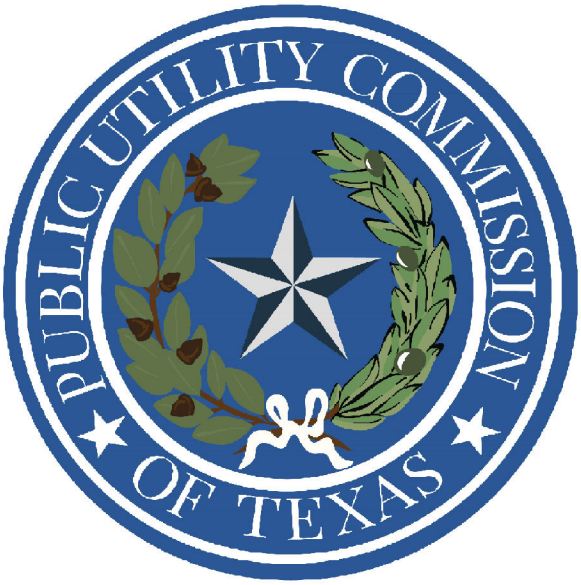

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DIRECT TESTIMONY OF BRENDA J. PERKINS, WITNESS FOR ONCOR ELECTRIC DELIVERY COMPANY LLC

DIRECT TESTIMONY OF BRENDA J. PERKINS

I. POSITION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Brenda J. Perkins. I am president of BJ Perkins Corporation, an engineering consulting firm registered by the Texas Board of Professional Engineers.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS.

A. I graduated from the University of Texas at Arlington with a Bachelor of Science in Civil Engineering in 1981. I am a registered professional engineer in Texas (certificate number 59883). I first worked as an engineering intern before graduation, then as a civil engineer after graduation, for Texas Power and Light Company ("TP&L") in their Transmission Engineering department. My work assignments included providing engineering design and project management during the construction of transmission lines. In 1986, I resigned from TP&L to become a stay-at-home mother for ten years. During this ten-year period, I briefly worked part-time for Anchor Metals, Inc. and Meyer Industries analyzing and designing tubular steel poles and steel lattice towers for transmission line structures. In 1996, I formed my corporation, BJ Perkins Corporation, and have been an engineering consultant for Oncor Electric Delivery Company LLC ("Oncor" or "Company") on numerous transmission line projects. I have provided project support for the routing, engineering and right-of-way acquisition of numerous Competitive Renewable Energy Zone ("CREZ") projects. Recently, I have provided project support for the routing of numerous non-CREZ transmission projects. My educational and professional qualifications are outlined in Exhibit BJP-1, attached hereto.

Q: HAVE YOU EVER SUBMITTED TESTIMONY BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS ("COMMISSION")?

A: Yes. I provided testimony in Docket Nos. 37408, 37529, 37530, 38324, 38517, 38677, 42087, 42583, 47368, 47808, 48095, 48785, 48909, 49151, 49302, 49723, and 50410.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my direct testimony is to address certain aspects of Oncor's proposed Old Country Switch 345 kV Tap transmission line project ("Proposed Transmission Line Project"), including the:

- public participation meeting;
- routing considerations, including selection of the route that best meets the factors set forth in Texas Utilities Code § 37.056 and the Commission's rules, and the other alternative routes included in Oncor's Standard Application for a Certificate of Convenience and Necessity ("CCN") for a Proposed Transmission Line filed on August 26, 2021 (the "Application");
- adequacy of Oncor's geographically diverse routes; and
- notice provided pursuant to Commission Rules.

The statements and opinions expressed in this testimony are based on: my previously described experience in the evaluation of transmission line routes; my independent review and evaluation of the data included in the *Environmental Assessment and Alternative Route Analysis for the Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas* ("Environmental Assessment and Routing Study"), prepared by Freese and Nichols, Inc. ("Freese and Nichols") and included as Attachment No. 1 to the Application; discussions with Oncor personnel; discussions with Freese and Nichols employees who participated in the development of the Environmental Assessment and Routing Study; my observations of the project area based on reconnaissance investigations; and my understanding of Texas Utilities Code § 37.056 and 16 Texas

Administrative Code ("TAC") §§ 22.52 and 25.101 (attached hereto as Exhibits BJP-2, BJP-3, and BJP-4, respectively).

In addition to the testimony offered herein, I sponsor Oncor's responses to Question Nos. 17-18 and 25 in the Application, as well as Attachment Nos. 6-12 to the Application filed by Oncor in this docket. The facts and statements set forth in those responses and attachments are true and correct. The Application, as it may be amended and/or supplemented, will be offered into evidence by Oncor at the hearing on the merits.

III. PUBLIC PARTICIPATION MEETING

Q. DID ONCOR HOLD A PUBLIC PARTICIPATION MEETING FOR THE PROPOSED TRANSMISSION LINE PROJECT PRIOR TO FILING THE APPLICATION?

A. Yes. Once the preliminary alternative routes were identified by Freese and Nichols, a public open-house meeting for the Proposed Transmission Line Project was hosted by Oncor and attended by Freese and Nichols. The meeting was held on May 20, 2021, from 4:00 p.m. to 7:00 p.m. at the City of Italy Community Center in Italy, Texas.

Q. WHAT WAS THE PURPOSE OF THE PUBLIC PARTICIPATION MEETING?

A. The purpose of the meeting was to solicit comments and input from residents, landowners, public officials, and other interested parties concerning the Proposed Transmission Line Project, the preliminary alternative routes, and the overall transmission line routing process. Such meetings help ensure that the values and concerns of the public are adequately identified and considered. Additionally, Oncor utilized the public meeting process as an opportunity to provide information about the Proposed Transmission Line Project, including the need for the project and the certification process.

