

FACT SHEET

TRANSMISSION LINE PREFERRED ROUTE PARK CITY, TENNESSEE

Based on preliminary environmental review, engineering surveys, land use, cultural and public input, TVA has selected transmission line alternative route 4 as the preferred route for the new transmission line that will power the new Park City 161-kV Substation owned by Fayetteville Public Utilities. TVA will conduct environmental field studies on the preferred transmission line route.

Evaluation Criteria

TVA uses several tools to evaluate alternative routes for new transmission lines and to identify a preferred route:

- Information from property owners, open house participants, interest groups, elected officials, subject matter experts and others
- Topographic maps
- Aerial photography
- Geographic Information System (GIS) constraint maps
- Field reconnaissance surveys
- Professional experience

Ultimately, in making the final decision, TVA weighs and balances public input and all pertinent environmental, engineering, land use and cultural considerations. The final decision may not always be the shortest or least expensive route, and though individual property owners may feel significantly affected, the objective of the process is to ensure that the project objectives are realized and that overall project impacts, as well as impacts to the community at large, are minimized.

Assessment of Alternative Routes

Nine route segments were identified for the Park City project. Six alternative route corridors were developed from the segments, as shown below. These alternative routes can also be seen on the map at www.tva.com/power/projects/index.htm.

<u>Alternative Route</u>	<u>Segments</u>
1	9, 5, 1
2	9, 7, 6, 1
3	8, 6, 1
4	9, 7, 3, 2
5	8, 3, 2

6

4, 2

Each alternative offers different opportunities and constraints for power line construction. Opportunities include characteristics such as open land, areas less suitable for development and lack of sensitive environmental areas and land use conflicts. The assessment of the opportunities and constraints for these six alternative routes are summarized in Table 1 (see page 4) by engineering, environmental, land use and cultural impacts.

Environmental

Environmental resources include forestland, flood plains, sensitive stream crossings, wetlands, caves, threatened and endangered species or sensitive environmental areas. The impacts to environmental resources are considered when identifying and assessing alternative route locations.

The initial environmental review did not reveal any known locations of threatened or endangered species along any of the alternative route corridors. However, all of the alternative routes, except route 6, have habitat that could support the Slackwater Darter, which is listed by both the state and Federal government as a threatened species.

The amount of wetlands per route vary from 2.6 - 5 acres (see chart on page 4), with alternative route 4 having the least amount. A more detailed environmental analysis will be completed on the preferred route to determine if there are any additional impacts. Based on initial environmental reviews, alternative route 4 has the least environmental impacts.

Engineering

The evaluation of road crossings, railroad crossings and/or existing transmission lines affected found no significant constraints along any of the alternative routes. Alternative routes 4 and 6 use existing right-of-way as part of their overall path. This is considered a positive attribute since use of existing right-of-way reduces the overall impacts on the community. As a result, alternative route 4 would require the least amount of new right-of-way, which makes it more desirable than the other alternative routes.

Land Use

Parks, schools, and dwellings are considered to be constraints. Alternative route 6 has one school within the constraint buffer. Although this section of alternative route 6 would be on existing right-of-way, this is less desirable than alternative routes 1-5, which have no land use constraints.

TVA looks at the total number of parcels affected, as well as the number of residential and commercial properties affected by the alternative routes. The results show these constraints to be more prevalent on route alternatives 1, 2, 3, 5 and 6. Since alternative route 4 is in a more sparsely developed area and uses some existing right-of-way, the number of affected property owners is minimal. This makes alternative route 4 more desirable than the others.

Cultural

Cultural resources include features such as archaeological sites, cemeteries, historical sites, historic structures, churches and recreational areas. At this point in the evaluation process, TVA has not identified any archeological sites within any of the alternative route corridors. However, alternative route 6

has several churches, cemeteries and historical sites that fall within TVA’s established constraint buffers. This would make alternative route 6 less desirable than alternative routes 1-5.

Preferred Route

Table 2 below ranks the results of the six alternative routes based on the features shown in Table 1 (page 4).

