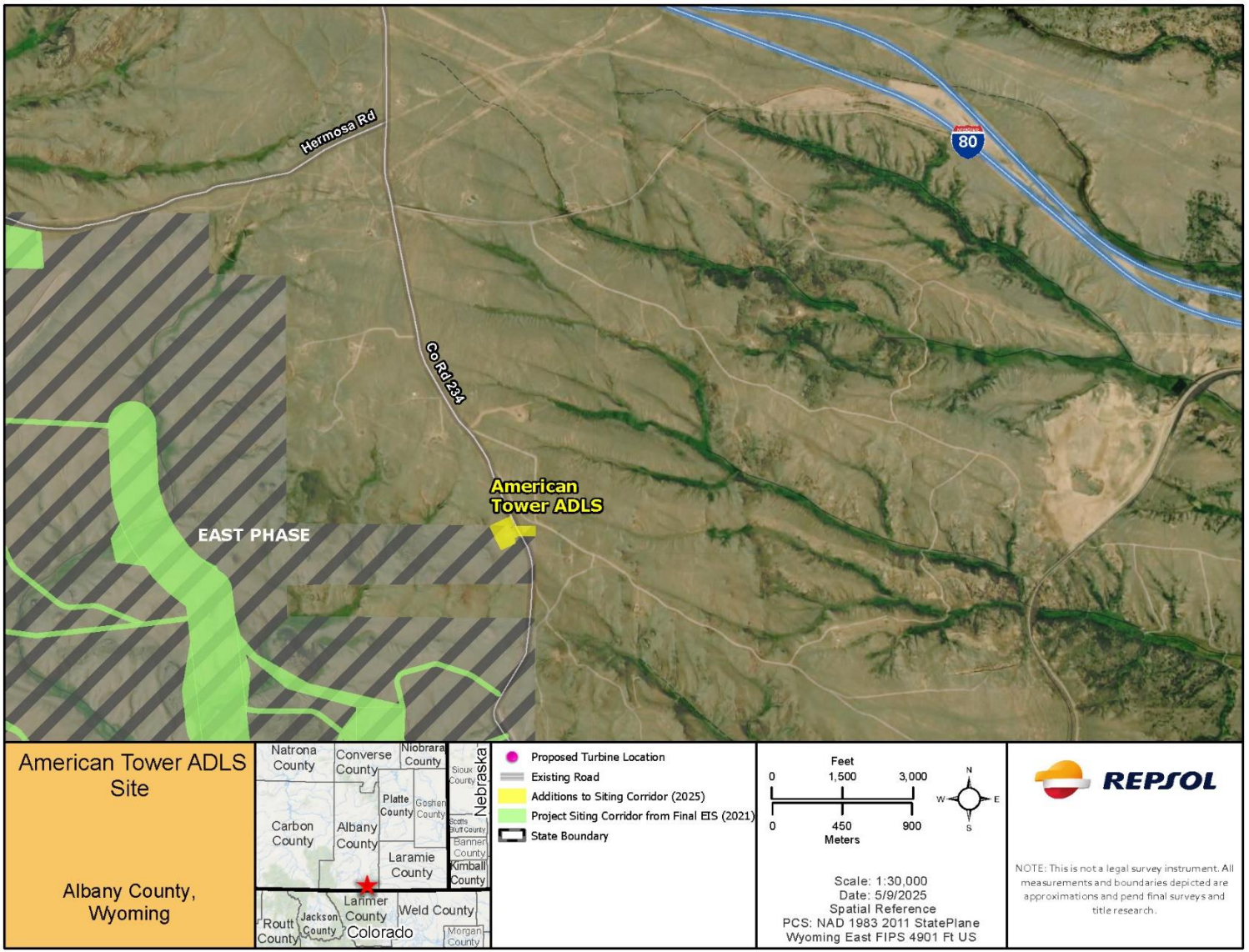


Figure 8. Revised Project details – American Tower ADLS Site.

4 REFERENCES

Army Corps of Engineers (ACE). 1987. *Corps of Engineers Wetlands Delineation Manual. Washington, D.C.: Environmental Laboratory*. Available at: https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4532/. Accessed May 15, 2025.

———. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*. Available at: https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/7646. Accessed May 15, 2025.

ConnectGen Albany County LLC (ConnectGen). 2025. Memorandum: Rail Tie Wind Project Micro-siting and Engineering Refinements, Phase 1 (Western Construction Stage). February 6.

Federal Communications Commission (FCC). 2025. Federal Communications Commission Antenna Structure Registration, Online Registration Search. Registration 1022853. Available at: https://wireless2.fcc.gov/UlsApp/AsrSearch/asrRegistration.jsp?regKey=124397. Accessed March 31, 2025.

Western Area Power Administration (WAPA). 2021. Rail Tie Wind Project Final Environmental Impact Statement. DOE/EIS-0543. November.

———. 2022. Rail Tie Wind Project Record of Decision. *Federal Register* Volume 87, No. 137. July 19.

APPENDIX A

Memorandum to File
Rail Tie Wind Project Micro-siting and Engineering Refinements, Phase 1
(Western Construction Stage)
February 6, 2025

MEMORANDUM TO FILE

PROJECT: Rail Tie Wind Energy Project (ConnectGen Albany County LLC)
DATE: February 6, 2025 (REVISED JULY 7, 2025)
RE: Rail Tie Wind Project Micro-siting and Engineering Refinements, Phase 1 (Western Construction Stage)

A. Project Background

ConnectGen Albany County LLC (Permittee) is developing the Rail Tie Wind Project, a proposed 504-megawatt (MW) wind energy generation facility, located in Albany County, Wyoming (Project). As part of the development process, Permittee submitted two interconnection requests to the Western Area Power Administration (WAPA), an agency within the Department of Energy (DOE), seeking authorization to connect the Project to the existing Ault-Craig 345-kV transmission line, owned jointly by WAPA, Tri-State Generation and Transmission Association, and Platte River Power Authority. The Project is a private sector development and does not involve any oversight or participation by WAPA in its construction or operation. WAPA's federal action was to approve Permittee's interconnection requests. WAPA completed a Final Environmental Impact Statement (FEIS) for the interconnection requests, and on July 11, 2022, WAPA issued a Record of Decision (ROD) granting the interconnection requests.

The ROD followed two years of study and stakeholder consultation, including but not limited to the development of the FEIS (DOE/EIS-0543) that was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969. The proposed 504 MW Project includes development, construction, and operation activities on approximately 26,000 acres of private and State land (Project Area). As part of its review, WAPA determined that it would analyze Permittee's proposed development as a "connected action" associated with WAPA's action to issue an interconnection agreement. WAPA does not possess regulatory authority to approve or deny the siting, design, construction, or operation of the Project.

WAPA's FEIS analyzed representative project layouts and a network of siting corridors where wind energy generation turbines and appurtenant Project infrastructure may be sited for the Project. As a result of the environmental analysis within the FEIS, WAPA identified the potential for the Project to have significant impacts to visual resources, certain historic properties, and eagles. Permittee has developed various Environmental Protection Measures (EPMs) and adopted agency-proposed mitigation measures that, when implemented, will further reduce or offset those anticipated impacts. Impacts to all other resources evaluated in the FEIS were found to be less than significant.

Project Phasing and Potential Turbine Layouts

As described in the FEIS (Appendix A, Rail Tie Wind Project Description), the Project comprises two separate geographic stages (West and East), for the purposes of construction planning and site optimization. The West and East Stages of the Project are roughly divided by U.S. Highway 287 and would each comprise up to 252 megawatts (MW). Two representative layouts for both stages, using 3 MW and 6 MW turbines respectively, were presented in Appendix A of the FEIS. The representative layout for the 3 MW turbine option for both the West and East stages shows a total of 149 turbines. The representative layout for both stages for the 6 MW turbine option shows a total of 87 turbines.

