

**APPLICATION TO AMEND A CERTIFICATE OF  
CONVENIENCE AND NECESSITY FOR A PROPOSED  
115-KV TRANSMISSION LINE WITHIN OCHILTREE AND  
LIPSCOMB COUNTIES (OCHILTREE TO LIPSCOMB)**

**DOCKET NO. 41334**

*Submit seven (7) copies of the application and all attachments supporting the application. If the application is being filed pursuant to P.U.C. SUBST. R. 25.101(b)(3)(D) or P.U.C. Subst. R. 25.174, include in the application all direct testimony. The application and other necessary documents shall be submitted to:*

**Public Utility Commission of Texas  
Attn: Filing Clerk  
1701 N. Congress Ave.  
Austin, Texas 78711-3326**

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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1. **Applicant:** Southwestern Public Service Company  
Certificate Number: 30153  
Street Address: 600 South Tyler Street  
Mailing Address: Amarillo, TX 79105-1261
2. **Please identify all entities that will hold an ownership interest or an investment interest in the proposed project but which are not subject to the Commission's jurisdiction.**

N/A

3. **Person to Contact:** James M. Bagley  
Title/Position: Manager Regulatory Administration  
Phone Number: 806-378-2868  
Mailing Address: P.O. Box 1261  
Amarillo, TX 79105-1261  
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**Alternate Contact:** Bryan Cook  
Title/Position: Project Manager, Transmission  
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**Legal Counsel:** Matthew Loftus  
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**Legal Counsel:** Andrea Moore Stover  
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Email Address: [astover@gdhm.com](mailto:astover@gdhm.com)

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

**4. Project Description:**

*Name or Designation of Project:*

SOUTHWESTERN PUBLIC SERVICE COMPANY'S APPLICATION TO AMEND A CERTIFICATE OF CONVENIENCE AND NECESSITY FOR A PROPOSED 115-kV TRANSMISSION LINE WITHIN OCHILTREE AND LIPSCOMB COUNTIES, TEXAS. THE PROJECT NAME IS OCHILTREE SUBSTATION TO LIPSCOMB SUBSTATION.

*Provide a general description of the project, including the design voltage rating (kV), the operating voltage (kV), the CREZ Zone(s) (if any) where the project is located (all or in part), any substations and/or substation reactive compensation constructed as part of the project, and any series elements such as sectionalizing switching devices, series line compensation, etc. For HVDC transmission lines, the converter stations should be considered to be project components and should be addressed in the project description.*

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Ochiltree Substation located in Ochiltree County, Texas and the new Lipscomb Substation located in Lipscomb County, Texas. The proposed 115-kV transmission was identified by SPS as needed to improve reliability of the existing transmission line system and to allow new load on the system in the Perryton and Booker areas. The design and operating voltage rating for the proposed transmission line is 115-kV.

The proposed transmission line is presented with seven alternative routes consisting of a combined 36 segments and is estimated to be approximately 19-27 miles in length depending on which route is selected. All routes described below begin at the existing Ochiltree Substation located in Ochiltree County, Texas, approximately one mile north of State Highway 15 and 3/4-mile west of U.S. Highway 83, north of Perryton, Texas. All routes end at the new Lipscomb Substation located in Lipscomb County, Texas, approximately 500 feet north of State Highway 15 and west of State Highway 23/Ranch Road 1265 in Booker, Texas. In addition, the proposed transmission line will include part of the line that connects to the Wade Substation, located in Ochiltree County, on the northwest corner of County Road 24 and County Road F. The Wade Substation will also require upgrades, including a new 115-12.47-kV, 5.6/7 MVA Power Transformer, and an expansion of the substation to accommodate the connection of the 115-kV transmission line. The proposed line will serve as a replacement for the 66-kV radial line between the Perryton and Booker substations (Z66), which will be removed as part of this project.

The segments that comprise each route are as follows:

<b>Route Number</b>	<b>Segments</b>	<b>Route Length</b>
1	A, B, F, G, H, J, N, O, S, X, AE, AJ	19.51
2	A, C, D, F, G, H, K, L, N, P, S, W, AC, AB, AD	20.57
3	A, C, E, G, H, J, N, Q, T, Y, AG, AH, AI, AJ	19.24
4	A, C, D, F, G, H, J, N, Q, T, Y, AF, AH, AI, AJ	19.29
5	A, B, F, G, I, R, S, V, AB, AD	22.12
6	A, C, E, G, I, R, S, V, AA, AD	23.13
7	A, B, F, G, H, K, M, U, T, Z, AI, AJ	27.34

**Refer to Figure 2-3 of the Environmental Assessment and Alternative Route Analysis (EA), Attachment 1, for the route map, which shows all seven routes.**

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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**Refer to Section 2.3.5 of the EA, Attachment 1, and Attachment 10 of the application for the segment descriptions.**

The proposed 115-kV single-circuit transmission line would be constructed utilizing primarily single-pole steel structures requiring a smaller surface area than H-frame structures. Using steel structures instead of wood poles eliminates the need for guy wires.

*Design Voltage Rating (kV):* 115 kV

*Operating Voltage Rating (kV):* 115 kV

*Normal Peak Operating Current Rating (A):* 803 amps

*If the project will be owned by more than one party, briefly explain the ownership arrangements between the parties and provide a description of the portion(s) that will be owned by each party. Provide a description of the responsibilities of each party for implementing the project (design, Right-Of-Way acquisition, material procurement, construction, etc.).*

Southwestern Public Service Company will own 100 percent of the project.

*If applicable, identify and explain any deviation in transmission project components from the original transmission specifications as previously approved by the Commission or recommended by a PURA §39.151 organization.*

Not applicable.

**5. Conductor and Structures:**

*Conductor Size and Type:*

Conductor will be 397.5 kcMIL, aluminum conductor steel reinforced (ACSR), 26/7 stranded, code name IBIS. Static wire will be one 3/8" EHS galvanized steel and one Optical Ground Wire.

