

PLAN OF DEVELOPMENT

HIDDEN HILLS RANCH ANCILLARY FACILITIES

REVISION TWO

BrightSourceEnergy

VALLEY ELECTRIC ASSOCIATION



Addressing facilities connected with Proposed Solar Generation Projects in the Armargosa Valley

**ENVIRONMENTAL SERVICES GROUP
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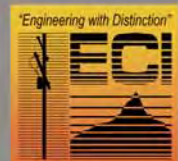


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1.1 OVERVIEW

The Hidden Hills Solar Electric Generating (HHSEGS) project is being developed by Hidden Hills Solar I, LLC and Hidden Hills Solar II, LLC the owners of the separate solar plants, and Hidden Hills Solar Holdings, LLC, the owner of shared facilities required by the two solar plants. These three project limited liability companies are Delaware limited liability companies. BrightSource Energy, Inc. (BrightSource), a Delaware corporation, is a technology and development company and the parent company of the limited liability companies. Bright Source Energy (BSE) proposes to acquire a leasehold estate in the privately held land located in the Mojave Desert between Death Valley and the California/Nevada border. The land is owned by the Mary Wiley Trust.

The HHSEGS project will consist of two solar thermal electric generating plants, with shared common facilities. The project will be co-located in Inyo County, California, approximately 18 miles south of Pahrump, Nevada. Pahrump is located about 40 to 45 miles west of Las Vegas, Nevada. The project site will be located on privately own land; whereas, the transmission and natural gas lines, once they leave the site, will be located on property managed by the Bureau of Land Management (BLM). The two facilities will each have a nominal rating of 250 megawatts (MW), for a combined nominal rating of 500 MW.

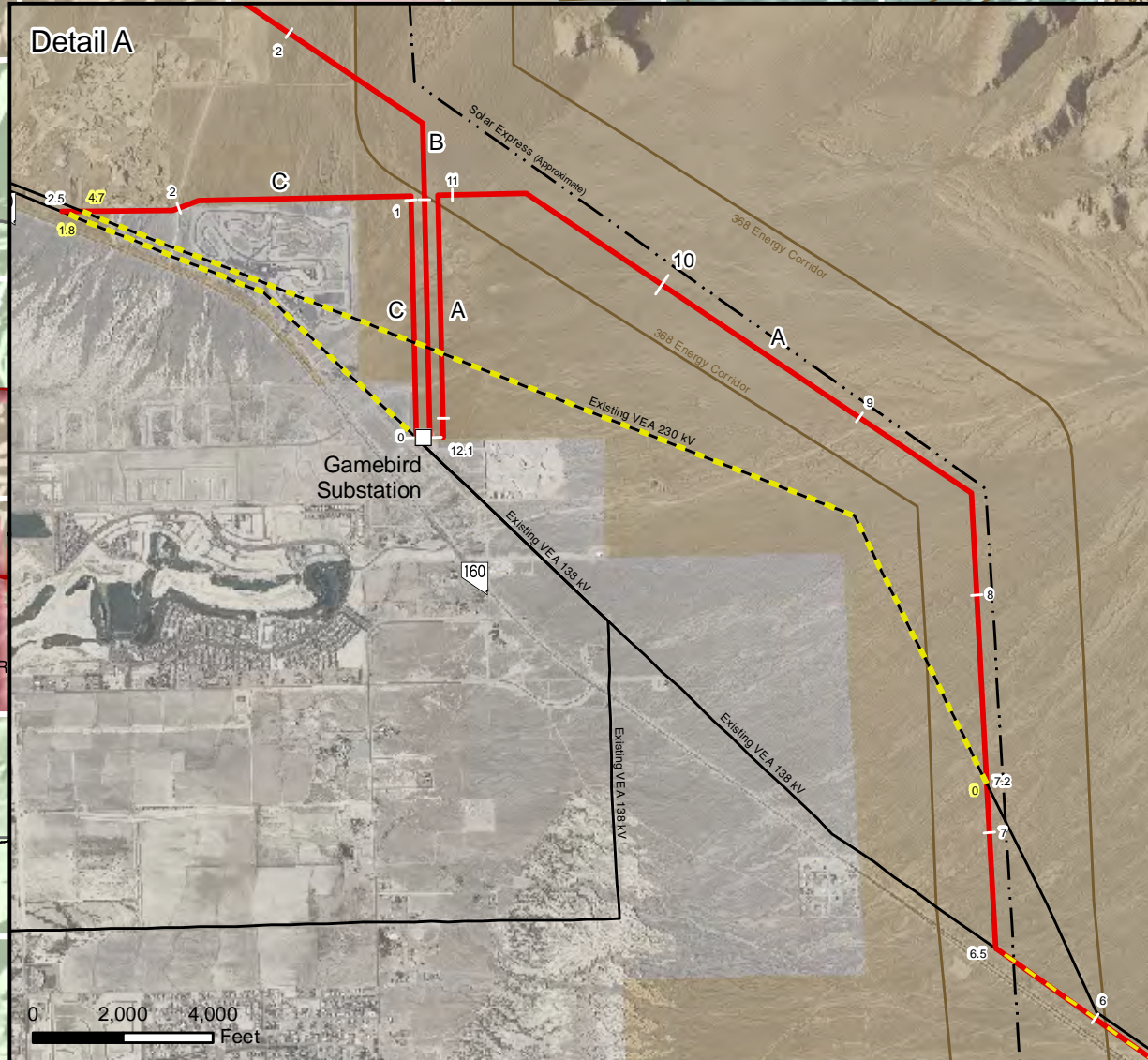
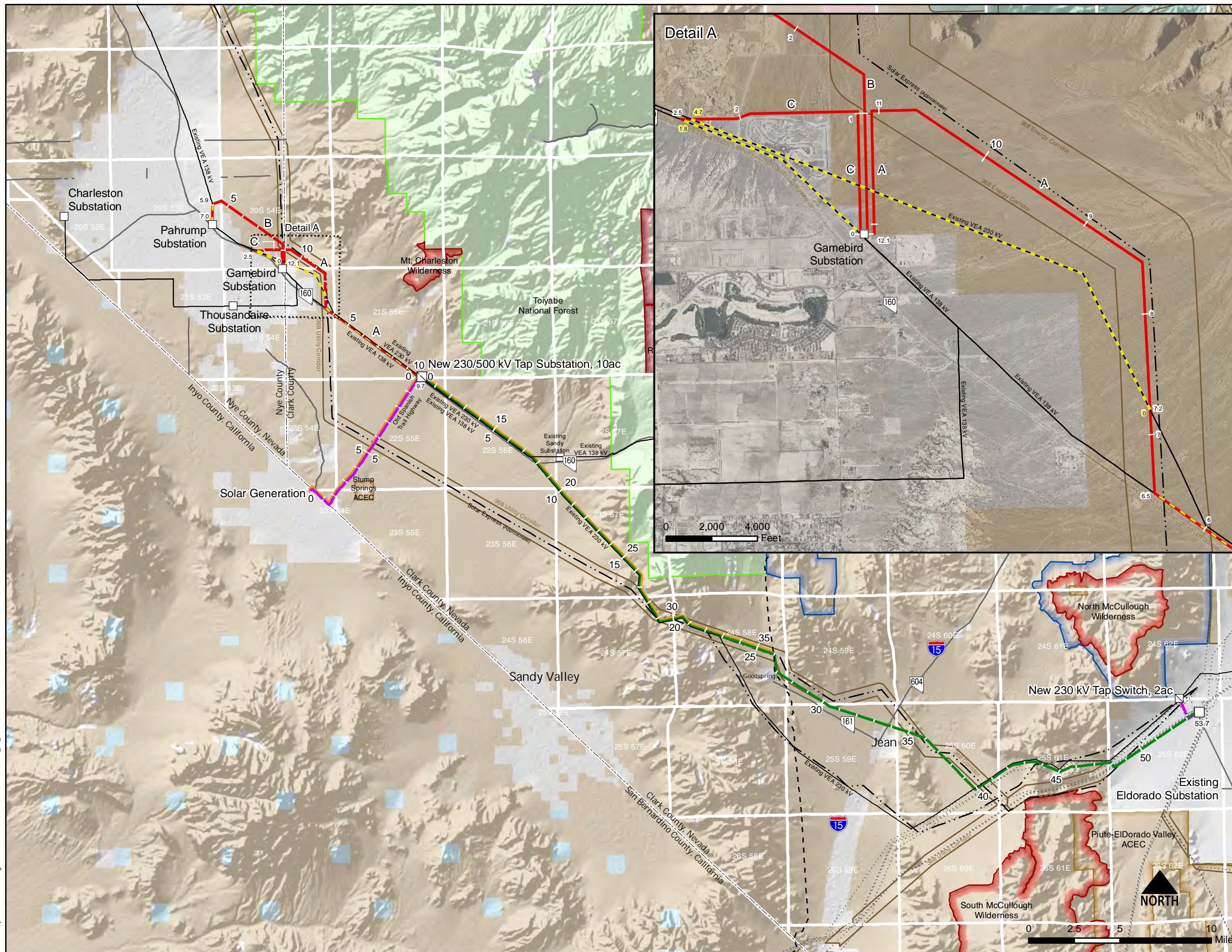
The total HHSEGS project site consists of approximately 3,275 acres (5.12 square miles) of new disturbance. Power Plant 1 (Plant 1, the northern unit) will require approximately 1,482 acres (2.3 square miles); Power Plant 2 (Plant 2, the southern unit) will require approximately 1,510 acres (2.4 square miles). Approximately 103 acres has been set aside in the southeast triangle of the site for use as a common area. An additional 180 acres has been reserved on the west side of the site for additional temporary construction/laydown area. The remaining disturbance areas include common access roads, gas lines, and generation tie-lines.

Following completion of project licensing and issuance of permits, the HHSEGS project will be constructed in approximately 24 months with a target completion by Fourth Quarter 2014/First Quarter 2015. The commercial on-line date is set for the First/Second Quarter of 2015.

BSE has approached Valley Electric Association (Valley, VEA) to construct, operate and maintain the necessary transmission infrastructure, both 230 kV and 500 kV, and natural gas pipeline to support the development of these combined 500 MW facilities. This Plan of Development (POD) outlines the details of the proposed transmission and substation facilities required to support the delivery of 500 MW into the Valley transmission system as well as the natural gas pipeline hereinafter referred to as the Proposed Projects Figure 1-1. These facilities include 1) a 230/500 kV BSE Tap Substation; 2) a 230 kV transmission line from the HHSEG project site to BSE Tap Substation; 3) a 230 kV backfeed from the BSE Tap Substation into the Pahrump community (referred to as the Pahrump Community 230 kV Line); 4) a 500 kV transmission line from BSE Tap Substation to Eldorado Substation (referred to as the Eldorado 500 kV Line); 5) a 12-inch buried natural gas pipeline; and 6) a 36" buried natural gas pipeline. The transmission line alignments, structure configurations, voltages and termination points presented in this POD are pending detailed engineering system studies, design and analysis and could change as more detailed information becomes available.

Figure 1-1

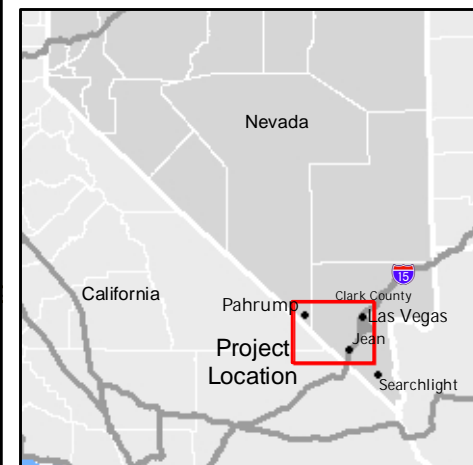
BSE Hidden Hills Transmission Project Overview



- New Eldorado 500 kV Transmission*
- New BSE 230 kV Tap Transmission*
- Proposed Gas Pipeline
- - - Remove Existing Transmission
- Replace Existing 138 kV with 230 kV
- New 230 kV Transmission

- Highway / Road
 - Proposed Substation
 - Existing Substation
 - BLM Geographic Coordinate Data Base (GCDB) Township Data
 - VEA Transmission
 - - - Other Existing Transmission
 - 368 Corridor
 - National Forest
 - NCA
 - ACEC
 - Wilderness
- Jurisdiction**
- Bureau of Land Management
 - Forest Service
 - State
 - Private / Local Gov't

* Line alignment, structure configuration, voltage and termination pending detailed engineering study.



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1.2 PURPOSE AND NEED

Valley Electric provides safe, reliable and cost-effective electric service to its retail customers via the development of comprehensive transmission facilities that deliver power into Valley Electric's service area. The Proposed Projects will provide the system improvements necessary to support the development and delivery of 500 MW into the Valley transmission system. In addition to the support of the BSE proposed facilities, the construction of the VEA Proposed Projects will support the development of additional renewable resource generation facilities within the State of Nevada.

1.3 AUTHORIZATION, PERMITS, REVIEWS, AND APPROVALS

The Proposed Projects conform to the BLM's RMP and to relevant Federal, state, and local statutes, regulations, and plans. Table 1-1 documents the Federal, state, and local agencies' approvals, reviews, and permitting requirements anticipated to be required for the Proposed Projects.

Table 1-1 Authorizations, Permits, Reviews, and Approvals

Action Requiring Permit, Approval, or Review	Permit/Approval	Accepting authority/ approving agency	Statutory Reference
FEDERAL			
Right of way Over Land Under Federal Management	Right of way Grant	Bureau of Land Management (BLM)	FLPMA 1976 (PL94-579) USC 1761-1771 and 43 CFR 2800
National Environmental Policy Act (NEPA) Compliance to Grant right of way	Environmental Impact Statement (EIS)	BLM	NEPA, 40 CFR Part 1500- et. seq.
Grant of right of way by BLM	National Historic Preservation Act Compliance with Section 106	BLM and State Historic Preservation Office	National Historic Preservation Act of 1966, 36 CFR part 800, 16 USC 47
Grant of right of way by BLM	Section 7 Endangered Species Act Compliance by BLM/USFWS Biological Opinion	BLM & U.S. Fish and Wildlife Service	Endangered Species Act Section 7 Consultation, 50 CFR Part 17, 16 USC 1536
STATE OF NEVADA			
Desert Tortoise Handling Permit/Authorization	Handling Authorization	Nevada Division of Wildlife	NAC 503.090, 503.093
LOCAL/CLARK & NYE COUNTIES			
Construction and Operation	Special Use	Clark County and Nye County Board of Commissioners	Clark County Zoning Ordinance

Table 1-1 Authorizations, Permits, Reviews, and Approvals

Action Requiring Permit, Approval, or Review	Permit/Approval	Accepting authority/ approving agency	Statutory Reference
Construction/Fugitive Dust – PM10	Dust Control Permit	Clark County/Nye County Department of Air Quality Management	Clean Air Act of 1977 and Amendments NRS 321.001, 40 CFR Subpart C, 42 USC 7408, 42 USC 7409.
National Pollution Elimination Discharge Permit	Stormwater Pollution Prevention Program	Nevada Division of Environmental Protection	Clean Water Act

Source: Electrical Consultants, Inc. 2011

2.1 INTRODUCTION

Construction for the Proposed Project is anticipated to begin Second Quarter, 2013 with an in-service date set for First/Second Quarter 2015. The Proposed Projects would consist of the following new or expanded facilities on BLM land:

- A new 10-acre BSE Tap 230/500 kV Substation (BSE Tap Substation)
- Approximately 9.7 miles of new 230 kV single circuit transmission line from the HHSEGS project site to the new BSE Tap Substation (BSE 230 kV Tap Line).
- Ancillary facilities required as a result of the BSE 230 kV Tap Line include a 2 acre Switch northwest of Eldorado Substation and approximately 1 mile of 230 kV transmission line will be constructed from the new 230 kV Tap Switch to the Eldorado Substation.
- Approximately 53.7 miles of new 500 kV single circuit transmission line from the BSE Tap Substation to the existing Eldorado Substation (Eldorado 500 kV Line).
- A 230 kV transmission line from the 10-acre BSE Tap 230/500 kV Substation to Pahrump (Pahrump Community 230 kV line) to provide the necessary backfeed into the Pahrump Community for system integrity
- Improvement of existing VEA facilities to accommodate the necessary interconnections at Vista Substation, Gamebird Substation, and Eldorado Substation.
- Installation of a buried 9.3 mile 12-inch natural gas pipeline, which would extend from the HHSEGS site until it intersects the existing VEA 230 kV transmission line. From this location, a 36-inch line would turn southeast and continue 26 miles to where it intersect the existing Kern River Gas Transmission (KRG T) pipeline.
- Construction and operation of new and existing access roads along each of the proposed transmission alignments.
- Temporary work areas associated with construction activities, material storage and staging.

2.2 BSE TAP SUBSTATION

Valley will construct, operate and maintain the BSE Tap Substation. This 10-acre facility will be located immediately northeast of the existing VEA 138 kV and VEA 230 kV transmission line alignments adjacent to Highway 160 (Section 35, T21S R55E). The substation will provide the ability for the BSE 230 kV Tap Line to tie into the existing VEA 230 kV transmission line. In addition, this facility will serve to connect the Eldorado 500 kV Line and the Pahrump Community 230 kV Line into the existing VEA system.

The construction of the Proposed BSE Tap Substation will require 15 acres of temporary right of way with 10 acres remaining permanently fenced disturbed area.

2.3 BSE 230 KV TAP LINE

This Proposed Project will include the construction of a single-circuit 230 kV transmission line from the HHSEGS project site approximately 9.7 miles northeast to tie into the BSE Tap

Substation. This line will be constructed on self-weathering steel double-circuit monopole structures. These structures typically vary between 90 and 120 feet in height and are typically 600 to 900 feet apart depending on terrain.

The construction, operation and maintenance of this Proposed Project will require a 300 construction right of way (construction of the gas pipeline is included in this corridor) and a 100 foot wide permanent right of way and new access roads.

