

# Variance Request Form



Company: Avangrid Renewables  
 Address: 1125 NW Couch Street, Suite 700  
 City, State, Zip : Portland, OR, 97209

Variance: VAR- 013  
 Request No.: Rev 1  
 Date Submit: 06/13/17  
 Date Agency Received:  
 Agency Reference No.:

Request Prepared by: Kamber McAllister (ICF)  
 Spread/Location (Milepost): N/A

Net Acreage Affected: 4.18 (2.04 additional)

Alignment Sheet/Sta. No.:

Tract No.: N/A

Landowner: BLM

In or Within 50ft of a Wetland:  Yes  No

Current Land Use/Vegetative Cover: Big Sagebrush Scrub, Dense Coast Live Oak Woodland, Disturbed Habitat, Open Coast Live Oak Woodland, Redshank Chaparral, Scrub Oak Chaparral, Semi Desert Chaparral, Upper Sonoran Subshrub Scrub

Within 50ft of a Water Body:  Yes  No

Nearby Features (Water body, T&E Habitat, Wetlands, Noxious Weed):

Waters are included on Figure 3 - REDACTED.

Area, Residence, Cultural Resource Site (distance, etc.):

Variance Level:  Level 1  Level 2  Level 3 (To Be Assigned by Designated Representative)

Variance From:  Permit  Plan/Procedure  Specification  Drawing  Mitigation Measure  Other

**Detailed Description of Variance:** Attachments  Yes  No Photos?  Yes  No

Variance 13 (VAR-013) includes adjustments to the overhead collector line pole locations, associated access roads, and construction areas for poles [REDACTED] to reduce impacts to newly identified environmentally sensitive areas (ESAs) while maintaining constructability (Attachment A, Figures 1 and 2 - REDACTED).

The original design had impacts to newly discovered ESAs at collector line pole locations [REDACTED]. Because electrical line design has a high potential for a cascading effect, meaning slight shifts to one structure location has a high probability of affecting other structures, the entire length of the electrical line from pole [REDACTED] was analyzed in multiple configurations to accommodate structures [REDACTED]. For the entire transmission and collector line, each pole structure is individually fabricated to meet the strength and design standards required specific to the configuration of the line at that location; i.e. poles are all unique. The design was finalized in October 2016 therefore, all structures have been fabricated, ordered, and are either on site or en-route to site. The finality of the pole design added additional complexity of re-configuring the structures. The challenge was to keep the same pole specifications, meet line standards, and minimize the domino effect while avoiding existing ESAs. In many alternate configurations examined one or more poles were either too short (due to the very rugged terrain and line sag clearance) or could not handle the tension from the angle adjustments; therefore, did not meet the required strength and were removed from further consideration.

Once the electrical design was solved for (i.e., where the poles could go, avoid ESAs to the extent possible, and meet the design standards), the construction limits of disturbance and access were then designed in conjunction with the newly proposed line and conflicts with cultural ESAs and constructability elements were resolved wherever possible.

Structure locations [REDACTED]

Structure location [REDACTED] and associated construction zone were relocated to completely avoid a newly expanded ESA. To meet strength and height requirements, this also required a shift to structure location [REDACTED] to bring it closer to McCain Valley Road. That shift brings the construction zone directly adjacent to a previously known ESA. The construction zone for structure location [REDACTED] is reduced to the east of the pole, where it is adjacent to the ESA, with the assumption that construction staging activities at that location would be allowed within McCain Valley Road for staging equipment (Figure 2 - REDACTED). Construction activities at these collector pole locations are consistent with the project NTPs and include excavation of the pier formations; fabrication and installation of rebar, anchor bolt cages, and forms and tables; and concrete placement. Equipment anticipated to be used includes Lodrill, forklifts, crane, crew trucks, backhoes, concrete trucks, concrete pump trucks, and concrete material trailers. All clearing and any necessary grading would occur during the day. Pole construction would occur during the day and could also occur at night. The road will be partially closed with single lane access during structure construction. In this location, staging equipment will line the east side of MVR and traffic would be able to navigate the western side of the road. Flaggers will be provided during the entire time MVR would be partially blocked. The Variance Areas for [REDACTED] structures [REDACTED] total 1.26 acres, including 0.65 acres of additional impacts.

### Structure locations [REDACTED]

Structure locations [REDACTED] were also designed to avoid impacts to a recently discovered ESA. With the shift of structure location [REDACTED] from its designed location further east/northeast, structure location [REDACTED] became a challenge due to the height of the pole. Structure location [REDACTED] itself avoids all cultural ESAs identified at that time; however, the location of the structure was 12 feet above the adjacent centerline elevation of McCain Valley Road. This resulted in a steep access to the structure, making it difficult to safely get equipment and vehicles to access and build the construct. It was determined that the structure location could be brought closer to McCain Valley Road (and within the existing permitted limits of disturbance); however, a known cultural ESA would be impacted. Additionally, as a result of design iterations and field reviews, this ESA was recently expanded from [REDACTED]. Due to the expansion of the ESA, the structure location cannot be moved to avoid impacts to the newly expanded ESA completely and 907 SF will be tested. However, if kept closer to McCain Valley Road, the Road could be used for construction staging avoiding additional grading on the east side of the structure location. Construction activities are consistent with those described for Structure Locations [REDACTED]. In this location, staging equipment will attempt to line the east side of MVR with the intent to allow for navigation on the western side of the road. Flaggers will be provided during the entire time MVR would be partially or fully blocked and equipment would be staged for quick removal allowing for passage if an emergency arouse.

