

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



**APPLICATION
INSTRUCTION GUIDE

ELECTRICAL TRANSMISSION LINES
(TLSA)**

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This Guide is designed to address the unique information requirements of electrical transmission lines, which have corridors that upon certification shrink to right of ways. Electrical transmission lines have their own siting act – the Transmission Line Siting Act, § 403.52 - 403.539, F.S. Electrical transmission lines may be separate projects, or may be associated with electrical power plants which are being certified under the Power Plant Siting Act.

The requirements and format of this section may be applied to any other linear project which is associated with a power plant.

9.1 Maps

Maps provided for this section should conform to the standards of section 1.3.6. Unless otherwise specified, all maps shall use a scale of at least 1:24,000, and requested data shall be provided for the area within the corridor and the area extending one-quarter mile on either side of the corridor. The Department may require that more detailed scale maps be provided to depict route areas within 500 feet of developed residential or commercial areas or those special protection areas itemized in 3.2.1.

9.2 Project Description

Describe the location of the proposed transmission line, identifying the starting and ending points and cross-referencing to the information provided in the application to the Public Service Commission for the Need Determination proceedings. Clearly indicate the termination points for the transmission line, including substations, power plants, transmission networks or rights-of-way and differentiate between those proposed versus those existing. Indicate whether the PSC has determined the need for a proposed substation in a particular area.

Describe the proposed transmission line design and include basic design parameters such as voltage, capacity under normal and emergency conditions, approximate spans, and electrical clearances. Illustrate the typical types of transmission structures proposed for this project, and provide a profile of such structures and conductors.

9.3 Corridor

9.3.1 Corridor Selection

Provide a detailed discussion of the planning approach and discuss the reasons for selecting the proposed alignment of the transmission line corridor (e.g., "the corridor bears west at mile #33 in order to avoid encountering a TV tower between a wetland area and residential area in mile #34"). This could be done as a table keyed to the route delineation maps, or indicated on the maps themselves.

Identify major alternative corridors which were considered. If proposed (rather than existing) substations are used as defining points for corridor location, describe the reasons the substations have been proposed for their specific locations, and the degree of flexibility of those locations should corridor siting in that area become a problem. Describe the reasons for discarding alternative corridors in favor of the one proposed.

9.3.2 Corridor Description

Discuss the width of the corridor requested, the typical right-of-way width to be located within the corridor, and the number and size of transmission lines proposed to be located on that right-of-way. Depict the proposed corridor on a 1:126,720 scale route identification map which generally indicates the full length of the corridor(s) relative to major geographic features. These maps should also depict any other 115 KV or larger lines already in place within 5 miles of each proposed corridor.

9.3.3 Alternate Corridors

Alternate corridor routes for the transmission line may be proposed by any party to an electrical transmission line siting proceeding. If more than one transmission line corridor is proposed for certification, the party proposing the alternate corridors shall provide the information requested in this application for each proposed corridor. Information for all of the proposed corridors may be combined in the same tables, maps, charts, graphs, written text, etc., but shall clearly identify which is the primary corridor versus secondary corridors.

9.3.4 Access Roads

Estimate the number, length, width, and general location of new access and service roads or bridges reasonably expected to be required. Generally describe the type of access roads that will be required, and potential impacts to the environment and public.

9.3.5 Cost Projections

Provide a general cost estimate or an estimated cost range for each corridor proposed or the transmission portion of the plant project, broken down into per-mile averages and overall project costs for: land acquisition, ROW preparation, road construction and fill costs; tower costs for varying degrees of angle, tower erection and conductor stringing.

9.3.6 Social and Political Environment of the Corridor Area

9.3.6.1 Governmental Jurisdictions

Provide maps of at least 1:126,720 scale indicating the general extent as well as the boundaries of towns and cities crossed by the corridor. Identify those areas listed in Section 3.2.1 within one-half mile of the corridor.

9.3.6.2 Zoning and Land Use Plans

Provide the same information as required for power plants in Section 3.2.2.

9.3.6.3 Easements, Title, Agency Works

Provide the same information as required for power plants in Section 3.2.4.

9.3.6.4 Vicinity Scenic, Cultural, and Natural Landmarks

Provide the same information as required for power plants in Section 3.2.5.