Ancillary facilities that will be required as a result of this tap line include the construction of a 2 acre Switch on private property just northwest of Eldorado Substation. In addition, approximately 1 mile of 230 kV transmission on private property will be required from the new 230 kV Tap Switch to Eldorado Substation. See

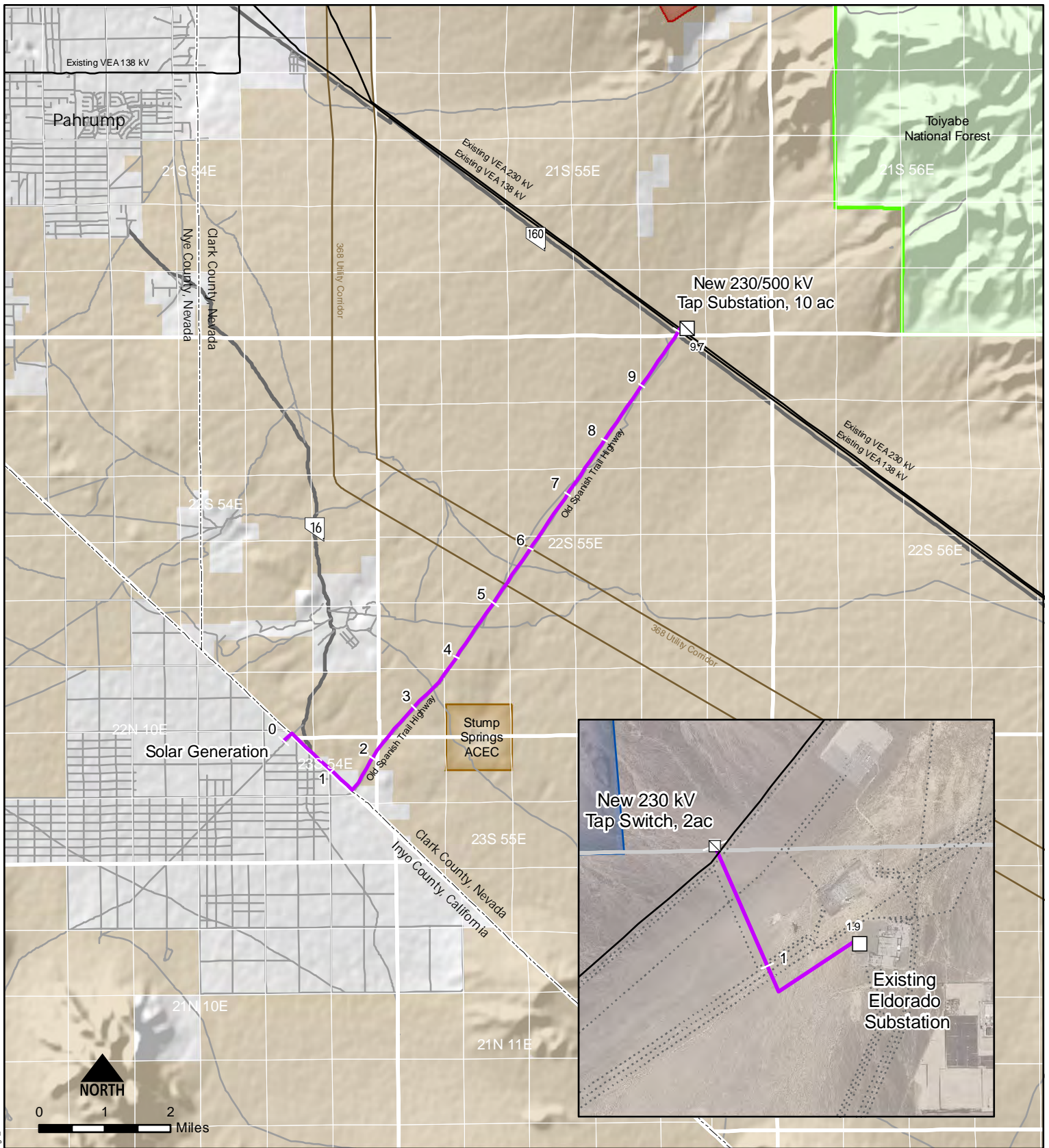
Figure 2-1.

2.4 ELDORADO 500 KV LINE

This Proposed Project will include the construction of a single-circuit 500 kV transmission line from the Proposed BSE Tap Substation (Section 35, T21S R55E) south east to tie into the existing Eldorado Substation (Section 2, T25S R62E). This line will be constructed using a combination of structure types to accommodate the different terrain along the alignment. In areas of relatively flat topography where little elevation difference occurs across long segments, self-weathering steel single-circuit monopole structures are proposed. These structures typically vary between 130 and 190 feet in height and are typically 750 to 1500 feet apart depending on terrain.

In areas of high relief such as those across the McCullough or Spring Mountain Ranges, lattice tower structures will be utilized. These structures are typically 150 to 200 feet in height and are typically spaced 800 to 1500 feet apart depending on terrain. Lattice structures are ideal for rugged, uneven terrain as they provide flexibility needed for construction and access in areas where the installation, crane erection and access precludes the setting of a single pole.

The construction, operation and maintenance of this Proposed Project will require a 250 foot wide right of way and new access roads. In some areas of particularly steep or difficult terrain, additional width may be required to facilitate access. These areas will be identified during detailed design. See Figure 2-2.



Source: ESRI, NV BLM, DOE, MAF/TIGER, VEA

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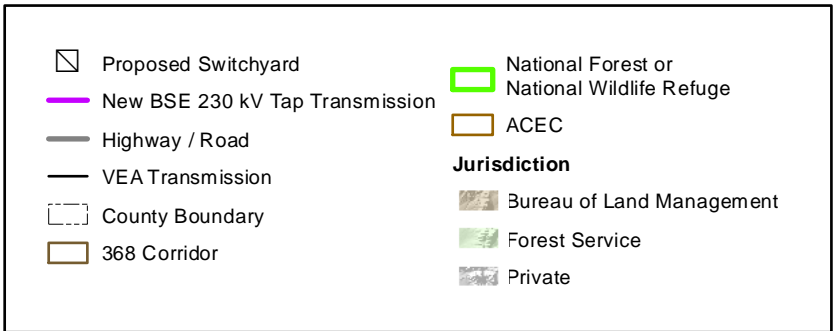


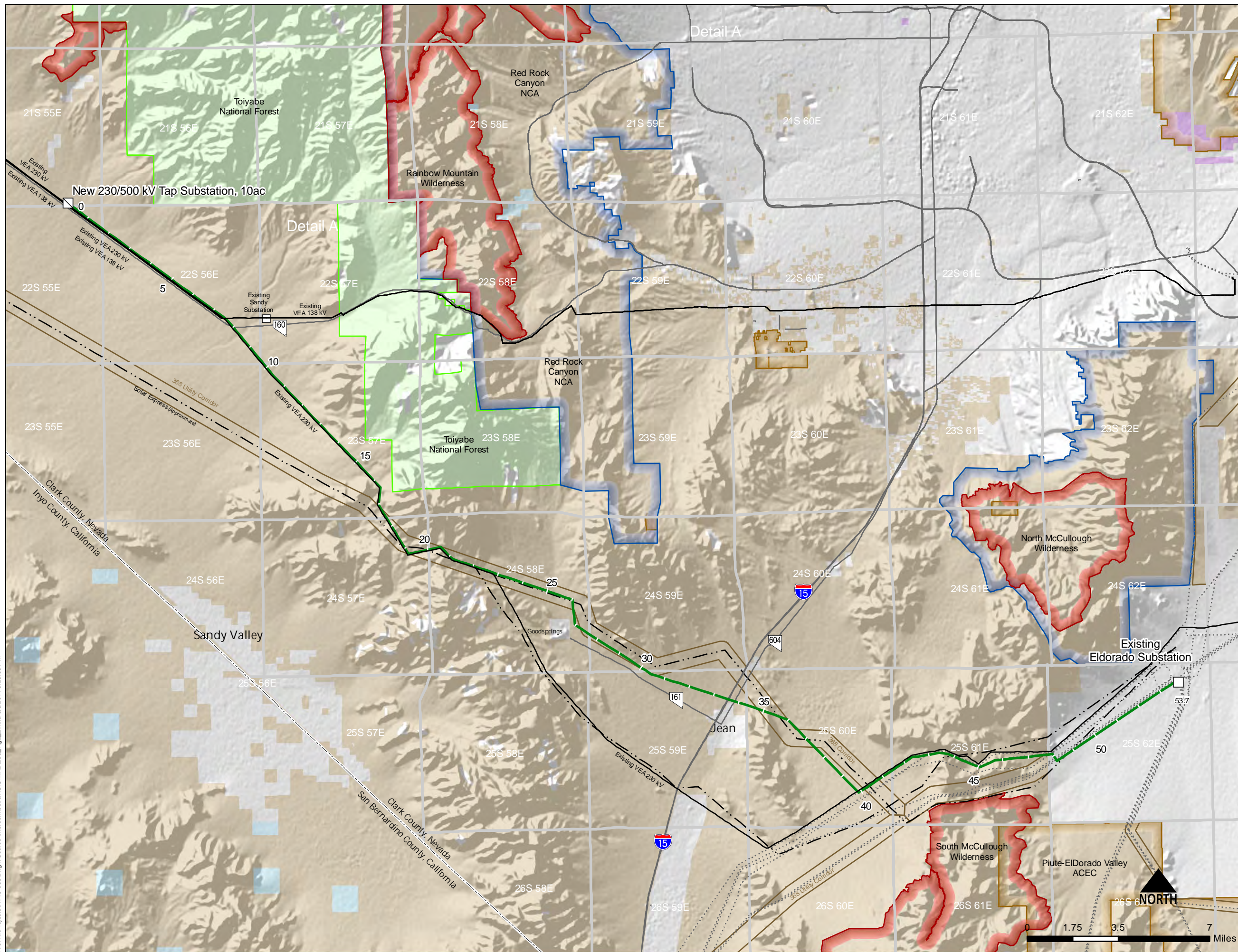
Figure 2-1
**BSE Hidden Hills
 Transmission
 BSE 230 kV Tap Lines
 and Facilities**

VALLEY ELECTRIC
ASSOCIATION, INC.

ECI
ELECTRICAL CONSULTANTS, INC.

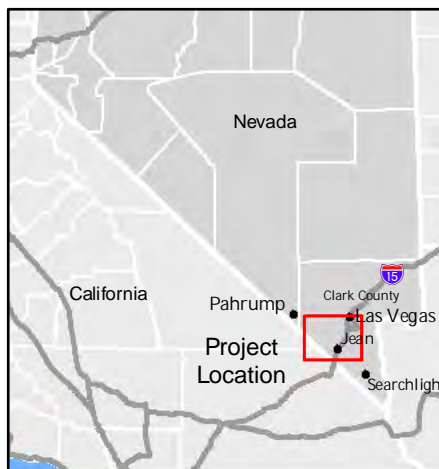
Figure 2-2

BSE Hidden Hills Transmission Eldorado 500 kV Line



- New Eldorado 500 kV Transmission*
 - Highway / Road
 - Proposed Substation
 - Existing Substation
 - BLM Geographic Coordinate Data Base (GCDB) Township Data
 - VEA Transmission
 - - - - Other Existing Transmission
 - 368 Corridor
 - National Forest
 - NCA
 - ACEC
 - Wilderness
- Jurisdiction**
- Bureau of Land Management
 - Forest Service
 - State
 - Private / Local Gov't

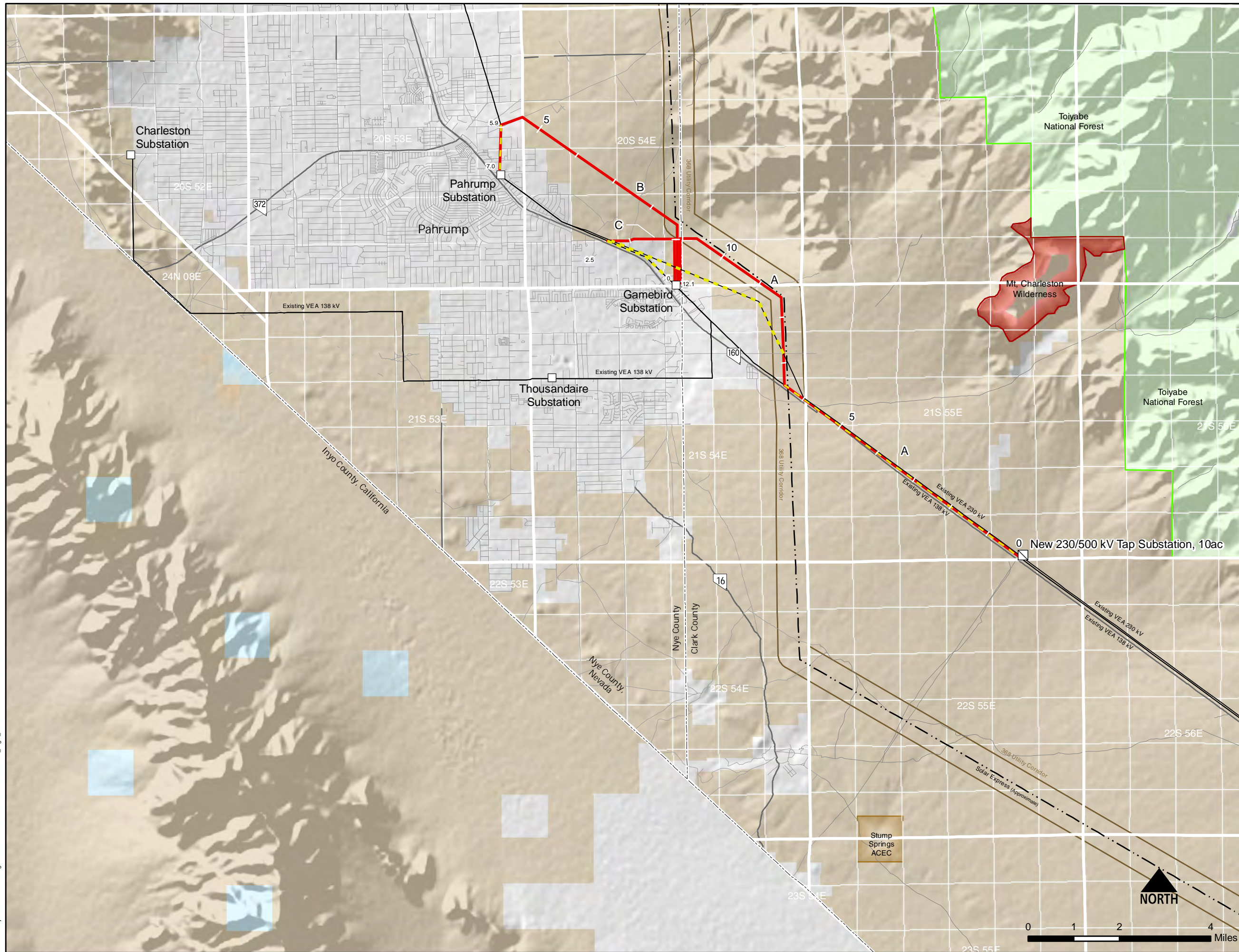
* Line alignment, structure configuration, voltage and termination pending detailed engineering study.



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Figure 2-3

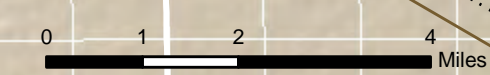
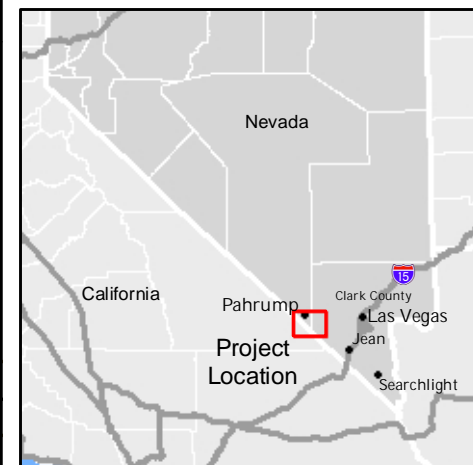
BSE Hidden Hills Transmission Pahrump Community 230 kV Line



- Remove Existing Transmission
- Replace Existing 138 kV with 230 kV
- New 230 kV Transmission
- Highway / Road
- Proposed Substation
- Existing Substation
- BLM Geographic Coordinate Data Base (GCDB) Township Data
- VEA Transmission
- ⋯ Other Existing Transmission
- 368 Corridor
- National Forest
- ACEC
- Wilderness
- Jurisdiction**
- Bureau of Land Management
- Forest Service
- State
- Private / Local Gov't

0 New 230/500 kV Tap Substation, 10ac

* Line alignment, structure configuration, voltage and termination pending detailed engineering study.



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2.5 PAHRUMP COMMUNITY 230 KV LINE

The Pahrump Community 230 kV Line includes approximately 12.1 miles of new single circuit 230 kV transmission line on new quad-circuit structures from BSE Tap Substation to VEA's Gamebird Substation. This quad-circuit alignment will be located within the existing 138 kV transmission line right of way adjacent to Highway 160 and will carry approximately 6.5 miles of the existing 138 kV transmission line. In addition, the last approximately 4.9 miles of this alignment will carry the existing 230 kV transmission line into Gamebird Substation.

A second single circuit 230 kV transmission line would extend north out of VEA's existing Gamebird Substation on a second set of new quad-circuit structures and extend northwest to tie into VEA's existing Pahrump Substation. This segment would be approximately 7.0 miles in length.

A third set of quad-circuit structures would extend north out of VEA's existing Gamebird Substation to provide circuit positions that will tie the existing VEA 138 kV and 230 kV transmission system into the substation. This alignment will extend 2.5 miles and will carry the existing 230 kV and 138 kV transmission lines.

As a part of this route, Gamebird Substation will be expanded within the 20 acres already granted as a part of N-059100.

Ancillary facilities that will result as a part of this route include improvements within the Pahrump and Vista Substations.