Q. HOW DID ONCOR PROVIDE NOTICE OF THE PUBLIC PARTICIPATION MEETING?

A. Notice was sent by first class mail to owners of property within 500 feet of the centerline of any preliminary alternative routes presented for consideration at the public participation meeting. A representative copy of the notice mailed to property owners regarding the public participation meeting is located in Appendix B of the Environmental Assessment and Routing Study for the Proposed Transmission Line Project. Oncor also emailed notice of the public participation meeting to the Department of Defense ("DoD") Siting Clearinghouse.

Q. DID ONCOR MAIL NOTICE OF THE PUBLIC PARTICIPATION MEETING TO ANYONE ELSE?

A. Yes. Notices were also sent by first class mail or delivered to local officials and various state and federal regulatory agencies regarding the public participation meeting. A representative copy of the notice of the public participation meeting for the Proposed Transmission Line Project can be found in Appendix B of the Environmental Assessment and Routing Study.

Q. WAS ANY OTHER FORM OF NOTICE USED TO ADVERTISE THE PUBLIC PARTICIPATION MEETING?

A. Yes. Notice for the public participation meeting was published on May 9, 2021, in *The Ennis News*, a newspaper of general circulation in Ellis County. The notice announced the location, time, and purpose of the meeting. A copy of the notice for the public participation meeting can be found in Appendix B of the Environmental Assessment and Routing Study.

Q. PLEASE EXPLAIN THE PUBLIC PARTICIPATION MEETING PROCESS.

A. Oncor held the public participation meeting in an open house format. Oncor made available packets of information containing frequently asked questions and the responses to those questions, a map showing the location of the preliminary alternative routes, and a questionnaire for interested parties to fill out.

Oncor also hosted a series of exhibits around the room staffed by representatives of Oncor, Freese and Nichols, and 7Arrows Land Staff,

LLC, a property abstracting contractor. The various stations included information regarding the CCN process, a discussion of the need for the project, property ownership information, preliminary alternative routes and routing constraints, and environmental and engineering aspects.

The various exhibit areas were arranged in order to provide prospective attendees with a sequential approach to the information presented as well as the freedom to visit each of the exhibits in any order they wished and to spend as much time as they desired discussing each topic presented. An area was also set aside with tables and chairs to allow prospective attendees an opportunity to complete their questionnaires in close proximity to the exhibits. In this way, resources were readily available to provide further information on issues requiring additional discussion or clarification.

The information station format was used because it is Oncor's experience that this format allows attendees to learn about the project in a relaxed manner, to focus on issues of most interest to them, and to ask questions of Oncor representatives with knowledge of the various topics presented. Furthermore, this format facilitates more interaction with those attendees who might have been hesitant to participate in a speaker-audience format.

To facilitate public participation during the COVID-19 pandemic in accordance with public health and safety guidelines, Oncor also provided a virtual public participation website to solicit feedback from residents, landowners, public officials, other interested parties who desired to participate remotely. The virtual website was developed to mirror the in-person meeting, with sections for each information station, including electronic versions of the maps, illustrations, photographs, and/or text explaining each topic. Each information section included a Zoom meeting link to speak directly with an Oncor, Freese and Nichols, or 7Arrows Land Staff representative during the allotted public meeting time. Oncor witness

Ms. Kimberley M. Buckley addresses the routing aspects of the public participation meeting in her direct testimony.

Q. HAS ONCOR COMPLIED WITH 16 TAC § 22.52(a)(4) CONCERNING PUBLIC MEETING REQUIREMENTS?

A. Yes.

IV. ROUTE SELECTION

Q. DID YOU RECOMMEND A ROUTE AND ALTERNATIVE ROUTES FOR THE PROPOSED TRANSMISSION LINE PROJECT?

A. Yes. As discussed in the response to Question No. 17 of the Application, I recommended Route 54 for the Proposed Transmission Line Project as the route that best meets the requirements of the Texas Utilities Code and the Commission's Substantive Rules. I also selected 42 alternative routes in addition to Route 54 for inclusion in the Application. Additional information concerning my analysis of Route 54 and the other filed alternative routes is contained in a memorandum I prepared, which is included as Attachment No. 6 to the Application and as Exhibit BJP-5 to my direct testimony.

Q. PLEASE DESCRIBE SOME OF THE KEY ATTRIBUTES OF THE 43 FILED ROUTES.

A. Each of the 43 filed routes complies with Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code and 16 TAC § 25.101, including the Commission's policy of prudent avoidance, and they were developed in compliance with 16 TAC § 22.52(a)(4). The filed routes provide geographic diversity and an adequate number of alternative routes to conduct a proper evaluation. In addition, each of the filed routes has been judged feasible from an engineering perspective based on known constraints. All 43 filed routes meet all of the statutory and regulatory requirements and are acceptable to the Company.

