8.0 GLOSSARY

- **Approach Surface:** A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the runway. Denote areas near runways that are restrictive in height to the location of the transmission line.
- **Constraint:** Features in the study areas which are considered to be unacceptable, to varying degrees, for the location of the new transmission line.
- **Emergent:** Herbaceous wetland vegetation which protrudes above the water level.
- **Glide Path:** A descent profile determined for vertical guidance during a final approach or landing of an aircraft.
- **Kilovolt:** 1,000 volts. The amount of electric force carried through a high-voltage transmission line is measured in kilovolts. The standard voltage for use in the home is 120 volts.
- **Loess:** A soil made up of small particles that were transported by the wind to their present location.
- **Macro:** Very large in scale or scope or capability. In this report, used to indicate the relatively large-scale of review and corridor identification.
- **Opportunity:** A feature within the study area that is generally considered favorable for colocation of the new transmission line (i.e. other transmission lines, railroads, etc).
- **Palustrine:** A wetland classification that includes all nontidal wetlands dominated by trees, shrubs, peristent emergents, emergent mosses or lichen, and all such wetlands that occur in tidal areas where salinities due to ocean-derived salts are less than 5 ppt.
- **Physiography:** The natural configuration of the land surface.
- **Prime Farmland:** Prime farmland is land on which crops can be produced for the least cost and with the least damage to the resource base. Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation and favorable



temperature and growing season. The soils have acceptable acidity or alkalinity, acceptable salt and sodium content, and a few rocks. They are not excessively eroded. They are flooded less often than once in two years during the growing season and are not saturated with water for a long period. The water table is maintained at a sufficient depth during the growing season.

Substation: An assemblage of equipment within a fenced area that switches, changes or regulates voltage in electric transmission and distribution systems. Among other things, substations are used to increase the voltage of electricity so that it can be transported efficiently over long distances and reduce the voltage so that it can be delivered in a practical and economical manner to homes and businesses.

Terminus: Endpoint.

- **Topography:** The contour of the land surface; the arrangement of the land surface including its relief and the position of its natural and man-made features
- **Transmission Line:** Facility for transmitting electrical energy at high voltage from one point to another point. Transmission line voltages are normally 115 kilovolt or larger.

Voltage: The force which pushes electricity through a wire.

VOR: A type of radio navigation system for aircraft. VOR's broadcast a VHF radio signal encoding both the identity of the station and the angle to it, telling the pilot in what direction he lies from the VOR station, referred to as the radial. Comparing two such measures on a chart allows for a fix. In many cases the VOR stations also provide distance measurement allowing for a one-station fix.



9.0 REFERENCES

- AirNav LLC. 2005. Airport search for Missouri. Available at http://www.airnav.com/airports/search.html
- Associated Electric Cooperative (AECI), Inc., April 2005. Website home page. April 2005. http://www.aeci.org/index.html
- _____, February 2005. Information provided by AECI in response to February 2005 information request.
- ____, 2001. 2000 Power Requirements Study.
- American Wind Energy Association (AWEA), 2005. <u>The Most Frequently Asked Questions</u> <u>About Wing Energy</u>. April 8, 2005. (<u>http://www.awea.org/pubs/documents/FAQ2002%20-%20web.PDF</u>).
- _____, 2004. <u>Wind Energy Basics</u>. April 29, 2005. <u>http://www.awea.org/faq/tutorial/wwt_basics.html#What%20is%20capacity%20factor</u>
- _____, 1998. <u>Basic Principles of Wind Resources Evaluation</u>. June 8, 2005. http://www.awea.org/faq/basicwr.html
- Burns & McDonnell, 2001. 2000 Power Requirements Study for AECI. March 2001.
- Center for Agricultural, Resource and Environmental Systems. <u>Interactive Maps of</u> <u>Missouri</u>. February 2005. University of Missouri – Columbia. February 2005. <<u>http://cares.missouri.edu/moims/</u>>.
- City of Cameron. 2005. Hound Dog Trail: The Economic History of Cameron. Available at <http://www.cameron-mo.com/newpgeconhistory.asp>
- City of Excelsior Springs. 2002. History of Excelsior Springs. [cited April, 2005] Available at http://www.exsmo.com