9.3.6.5 Archaeological and Historic Sites

Provide the same information as required for power plants in Section 3.2.6.

9.3.7 Biological and Physical Environment of the Corridor Area

9.3.7.1 Land Use/Vegetation

Indicate land uses on a map of 1:24000 scale or greater for the area of each corridor and extending one-half mile from each edge of the corridor. On the same map, indicate all types of vegetation occupying areas five acres or more for the area of the corridor and for an area extending one-half mile from either edge of the corridor where vegetational information is readily available; where the applicant must develop its own vegetation maps, an area extending one-quarter mile will be accepted. Use at least Level II categories of the "Florida Land Use and Cover Classification System" to depict land use, and Level III categories for vegetation.

9.3.7.2 Affected Waters and Wetlands

Characterize any surface water bodies or wetlands which are crossed by the corridor. Include a general description of significant drainage features or drainage patterns (such as sheetflow) which may be affected by the ROW and access roads. Indicate the water classification designated in F.A.C. Rule 62-302.400.

9.3.7.3 Ecology

For an area within one-quarter mile of the corridor edge, provide the same information for transmission corridors as is required by Section 3.3.6. Map known occurrences of endangered or threatened species or their critical habitat features (e.g., bald eagle nests) for the corridor and 1500 feet beyond either edge of the corridor, preferably on the land use/vegetation maps.

9.3.7.4 Other Environmental Features

Provide the same information for transmission corridors as required for power plants in Section 3.3.9.

9.4 Effects of Right-of-Way Preparation and Transmission Line Construction

9.4.1 Construction Techniques

Provide detailed information concerning typical construction techniques for the towers, foundations, road construction, and types of equipment to be used on this project. Discuss potential erosion problems which might be caused by construction, and indicate any mitigative measures that are proposed.

9.4.2 Environmental Resource Permit (ERP)

Where roadways or structures are to be constructed in, on or over Waters of the State, fill out and append for each water traversed or combinations thereof the Joint Application for: Environmental Resource Permit (Part IV, Chapter 373, F.S.)/Authorization to Use State Owned

Submerged Lands/Federal Dredge and Fill Permit, and Supplements A through E, excluding Attachments I through VI, July 4, 1995, DEP Form 62-343.900(1), F.A.C., or as subsequently amended, with the exception that the names and addresses of adjoining property owners need not be furnished unless that owner is the Trustees of the Internal Improvement Trust Fund.

Information which will be necessary for the ERP and which must be submitted for this section will include the following:

- a. Specifications showing location of each transmission tower and any roadways to be constructed, expanded, or improved in, on or over Waters of the State.
- b. Plan view and cross section of any roadway construction, expansion or improvement, with elevations marked.
- c. A centerline profile of at least 1:500 scale of existing topographic features with a two foot contour interval along any roadway construction, expansion, or improvement.
- d. Cross sections of each water body at those points to be crossed by roadways.
- e. Specifications showing size and type of water control structure (pipe, culvert, etc.) to be placed, with proposed elevations marked.
- f. Specifications showing design capacity of all water control structures to be employed.
- g. Drainage area and flow calculations for any proposed culverts.
- h. Drawings of the foundation work for any structures erected in Waters of the State.

When the information in a – h above cannot be submitted as part of the original application, indicate a date when it is expected that the required information will be submitted and provide the following interim information:

- i. Discuss the impact of ROW preparation and construction activities on affected waters, and identify which watercourses or wetlands the applicant believes construction will occur in or affect.
- j. Describe proposed activities such as the construction of cofferdams, dredging operations, borrow pits, the placement of culverts or fill material, etc., which will affect water flow (including sheetflow) in the individual water bodies under consideration. It is recognized that certain activities may be necessary in one part of the corridor and not another, but the intent of this requirement is to ascertain such facts.
- k. Describe the effect of these activities on navigation, water quality and water quantity. If borrow pits are to be created, provide drawings showing the size and depth, and discuss the likelihood of the pit filling with groundwater to become a Water of the State.
- l. Discuss any proposed ground or surface water impacts or withdrawals such as dewatering, temporary realignment of streams during construction, new connections to waters of the State, etc.
- m. For each water body or crossing, provide estimates of cubic yardage of filling or dredging which may be necessary and the number and expected size of culverts. If

filling is anticipated for road beds, structure pads, etc., provide a typical cross section and plan view. Indicate in which waters keyhole filling can be used in lieu of continuous fill.