V. RECOMMENDED ROUTE AND OTHER ALTERNATIVE ROUTES

Q. DID YOU RECOMMEND A ROUTE TO BE SELECTED?

A. Yes. Based on the criteria established in Texas Utilities Code § 37.056(c)(4)(D), 16 TAC § 25.101, including the Commission's policy of prudent avoidance, the Commission's CCN application form, the information provided to me by Oncor witness Mr. Oscar E. Rodriguez regarding cost estimates and engineering constraints, the information included in the Environmental Assessment and Routing Study, and my personal reconnaissance of the study area, I recommend that the Commission select Route 54 for the Proposed Transmission Line Project. As presented in the Application, I also recommend that the Commission consider the 42 additional alternative routes as viable alternatives to Route 54. All of the routes included in the Application comply with the routing requirements of Texas Utilities Code § 37.056(c)(4)(A)-(D) and 16 TAC § 25.101.

Q. WHAT IS THE BASIS FOR YOUR SELECTION OF ROUTE 54 AS THE RECOMMENDED ROUTE?

A. Freese and Nichols provided information on 157 preliminary alternative routes in the Environmental Assessment and Routing Study. After analyzing those 157 preliminary alternative routes, I recommended filing 43 of those routes to be filed with the Application for consideration by the Commission. In addition to geographic differences, the more significant differences between the 43 filed routes are route lengths, costs, and number of habitable structures within 500 feet. Route lengths for the filed routes range from approximately 3.2 miles to approximately 4.9 miles. The estimated transmission line costs for the filed routes range from approximately $10,392,000 to $13,695,000. The number of habitable structures within 500 feet of the filed routes ranges from 1 to 9.

Given the balance of the factors, I selected Route 54 as the Recommended Route for the Proposed Transmission Line Project. Specifically, this route:

- is approximately 3.2 miles long, which is the shortest among all the alternative routes and approximately 1.7 miles shorter than the longest alternative route included in the Application;
- is estimated to cost $10,392,000, exclusive of station costs, which is the least expensive among all the alternative routes and $3,303,000 less than the most expensive alternative route included in the Application;
- parallels existing compatible corridors for approximately 43.8% of its length, compared with 8.3% for the route that least parallels existing compatible corridors on a percentage basis; and
- has five habitable structures within 500 feet of its centerline, four fewer than the route with the highest number of habitable structures within 500 feet.

In addition, this alternative route has been judged to be feasible from an engineering perspective based on currently known conditions without the benefit of on-the-ground surveys.

Q. DOES THE RECOMMENDED ROUTE FOR THE PROPOSED TRANSMISSION LINE PROJECT COMPLY WITH TEXAS UTILITIES CODE § 37.056(c)(4)(A)-(D) AND 16 TAC § 25.101(b)(3)(B)?

A. Yes. Route 54 does not significantly impact community values, recreational and park areas, historical and aesthetic values, or the environmental integrity of the area traversed by the Proposed Transmission Line Project. Route 54 limits exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort. Specifically, Route 54 does not significantly impact communication facilities, airports, cropland irrigated by traveling irrigation systems, recreational or park areas, or known cultural resource sites.

Q. WHAT IS YOUR BASIS FOR RECOMMENDING THE OTHER 42 ALTERNATIVE ROUTES FILED WITH THE APPLICATION?

A. Each of the 42 other alternative routes filed with the Application also comply with the provisions of Texas Utilities Code § 37.056(c) and 16 TAC § 25.101. In addition, they provide geographic diversity and an adequate number of alternative routes to conduct a proper evaluation.

Q. ARE YOU FAMILIAR WITH THE COMMISSION'S "POLICY OF PRUDENT AVOIDANCE"?

A. Yes.

Q. BRIEFLY DESCRIBE YOUR UNDERSTANDING OF THE COMMISSION'S POLICY OF PRUDENT AVOIDANCE.

A. 16 TAC § 25.101 defines prudent avoidance as "the limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort." My understanding of the Commission's policy of prudent avoidance is that the process of routing a proposed transmission line should include consideration of routing options that will reasonably avoid population centers and other locations where people gather. This does not mean that a proposed transmission line must avoid habitable structures at all costs, but that reasonable alternatives should be considered.

Q. DO THE ALTERNATIVE ROUTES INCLUDED IN THE APPLICATION, INCLUDING THE RECOMMENDED ROUTE, ADHERE TO THE COMMISSION'S POLICY OF PRUDENT AVOIDANCE?

A. Yes, all of the alternative routes proposed comply with the Commission's policy of prudent avoidance.

VI. ADEQUACY OF ROUTES

Q. DOES THE APPLICATION CONTAIN AN ADEQUATE NUMBER OF ALTERNATIVE ROUTES TO CONDUCT A PROPER EVALUATION?

A. Yes. Visual inspection of Figures 1-1, 2-1, and 3-1 in the Environmental Assessment and Routing Study shows the nature of the project area. Within this area, Oncor's Application includes 43 reasonably differentiated, forward-progressing geographically diverse alternative routes that are

consistent with the provisions of the Texas Utilities Code and the Commission's Substantive Rules. Based on my experience, my visual inspection of the area on several reconnaissance visits, and my detailed review and evaluation of the data presented in the Environmental Assessment and Routing Study, the Application contains an adequate number of alternative routes to conduct a proper evaluation. Thus, the adequacy of the routing options provided by Oncor in its Application is demonstrated both by the number of options presented to the Commission and the geographic diversity present among these options.

Q. WERE ALL PRELIMINARY ALTERNATIVE LINKS PROPOSED BY FREESE AND NICHOLS UTILIZED IN YOUR SELECTION OF ALTERNATIVE ROUTES?