2.6 NATURAL GAS PIPELINE

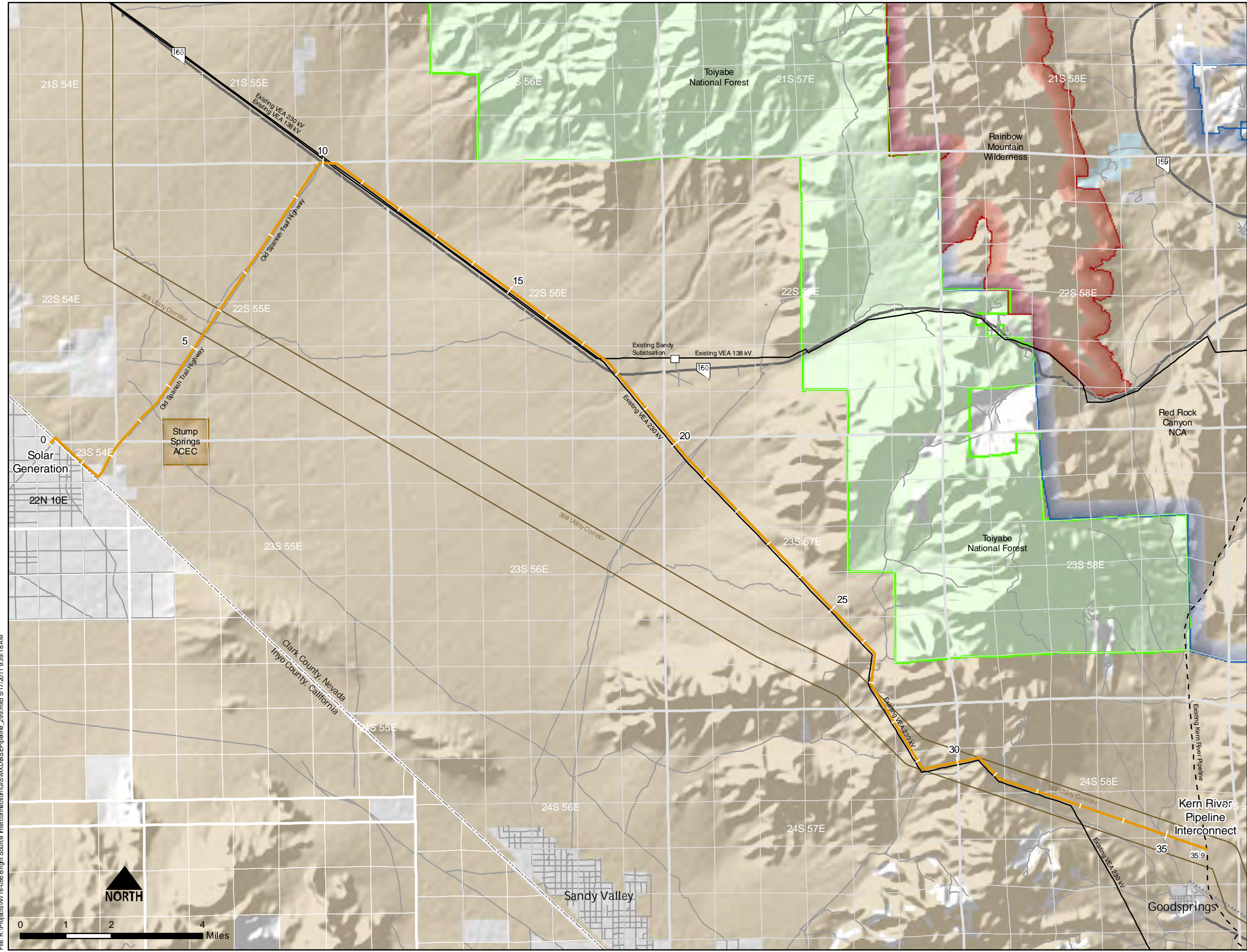
A 12-inch buried natural gas pipeline will be required for the HHSEGS project. It would exist the HHSEGS site and travel approximately 9.3 miles along Tecopa Road until it intersects the existing VEA 230 kV transmission line (which is the same corridor as the Eldorado 500 kV Line route). From this location a 36-inch line would turn southeast and continue approximately 26 miles to where it intersects the Kern River Gas Transmission (KRGT) pipeline. A tap station would be construction at this point to connect the new pipeline to the KRGT line. The total length of the line would be about 35.3 miles. See Figure 2-4.

2.6.1 Structure Installation

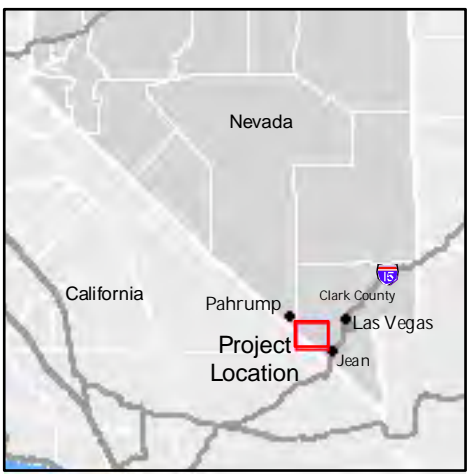
During construction the areas would be cleared of vegetation and graded where necessary. Structural components would be transported to the site by truck. For ground construction, a crane would be used to erect the structure. Equipment could include cranes, augers, bulldozers, bucket trucks, backhoes, air compressors, electric generators, pickup trucks, and other vehicles,

Figure 2-4

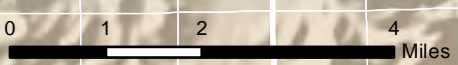
BSE Hidden Hills Transmission Natural Gas Pipeline Overview



- Existing Substation
 - New Gas Pipeline
 - Kern River Pipeline
 - Highway / Road
 - VEA Transmission
 - Other Existing Transmission
 - County Boundary
 - 368 Corridor
 - National Forest
 - NCA
 - ACEC
 - Wilderness
 - BLM Geographic Coordinate Data Base (GCDB) Township Data
 - BLM Geographic Coordinate Data Base (GCDB) Section Data
- Jurisdiction**
- Bureau of Land Management
 - Forest Service
 - Nevada State
 - Private / Local Gov't



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Source: ESRI, NV BLM, CABLM, USFS, MAF/TIGER, VEA

machinery, and field equipment. Structure erection would be completed at each structure location. Construction materials and equipment would be placed in areas that will minimize disturbance to vegetation. Typical structure configurations can be found in Figure 2-5 through Figure 2-8

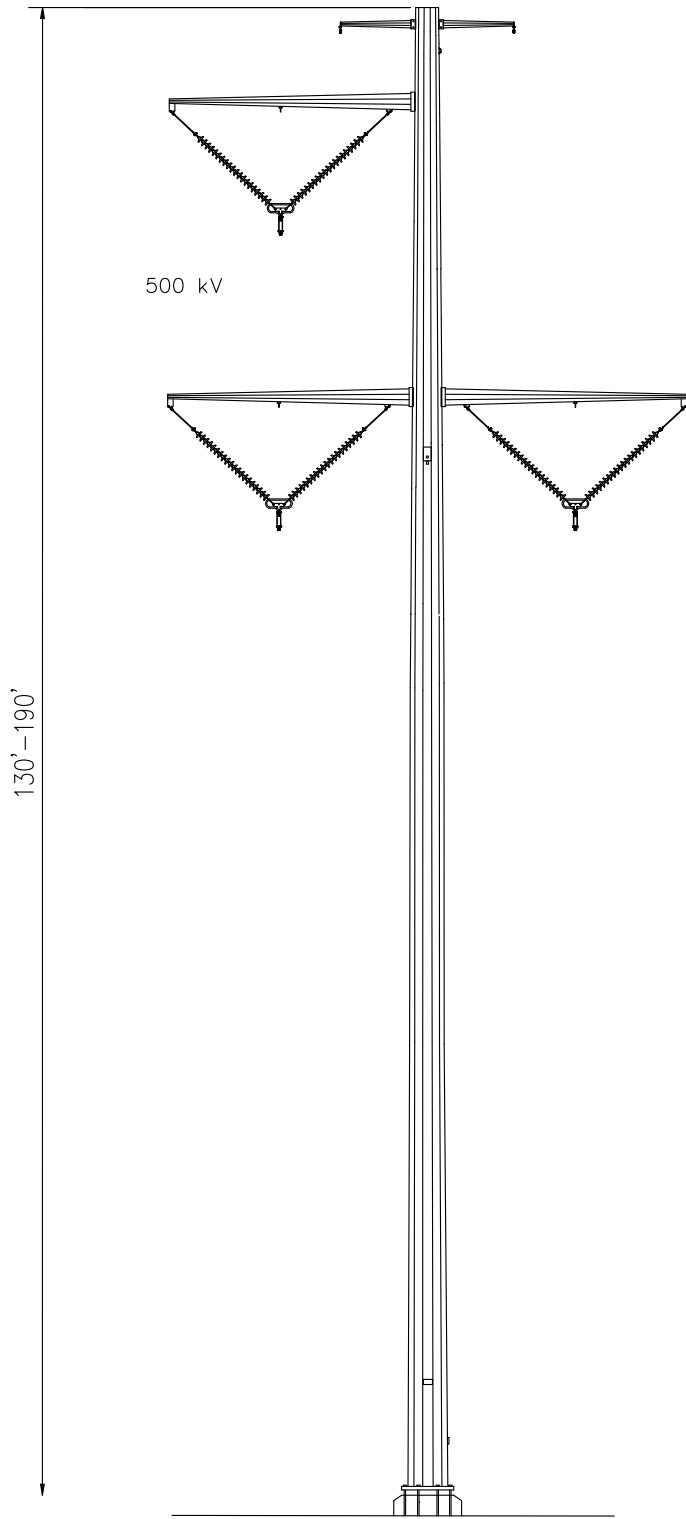
2.6.2 Construction of Gas Pipeline

The construction contractor will determine which method to use to install the natural gas pipeline along the pipeline route—a trench or trenchless method. The most common method of pipeline construction includes excavation of an open trench (the width and depth of which depend on the size of the pipeline; however, the U.S. Department of Transportation requires a minimum cover of 36 inches. During construction, a 300 foot-wide construction corridor will be disturbed (the construction corridor includes the construction of the Eldorado 500 kV Line). This short-term construction corridor will be used to store the excavated soil, provide access for equipment and vehicles, and allow space for fitting the pipeline prior to installation and backfill via backhoe.

Construction will require short-term disturbance of the ROW (e.g., vegetation clearing, trench excavation, soil compaction, dust generation, and restoration). The short-term construction disturbance area for the KRGT tap station will be 200 feet by 200 feet. Construction activities related to the tap and metering station and the metering sets will include grading a small pad and installing aboveground and belowground gas piping, metering equipment, gas conditioning, pressure regulation, and pigging facilities. Construction of the metering sets will use a short-term laydown area within the heliostat fields. Once construction is completed, the construction corridor and construction area at the KRGT tap station will be revegetated,.

2.6.3 Conductor

Minimum conductor height above the ground for the 230 kV line will be 26 feet, and 35 feet for 500 kV at 212 degrees Fahrenheit (°F), based on NESC and VEA's own standards. The exact height of each structure will be governed by topography and safety requirements for conductor clearance.

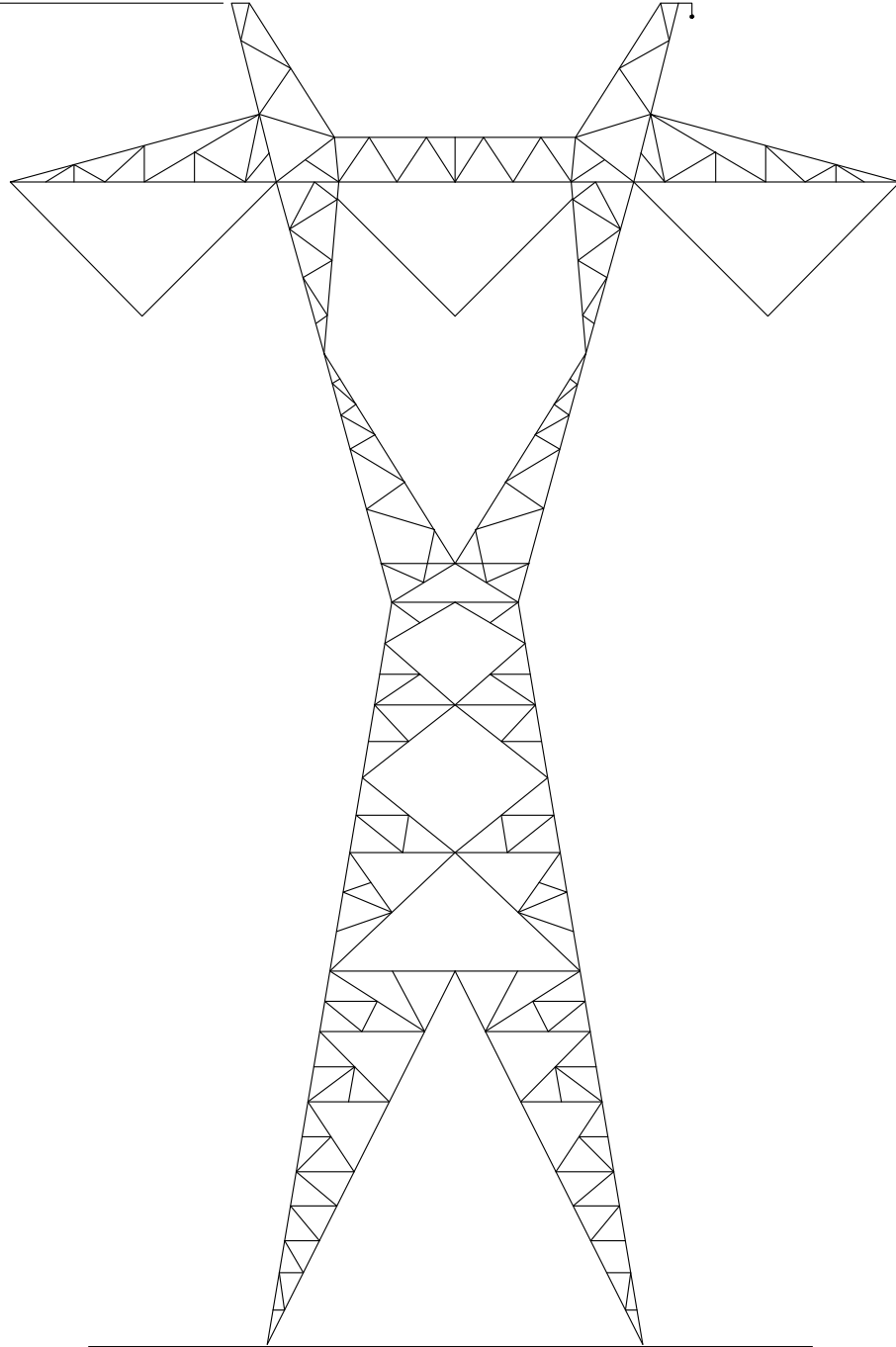


VALLEY ELECTRIC ASSOCIATION, INC.
PAHRUMP, NEVADA

ENGINEERING RECORD		DATE
DRAWN		
DESIGNED		
CHECKED		
APPROVED		
DWG SCALE:	PLT SCALE:	

Figure 2-5	
<i>BSE Hidden Hills Transmission</i>	
Typical Monopole 500 kV Structure	
DWG. NAME:	REVISION NO.:

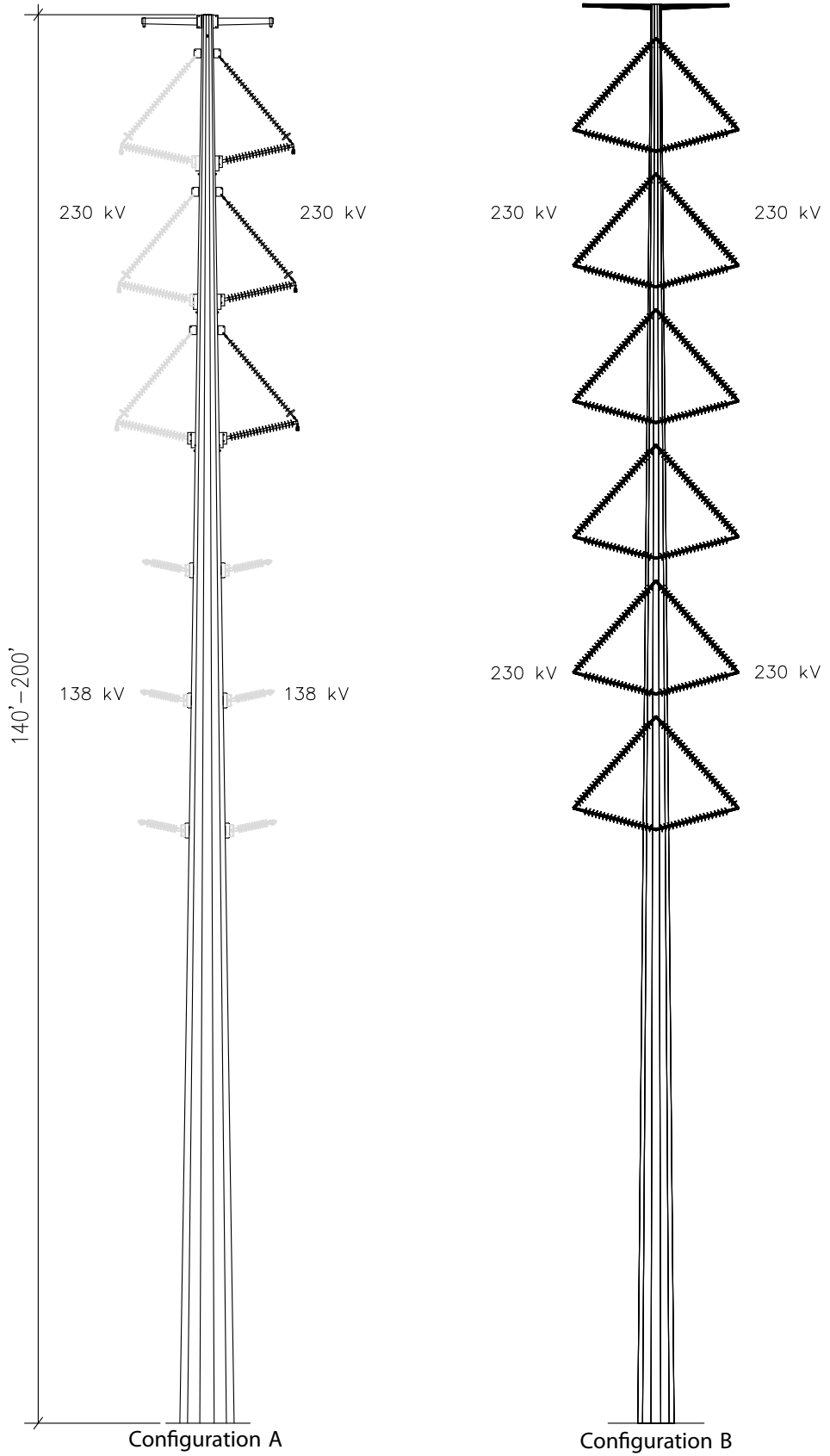
150' - 200'



VALLEY ELECTRIC ASSOCIATION, INC.
PAHRUMP, NEVADA

ENGINEERING RECORD		DATE
DRAWN		
DESIGNED		
CHECKED		
APPROVED		
DWG. SCALE:	PLT. SCALE:	