If the information in a – h above is to be submitted as part of a post-certification review in accordance with the conditions of certification, the Department and the applicant may stipulate to a time period for the department to evaluate the information (including a state ownership verification, hydrologic assessment, biological assessment, and water quality assurance verification) submitted for post-certification review. If the department does not object within the stipulated time period, the utility may begin construction pursuant to the conditions of certification and the subsequently submitted details. This is not a separate permit requirement of the department.

9.4.3 *Solid Wastes*

Describe the anticipated type and quantities of solid waste that will result from ROW preparation and transmission line construction. Describe the methods and locations of disposal.

9.4.4 *Changes to Vegetation, Wildlife, and Aquatic Life*

Discuss any permanent changes that will be induced in the physical and biological processes of plants, aquatic life, or wildlife, particularly endangered or threatened species, that will result from changes in hydrology or ground cover, or from the construction itself. These changes may include loss or increase of wildlife habitat, impairment or improvement of nesting, breeding or nursery areas, interference with migratory routes, etc. Indicate any measures designed to minimize adverse effects.

9.4.5 *Impact on Human Populations*

Identify impacts on proximate human populations arising from construction noise or inconveniences due to the movement of personnel, materials, or machines.

9.4.6 *Impact on Regional Scenic, Cultural, and Natural Landmarks*

Discuss construction impacts on those landmarks as required for power plants in Section 3.2.1.

9.4.7 *Impact on Archaeological and Historic Sites*

Discuss construction impacts on archaeological and historic sites deemed significant as defined in 3.2.6., including those significant sites recommended for preservation. Describe what action is being proposed to mitigate these impacts. Discuss the procedure used to identify, catalogue and preserve unforeseen discoveries of archaeological sites until their significance can be determined, as well as to insure the post-construction preservation of those significant sites for which preservation has been agreed to by the applicant.

9.5 *Post-construction Impacts and Effects of Maintenance*

9.5.1 *Maintenance Techniques*

Discuss maintenance techniques which may be used along the ROW: whether burning will be used, how often, and if fire lanes will be necessary; whether herbicides will be used, and if so, the types, volumes, concentrations and frequency of use; whether techniques will be used

to control the vegetative species composition within the ROW to enhance its use by local fauna; and, the effects of maintenance techniques on plant life and wildlife habitat.

9.5.2 Multiple Uses

Describe what kind of multiple uses, if any, (e.g. truck or citrus farming) will be allowed in utility owned or controlled ROW's.

9.5.3 Changes in Species Populations

Discuss changes in the population of important species (as defined in section 3.3.6) which may be caused by the maintenance of the ROW with the view of determining whether these changes represent long-term net increases or decreases in the size of the populations. If a change is expected, then provide the reasoning for the expectation.

9.5.4 Effects of Public Access

If access roads increase the exposure of previously undisturbed areas to the public, discuss the potential effect of this increased exposure on wildlife. Describe possible controls to reduce these impacts.

9.5.5 Other Post-construction Effects

Discuss the potential for adverse or beneficial effects from the operation of the transmission line. Describe the electromagnetic fields generated by the lines and their strengths and extent. Discuss the potential for annoyance from electromagnetic fields, acoustic and electrical noise including shadowing and re-radiation, induced or conducted currents as they may affect health, the environment, and communication systems along the line route. State whether, and generally describe how, compliance with the applicable sections of the National Electric Safety Code will be achieved. Summarize the manner in which compliance protects public safety. Submit to the Department a completed DEP Form 62-814.900. The information on that form shall be of sufficient detail to show compliance with the standards of Rule 62-814.450, F.A.C., and shall be certified by an engineer practicing in Florida and regulated by Chapter 471, Florida Statutes. If the Bonneville Power Administration (BPA) Corona and Field Effects Program was utilized, provide all ExEMF data files electronically.

9.6 Associated Linear Facilities

For each type of associated linear facility, provide a separate section to this chapter (e.g. 9.6 for rail lines, 9.7 for cooling water pipelines, etc.). Use the same format outlined in Chapter 9, and provide the same information where applicable.