A. Yes.

VII. NOTICE

Q. HAS ONCOR PROVIDED NOTICE OF THE FILING OF THIS APPLICATION AS REQUIRED BY THE COMMISSION'S PROCEDURAL RULES?

A. Yes. Public notice of the Application was published in *The Ennis News*, a newspaper of general circulation in Ellis County. A Publishers' Affidavit attesting to the publication of this notice was attached to Oncor's Affidavit Attesting to the Provision of Newspaper Notice, filed with the Commission on September 21, 2021.

On August 26, 2021, the date the Application was filed with the Commission, Oncor also provided notice in the following ways:

- Mailed written notice of the Application (in the form required by the Commission) to each landowner of record, according to current county tax rolls, that would be directly affected (as defined by 16 TAC § 22.52(a)(3)) by the Commission's approval of the Application on one or more of the routes included in the Application;

- Mailed written notice of the Application to the county judge and county commissioners of Ellis County, the only county where any portion of the requested facilities will be located;
- Mailed written notice of the Application to the City of Italy, Texas, the only municipality within the study area, including to the Mayor, Mayor Pro Tem, City Council members, City Secretary, and Director of Public Works;
- Mailed written notice of the Application to Brazos Electric Power Cooperative, Inc., the only neighboring utility providing the same utility service within five miles of the Proposed Transmission Line Project;
- Mailed written notice of the Application as a courtesy to the Permian Basin Petroleum Association;
- Emailed written notice of the Application, with attached map, to the DoD Siting Clearinghouse at the email address contained in the CCN Application form;
- Mailed written notice of the Application, with attached map, to the DoD Siting Clearinghouse at the physical address contained in the CCN Application;
- Mailed a copy of the Application and its attachments to the Office of Public Utility Counsel; and
- A copy of the Environmental Assessment and Routing Study was mailed to the Texas Parks and Wildlife Department.

Oncor's Affidavit Attesting to the Provision of Notice to Cities, Counties, Neighboring Utilities, Office of Public Utility Counsel, Texas Parks and Wildlife Department, Department of Defense Siting Clearinghouse, and Landowners, including representative copies of all notices provided, was filed with the Commission on September 16, 2021.

Q. DID ONCOR'S PROVISION OF NOTICE FOR THE PROPOSED TRANSMISSION LINE PROJECT COMPLY WITH 16 TAC § 22.52(a)?

A. Yes.

VIII. CONCLUSION

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

AFFIDAVIT

STATE OF TEXAS §
§
COUNTY OF TARRANT §

BEFORE ME, the undersigned authority, on this day personally appeared Brenda J. Perkins who, having been placed under oath by me, did depose as follows:

My name is Brenda J. Perkins. I am of legal age and a resident of the State of Texas. The foregoing testimony and exhibit offered by me are true and correct, and the opinions stated therein are, to the best of my knowledge and belief, accurate, true and correct.

Brenda J. Perkins

SUBSCRIBED AND SWORN TO BEFORE ME on this 17th day of December, 2021.

MICHELE M. GIBSON
Notary Public, State of Texas
Comm. Expires 06-30-2022
Notary ID 575631-8

Notary Public, State of Texas

My Commission Expires

06/30/2022

BRENDA J. PERKINS, P.E.

President, BJ Perkins Corporation
Managing Partner, Brenda Perkins and Associates, LLP

EDUCATION:
University of Texas at Arlington
B.S., Civil Engineering, 1981

PROFESSIONAL REGISTRATION:
Licensed Professional Engineer, Texas

PROFESSIONAL AFFILIATIONS:
Transmission and Substation Design and Operation Symposium Attendee

CIVIC ACTIVITIES:
1996 – 2008: held various PTA officer positions in Arlington ISD including President at 2 schools

2014 – Present: held various HOA officer positions

Brenda Perkins has over 30 years of experience in the high voltage power line industry. The following is a brief chronological outline of her experience:

Texas Power & Light Company, Dallas, Texas
Civil Engineer (1981-1986)

- Provided engineering design, project scheduling, and engineering support during project construction of transmission and distribution lines.

Anchor Metals, Inc., Hurst, Texas
Design Engineer (1988,1989)

- Analyzed and designed tubular steel pole structures for utility company bids.

Meyer Industries/Anchor Metals, Bedford, Texas
Design Engineer (1989, 1990)

- Analyzed and designed steel lattice tower structures for utility company bids.

Brenda Perkins and Associates, LLP, Arlington, Texas
Managing Partner (1996 – Present)

- 1996-1999: Managed and was responsible for providing crews to perform maintenance services and repairs on transmission line facilities and substation equipment.
- 1999-2003: Managed turnkey transmission line relocations and line re-conductoring projects.
- 2001-Present: Manage personnel responsible for field observation and reporting of project site controls specifically related to the Storm Water Pollution Prevention Plan (SWPPP) requirements on transmission line and substation projects.

BJ Perkins Corporation, Arlington, Texas
President (1996 – Present)

- 2004 – May 2009: Provide engineering design of transmission line projects and engineering support during project construction.
- May 2009 – January 2011: Provide engineering evaluation, cost projections and engineering representation for proposed transmission line routes on behalf of Oncor Electric Delivery for their Certificate of Convenience and Necessity (CCN) application to the Public Utility Commission of Texas
- February 2011 – April 2015: Provide engineering expert testimony for transmission line right-of-way acquisition in eminent domain court proceedings
- January 2013 – Present: Provide project management and expert testimony on behalf of Oncor Electric Delivery for transmission line routing studies

CHAPTER 37. CERTIFICATES OF CONVENIENCE AND NECESSITY.

Subchapter B. CERTIFICATE OF CONVENIENCE AND NECESSITY.