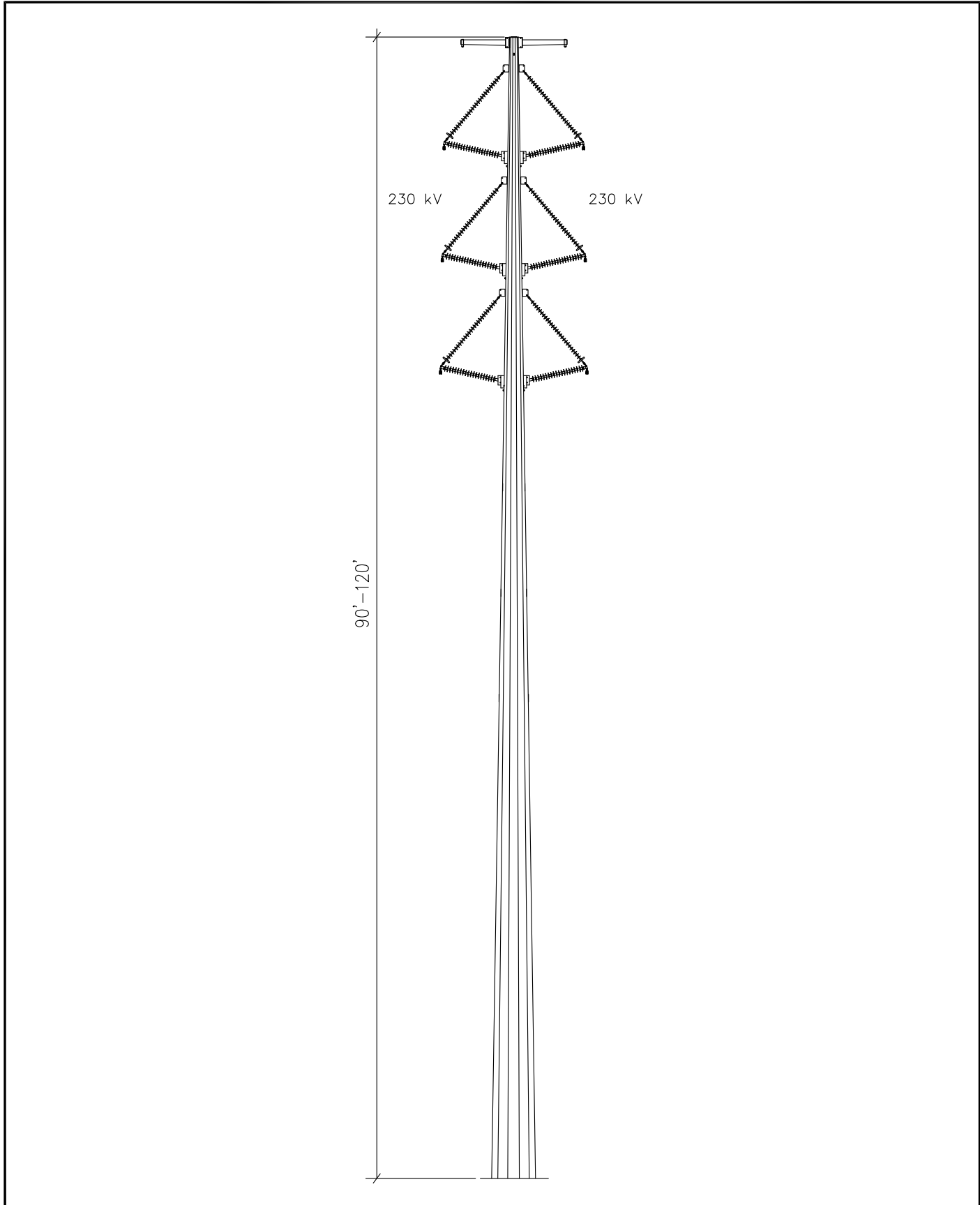
Figure 2-6	
<i>BSE Hidden Hills Transmission</i>	
Typical Lattice Tower 500 kV Structure	
DWG. NAME:	REVISION NO.:



ENGINEERING RECORD		DATE
DRAWN		
DESIGNED		
CHECKED		
APPROVED		
DWG SCALE:	PLT SCALE:	

Figure 2-7
 BSE Hidden Hills Transmission
 Typical Quad Circuit Monopole 230 kV Structures

DWG. NAME: _____ REVISION NO.: _____



ENGINEERING RECORD		DATE
DRAWN		
DESIGNED		
CHECKED		
APPROVED		
DWG SCALE:	PLT SCALE:	

Figure 2-8
BSE Hidden Hills Transmission
Typical Double Circuit Monopole 230 kV Structure

DWG. NAME: _____ REVISION NO.: _____

2.6.4 Proposed Project Design Specification Summaries

Table 2-1 Transmission Line Design Specifications Summary - Eldorado 500 kV Line

Design Specification	Description*
Line Length	53.7 miles
Type of Structures	Self-supporting, self-weathering steel, monopole single-circuit structures Lattice single-circuit structures in rugged terrain
New Right of way Width	250 feet on BLM (300 feet on BLM inclusive of the gas pipeline)
Structure Heights	Monopole single-circuit structures – 130 to 190 feet Lattice single-circuit structures – 170 to 210 feet
Land Temporarily Disturbed (Short-Term Disturbance)	<p>Monopole structures:</p> <ul style="list-style-type: none"> With conventional construction methods approximately 0.23 acres per structure will be temporarily disturbed during installation (100-foot x 100 ft) Pole laydown areas - approximately 0.29 acre each (50-foot x 250-foot area). <p>Lattice structures:</p> <ul style="list-style-type: none"> With conventional construction methods approximately 1.4 acres per structure will be temporarily disturbed during installation (250 ft x 250 ft) With aerial construction methods approximate 1.4 acres per structure will be temporarily disturbed during installation (250 ft x 250 ft) <p>Construction Areas:</p> <ul style="list-style-type: none"> Conductor pulling sites – approximately 0.46 acre per site (100-foot x 200-foot area). Pole laydown areas - approximately 0.17 acre each (50-foot x 150-foot area).
Land Permanently Disturbed (Long-Term Disturbance)	<p>Monopole structures 0.02 acres per structure (30 ft x 30 ft)</p> <p>Lattice structures 0.06 acres per structure (50 ft x 50 ft)</p>
Access Roads	<p>New temporary (15 feet wide) – 1.82 acres per mile. Existing access roads would be used wherever feasible to reduce access road construction.</p> <p>Permanent access roads (10 feet wide) – 1.21 acres per mile.</p>
Voltage	Energized at 500 kV
Structure Base	Direct buried (with concrete pier foundations required on dead-end and angle structures).
Conductor Types	<p>Conductor – 2156 KCM ACSS</p> <p>Shield wire – fiber optic cable</p> <p>Insulators – Porcelain Bells</p>
Clearance of Conductor	Minimum of 35 feet to ground
Structures	4 to 7 per mile depending on terrain
Span Length	<p>Monopole structures - 900 to 1500 feet depending on terrain</p> <p>Lattice structures – 1200 to 1500 feet depending on terrain</p>

* - line alignment, structure configuration, voltage and termination details are pending detailed engineering study and design
Source: Valley Electric Association, Electrical Consultants, Inc. 2011

Table 2-2 Transmission Line Design Specifications Summary - BSE 230 kV Tap Line

Design Specification	Description*
Line Length	9.7 miles
Type of Structures	Self-supporting, Self-Weathering steel monopole double-circuit structures
New Right of way Width	100 feet on BLM
Structure Heights	Double-circuit structures – 90 to 120 feet
Land Temporarily Disturbed (Short-Term Disturbance)	<p>Single Pole double-circuit structures</p> <ul style="list-style-type: none"> • With conventional construction methods approximately 0.23 acres per structure will be temporarily disturbed during installation (100-foot x 100 ft) • Pole laydown areas - approximately 0.17 acre each (50-foot x 150-foot area). <p>Construction Areas:</p> <ul style="list-style-type: none"> • Conductor pulling sites – approximately 0.46 acre per site (100-foot x 200-foot area). • Pole laydown areas - approximately 0.17 acre each (50-foot x 150-foot area).
Land Permanently Disturbed (Long-Term Disturbance)	Pole structures 0.02 acres per structure (30 feet x 30 feet)
Access Roads	<p>New temporary (15 feet wide) – 1.82 acres per mile. Existing access roads would be used wherever feasible to reduce access road construction.</p> <p>Permanent access roads (10 feet wide) – 1.21 acres per mile.</p>
Voltage	Energized at 230 kV
Structure Base	Direct buried (with concrete pier foundations required on dead-end and angle structures).
Conductor Types	<p>Conductor – 954 KCM ACSR.</p> <p>Shield wire – fiber optic cable.</p> <p>Insulators – lightweight, thin line polymer rubber, non-reflective.</p>
Clearance of Conductor	Minimum of 26 feet to ground
Structures	7 to 9 per mile depending on terrain
Span Length	600-900 feet depending on terrain

* - line alignment, structure configuration, voltage and termination details are pending detailed engineering study and design
Source: Valley Electric Association, Electrical Consultants, Inc. 2011

Table 2-3 Transmission Line Design Specifications Summary – Pahrump Community 230 kV Line

Design Specification	Description*
Line Length	Varies – See Figure 1-1
Type of Structures	Self-supporting, Self-Weathering steel monopole quad-circuit structures Self-supporting, Self-Weathering steel monopole double-circuit structures
New Right of way Width	Quad-circuit – 150 feet on BLM Double-circuit - 100 feet on BLM
Structure Heights	Quad-circuit structures – 120 to 140 feet Double-circuit structures – 90 to 120 feet
Land Temporarily Disturbed (Short-Term Disturbance)	Single Pole quad-circuit structures <ul style="list-style-type: none"> • With conventional construction methods approximately 0.23 acres per structure will be temporarily disturbed during installation (100-foot x 100 ft) • Pole laydown areas - approximately 0.23 acre each (50-foot x 200-foot area). Single Pole double-circuit structures <ul style="list-style-type: none"> • With conventional construction methods approximately 0.23 acres per structure will be temporarily disturbed during installation (100-foot x 100 ft) • Pole laydown areas - approximately 0.17 acre each (50-foot x 150-foot area). Construction Areas: <ul style="list-style-type: none"> • Conductor pulling sites – approximately 0.46 acre per site (100-foot x 200-foot area). • Pole laydown areas - approximately 0.17 acre each (50-foot x 150-foot area).
Land Permanently Disturbed (Long-Term Disturbance)	Pole structures 0.02 acres per structure (30 feet x 30 feet)
Access Roads	New temporary (15 feet wide) – 1.82 acres per mile. Existing access roads would be used wherever feasible to reduce access road construction. Permanent access roads (10 feet wide) – 1.21 acres per mile.
Voltage	Energized at 230 kV
Structure Base	Direct buried (with concrete pier foundations required on dead-end and angle structures).
Conductor Types	Conductor – 954 KCM ACSR. Shield wire – fiber optic cable. Insulators – lightweight, thin line polymer rubber, non-reflective.
Clearance of Conductor	Minimum of 26 feet to ground
Structures	7 to 9 per mile depending on terrain
Span Length	600-900 feet depending on terrain

* - line alignment, structure configuration, voltage and termination details are pending detailed engineering study and design
Source: Valley Electric Association, Electrical Consultants, Inc. 2011

Table 2-4 Natural Gas Pipeline Specifications Summary

Design Specification	Description*
Line Length	35.3 miles
Type of Pipeline	12- inch, 36-inch
New Right of way Width	300 feet (inclusive of the transmission line right of way)
Trench Depth	3 feet
Trench Width	36 inches
Land Temporarily Disturbed (Short-Term Disturbance)	<p>Pipeline Corridor</p> <ul style="list-style-type: none"> 300 ft wide construction corridor will be utilized to store excavated soil, provide access for equipment and vehicles and provide pace for fitting the pipeline prior to installation and backfill. (Width of corridor also includes transmission line construction). <p>Tap Station</p> <ul style="list-style-type: none"> 5 acres of temporary disturbance is anticipated to construct the tap station at the tie to the KRGT
Land Permanently Disturbed (Long-Term Disturbance)	<p>Pipeline Corridor</p> <ul style="list-style-type: none"> An access road 10 ft wide will remain permanently disturbed for maintenance following construction of the pipeline. <p>Tap Station</p> <ul style="list-style-type: none"> 200 ft x 200 ft (0.92 acre) for the final area of the tap station
Access Roads	<p>New temporary (15 feet wide) – 1.82 acres per mile. Existing access roads would be used wherever feasible to reduce access road construction.</p> <p>Permanent access roads (10 feet wide) – 1.21 acres per mile.</p>
Consumption	<ul style="list-style-type: none"> Expected annual gas consumption = approximately 360,000 MM Btu/year. Maximum rate of gas consumption = approximately 2,100 MM Btu/hr. Overnight gas consumption rate = approximately 30 MM Btu/hr.

* - pipeline alignment, size, capacity and termination details are pending detailed engineering study and design
Source: Valley Electric Association, Bright Source Energy, 2011

2.7 RIGHT OF WAY ACQUISITION

A new right of way grant is being requested from the BLM for the Proposed Projects outlined in this POD. New permanent and temporary land rights are required for the transmission line facilities including the transmission line corridor, access roads and temporary work sites. The quarter-sections crossed by each of the Proposed Projects is listed, by project, on the following pages.

Table 2-5 Eldorado 500 kV Line Aliquot Parts

Meridian	Township	Range	Section	¼ Section	Note
M.D.M	21S	55E	35	SE	BLM, New Substation
M.D.M	22S	55E	2	NE	BLM
M.D.M	22S	55E	1	NW	BLM
M.D.M	22S	55E	1	SW	BLM
M.D.M	22S	55E	1	NE	BLM
M.D.M	22S	55E	1	SE	BLM
M.D.M	22S	56E	6	SW	BLM
M.D.M	22S	56E	7	NW	BLM
M.D.M	22S	56E	7	NE	BLM
M.D.M	22S	56E	7	SE	BLM
M.D.M	22S	56E	8	SW	BLM
M.D.M	22S	56E	8	SE	BLM
M.D.M	22S	56E	17	NE	BLM
M.D.M	22S	56E	16	NW	BLM
M.D.M	22S	56E	16	SW	BLM
M.D.M	22S	56E	16	SE	BLM
M.D.M	22S	56E	21	NE	BLM
M.D.M	22S	56E	22	NW	BLM
M.D.M	22S	56E	22	NE	BLM
M.D.M	22S	56E	22	SE	BLM
M.D.M	22S	56E	23	SW	BLM
M.D.M	22S	56E	26	NW	BLM
M.D.M	22S	56E	26	NE	BLM
M.D.M	22S	56E	26	SE	BLM
M.D.M	22S	56E	25	SW	BLM
M.D.M	22S	56E	36	NW	BLM
M.D.M	22S	56E	36	NE	BLM
M.D.M	22S	56E	36	SE	BLM
M.D.M	22S	57E	31	SW	BLM
M.D.M	23S	57E	6	NW	BLM
M.D.M	23S	57E	6	NE	BLM
M.D.M	23S	57E	6	SW	BLM
M.D.M	23S	57E	6	SE	BLM
M.D.M	23S	57E	5	SW	BLM
M.D.M	23S	57E	7	NE	BLM
M.D.M	23S	57E	8	NW	BLM
M.D.M	23S	57E	8	SW	BLM
M.D.M	23S	57E	8	SE	BLM
M.D.M	23S	57E	17	NE	BLM
M.D.M	23S	57E	16	NW	BLM
M.D.M	23S	57E	16	SW	BLM
M.D.M	23S	57E	16	SE	BLM
M.D.M	23S	57E	21	NE	BLM
M.D.M	23S	57E	22	NW	BLM
M.D.M	23S	57E	22	SW	BLM

M.D.M	23S	57E	22	SE	BLM
M.D.M	23S	57E	27	NE	BLM
M.D.M	23S	57E	26	NW	BLM
M.D.M	23S	57E	26	SW	BLM
M.D.M	23S	57E	26	SE	BLM
M.D.M	23S	57E	35	NE	BLM
M.D.M	23S	57E	35	NW	BLM
M.D.M	23S	57E	35	SW	BLM
M.D.M	23S	57E	35	SE	BLM
M.D.M	24S	57E	2	NE	BLM
M.D.M	24S	57E	1	NW	BLM
M.D.M	24S	57E	1	SW	BLM
M.D.M	24S	57E	12	NW	BLM
M.D.M	24S	57E	12	NE	BLM
M.D.M	24S	58E	7	NW	BLM
M.D.M	24S	58E	7	NE	BLM
M.D.M	24S	58E	7	SE	BLM
M.D.M	24S	58E	8	SW	BLM
M.D.M	24S	58E	8	SE	BLM
M.D.M	24S	58E	17	NE	BLM
M.D.M	24S	58E	16	NW	BLM
M.D.M	24S	58E	16	NE	BLM
M.D.M	24S	58E	15	NW	BLM
M.D.M	24S	58E	15	SW	BLM
M.D.M	24S	58E	15	SE	BLM
M.D.M	24S	58E	14	SW	BLM
M.D.M	24S	58E	14	SE	BLM
M.D.M	24S	58E	23	NW	BLM
M.D.M	24S	58E	23	NE	BLM
M.D.M	24S	58E	24	NW	BLM
M.D.M	24S	58E	24	SW	BLM
M.D.M	24S	58E	25	NW	BLM
M.D.M	24S	58E	25	NE	BLM
M.D.M	24S	58E	25	SE	BLM
M.D.M	24S	59E	30	SW	BLM
M.D.M	24S	59E	30	SE	BLM
M.D.M	24S	59E	31	NE	BLM
M.D.M	24S	59E	32	NW	BLM
M.D.M	24S	59E	32	SW	BLM
M.D.M	24S	59E	32	SE	BLM
M.D.M	24S	59E	33	SW	BLM
M.D.M	25S	59E	4	NW	BLM
M.D.M	25S	59E	4	NE	BLM
M.D.M	25S	59E	3	NW	BLM
M.D.M	25S	59E	3	NE	BLM
M.D.M	25S	59E	3	SE	BLM
M.D.M	25S	59E	2	SW	BLM

M.D.M	25S	59E	2	SE	BLM
M.D.M	25S	59E	11	NE	BLM
M.D.M	25S	59E	1	SW	BLM
M.D.M	25S	59E	12	NW	BLM
M.D.M	25S	59E	12	NE	BLM
M.D.M	25S	60E	7	NW	BLM
M.D.M	25S	60E	7	SW	BLM
M.D.M	25S	60E	7	NE	BLM
M.D.M	25S	60E	7	SE	BLM
M.D.M	25S	60E	8	SW	BLM
M.D.M	25S	60E	8	SE	BLM
M.D.M	25S	60E	17	NE	BLM
M.D.M	25S	60E	16	NW	BLM
M.D.M	25S	60E	16	SW	BLM
M.D.M	25S	60E	16	SE	BLM
M.D.M	25S	60E	21	NE	BLM
M.D.M	25S	60E	22	NW	BLM
M.D.M	25S	60E	22	SW	BLM
M.D.M	25S	60E	22	SE	BLM
M.D.M	25S	60E	27	NE	BLM
M.D.M	25S	60E	26	NW	BLM
M.D.M	25S	60E	26	SW	BLM
M.D.M	25S	60E	26	SE	BLM
M.D.M	25S	60E	26	NE	BLM
M.D.M	25S	60E	25	SW	BLM
M.D.M	25S	60E	25	NW	BLM
M.D.M	25S	60E	25	NE	BLM
M.D.M	25S	60E	24	SE	BLM
M.D.M	25S	61E	19	SW	BLM
M.D.M	25S	61E	19	SE	BLM
M.D.M	25S	61E	19	NE	BLM
M.D.M	25S	61E	20	NW	BLM
M.D.M	25S	61E	20	NE	BLM
M.D.M	25S	61E	21	NW	BLM
M.D.M	25S	61E	21	NE	BLM
M.D.M	25S	61E	21	SE	BLM
M.D.M	25S	61E	22	SW	BLM
M.D.M	25S	61E	22	SE	BLM
M.D.M	25S	61E	23	SW	BLM
M.D.M	25S	61E	23	NW	BLM
M.D.M	25S	61E	23	SE	BLM
M.D.M	25S	61E	23	NE	BLM
M.D.M	25S	61E	24	NW	BLM
M.D.M	25S	61E	24	NE	BLM
M.D.M	25S	62E	19	NW	Boulder City
M.D.M	25S	62E	19	SW	Boulder City
M.D.M	25S	62E	19	NE	Boulder City

