EAST KENTUCKY POWER COOPERATIVE

September 16, 2005

HAND DELIVERED

Ms. Elizabeth O'Donnell
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

RECEIVED
SEP 16 2005
PUBLIC SERVICE COMMISSION

Re: PSC Case No. 2005-00207

Dear Ms. O'Donnell:

Please find enclosed for filing with the Commission an original and ten copies of East Kentucky Power Cooperative, Inc.'s Responses to Questions 1, 2, 6, 8, 11, 12 and 19 to the Intervenors Carroll and Doris Tichenor's Amended First Data Request to Commission Staff dated August 3, 2005in the above-styled case.

Very truly yours,

Dale W. Henley
General Counsel

Enclosures
c: Parties of Record

(H:legal/psc-o'donnell-9-16-05-2005-00207-1)

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY	)	
POWER COOPERATIVE, INC. FOR A CERTIFICATE	)	
OF PUBLIC CONVENIENCE AND NECESSITY FOR	)	**CASE NO**
FOR THE CONSTRUCTION OF A 161 kV ELECTRIC	)	**2005-00207**
TRANSMISSION PROJECT IN BARREN, WARREN,	)	
BUTLER, AND OHIO COUNTIES, KENTUCKY	)	

APPLICANT'S RESPONSE TO INTERVENORS CARROLL AND DORIS TICHENOR'S AMENDED FIRST DATA REQUEST TO COMMISSION STAFF DATED AUGUST 3, 2005

QUESTIONS 1, 2, 6, 8, 11, 12 AND 19

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2005-00207

INFORMATION REQUEST RESPONSE

INTERVENORS CARROLL & DORIS TICHENOR'S FIRST DATA REQUEST DATED 8/3/05

ITEM 1

RESPONSIBLE PARTY: Mary Jane Warner

REQUEST: Any studies, evaluations, discussions, and/or communications concerning alternative routes or alternative configurations for the proposed transmission facilities and all related documents.

RESPONSE: For each of three project segments, EKPC provided PhotoScience with the needed endpoints for the transmission lines. Macro Corridors were developed by PhotoScience using available land use data. PhotoScience then identified a Study Area and developed Alternative Corridors within that Study Area. The Alternative Corridors were presented to EKPC for selection of Alternative Routes. Attached as **Exhibit 1-1** are 27 Compact Discs (CD's) that contain the data for all studies and evaluations concerning Alternative Routes. These CD's contain GIS data and can be viewed by ESRI's viewer software available at no charge. The viewer can be downloaded from http://www.esri.com/software/arcexplorer/download.html. Discussions and substantive communication happened in "face to face" working meetings between EKPC and PhotoScience where overhead projector displays of the data in Exhibit 1-1 were used and

the model and data were updated "on the fly", making the data files themselves the best record of the studies, evaluations, discussions and/or communications.

Exhibit 1-2 includes the steps taken by EKPC to progress from Alternative Corridors to Alternative Routes, to a Preferred Route and then to a proposed centerline for EKPC's CPCN Application.

Exhibit 1-3 consists of maps that indicate the location of all Alternative Routes selected and evaluated.

Exhibit 1-4 consists of field work-maps used during the development of Alternative Routes. EKPC does not have the capability of making high resolution copies of these exhibits, and due to the time involved in identifying and copying these large maps, it was impossible to have higher resolution copies of these exhibits included with all copies of these responses. As a result, higher resolution copies have been included with the original responses to the Commission and copies served upon the Hon. Robert Griffith, Joey Roberts, and Hugh Hendrick. All other copies are of lesser quality.

Exhibit 1-2

The following Outlines describe the steps EKPC took to advance the level of routing detail from Alternative Corridors to Alternative Routes to a Preferred Route, and then to a proposed centerline for EKPC's CPCN application.

Barren County – Oakland Routing Outline

1. EKPC received Alternative Corridors from PhotoScience.
2. EKPC developed Alternative Routes within the Alternative Corridors seeking to distribute routes between each of the built, natural, and engineering corridors.
3. EKPC field verified and/or modified the Alternative Routes by performing field reconnaissance on each of the routes to ensure they were viable and in accordance with good engineering practice.
4. EKPC then submitted the Alternative Routes to PhotoScience for statistical comparison.
5. PhotoScience used Corridor Analyst™ to perform statistical analysis on each of the Alternative Routes and supplied the summary scores to EKPC.
6. The top Alternative Routes from 3 distinct locations in the statistical analysis were then taken to expert judgment. In expert judgment, the following issues were considered.
    a. Visual Issues
        i. How many people in the general public will view the line on a daily basis?
    b. Community Issues
        i. Number of people affected, directly or indirectly.
        ii. Proximity of residences to proposed line.
    c. Schedule/Delay Risk
        i. Number of parcels/property owners.
        ii. Number of new easements required.
    d. Construction/Maintenance Accessibility
        i. Proximity to existing roads.
        ii. Proximity to existing transmission corridors.
7. EKPC selected Route G as the preferred route because of the overall weighted impact on the above issues. The impacts on those issues are shown below (At this phase, portions of Route G were to be co-located and portions to be on new rights-of-way). See Figure 3.62 on page 28 of the PhotoScience report.
    a. Visual Issues
        i. Route K follows the I-65 corridor and is visible from the Interstate and all houses and businesses that along the Interstate.
    b. Community Issues
        i. Routes A, G, and K all consisted of open lands and few areas of congestion.
    c. Schedule Delay Risk
        i. Route G has fewer parcels crossed than the other two routes.
    d. Construction/ Maintenance Accessibility

i. Route A traversed more open lands and was therefore less accessible.
ii. Routes G and K either followed existing roads or transmission line corridors.

8. EKPC then took the preferred Route G to an EKPC Open House, as the center of a ½ mile wide study corridor. This is a process followed by EKPC and is a further refinement of the route using local property owner input. It is not part of the EPRI-GTC methodology. This information allows EKPC to incorporate some property owner input and adjustment into the route before proposing a centerline in the Application.
9. EKPC used the comments from the Open House to adjust Route G in order to develop a proposed centerline. Some of those adjustments are as follows:
    a. EKPC agreed to accommodate an inline pole placement request on the Newberry property, EKPC parcel #23.
    b. EKPC determined that the co-locate sections would instead be rebuild for the following reasons.
        i. EKPC developed a plan for the future conversion of WRECC's existing 69kV Oakland to Park City Tap line to a 161kV line so that the existing line could be rebuilt double circuit 161kV instead of co-located double circuit 161kV and single circuit 69kV. This reduced the acres of new rights-of-way needed from Park City Tap to Oakland Substation.
        ii. EKPC learned of future development on the DeGeorge property that included a new residence to be built alongside the existing 69kV line.
        iii. EKPC considered the advantages of a rebuild in congested areas along the existing 69kV line, such as the Roberts property.
        iv. EKPC planned for possible future transmission needs in the area.
10. EKPC filed the revised proposed centerline with the CPCN application.