City of Marshall. 2004-2005. Welcome to the City of Marshall. [cited April, 2005] Available at http://marshall-mo.com/

City of Sedalia. 2002. [cited April, 2005] Available at < <u>http://ci.sedalia.mo.us></u>

- Cook, Michael A. 1994. <u>Soil Survey of Carroll County, Missouri</u>. U.S. Department of Agriculture, Soil Conservation Service.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. <u>Classification of Wetlands</u> <u>and Deepwater Habitats of the United States.</u> U.S. Department of Interior, Fish and Wildlife Service. U.S. Government Printing Office, Washington, D.C.
- Dames & Moore, 1977. <u>Site Selection Study Phase I</u>. Associated Electric Cooperative, Inc. Springfield, MO. October 21, 1977.
- Dames & Moore, 1981. <u>Draft Siting Report for REA Review</u>. Associated Electric Cooperative, Inc. Springfield, MO. September 1981.
- DeLorme. 2002. Missouri Atlas and Gazetteer. 2nd ed. Yarmouth, Maine.
- Elliott, D.L., C.G. Holladay, W.R. Barchet, H.P. Foote, W.F. Sandusky, 1986. <u>Wind Energy</u> <u>Resource Atlas of the United States.</u> Golden, Colorado: National Renewable Energy Laboratory, October 1986. April 8, 2005 <u>http://rredc.nrel.gov/wind/pubs/atlas/</u>
- Energy Information Agency (EIA) April 2005. <u>U.S. Natural Gas Electric Power Price</u>. 27 May 2005. 9 June 2005. <u>http://tonto.eia.doe.gov/dnav/ng/hist/n3045us3m.htm</u>
- May 2005. <u>Electric Power Monthly, May 2005</u>. Energy Information Administration,
 Office of Coal, Nuclear, Electric and Alternate Fuels. U.S. Department of Energy.
 13 May 2005. 16 May 2005.
 http://www.eia.doe.gov/cneaf/electricity/epm/epm_sum.html
- Feo, Ed, 2004. <u>Financing Challenges and Structures of Renewable Projects Based on</u> <u>Available Incentives</u>. American Bar Association – Renewable Energy: What Kinds of Incentives are Needed & How Do the Current Available Incentives Work? Multi-Site



Brown Bag/Teleconference, December 15, 2004.

http://www.abanet.org/environ/committees/renewableenergy/teleconarchives/121504/fe oppt.pdf

Florida Solar Energy Center (FSEC), 2005. <u>Photovoltaic Fundamentals – Pros and Cons of</u>
 <u>PV</u>. 30 March 2005. April 29, 2005. <u>http://www.fsec.ucf.edu/pvt/pvbasics/index.htm</u>

Fort Osage. 2005. A brief history. Available at http://www.historicfortosage.com/

- Holbrook, Donald. 1997. <u>Soil Survey of Holt County, Missouri</u>. U.S. Department of Agriculture, Natural Resources Conservation Service.
- Missouri Department of Conservation, 2004. <u>Missouri Natural Heritage Database</u>. July 2004. Conservation Commission of Missouri. May 2005. <<u>http://www.conservation.state.mo.us/cgi-bin/heritage</u>>
- _____, 2004a. Conservation Atlas Online [Cited April 2005] Available at < http://mdc.mo.gov/atlas/>.
- _____, 2005b. Natural Heritage Data Base [Cited April 2005] Available at http://www.conservation.state.mo.us/area/nwest/wterfowl/>
- ____. 2005c. Public waterfowl hunting in northwest Missouri. Available at http://www.mdc.mo.gov/
- Missouri Department of Natural Resources. <u>Big Lake State Park Missouri State Parks and</u> <u>Historic Sites, MDNR</u>. March 2005. March 2005. <<u>http://www.mostateparks.com/biglake.htm</u>>
- Missouri Department of Natural Resources, 2005. <u>Wind Energy Resources</u>. January 3, 2005. April 29, 2005. <u>http://www.dnr.state.mo.us/energy/renewables/wind-energy.htm</u>
- Missouri Department of Natural Resources. 2005a. Missouri State Parks and Historic Sites. April 2005. Katy Trail State Park. Available at http://www.mostateparks.com/katytrail/Sedalia/sedalia.htm