*Number of conductors per phase:* 1 (one)

*Continuous Summer Static Current Rating (A):* 803 Amps

*Continuous Summer Static Line Capacity at Operating Voltage (MVA):* 160 MVA

*Continuous Summer Static Line Capacity at Design Voltage (MVA):* 160 MVA

*Type and composition of Structures:*

SPS proposes to use primarily single-circuit, single-pole, self-supporting steel structures; however, depending on which route is approved, it is possible that some H-frame structures also will be utilized. The proposed transmission line structures will consist of a combination of direct burial for in-line structures and drilled pier foundations for corner and angle structures. Typical heights are shown on the structure drawings (Attachment 2) and actual heights are dependent on the clearance requirements to be determined. Highway crossings will utilize structures whose heights are greater than the minimum heights required by the Texas Department of Transportation (TxDOT) and/or the National Electric Safety Code (NESC).

*Height of Typical Structures:*

The typical height for these structures will be between 80 and 140 feet.

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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*Explain why these structures were selected; include such factors as landowner preference, engineering considerations, and costs comparisons to alternate structures that were considered. Provide dimensional drawings of the typical structures to be used in the project.*

SPS chose single-pole steel structures over wood structures, in part, because of the low maintenance cost, strength of the line during adverse conditions, resistance to fire damage, increased span lengths, and the unavailability of wood poles in heights greater than 110 feet. Transmission lines constructed with wood poles have an estimated maintenance cost of \$49,000/mile for the expected life of the line; whereas, there is no expected maintenance associated with a transmission line built with steel structures. The estimated life of a typical steel structure is approximately 20 years longer than a comparable wood structure. (SPS expects a wood structure to last for 50 years and a steel structure to last for 70+ years.)

In addition to the other benefits previously mentioned, wood pole lengths exceeding 110 feet capable of supporting 3-phase "IBIS" conductors at 660-foot spans are difficult to find at a comparable cost and quality to an equivalent steel structure. Steel monopoles are also typically easier to construct and cost less to transport since they are fabricated in multiple sections. Thus, the use of steel structures is not only expected to decrease costs but will also address the Commission's concerns regarding storm-hardening the system.

The primarily agricultural land use and the presence of residential buildings in the area was an additional factor in selecting this type of structure since a single-pole steel line minimizes the impact to both farmers and landowners because it: (1) eliminates the space required by an H-frame structure as well as the need for guy wires, both of which result in a smaller footprint and (2) results in using fewer structures, making it easier to span existing irrigation systems.

**Refer to Attachment 2 for the following structure drawings:**

Typical 115-kV single-circuit steel tangent structure is shown on SPS drawing T-0-427A.

Typical 115-kV single-circuit steel tangent structure is shown on SPS drawing T-0-491.

Typical 115-kV single-circuit steel 3-10° Angle structure is shown on SPS drawing T-0-466.

Typical 115-kV single-circuit steel 10-30° Angle structure is shown on SPS drawing T-0-467.

Typical 115-kV single-circuit steel corner structure is shown on SPS drawing SD-T0-426.

*For joint applications, provide and separately identify the above-required information regarding structures for the portion(s) of the project owned by each applicant.*

Not applicable.

**6. Right-of-way:**

*Miles of Right-of-Way:* Approximately 19 to 27 miles.

*Miles of Circuit:* Approximately 19 to 27 miles.

*Width of Right-of-Way:* 70 feet; wider in exceptional circumstances.

*Percent of Right-of-Way Acquired:* 0%

*Provide a brief description of the area traversed by the transmission line. Include a description of the general land uses in the area and the type of terrain crossed by the line.*

The proposed transmission line study area is located within the High Plains geographic subdivision, which consists of about 20 million acres of a relatively level high plateau. Elevation

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

ranges from 3,000 to 4,500 feet, sloping gently toward the southeast. (NPAT 2012) The vast majority of the project study area between the cities of Perryton and Booker consists of cultivated crops, including both irrigated and non-irrigated cropland, as well as rangelands and livestock operations. A substantially large hog farm is located in the center of the project study area, southwest of the Wade Substation. In addition to agriculture and livestock operations, the study area also has a high density of oil and gas apparatus and infrastructure. The oil and gas industry, along with agriculture, are the two primary industries in this portion of the Texas Panhandle. Interspersed throughout the cultivated cropland, are grasslands, scrub, and shrubs. Residential and retail development is concentrated mostly on the west and east ends of the study area, around the two incorporated cities; however, rural residences are also found throughout the area, along county roads and highways, associated mostly with ranch lands and agriculture. Commercial, retail, and industrial land uses are also concentrated mostly in the two cities of Perryton and Booker; however, some business and industrial operations are found as well along the State Highway 15 corridor, including grain silos and processing facilities, as well as agriculture support services.

**7. Substations or Switching Stations:**

*List the name of all existing HVDC converter stations, substations or switching stations that will be associated with the new transmission line. Provide documentation showing that the owner(s) of the existing HVDC converter stations, substations and/or switching stations have agreed to the installation of the required project facilities.*

- Ochiltree Substation
- Booker Substation
- Wade Substation

These substations are owned by SPS.

*For joint applications, provide and separately identify the above-required information for each route for the portion(s) of the project owned by each applicant.*

Not applicable.

*List the name of all new HVDC converter stations, substations or switching stations that will be associated with the new transmission line. Provide documentation showing that the owner(s) of the new HVDC converter stations, substations and/or switching stations have agreed to the installation of the required project facilities.*

The new Lipscomb Substation is associated with this project and will be owned by SPS.

**8. Estimated Schedule:**

<b><u>Estimated Dates of:</u></b>	<b><u>Start</u></b>	<b><u>Completion</u></b>
Right-of-way and Land Acquisition	Following CCN approval	6 months following CCN approval
Engineering and Design	Ongoing	8 weeks before construction
Material and Equipment Procurement	Following CCN approval	6 weeks before construction
Construction of Facilities	As ROW is acquired	6 months following ROW acquisition
Energize Facilities	Following completion of construction	Within 30 days of completion of construction

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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**9. Counties:**

*For each route, list all counties in which the route is to be constructed.*

All routes are located in Ochiltree and Lipscomb counties, Texas.