M.D.M	25S	62E	18	SE	Boulder City
M.D.M	25S	62E	20	NW	Boulder City
M.D.M	25S	62E	17	SW	Boulder City
M.D.M	25S	62E	17	SE	Boulder City
M.D.M	25S	62E	17	NE	Boulder City
M.D.M	25S	62E	16	NW	Boulder City
M.D.M	25S	62E	16	NE	Boulder City
M.D.M	25S	62E	9	SE	Boulder City
M.D.M	25S	62E	10	SW	Boulder City
M.D.M	25S	62E	10	NW	Boulder City
M.D.M	25S	62E	10	NE	Boulder City
M.D.M	25S	62E	11	NW	Boulder City
M.D.M	25S	62E	2	SW	Boulder City
M.D.M	25S	62E	2	SE	Boulder City, Eldorado Substation

Table 2-6 BSE Tap Substation Aliquot Parts

Meridian	Township	Range	Section	¼ Section	Note
M.D.M	21S	55E	35	SE	BLM, New Substation

Table 2-7 BSE 230 kV Tap Line Aliquot Parts

Meridian	Township	Range	Section	¼ Section	Note
M.D.M	22S	54E	35	SE	BLM
M.D.M	23S	54E	2	NE	BLM
M.D.M	23S	54E	1	NW	SWNW Private, N2NW BLM, SENW BLM
M.D.M	23S	54E	1	SW	Private
M.D.M	23S	54E	1	SE	NESE BLM, S2SE Private, NWSE Private
M.D.M	23S	54E	1	NE	BLM
M.D.M	23S	55E	6	NW	BLM
M.D.M	22S	55E	31	SW	BLM
M.D.M	22S	55E	31	SE	BLM
M.D.M	22S	55E	31	NE	BLM
M.D.M	22S	55E	32	NW	BLM
M.D.M	22S	55E	29	SW	BLM
M.D.M	22S	55E	29	NW	BLM
M.D.M	22S	55E	29	NE	BLM
M.D.M	22S	55E	20	SE	BLM
M.D.M	22S	55E	21	SW	BLM
M.D.M	22S	55E	21	NW	BLM
M.D.M	22S	55E	16	SW	BLM
M.D.M	22S	55E	16	SE	BLM
M.D.M	22S	55E	16	NE	BLM
M.D.M	22S	55E	15	NW	BLM
M.D.M	22S	55E	10	SW	BLM
M.D.M	22S	55E	10	SE	BLM
M.D.M	22S	55E	10	NW	BLM
M.D.M	22S	55E	10	NE	BLM
M.D.M	22S	55E	3	SE	BLM
M.D.M	22S	55E	2	SW	BLM
M.D.M	22S	55E	2	NW	BLM
M.D.M	22S	55E	2	NE	BLM
M.D.M	21S	55E	35	SE	BLM, New Substation
Meridian	Township	Range	Section	¼ Section	Note
M.D.M	24S	62E	34	SE	Boulder City, Switchyard
M.D.M	25S	62E	3	NE	Boulder City
M.D.M	25S	62E	3	SE	Boulder City
M.D.M	25S	62E	2	SW	Boulder City
M.D.M	25S	62E	11	NW	Boulder City
M.D.M	25S	62E	2	SE	Boulder City, Eldorado

Table 2-7 BSE 230 kV Tap Line Aliquot Parts

Meridian	Township	Range	Section	¼ Section	Note
M.D.M	22S	54E	35	SE	BLM
M.D.M	23S	54E	2	NE	BLM
M.D.M	23S	54E	1	NW	SWNW Private, N2NW BLM, SENW BLM
M.D.M	23S	54E	1	SW	Private
M.D.M	23S	54E	1	SE	NESE BLM, S2SE Private, NWSE Private
M.D.M	23S	54E	1	NE	BLM
M.D.M	23S	55E	6	NW	BLM
M.D.M	22S	55E	31	SW	BLM
M.D.M	22S	55E	31	SE	BLM
M.D.M	22S	55E	31	NE	BLM
M.D.M	22S	55E	32	NW	BLM
M.D.M	22S	55E	29	SW	BLM
M.D.M	22S	55E	29	NW	BLM
M.D.M	22S	55E	29	NE	BLM
M.D.M	22S	55E	20	SE	BLM
M.D.M	22S	55E	21	SW	BLM
M.D.M	22S	55E	21	NW	BLM
M.D.M	22S	55E	16	SW	BLM
M.D.M	22S	55E	16	SE	BLM
M.D.M	22S	55E	16	NE	BLM
M.D.M	22S	55E	15	NW	BLM
M.D.M	22S	55E	10	SW	BLM
M.D.M	22S	55E	10	SE	BLM
M.D.M	22S	55E	10	NW	BLM
M.D.M	22S	55E	10	NE	BLM
M.D.M	22S	55E	3	SE	BLM
M.D.M	22S	55E	2	SW	BLM
M.D.M	22S	55E	2	NW	BLM
M.D.M	22S	55E	2	NE	BLM
M.D.M	21S	55E	35	SE	BLM, New Substation
Meridian	Township	Range	Section	¼ Section	Note
M.D.M	24S	62E	34	SE	Boulder City, Switchyard
M.D.M	25S	62E	3	NE	Boulder City
M.D.M	25S	62E	3	SE	Boulder City
M.D.M	25S	62E	2	SW	Boulder City
M.D.M	25S	62E	11	NW	Boulder City
M.D.M	25S	62E	2	SE	Boulder City, Eldorado

Table 2-8 Pahrum Community Line

Meridian	Township	Range	Section	¼ Section	Note
M.D.M	21S	55E	35	SE	BLM, Existing Grant N-059100
M.D.M	21S	55E	35	SW	BLM, Existing Grant N-059100
M.D.M	21S	55E	35	NW	BLM, Existing Grant N-059100
M.D.M	21S	55E	34	NE	BLM, Existing Grant N-059100
M.D.M	21S	55E	34	NW	BLM, Existing Grant N-059100
M.D.M	21S	55E	27	SW	BLM, Existing Grant N-059100
M.D.M	21S	55E	28	SE	BLM, Existing Grant N-059100
M.D.M	21S	55E	28	NE	BLM, Existing Grant N-059100
M.D.M	21S	55E	28	NW	BLM, Existing Grant N-059100
M.D.M	21S	55E	21	SW	BLM, Existing Grant N-059100
M.D.M	21S	55E	20	SE	BLM, Existing Grant N-059100
M.D.M	21S	55E	20	SW	BLM, Existing Grant N-059100
M.D.M	21S	55E	20	NW	BLM, Existing Grant N-059100
M.D.M	21S	55E	19	NE	BLM, Existing Grant N-059100
M.D.M	21S	55E	18	SE	BLM, Existing Grant N-059100
M.D.M	21S	55E	18	SW	BLM, Existing Grant N-059100
M.D.M	21S	55E	18	NW	BLM, Existing Grant N-059100
M.D.M	21S	54E	13	SE	BLM, Existing Grant N-059100
M.D.M	21S	54E	13	NE	BLM, Existing Grant N-059100
M.D.M	21S	54E	12	SE	BLM
M.D.M	21S	54E	12	NE	BLM
M.D.M	21S	54E	1	SE	BLM
M.D.M	21S	54E	1	NE	BLM
M.D.M	21S	54E	1	NW	BLM
M.D.M	20S	54E	36	SW	BLM
M.D.M	20S	54E	35	SE	BLM
M.D.M	20S	54E	35	SW	BLM
M.D.M	20S	54E	35	NW	BLM
M.D.M	20S	54E	34	NE	BLM
M.D.M	20S	54E	27	SE	BLM
M.D.M	20S	54E	27	SW	BLM
M.D.M	20S	54E	34	NW	BLM
M.D.M	20S	54E	34	SW	BLM
M.D.M	20S	54E	27	NW	BLM
M.D.M	20S	54E	28	NE	BLM
M.D.M	20S	54E	28	NW	BLM
M.D.M	20S	54E	21	SW	BLM
M.D.M	20S	54E	20	SE	BLM
M.D.M	20S	54E	20	NE	BLM
M.D.M	20S	54E	20	NW	BLM
M.D.M	20S	54E	19	NE	BLM
M.D.M	20S	54E	18	SE	BLM
M.D.M	20S	54E	18	SW	BLM
M.D.M	20S	54E	18	NW	BLM
M.D.M	20S	53E	13	NE	Private

M.D.M	20S	53E	13	SE	Private
M.D.M	20S	53E	13	SW	Private
M.D.M	20S	53E	24	NE	Private
M.D.M	20S	53E	24	NW	Private
M.D.M	20S	53E	24	SW	Private
M.D.M	20S	54E	28	SE	BLM
M.D.M	20S	54E	28	SW	BLM
M.D.M	20S	54E	33	NW	Private
M.D.M	20S	54E	32	NE	BLM
M.D.M	20S	54E	29	SE	BLM

Table 2-9 Natural Gas Pipeline Aliquot Parts

Meridian	Township	Range	Section	¼ Section	Note
M.D.M	22S	54E	35	SE	BLM
M.D.M	23S	54E	2	NE	BLM
M.D.M	23S	54E	1	NW	SWNW Private, N2NW BLM, SENW BLM
M.D.M	23S	54E	1	SW	Private
M.D.M	23S	54E	1	SE	NESE BLM, S2SE Private, NWSE Private
M.D.M	23S	54E	1	NE	BLM
M.D.M	23S	55E	6	NW	BLM
M.D.M	22S	55E	31	SW	BLM
M.D.M	22S	55E	31	SE	BLM
M.D.M	22S	55E	31	NE	BLM
M.D.M	22S	55E	32	NW	BLM
M.D.M	22S	55E	29	SW	BLM
M.D.M	22S	55E	29	NW	BLM
M.D.M	22S	55E	29	NE	BLM
M.D.M	22S	55E	20	SE	BLM
M.D.M	22S	55E	21	SW	BLM
M.D.M	22S	55E	21	NW	BLM
M.D.M	22S	55E	16	SW	BLM
M.D.M	22S	55E	16	SE	BLM
M.D.M	22S	55E	16	NE	BLM
M.D.M	22S	55E	15	NW	BLM
M.D.M	22S	55E	10	SW	BLM
M.D.M	22S	55E	10	SE	BLM
M.D.M	22S	55E	10	NW	BLM
M.D.M	22S	55E	10	NE	BLM
M.D.M	22S	55E	3	SE	BLM
M.D.M	22S	55E	2	SW	BLM
M.D.M	22S	55E	2	NW	BLM
M.D.M	22S	55E	2	NE	BLM
M.D.M	21S	55E	35	SE	BLM
M.D.M	22S	55E	2	NE	BLM
M.D.M	22S	55E	1	NW	BLM
M.D.M	22S	55E	1	SW	BLM
M.D.M	22S	55E	1	NE	BLM
M.D.M	22S	55E	1	SE	BLM
M.D.M	22S	56E	6	SW	BLM
M.D.M	22S	56E	7	NW	BLM
M.D.M	22S	56E	7	NE	BLM
M.D.M	22S	56E	7	SE	BLM
M.D.M	22S	56E	8	SW	BLM
M.D.M	22S	56E	8	SE	BLM
M.D.M	22S	56E	17	NE	BLM
M.D.M	22S	56E	16	NW	BLM
M.D.M	22S	56E	16	SW	BLM
M.D.M	22S	56E	16	SE	BLM

M.D.M	22S	56E	21	NE	BLM
M.D.M	22S	56E	22	NW	BLM
M.D.M	22S	56E	22	NE	BLM
M.D.M	22S	56E	22	SE	BLM
M.D.M	22S	56E	23	SW	BLM
M.D.M	22S	56E	26	NW	BLM
M.D.M	22S	56E	26	NE	BLM
M.D.M	22S	56E	26	SE	BLM
M.D.M	22S	56E	25	SW	BLM
M.D.M	22S	56E	36	NW	BLM
M.D.M	22S	56E	36	NE	BLM
M.D.M	22S	56E	36	SE	BLM
M.D.M	22S	57E	31	SW	BLM
M.D.M	23S	57E	6	NW	BLM
M.D.M	23S	57E	6	NE	BLM
M.D.M	23S	57E	6	SW	BLM
M.D.M	23S	57E	6	SE	BLM
M.D.M	23S	57E	5	SW	BLM
M.D.M	23S	57E	7	NE	BLM
M.D.M	23S	57E	8	NW	BLM
M.D.M	23S	57E	8	SW	BLM
M.D.M	23S	57E	8	SE	BLM
M.D.M	23S	57E	17	NE	BLM
M.D.M	23S	57E	16	NW	BLM
M.D.M	23S	57E	16	SW	BLM
M.D.M	23S	57E	16	SE	BLM
M.D.M	23S	57E	21	NE	BLM
M.D.M	23S	57E	22	NW	BLM
M.D.M	23S	57E	22	SW	BLM
M.D.M	23S	57E	22	SE	BLM
M.D.M	23S	57E	27	NE	BLM
M.D.M	23S	57E	26	NW	BLM
M.D.M	23S	57E	26	SW	BLM
M.D.M	23S	57E	26	SE	BLM
M.D.M	23S	57E	35	NE	BLM
M.D.M	23S	57E	35	NW	BLM
M.D.M	23S	57E	35	SW	BLM
M.D.M	23S	57E	35	SE	BLM
M.D.M	24S	57E	2	NE	BLM
M.D.M	24S	57E	1	NW	BLM
M.D.M	24S	57E	1	SW	BLM
M.D.M	24S	57E	12	NW	BLM
M.D.M	24S	57E	12	NE	BLM
M.D.M	24S	58E	7	NW	BLM
M.D.M	24S	58E	7	NE	BLM
M.D.M	24S	58E	7	SE	BLM
M.D.M	24S	58E	8	SW	BLM

M.D.M	24S	58E	8	SE	BLM
M.D.M	24S	58E	17	NE	BLM
M.D.M	24S	58E	16	NW	BLM
M.D.M	24S	58E	16	NE	BLM
M.D.M	24S	58E	15	NW	BLM
M.D.M	24S	58E	15	SW	BLM
M.D.M	24S	58E	15	SE	BLM
M.D.M	24S	58E	14	SW	BLM
M.D.M	24S	58E	14	SE	BLM
M.D.M	24S	58E	23	NW	BLM
M.D.M	24S	58E	23	NE	BLM
M.D.M	24S	58E	24	NW	BLM

3.1 OVERVIEW

Construction of the transmission line would generally follow a sequential set of activities performed by a number of small crews proceeding along the length of the line. The program of construction activities and considerations would include:

- Engineering surveys
- Access roads
- Wire handling areas and laydown sites
- Material storage and handling
- Structure holes
- Foundation excavation (for dead-end and angle structures only)
- Structure assembly and erection
- Conductor and shield wire stringing
- Post construction cleanup and reclamation
- Hazardous materials
- Fire protection
- Construction monitoring

Structure Access and Location Drawings will be developed pending final.

3.2 PROJECT COMPLIANCE PLAN

Following the issuance of a ROW grant from the BLM, a preconstruction conference will be scheduled with BLM, cooperating agencies, BSE and VEA prior to commencing construction and/or surface disturbing activities on the ROW. Valley Electric personnel and contractors' representatives involved with construction and/or any surface disturbing activities associated with this ROW will attend this conference to review the stipulations of the grant including the Plan of Development, Construction Mitigation, Monitoring and Restoration Plan, and other documents as determined by BLM.

Valley Electric will not initiate any construction or other surface disturbing activities on the public land portion of the ROW until after issuance of the BLM Notice to Proceed (Form 2800-15) by the Authorized Officer or their designee. A compliance inspection contractor (CIC) will provide environmental oversight and compliance monitoring for the BLM. The CIC will assist construction personnel with any environmental issues that arise as described in Section 3.3 below.

Valley Electric will conduct all activities associated with the construction, operation, and maintenance within the authorized limits of the ROW. Valley Electric will construct, operate and maintain the facilities, improvements and structures within this ROW in strict conformity with the Plan of Development approved and made part of the grant. Any relocation, additional construction, or use that is not in accordance with the approved Plan of Development, will not be

initiated without the prior written approval of the BLM Authorized Officer (AO) or his designee. A copy of the complete ROW grant, including all stipulations and approved Plan of Development, will be made available on site during construction.

The Contractor will be required at all times to take all reasonable precautions for safety and will comply with all applicable provisions of Federal, state and municipal safety laws and building and construction codes, as well as the safety rules and regulations of VEA.

Spill kits would be on site and absorbent materials would be placed under leaking equipment immediately to prevent ground contamination. All construction waste, including trash and litter, garbage or solid waste, petroleum products and other materials would be removed to a disposal facility authorized to accept such materials.

All construction, operation and maintenance activities would comply with all applicable Federal, state and local laws and regulations regarding the use of hazardous substances. The construction or maintenance crew foreman would be responsible for maintaining compliance with all applicable laws and regulations. In addition, an onsite inspector would be present during construction to make sure all materials are used and stored properly.

3.3 DEVIATIONS DURING CONSTRUCTION

Minor changes in the approved project are necessary to accommodate or mitigate on-site circumstances. In the past, project construction has been stopped, pending further agency approval of the requested variance. These delays are extremely costly and could jeopardize the economic feasibility of the project. When the variance requested is for an action that has been assessed in the EA for the project, and the resultant disturbance area is within the existing approved temporary and permanent rights of way, the CIC would have the authority to approve or deny the requested variance if the authority is delegated to the CIC by the BLM. The empowerment of the CIC to approve minor variances would expedite the project while protecting resource values. When the variance required is outside of an area covered within the NEPA document and addressed in the right of way agreement, approval from the AO will be requested.

Minor changes that occur will not require amending the ROW or cause any re-initiation triggers for the biological opinion. The CIC and biological monitors will review the POD and the area of the minor change to identify any additional avoidance concerns. Examples of changes that could be approved by the CIC include:

Structure locations: Minor changes include adjustment of structure locations within the existing approved temporary and permanent rights of way to avoid sensitive plant or animal species or sensitive cultural sites.

Disturbance areas: Modify disturbance areas within the authorized ROW and temporary use boundaries. Any field changes resulting in a change of mitigation fees will require a reconciliation of fees following construction completion. Any special status species that could be impacted by modifications will be mitigated under the direction of the BLM AO prior to implementation.

Power lines: Move location of erosion control devices, location of temporary fences, tensioning locations, temporary work sites, access point to poles/structures, and cable spool storage locations within authorized areas.