Oakland Magna Routing Outline

1. EKPC received Alternative Corridors from PhotoScience.
2. EKPC developed Alternative Routes within the Alternative Corridors seeking to distribute routes between each of the built, natural, and engineering corridors.
3. EKPC field verified and/or modified the Alternative Routes by performing field reconnaissance on each of the routes to ensure they were viable and in accordance with good engineering practice.
4. EKPC then submitted the Alternative Routes to PhotoScience for statistical comparison.
5. PhotoScience used Corridor Analyst™ to perform statistical analysis on each of the Alternative Routes and supplied the statistics to EKPC.
6. EKPC selected Route B as the preferred route because it was the best balance of low impacts. This was primarily due to the fact that it had a significant amount of co-location and rebuild.
7. EKPC then took the preferred Route B to an EKPC Open House, as the center of a ½ mile wide study corridor. This is a process followed by EKPC and is a further refinement of the route using local property owner input. It is not part of the EPRI-GTC methodology. This information allows EKPC to incorporate some property owner input and adjustment into the route before proposing a centerline in the Application.
8. EKPC filed the proposed centerline with the CPCN application.

Memphis Jct – Natcher Pkwy Jct Routing Outline

1. EKPC received Alternative Corridors from PhotoScience.
2. EKPC then developed Alternative Routes within the Alternative Corridors seeking to distribute routes between each of the built, natural, and engineering corridors.
3. EKPC field verified and/or modified the Alternative Routes by performing field reconnaissance on each of the routes to ensure they were viable and in accordance with good engineering practice.
4. EKPC then submitted the Alternative Routes to PhotoScience for statistical comparison.
5. PhotoScience used Corridor Analyst™ to perform statistical analysis on each of the Alternative Routes and supplied the statistics to EKPC.
6. The top 4 Alternative Routes from 2 distinct locations in the statistical analysis were then taken to expert judgment. In expert judgment, the following issues were considered.
    a. Visual Issues
        i. How many people in the general public will see the line?
    b. Community Issues
        i. Number of people affected, directly or indirectly.
        ii. Proximity of residences to proposed line.
    c. Schedule/Delay Risk
        i. Number of parcels/property owners.
        ii. Number of new easements required.
    d. Construction/Maintenance Accessibility
        i. Proximity to existing roads.
        ii. Proximity to existing transmission corridors.
7. EKPC selected Route B as the preferred route because of the overall weighted impact on the above issues. The impacts on those issues are shown below.
    a. Visual Issues
        i. Route B is located in the most remote areas of the corridors.
    e. Community Issues
        i. Route B had fewer residences in proximity to the proposed centerline.
        ii. Routes D and F crossed Highway 68 at locations of proposed and ongoing development.
        iii. Route I crossed the most urban areas of the corridors.
    f. Schedule Delay Risk
        i. Routes D and F had the fewest number of parcels crossed, but due to the ongoing residential development in the area the actual number parcels impacted will be greater than that of Route B when the line would be constructed.
        ii. Route I had the greatest number of parcels of the 4 Alternative Routes.
    g. Construction/ Maintenance Accessibility

i. Route I, since it was in a more urbanized area, was in close proximity to more roads and existing corridors than the other routes and was therefore, more accessible.

8. EKPC adjusted the proposed transmission lines to three circuits on two sets of poles on a 150' ROW instead of three circuits on one set of poles on a 100' ROW as the data sent out for the Open House stated. The reason for this change was due to the reliability concerns of having all three circuits on one set of structures in case of an event that could cause a structure failure. (The change to a 150' ROW was discussed at the Open House with the invitees).
9. EKPC then took the preferred Route B to an EKPC Open House, as the center of a ½ mile wide study corridor. This is a process followed by EKPC and is a further refinement of the route using local property owner input. It is not part of the EPRI-GTC methodology. This information allows EKPC to incorporate some property owner input and adjustment into the route before proposing a centerline in the Application.
10. EKPC used the comments from the Open House to adjust Route B in order to develop a proposed centerline. Some of those adjustments are as follows:
    h. EKPC located the centerline to follow the existing drain instead of co-locating with the existing Warren Rural Electric Cooperative Corporation's 69kV line on the Haynes property.
    i. EKPC located the centerline to account for the proposed connector between Highways 68 and 31W into the South Central Kentucky Industrial Park.
    j. EKPC located the centerline to miss the driveway on the Marshall property.
11. EKPC filed the proposed centerline with the CPCN application.
12. EKPC made adjustments to the proposed centerline from additional Open House comments and follow-up meetings.
    k. EKPC adjusted the centerline to miss a previously misidentified residence on the DeJarnette property.
    l. EKPC adjusted the centerline to the back of the Perkins, DeJarnette, and Johnson properties.
    m. EKPC continued the adjustment above, to the back of the Whitloe property.
13. EKPC filed the revised proposed centerline with the CPCN application.

Wilson – Aberdeen Routing Outline

1. EKPC received Alternative Corridors from PhotoScience.
2. EKPC developed Alternative Routes within the Alternative Corridors seeking to distribute routes between each of the built, natural, and engineering corridors.
3. EKPC field verified and/or modified the Alternative Routes by performing field reconnaissance on each of the routes to ensure they were viable and in accordance with good engineering practice.
4. After field reconnaissance, EKPC had PhotoScience remove Wildlife Management Areas from the Public Lands Level in the model. This changed the avoidance of WMA land from a 9 to a factor no different than any other lands. The reason for this change is described below.
    a. The Peabody WMA is not of the same environmental sensitivity as, for example, a National Forest, because the Peabody WMA had previously been strip-mined.
    b. EKPC initiated discussions with the Commonwealth of Kentucky Department of Fish and Wildlife, and found that in their opinion the WMA was a suitable place for a transmission line. The Department of Fish and Wildlife and Peabody Development Company often transfer lands in and out of the WMA according to Peabody's mining needs.
    c. There were already numerous transmission lines crossing the WMA in various locations.
5. EKPC received revised Alternative Corridors from PhotoScience including the change in the WMA avoidance factor.
6. EKPC developed Alternative Routes within the Alternative Corridors seeking to distribute routes between each of the built, natural, and engineering corridors.
7. EKPC field verified and/or modified the Alternative Routes by driving each of the routes to ensure they were viable and in accordance with good engineering practice.
8. EKPC then submitted the Alternative Routes to PhotoScience for statistical comparison.
9. PhotoScience used Corridor Analyst™ to perform statistical analysis on each of the Alternative Routes and supplied the statistics to EKPC.
10. The top 4 Alternative Routes from 2 distinct locations in the statistical analysis were then taken to expert judgment. In expert judgment, the following issues were considered.
    d. Visual Issues
        i. How many people in the general public will see the line?
    e. Community Issues
        ii. Number of people affected, directly or indirectly.
        iii. Proximity of residences to proposed line.
    f. Schedule/Delay Risk
        iv. Number of parcels/property owners.
        v. Number of new easements required.
    g. Special Permit Issues

vi. Number of obstacles needing special permits to construct the line over. Such as, river crossings, major highway crossings, railroad crossings, public land crossings, etc…

h. Construction/Maintenance Accessibility

vii. Proximity to existing roads.

viii. Proximity to existing transmission line corridors.