**10. Municipalities:**

*For each route, list all municipalities in which the route is to be constructed.*

Although the Ochiltree Substation is not within the municipal boundary of Perryton, all seven routes include one or more segments that cross through the municipal boundary of Perryton to get to the Ochiltree Substation. Specifically, Segments G and M cross into the municipal boundary of Perryton. All seven routes include segments that cross through the municipal boundary of Booker to get to the proposed Lipscomb Substation. The Lipscomb Substation is located within the municipal boundary of Booker.

*For each applicant, attach a copy of the franchise, permit or other evidence of the city's consent held by the utility, if necessary or applicable. If franchise, permit, or other evidence of the city's consent has been previously filed, provide only the docket number of the application in which the consent was filed. Each applicant should provide this information only for the portion(s) of the project which will be owned by the applicant.*

**Refer to Attachment 3 for the franchise agreements for the cities of Perryton and Booker.**

**11. Affected Utilities:**

*Identify any other electric utility served by or connected to facilities in this application.*

- North Plains Electric Cooperative, Inc. (NPEC)
- Golden Spread Electric Cooperative, Inc. (GSEC)

*Describe how any other electric utility will be affected and the extent of the other utilities' involvement in the construction of this project. Include any other electric utilities whose existing facilities will be utilized for the project (vacant circuit positions, ROW, substation sites and/or equipment, etc.) and provide documentation showing that the owner(s) of the existing facilities have agreed to the installation of the required project facilities.*

The addition of the proposed line will increase system reliability and capacity and will benefit NPEC and GSEC because they will be able to serve additional load in their service area. Since SPS owns the substations affected by the proposed project, NPEC and GSEC will not be directly involved in the construction of facilities proposed under this application.

**12. Financing:**

*Describe the method of financing this project. For each applicant that is to be reimbursed for all or a portion of this project, identify the source and amount of the reimbursement (actual amount if known, estimated amount otherwise) and the portion(s) of the project for which the reimbursement will be made.*

The proposed project will be financed through internally-generated funds.

**13. Estimated Costs:** *Provide cost estimates for each route of the proposed project using the following table. Provide a breakdown of "Other" costs by major cost category and amount. Provide the information for each route in an attachment to this application.*

**Refer to Attachment 4 for the estimated cost table. The costs shown in the table include the costs to construct the proposed transmission line, to construct the new substation, to upgrade**

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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**existing substations, and to remove the existing Z66 radial line between the Perryton and Booker substations.**

*For joint applications, provide and separately identify the above-required information for the portion(s) of the project owned by each applicant.*

Not applicable

**14. Need for the Proposed Project:**

*For a standard application, describe the need for the construction and state how the proposed project will address the need. Describe the existing transmission system and conditions addressed by this application. For projects that are planned to accommodate load growth, provide historical load data and load projections for at least five years. For projects to accommodate load growth or to address reliability issues, provide a description of the steady state load flow analysis that justifies the project. For interconnection projects, provide any documentation from a transmission service customer, generator, transmission service provider, or other entity to establish that the proposed facilities are needed. For projects related to a Competitive Renewable Energy Zone, the foregoing requirements are not necessary; the applicant need only provide a specific reference to the pertinent portion(s) of an appropriate commission order specifying that the facilities are needed. For all projects, provide any documentation of the review and recommendation of a PURA §39.151 organization.*

SPS is a member of, and its entire transmission system is located within, the SPP. The SPP is an organization that meets the requirements of Public Utility Regulatory Act (PURA) § 39.151 as an independent system operator. SPS does not operate in the Electric Reliability Council of Texas (ERCOT) region, and ERCOT takes no position on SPS's transmission projects.

The proposed transmission line will connect the existing Ochiltree Substation in Ochiltree County, Texas to the new Lipscomb Substation in the city of Booker, in Lipscomb County, Texas. The proposed line will replace the existing Z66 66-kV radial line between the Perryton Substation and the Booker Substation. Booker and Wade substations will also be upgraded to 115-kV service to improve reliability and increase line capacity.

SPS identified its Z66 transmission line between the Perryton Substation and the Booker Substation as needing upgrade or replacement to improve reliability and increase line capacity. The Z66 line is estimated to be more than fifty years old, and was constructed under standards that have since become outdated. The Z66 line structures and hardware are deteriorating and therefore need a heightened level of maintenance. For SPS to continue to provide reliable service to the area, particularly in light of continued load growth, the Z66 line requires an upgrade to a standard line rating capacity. The existing line is a 1/0 copper line conductor rated at 36 MVA normal/emergency rating, approximately 18 miles long, insulated for 66-kV. This line was built and operated by the Texas-New Mexico Power Company (TNMP) until SPS bought this part of the system from TNMP in 1995.

According to the SPS Transmission Line Performance department event log outage record, there were 43 events recorded from June 16, 2003 to June 2, 2012. Of the 43 events, eleven were sustained outage events with a total of 3,383,820 Customer Minutes Out (CMO). There are 1,954 customers served from the Z66 line and it is considered one of the low-performing transmission lines in the SPS system in terms of CMO. Refer to Attachment 5 for the Z66 Ten-Year Outage Record. Please also refer to Attachment 6 for the latest Patrol Report obtained from Transmission Engineering. This report documents the long list of maintenance work needed for Z66. Much of



## **Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

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the work would have to be “hot work” because the line cannot be de-energized to perform the work. To date, only a few of the maintenance items have been performed.

Please refer to Attachment 7 for SPS’s Summer Load Forecast from 2012 to 2024 for the Texas North and Oklahoma Panhandle portion of SPS’s service territory, which includes the area covered by the proposed project. Please also refer to Attachment 8, for the Twelve Years Summer Load Forecast for the Perryton, Wade, and Booker substations served by the Z66 line. Although these reports only show a mild upward trend in load growth, this additional upward pressure on the Z66 line could create reliability issues for the Perryton and Booker area.