Since the completion of the FEIS, the Applicant has refined the options for Project turbine technology; although neither 3 MW nor 6 MW turbine options as described in the FEIS are now being considered, two similar turbine

options are under consideration. The two turbine types and respective layouts currently contemplated by Permittee are the following:

- A "Vestas" layout, which would consist of up to 104, 4.5 MW wind turbine generators (60 in the West stage/Phase 1, 44 in the East stage/Phase 2), representing a reduction of 45 turbines as compared to the 3 MW representative layout presented in Appendix A of the FEIS, or
- A "Nordex" layout, which would consist of up to 86, 5.9 MW wind turbine generators, (43 in the West stage/Phase 1, 43 in the East stage/Phase 2) representing a reduction of one turbine as compared to the 6 MW representative layout in Appendix A of the FEIS.

Final turbine type selection will be based on the availability of wind turbine generators during construction.

Construction activities for both phases is taking place over at least two years. The Project is being constructed in two or more phases:

- "Start of Construction" (SOC) Phase (West Stage Access Road Construction): This initial phase was commenced in December 2024 and is anticipated to be completed by February 2025. This phase does not include the installation of turbines or electrical infrastructure and does include the construction of up to three miles of access roads, and the excavation of up to ten wind turbine foundation areas within the Northwest Sub-Area of the Project Area (see **Figure 2**). All work during this phase is taking place within the network of siting corridors analyzed for the FEIS for the West Stage.
- Phase 1 (West Stage): Full construction of Phase 1 of the Project is anticipated to start as soon the second quarter of 2025 and be completed by the fourth quarter of 2026.
- Phase 2 (East Stage): Construction of Phase 2 of the Project is anticipated to start the second quarter of 2026 and be completed by the third quarter of 2027.

B. West Stage/Phase 1 Project Refinements Overview

This memo addresses Project refinements that result in infrastructure now being planned for locations outside of the FEIS siting corridors, within the part of the Project Area known as the "Phase 1" or "West" construction area, which is generally located west of U.S. Highway 287 and is described further below. Construction of Phase 1 will commence one year prior to construction of Phase 2. Prior to construction of Phase 2, a second memo summarizing Project refinements for Phase 2 may be prepared and submitted to WAPA, as needed. All refinements located outside established corridors are associated with the non-Federal "connected" action over which WAPA does not exercise siting control or discretion.

Since the issuance of the ROD, Permittee has performed several minor micro-siting and engineering refinements ("refinements") to the Project layout, which is typical to advancing a project to final design. The Project refinements were contemplated in the FEIS, as the FEIS acknowledged that micro-siting of Project facilities would occur (Refer to FEIS at 3-74, FEIS at 3-174). Several of the refinements have resulted in infrastructure (such as turbine pads, roads, electrical collection lines and crane paths) being moved within or outside of the network of siting corridors analyzed for the FEIS. All areas of Project infrastructure outside of the original FEIS siting corridor areas have been surveyed for cultural resources as directed by the Programmatic Agreement developed for the Project. No new cultural resources were identified in these new areas of Project disturbance, and Project infrastructure now planned for these areas will not result in additional impacts cultural resources.

Collectively, these refinements are presented in updated maps (see **Figures 1 through 6**) that are generally consistent with the representative layouts (3 MW and 6 MW turbine layouts) and proposed Project Description provided in the FEIS. As further described in this memo, these refinements represent an overall reduction in

Project size and scope, and any associated impacts are expected to be consistent with or less than that which were described in the FEIS.

Summary of Refinements

The Project refinements occur at various locations within the Project Area. Due to the interconnected nature of the Project's linear infrastructure, minor refinements to the location of one infrastructure component (such as a turbine) may result in refinement of siting of other infrastructure components (such as an access road). Refinements common to both the Vestas (4.5 MW) and Nordex (5.9 MW) layouts include the following:

- **Turbine Micro-siting:** Turbine locations have been micro-sited (moved from originally planned locations) based on spacing considerations for the currently proposed turbine models, and/or to allow for flexibility related to potential construction disturbance. Although parts of some turbine pads now fall outside of the FEIS siting corridors as described below, the locations of all turbines remain within the area of the original FEIS siting corridors.
- **Refinement of Other Engineering/Design Details:** Access roads and crane paths have been optimized based on in-field micro-siting to resolve challenges related to topography and drainage. In addition, the locations of medium-voltage electrical collection lines (collection lines) have been optimized, resulting in an increase in co-location of linear infrastructure.
- **Micro-siting based on Site-specific Resource Studies**: The total area of Project disturbance has been reduced through micro-siting and reducing the area of disturbance that would occur due to construction of Project elements, primarily turbine pads, collection lines, access roads, and crane paths, some of which have been consolidated. This has resulted in a reduction in crossings of wetlands/waters of the U.S. (WOTUS) and the overall footprint of grading and vegetation disturbance, as well as the avoidance of identified cultural resource sites.
- **Refinements Based on Other Permitting Conditions**: As a condition of the Wind Energy Conversion System (WECS) permit, Albany County increased the turbine setback distance from non-participating residences to one mile, which has resulted in removal of the southernmost and westernmost turbines.
- **WAPA Interconnection Input:** Several collection line routes were consolidated and relocated. The modified routing is a direct result of the relocation of the Interconnection Switchyard and West Project Substation locations from the north side to south side of the existing WAPA transmission lines (as discussed below). The Interconnection Switchyard relocation was based on a request from WAPA's Engineering group.
- **Micro-siting of meteorological tower locations:** Proposed permanent meteorological tower locations were micro-sited to accommodate the refined turbine layout. The Project is proposing a total of two permanent met towers within the Phase 1 construction area, rather than the three described in the FEIS.
- **Addition of ADLS towers:** In Section 3.2.5.3, in the discussion for Issue Statement #2, the FEIS describes how, in compliance with the special conditions of the Albany County Wind Energy Conversion System (WECS) Permit (Condition 6), the Permittee may install an Aircraft Detection Lighting System (ADLS) for all Project turbines, in coordination with the Federal Aviation Administration (FAA), to reduce the potential effects of nighttime lighting. In addition to the condition in the Albany County WECS permit, the FEIS includes an Environmental Protection Measure (VIS-5), which requires this coordination with the FAA to determine the feasibility of an ADLS for the Project.

  The Permittee is currently planning to install two radar towers, west and east of the Project Area, that would comprise an ADLS for the Project. Although an ADLS was discussed in the FEIS, the specific location and characteristics of the ADLS were not described. The ADLS would include:

1. Two radar tower sites, one approximately one acre in size (Snowflea Ranch ADLS site) and the other approximately 2.5 acres in size (American Tower ADLS site), at the locations described below and shown on **Figures 5 and 6**.
2. Two radar towers, one installed at each radar tower site, each approximately 150 feet in height.
3. Power and telecommunications infrastructure, which could comprise conductor and fiber cable connections from the tower site to a nearby power line or the nearest turbine and may include a point to point communication system that would also include a receiver located near or at the Project's (SCADA) system. Power may also be provided by a large (up to 40 feet long, 10 feet wide, and 8 feet tall) solar-powered battery and a small, diesel emergency backup generator at each tower site.

Permittee has identified multiple geographic sub-areas in which individual refinements have been made. These sub-areas are shown in **Figures 1 through 4**, and a discussion of the specific refinements within each sub-area is further detailed below.

C. Detailed Refinement Review: Vestas (4.5 MW) Turbine Layout

The Vestas turbine layout, should it be selected by Permittee, represents a larger area of potential disturbance than the Nordex turbine layout, and would consist of up to 60, 4.5-MW wind turbine generators installed within the Phase 1 construction area.