11. EKPC selected Route C as the preferred route because of the overall weighted impact on the above issues. The impacts on those issues are shown below.

i. Visual Issues

ix. Route C is located in the most rural areas of the corridors.

x. Route F crossed the Wendell Ford Parkway near the Highway 231 interchange.

j. Community Issues

xi. Route C had fewer residences in proximity to the proposed centerline.

1. According to the chart in the PhotoScience report, it looks as though Route F had fewer residences in proximity. But, Route F was manipulated to cross back and forth over the existing KU 138kV and 69kV transmission lines in order to avoid the taking of numerous residences and businesses. This criss-crossing not only hinders the reliability of the line, but it also means there are many residences within proximity of the line and that at each of those criss-crosses that don't show up in the chart since they are then more than 300' from the route. Also, there would be guyed structures at each of those locations making that route more expensive, less reliable, harder to maintain, and more unsightly.

xii. Route F crossed Highway 231 at locations of proposed and ongoing development.

xiii. Route F crossed through the more urban areas near Cromwell, McHenry and Taylor Mines.

k. Schedule Delay Risk

xiv. Routes F had the fewest number of parcels crossed, but due to the ongoing development near Highway 231 the actual number of parcels impacted would be greater than the number listed.

xv. Route C had the greatest number of parcels crossed. But, Peabody Development Company owns 22 and the Commonwealth of Kentucky Department of Fish and Wildlife own 7 of those parcels. And as referred to above, EKPC had been given verbal permission to cross this land with minimal impact to its use.

l. Special Permit Issues

xvi. Route C contained two Green River crossings.

m. Construction/ Maintenance Accessibility

xvii. Route F, since it was in more urbanized area, was in close proximity to more roads and existing corridors than the other routes and was therefore, more accessible.

12. After weighting and considering the Alternative Routes F and C in the Expert Judgment phase, EKPC took the preferred Route C to an EKPC Open House, as the center of a ½ mile wide study corridor. This is a process followed by EKPC and is a further refinement of the route using local property owner input. It is not part of the EPRI-GTC methodology. This information allows EKPC to incorporate some property owner input and adjustment into the route before proposing a centerline in the Application.
13. EKPC used the comments from the Open House to adjust Route C in order to develop a proposed centerline. Some of those adjustments are as follows:
    n. EKPC located the centerline to follow the edge of cultivated lands and discussed optimal pole placement on those cultivated lands on the Fields property.
    o. EKPC located the centerline to account for proposed near term mining on the Peabody property.
    p. EKPC agreed to accommodate inline pole placement in cultivated fields to minimize impact on use and to minimize disturbance of drainage tile systems in fields on the Wood and Rice properties.
    q. EKPC located the centerline to minimize impact on irrigation system plans and possible future residence and cabins on the Patton property
14. EKPC filed the revised proposed centerline with the CPCN application.

Aberdeen – Morgantown

1. EKPC received Alternative Corridors from PhotoScience.
2. EKPC developed Alternative Routes within the Alternative Corridors seeking to distribute routes between each of the built, natural, and engineering corridors.
3. EKPC field verified and/or modified the Alternative Routes by performing field reconnaissance on each of the routes to ensure they were viable and in accordance with good engineering practice.
4. EKPC then submitted the Alternative Routes to PhotoScience for statistical comparison.
5. PhotoScience used Corridor Analyst™ to perform statistical analysis on each of the Alternative Routes and supplied the statistics to EKPC.
6. EKPC selected Route N as the preferred route because it scored better than Route O in all Perspectives.
    a. This included the greater amount of forested wetlands at the tap area of Route O.
7. EKPC took the preferred Route N to an EKPC Open House, as the center of a ½ mile wide study corridor. This is a process followed by EKPC and is a further refinement of the route using local property owner input. It is not part of the EPRI-GTC methodology. This information allows EKPC to incorporate some property owner input and adjustment into the route before proposing a centerline in the Application.
8. EKPC filed the proposed centerline with CPCN application.
9. EKPC adjusted the centerline to miss a previously misidentified residence on the Coots property.
10. EKPC filed the revised proposed centerline with CPCN application.

National Park Service
National Register of Historic Places
Barren, Butler, Ohio, Warren Counties