- _____, 2005b. Missouri State Parks and Historic Sites. [cited April, 2005] Available at http://www.mostateparks.com/
- Missouri Life Online, April-May. 2000. Missouri's Plain People. [cited April, 2005] Available at http://missourilife.com/dest001a.shtml
- "Missouri tests viability of energy-producing wind farms." <u>Kansas City Star</u>. 7 June 2005. p. B8.
- "Missouri testing the wind potential; \$150,000 study will explore six locations with high elevations." <u>Kansas City Star</u>. 7 June 2005. p. D4.
- National Energy Technology Laboratory (NETL), December 2002. <u>Major Environmental</u> <u>Aspects of Gasification-Based Power Generation Technologies</u>. U.S. Department of Energy. 17 May 2005. <u>http://www.netl.doe.gov/cctc/resources/pdfsmisc/igcc/SAIC_Env_Rpt.pdf</u>
- National Renewable Energy Laboratory (NREL), 2005. Missouri Solar Resources. U.S. Department of Energy. 12 May 2005. 9 June 2005. <u>http://www.eere.energy.gov/state_energy/tech_solar.cfm?state=MO</u>
- National Research Council of the National Academies (NRC), 2003. <u>Review of Doe's</u> <u>Vision 21 Research and Development Program—Phase I</u>. The National Academies Press. 16 May 2005. <u>http://www.nap.edu/books/0309087171/html</u>
- Nebraska Games and Parks Commission. <u>Nongame and Endangered Species Program</u>. June 2005. June 2005. <<u>http://www.ngpc.state.ne.us/wildlife/programs/nongame/list.asp</u>>
- Sargent & Lundy, 2004. <u>Unit Size Study for 500-700 MW Class Coal Power Plant</u>. Associated Electric Cooperative, Inc. Springfield, MO. August 26, 2004.
- TECO Energy, 2005. <u>TECO Wholesale Generation</u>. April 8, 2005. <u>http://www.tecowholesalegeneration.com/index.cfm</u>



- United States Army Corps of Engineers, Northwestern Division, Missouri River Region Reservoir Control Center. <u>Missouri River Main Stem Reservoirs System Description</u> <u>and Operation</u>. 1998. April 2005. <<u>http://www.nwd-</u> <u>mr.usace.army.mil/rcc/reports/pdfs/aop98b.pdf</u>>
- United States Census Bureau. <u>American FactFinder Fact Sheet. Missouri</u>. 2000. April 2005. <<u>http://factfinder.census.gov/servlet/SAFFFacts?_event=Search&geo_id=&_geoConte</u> xt=& street=& county=& cityTown=& state=04000US29& zip=& lang=en& sse=o
- U.S. Census Bureau. <u>American FactFinder Fact Sheet. Nebraska</u>. 2000. April 2005. <<u>http://factfinder.census.gov/servlet/SAFFFacts?_event=Search&geo_id=04000US29& _geoContext=01000US%7C04000US29&_street=&_county=&_cityTown=&_state=04 000US31&_zip=&_lang=en&_sse=on&ActiveGeoDiv=geoSelect&_useEV=&pctxt=fp</u>
 - h&pgsl=040