C.1. Northwest Sub-Area

The Northwest Sub-Area, as shown on **Figure 2**, is the part of Phase 1 of the Project Area located west of Cherokee Park Road.

Turbine Selection and Siting: Turbine construction disturbance is anticipated to occur within the FEIS siting corridors for all but four turbines, for which the construction footprint extends slightly outside the siting corridor, as shown on **Figure 2**. In more detail:

- Six turbines, largely in the southern/southwestern portion of this area, have been removed (as compared to the representative layout for a 3 MW turbine layout shown in the FEIS)
- Additional area has been added to four turbine pads (T8, T11, T12, and A1), extending the footprint of these turbine pads outside the siting corridor area.

Refinement of Other Engineering/Design Details: Refinements include changes to the location of access roads, crane paths, and collection lines, and micro-siting of one of the Project's permanent meteorological towers:

- Changes to access roads:
    - Three access roads extend south from Sportsman Lake Road (a County road). As shown on **Figure 2**, parts of each of the two westernmost access roads are slightly outside of the FEIS siting corridors due to Project engineering refinements (largely, improvements to the design of the physical transition between Sportsman Lake Road and the new access roads).
    - A portion of the easternmost access road extending south from Sportsman Lake Road was moved east to follow an existing two-track road, rather than creating a new entry from Sportsman Lake Road. Approximately 0.7 mile of this road, extending from Sportsman Lake Road to turbine location T12, now falls outside the FEIS siting corridor area.
    - Part of the access road extending between T12, T11, and T10 now falls outside of the FEIS siting corridor.

    - Three potential access roads between Cherokee Park Road (a County road) and the area of the original FEIS siting corridors were consolidated to one access road in order to minimize the number of new Project access road intersections with Cherokee Park Road. This approximately 730-foot access road, extending east from turbine pad T13, is outside of and approximately 100 feet south of the FEIS siting corridor area.
- Changes to crane paths:
    - A new crane path, approximately 0.3 miles long, is planned between turbine pads T1 and T6.
    - Approximately one mile of the crane path extending from turbine pads T9 to T13 now falls outside of the FEIS siting corridor.
    - Approximately 800 feet of a crane path between T14 and T46 now falls outside of the FEIS siting corridor.
- Changes to multiple collection lines, parts of which now fall outside of the FEIS siting corridor area, extending from TI east and south to the substation/switching station area. Specifically:
    - Approximately 0.3 mile of new collection line, which falls outside of the FEIS siting corridor, is planned between turbine pads T1 and T5.
    - Approximately 0.6 mile of new collection line, which falls outside of the FEIS siting corridor, is planned between turbine pad T5 to turbine pad T9.
    - Approximately one mile of new collection line, which falls outside of the FEIS siting corridor, is planned to extend south of turbine pad T9.
    - Approximately 350 feet of a collection line between T4 and A1 now falls outside of the FEIS siting corridor area.
    - Approximately 1,600 feet of a collection line extending north of T14 falls outside the FEIS siting corridor
- The location of the proposed permanent meteorological tower in this area was micro-sited to best accommodate the refined turbine layout.
- A concrete batch plant within an approximately 6-acre area is planned for one of three potential locations, two of which are within this sub-area. The batch plant may be located on an area (part of which is outside of the FEIS siting corridor area) near the intersection of Sportsman Lake Road with the easternmost Project access road. Alternatively, the batch plant may be located approximately 0.6 miles south of this location, within the FEIS siting corridor.
- An approximately 14.5-acre laydown yard is planned for an area north and east of turbine pad T14. Part of this area falls outside of the FEIS siting corridor area.
- One of the two ADLS tower sites (the Snowflea Ranch ADLS site) is planned for a location approximately 2.2 miles west of this sub-area, adjacent to Boulder Ridge Road, as shown on **Figure 5**.

C.2. Central-North Sub-Area

The Central-North Sub-Area, as shown on **Figure 3**, is the part of Phase 1 of the Project Area generally located east of Cherokee Park Road, west of U.S. Highway 287, and north of the 345-kV Ault-Craig transmission line.

Turbine Selection and Siting: Turbine construction disturbance is anticipated to occur within the FEIS siting corridor area for all but nine of the 22 turbines within this sub-area, where the construction footprint extends slightly outside the siting corridor, as shown on **Figure 3**. In more detail:

- Five turbines, largely in the eastern portion of this area, have been removed (as compared to the representative layout for a 3 MW turbine layout shown in the FEIS).
- Additional area has been added to nine turbine pads (T10, T14-NEW WW, T23, T25, T26, T27, T28, T29, and T40), to allow for flexibility related to potential construction disturbance, and/or due to micro-siting of turbines.

Refinement of Engineering and Construction Plans: Refinements include changes to the location of access roads, crane paths, and collection lines, and micro-siting of one of the Project's permanent meteorological towers:

- Changes to access roads:
    - Approximately 0.4 mile of the access road from U.S. Highway 287 now falls outside of (up to 500 feet east of) the FEIS siting corridor area.
    - Approximately 700 feet of access road extending west from turbine pad T49 now falls outside of but adjacent to the FEIS siting corridor area.
    - Three potential access roads between Cherokee Park Road (a County road) and the area of the original FEIS siting corridors (north of turbine pad T26) were consolidated to one access road to minimize the number of new Project access road intersections with Cherokee Park Road. Approximately 300 feet of this access road falls outside of the FEIS siting corridor area.
    - The access road between turbine pads T25 and T26 was moved to minimize width of a WOTUS crossing. This access road is co-located with a collection line path. All of the access road/collection line route (approximately 0.4 miles) falls outside the FEIS siting corridor area.
    - One small area (approximately 600 linear feet, or 2.2 acres) of the access road between turbine pads T11-NEW WW and T24 now falls outside of the FEIS siting corridor area.
    - One small area of the access road between T24 and T23 now falls outside of the FEIS siting corridor area.
    - Part of (approximately 0.2 mile) of access road between turbine pads T10-NEW WW and T14-NEW-WW falls outside of the FEIS siting corridor area.
    - The access road between turbine pads T29 and T30 has been moved. Approximately 0.3 mile of this access road now falls outside of the FEIS siting corridor area.
    - Part (approximately 1,120 linear feet, or 1.2 acres) of an access road between turbine pads T29 and T14-NEW-WW falls outside of the FEIS siting corridor area.
- Changes to multiple collection lines, parts of which now fall outside of the FEIS siting corridor area, extending from turbine pad T1 east and south to the substation/switching station area. A long extent (approximately 1.8 miles) of collection line routes extending approximately from Cherokee Park Road to turbine pad T37 fall outside of the FEIS siting corridor area.
- A concrete batch plant within an approximately 6-acre area is planned for one of three potential locations, one of which is within this sub-area. The batch plant may be located north of turbine pad T26, adjacent to but partly outside of the FEIS siting corridor.
- The Operations and Maintenance (O&M) building is now planned for this area of the site, within one of two potential areas: adjacent to an area previously planned for a laydown yard; or within an area directly north of turbine site T27 and adjacent to Cherokee Park Road. Both locations would be adjacent to but outside of the FEIS siting corridor area. Either of these two locations would avoid topographic challenges, reducing cut and fill and associated ground disturbance associated with the original proposed location, and provide more efficient entry.
- The location of the proposed permanent meteorological tower in this area was micro-sited to best accommodate the refined turbine layout.
- One of the two ADLS tower sites (the American Tower Site) is planned for a location approximately 6 miles west of this sub-area, adjacent to Boulder Ridge Road, as shown on **Figure 6**.