### **Existing Transmission System**

The existing transmission system in Hansford, Ochiltree, and Lipscomb counties, in Texas and Beaver and Texas counties, in Oklahoma, referred to as the SPS Texas North Oklahoma Panhandle Service Area, consists of 59 miles of 345-kV lines, 78 miles of 230-kV lines, 228 miles of 115-kV lines, and 18 miles of 66-kV lines. The SPS Texas North East-Oklahoma Panhandle Service Area is fed from the coal-fired SPS Harrington Generating Station (Harrington) by a 230-kV transmission line and two different 115-kV transmission lines from the gas-fired SPS Nichols Generating Station (Nichols) and Borger Energy Partners-Blackhawk Plant. Harrington and Nichols are connected by two 230-kV transmission lines. The total nameplate generating capacity of Nichols and Harrington is approximately 1,502 MW while Blackhawk Plant is approximately 223 MW. The Perryton Substation is fed from Spearman and Texas County substations at 115-kV level. Spearman Substation is fed from Pringle Substation while Texas County is fed from Hitchland Substation at 115-kV level. Pringle Substation and Harrington are both connected by a 230-kV transmission line while the Spearman and Hitchland substations are connected at 115-kV level. Hitchland Substation feeds the Ochiltree Substation radially at 230-kV level. Hitchland Substation is connected to Potter County and Finney substations at 345-kV level. The proposed line will feed Wade and Booker substations radially from the Ochiltree Substation 115-kV bus.

**Refer to Attachment 5 for the “Line Z66 Ten Year Outage Record”.**

**Refer to Attachment 6 for the “Line Z66 Latest Patrol Report”.**

**Refer to Attachment 7 for the SPS Summer Load Forecast for the Northeast Area.**

**Refer to Attachment 8 for the SPS Summer Load Forecast for the Perryton, Wade, and Booker area.**

### **15. Alternatives to Project:**

*For a standard application, describe alternatives to the construction of this project (not routing options). Include an analysis of distribution alternatives, upgrading voltage or bundling of conductors of existing facilities, adding transformers, and for utilities that have not unbundled, distributed generation as alternatives to the project. Explain how the project overcomes the insufficiencies of the other options that were considered.*

Of the alternatives discussed below, Project Alternative 1, was the only *potentially* viable alternative to the proposed project; however, after further review, SPS determined that the proposed project is the only project that is sufficient to address all of the needs for this area of SPS’s transmission system.

## **Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

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**Project Alternative 1:** A complete wreck-out and rebuild of the existing 66-kV radial line (Z66) from the Perryton Substation to Booker Substation using the same ROW

Because SPS would not be able to cut off the transmission service that Z66 line provides, and because it would not be safe to construct the project with energized lines, this project alternative would require SPS to build long temporary transmission lines along the existing ROW to maintain electric service to the customers. The cost to build the temporary line at the same length as the existing radial line would be unreasonable. In addition, the existing ROW is not likely sufficiently wide to accommodate the use of new single-pole steel structures. SPS uses those structures because their usable life is longer than wood structures, they are sturdier and provide a more reliable transmission line, and they minimize long-term maintenance costs. Much of the existing ROW is also not sufficient if SPS were to upgrade the line to a higher voltage at a later date. SPS eliminated this alternative because the total cost is prohibitive and because it does not increase transmission capacity and therefore does not address future load growth in the service area.

**Project Alternative 2:** Distribution Alternative

The purpose of the proposed 115-kV transmission line is to improve the transmission reliability in the service area and to address future load requests from transmission customers. Building additional distribution facilities would not provide the needed transmission capacity or reliability.

**Project Alternative 3:** Upgrading Voltage, Bundling of Conductors of Existing Facilities, or Adding Transformers

The proposed line design voltage is 115-kV and it would be operated at that level. It would replace the existing line operating at 66-kV level with normal line capacity of 36 MVA. The proposed voltage upgrade from 66-kV to 115-kV would increase the line capacity from 36 to 160 MVA and it would address future load growth in the service area.

Bundling of conductors of existing facilities was not considered because the existing structures are not capable of supporting bundled conductors. A total wreck-out and rebuild of the line would be required to bundle the conductors of the existing facility. This is similar to the scope of work in Project Alternative 1, and is similarly not sufficient.

Solely adding transformers will not solve the reliability issues of the existing line or sufficiently increase the transmission capacity.

**Project Alternative 4:** Distributed Generation

SPS did not consider this alternative because more generation would not address the lack of transmission capacity or the deteriorating state of the existing transmission facility. SPS also did not consider this alternative due to its prohibitive capital cost relative to the proposed project.

**16. Schematic or Diagram:**

*For a standard application, provide a schematic or diagram of the applicant's transmission system in the proximate area of the project. Show the location and voltage of existing transmission lines and substations, and the location of the construction. Locate any taps, ties, meter points, or other facilities involving other utilities on the system schematic.*

**Refer to Attachment 9.**

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

**17. Routing Study:**

*Provide a brief summary of the routing study that includes a description of the process of selecting the study area, identifying routing constraints, selecting potential line segments, and the selection of the routes. Provide a copy of the complete routing study conducted by the utility or consultant. State which route the applicant believes best addresses the requirements of PURA and P.U.C. Substantive Rules.*

An alternative route analysis was carried out by Logan Simpson Design (LSD) to identify viable transmission line route alternatives between the existing Ochiltrie Substation site near Perryton, Texas, and the new Lipscomb Substation site in Booker, Texas. Alternatives considered also had to connect to the existing Wade Substation located approximately midway between Perryton and Booker. The alternative route analysis is included in the EA, Attachment 1 to the Application.

During the early phase of the routing analysis, baseline data was collected from field investigations, literature reviews, and through contact with local officials and organizations. Data acquired through field investigations included locations and descriptions of existing habitable structures, transmission and distribution lines, communication installations, airports, general vegetation and biological habitat conditions, water features, park and recreation facilities, schools, and general land uses. The project Study Area was also defined in the early phase of the routing analysis by selecting an area that was sufficiently large to provide a range of routing opportunities between the two end points and factoring in the land use and environmental setting garnered during the initial field investigations.