Access Roads: Move culvert locations to better accommodate natural drainages, meander roads within the ROW to avoid impacts to plants and wildlife, and utilize existing previously disturbed roads.

Administrative Changes: These include the extension of expiration dates for the Temporary Use Permit or other documents that may be required due to construction delay.

3.4 CONSTRUCTION PROGRAM

The estimated number of workers and types of equipment required to construct the proposed transmission line is shown in Table 3-1. Various phases of construction will occur at different locations throughout the construction process and in some cases at the same time at different locations.

Table 3-1 Conventional Construction Personnel and Equipment Requirements

Activity	No. of Personnel	Equipment	Length of Time	Use Factor ³
Engineering Surveying	2 to 3 person crew	1 utility vehicle and ATV	10 miles per week	0.25
Access Roads, Wire Handling Areas and Construction Lay Down Sites	2 to 3 persons	1 D-6 Caterpillar dozer 1 all-wheel drive motor grader 1 10-wheel dump truck 1 water truck 1 pickup truck 1 master grader	1-2 months	0.50 0.75 0.50 0.75 0.50 0.75
Material Storage and Handling	2 persons per truck	2 pickup trucks 2 flatbed trucks with cranes 2 pole delivery trucks	1 month	0.50 0.25 0.25
Materials Hauling	4 to 8 laborers/ equipment operators	1-2 tractor trailers 1-2 hydrocranes 1-2 pickup trucks 1-2 flatbed trucks	2 months	0.25 0.25 0.50 0.25
Structure Holes	6 persons	2 rotary drilling rigs 2 backhoes 3 pickup trucks 1 water truck	2 months	0.50 0.50 0.25 0.25
Foundation Excavation (for Dead-end and Angle Structures only)	4-8 laborers/ equipment operators	2 tractors with augers 1 backhoe 2 pickup trucks 1 compressor	1-2 months (Lags access roads 1 week)	0.50 0.50 0.25 0.75
Foundation Setting/Pole Embedment (for Dead-end and Angle Structures only)	12-18 laborers/ equipment operators	3 flatbed trucks 3 crew pickup trucks 3 air compressors 3 hydro lifts	1-2 months (Lags excavation 1 week)	0.25 0.25 0.50 0.25
Tying and Hauling Rebar Cages (for Dead-end and Angle Structures only)	3-4 ironworkers and laborers	1 flatbed truck w/lift 2 welding machines	1-2 months (Lags excavation 1 week)	0.25 0.50
Concrete Placement (for Dead-end and Angle Structures only)	4-5 laborers	2 mixer trucks 1 pickup truck 1 manhaul	1-2 months (Lags setting 1 week)	0.75 0.50 0.25
Stripping and Curing (for Dead-end and Angle Structures only)	2 laborers	1 flatbed truck	1-2 months (Lags setting 1 week)	0.25

Table 3-1 Conventional Construction Personnel and Equipment Requirements

Activity	No. of Personnel	Equipment	Length of Time	Use Factor ³
Structure Assembly	6-12 linemen/ groundmen, and crane operator	1-3 hydro cranes 1-3 flatbed trucks 1 pickup truck 1 compressor	2-4 months	0.50 0.25 0.25 0.25
Structure Erection	2 to 3 persons/ crew 2 to 3 crews	3 pickups/carry alls 2 cranes (50-100 ton capacity) 2 boom trucks 2 material trucks (5 tons)	3 months	0.25 0.75 0.50 0.25
Guard Structures	3 linemen/ groundmen	1 auger 1 tractor/pole trailer w/lift 1 pickup truck	1-2 days	0.25 0.25 0.25
Conductor and Shield Wire Installation and Stringing	8 to 12 persons	4 pickup trucks 2 manlifts/boom trucks 2 hydraulic tensioning machines 2 wire reel stringing trailers 2 drum pulling machines 1 water truck	3 months	0.25 0.25 0.25 0.25 0.25 0.25
Post Construction Cleanup	6 persons	2 pickup trucks 1 dump truck 2 flatbed trucks 1 front end loader	3 weeks	0.25 0.25 0.25 0.25
Revegetation and Reclamation	4 to 6 persons	2 pickups trucks 1 blader 1 backhoe 1 tractor/harrow/disk 1 water truck	4 weeks with field review in following spring	0.25 0.50 0.25 0.50 0.50

Source: Valley Electric Association, Electrical Consultants Inc. 2011

¹ Approximate total work force at one time: 25 to 30 individuals in the field.

² Approximately 15 to 20 percent of work force is assumed local-hire.

³ 0.25 use factor = 2 hours of usage per day.

3.4.1 Surveying Activities

A survey would be required to mark new structure locations and other appurtenances along the route. Additional surveying may be required to tie section corners and property corners on private and patent deed lands. Global Positioning System (GPS) equipment would be used to provide precise locations of the route.

Construction survey work would include locating the centerline, construction staking of the substations, access and spur roads and temporary work areas. Any identified areas of concern including cultural sites, botanical sites or areas of critical habitat will be flagged as necessary prior to construction. At a minimum, reference stakes for all angle stations or points of infection (PI) will be set on the ROW with stakes for each structure prior to construction.

3.4.2 Dust Control

Water trucks will be the primary means of dust abatement during all phases of construction. Areas of high erosion may require application of a BLM approved palliative to reduce dust and prevent excess moisture on the road that may attract tortoise. A dust permit from the Clark

County Department of Air Quality Management (DAQM) will be obtained prior to construction within Clark County and construction personnel will comply with all conditions in the permit. At each structure site the disturbed soil will be watered to form a crust following completion of construction in that location. Roads will be watered continuously. Water spray will be controlled so that pooling will be avoided to the extent possible. Speed limits of 25 miles per hour will be set and strictly enforced.

Construction water and water used for dust control will come from an approved water source near the Indian Springs area and at least one more permitted source closer to the southern portion of the alignment. The contractors working on the Project will haul water to the site. All project personnel will be educated on the site dust mitigation plan.

3.4.3 Access Road Construction

Surface access is required to each transmission structure as well as along the project alignment where no adjacent access is available. The project will utilize existing access roads and overland travel wherever practical, thus keeping new construction to a minimum. Temporary and permanent access roads will be built where required. Short spur roads will be constructed from existing roads to structure sites utilizing existing roads to the extent possible. New spur roads may extend outside of the permanent ROW corridor if necessary to utilize existing adjacent access. Overland travel will be used whenever practical as opposed to grading to reduce impact. The stringing of conductor along the alignment will require towing a sock-line in direct alignment with the structures. In this instance, some overland drive and crush outside of any developed access roads may be required where these roads are not immediately adjacent to the structure locations. Access roads will be located to minimize visual impacts as well as other sensitive resources. The number of new spur roads will be held to a minimum, consistent with their intended use (e.g., structure construction or conductor stringing and tensioning). New access roads will be constructed only where existing access roads do not exist.

The existing road network will be used in order to gain access to the transmission line corridor. For certain areas this will involve clearing overgrown vegetation, re-grading eroded areas and ruts, and/or installation of drainage structures. To the maximum extent possible, drainages will be crossed at grade (i.e., referred to as an Arizona crossing). Where Arizona crossings are not feasible, culverts will be constructed. In lieu of constructing new access roads, some existing roads will be improved for use during construction.

The locations of new and existing access roads that will require improvement will be identified as a part of the final engineering design.

In areas of rough terrain, new roads that must be graded for access along steep slopes (side-hill roads) will most likely exceed a 15-foot overall width (including the road surface and inslope) and may leave the right of way due to impassible terrain. Specific actions will be implemented to reduce construction impacts to the greatest extent feasible. Measures will be taken to minimize impacts in specific locations and during certain periods of the year. Such conditions could arise during heavy rains or high winds. To prevent impacts during such periods, construction activities will be restricted or curtailed.

3.4.4 Structure/Site Clearing

3.4.4.1 Typical Structure Site and Laydown Area

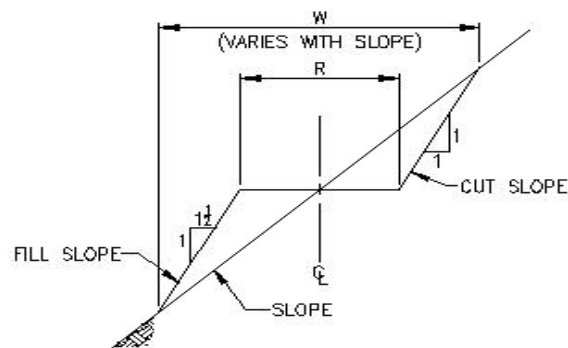
At each structure site, work areas are required to facilitate the safe operation of equipment, and construction operations. Construction laydown areas would be located in previously disturbed areas whenever possible. At each location, a work area generally aligned along an access road, where an adjacent access road exists, would be cleared and leveled if necessary. Structure pieces would be delivered to the laydown area where workers would assemble the structure and attach insulators and hardware. The structure would be erected using a crane or helicopter. After construction, the laydown area would be reclaimed and restored if not located along an access road scheduled to be used for maintenance.

The work area will be cleared of vegetation only to the extent necessary. Access within the work area will be overland travel with minimal grading required in the work site. After line construction, all work areas identified as temporary disturbance will be restored in compliance with the Construction Mitigation, Monitoring and Restoration Plan.

3.4.4.2 Structure Site and Laydown Area In Steep/Rough Terrain

At each structure site in rough or steep terrain, work areas required will vary depending on the site conditions. Laydown and assembly areas may be expanded due to the steep terrain, but generally would be located along the previously disturbed access roads. Grading along steep slopes would be kept to the minimum feasible to accommodate safe access and construction. Figure 3-1 shows a typical cut in the slope to accommodate roads and structure pads.

Figure 3-1 Typical Side Slope Road Cut



3.4.5 Structure Holes

Tangent structure holes would be augered with most being 14 to 22 feet in depth and four to five feet in diameter. Soil removed from the hole would be placed and tamped into the hole after the structure is plumbed and sloped away from the pole to promote positive drainage. All holes would be augered in the locations as staked by the Project Engineer, and would be large enough to provide space for tamping around the entire circumference of the pole. Standing water

resulting from seasonal runoff would be removed from the excavation as practical prior to structure installation.

Most dead-end and angle structures would require drilled-pier-type reinforced concrete foundations with an average depth of 24-35 feet. Direct-embedment structures to a depth of 14-22 feet would be used for tangent structures. After the foundation concrete is placed, excess soil would be spread evenly around the structure base to promote site drainage away from the structure. A mechanical tamp would be required to recompact the soil around the foundation. Concrete washout would be conducted off site to the extent feasible. Where onsite washout is necessary, managing of waste concrete would be conducted at approved sites and residuals disposed of properly.

A backhoe, front-end loader, or pressure auger would be required to excavate the foundations. Excavation to bedrock or other suitable base would be required. A rock drill, an air compressor, or explosives could be required if rock is encountered during excavation.

Excavations for foundations will be made with power equipment. Where the soil permits, a vehicle-mounted power auger or backhoe will be used to excavate foundations. In rocky areas, the foundation holes may be excavated by drilling and blasting, or special rock anchors may be installed. In extremely sandy areas, soil stabilization by water or a gelling agent may be used prior to excavation. The CIC and BLM will be notified in advance of any required blasting so that the area can be cleared and nearby tortoise burrows and other sensitive resources can be protected.

Foundation holes left open or unguarded will be covered to protect the public and wildlife. If practical, fencing may be used. Soil removed from foundation holes will be stockpiled on the work area. These piles will be used to backfill holes and the topmost layer will be distributed over the work area.

Backfill would be compacted to a density not less than the natural in-place dry density of the adjacent earth. Backfill will be banked and tamped 12 inches above the natural ground surface. Surplus excavated material will be leveled neatly to blend with surrounding contours. Backfill would be free of large rocks, organic material or other low density, unsuitable soils. If satisfactory backfill material is not available from the excavation or within the immediate vicinity of the structure, the Contractor would import any additional material required for setting of structures, as approved by the Project Engineer and BLM.

3.4.5.1 Stipulations During Blasting

Some work areas that may potentially require blasting are situated in rocky outcrops. The blasting contractor licensed by Clark County Fire Department will follow all applicable state, local and Federal laws concerning the use, handling and storage of explosives. Valley Electric will obtain a permit from Clark County for the period (if any) when blasting may occur and will comply with the following requirements developed by BLM which may include the following:

1. The holder shall publish a proposed blasting schedule in the local newspaper, one week prior to any blasting taking place. The schedule shall identify the location, dates and times that blasting will occur. No blasting shall occur outside of the published schedule except in emergency situations.

2. The holder shall post warning signs at all entry points for the project. Warning signs shall include information on blasting, including the general hours blasting might take place and audible signals to be used warning of impending blasting, and to indicate that the site is all clear.
3. Access points to areas where blasting will take place will be blocked, to prevent access by the public, at least 30 minutes prior to blasting. The site shall be swept five minutes prior to any shot being put off, to ensure that no unauthorized personnel have wandered onto the site. An audible warning signal, capable of carrying for one half mile, shall be used at least two minutes prior to the shot being put off. An all-clear signal will be given once it has been determined that all danger in the area has passed.

3.4.5.2 Desert Tortoise Stipulations

Stipulations developed by BLM and the U.S. Fish and Wildlife Service will be followed for protection of desert tortoise including notification of the appropriate fire officials at BLM and Clark County. Valley Electric will notify the CIC and biological monitors 24 to 48 hours prior to scheduled blasting and comply with the permit requirements for notification of Clark County, including any requirements for dust abatement.

Prior to blasting, a 200-foot area around the blasting site will be surveyed for desert tortoise using 100-percent coverage survey techniques. All tortoises that are found above ground or in pallets within this 200-foot radius of the blasting site will be moved 500 feet from the blasting site. Additionally, tortoises in burrows within 75 feet of the blasting will be placed into an artificial or unoccupied burrow 500 feet from the blasting site. Tortoises in burrows at a distance of 75 to 200 feet from the blasting site will be left in their burrows. Burrow locations will be flagged and recorded using a GPS unit and burrows will be stuffed with newspaper. Immediately after blasting, newspaper and flagging will be removed.

Regular field meetings will be held with the CIC and biological monitors to review this process and its implementation. If changes are needed to the notification process, changes will be made to facilitate protection of the tortoise. The Blasting License and Dust Control permit will be forwarded to the BLM as soon as it is received.

3.4.6 Material Storage Yards

Temporary material storage yards would be required for construction materials at suitable locations along the transmission line and public access ways. These areas would serve as reporting locations for workers, parking spaces for vehicles, and storage spaces for equipment and materials. Material storage yards are anticipated to be placed within other areas of anticipated disturbance including substation sites, pulling sites or structure laydown areas as necessary. Each yard would be located in an area requiring minimal clearing and grading, to the extent possible. Existing and previously approved termination stations and the proposed metering site would serve as material storage yards. Structural materials such as structure steel, hardware, foundation material, spools of conductor, and shield wire, would be hauled by truck into the yard. A crane or forklift would be required to unload and transport the materials. Construction materials would be delivered by truck from the yard to lay down areas. Crews would load the material required for the workday thus limiting the weight hauled on the access

roads. This would limit the impact and rutting on access roads caused by the use of heavy vehicles.

3.4.7 Equipment Staging

Staging of equipment will be located at pulling and tensioning sites or work areas previously described to receive temporary disturbance. These areas will be used to temporarily lay out equipment to be used for work on specific project activities at nearby locations.

3.4.8 Structure Assembly and Erection

For each structure location, a temporary construction land disturbance are would result generally occurring coincidental with the access road in the area. Excavation and setting of structures would be performed in a continuous operation, preventing the possibility of caving of holes or injury to animals or persons in the vicinity of the construction. No excavations would be left uncovered when the Contractor's personnel are not on site.

Surveying and routing work for the transmission line would help in identifying areas of poor soil stability. If soil conditions prevent installation of structures at locations as staked by the Project Engineer, the Contractor is required to notify the Project Engineer of conditions existing at the structure location. If possible, the problem would be remedied by relocation of the structure upline or downline from the initial location. Similar protocols would be followed to avoid sensitive environmental resources.

Bundles of steel members and associated hardware will be shipped to each structure site by truck. Pole shafts would be delivered in either two or three sections. Steel members will be assembled into subsections of convenient size and weight. The assembled subsections will be hoisted into place by a large crane, placed on the embedded pole butt and then fastened together to form a complete structure.

3.4.9 Conductor Installation

Conductor and shield wire would be delivered on reels by flatbed truck to the various conductor pulling sites along the ROW. Other equipment required to install the conductor would include reel stringing trailers, tensioning machines, pullers, a high-reach bulldozer, and several trucks including a bucket truck. The conventional method of conductor installation involves pulling out a sock line or "pullrope" along the route of the line and manually lifting the rope into stringing sheaves. The rope is brought to a puller at one end and a tensioner on the other end. The tensioner holds the wire reels and maintains enough tension to keep the wire off the ground and vegetation while the puller pulls the wire through the stringing sleeves. At the contractor's option and with the appropriate regulatory approval, a helicopter may be used.

To the extent possible, access roads will be used to install the conductor; however, in locations where existing access roads do not run within the proposed right of way alternate methods are used. Where the access road runs along a parallel right of way and temporary spur roads are used to access structures, overland travel along the right of way will be necessary to install the conductor. In this instance, all equipment and material required for conductor installation would be delivered to the site via the proposed access roads. At the time of conductor stringing, a heavy track-type tractor such as a D-9 would be used to pull the sock line or "pullrope" overland

parallel with the line route. This would result in an overland drive and crush situation as defined in the BLM Restoration Plan for Energy Projects. The path used to pull the conductor would be cleared of any wildlife resources; however the removal and transplantation of cacti in the tractor path would result in greater damage to the landscape than a single path drive and crush situation due to the need to bring heavy equipment into the area for plant removal. Therefore, the relocation of cacti within this driving path is not planned.

Stringing roller (pulley) wheels would be attached to the end of the insulator string to allow the conductor to be threaded from structure to structure. Each structure is designed to prevent shield wire or conductor from contacting an obstacle. Equipment for erecting guard structures includes augers, line trucks, pole trailers and cranes. On such occasions where it is deemed necessary, other safety measures such as barriers, flagmen or other traffic control would be used.

Splicing would occur between conductor spools. After the conductors are pulled in, conductor tension would be adjusted to properly sag the conductors. The conductors would then be clipped to the insulators and the stringing roller wheels removed.

Typically, conductor pulling sites for stringing the conductor would be spaced at 15,000 feet to 20,000 feet intervals. However, distances between each site will vary depending on the geography and topography and environmental sensitivity of the specific area, the length of the conductor pull, and the accessibility by equipment. Overall, pulling sites would be located within the right of way along tangent sections. Angle structure pulling sites would generally be located outside the ROW within a temporary use area. Where additional pulling sites are required outside of the right of way, additional field inspections will be conducted. At each pulling site, stringing equipment would be set up approximately 400 feet from the initial structure for leveraging the conductor pull safely.