C.3. Substation Sub-Area

The Substation Sub-Area, as shown on **Figure 1**, is the part of Phase 1 of the Project Area just north of the 345-kV Ault-Craig transmission line comprising the area of the Phase 1 substation, switching station, and collection line "home runs" (concentration and grouping together of the collection lines leading to the substation and switching station).

Refinement of Engineering and Construction Plans: Refinements include changes to the location of the collection line home runs, and changes to the locations of the substation and switching station. Changes to the location of the substation were made to address setback distances from turbines, avoidance of identified cultural resources, and topography, as well as other engineering design considerations. These changes resulted in some of the infrastructure in this sub-area, including approximately 500 feet of an access road, falling outside of the FEIS siting corridor area.

C.4. Central-South Project Sub-Area

The Central-South Project Sub-Area, as shown on **Figure 4**, is the part of the Project Area generally located east of Cherokee Park Road, west of U.S. Highway 287, and south of the 345-kV Ault transmission line.

Turbine Selection and Siting: Turbine construction disturbance is anticipated to occur within the FEIS siting corridor area for all but 9 of the 19 turbines within this sub-area, where the construction footprint extends slightly outside the siting corridor, as shown on **Figure 4**. In more detail:

- Fifteen turbines, mostly in the southeast portion of this sub-area, were removed (as compared to the representative layout for a 3 MW turbine layout shown in the FEIS).
- Additional area has been added to nine turbine pads (T15, T32, T34, T35, T36, T42, T43, A3, T3-NEW CG), to allow for flexibility related to potential construction disturbance, and/or due to micro-siting of turbines.

Refinement of Engineering and Construction Plans: Refinements include changes to the location of access roads and collection lines:

- Part of the co-located access road and collection line between turbine pads T22 and T37, and the access roads between turbine pad T37 and the substation sub-area now fall outside of (and adjacent to) the FEIS siting corridor area.
- Part of the collection line between turbine pads T20 and T36 now falls slightly outside of (and adjacent to) the FEIS siting corridor area.
- Engineering and construction review identified challenging access (drainage, topography) between turbine pads T33 and T34, necessitating re-routing of the approximately 0.5-mile access road extending west of turbine pad T33, which now falls outside the FEIS siting corridor area.
- Approximately 0.7 miles of the co-located access road and collection line between turbine pads T18 and T34 now fall outside of (and adjacent to) the FEIS siting corridor area.
- Part of the co-located access road and collection line between turbine pads T15 and T32 now fall outside of (and adjacent to) the FEIS siting corridor area.
- Approximately 0.7 mile of a cluster of collection lines extending east from turbine pad T36 into the collection lines home runs area falls outside of the FEIS siting corridors.
- Part of the access road from turbine pad T33 to T3-NEW CG now falls outside of the FEIS siting corridor area.
- The locations of the two proposed permanent meteorological towers in this area were micro-sited to best accommodate the refined turbine layout.

D. Detailed Refinement Review: Nordex (5.9 MW) Turbine Layout

The Nordex turbine layout, should it be selected by Permittee, would consist of up to 43, 5.9-MW wind turbine generators installed within the Phase 1 construction area.

In general, the footprint of ground disturbance within the Nordex turbine layout mimics ground disturbance within the footprint for the Vestas turbine layout, but the total area of disturbance would be smaller, due to the

smaller number of turbines (and associated infrastructure) in the Nordex layout. Changes between the Nordex and Vestas layouts for Phase 1 of the Project are as follows:

Reduction in Overall Project Footprint: The Nordex turbine layout includes up to 17 fewer turbines in the Phase 1 area as compared to the Vestas layout, and represents a reduction in access roads, crane paths, and collection lines as compared to the Vestas layout:

- Turbines and turbine pads for T3 New CG, T10-NEW WW, T11-NEW WW, T12, T25, T29, T30, T31, T46, and A3 would not be constructed.
- Access roads:
    - Approximately one mile of access road between turbine pads T43 and A3 would not be constructed.
    - An access road from turbine pad T43 to the substation area would be slightly reconfigured and would be constructed approximately 300 feet west of the location of this road under the Vestas turbine layout.
    - Approximately 0.8 mile of access road between turbine pads T29 and T14-NEW WW would not be constructed.
    - Approximately 0.4 mile of access road between turbine pad T14-NEW WW and T10-NEW WW would not be constructed.
    - Approximately 0.25 mile of access road between turbine pads T29 and T30 would not be constructed.
- Collection lines:
    - Approximately 1.2 miles of collection line extending from T29 to T30 and T10-NEW WW would not be constructed.
    - Approximately 1.3 miles of collection line between T42 and T3-NEW CG would not be constructed.
- Co-located access roads and collection lines:
    - An access road (0.5 miles) and collection line (0.4 mile) between turbine pads T32 and T31 would not be constructed.
    - Approximately 0.9 mile of access road and collection line between turbine pads T33 and T3-NEW CG would not be constructed.
    - Approximately 0.3 miles of access road and collection line between T4-NEW CG and T46 going away.
- Approximately 0.5 mile of crane path between turbine pads A1 and T9 would not be constructed.
- Turbine pad T42 would be slightly reconfigured.

Addition to Overall Project Footprint: The Nordex turbine layout would also result in:

- A slight increase in the area of the turbine pad for T13-NEW WW.
- A slight reconfiguration of part of the access road leading from turbine pad T14-NEW WW to U.S. Highway 287 as compared to the Vestas layout, resulting in no net increase in the length of the access road, and a small net increase in overall ground disturbance.
- Construction of part (approximately 0.25 mile) of a new access road between turbine pads A1 and T13 that would not be built under the Vestas turbine layout and most of which would fall outside of the FEIS siting corridor area. This access road would also in some parts be co-located with a crane path that would also be constructed under the Vestas turbine layout.

E. Project Description Comparison

Collectively, the engineering review, turbine micro-siting, survey data collection, addition of two specific ADLS tower sites, and certain permitting conditions resulted in the refined Project layouts shown in **Figures 1 through 6** that remain consistent with the Project as described in the FEIS. As shown in **Table 1**, the two Project layouts

considered here, as compared to the Project described in the FEIS, represent smaller footprints of disturbance and will include fewer turbines, fewer miles of access roads, and fewer miles of collection lines. This is the case even though some Project elements are now planned for locations outside of the siting corridors analyzed in the FEIS.

Table 1: West Phase of Project Component Dimensions and Ground Disturbance Dimensions Comparison

Project Component	Construction Dimensions	Operation Dimensions (FEIS Project Description)	FEIS Project Description: 3MW Turbine Design, Number of Units, West Phase	*Current Vestas (4.5 MW) Turbine Design*		*Current Nordex (5.9 MW) Turbine Design*	
				Number of Units, West Phase	Percent Change from FEIS (3 MW Design)	Number of Units, West Phase	Percent Change from FEIS (6 MW Design)
Wind Turbine Generators	250 ft x 350 ft	30 ft radius	85	60	-29%	43	-49%
Access Roads	Up to 100 ft width	20 ft width	32 miles	29.4 miles	-8%	NA	NA
Electrical Collection System	50 ft width	N/A	45 miles	45 miles	0%	NA	NA
Electrical Substation	7 acres	5 acres	1	1	0	1	0
Interconnection Switchyard	10 acres	8 acres	1	1	0	1	0
345kv Electric Transmission Line	100 ft width	20 ft width	4.4 miles	NA for West	NA for West	NA for West	NA for West
Operations and Maintenance Facility	7 acres	5 acres	1	1	0	1	0
Meteorological Equipment	200 ft x 200 ft	20 ft x 20 ft	3	2	-33%	2	-33%
Construction Laydown Yards*	15 acres	0 acres	2	2	0	2	0
Crane Paths	100 ft width	0 acres	5 miles	4.2 miles	-16%	NA	NA

* Final Environmental Impact Statement (FEIS) analyzed all 3 laydown yard locations with the anticipation that the Project would utilize two of the three locations for construction.