County	Resource Name	Address	City	Listed	Multiple
Barren	Belle's Tavern	KY 255	Park City	1/8/1987	Early Stone Buildings of Kentucky Outer Bluegrass and Pennyrile TR
Barren	Cave City Commercial District	Broadway between 1st and 2nd Sts.	Cave City	7/20/1983	Barren County MRA
Barren	Confederate Monument in Glasgow	Jct. of Main and Green Sts.	Glascow	7/17/1997	Civil War Monuments of Kentucky MPS
Barren	Edmunds, Charles Penn, House	E of Becton	Beckton	5/20/1983	Barren County MRA
Barren	First National Bank	Main St.	Glasgow	5/20/1983	Barren County MRA
Barren	First Presbyterian Church	Washington and Broadway	Glasgow	5/20/1983	Barren County MRA
Barren	Fort Williams	Between Glasgow Municipal Cemetery and U.S. 31E Bypass	Glasgow	6/10/1975	
Barren	Glasgow Central Business District	207 W. Main--117 E. Main, 100--114 S. Green and 104 and 109 N. Race Sts.	Glasgow	2/11/1993	
Barren	Glasgow Central Business District (Boundary Increase)	Roughly bounded by Water St., Broadway St. , Wayne St., and Liberty St.,	Glasgow	2/11/2004	
Barren	Glasgow OMS #9	Cavalry Dr.	Glasgow	9/6/2002	Kentucky's National Guard Facilities MPS
Barren	Gullian Gerig's Mill	Beaver Valley Rd.	Glasgow	10/5/1987	Early Stone Buildings of Kentucky TR
Barren	Hicks, William House	Jeff Hicks Rd.	Austin	5/20/1983	Barren County MRA
Barren	Landrum	SR 1318	Roseville	5/20/1983	Barren County MRA
Barren	Martin, Benjamin, House	Berry Store Rd.	Finney	5/20/1983	Barren County MRA
Barren	Mayfield, John, House	SW of Glasgow	Glasgow	5/20/1983	Barren County MRA
Barren	McCoy, Andrew, House	Railroad Ave.	Cave City	5/20/1983	Barren County MRA
Barren	Morris Building	Washington and Green Sts.	Glasgow	5/20/1983	Barren County MRA
Barren	North Race Street Historic District	N. Race St. between Front and Cherry Sts.	Glasgow	7/20/1983	Barren County MRA
Barren	North Race Street Historic District (Boundary Increase)	Roughly bounded by Happy Valley Rd., Green St., Garmon Ave. and Front St.	Glasgow	12/4/2003	Barren County MRA
Barren	Octagon Cottage	Off SR 1297	Rocky Hill	7/20/1983	Barren County MRA
Barren	Old Zion Methodist Church	SR 1297	Park City	5/20/1983	Barren County MRA
Barren	Page, William House	S of Glasgow off of KY 249	Glasgow	5/20/1983	Barren County MRA
Barren	Quigley, G. F., and Son Grocery	Off U.S. 31E	Goodnight	5/20/1983	Barren County MRA
Barren	Ralph Bunche Historic District	Roughly bound by E. College St., Landrum St., Twyman Court and S. Lewis St.	Glasgow	3/31/2004	
Barren	Renfro Hotel	S. Dixie Ave.	Park City	5/20/1983	Barren County MRA
Barren	Settle, Franklin, House	KY 252 and KY 255	Rocky Hill	5/20/1983	Barren County MRA
Barren	Site Bn-54	Roseville Rd.	Bristle Town	5/20/1983	Barren County MRA
Barren	Southwest Glagow Residential District (Boundary Increase)	Roughly bounded by Washington St., Broadway St., Brookdale Dr., Cottage Ave., and Jefferson St.	Glasgow	12/4/2003	Barren County MRA
Barren	Southwest Glasgow Residential District	Green St. between Cottage and College Sts., Leslie Ave., Liberty, Brown, and Washington Sts.	Glasgow	8/30/1983	Barren County MRA
Barren	Third National Bank	N. Green and Main Sts.	Glasgow	5/20/1983	Barren County MRA
Barren	U.S. Post Office/Board of Education Building	202 W. Washington St.	Glasgow	5/20/1983	Barren County MRA
Barren	White, Jesse and Simon, House	Off U.S. 31E	Lucas	5/20/1983	Barren County MRA
Barren	Wigwam Village No. 2	NW side US 31W 1.6 mi. NE of junction with KY 70	Cave City	3/16/1988	Barren County MRA
Barren	Wood, William Johnson, House	E of Hiseville	Hiseville	5/20/1983	Barren County MRA
Barren	Wooten, Joseph, House	Crabtree Rd.	Tracy	5/20/1983	Barren County MRA
Barren	Young, Asa E., House	Off KY 921	Tracy	5/20/1983	Barren County MRA
Butler	Annis Mound and Village Site (15BT2; 15BT20; 15BT21)	Address Restricted	Logansport	12/21/1985	
Butler	Baby Track Rock Petroglyphs (15BT40)	Address Restricted	Morgantown	9/8/1989	Prehistoric Rock Art Sites in Kentucky MPS
Butler	Carlston Annis Shell Mound (15BT5)	Address Restricted	Schultztown	4/1/1986	Green River Shell Middens of Kentucky TR
Butler	Carson's Landing	1086 Annis Ferry Rd.	Morgantown	7/31/1998	
Butler	Carson, John, House	205 S. Main St.	Morgantown	7/26/1991	
Butler	Confederate--Union Veterans' Monument in Morgantown	1 blk. N of jct of US 231 and KY 403	Morgantown	7/17/1997	Civil War Monuments of Kentucky MPS
Butler	DeWeese Shell Mound (15BT6)	Address Restricted	Highview	4/1/1986	Green River Shell Middens of Kentucky TR
Butler	Finney Hotel	Jct. KY 403 and Hime St.	Woodbury	11/7/1995	
Butler	Ice House on Little Muddy Creek	US 231	Morgantown	1/8/1987	Early Stone Buildings of Kentucky Outer Bluegrass and Pennyrile TR
Butler	Rayburn Johnson Shell Mound (15BT41)	Address Restricted	Prentiss	4/1/1986	Green River Shell Middens of Kentucky TR
Butler	Read Shell Mound (15BT10)	Address Restricted	Monticello	4/1/1986	Green River Shell Middens of Kentucky TR
Butler	Reedyville Petroglyphs (15BT65)	Address Restricted	Reedyville	9/8/1989	Prehistoric Rock Art Sites in Kentucky MPS
Butler	Russell Shell Mound (15BT11)	Address Restricted	Logansport	4/1/1986	Green River Shell Middens of Kentucky TR
Butler	Turkey Rock Petroglyphs (15BT64)	Address Restricted	Morgantown	9/8/1989	Prehistoric Rock Art Sites in Kentucky MPS
Butler	U.S. Army Corps of Engineers Superintendent's House and Workmen's Office	Woodbury Park	Woodbury	6/19/1980	
Butler	Woodbury Shell Midden (15BT67)	Address Restricted	Woodbury	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Archeological Site KHC-6 (15OH97)	Address Restricted	Kirtley	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Barnard, J. T., Shell Midden (KHC-1)	Address Restricted	Central City	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Bowles Site (15OH13)	Address Restricted	Rochester	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Chiggerville Site (15OH1)	Address Restricted	Knightsburg	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Downtown Hartford Historic District	Roughly 100 and 200 blks. Main St. and Courthouse Sq.	Hartford	12/12/1988	
Ohio	Hartford Seminary	224 E. Center St.	Hartford	6/19/1973	
Ohio	Hill, Samuel E., House	519 E. Union St.	Hartford	5/27/1980	
Ohio	Indian Knoll	Address Restricted	Paradise	10/15/1966	
Ohio	Jackson Bluff Site (15OH12)	Address Restricted	Rockport	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Jimtown Site (15OH19)	Address Restricted	Kirtley	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Louisville, Henderson, and St. Louis Railroad Depot	SE side Walnut St., 200' N of jct. with KY 54	Fordsville	7/26/1991	
Ohio	Monroe, Bill, Farm	Approximately 2 mi. west of the jct. of US 62 and KY 1544	Rosine	7/18/2003	
Ohio	Old Town Historic District	Roughly bounded by E. Union, Clay, E. Washington and Liberty Sts.	Hartford	11/15/1988	
Ohio	Pendleton House	403 E. Union St.	Hartford	5/17/1973	
Ohio	Rosine General Store and Barn	8205 Blue Moon of KY --US 62	Rosine	8/1/2003	
Ohio	Smallhous Shell Mound (15OH10)	Address Restricted	Smallhous	4/1/1986	Green River Shell Middens of Kentucky TR
Ohio	Wallace, Charles, House	Address Restricted	Hartford	3/15/1984	
Warren	Allen, Carter, House	Off SR 31W	Smiths Grove	12/18/1979	Warren County MRA
Warren	Allen, Thomas, House	SR 31W	Smiths Grove	12/18/1979	Warren County MRA
Warren	Barren River L & N Railroad Bridge	Spans Barren River	Bowling Gree	11/26/1980	Warren County MRA
Warren	Blakeley, W. H., House	1162 College St.	Bowling Gree	12/18/1979	Warren County MRA
Warren	Bowling Green OMS #10	719 Old Morgantown Rd.	Bowling Gree	9/6/2002	Kentucky's National Guard Facilities MPS
Warren	Bryant, Garnett, House	Sunnyside Rd.	Oakland	12/18/1979	Warren County MRA
Warren	Burnett, Aubrey, House	Aubrey Burnett St.	Oakland	12/18/1979	Warren County MRA
Warren	Campbell, David C., House	Beech Bend Rd.	Plum Springs	12/18/1979	Warren County MRA
Warren	Cave Spring Farm	Rocky Hill Rd., approximately .5 mi. NE of Smiths Grove	Smiths Grove	12/2/1996	
Warren	Cecilia Memorial Christian Church	716 College St.	Bowling Gree	12/18/1979	Warren County MRA
Warren	Cherry Hall	College St., Western Kentucky University campus	Bowling Gree	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	College Hill District	Roughly bounded by College and Chestnut Sts., 11th and 15th Aves.	Bowling Gree	12/18/1979	Warren County MRA
Warren	College Hill Historic District (Boundary Increase)	416 E. 12th Ave.	Bowling Gree	1/11/1996	
Warren	College Street Bridge	Spans Barren River	Bowling Gree	11/26/1980	Warren County MRA