In addition to data gathered in the field, LSD conducted an initial desktop analysis and literature review to research the presence of designated wildlife areas, sites designated on the National Register of Historic Places, known historic and archaeological sites, surface waters, wetlands designated on the National Wetlands Inventory, and areas with known sensitive wildlife species. Surface waters, including streams and playas, were identified and mapped within the project Study Area, along with NWI-designated wetlands and Texas Natural Diversity Database and Texas Parks & Wildlife Department known wildlife areas. In addition, a Class I inventory was conducted to identify the presence of recorded cultural sites or areas with high archaeological/historic site potential.

The constraints mapping phase then layered the results from the field investigation and the desktop analysis to determine the areas of the greatest opportunity for transmission line route alternatives and areas with the greatest constraints. A list of routing criteria, which included engineering constraints and opportunities, environmental constraints, and land use constraints, was developed in coordination with SPS. The list included those criteria identified by P.U.C. Substantive Rules, PURA, and the PUC CCN Application, as well as other commonly-used transmission line siting criteria such as habitable structures, center-pivot irrigation systems, playa lakes and communications towers. Refer to Section 2.3.3 in the EA (Attachment 1) for the full list of criteria used in this analysis.

LSD and SPS identified preliminary route segments laid out in areas of greatest opportunity, such as following existing roads and other linear features (e.g., distribution and transmission lines, abandoned railroad ROW), while minimizing conflicts with potential land use constraints listed in the routing criteria. A map of the preliminary route segments was developed and shared with the

## **Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

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public in the project notice letters and again at the public open-house meeting. Refer to Figure 2-1 (map pocket) in the EA (Attachment 1) for the preliminary map. Engineering, land use, and environmental constraints data was then quantified for each of the segments. LSD evaluated the preliminary route segments based on the data, the routing criteria, public input from the open-house meeting, the questionnaires submitted by the public following the meeting, and input solicited from public officials. After careful consideration and study, seven alternative routes were ultimately selected for further analysis.

After combining the results of the initial routing phase and quantification of PUC criteria with the results of the environmental assessment, LSD selected Alternative Route 1 as the route that best addresses the needs of SPS and the requirements of PURA, P.U.C. Substantive Rules and the PUC CCN Application for the following reasons:

- Approximately 59% of this route would be located within an abandoned railroad ROW that parallels SH 15, a major transportation corridor in the study area, resulting in a route that follows existing linear features and ROWs for a majority of its length.
- Approximately 97% of Route 1 parallels other linear ROW, including roads, railroad, transmission lines, and distribution lines.
- It has the least impact to farming and agricultural operations, crossing the least cultivated crops, impacting no center-pivot irrigation systems and avoiding croplands irrigated by manual water trucks and booms.
- The ROW would avoid most playas, with the possible exception of one playa along Segment X; this playa may be avoided by locating the transmission line structures on the railroad ROW berm, outside the inundation area.
- It is tied for the fewest county, local, U.S., and state highway crossings.
- It is the shortest route and is also the least expensive route.
- It does not result in any significant environmental effects.

After balancing the information provided in the EA against the project need, engineering and transmission planning considerations, maintenance and construction considerations, public input, estimated costs, and community values, SPS selected Alternative Route 1 as the route that best addresses the requirements of PURA, PUC Substantive Rules and the PUC CCN Application. Although SPS has selected Alternative Route 1, it can construct and operate any of the routes proposed in this application. Refer to the EA in Attachment 1 for the detailed routing analysis and environmental assessment.

**Refer to Table 2-2 in the EA, Attachment 1.**

**18. Public Meeting or Public Open House:**

*Provide the date and location for each public meeting or public open house that was held in accordance with P.U.C. PROC. R. 22.52. Provide a summary of each public meeting or public open house including the approximate number of attendants, and a copy of any survey provided to attendants and a summary of the responses received. For each public meeting or public open house provide a description of the method of notice, a copy of any notices, and the number of notices that were mailed and/or published.*

## **Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

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A public open house meeting was held for this project on October 30, 2012 at the Museum of the Plains in Perryton, Texas between the hours of 5:00 and 7:00 p.m. Manning Land, LLC, consultant to SPS, mailed 267 individual written notices of the meeting to all landowners located within 300 feet of the centerline along the preliminary alternative route segments, as delineated at the time of the public open house meeting. The mailed notification also included a map of the preliminary route segments, a Landowner Questionnaire, a Landowner Bill of Rights, Landowners and Transmission Line Cases at the PUC, and a Survey Permission Form. Refer to Figure 2-1 and Appendix D of the EA (Attachment 1) for the Preliminary Route Segments map distributed to the public in the notice letter and presented at the public open house. Additionally, LSD mailed notice letters to 32 agencies and other organizations. Refer to Appendices C and D of the EA (Attachment 1) for the mailing lists and a copy of the letters, information packet, and map that were mailed to landowners and agencies/organizations.

The meeting was held for the purpose of promoting a better understanding of the alternative transmission line routes, the purpose and need of the project, the potential benefits and impacts, and to obtain input from the public to help SPS in its routing analysis.

The meeting was held in an open house format, allowing attendees to move from station to station to look at maps and talk with representatives from SPS and SPS's consultants. Large display boards (aerial photograph-based), oversized sheet maps, and handouts were presented, identifying the preliminary route segment locations, substations, existing parcel boundaries, and key project characteristics (transmission pole heights, ROW requirements, engineering information, etc.). The first station included a sign-in sheet and the handouts mentioned above. Refer to Appendix E of the EA for a copy of the handouts provided at the open house meeting, as well as the sign-in sheet.