Sec. 37.056. GRANT OR DENIAL OF CERTIFICATE.

(a) The commission may approve an application and grant a certificate only if the commission finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public.

(b) The commission may:

(1) grant the certificate as requested;

(2) grant the certificate for the construction of a portion of the requested system, facility, or extension or the partial exercise of the requested right or privilege; or

(3) refuse to grant the certificate.

(c) The commission shall grant each certificate on a nondiscriminatory basis after considering:

(1) the adequacy of existing service;

(2) the need for additional service;

(3) the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; and

(4) other factors, such as:

(A) community values;

(B) recreational and park areas;

(C) historical and aesthetic values;

(D) environmental integrity;

(E) the probable improvement of service or lowering of cost to consumers in the area if the certificate is granted, including any potential economic or reliability benefits associated with dual fuel and fuel storage capabilities in areas outside the ERCOT power region; and

(F) to the extent applicable, the effect of granting the certificate on the ability of this state to meet the goal established by Section 39.904(a) of this title.

(c-1) In considering the need for additional service under Subsection (c)(2) for a reliability transmission project that serves the ERCOT power region, the commission must consider the historical load, forecasted load growth, and additional load currently seeking interconnection.

(d) The commission by rule shall establish criteria, in addition to the criteria described by Subsection (c), for granting a certificate for a transmission project that serves the ERCOT power region, that is not necessary to meet state or federal reliability standards, and that is not included in a plan developed under Section 39.904(g). The criteria must include a comparison of the estimated cost of the transmission project for consumers and the estimated congestion cost savings for consumers that may result from the transmission project, considering both current and future expected congestion levels and the transmission project's ability to reduce those congestion levels. The commission shall include with its decision on an application for a certificate to which this subsection applies findings on the criteria.

(e) A certificate to build, own, or operate a new transmission facility that directly interconnects with an existing electric utility facility or municipally owned utility facility may be granted only to the owner of that existing facility. If a new transmission facility will directly interconnect with facilities owned by different electric utilities or municipally owned utilities, each entity shall be certificated to build, own, or operate the new facility in separate and discrete equal parts unless they agree otherwise.

(f) Notwithstanding Subsection (e), if a new transmission line, whether single or double circuit, will create the first interconnection between a load-serving station and an existing transmission facility, the entity with a load-serving responsibility or an electric cooperative that has a member with a load-serving

responsibility at the load-serving station shall be certificated to build, own, or operate the new transmission line and the load-serving station. The owner of the existing transmission facility shall be certificated to build, own, or operate the station or tap at the existing transmission facility to provide the interconnection, unless after a reasonable period of time the owner of the existing transmission facility is unwilling to build, and then the entity with the load-serving responsibility or an electric cooperative that has a member with a load-serving responsibility may be certificated to build the interconnection facility.

(g) Notwithstanding any other provision of this section, an electric utility or municipally owned utility that is authorized to build, own, or operate a new transmission facility under Subsection (e) or (f) may designate another electric utility that is currently certificated by the commission within the same electric power region, coordinating council, independent system operator, or power pool or a municipally owned utility to build, own, or operate a portion or all of such new transmission facility, subject to any requirements adopted by the commission by rule.

(h) The division of any required certification of facilities described in this section shall apply unless each entity agrees otherwise. Nothing in this section is intended to require a certificate for facilities that the commission has determined by rule do not require certification to build, own, or operate.

(i) Notwithstanding any other provision of this section, an electric cooperative may be certificated to build, own, or operate a new facility in place of any other electric cooperative if both cooperatives agree.

(V.A.C.S. art. 1446c-0, secs. 2.255(b), (c).) (Amended by Acts 2003, 78th Leg., R.S., ch. 295 (HB 2548), § 2 (added subd. (c)(4)(F)); Acts 2011, 82nd Leg., R.S., ch. 949 (HB 971), § 2(a) (added subsec. (d)); Acts 2019, 86th Leg. R.S., ch. 44 (SB 1938), § 4 (added subsecs. (e), (f), (g), (h), and (i)) Acts 2021, 87th Leg., R.S., ch. 198 (HB 1510), § 3 (amended subd. (c)(4)); Acts 2021, 87th Leg., R.S., ch. 876 (SB 1281), § 2 (added subsec. (c-1) & amended subsec. (d)).)

Subchapter D. NOTICE.

§22.52. Notice in Licensing Proceedings.

(a) **Notice in electric licensing proceedings**. In all electric licensing proceedings except minor boundary changes, the applicant shall give notice in the following ways:

(1) Applicant shall publish notice once of the applicant's intent to secure a certificate of convenience and necessity in a newspaper having general circulation in the county or counties where a certificate of convenience and necessity is being requested, no later than the week after the application is filed with the commission. This notice shall identify the commission's docket number and the style assigned to the case by Central Records. In electric transmission line cases, the applicant shall obtain the docket number and style no earlier than 25 days prior to making the application by filing a preliminary pleading requesting a docket assignment. The notice shall identify in general terms the type of facility if applicable, and the estimated expense associated with the project. The notice shall describe all routes without designating a preferred route or otherwise suggesting that a particular route is more or less likely to be selected than one of the other routes.

(A) The notice shall include all the information required by the standard format established by the commission for published notice in electric licensing proceedings. The notice shall state the date established for the deadline for intervention in the proceeding (date 45 days after the date the formal application was filed with the commission; or date 30 days after the date the formal application was filed with the commission for an application for certificate of convenience and necessity filed under PURA §39.203(e)) and that a letter requesting intervention should be received by the commission by that date.