National Parks Service
National Register of Historic Places
Barren, Butler, Ohio, Warren Counties

County	Resource Name	Address	City	Listed	Multiple
Warren	Confederate Monument of Bowling Green	Fairview Cemetery, N of jct. of KY 234 and Collette Ln.	Bowling Green	7/17/1997	Civil War Monuments of Kentucky MPS
Warren	Cooke, Peyton , House	Off SR 31W	Oakland	12/18/1979	Warren County MRA
Warren	Curd-Moss House	Off SR 68	Bowling Green	11/26/1980	Warren County MRA
Warren	Davidson, A. C., House	W of Leayou Rd.	Bowling Green	11/26/1980	Warren County MRA
Warren	Downtown Commercial District	Roughly bounded by Adams and State Sts., 6th and 10th Aves.	Bowling Green	12/18/1979	Warren County MRA
Warren	Drakes Creek Baptist Church	Cemetery Rd.	Bowling Green	12/18/1979	Warren County MRA
Warren	Dunklau Site (15WA374; 15WA380)	Address Restricted	Hadley	12/5/1985	
Warren	Ennis, Willis, House	Beech Bend Rd.	Plum Springs	12/18/1979	Warren County MRA
Warren	Everhardt, W. H., House	1223 College St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Ewing, James F., House	Cemetery Rd.	Bowling Green	12/18/1979	Warren County MRA
Warren	Fairview Methodist Church	SR 526	Oakland	12/18/1979	Warren County MRA
Warren	First Colored Baptist Church	340 State St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Ford, John Jackson, House	Off SR 31W	Smiths Grove	12/18/1979	Warren County MRA
Warren	Fort C.F. Smith	E Main St.	Bowling Green	12/5/1984	Warren County MRA
Warren	Fort Lytle	Western Kentucky University	Bowling Green	12/5/1984	Warren County MRA
Warren	Fort Webb	Country Club Dr.	Bowling Green	12/5/1984	Warren County MRA
Warren	Gossom, William, House	SR 31W	Plum Springs	12/18/1979	Warren County MRA
Warren	Grider House	1320 Park St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Grider, Tobias, House	864A Fairview Ave.	Bowling Green	12/18/1979	Warren County MRA
Warren	Hall House	104 W. Main St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Hays, James, House	US 68 and SR 259	Hays	12/18/1979	Warren County MRA
Warren	Health Buildings-Gymnasium	Normal Dr., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Heating Plant	Dogwood Dr., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA
Warren	Hines House	1103 Adams St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Home Economics Building	State St., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Horse Shoe Camp	8241 Louisville Rd.	Bowling Green	11/18/1997	US 31W in Warren MPS
Warren	Houchens, Elouise B., Center for Women	1115 Adams St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Industrial Arts Building	State St., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Ironwood	Old Richardsville Rd.	Bowling Green	7/2/1973	Warren County MRA
Warren	Joggers, J. C., House	E of Pondsville	Pondsville	12/18/1979	Warren County MRA
Warren	Kelley, James, House	SR 68	Bowling Green	12/18/1979	Warren County MRA
Warren	Kentucky Building	Russellville Rd., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Kinlock	1.5 mi. N of Bowling Green	Bowling Green	12/18/1979	Warren County MRA
Warren	Kirby, Jesse, Springhouse	Off US 231 on Love Howell Rd.	Bowling Green	1/8/1987	Early Stone Buildings of Kentucky Outer Bluegrass and Pennyrile TR
Warren	Lost River Archeological Cave	Address Restricted	Bowling Green	6/18/1975	
Warren	Louisville and Nashville Railroad Station	Kentucky St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Magnolia Street Historic District	Magnolia St. between Broadway and Tenth St.	Bowling Green	11/16/1989	
Warren	Merritt-Hardin House	SR 31W	Bowling Green	12/18/1979	Warren County MRA
Warren	Middleton, Jesse, House	Tuckertown Rd.	Oakland	12/18/1979	Warren County MRA
Warren	Moore, Maria, House	801 State St.	Bowling Green	6/20/1972	Warren County MRA (AD)
Warren	Mount Olivet Cumberland Presbyterian Church	SR 526	Bowling Green	12/18/1979	Warren County MRA
Warren	Murrell, Samuel, House	8 mi. NE of Bowling Green on U.S. 31W	Bowling Green	3/26/1976	Warren County MRA (AD)
Warren	Neale, William P., House	N of Woodburn	Woodburn	11/26/1980	Warren County MRA
Warren	Newton-Kemp Houses	804--806 Chestnut St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Nine Hearths	1244 Park St.	Bowling Green	12/18/1979	Warren County MRA
Warren	Oakland--Freeport Historic District	Vine, Young, Lee, Mills, Rasdall,Church,Main,Oakland,Kelly, Burnett, Oakland-Smiths Grove,Cooke, Grimes and Mansfield St	Oakland	8/2/2004	
Warren	Old Log Church	W of Riverside	Riverside	12/18/1979	Warren County MRA
Warren	Perry, William F., Monument	Fairview Cemetery, N of jct. of KY 234 and Collette Ln.	Bowling Green	7/17/1997	Civil War Monuments of Kentucky MPS
Warren	Pioneer Log Cabin	Kentucky St., near jct. with University Dr.	Bowling Green	8/4/2004	
Warren	Polk House	Ring Rd.	Woodburn	12/18/1979	Warren County MRA
Warren	President's Home	State St., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Rauscher House	818 Adams St.	Bowling Green	7/12/1978	
Warren	Richardsville Road Bridge	Spans Barren River	Bowling Green	11/26/1980	Warren County MRA
Warren	Riverview	Hobson Grove Park at end of Main St.	Bowling Green	2/23/1972	Warren County MRA
Warren	Robb, Dr. William, House	Market St.	Woodburn	12/18/1979	Warren County MRA
Warren	Seeley, Edward B., House	Beech Bend Rd.	Plum Springs	12/18/1979	Warren County MRA
Warren	Shake Rag Historic District	Roughly bounded by US 31W Bypass, Chestnut St., E. 5ht Ave. and College St.	Bowling Green	8/18/2000	
Warren	Shobe, Moses, House	SR 31W	Smiths Grove	12/18/1979	Warren County MRA
Warren	Sloss, John, House	Old Springfield Rd.	Bowling Green	12/18/1979	Warren County MRA
Warren	Smiths Grove Baptist Church	Main and 5th Sts.	Smiths Grove	12/18/1979	Warren County MRA
Warren	Smiths Grove District	1st and Main Sts.	Smiths Grove	12/18/1979	Warren County MRA
Warren	Smiths Grove Historic District (Boundary Increase)	NW corner of Second and Main Sts.	Smiths Grove	5/20/1987	Warren County MRA
Warren	Smiths Grove Presbyterian Church	College and 2nd Sts.	Smiths Grove	12/18/1979	Warren County MRA
Warren	Snell, Perry, Hall	State St., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	St. James Apartments	1133 Chestnut St.	Bowling Green	8/2/1984	Warren County MRA
Warren	St. Joseph Roman Catholic Church	430 Church St.	Bowling Green	7/3/1975	
Warren	St. Joseph's District	Roughly bounded by Gilbert and Potter Sts., Church and Brown's Lock Aves.	Bowling Green	11/26/1980	Warren County MRA
Warren	Stadium	Russellville Rd., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Sterrett House	SR 526	Plum Springs	12/18/1979	Warren County MRA
Warren	Underwood-Jones House	506 State St.	Bowling Green	7/7/1978	Warren County MRA (AD)
Warren	Upper East Main Street District	E. Main and Elm Sts.	Bowling Green	12/18/1979	Warren County MRA
Warren	Van Meter Hall	15th St., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Walnut Lawn	W of Bowling Green on Morgantown Rd.	Bowling Green	10/20/1983	Warren County MRA
Warren	Wardlaw, Andrew James, House	Off SR 31W	Oakland	12/18/1979	Warren County MRA
Warren	Warren County Courthouse	429 E. 10th St.	Bowling Green	8/2/1977	
Warren	West Hall	Virginia Garrett Ave., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Wilson, Gordon, Hall	15th St., Western Kentucky University campus	Bowling Green	12/18/1979	Warren County MRA;Davis, Brinton B., Buildings on the Western Kentucky University campus TR
Warren	Wright, J. L., House	1st St.	Smiths Grove	12/18/1979	Warren County MRA
Warren	Young's Ferry House	Ferry Rd.	Bowling Green	12/18/1979	Warren County MRA