3.4.10 Ground Rod Installation

As a part of standard construction practices, prior to wire installation, structure footing resistance along the route will be measured. When the resistance to remote earth for each transmission tower will be greater than 25 ohms, counterpoise (grounds) will be installed to lower the resistance to 25 ohms or less. Counterpoise consists of a bare copper clad or galvanized steel cable buried a minimum of 12 inches below the ground surface, extending from the base of the pole for approximately 200 feet within the ROW.

3.4.11 Equipment Refueling

No personal or light duty vehicles will be allowed to refuel on the ROW. VEA will implement standard refueling procedures for heavy equipment that is left on the right of way for long periods of time, such as cranes, blades, cats, drill rigs, etc. This equipment will be refueled in place.

3.4.12 Post-construction Cleanup

The Contractor would be required to have a continuous cleanup program throughout construction. The Contractor will restore land crossed to its pre-construction condition. Restoration will include the removal of excessively deep ruts and the disposal of foreign objects

such as: slash, chunks of concrete, pile cut-off, construction materials, etc. Reclamation will include cleaning trash out of gullies and restoring terraces.

Waste materials and debris from construction areas, would be collected, hauled away, or disposed of at approved landfill sites. Equipment would include a blader, front-end loader, tractor, and a dozer with a ripper. Procedures for vegetation clearing, restoration and ROW maintenance would be coordinated with the BLM as appropriate.

The Contractor will be required to keep a clear work area. After completion of the project, the Project Engineer will complete a final walk-through with the BLM. The Project Engineer will note any waste material left on site and any ruts or terrain damage or vegetation disturbance that has not been repaired. The Contractor would be given this list and final payment following completion of all identified deficiencies.

3.5 SITE RECLAMATION

The temporary areas of disturbance will be restored to pre-construction condition as required by the Construction Mitigation, Monitoring and Restoration Plan.

Construction sites, material storage yards, and access roads will be kept in an orderly condition and free of trash throughout the construction period. Refuse and trash will be collected at the temporary material staging construction yards in a closed container until removed from the sites and disposed of in an approved manner. Oils and fuels will not be dumped on the ROW. Waste oils or chemicals will be hauled to an approved site for disposal by VEA.

3.6 FIRE PROTECTION PLAN

All Federal, state, and county laws, ordinances, rules, and regulations, which pertain to prevention, pre-suppression, and suppression of fires, will be strictly adhered to. All personnel will be advised of their responsibilities under the applicable fire laws and regulations. It will be the responsibility of the construction contractor to notify the BLM when a project related fire occurs within or adjacent to the construction area.

The contractor will be responsible for any fire started, in or out of the project area, by its employees or operations during construction. The contractor will be responsible for fire suppression and rehabilitation. The contractor will take aggressive action to prevent and suppress fires on and adjacent to the project area, and will utilize its workers and equipment on the project for fighting fires within the project area.

When fire suppression is the responsibility of the BLM, current BLM standard fire fighting rates for labor will be used. Equipment will be paid for at negotiated rates established in BLM rental agreement contracts for the particular working season. The BLM may call on the contractor's workers and equipment in emergencies for fires outside the project area. Payment will be made in a similar manner to that above.

Costs involved with contractor-caused fires will be charged to the contractor. There will be no extension of time for line construction for delays caused by contractor-related fires. Specific construction-related activities and safety measures will be implemented during construction of the transmission line in order to prevent fires and to ensure quick response and suppression in the event a fire occurs. These activities and requirements include:

- All vehicles must stay on designated roads or park in areas free of vegetation.
- The contractor will provide and store in a place easily accessed shovels and a five-pound ABC dry powder CO fire extinguisher during all construction activities.
- The contractor will have notification numbers (See Table 3-2) readily available for all employees in case of fire.

Table 3-2
Fire Notification Numbers

Contact Person	Phone Number
Bureau of Land Management	
Fire Dispatch	702-515-5300
Authorized Officer (AO) = BLM Project Representative	
VEA Construction Manager	Marty Lytle 775-209-5074

4.1 OVERVIEW

Valley Electric will maintain the ROW as required by BLM stipulations. When the line is no longer needed, VEA will submit and implement a reclamation plan subject to BLM for approval. After the transmission lines have been energized, land uses that are compatible with safety regulations will be permitted in and adjacent to the ROW. Existing land uses, such as recreation, are generally permitted within the ROW. Incompatible land uses within the ROW include construction and maintenance of inhabited dwellings, and any use requiring changes in surface elevation that will affect existing or planned facilities. Land uses that comply with local regulations will be permitted adjacent to the ROW. Compatible uses of the ROW on public lands will have to be approved by the BLM.

4.2 RIGHT OF WAY MAINTENANCE

The amount of power transferred along the conductors associated with the Proposed Projects would vary depending on seasonal and time-of-day loads, and other system demands. VEA's power system dispatchers would direct day-to-day and emergency transmission line operation in accordance with VEA's policies and procedures.

Once energized, the proposed facilities would be in virtually continuous operation. Reliability of service is an overriding consideration in the design and operation of utility electrical system. Other than changes in electromagnetic fields (EMF) in the immediate vicinity of the line operation of VEA electrical transmission systems is essentially inert and automatic.

Periodic inspection and maintenance of the transmission line facilities are required to maintain reliable operation. Equipment damaged by vandals would be replaced immediately. The electrical equipment and steel poles are anticipated to have a lifetime of approximately 50 to 60 years or more depending upon maintenance operations and climatic conditions. Structures, foundations, conductors, shield wire, insulators, and hardware would be left in place, dismantled, and replaced or removed from the ROW during the life of the project.

Emergency maintenance, such as repairing downed wires during storms and correcting unexpected outages, would be performed by VEA. VEA would respond to emergency conditions along the proposed route within a few hours after an incident. The length of time needed to make the repairs would depend on the nature of the outage. VEA manuals include emergency response procedures, as well as operation and maintenance activities for substations, metering stations and transmission lines which would be implemented for this project as necessary.

VEA will maintain the proposed transmission system by monitoring, testing, and repairing equipment. The following are typical maintenance activities:

- Regular aerial inspections with additional emergency aerial inspections after storms, severe wind, lightning or other weather factors, or reported vandalism.
- Periodic and emergency ground inspections.
- Routine maintenance to inspect and repair damaged structures, conductors, and insulators.

- Emergency maintenance to immediately repair transmission lines damaged by storms, floods, vandalism, or accidents. Emergency maintenance would involve prompt movement of crews to repair damage.

Maintenance of the proposed transmission system will consist of monitoring, testing, and repair of equipment, as appropriate, based on a set maintenance program and schedule. VEA would visually inspect the ROW and structures regularly. Some portions of access roads would be maintained, if areas become impassible, to allow access of workers and equipment for maintenance.

Valley Electric would maintain the ROW in accordance with BLM right of way grant requirements. Maintenance would be performed as needed. When access is required for non-emergency maintenance and repairs, Valley Electric would adhere to the same precautions taken during construction.

4.3 PUBLIC AND ENVIRONMENTAL PROTECTION

Safety is a primary concern in the design of all of Valley's transmission system assets. An AC transmission line is protected with power circuit breakers and related line relay protection equipment. If conductor failure occurs, power will be automatically removed from the line. Lightning protection is provided by overhead ground wires along the line. All fences and metal gates crossing within the transmission line ROW will be grounded to prevent electrical shock.

The transmission line will be inspected on a regular basis. Maintenance will be performed as needed. When access is required for non-emergency maintenance and repairs, crews will adhere to the same precautions that were taken during the original construction, including compliance with the terms and conditions of the biological opinion.

Emergency maintenance will involve prompt movement of repair crews to repair or replace any damage. Crews will be instructed to protect plants, wildlife, and other resources of significance. Restoration procedures following completion of repair work will be similar to those prescribed for normal construction using the Construction Mitigation, Monitoring and Restoration Plan. Limiting noise, dust, and the danger caused by maintenance vehicle traffic will provide for the comfort and safety of local resources.

4.4 DUST CONTROL

Dust control during maintenance of the transmission line will be managed the same for construction and operation. The transmission line will be patrolled regularly for maintenance. Monitoring and maintenance will be done from all approved or existing access roads.

4.5 ABANDONMENT

At the end of the useful life of the Proposed Project the transmission structures would either be replaced or removed. In either case, conductors, insulators, and hardware would be dismantled and removed from the ROW. If the transmission line system is abandoned at some point in the future versus continual refurbishing/maintenance as needed over time, the areas disturbed during removal of surface facilities (e.g., structures and possibly access roads) would be restored in accordance with applicable regulations in place at that time and in accordance with BLM and

landowner requirements. The subsequent land use would be determined by BLM management plans, local zoning, and/or landowner desires, as applicable.

Following abandonment and removal of the transmission line, any areas leveled for equipment required to dismantle the line would be regraded as near as is feasible to their pre-construction condition. Similarly, areas disturbed and stripped of vegetation during the dismantling process would be regraded to prevent erosion. Cranes, large trucks, and pickup trucks would be required for efficient removal of the transmission line. If VEA does not wish to keep the ROW for future transmission line use, and after the facilities are removed from the ROW, VEA would relinquish its interest in the BLM right of way.

5.1 AIR QUALITY

Emissions produced during grading and construction activities are of short-term duration and will cease upon completion of construction. Dust will be minimized by application of water to disturbed areas. A dust permit (as identified in Table 1-1) issued by the Clark County DAQM will be obtained by the contractor prior to start of construction. Nye County does not currently issue dust permits for areas outside of the Pahrump area. Construction will comply with all the requirements of that dust permit.

Mitigation measures designed to minimize impacts to air quality are, at a minimum:

1. During excavation, backfilling, contouring and rehabilitation, the disturbed soil should be wetted, chemically treated, or treated by other means satisfactory to the Authorized Officer, sufficiently in order to effectively reduce airborne dust and reduce soil erosion. A regular maintenance program shall include, but is not limited to, soil stabilization and reapplication of dust abatement methods as necessary.
2. New roads will be built at right angles to washes to the extent practicable. Construction and maintenance activities will be conducted to minimize disturbance to vegetation and drainage channels. Existing roads will be left in or restored to a condition equal to or better than their condition prior to construction.
3. All new access roads not required for maintenance will be permanently closed using methods approved by the landowner/manager (e.g., stockpiling and replacing topsoil or rock replacement).
4. All construction vehicle movement outside the right of way will be restricted to designated access, existing access roads or public roads. New access roads will be created in areas as approved.
5. All requirements of those entities having jurisdiction over air quality matters will be adhered to and any permits needed for construction activities will be obtained. Open burning of construction trash is not allowed.
6. In compliance with the Clark County Department of Air Quality Management (DAQM) dust permit, all roads and structure pads would be watered prior to and during all construction activities. All project personnel would be educated on the site dust mitigation measures.
7. Access to work areas will be by overland travel whenever possible to minimize grading. Blading of access roads will only be done if necessary.

5.2 HAZARDOUS OR SOLID WASTES

The contractor will comply with applicable laws pertaining to proper usage and disposal of potentially hazardous materials. No hazardous materials will be used on the right of way. Trash and solid waste generated from construction activities will be stored in closed containers and disposed of in accordance with regulatory requirements. Any spills will be immediately reported to VEA construction inspectors so that cleanup can be implemented immediately. Valley Electric will notify the appropriate authorities if a spill occurs. All spill materials will be labeled and stored at a VEA designated facility off the right of way for accumulation and disposal.

Mitigation measures to ensure compliance with applicable hazardous materials regulations are, at a minimum:

1. No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate limits of survey or construction activity.
2. Hazardous materials will not be drained onto the ground or into streams or drainage areas. Totally enclosed containment will be provided for all trash. All construction waste including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials will be removed to a disposal facility authorized to accept such materials. No debris of any kind will be deposited in or on the right of way.

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| 3. No biodegradable debris would be left in the right of way. |
| 4. Fueling of light vehicles would take place outside of the transmission line right of way in a designated location. |

5.3 CULTURAL AND PALEONTOLOGICAL RESOURCES

Cultural resources are defined as buildings, sites, structures, or objects which have historical, architectural, archeological, cultural, and/or scientific importance. Numerous laws, regulations, and statutes, on both the Federal and state levels, seek to protect and target the management of cultural resources. An archaeological Class I inventory and Class III survey report will be completed for the proposed project, reviewed and approved by the State Historic Preservation Office (SHPO).

Construction activities in areas where sites/localities have been recorded will not occur until the Las Vegas BLM Field Office has issued the Notice to Proceed for the project.

Stipulations for cultural resource protection during construction consist, at a minimum, of the following:

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| 1. Cultural resources would continue to be considered during post-environmental assessment phases of plan implementation. Any cultural or paleontological resources (historic or prehistoric site or object) discovered by the Holder, or any person working on his behalf on public or Federal lands, shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The Holder will be responsible for the cost of evaluation. The Authorized Officer will make any decision regarding suitable mitigation measures after consulting with the Holder. Holder shall be responsible for the resultant mitigation costs. |
| 2. Prior to construction, Project personnel will be instructed on the protection of cultural, paleontological and ecological resources. |

5.4 BIOLOGICAL RESOURCES

5.4.1 Noxious Weeds

When noxious weeds are encountered within the construction area, mitigation measures will be instituted in consultation with the BLM botanist. ROW monitoring and weed abatement following construction will be conducted as directed by the BLM.

Mitigation measures designed to avoid the spread of noxious weeds are, at a minimum:

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| 1. All vehicles brought in from out of state would go through high pressure washing of the undercarriages at a commercial carwash on private lands prior to arriving on site and before being used on the project. |
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5.4.2 Vegetation

Cactus, Joshua Trees, and yucca present in the right of way will be avoided to the extent possible. These habitats will be flagged and avoided wherever possible. Where disturbance from

grading roads or work areas other than overland travel occur, Construction Mitigation, Monitoring and Restoration Plan stipulations will be followed to mitigate impacts.

Vegetation and Erosion Protection Plan

Areas of temporary disturbance will be restored to pre-construction condition in accordance with the developed project Construction Mitigation, Monitoring and Restoration Plan. Permanent disturbance will be maintained for operation and maintenance of the transmission line.

Mitigation measures designed to protect vegetation during construction are, at a minimum:

1.	In designated areas, sensitive plants and/or habitat would be flagged and structures would be placed to allow spanning of these features, where feasible, within limits of standard structure design.
2.	Temporary disturbance will be restored using plant materials originally salvaged from the site. The materials would be salvaged by an experienced contractor, stockpiled in an area approved by BLM within the right of way, and then used to reclaim sites. BLM's protocols for proper maintenance of the material would be followed. Restoration would be in accordance with the approved project Construction Mitigation, Monitoring and Restoration Plan.
3.	In newly disturbed temporary work areas, the soil will be salvaged and will be distributed and contoured evenly over the surface of the disturbed area after construction completion. The soil surface will be left rough to help reduce potential wind erosion.
4.	Grading will be minimized by driving overland within work areas whenever possible.

5.4.3 Wildlife

Birds

As discussed in Section 2.1, based on Avian Power Line Interaction Committee recommendations (Avian Power Line Interaction Committee, 2006), structure arms have been designed with adequate spacing between conductors (8 feet or greater based on the wingspan of female bald eagle). In addition, shield wire will be grounded at regular intervals and insulated hardware and conductors and non-conductive cross-arm braces will be used.

Mitigation measures designed to protect birds during construction are, at a minimum:

1.	Habitat altering activities will normally be timed to occur outside of the bird breeding season. If this cannot be avoided vegetated areas will be surveyed for nesting birds prior to impact. If nesting birds are found, these areas will be avoided by an appropriately sized buffer as determined by BLM and USFWS.
2.	Outside of riparian areas, before construction starts during the breeding season of migratory birds (March 15-July 30), the plan area would be surveyed for nests, and if found with nestlings present, the area would be avoided until birds fledge.

Desert Tortoise

Desert Tortoise is a species known to be present in the Proposed Project area.

Mitigation measures designed to protect desert tortoise during construction are, at a minimum:

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| 1. A project specific Biological Opinion was rendered by the USFWS for an associated project. All mitigation outlined in BO File No. 1-5-07-F-456 for the protection of the desert tortoise will be incorporated as necessary. |
| 2. Overwatering of roads for dust suppression will be avoided so that pooling does not occur. Pooling attracts desert tortoise to roadways. |
| 3. Refer to Section 3.4.5.2 for stipulations for protection of desert tortoise during blasting. |

Other Wildlife

Construction personnel will notify the biological monitor of any other wildlife encountered on the project site. The biological monitors will be responsible for relocating such wildlife, as necessary.

Mitigation measures designed to protect wildlife during construction are, at a minimum:

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| 1. Transmission activity will remain within the 100-foot granted right of way, temporary work areas and designated access roads to reduce impacts to wildlife and habitat. The proposed transmission line will be within existing ROWs in accordance with BLM guidelines. |
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5.5 ADDITIONAL PROJECT MEASURES

Additional environmental protection measures will be implemented during the construction operation and maintenance of the Proposed Projects as appropriate.

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| 1. The transmission line will be regularly patrolled and properly maintained in compliance with applicable safety codes. |
| 2. Fences and gates will be repaired or replaced to their pre-construction condition if they are damaged by construction activities. |
| 3. BLM will be notified in advance of any required blasting. |

Appendix A
SF 299

**APPLICATION FOR TRANSPORTATION AND
 UTILITY SYSTEMS AND FACILITIES
 ON FEDERAL LANDS**

FORM APPROVED
 OMB NO. 1004-0189
 Expires: April 30, 2012

FOR AGENCY USE ONLY

NOTE: Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

Application Number
Date filed

1. Name and address of applicant <i>(include zip code)</i>	2. Name, title, and address of authorized agent if different from Item 1 <i>(include zip code)</i>	3. TELEPHONE <i>(area code)</i>
		Applicant
		Authorized Agent

4. As applicant are you? <i>(check one)</i>	5. Specify what application is for: <i>(check one)</i>
a. <input type="checkbox"/> Individual b. <input type="checkbox"/> Corporation* c. <input type="checkbox"/> Partnership/Association* d. <input type="checkbox"/> State Government/State Agency e. <input type="checkbox"/> Local Government f. <input type="checkbox"/> Federal Agency *If checked, complete supplemental page	a. <input type="checkbox"/> New authorization b. <input type="checkbox"/> Renewing existing authorization No. c. <input type="checkbox"/> Amend existing authorization No. d. <input type="checkbox"/> Assign existing authorization No. e. <input type="checkbox"/> Existing use for which no authorization has been received* f. <input type="checkbox"/> Other* *If checked provide details under Item 7

6. If an individual, or partnership are you a citizen(s) of the United States? Yes No

7. Project description *(describe in detail)*: (a) Type of system or facility, *(e.g., canal, pipeline, road)*; (b) related structures and facilities; (c) physical specifications *(length, width, grading, etc.)*; (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction *(Attach additional sheets, if additional space is needed)*.