A total of 44 people signed in at the open house meeting. All of the participants were encouraged to fill out a questionnaire and return it at the meeting or by mail at a later date. A copy of the questionnaire is included in Appendix D of the EA. A total of seven questionnaires were completed and returned at the meeting and another eight questionnaires were either emailed or mailed to SPS subsequent to the public open house meeting. In addition, SPS received three phone calls prior to the open house meeting. Appendix E of the EA contains a copy of returned questionnaires and a composite table summarizing concerns from the questionnaires and the phone calls.

The landowner questionnaire is designed to identify issues and key concerns that the public may have in order to consider these issues in the route selection process. The majority of the questionnaire responses indicated that the landowner would like to: 1) minimize the length of the line through cultivated fields, 2) minimize the total length of the line, and 3) minimize the number of businesses near the line. A summary of the key concerns are listed below and references to Segments are to the original segment labels, as seen on the Preliminary Route Segments Map, Figure 2-1 in the EA (Attachment 1):

- There was concern about impacts to cultivation of crops for fields along County Road H.
- There was concern that Segment AX would remove land from cultivation and impact farming operations.
- There was concern that Segments AJ, AK, AY, AG, and AX would impact the ability to water fields; a few individuals noted that watering is performed using water trucks with 120-foot long sprayers/booms so placement of transmission line poles could impact their

## **Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line**

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maneuverability to water fields. The same constraint is possible with grain cutters and planters.

- There were several requests that the poles be placed on the property line versus 35-feet inside.
- There was concern over devaluation of agriculture fields associated with the constraints the poles have on farming operations.
- A number of individuals expressed a desire for the transmission line to follow the railroad ROW.
- There was a request that SPS maintain the ROW by making sure it remains mowed and weeded.
- There was concern over the cost of the project and the impact on ratepayers.
- There was concern over the potential effect to oil and gas operations.
- There was concern over proximity of lines near the airport and safety issues.
- There was a request to minimize the number of residences along a route.
- If a segment follows County Road F, there was a request that the line be located on the south side of the road.

Representatives from the Ochiltree-Perryton County Airport attended the open house and expressed concern over the proximity of Segments X, V, W, and AH to the airport. SPS and LSD subsequently contacted the manager of the airport and their consultant to discuss the preliminary siting issues and compatibility with FAA Part 77. As a result, the above-listed segments were removed from further consideration during the early stages of the routing process.

### **19. Routing Maps:**

*Base maps should be a full scale (one inch = not more than one mile ) highway map of the county or counties involved, or other maps of comparable scale denoting sufficient cultural and natural features to permit location of all routes in the field. Provide a map (or maps) showing the study area, routing constraints, and all routes or line segments that were considered prior to the selection of the routes. Identify the routes and any existing facilities to be interconnected or coordinated with the project. Identify any taps, ties, meter points, or other facilities involving other utilities on the routing map. Show all existing transmission facilities located in the study area. Include the locations of radio transmitters and other electronic installations, airstrips, irrigated pasture or cropland, parks and recreational areas, historical and archeological sites (subject to the instructions in Question 27), and any environmentally sensitive areas (subject to the instructions in Question 29).*

*Provide aerial photographs of the study area displaying the date that the photographs were taken or maps that show (1) the location of each route with each route segment identified, (2) the locations of all major public roads including, as a minimum, all federal and state roadways, (3) the locations of all known habitable structures or groups of habitable structures (see Question 19 below) on properties directly affected by any route, and (4) the boundaries (approximate or estimated according to best available information if required) of all properties directly affected by any route.*

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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*For each route, cross-reference each habitable structure (or group of habitable structures) and directly affected property identified on the maps or photographs with a list of corresponding landowner names and addresses and indicate which route segment affects each structure/group or property.*

Refer to Figure 2-1 of the EA, Attachment 1, for a map depicting the preliminary routes presented at the Public Open House.

Refer to Figure 2-3 of the EA, Attachment 1, for the Alternative Route Map depicting the seven alternative routes proposed for this project. Also, refer to Table 4-4 in the EA for the habitable structures list (by segment and distance) and Appendix G of the EA, Attachment 1, for a list of the landowner names and addresses cross-referenced to the transmission line route that affects each structure and property, with property boundaries shown in Figure 2-3 in the EA.

**20. Permits:**

*List any and all permits and/or approvals required by other governmental agencies for the construction of the proposed project. Indicate whether each permit has been obtained.*

Below is a list of permits that will be required for construction of the transmission line project on any of the routes:

- Texas Department of Transportation (TxDOT) permit(s) will be required for crossing state-maintained roadways or using TxDOT ROW to access the project (not yet obtained).
- Depending on the location of structures, floodplain development permits and road crossing permits might be required by the counties in which the approved route is located (not yet obtained).
- A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and a Notice of Intent will be submitted at least 48 hours prior to the beginning of construction to the Texas Commission on Environmental Quality under the Texas Pollutant Discharge Elimination System General Permit (not yet obtained).
- If the approved route triggers Federal Aviation Administration (FAA) criteria regarding proximity to airports, SPS will file a Notice of Construction form with the FAA (not yet obtained).
- Consultation with the U.S. Army Corps of Engineers will occur following the Commission's approval of this Application to determine appropriate requirements under Section 404/Section 10 Permit criteria (not yet obtained).
- Consultation with the U.S. Fish and Wildlife Service will occur following the Commission's approval of this Application to determine appropriate requirements under the Endangered Species Act (not yet obtained).

**21. Habitable structures:**

*For each route list all single-family and multi-family dwellings and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 300 feet of the centerline if the proposed project will be constructed for operation at 230-kV or less, or within 500 feet of the*

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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*centerline if the proposed project will be constructed for operation at greater than 230-kV. Provide a general description of each habitable structure and its distance from the centerline of the route. In cities, towns or rural subdivisions, houses can be identified in groups. Provide the number of habitable structures in each group and list the distance from the centerline of the route to the closest and the farthest habitable structure in the group. Locate all listed habitable structures or groups of structures on the routing map.*

Table 4-4 in the EA (Attachment 1) identifies, by route, the number, type, distance, and direction of all habitable structures located within 300 feet of the centerline of the proposed routes. Figure 2-3 of the EA, Attachment 1, depicts the location of the habitable structures.