Ronnie Terrill

From: Smith, Chris [tpcntr17@gatrans.com]
ent: Thursday, June 23, 2005 10:20 AM
'o: Ronnie Terrill
Cc: Glasgow, Jesse
Subject: Memphis Junction - Natcher Parkway Jct Report


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Memphis Junction – Natcher Parkway Junction
161 kV Transmission Line
Siting Process

Introduction:

The EPRI Overhead Electric Transmission Line Siting Methodology was used for this project using the calibrated weights and values determined by external stakeholders and Georgia Transmission Corporation. This document reports the results of this process. Any departure from the methodology or weights and values is documented, and the reason for deviation is explained in this report.

Macro Corridors:

The first step in this methodology is Macro Corridor creation, which defines an area for more detailed study. Typically for this stage, the best available land cover dataset based on 30m LandSat imagery is used. In the case of this area, the best available is from 1992. After evaluating the Macro Corridor results, it was determined that areas east of the William H. Natcher Parkway were too congested in relation to the remainder of the macro corridor area as a result of field analysis by the routing team. The 1992 land cover didn't reflect the recent urbanization of this area. Therefore this area was excluded for further siting examination.

The resulting area is approx. 23 sq miles to the west of Bowling Green. The land use is a mix of suburban residential, rural residential, agriculture, and forests with some commercial and industrial. The urbanized areas exists primary on the east side near the parkway with the west side being more rural.

Alternative Corridors:

Once the Macro Corridors are identified, detailed datasets are developed for siting purposes. Weight and values are assigned to the datasets and alterative corridors are generated. In the Alternative Corridor phase, no deviations were made to the EPRI methodology or changes to the GTC weights and values.

Built Environment Corridor:

The Built Environment Corridor leaves the southern substation in a northwestern direction, avoiding proposed and existing developments. After approx. 2 miles, the corridor heads in a more northerly direction, crossing primarily agricultural and forested land use with some rural residential areas.

Natural Environment Corridor:

The Natural Environment Corridor also leaves the southern substation in a northwestern direction in several paths. However, this corridor is a greater impact to proposed and exiting developments in the area. It targets an agricultural area

(avoiding forested areas on either side) until co-locating with US Highway 231. The corridor leaves US Highway 231 after approx. 2.0 miles at Price Chapel Road, follows Price Chapel Road for approx. 0.5 miles, and heads cross country in a northern direction for approx. 1.2 miles. Approx. 0.4 miles from the destination, the corridor co-locations with an existing transmission line to the end.

Engineering Concerns Corridor:

The Engineering Corridor heads out of the southern substation in a north northeast direction, co-locating with an existing transmission line. The existing transmission line crosses through residential neighborhoods in this area. After 2.4 miles, it leaves the existing transmission line, heads cross country for approx. 0.7 miles, and co-locates with an existing gas pipeline. The corridor leaves the gas pipeline after 1.75 miles and co-locations with another existing transmission line for approx. 0.5 miles. At this point, it co-locates with Glen Lily Road for approx. 2.4 miles. The last 2 miles of the corridor, it co-locates with another transmission line to the destination point. The land use of most of this route is urban, becoming densely residential in some points with the exception of the last two miles, which mainly is forested and agricultural.