**Table 2
Alternative Route Ranking**

Alternative Routes	Rankings by Criteria			
	Engineering	Environmental	Land Use	Cultural
1	3	3	3	1
2	2	5	3	1
3	6	6	6	3
4	1	1	1	4
5	5	3	5	4
6	4	2	1	6

Based on the information that has been evaluated, alternative route 4 presents the greatest opportunities and fewest constraints of all the alternative routes considered. As a result, route 4 has been identified as TVA’s preferred route. Route 4 is ranked first with respect to overall engineering, environmental and land use and is preferred as a result of the following route characteristics.

Route 4:

- Crosses fewer land parcels
- Requires the least amount of new right-of-way
- Uses almost a mile of existing right-of-way.
- Has the least amount of wetland areas
- Has the least amount of forested area

The preferred route taps TVA’s Ardmore-Fayetteville 161-kV Transmission Line which crosses Highway 231 about 1.65 miles south of the new Park City 161-kV Substation. The tap point would be at structure 462, approximately 3,600 feet southeast of the Ardmore-Fayetteville Transmission Line -Highway 231 intersection. The new 161-kV transmission line would travel north for approximately 2 miles, where it would intersect Fayetteville Public Utilities’ 46-kV transmission line. The line would then turn due east and share the existing 46-kV right-of-way line for about eight tenths of a mile to the new Park City 161-kV Substation.

During construction, TVA would ensure that standard design and Best Management Practice (BMP) techniques are implemented, as well as any mitigation measures identified in the National Environmental Protection Act (NEPA) review and specific state or federal requirements. BMP techniques consist of practices and procedures used during construction to minimize impacts to the environment.

Other Possible Adjustments

TVA will conduct a detailed environmental review of the preferred route. During the review, onsite environmental data will be collected and analyzed as part of the decision-making process. This may lead to further minor modifications of the route to minimize impacts.

**Table 1
Assessment of Alternative Routes***

CRITERIA																								
Engineering									Environmental								Land Use				Cultural			
Alternative Routes	Length of New Route - Miles	Road Crossings - interstate	Road Crossing - State	Road Crossing - Major	Road Crossing - US Highway	Road Crossing - roads/streets	Transmission Line Parallel	Length of Rebuild - Miles	Right of Way-Acres	Forest Acres	Floodplain Crossing-Acres	Sensitive Stream Crossings	Minor Stream Crossings	Wetland-Acres	T and E Species Location	T and E Species Habitat	Schools within 1200 ft.	Houses within 300 ft.	Commercial within 300 ft.	Property Parcel crossed	Visual Impact	Churches within 300 ft.	Cemeteries within 50 ft.	Historical Sites within 1000 ft.
1	2.20	0.00	0.00	1.00	1.00	2.00	0.00	0.00	26.62	1.95	0.00	1.00	2.00	2.84	0.00	1.00	0.00	4.00	7.00	28.00	0.00	0.00	0.00	0.00
2	2.28	0.00	0.00	1.00	1.00	1.00	0.00	0.00	27.64	3.87	0.00	1.00	2.00	3.33	0.00	1.00	0.00	4.00	7.00	27.00	0.00	0.00	0.00	0.00
3	2.95	0.00	0.00	1.00	1.00	2.00	0.00	0.00	35.76	4.43	0.00	1.00	2.00	3.76	0.00	1.00	0.00	9.00	4.00	30.00	1.00	0.00	0.00	1.00
4	1.98	0.00	0.00	0.00	1.00	4.00	0.00	0.80	24.07	0.20	0.00	1.00	2.00	2.58	0.00	1.00	0.00	7.00	0.00	14.00	0.00	0.00	0.00	2.00
5	2.65	0.00	0.00	0.00	1.00	5.00	0.00	0.80	32.18	0.76	0.00	1.00	2.00	3.01	0.00	1.00	0.00	10.00	0.00	17.00	1.00	0.00	0.00	3.00
6	2.36	0.00	0.00	0.00	1.00	3.00	0.34	1.40	32.68	0.28	0.00	0.00	5.00	5.11	0.00	0.00	1.00	2.00	0.00	15.00	0.00	2.00	1.00	5.00

*This table reflects the major considerations which affected the final site rankings.