(B) The notice shall describe in clear, precise language the geographic area for which the certificate is being requested and the location of all alternative routes of the proposed facility. This description shall refer to area landmarks, including but not limited to geographic landmarks, municipal and county boundary lines, streets, roads, highways, railroad tracks, and any other readily identifiable points of reference, unless no such references exist for the geographic area. In addition, the notice shall include a map that identifies all of the alternative locations of the proposed routes and all major roads, transmission lines, and other features of significance to the areas that are used in the utility's written notice description.

(C) The notice shall state a location where a detailed routing map may be reviewed. The map shall clearly and conspicuously illustrate the location of the area for which the certificate is being requested including all the alternative locations of the proposed routes, and shall reflect area landmarks, including but not limited to geographic landmarks, municipal and county boundary lines, streets, roads, highways, railroad tracks, and any other readily identifiable points of reference, unless no such references exist for the geographic area.

(D) Proof of publication of notice shall be in the form of a publisher's affidavit which shall specify the newspaper(s) in which the notice was published, the county or counties in which the newspaper(s) is or are of general circulation, the dates upon which the notice was published, and a copy of the notice as published. Proof of publication shall be submitted to the commission as soon as available.

(E) The applicant shall provide a copy of each environmental impact study and/or assessment for the project to the Texas Parks and Wildlife Department (TPWD) for its review within seven days of filing the application. Proof of submission of the information to TPWD shall be provided in the form of an affidavit to the commission, which shall specify the date the information was mailed or otherwise provided to TPWD, and shall provide a copy of the cover letter or other documentation that confirms that the information was provided to TPWD.

(2) Applicant shall, upon filing an application, also mail notice of its application to municipalities within five miles of the requested territory or facility, neighboring utilities providing the same utility service within five miles of the requested territory or facility, the county government(s)

Subchapter D. NOTICE.

of all counties in which any portion of the proposed facility or requested territory is located, and the Department of Defense Siting Clearinghouse. In addition, the applicant shall, upon filing the application, serve the notice on the Office of Public Utility Counsel using a method specified in §22.74(b) of this title (relating to Service of Pleadings and Documents). The notice shall contain the information as set out in paragraph (1) of this subsection and a map as described in paragraph (1)(C) of this subsection. An affidavit attesting to the provision of notice to municipalities, utilities, counties, the Department of Defense Siting Clearinghouse, and the Office of Public Utility Counsel shall specify the dates of the provision of notice and the identity of the individual municipalities, utilities, and counties to which such notice was provided. Before final approval of any modification in the applicant's proposed route(s), applicant shall provide notice as required under this paragraph to municipalities, utilities, and counties affected by the modification which have not previously received notice. The notice of modification shall state such entities will have 20 days to intervene.

(3) Applicant shall, on the date it files an application, mail notice of its application to the owners of land, as stated on the current county tax roll(s), who would be directly affected by the requested certificate. For purposes of this paragraph, land is directly affected if an easement or other property interest would be obtained over all or any portion of it, or if it contains a habitable structure that would be within 300 feet of the centerline of a transmission project of 230kV or less, or within 500 feet of the centerline of a transmission project greater than 230kV.

(A) The notice must contain all information required in paragraph (1) of this subsection and shall include all the information required by the standard notice letter to landowners prescribed by the commission. The commission's docket number pertaining to the application must be stated in all notices. The notice must also include a copy of the "Landowners and Transmission Line Cases at the PUC" brochure prescribed by the commission.

(B) The notice must include a map as described in paragraph (1)(C) of this subsection.

(C) Before final approval of any modification in the applicant's proposed route(s), applicant shall provide notice as required under subparagraphs (A) and (B) of this paragraph to all directly affected landowners who have not already received such notice.

(D) Proof of notice may be established by an affidavit affirming that the applicant sent notice by first-class mail to each of the persons listed as an owner of directly affected land on the current county tax roll(s). The proof of notice shall include a list of all landowners to whom notice was sent and a statement of whether any formal contact related to the proceeding between the utility and the landowner other than the notice has occurred. This proof of notice shall be filed with the commission no later than 20 days after the filing of the application.

(E) Upon the filing of proof of notice as described in subparagraph (D) of this paragraph, the lack of actual notice to any individual landowner will not in and of itself support a finding that the requirements of this paragraph have not been satisfied. If, however, the utility finds that an owner of directly affected land has not received notice, it shall immediately advise the commission by written pleading and shall provide notice to such landowner(s) by priority mail, with delivery confirmation, in the same form described in subparagraphs (A) and (B) of this paragraph, except that the notice shall state that the person has fifteen days from the date of delivery to intervene. The utility shall immediately file a supplemental affidavit of notice with the commission.

(4) The utility shall hold at least one public meeting prior to the filing of its licensing application if 25 or more persons would be entitled to receive direct mail notice of the application. Direct mail notice of the public meeting shall be sent by first-class mail to each of the persons listed on the current county tax rolls as an owner of land within 300 feet of the centerline of a transmission project of 230kV or less, or within 500 feet of the centerline of a transmission project greater than 230kV. The utility shall also provide written notice to the Department of Defense Siting Clearinghouse of the public meeting. In the notice for the public meeting, at the public meeting, and in other communications with a potentially affected person, the utility

shall not describe routes as preferred routes or otherwise suggest that a particular route is more or less likely to be selected than one of the other routes. In the event that no public meeting is held, the utility shall provide written notice to the Department of Defense Siting Clearinghouse of the planned filing of an application prior to completion of the routing study.