Averaged Corridor:

The Average Corridor most mimics the Natural Environment Corridor, with fewer paths from the southern substation.

Alternate Routes:

The siting team analyzed the alternate corridors and identified alternate routes within the alternate corridors. These alternate routes were compared using the route selection matrix documented in the siting methodology.

Top Routes:

After evaluating all possible routes within the network of alternatives, the following routes surfaced to be the lowest impact.

Route B:

Route B scores best when emphasis is placed on items in the Built Environment. It has the lowest number or residences within close proximity.

Route B begins heading in a southwestern direction for a short distance along an existing transmission line from the southern substation then turning northwest to avoid proposed and existing developments. And begins to head in a more northerly direction, primarily impacting agricultural fields and some forested areas. It crosses Highway 231 approx. 1.7 miles south of the intersection with

Price Chapel Road and proceeds in a northerly direction through mainly a forested area with some agriculture.

Route D:

Route D scores best when all categories are consider equal in the route selection matrix. Route D has moderate scores for most items. However, it was the least costly route. This is primarily due to low property cost, low forested acres to clear, and no double circuit sections.

Route D follows a similar path as Route B with the exception of the first 2.5 miles on the southern end of the project. This route co-locates with an existing transmission line for a short distance, and then turns northwest crossing areas of proposed developments and areas currently developing before joining the same path as Route B.

Route F:

Route F scores best when emphasis is placed on Natural Environment items. Route F impacts the lowest amount of wetlands and impacts a low amount of floodplain acreage. It also scores fairly well in the Built Environment due to a low number of homes in close proximity.

Route F is virtually the same route as Route D with a small deviation on the south end, crossing the same properties.

Route I:

Route I scores best when emphasis is placed on Engineering Concerns. However, Route I is the most costly route of all the corridors, due to double circuiting costs. It scores the best because of the amount of co-location. This includes 4.8 miles with existing transmission lines.

Route I follows the engineering corridor, co-locating with existing transmission lines where possible on the eastern side of the study area. However, this path leads Route I through the most urbanized sections of the study area.

Expert Judgment:

In the Expert Judgment Matrix, the top routes from the Route Selection Matrix are examined by the routing team. For this project the team determined that Community Issues and Schedule Delay Risks were the greatest concern followed by Construction and Maintenance Accessibility Issues and Visual Issues.

Route B was give a low impact score for all categories, with the exception of a moderate impact score for construction and maintenance accessibility. It received low impact

scores in Community Issues, Visual Issues, Schedule Delay risk due to the rural nature of this route, low number of homes in close proximity, and a fairly low amount of parcels impacted. It received a moderate impact score in Construction and Maintenance Accessibility Issues due to the new cross country corridor.

Route D and Route F received moderate impact scores in all categories. This is due to the impact to areas of proposed developments and currently developing areas. It received a moderate impact score in Construction and Maintenance Accessibility Issues due to the new cross country corridor, as well.

Route I received a low impact score for Construction and Maintenance Accessibility Issues due to the amount of co-location with existing transmission lines. It received moderate impact scores Visual Issues and Schedule Delay Risks due to the dense urban areas this route crosses. Although this route primarily co-locates. It will also require approx. 5 miles of new corridor in urbanized areas. It also received a high impact score for Community Issues also due to the dense urban areas and close proximity to the most homes of all the corridors.

Conclusion:

Overall, Route B scores the best in Expert Judgment Matrix and is therefore the preferred route.

Wilson – Aberdeen – Morgantown
161 kV Transmission Line
Siting Process

Introduction:

The EPRI Overhead Electric Transmission Line Siting Methodology was used for this project using the calibrated weights and values determined by external stakeholders and Georgia Transmission Corporation. This document reports the results of this process. Any departure from the methodology or weights and values is documented, and the reason for deviation is explained in this report.

Macro Corridors:

The first step in this methodology is Macro Corridor creation, which defines an area for more detailed study. Typically for this stage, the best available land cover dataset based on 30m LandSat imagery is used. In the case of this area, the best available is from 1992.

The macro corridors identified an area approx. 136 sq miles including and northwest of Morgantown. The area is predominately rural with pockets of urbanized areas. Large areas of the study area are forested and abandoned strip mines. Agricultural areas are predominating along the Green River in the southern portion of the study area.

Alternative Corridors:

Once the Macro Corridors are identified, detailed datasets are developed for siting purposes. Weight and values are assigned to the datasets and alterative corridors are generated. In the Alternative Corridor phase, Wildlife Management Areas are considered a constraint due to there value as habitat and green space in the Natural Model. However, for this project the Wildlife Management Areas that exists are previously strip mine areas that no longer retain their natural qualities. It was determined by the routing team that these areas should not be considered as a constraint or an opportunity. Therefore, these areas were not represented in the Public Lands layer in the routing models.

Built Environment Corridor:

The Built Environment Corridor from Wilson to Aberdeen veers to the southwest side of the study area utilizing large areas of the rural sections of the study area. It takes advantage of the open agricultural areas along the Green River. However, it must cross the river twice.

The Built Environment Corridor from Aberdeen to Morgantown utilizes forested and agricultural areas to the east of the town of Morgantown. It crosses the Green River at the bend on the southeast side of town.

Natural Environment Corridor:

The Natural Corridor from Wilson to Aberdeen veers to the east side of the study area, locating in the more urbanized areas. It roughly parallels US Highway 231, passing Beaver Dam to the south, and roughly parallels several secondary highways to Wilson.

The Natural Corridor from Aberdeen to Morgantown follows a similar path as the built corridor; but is more limited to agricultural fields, creating a more defined corridor.

Engineering Concerns Corridor:

The Engineering Corridor from Wilson to Aberdeen utilizes existing transmission lines in the study area. It begins in the south east section of the study area heading northwest. After approximately 12 miles, it turns almost due west for approx. 6 miles continuing to parallel existing transmission lines. Then heads towards Wilson back in a northwest direction.

The Engineering Corridor from Aberdeen to Morgantown utilizes an existing transmission line corridor to the west of the town of Morgantown. The corridor passes through some urbanized areas.

Averaged Corridor:

The Averaged Corridor from Wilson to Aberdeen mimics the Engineering Concerns Corridor.

The Averaged Corridor from Aberdeen to Morgantown takes a path similar to the Built and Natural Corridors. A minor path also developed to the west of Morgantown, passing through several urbanized areas.

Alternate Routes:

The siting team analyzed the alternate corridors and identified alternate routes within the alternate corridors. These alternate routes were compared using the route selection matrix documented in the siting methodology.

