



# Energy Center Substation to Boone Substation

Category Ranks	Alternative - Segments		
	43 - E1, E2, E4, E5, E7	44 - E1, E2, E6, E7	45 - E1, E3, E5, E7
Engineering	3	1	1
Geology and Soils	1	1	3
Water Resources	2	3	1
Vegetation	1	1	1
Wildlife	1	2	3
Land Use	2	2	1
Cultural Resources	1	1	1
<b>Category Rank Total</b>	<b>11</b>	<b>11</b>	<b>11</b>
<b>Alternative Rank</b>	<b>1</b>	<b>1</b>	<b>1</b>

Proposed, alternative, and other routes are subject to change.

## Description & Results

The Energy Center Substation to Boone Substation transmission line would be approximately 115 miles in length. The transmission line would begin at the new Energy Center Substation near Hartman, Colorado, cross U.S. Highway 287 near the town of Wiley, Colorado, and end at the existing Boone Substation near Boone, Colorado.

Route refinement straightened segment E3 to reduce the number of angle structures. Segment E6 was realigned to avoid homes and to more closely follow an existing 230-kV transmission line.

Each of the three routes tied in their raw scores in the comparative matrix. In breaking the tie, the more southern and direct alternative 44 was identified as the proposed route for its favorable ratings in engineering, natural resources, and land use. In particular, alternative 44 had far fewer homes within 0.5 miles of the proposed transmission line than alternatives 43 and 45.

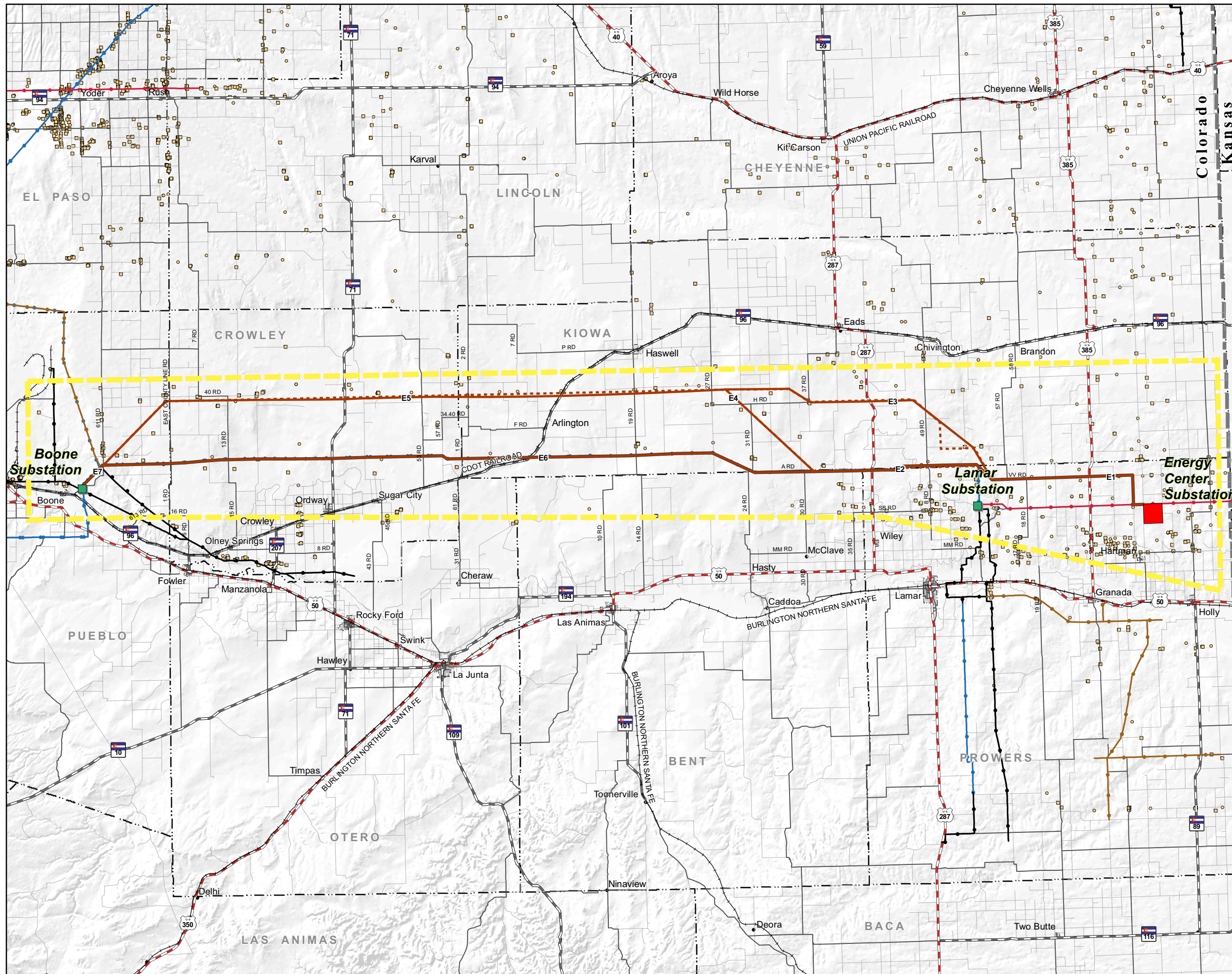
## Siting Considerations

The proposed and alternative routes respond to scoping comments and additional ground and aerial surveillance.

Route-specific comments from scoping included the following:

- Avoid area south of US 287 (effects to sand hills include damage and erosion)
- Concerned about lines near reservoirs and wildlife areas affecting migrating birds, including threatened and endangered species





**Base Map**  
Energy Center to Boone

**Legend**

**Substations**

- Existing Substation
- Proposed Substation
- Siting Area

**Analysis Area**

- Energy Center to Boone

**Transportation**

- Interstate Highway
- State Highway
- U.S. Highway
- Minor Road
- Major Road
- Railroad

**Existing Transmission Lines**

- 115-kV Transmission Line
- 230-kV Transmission Line
- 345-kV Transmission Line
- 69-kV Transmission Line

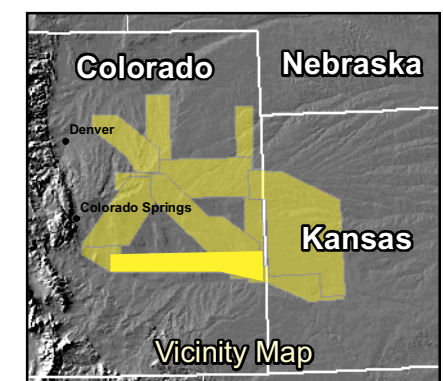
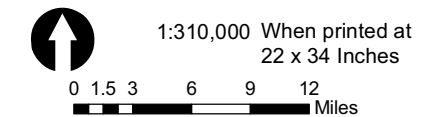
**Routes**

- Proposed (500-kV)
- Alternative (500-kV)
- Previous (500-kV)

**Structures** (Digitized from aerial photography)

- Residence
- Other Structure

Source Data:  
ESRI (Cities), NED (Hillshade), BTS (Highways), National Atlas (States), CDOT (CO Roads, Rail, City/County Boundaries), Western, Xcel (Transmission Lines)



Last Revised:  
01/25/07

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**Eastern Plains Transmission Project**