**22. Electronic Installations:**

*For each route, list all commercial AM radio transmitters located within 10,000 feet of the center line of the route, and all FM radio transmitters, microwave relay stations, or other similar electronic installations located within 2,000 of the center line of the route. Provide a general description of each installation and its distance from the center line of the route. Locate all listed installations on a routing map.*

Two AM radio transmitters were identified within 10,000 feet of the alternative routes and one FM radio transmitter was identified within 2,000 feet of the alternative routes. Table 3-8 in the EA (Attachment 1) lists all AM and FM radio transmitters, microwave relay stations, and other electronic installations identified within the 10,000 and 2,000 foot distance. Figures 2-3 and 3-7 of the EA depict the location of the electronic installations.

**23. Airstrips:**

*For each route, list all known private airstrips within 10,000 feet of the center line of the project. List all airports registered with the Federal Aviation Administration (FAA) with at least one runway more than 3,200 feet in length that are located within 20,000 feet of the center line of any route. For each such airport, indicate whether any transmission structures will exceed a 100:1 horizontal slope (one foot in height for each 100 feet in distance) from the closest point of the closest runway. List all listed airports registered with the FAA having no runway more than 3,200 feet in length that are located within 10,000 feet of the center line of any route. For each such airport, indicate whether any transmission structures will exceed a 50:1 horizontal slope from the closest point of the closest runway. List all heliports located within 5,000 feet of the center line of any route. For each such heliport, indicate whether any transmission structures will exceed a 25:1 horizontal slope from the closest point of the closest landing and takeoff area of the heliport. Provide a general description of each listed private airstrip, registered airport, and heliport; and state the distance of each from the center line of each route. Locate and identify all listed airstrips, airports, and heliports on a routing map.*

Only one public, FAA registered airport, with a runway longer than 3,200 feet, is located within 20,000 feet of the centerline of the alternative routes. The Perryton Ochiltree County Airport (PYX) has a paved runway at 5,700 feet and a grass, crosswind runway at 3,280 feet. Table 3-7 in the EA (Attachment 1) lists the airport and the distances between alternative route centerlines and the airport. There are no other airports, airstrips, or heliports within the project study area. Figures 2-3 and 3-7 of the EA depict the location of the public airport in relation to the alternative routes.

**24. Irrigation Systems:**

*For each route identify any pasture or cropland irrigated by traveling irrigation systems (rolling*



**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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*or pivot type) that will be traversed by the route. Provide a description of the irrigated land and state how it will be affected by each route (number and type of structures etc.). Locate any such irrigated pasture or cropland on a routing map.*

Several center-pivot irrigation systems are found within the project Study Area and in proximity to the alternative routes. Figure 2-3 of the EA depicts the location of these irrigation systems in relation to the alternative routes. None of the alternative routes would cross through an active irrigation system; however, three of the routes (routes 3, 4, and 7 and associated Segments Y and Z) skirt the edge of existing center-pivot systems and their ROW may encroach into the outer limits of the spray area. Based on an average span width of 600-900 feet, the outer limit of the irrigation system would be avoided by strategically placing transmission line poles and spanning the systems at their closest point to the transmission line ROW. Section 4.1.4 of the EA, Attachment 1, describes the center-pivots near these routes. The center pivot irrigation systems are visible on Figure 2-3 of the EA, Attachment 1.

**25. Notice:**

Notice is to be provided in accordance with P.U.C. PROC. R. 22.52.

- A. *Provide a copy of the written direct notice to owners of directly affected land. Attach a list of the names and addresses of the owners of directly affected land receiving notice.*

Refer to Attachment 10 for: (1) a sample copy of the notice letter, (2) the segment descriptions; PUCT Landowner Brochure, Comments Form, and Intervener Form; and Landowner Bill of Rights, all of which were included with each notice packet, and (3) the list of landowners to whom notice was sent. Also, refer to Figure 2-3 in the EA, Attachment 1, for the map included with each notice packet.

- B. *Provide a copy of the written notice to utilities that are located within five miles of the routes.)*

Refer to Attachment 11 for a copy of the notice letters. Refer to Attachment 10 for a copy of the segment descriptions that were included with each notice packet. Also, refer to Figure 2-3 in the EA, Attachment 1, for the map included with notice.

- C. *Provide a copy of the written notice to county and municipal authorities.*

Refer to Attachment 12 for a copy of the notice letters. Refer to Attachment 10 for a copy of the segment descriptions that were included with each notice packet. Also, refer to Figure 2-3 in the EA, Attachment 1, for the map included with each notice.

- D. *Provide a copy of the notice that is to be published in newspapers of general circulation in the counties in which the facilities are to be constructed. Attach a list of the newspapers that will publish the notice for this application. After the notice is published, provide the publisher's affidavits and tear sheets.*

Refer to Attachment 13 for a copy of the newspaper notice (including map) and the list denoting the newspaper that will publish the notice.

*For a CREZ application, in addition to the requirements of P.U.C. PROC. R. 22.52 the applicant shall, not less than twenty-one (21) days before the filing of the application, submit to the Commission staff a "generic" copy of each type of alternative published and written notice for review. Staff's comments, if any, regarding the alternative notices will be provided to the applicant not later than seven days after receipt by Staff of the alternative notice. Applicant may*

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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*take into consideration any comments made by Commission staff before the notices are published or sent by mail.*

Not applicable.

**26. Parks and Recreation Areas:**

*For each route, list all parks and recreational areas owned by a governmental body or an organized group, club, or church and located within 1,000 feet of the center line of the route. Provide a general description of each area and its distance from the center line. Identify the owner of the park or recreational area (public agency, church, club, etc.). List the sources used to identify the parks and recreational areas. Locate the listed sites on a routing map.*

There are two parks and recreation areas within 1,000 feet of all routes, except Route 6. The Booker Country Club Golf Course, baseball field, and park are all on the same property within 1,000 feet of Segment AE (Route 1). The Booker Country Club Golf Course is within 1,000 feet of Segment AB. Segments H, J, and K (Routes 1, 2, 3, 4, and 7) are within 1,000 feet of a privately run horse race track and stadium. Parks and recreation uses are shown on Figure 2-3 of the EA. Sections 3.9.3 and 4.6.3 in the EA provide information regarding the owners of these two recreation facilities, a general description of each, the distance to centerline, and source of information.