Top Routes from Wilson - Aberdeen:

Three distinct corridors of routes developed during the Alternative Corridor phase from Wilson to Aberdeen. The best scoring routes were further analyzed by the routing team

Route C:

Route C mimics the Built Corridor. It begins cross country heading in a west northwest direction, crossing agricultural areas. After crossing the Green River twice, the land cover turns more to forest. After18 miles of heading cross country; Route C parallels an existing transmission line for 3 miles. At which point, the route again is a cross country corridor until reaching the Wilson area.

Route F:

Route F mimics the Engineering Corridor. It parallels existing transmission lines almost the entire path to Wilson. It meets Route C where Route C begins to co-locate with an existing line and shares the same path until reaching Wilson.

Expert Judgment:

In the Expert Judgment section the routing team gave the most weight to Community Issues and Schedule Delay Risks. They gave a lower weight to Visual Issues, Special Permit Issues, and Construction and Maintenance Accessibility.

Route C was given low impact scores to Visual Issues, Community Issues, and Schedule Delay Risk. The primary reason for the low impact score in these categories is the rural nature of this route. Additional statistic were created showing that less buildings were within 1000' proximity than the other routes.

This route however received medium impact scores in Special Permits issues and Construction and Maintenance Accessibility. The medium score for Special Permit Issues was given due to the crossing of the Green River twice and crossing previously strip mined areas. It was given a medium impact score in Construction and Maintenance Accessibility due to the amount of new cross country segments.

Route F was given low impact scores for Visual Issues, Special Permits, and Construction and Maintenance Accessibility. It received low impact scores in these areas due to the co-location with existing transmission lines and low impact to the natural environment. It received a medium impact score to Schedule Delay Risk and a high impact score in Community Issues, primarily due to crossing through the most urbanized areas of the study area.

Alternative Routes from Aberdeen to Morgantown:

Two similar routes were studied from Aberdeen to Morgantown. These routes fell into the corridors produced by three of the four models: Built Environment, Natural Environment, and Averaged Model. Route N scored better than Route O in all categories. However, statically the difference between the two was very minor. The deciding factor was a greater amount of forested wetlands at the tap area of Route O.

Conclusion:

The combination of Route C and Route N are the preferred corridor.

Barren – Oakland - Magna
161 kV Transmission Line
Siting Process

Introduction:

The EPRI Overhead Electric Transmission Line Siting Methodology was used for this project using the calibrated weights and values determined by external stakeholders and Georgia Transmission Corporation. This document reports the results of this process. Any departure from the methodology or weights and values is documented, and the reason for deviation is explained in this report.

Macro Corridors:

The first step in this methodology is Macro Corridor creation, which defines an area for more detailed study. Typically for this stage, the best available land cover dataset based on 30m LandSat imagery is used. In the case of this area, the best available is from 1992.

The macro corridors identified an area approx. 132 sq miles east of Bowling Green and South of Mammoth Cave. The study area is predominately agricultural with pockets of urbanized land use and forests.

Alternative Corridors:

Once the Macro Corridors are identified, detailed datasets are developed for siting purposes. Weight and values are assigned to the datasets and alterative corridors are generated. In the Alternative Corridor phase, no deviations were made to the EPRI methodology or changes to the GTC weights and values.

Built Environment Corridor:

The Built Environment Corridor from Barren to Oakland encompassed a side swath through the middle of the study area, providing many routing options. This was due to the rural nature of this section of study area.

The Built Environment Corridor from Oakland to Magna are more defined and generated three distinct corridors, one to the north of the town of Oakland, and two to the south. All three are cross country corridors.

Natural Environment Corridor:

The Natural Environment Corridor from Barren to Oakland encompassed an even larger corridor than the Built Environment Corridor. This corridor covers the same area as the built corridor, but adding additional areas in the southern portion of the study area. This large area was generated primarily due to the lack of

natural features in the study. The corridor avoided the northern section of the study area primarily due to bat habitat.

The Natural Environment Corridor from Oakland to Magna followed the existing transmission line between the two points.

Engineering Concerns Corridor:

The Engineering Corridor was much more defined than the previous two, utilizing existing corridors. It begins by roughly paralleling and existing transmission line past Cave City. Next, it roughly parallels a road from the south side of Cave City to close proximity to Park City. Finally it co-locates with another existing transmission line all the way to Oakland.

The Engineering Corridor from Oakland to Magna follows the same transmission line as the Natural Corridor, paralleling and existing transmission line to the south of the town of Oakland.

Averaged Corridor:

The Averaged Corridor from Barren to Oakland begins with a wide track similar to the Built and Natural Corridor, until reaching the existing transmission line west and south of Park City, at which point the corridor becomes greater defined and mimics the Engineering Corridor.

The Averaged Corridor from Oakland to Magna follows the same existing transmission line corridor as the Natural Environment and Engineering Concerns Corridor.

Alternate Routes:

The siting team analyzed the alternate corridors and identified alternate routes within the alternative corridors. These alternate routes were compared using the route selection matrix documented in the siting methodology.

Top Routes from Barren to Oakland:

In each Route Selection Matrix, several routes scored well. Routes A, J, and K scored well in the matrices that emphasized the importance of the Built Environment, the Natural Environment, and when all categories are weighted as equal. When the emphasis was placed on the Engineering Concerns category, Route G and Route K scored best.

Route A:

Route A takes a more northern route, heading north out of Oakland, then turning more east towards Barren. This route is cross country for the entire distance and passes just south of Park City. The land use is predominately agriculture.

Route G:

Route G heads south and then immediately west out of Oakland, rebuilding an existing transmission line until reaching the Louie B. Nunn Parkway. Then it takes a cross country path towards Barren, crossing agricultural areas and same forest.

Route J and Route K:

Route J and K are very similar, with only a small difference near the Barren end. They leave Oakland along Interstate 65 until reaching the same basic path as Route G after 7 miles.

Expert Judgment:

In the Expert Judgment section the routing team gave the most weight to Community Issues and Schedule Delay Risk followed by Visual Issues and Construction and Maintenance Accessibility.

All routes received low impact scores in each category with the exception of Route A, Route J, and Route G, which received a moderate impact score in one category. Route A received a moderate impact score in Construction and Maintenance Accessibility due to the amount of new cross country segments. Route J and K received moderate scores in Visual Issues due to the segment along the Interstate, which would make these routes visible to more people. Route G received low impact scores in all categories, primarily due to the utilization of existing transmission lines for approx. 50% of its length.

Alternative Routes from Oakland to Magna:

Two routes were studied from Oakland to Magna. Route A was predominately a cross country route and Route B utilized an existing transmission line.. Both routes reach Oakland substation be passing south of the town of Oakland.

In three of the four categories, Route B scores better than Route A in the Route Selection Model. Only when the Natural Environment items are emphasized does Route B score more preferably.

Conclusion:

The combination of Route G from Barren to Oakland and Route B from Oakland to Magna are the preferred corridor.