NOTES:

NA = Not Available (quantities/units of access roads, electrical collection system, and crane paths not estimated for Nordex turbine design option). In general, the Nordex turbine design requires fewer units overall of access roads and crane paths than the Vestas turbine design.

Quantities of units for access roads and crane paths for the current Vestas (4.5 MW) turbine design includes the addition of a 5 percent contingency.

F. Conclusion

Project refinements were contemplated in the FEIS, as the FEIS acknowledged that micro-siting of Project facilities would occur (see FEIS pages 3-74, and 3-174). These refinements do not alter the Federal action that falls under WAPA's purview. All refinements are associated with the non-Federal "connected" action over which WAPA does not exercise siting control/discretion.

Further, the necessary collective refinements that are located outside of the siting corridors evaluated in the FEIS contribute to an overall net decrease in the Project's footprint and land use impacts, as demonstrated in Table 1. Total land use area has been reduced due to the reduction in the mileage of access roads, collection lines, and the number of turbine locations. The decrease in infrastructure results in a reduction in the amount of ground disturbance and an overall decreased potential for encountering previously unidentified cultural resources. As an additional benefit, a reduced impact to water resources will be realized due to the reduction in the miles of access roads requiring wetland/waters of the U.S. crossings. In general, all siting revisions considered siting constraints and resources located in the vicinity of the original proposed design contemplated in the FEIS. Because the conditions in the refinement areas are consistent with the areas in the siting corridors analyzed in the FEIS, any features sited outside siting corridors are not expected to encounter new resources not already considered in the FEIS or various technical studies.

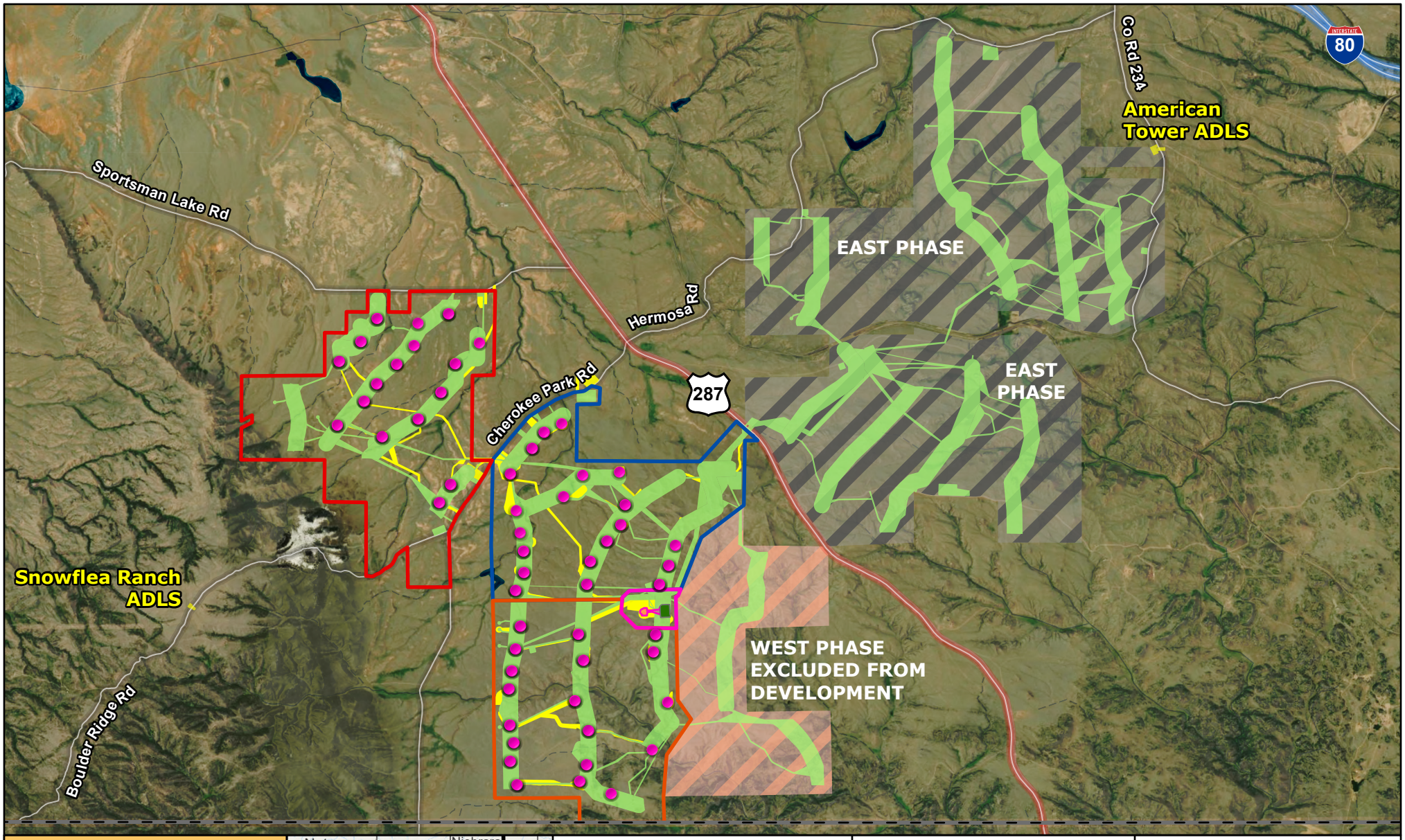
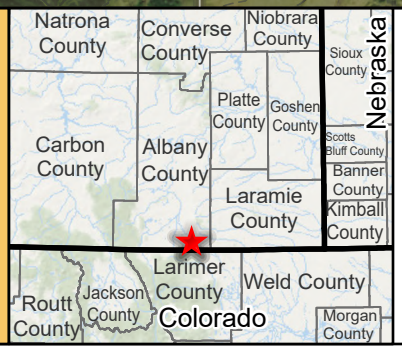


Figure 1: Revised Project Sub-Areas, Phase 1 (West Stage)

Albany County, Wyoming



- Proposed Turbine Location
- Existing Road
- WAPA's Interconnection Switchyard
- Substation Switching Area
- Additions to Siting Corridor (2025)
- Project Siting Corridor from Final EIS (2021)
- Central North Sub-Area
- Central South Sub-Area
- Northwest Sub-Area
- Substation Sub-Area
- State Boundary

Feet
0 5,280 10,560
0 1 2
Miles

N W E S

Scale: 1:100,000
Date: 5/9/2025
Spatial Reference
PCS: NAD 1983 2011 StatePlane Wyoming East FIPS 4901 Ft US

REPSOL

NOTE: This is not a legal survey instrument. All measurements and boundaries depicted are approximations and pend final surveys and title research.