(5) Failure to provide notice in accordance with this section shall be cause for day-for-day extension of deadlines for intervention and for commission action on the application.

(6) Upon entry of a final, appealable order by the commission approving an application, the utility shall provide notice to all owners of land who previously received direct notice. Proof of notice under this subsection shall be provided to the commission's staff.

(A) If the owner's land is directly affected by the approved route, the notice shall consist of a copy of the final order.

(B) If the owner's land is not directly affected by the approved route, the notice shall consist of a brief statement that the land is no longer the subject of a pending proceeding and will not be directly affected by the facility.

(7) All notices of an applicant's intent to secure a certificate of convenience and necessity whether provided by publication or direct mail shall include the following language: "All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas."

(b) **Notice in telephone licensing proceedings.** In all telephone licensing proceedings, except minor boundary changes, applications for a certificate of operating authority, or applications for a service provider certificate of operating authority, the applicant shall give notice in the following ways:

(1) Applicants shall publish in a newspaper having general circulation in the county or counties where a certificate of convenience and necessity is being requested, once each week for two consecutive weeks, beginning the week after the application is filed, notice of the applicant's intent to secure a certificate of convenience and necessity. This notice shall identify in general terms the types of facilities, if applicable, the area for which the certificate is being requested, and the estimated expense associated with the project. Whenever possible, the notice should state the established intervention deadline. The notice shall also include the following statement: "Persons with questions about this project should contact (name of utility contact) at (utility contact telephone number). Persons who wish to intervene in the proceeding or comment upon action sought, should contact the Public Utility Commission, P.O. Box 13326, Austin, Texas 78711-3326, or call the Public Utility Commission at (512) 936-7120 or (888) 782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the commission at (512) 936-7136. The deadline for intervention in the proceeding is (date 70 days after the date the application was filed with the commission) and you must send a letter requesting intervention to the commission which is received by that date." Proof of publication of notice shall be in the form of a publisher's affidavit, which shall specify the newspaper or newspapers in which the notice was published; the county or counties in which the newspaper or newspapers is or are of general circulation; the dates upon which the notice was published and a copy of the notice as published. Proof of publication shall be submitted to the commission as soon as available.

(2) Applicant shall also mail notice of its application, which shall contain the information as set out in paragraph (1) of this subsection, to cities and to neighboring utilities providing the same service within five miles of the requested territory or facility. Applicant shall also provide notice to the county government of all counties in which any portion of the proposed facility or territory is located. The notice provided to county governments shall be identical to that provided to cities and to neighboring utilities. An affidavit attesting to the provision of notice to counties shall specify the dates of the provision of notice and the identity of the individual counties to which such notice was provided.

(3) Failure to provide notice in accordance with this section shall be cause for day-for-day extension of deadlines for intervention.

CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

§25.101. Certification Criteria.

(a) **Definitions.** The following words and terms, when used in this section, shall have the following meanings unless the context clearly indicates otherwise:

(1) **Construction and/or extension** -- Shall not include the purchase or condemnation of real property for use as facility sites or right-of-way. Acquisition of right-of-way shall not be deemed to entitle an electric utility to the grant of a certificate of convenience and necessity without showing that the construction and/or extension is necessary for the service, accommodation, convenience, or safety of the public.

(2) **Generating unit** -- Any electric generating facility. This section does not apply to any generating unit that is less than ten megawatts and is built for experimental purposes only.

(3) **Habitable structures** -- Structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis. Habitable structures include, but are not limited to: single-family and multi-family dwellings and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, and schools.

(4) **Municipal Power Agency (MPA)** -- Agency or group created under Texas Utilities Code, Chapter 163 – Joint Powers Agencies.

(5) **Municipal Public Entity (MPE)** -- A municipally owned utility (MOU) or a municipal power agency.

(6) **Prudent avoidance** -- The limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort.

(7) **Tie line** -- A facility to be interconnected to the Electric Reliability Council of Texas (ERCOT) transmission grid by a person, including an electric utility or MPE, that would enable additional power to be imported into or exported out of the ERCOT power grid.

(b) **Certificates of convenience and necessity for new service areas and facilities.** Except for certificates granted under subsection (e) of this section, the commission may grant an application and issue a certificate only if it finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public, and complies with the statutory requirements in the Public Utility Regulatory Act (PURA) §37.056. The commission may issue a certificate as applied for, or refuse to issue it, or issue it for the construction of a portion of the contemplated system or facility or extension thereof, or for the partial exercise only of the right or privilege. The commission shall render a decision approving or denying an application for a certificate within one year of the date of filing of a complete application for such a certificate, unless good cause is shown for exceeding that period. A certificate, or certificate amendment, is required for the following:

(1) **Change in service area**. Any certificate granted under this section shall not be construed to vest exclusive service or property rights in and to the area certificated.

(A) Uncontested applications: An application for a certificate under this paragraph shall be approved administratively within 80 days from the date of filing a complete application if:

(i) no motion to intervene has been filed or the application is uncontested;

(ii) all owners of land that is affected by the change in service area and all customers in the service area being changed have been given direct mail notice of the application; and

(iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.

(B) Minor boundary changes or service area exceptions: Applications for minor boundary changes or service area exceptions shall be approved administratively within 45 days of the filing of the application provided that:

(i) every utility whose certificated service area is affected agrees to the change;
(ii) all customers within the affected area have given prior consent; and
(iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.