8. Attach a map covering area and show location of project proposal

9. State or local government approval: Attached Applied for Not required

10. Nonreturnable application fee. Attached Not required

11. Does project cross international boundary or affect international waterways? Yes No *(If "yes," indicate on map)*

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

13a. Describe other reasonable alternative routes and modes considered.

b. Why were these alternatives not selected?

c. Give explanation as to why it is necessary to cross Federal Lands

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (*Specify number, date, code, or name*)

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (*construction, operation, and maintenance*); (b) estimated cost of next best alternative; and (c) expected public benefits.

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 9601 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does **not** include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

20. Name all the Department(s)/Agency(ies) where this application is being filed.

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant

Date

Title 18, U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(SF-299, page 2)

APPLICATION FOR TRANSPORTATION AND UTILITY SYSTEMS
AND FACILITIES ON FEDERAL LANDS

GENERAL INFORMATION
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved rights-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

U.S. Department of Agriculture
FOREST SERVICE (USFS)
Alaska Regional Office (Region 10)
Physical Address:
Federal Office Building
709 West 9th Street
Juneau, Alaska 99801
Mailing Address:
P.O. Box 21628
Juneau, Alaska 99802
Telephone: 907-586-8806

U.S. Department of the Interior
BUREAU OF INDIAN AFFAIRS (BIA)
Alaska Regional Office (Juneau)
Mailing/Physical Address:
P.O. Box 25520
709 West 9th Street
Juneau, Alaska 99802
Telephone: 800-645-8397

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT (BLM)
Alaska State Office
Mailing/Physical Address:
222 West 7th Avenue #13
Anchorage, Alaska 99513
Telephone: 907-271-5960

U.S. Department of the Interior
NATIONAL PARK SERVICE (NPS)
Alaska Regional Office (Anchorage)
Mailing/Physical Address:
240 West 5th Avenue, Room 114
Anchorage, Alaska 99501
Telephone: 907-644-3501

U.S. Department of the Interior
FISH AND WILDLIFE SERVICE
Alaska Regional Office (Region 7)
Mailing/Physical Address:
1011 East Tudor Road
Anchorage, Alaska 99501
Telephone: 907-271-5011

Note: Filings with any Department of the Interior agency may be filed with any office noted above or with the:

U.S. Department of the Interior
OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE
Alaska Regional Office (Anchorage)
Regional Environmental Officer
1689 C Street, Room 119
Anchorage, Alaska 99501
Telephone: (907) 271-5011

U.S. Department of Transportation
FEDERAL AVIATION ADMINISTRATION
Alaska Regional Office (Anchorage)
222 West 7th Avenue, #14
Anchorage, Alaska 99513
Telephone: 907-271-5269

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual departments/agencies may authorize the use of this form by applicants for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS

(Items not listed are self-explanatory)

Item

- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
 - 8 Generally, the map must show the section(s), township(s), and ranges within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
 - 9, 10, and 12 - The responsible agency will provide additional instructions.
 - 13 Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
 - 14 The responsible agency will provide instructions.
 - 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
 - 16 through 19 - Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.
- Application must be signed by the applicant or applicant's authorized representative.

If additional space is needed to complete any item, please put the information on a separate sheet of paper and identify it as "Continuation of Item".

SUPPLEMENTAL

NOTE: The responsible agency(ies) will provide additional instructions	CHECK APPROPRIATE BLOCK	
I - PRIVATE CORPORATIONS	ATTACHED	FILED*
a. Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State.	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications	<input type="checkbox"/>	<input type="checkbox"/>
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
II - PUBLIC CORPORATIONS		
a. Copy of law forming corporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Proof of organization	<input type="checkbox"/>	<input type="checkbox"/>
c. Copy of Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY		
a. Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
b. If one partner is authorized to sign, resolution authorizing action is	<input type="checkbox"/>	<input type="checkbox"/>
c. Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
d. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>

* If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

NOTICES

NOTE: This applies to the Department of the Interior/Bureau of Land Management (BLM).

The Privacy Act of 1974 provides that you be furnished with the following information in connection with the information provided by this application for an authorization.

AUTHORITY: 16 U.S.C. 310 and 5 U.S.C. 301.

PRINCIPAL PURPOSE: The primary uses of the records are to facilitate the (1) processing of claims or applications; (2) recordation of adjudicative actions; and (3) indexing of documentation in case files supporting administrative actions.

ROUTINE USES: BLM and the Department of the Interior (DOI) may disclose your information on this form: (1) to appropriate Federal agencies when concurrence or supporting information is required prior to granting or acquiring a right or interest in lands or resources; (2) to members or the public who have a need for the information that is maintained by BLM for public record; (3) to the U.S. Department of Justice, court, or other adjudicative body when DOI determines the information is necessary and relevant to litigation; (4) to appropriate Federal, State, local, or foreign agencies responsible for investigating, prosecuting violation, enforcing, or implementing this statute, regulation, or order; and (5) to a congressional office when you request the assistance of the Member of Congress in writing.

EFFECT OF NOT PROVIDING THE INFORMATION: Disclosing this information is necessary to receive or maintain a benefit. Not disclosing it may result in rejecting the application.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certifications for the use of Federal Lands.

Federal agencies use this information to evaluate your proposal.

No Federal agency may request or sponsor and you are not required to respond to a request for information which does not contain a currently valid OMB Control Number.

BURDEN HOURS STATEMENT: The public burden for this form is estimated at 25 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0189), Bureau Information Collection Clearance Officer (WO-630) 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

A reproducible copy of this form may be obtained from the Bureau of Land Management, Division of Lands, Realty and Cadastral Survey, 1620 L Street, N.W., Rm. 1000 LS, Washington, D.C. 20036.

Appendix B BLM Standard POD Summary

Introduction

The following is a summary of the detailed elements of the Proposed Projects contained in the presented Plan of Development in the standard BLM POD format. Each element indicates the section of the Plan of Development that contains the detailed information on that item. A summary discussion, figure or table follows the heading for quick reference.

Project

Purpose and Need for the Facility (Section 1.2)

Valley Electric provides safe, reliable and cost-effective electric service to its retail customers via the development of comprehensive transmission facilities that deliver power into Valley Electric's service area. The Proposed Projects will provide the system improvements necessary to support the development and delivery of 500 MW into the Valley transmission system. In addition to the support of the BSE proposed facilities, the construction of the VEA Proposed Projects will support the development of additional renewable resource generation facilities within the State of Nevada.

What will be built (Section 2)

Construction for the Proposed Project is anticipated to begin Third Quarter, 2012 with an in-service date set for First Quarter 2014. The Proposed Projects would consist of the following new or expanded facilities on BLM land:

- A new 10-acre BSE Tap 230/500 kV Substation (BSE Tap Substation)
- Approximately 53.7 miles of new 500 kV single circuit transmission line from the BSE Tap Substation to the existing Eldorado Substation (Eldorado 500 kV Line).
- Approximately 9.7 miles of new 230 kV single circuit transmission line from the HHR project site to the new BSE Tap Substation (BSE 230 kV Tap Line).
- One of two system alternatives, based on detailed engineering system studies, will provide the necessary backfeed into the Pahrump Community for system integrity. These system alternatives include a Stateline Alternative and a Pahrump community Alternative. (Backfeed System Alternatives)
- Improvement of existing VEA facilities to accommodate the necessary interconnections at Pahrump Substation, Vista Substation, Gamebird Substation, Charleston Substation and Eldorado Substation.
- Installation of a buried 6 or 8 inch natural gas pipeline
- Construction and operation of new and improved existing access roads along each of the proposed transmission alignments.
- Temporary work areas associated with construction activities, material storage and staging.

Ancillary facilities (Section 2)

Various internal substation improvements and developments on private property.

What is use? (Section 1)

BSE has approached Valley Electric Association (Valley, VEA) to construct, operate and maintain the necessary transmission infrastructure, both 230 kV and 500 kV, to support the

development of these combined 500 MW facilities. This Plan of Development (POD) outlines the details of the proposed transmission and substation facilities required to support the delivery of 500 MW into the Valley transmission system hereinafter referred to as the Proposed Projects. These facilities include 1) a 230/500 kV BSE Tap Substation; 2) a 230 kV transmission line from the HHR project site to BSE Tap Substation; 3) two alternative options to provide a 230 kV backfeed from the BSE Tap Substation into the Pahrump community; 4) a 500 kV transmission line from BSE Tap Substation to Eldorado Substation and 6) a buried 6 or 8 inch natural gas pipeline. The transmission line and pipeline alignments, structure configurations, voltages, capacities and termination points presented in this POD are pending detailed engineering system studies, design and analysis and are anticipated to change as more detailed information becomes available.

What is the voltage? (Section 2)

Various – 138 kV, 230 kV and 500 kV

Will the power line be overhead or buried? (Section 2)

Overhead

What is the origin destination and routing? (Figure 1-1)

See Figure 1-1

Identify the major users along the route (Figure 1-1)

Undeveloped BLM lands with some residential along portions of existing lines and substation facilities.

Is the power line for distribution or transmission purposes? (Section 2)

Transmission

Is this ancillary to an existing right of way? (Section 2)

No

If not located in a designated corridor provide alternative routes (Section 2, Figure 1-1)

Alternative routes provided for Backfeed System Alternative

Right of Way Location

Legal description (Section 2.6)

A list by project has been provided in Section 2.6)

Proposed Project (Section 2)

Construction for the Proposed Project is anticipated to begin Third Quarter, 2012 with an in-service date set for First Quarter 2014. The Proposed Projects would consist of the following new or expanded facilities on BLM land:

- A new 10-acre BSE Tap 230/500 kV Substation (BSE Tap Substation)
- Approximately 53.7 miles of new 500 kV single circuit transmission line from the BSE Tap Substation to the existing Eldorado Substation (Eldorado 500 kV Line).
- Approximately 9.7 miles of new 230 kV single circuit transmission line from the HHR project site to the new BSE Tap Substation (BSE 230 kV Tap Line).

- Improvement of existing VEA facilities to accommodate the necessary interconnections at Pahrump Substation, Vista Substation, Gamebird Substation, Charleston Substation and Eldorado Substation.

Construction and operation of new and improved existing access roads along each of the proposed transmission alignments.

Temporary work areas associated with construction activities, material storage and staging.

Alternative

One of two system alternatives, based on detailed engineering system studies, will provide the necessary backfeed into the Pahrump Community for system integrity. These system alternatives include a Stateline Alternative and a Pahrump community Alternative. (Backfeed System Alternatives)

Site specific engineering surveys for critical areas

These are pending detailed engineering design

Maps and drawings

Figure 1-1; Figure 2-1; Figure 2-2; Figure 2-3

Length, width and acreage

Table 2-4; Table 2-5; Table 2-6; Table 2-7

Proposed Project

Table 2-4; Table 2-5; Table 2-6

Alternative

Table 2-7

Facility Design Factors

Minimum and maximum engineering standards

All Proposed Projects will be designed to meet National Electric Safety Code Standards

Type and height of structures

Table 2-1; Table 2-2; Table 2-3

Structure installation (Section 3.4)

For each structure location, a temporary construction land disturbance are would result generally occurring coincidental with the access road in the area. Excavation and setting of structures would be performed in a continuous operation, preventing the possibility of caving of holes or injury to animals or persons in the vicinity of the construction. No excavations would be left uncovered when the Contractor's personnel are not on site.

Structural materials

Table 2-1; Table 2-2; Table 2-3; Table 2-4

Structure diagram

Figure 2-4; Figure 2-5; Figure 2-6; Figure 2-7

Clearance requirements

Table 2-1; Table 2-2; Table 2-3

Temperature

Table 2-1; Table 2-2; Table 2-3

Wind

Table 2-1; Table 2-2; Table 2-3

Voltage

Table 2-1; Table 2-2; Table 2-3

Span

Table 2-1; Table 2-2; Table 2-3

Structure heights

Table 2-1; Table 2-2; Table 2-3

Length of right of way and permanent width

Table 2-1; Table 2-2; Table 2-3; Table 2-4

Proposed Project

Table 2-1; Table 2-2; Table 2-3; Table 2-4

Alternative

Table 2-1; Table 2-2; Table 2-3; Table 2-4

Temporary use areas needed

These areas will be identified during detailed design based on access and terrain

Proposed Project

These areas will be identified during detailed design based on access and terrain

Alternative

These areas will be identified during detailed design based on access and terrain

Additional Components

Existing components on and off public lands (Section 2)

Components off of public lands have been identified as Ancillary Facilities

Possible future components

No additional possible future components have been identified as a part of this project

Location of substations

Figure 1-1

Permanent and temporary access

Table 2-1; Table 2-2; Table 2-3; Table 2-4

Communication facilities needed to operate the facility

No additional facilities beyond those identified here will be required to operate the facility.

Location of equipment storage areas

These areas will be identified during detailed design based on access and terrain

Government Agencies Involved

Other Federal offices (Table 1-1)

No additional cooperating federal agencies have been identified for the proposed transmission projects in Nevada

State and local agencies (Table 1-1)

No additional cooperating state or local agencies have been identified for the proposed transmission projects in Nevada.

Construction of the Facilities (Section 3)

Construction

Section 3.4

Major facilities

Section 3.4

Ancillary facilities

Section 3.4

Work force

Table 3-1

Flagging and staking of the right of way

Section 3.4.1

Clearing and grading

Section 3.4.4

Facility construction data

Section 3.4.8

Description of construction process

Access to and along right of way during construction

Detailed access plans along the right of way will be identified as a part of detailed design

Will helicopters be used for stringing conductors and hanging towers?

It is possible that helicopters will be used for stringing the conductors or hanging towers. This will be at the discretion of the construction contractor as a result of the overall plan of construction.

Map designating the flight path if it does not follow right of way

If helicopter construction is elected by the construction contractor, a flight path will be identified.

What is the location and size of framing pads and turn-around pads? (Table 2-1; Table 2-2; Table 2-3)

Framing pads and turn-around pads will be identified as a part of detailed design.

Access to the framing pads

Access roads will be identified as a part of detailed design

Contingency planning

Contingency plans will be developed as a part of detailed design

Holder contacts

Valley Electric Association

Thomas Husted, CEO

775-727-2139

tomh@vea.coop

Agent = Electrical Consultants, Inc.

Crystal Kuntz
406-869-2090
Crystal.kuntz@eciblgs.com

BLM contacts

Greg Helseth
BLM Las Vegas
775-515-5000
ghelseth@blm.gov

Safety requirements

Safety requirements will be identified as a part of detailed engineering design

Industrial wastes and toxic substances

No industrial wastes or toxic substances are anticipated to be a part of the Proposed Projects

Resource Values and Environmental Concerns (Section 5)

Address at a level commensurate with anticipated impacts

Detailed impact calculations will be conducted as a part of the detailed design and preparation of the Biological Assessment.

Location with regard to existing corridors (Figure 1-1; Figure 2-1; Figure 2-2; Figure 2-3; Figure 2-4)

Detailed project locations can be found on the figures within this Plan of Development

Anticipated conflicts with resources or public health and safety

No conflicts are anticipated with public health and safety

Air resources

No anticipated impacts, dust control will be employed as appropriate

Noise resources

No anticipated impacts, noise will be intermittent and temporary as a result of construction

Geologic hazards

No anticipated impacts, facilities will be installed above ground

Mineral and energy sources

No anticipated impacts, facilities will be installed above ground

Paleontological resources

Areas of known paleontological sensitivity will be surveyed and impacts mitigated as appropriate.

Soil resources

No anticipated impacts, facilities will be installed above ground

Water resources

No anticipated impacts, facilities will be installed above ground

Vegetation resources

Surveys for protected vegetation species (Cacti, BLM Sensitive Species) will be surveyed and impacts mitigated as appropriate.

Wildlife resources

Surveys for protected wildlife resources (Desert Tortoise) will be surveyed and impacts mitigated as appropriate.

Threatened and endangered species resources

Surveys for protected wildlife resources (Desert Tortoise) will be surveyed and impacts mitigated as appropriate.

Cultural resources

Class I and Class III cultural resource surveys will be conducted in compliance with NHPA/BLM/SHPO and impacts will be mitigated as appropriate.

Visual resources

Impacts to visual resources will be evaluated using visual simulations from areas of visual sensitivity as identified by the BLM and other interested parties. Any identified impacts will be mitigated as appropriate.

BLM projects

No impacts to BLM projects in the area are known

Recreation activities

No anticipated impacts, facilities will be installed above ground and recreation activities are considered a compatible use

Wilderness

No anticipated impacts, facilities will be installed outside of the known wilderness areas adjacent to other existing transmission lines.

Stabilization and Rehabilitation (Section 3.5)

Soil replacement and stabilization

Soil will be replaced and stabilized in accordance with BLM right of way grant stipulations

Disposal of vegetation removed during construction

Vegetation will be removed during construction in accordance with BLM right of way grant stipulations

Seeding specifications

Seeding will occur in accordance with BLM right of way grant stipulations

Fertilizer

Fertilizer will be applied in accordance with BLM right of way grant stipulations

Limiting access to the right of way

Access to the right of way will be limited in accordance with BLM right of way grant stipulations

Will roads built for access during construction be reclaimed?

Access roads not needed for the operation and maintenance of the Proposed Projects will be reclaimed.

Operation and Maintenance (Section 4)

Safety

All Proposed Projects will be designed, constructed, operated and maintained in compliance with the National Electric Safety Code

Industrial wastes and toxic substances

No industrial wastes or toxic substances are anticipated to be a part of the Proposed Projects

Inspection and maintenance schedules

Inspection and maintenance will take place in accordance with VEA policies and generally accepted industry standards.

Work schedules

Work schedules for construction will be identified by the construction contractor in accordance with their bid and construction practices and policies.

Fire control

All Federal, state, and county laws, ordinances, rules, and regulations, which pertain to prevention, pre-suppression, and suppression of fires, will be strictly adhered to.

Long term access

Long term access will be maintained for operation and maintenance of the Proposed Projects

Signs

Temporary signs will be installed during construction to identified approved construction access roads. These signs will be removed upon the completion of construction.

Inspections

Inspection and maintenance will take place in accordance with VEA policies and generally accepted industry standards.

Will these be conducted by ground or aircraft?

Inspection and maintenance will take place in accordance with VEA policies and generally accepted industry standards and may include inspections by aircraft on occasion as normal course would occur from the ground.

If by aircraft, will the aircraft require landing strips and/or heliports

For any inspections conducted by aircraft, no landing strips or heliports would be required.

Contingency planning

Any contingency planning in association with inspections will be conducted as a standard party of VEA internal policies and procedures.

Termination and Restoration (Section 4.5)

Removal of structures

Upon right of way abandonment, structures will be removed in accordance with BLM requirements

Obliteration of roads and tower pads

Upon right of way abandonment, roads or tower pads will be removed in accordance with BLM requirements

Stabilization and revegetation of disturbed areas

Upon right of way abandonment, areas will be stabilized and revegetated in accordance with BLM requirements