n&pctxt=fph&pgsl=010>

- U.S. Census Bureau. 2000a. CO-EST2003-01-29 Annual Estimates of the Population for Counties of Missouri, April 1, 2000 to July 1, 2003. [Cited April 2005] Available at ">http://factfinder.census.gov/>.
- U.S. Census Bureau. 2000b. DP-3. Profile of Selected Economic Characteristics: 2000. [Cited April, 2005] Available at http://factfinder.census.gov/.
- U.S. Census Bureau. 2000c. CO-EST2003-01-29 Annual Estimates of the Population for Incorporated Places in Missouri, April 1, 2000 to July 1, 2003. [Cited April 2005] Available at ">http://factfinder.census.gov/.
- U.S. Department of Agriculture. 2002. 2002 Census of Agricultural County Data [Cited April, 2005] Available at < http://www.nass.usda.gov/census/>.
- U.S. Department of Agriculture. 1981. Land Resource Regions and Major Land Resource Areas of the United States. [cited April, 2005] Available at the Missouri Cooperative Soil Survey Website. < http://bonnefemme.missouri.edu/mo_mlra/missouri_mlra.htm>



- United States Department of Energy, April 2005. <u>DOE's CSP Program</u>. April 8, 2005. <u>http://www.energylan.sandia.gov/sunlab/index.html</u>.
- _____, May 2005. <u>Vision 21 The Ultimate Power Plant Concept</u>. Office of Fossil Energy. 12 May 2005. 16 May 2005. http://www.fossil.energy.gov/programs/powersystems/vision21/
- _____, December 2002. <u>Major Environmental Aspects of Gasification-Based Power</u> <u>Generation Technologies</u>. Final Report. National Energy Technology Laboratory. April 2005. <u>http://www.netl.doe.gov/cctc/resources/pdfsmisc/igcc/SAIC_Env_Rpt.pdf</u>
- United States Fish and Wildlife Service, June 2005. <u>Threatened and Endangered Species</u> <u>System</u>. June 2005. <<u>http://ecos.fws.gov/tess_public/servlet/gov.doi.tess_public.servlets.usalists?state=NE</u>>
- United States Fish and Wildlife Service, Region 3. 2005a. Swan Lake National Wildlife Refuge. Available at http://refuges.fws.gov/profiles/index.cfm?id=33570>
- United States Fish and Wildlife Service, Region 3. 2005b. Missouri County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species. [cited April, 2005] Available at http://www.fws.gov/midwest/Endangered/lists/missouricty.html
- United States Fish and Wildlife Service, Region 3. 2005c. Big Muddy National Wildlife Refuge. Available at < http://refuges.fws.gov/profiles/index.cfm?id=33590 >
- United States Fish and Wildlife Service, Region 3. 2005d. Squaw Creek National Wildlife Refuge. Available at http://www.fws.gov/midwest/squawcreek/
- United States Forest Service, Air Quality Program; National Park Service, Air Resources
 Division; and U.S. Fish and Wildlife Service, Air Quality Branch, December 2000.
 Federal Land Managers' Air Quality Related Values Workgroup (FLAG) Phase I
 Report. U.S. Forest Service. May 2005.

<<u>http://www.fs.fed.us/outernet/r6/aq/natarm/Flag_final.pdf</u>>



- United States Geological Survey. <u>USGS 06813500 Missouri River at Rulo, NE</u>. April 2005. USGS Water Resources of Nebraska. April 2005. <<u>http://waterdata.usgs.gov/ne/nwis/uv?06813500</u>>
- _____, April 2005. <u>USGS 06895500 Missouri River at Waverly, MO</u>. USGS Water Resources of Nebraska. April 2005. <<u>http://waterdata.usgs.gov/mo/nwis/uv?06895500></u>
- 509th Bomb Wing, Public Affairs Whiteman Air Force Base. 2005. History of Whiteman Air Force Base. Available at ">http://www.whiteman.af.mil/>



Appendix A Forbes Site Photos

FORBES SITE PHOTOS



Photo 1: Northwest corner of site facing southwest towards the Missouri River



Photo 2: Northwest corner of site facing south

FORBES SITE PHOTOS



Photo 3: Northwest corner of site facing southeast



Photo 4: Northern center of site facing north towards BNSF Railroad

Appendix B Norborne Site Photos

NORBORNE SITE PHOTOS



Photo 1: Northwest corner of site facing southeast



Photo 2: Southwest corner of site facing east