Although structure location [REDACTED] did not move, the access road to the structure did move as it would have impacted a newly discovered ESA. Due to the steep slope on the west side of the structure location, several options for access to structure location [REDACTED] were examined. Ultimately it was determined that accessing structure location [REDACTED] via a new access road to the east that connects structure location [REDACTED] and structure location [REDACTED] is preferred, as it avoids both the cultural ESA and additional impacts to Jurisdictional Feature [REDACTED] (Figure 3 - REDACTED).

The variance areas for structure locations [REDACTED] total 1.53 acres, including 0.69 acres of additional impacts.

### Structure Location [REDACTED]

VAR-013 includes the additional pull areas at structure location [REDACTED]. Structure location [REDACTED] is a dead end structure meaning that the conductors terminate at this structure location. At a dead end structure, lines are pulled in both directions. The pull area requires equipment to pull large spools of wire from the last dead end structure, through the middle structures and to the next dead end structure. At a dead end structure location an area approximately 300 feet away from the structure location is needed to stage the pulling equipment. Staging equipment consists of a tensioner, a trailer with the spool of wire being pulled, additional spools of wire, and a rubber tire crane to lift the spools onto the trailer.

At structure location [REDACTED] cultural and biological ESAs have mostly been avoided by the contractor agreeing to constrain work space; however, the structure itself and the associated construction zone of that structure are within a new cultural ESA. This would result in approximately 2,008 SF of impacts to this new ESA. This is unavoidable as movement of the structure location west is not possible due to proximity to a turn in MVR. Additionally shifting would place the pull area closer to a different new ESA would place pulling equipment for the most part directly in McCain Valley Road. The variance areas for structure location [REDACTED] totals 1.39 acres, including 0.70 acres of additional impacts.

**Variance Justification:**

VAR-013 is required to complete construction of the Tule Wind Project safely. This variance has taken into account opportunities for reductions in area disturbance while balancing economic viability and constructability. Other engineering options were reviewed and found to be unviable due to large impacts to the ESA or limitations of pole strength and/or height within this stretch.

Structure Location

Shifting Pole required a shift to structure location. Structure location will move closer to McCain Valley Road to meet pole strength and height requirements.

Structure Location

Structure location and associated construction zone were relocated to completely avoid a newly expanded ESA.

Structure Location

Shifting Pole required Structure Location to shift due to pole height constraints. Structure location was sited to limit ESA impacts as much as possible while maintaining constructability.

Structure Location

While there is no change in the structure location for Pole the access road to the structure was redesigned to avoid impacts a newly discovered ESA. Conversations with the aquatics resource agencies indicated that the aquatic resource permit amendments would take longer than initially anticipated and that impacts to the jurisdictional feature should be avoided. After looking at several options and taking account slope and cultural and jurisdictional aquatic resources in the area it was determined that accessing structure location using an access road that connects structure location and structure location along the east side provides the least impact while avoiding the resources.

Structure Location

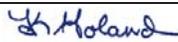
The additional pull areas are needed at structure location due to the pole being a dead-end structure. The pull areas have been designed to avoid known ESAs.

The existing structure location and associated construction zone are within a new cultural ESA, and would result in approximately 2,008 SF of impacts to this new ESA. This is unavoidable as movement of the structure location west is not possible due to roads and east places the pull area closer to a different new ESA and would place pulling equipment for the most part directly in McCain Valley Road. The testing plan for this area will be submitted to the BLM.

**For Avangrid Renewables Use Only**

Additional Surveys Required	Surveyed Corridor Description	Additional Surveys Completed
Cultural Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	The variance is within existing cultural and biological resources survey areas, so additional surveys were not required. Supplemental confidential reporting associated with the cultural ESAs is being submitted separately.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
T & E Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Report Document Survey:

Sign-Off (as appropriate)	Name (print)	Approval Signature	Conditions (see attached)
Avangrid Permit Manager	Kristen Goland		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Lead Environmental Inspector	Talia Haley		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Designated Biologist	James Hickman	N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Cultural Resource Specialist	Brian Williams		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**For BLM Project Manager or Compliance Contact Use Only**

Variance Approved:  Variance Denied:  Date:

Signature:

**For Compliance Manager and Monitor Use Only**

Variance Approved:  Variance Denied:  Date:

Signature:

Stipulations:

Spread:

Variance Request No.:

## VARIANCE CONDITIONS

Name:

Title:

Organization:

Conditions:

Name:

Title:

Organization:

Conditions:

Name:

Title:

Organization:

Conditions:

# Attachment A

Figures - REDACTED