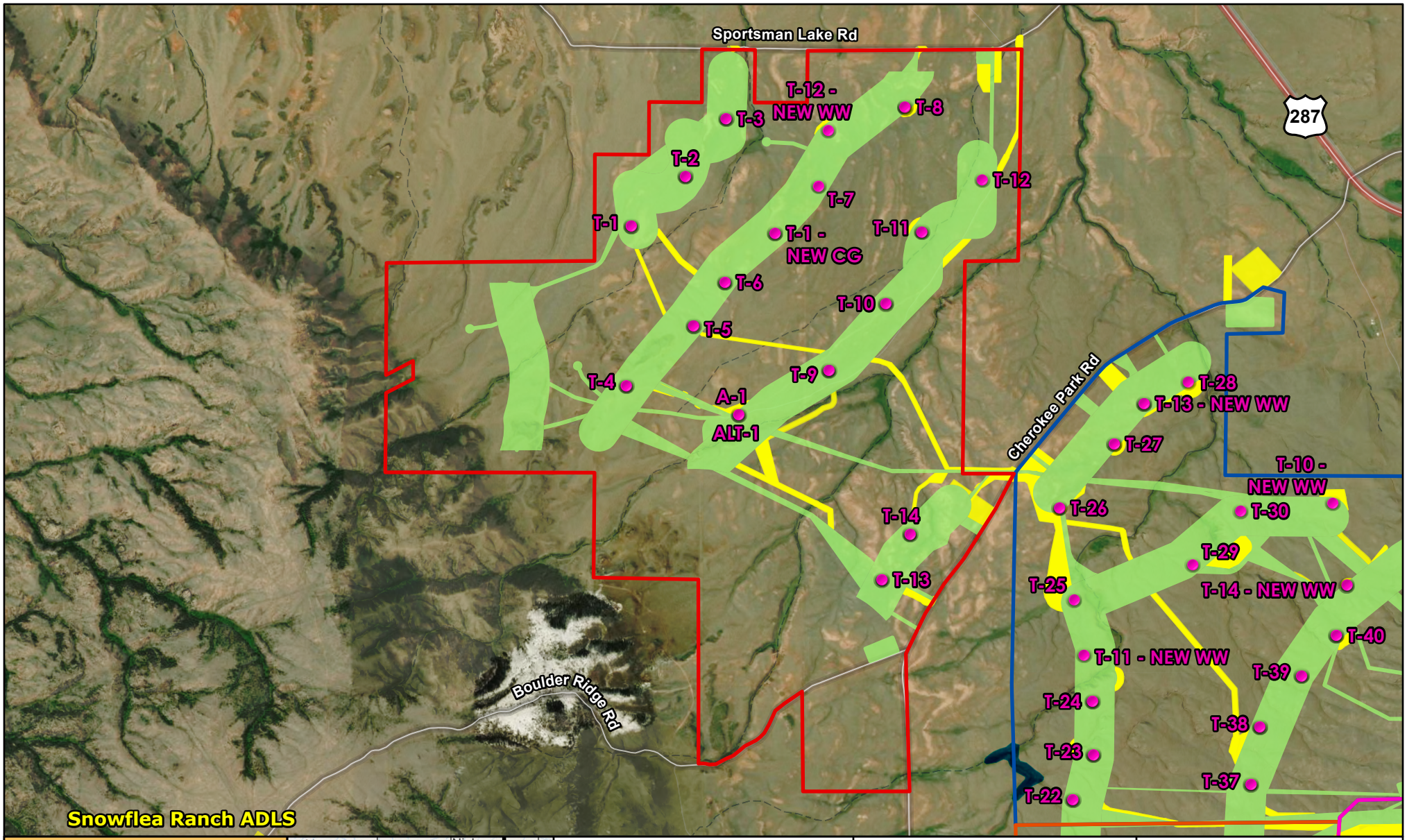


Figure 2: Revised Project Northwest Sub-Area, Phase I (West Stage)

Albany County, Wyoming

- Proposed Turbine Location
- Existing Road
- Additions to Siting Corridor (2025)
- Project Siting Corridor from Final EIS (2021)
- Central North Sub-Area
- Central South Sub-Area
- Northwest Sub-Area
- Substation Sub-Area
- State Boundary

Feet
0 1,500 3,000
0 450 900
Meters

N
W E
S

Scale: 1:40,000
Date: 5/9/2025
Spatial Reference
PCS: NAD 1983 2011 StatePlane Wyoming East FIPS 4901 Ft US

REPSOL

NOTE: This is not a legal survey instrument. All measurements and boundaries depicted are approximations and pend final surveys and title research.

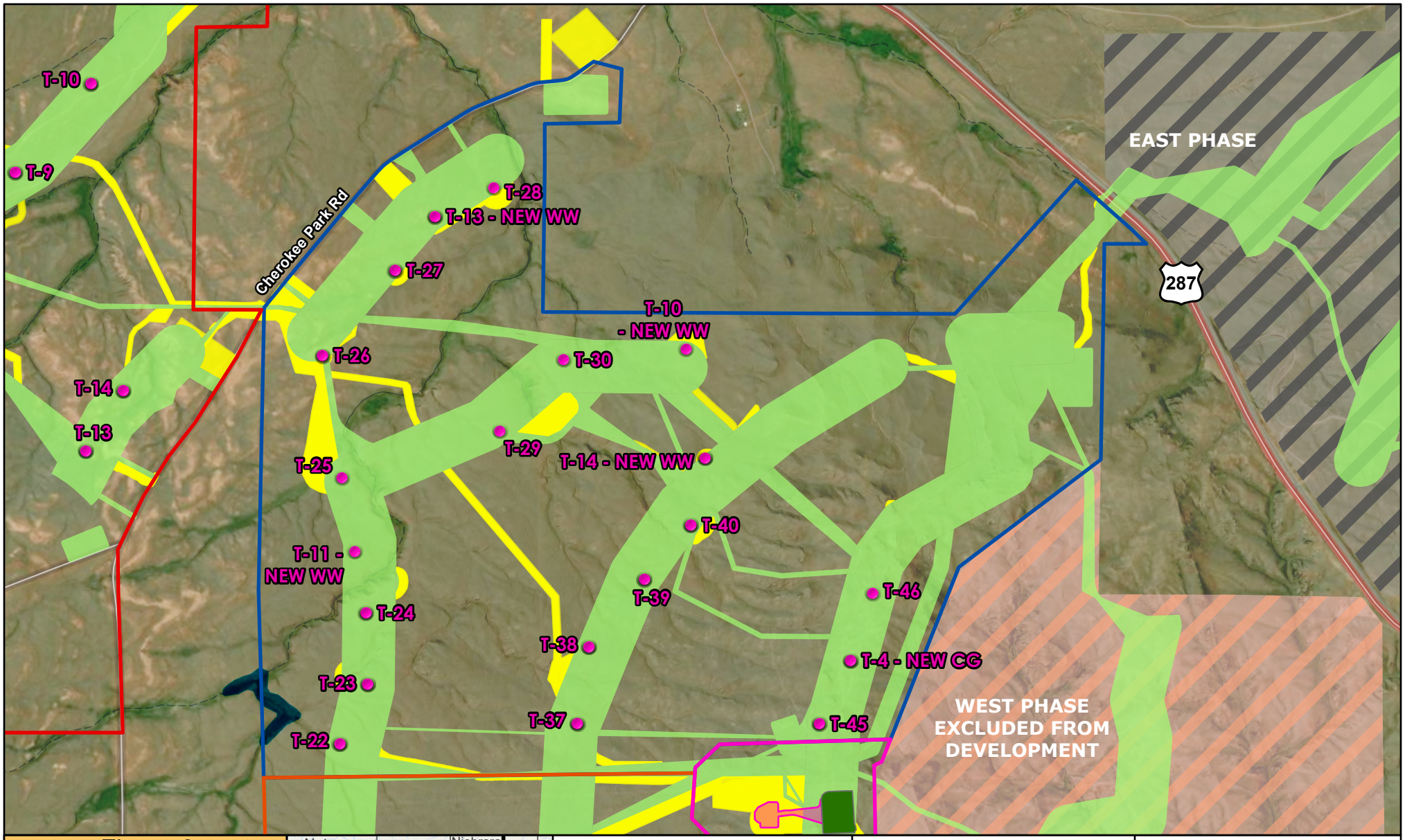
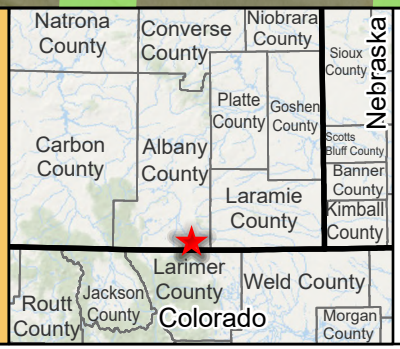