**27. Historical and Archeological Sites:**

*For each route, list all historical and archeological sites known to be within 1,000 feet of the center line of the route. Include a description of each site and its distance from the center line. List the sources (national, state or local commission or societies) used to identify the sites. Locate all historical sites on a routing map. For the protection of the sites, archeological sites need not be shown on maps.*

A Class I database search was carried out by LSD in October 2012 to identify the presence or absence of any known cultural resources within the project area. The search included all lands within a one-half mile buffer around the outer route segments' perimeter (cultural resources study area). Records were assessed through the Texas Archeological Sites Atlas (Atlas) that is maintained by the Texas Historical Commission (THC) in Austin, Texas. The Atlas contains archeological site data from the Texas Archeological Research Laboratory, University of Texas at Austin, and historic building, cemetery, and historic marker data from THC agency files. The National Register Information System, which catalogs cultural resources listed in the National Register of Historic Places (NRHP), was also reviewed. General Land Office maps kept by the Bureau of Land Management were reviewed electronically as well; none were available for the project study area. The records search covered parts of the Booker, Huntoon, and Perryton USGS 7.5' topographic quadrangles.

Based on the Class I survey, three historic structures, two prehistoric sites, two historic markers, and one historic cemetery are identified within the cultural resources study area. One prehistoric site is within 1,000 feet of Segments J, L, and N (Routes 1-4), one historic structure is within 1,000 feet of Segment AE (Route 1), the two historic markers are within 1,000 feet of Segments AE, AJ, AI, AH, and Z (Routes 1, 3, 4, and 7). The historic cemetery is located within 1,000 feet of Segment AG (Route 3). The other two historic structures and, prehistoric site are not located within 1,000 feet of the seven route alternative centerlines, and none of the resources are located within the 70-foot ROW.

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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One of the previously recorded historic structures, the Plainview Hardware Company Building, is listed in the NRHP under Criterion C for local significance. The other two historic structures, a historic gas station and Masonic lodge (currently the Kiowa Drug Store), were identified during a local neighborhood survey. These structures are not recommended eligible for inclusion in the NRHP. Neither of the two prehistoric sites, a lithic scatter and a camp site, has been recommended eligible for inclusion in the NRHP. The two recorded historic markers, consisting of one that commemorates the route of the Jones and Plummer Trail and one marking the site of the town of Booker, are not NRHP eligible. Lastly, the Heart Cemetery is listed in the THC's Historic Cemetery database; however, it does not have an associated NRHP eligibility recommendation.

The THC was notified about the project on October 15, 2012. The THC's "Antiquities Code of Texas Review" indicated that no survey was required for the proposed project. Refer to Appendix B of the EA for the Class I inventory report and the conclusion from THC.

**28. Coastal Management Program:**

*For each route, indicate whether the route is located, either in whole or in part, within the coastal management program boundary as defined in 31 T.A.C. §503.1. If any route is, either in whole or in part, within the coastal management program boundary, indicate whether any part of the route is seaward of the Coastal Facilities Designation Line as defined in 31 T.A.C. §19.2(a)(21). Using the designations in 31 T.A.C. §501.3(b), identify the type(s) of Coastal Natural Resource Area(s) impacted by any part of the route and/or facilities.*

None of the routes are located within the coastal management program boundary as defined in 31 T.A.C. § 503.1.

**29. Environmental Impact:**

*Provide copies of any and all environmental impact studies and/or assessments of the project. If no formal study was conducted for this project, explain how the routing and construction of this project will impact the environment. List the sources used to identify the existence or absence of sensitive environmental areas. Locate any environmentally sensitive areas on a routing map. In some instances, the location of the environmentally sensitive areas or the location of protected or endangered species should not be included on maps to ensure preservation of the areas or species.*

**Refer to the *Environmental Assessment and Alternative Route Analysis Report for the Proposed Ochiltrie Substation to Lipscomb Substation 115-kV Transmission Line Project in Ochiltrie and Lipscomb Counties, Texas*, labeled as Attachment 1.**

*Within seven days after filing the application for the project, provide a copy of each environmental impact study and/or assessment to the Texas Parks and Wildlife Department (TPWD) for its review at the address below. Include with this application a copy of the letter of transmittal with which the studies/assessments were or will be sent to the TPWD.*

*Wildlife Habitat Assessment Program  
Wildlife Division  
Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, Texas 78744*

*The applicant shall file an affidavit confirming that the letter of transmittal and studies/assessments were sent to TPWD.*

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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**A copy of the application, including the EA, Attachment 1, was sent to TPWD on the day of the filing of this application. Refer to Attachment 14 for a copy of the transmittal letter.**

**At the request of the Office of Public Utility Counsel (OPUC), only a copy of the segment descriptions and Figure 2-3 was sent to OPUC on the day of the filing of this application. Refer to Attachment 15 for a copy of the transmittal letter.**

**Application to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV  
Transmission Line**

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**AFFIDAVIT**

STATE OF TEXAS

COUNTY OF POTTER

I, James M. Bagley, after first being duly sworn state the following: I am filing this application as Manager, Regulatory Administration. I am qualified and authorized to file and verify this application, and am personally familiar with the information supplied in this application; and to the best of my knowledge, all information provided, statements made, and matters set forth in this application and attachments are true and correct; and all requirements for the filing of this application have been satisfied. I further state that this application is made in good faith and that this application does not duplicate any filing presently before the commission.

**AFFIANT**

\_\_\_\_\_  
James M. Bagley

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**SUBSCRIBED AND SWORN TO BEFORE ME**, a Notary Public in and for the state of Texas, this 30<sup>th</sup> day of April 2013.

SEAL

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_