Figure 3: Revised Project Central North Sub-Area, Phase I (West Stage)

Albany County, Wyoming



- Proposed Turbine Location
- Existing Road
- WAPA's Interconnection Switchyard
- Substation Switching Area
- Additions to Siting Corridor (2025)
- Project Siting Corridor from Final EIS (2021)
- Central North Sub-Area
- Central South Sub-Area
- Northwest Sub-Area
- Substation Sub-Area
- State Boundary

Feet
0 1,500 3,000
0 450 900
Meters

N
W E
S

Scale: 1:30,000
Date: 5/9/2025
Spatial Reference
PCS: NAD 1983 2011 StatePlane Wyoming East FIPS 4901 Ft US

REPSOL

NOTE: This is not a legal survey instrument. All measurements and boundaries depicted are approximations and pend final surveys and title research.

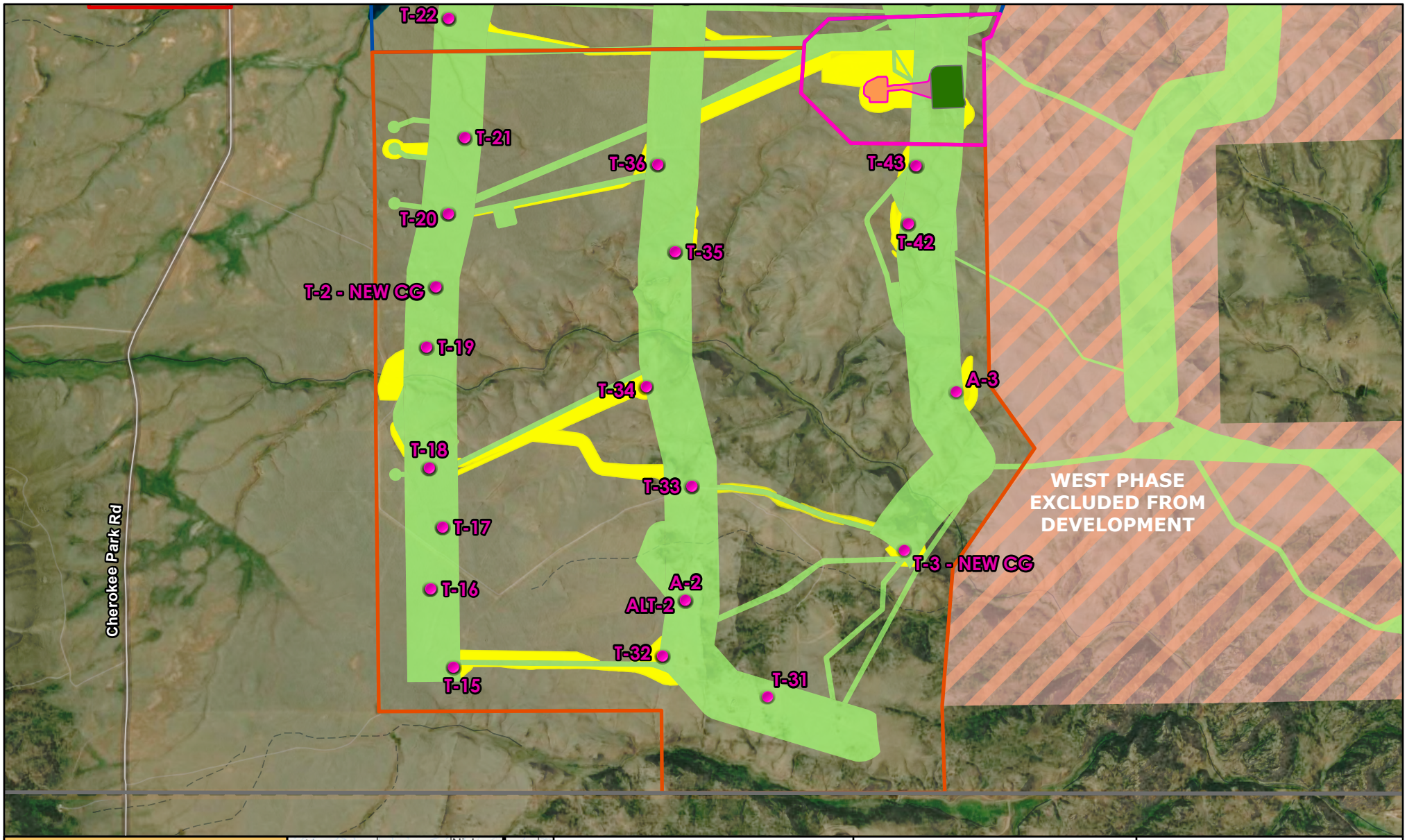


Figure 4: Revised Project Central South Sub-Area, Phase I (West Stage)

Albany County, Wyoming

- Proposed Turbine Location
- Existing Road
- WAPA's Interconnection Switchyard
- Substation Switching Area
- Additions to Siting Corridor (2025)
- Project Siting Corridor from Final EIS (2021)
- Central North Sub-Area
- Central South Sub-Area
- Northwest Sub-Area
- Substation Sub-Area
- State Boundary

Feet
0 1,500 3,000
0 450 900
Meters

N
W E
S

Scale: 1:30,000
Date: 5/9/2025
Spatial Reference
PCS: NAD 1983 2011 StatePlane
Wyoming East FIPS 4901 Ft US

REPSOL

NOTE: This is not a legal survey instrument. All measurements and boundaries depicted are approximations and pend final surveys and title research.

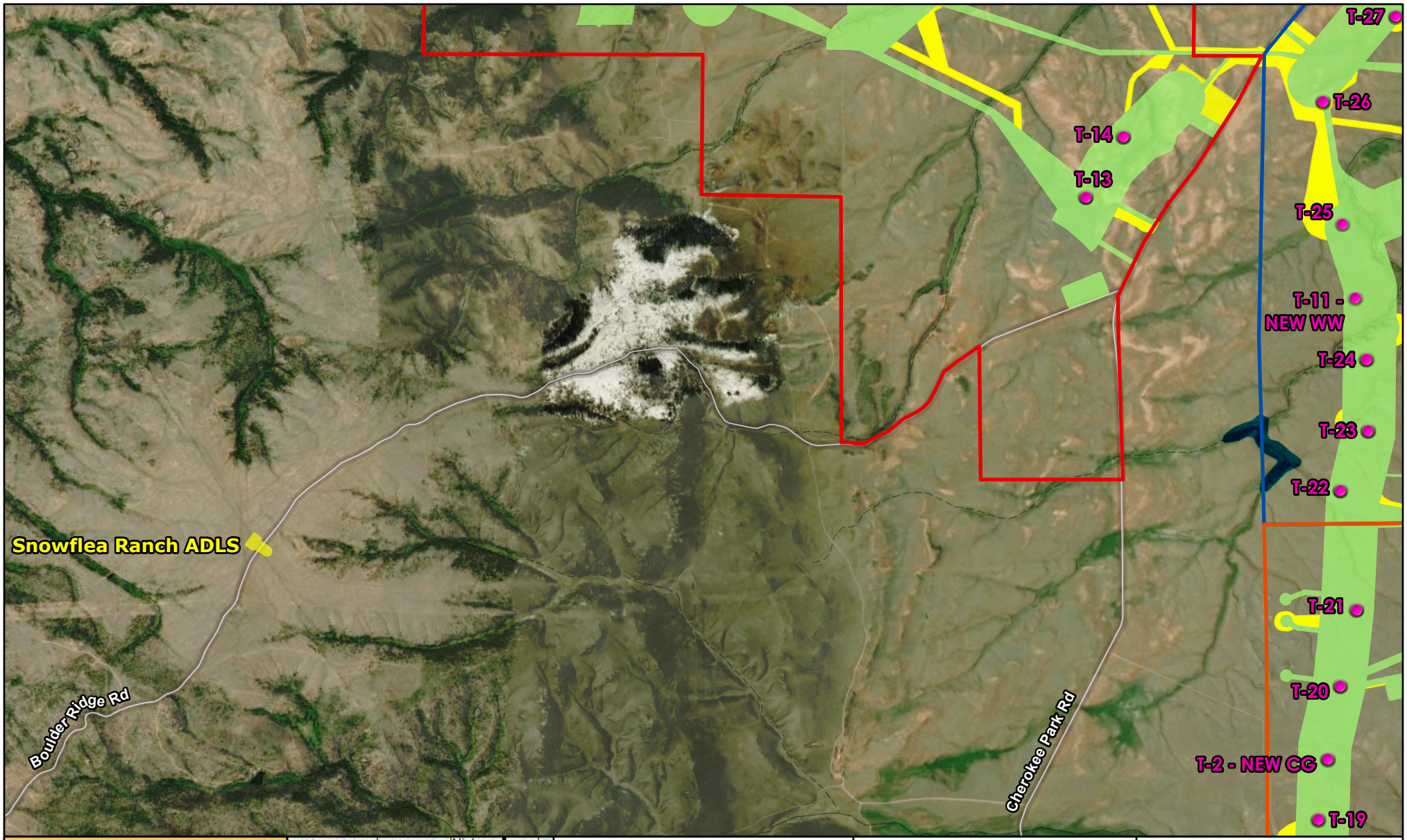


Figure 5: Snowflea Ranch ADLS Site

Albany County, Wyoming

- Proposed Turbine Location
- Existing Road
- Additions to Siting Corridor (2025)
- Project Siting Corridor from Final EIS (2021)
- Central North Sub-Area
- Central South Sub-Area
- Northwest Sub-Area
- State Boundary

Feet
0 1,500 3,000
0 450 900
Meters

N
W E
S

Scale: 1:30,000
Date: 5/9/2025
Spatial Reference
PCS: NAD 1983 2011 StatePlane Wyoming East FIPS 4901 Ft US

REPSOL

NOTE: This is not a legal survey instrument. All measurements and boundaries depicted are approximations and pend final surveys and title research.

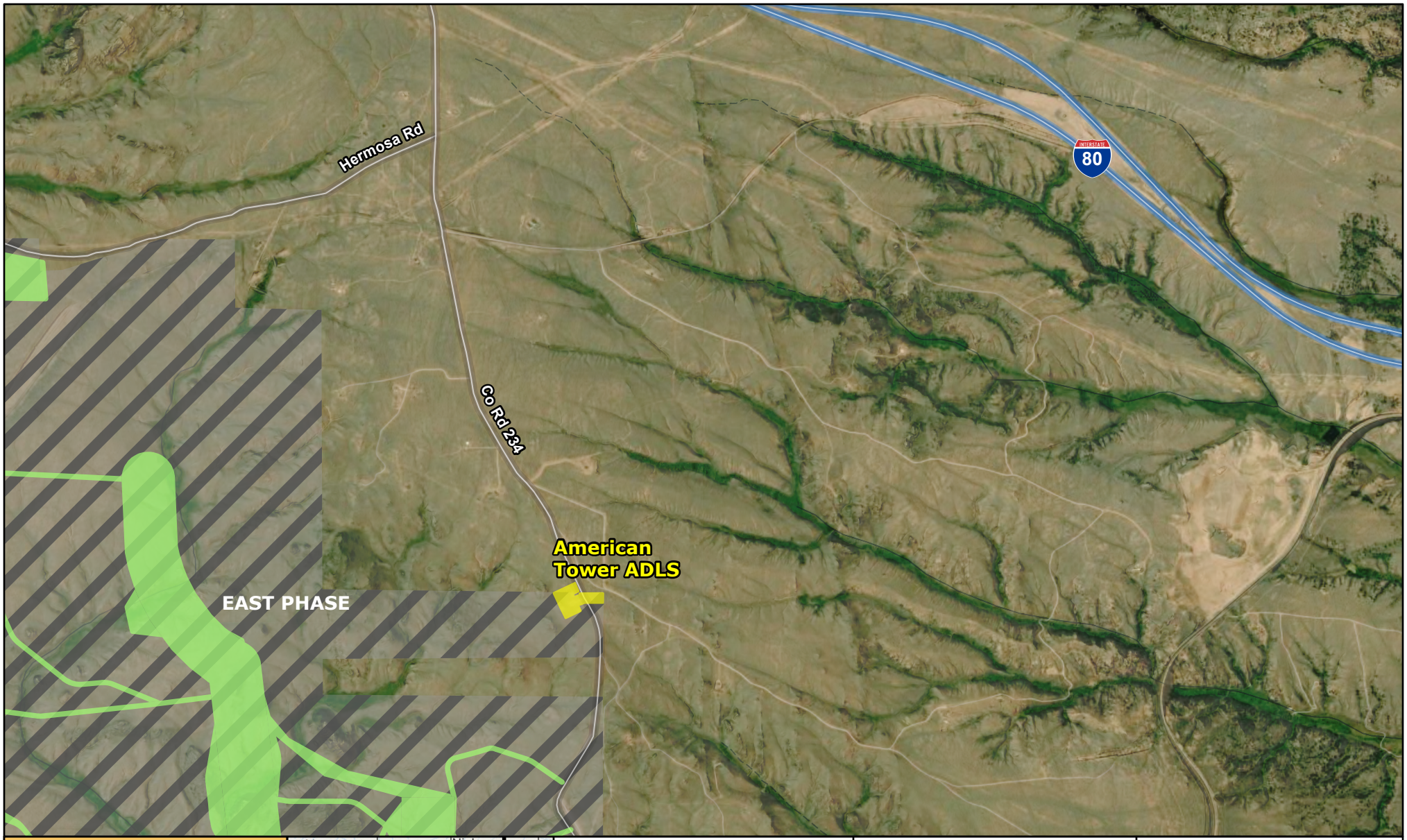
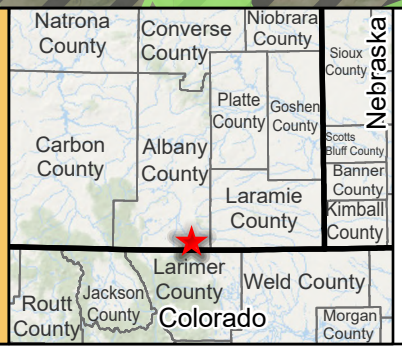


Figure 6: American Tower ADLS Site

Albany County, Wyoming



- Proposed Turbine Location
- Existing Road
- Additions to Siting Corridor (2025)
- Project Siting Corridor from Final EIS (2021)
- State Boundary

Feet
0 1,500 3,000
0 450 900
Meters

N
W E
S

Scale: 1:30,000
Date: 5/9/2025
Spatial Reference
PCS: NAD 1983 2011 StatePlane
Wyoming East FIPS 4901 Ft US

REPSOL

NOTE: This is not a legal survey instrument. All measurements and boundaries depicted are approximations and pend final surveys and title research.