(2) **Generation facility.**

(A) In a proceeding involving the purchase of an existing electric generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 181st day after the date a request for the certificate is filed with the commission under PURA §37.058(b).

(B) In a proceeding involving a newly constructed generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 366th day after the date a request for the certificate is filed with the commission under PURA §37.058(b).

(3) **Electric transmission line.** All new electric transmission lines shall be reported to the commission in accordance with §25.83 of this title (relating to Transmission Construction Reports). This reporting requirement is also applicable to new electric transmission lines to be constructed by an MPE seeking to directly or indirectly construct, install, or extend a transmission facility outside of its applicable boundaries. For an MOU, the applicable boundaries are the municipal boundaries of the municipality that owns the MOU. For an MPA, the applicable boundaries are the municipal boundaries of the public entities participating in the MPA.

(A) Need:

(i) Except as stated below, the following must be met for a transmission line in the ERCOT power region. The applicant must present an economic cost-benefit study that includes an analysis that shows that the levelized ERCOT-wide annual production cost savings attributable to the proposed project are equal to or greater than the first-year annual revenue requirement of the proposed project of which the transmission line is a part. Indirect costs and benefits to the transmission system may be included in the cost-benefit study. The commission shall give great weight to such a study if it is conducted by the ERCOT independent system operator. This requirement also does not apply to an application for a transmission line that is necessary to meet state or federal reliability standards, including: a transmission line needed to interconnect a transmission service customer or end-use customer; or needed due to the requirements of any federal, state, county, or municipal government body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air or water quality.

(ii) For a transmission line not addressed by clause (i) of this subparagraph, the commission shall consider among other factors, the needs of the interconnected transmission systems to support a reliable and adequate network and to facilitate robust wholesale competition. The commission shall give great weight to:

(I) the recommendation of an organization that meets the requirement of PURA §39.151; and/or

(II) written documentation that the transmission line is needed to interconnect a transmission service customer or an end-use customer.

(B) **Routing:** An application for a new transmission line shall address the criteria in PURA §37.056(c) and considering those criteria, engineering constraints, and costs, the line shall be routed to the extent reasonable to moderate the impact on the affected community and landowners unless grid reliability and security dictate otherwise. The following factors shall be considered in the selection of the utility's alternative routes unless a route is agreed to by the utility, the landowners whose property is crossed by the proposed line, and owners of land that contains a habitable structure within 300 feet of the centerline of a transmission project of 230 kV or less, or within 500 feet of the centerline of a transmission project greater than 230 kV, and otherwise conforms to the criteria in PURA §37.056(c):

(i) whether the routes parallel or utilize existing compatible rights-of-way for electric facilities, including the use of vacant positions on existing multiple-circuit transmission lines;

(ii) whether the routes parallel or utilize other existing compatible rights-of-way, including roads, highways, railroads, or telephone utility rights-of-way;

(iii) whether the routes parallel property lines or other natural or cultural features; and

(iv) whether the routes conform with the policy of prudent avoidance.

(C) Uncontested transmission lines: An application for a certificate for a transmission line shall be approved administratively within 80 days from the date of filing a complete application if:

(i) no motion to intervene has been filed or the application is uncontested; and

(ii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.

(D) Projects deemed critical to reliability. Applications for transmission lines which have been formally designated by a PURA §39.151 organization as critical to the reliability of the system shall be considered by the commission on an expedited basis. The commission shall render a decision approving or denying an application for a certificate under this subparagraph within 180 days of the date of filing a complete application for such a certificate unless good cause is shown for extending that period.

(4) **Tie line**. An application for a tie line must include a study of the tie line by the ERCOT independent system operator. The study shall include, at a minimum, an ERCOT-approved reliability assessment of the proposed tie line. If an independent system operator intends to conduct a study to evaluate a proposed tie line or intends to provide confidential information to another entity to permit the study of a proposed tie line, the independent system operator shall file notice with the commission at least 45 days prior to the commencement of such a study or the provision of such information. This paragraph does not apply to a facility that is in service on December 31, 2014.

(c) **Projects or activities not requiring a certificate.** A certificate, or certificate amendment, is not required for the following:

(1) A contiguous extension of those facilities described in PURA §37.052;

(2) A new electric high voltage switching station, or substation;

(3) The repair or reconstruction of a transmission facility due to emergencies. The repair or reconstruction of a transmission facility due to emergencies shall proceed without delay or prior approval of the commission and shall be reported to the commission in accordance with §25.83 of this title;

(4) The construction or upgrading of distribution facilities within the electric utility's service area;

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Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

(5) Routine activities associated with transmission facilities that are conducted by transmission service providers. Nothing contained in the following subparagraphs should be construed as a limitation of the commission's authority as set forth in PURA. Any activity described in the following subparagraphs shall be reported to the commission in accordance with §25.83 of this title. The commission may require additional facts or call a public hearing thereon to determine whether a certificate of convenience and necessity is required. Routine activities are defined as follows:

(A) The modification or extension of an existing transmission line solely to provide service to a substation or metering point provided that:

(i) an extension to a substation or metering point does not exceed one mile; and

(ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.

(B) The rebuilding, replacement, or respacing of structures along an existing route of the transmission line; upgrading to a higher voltage not greater than 230 kV; bundling of conductors or reconductoring of an existing transmission facility, provided that:

(i) no additional right-of-way is required; or

(ii) if additional right-of-way is required, all landowners of property crossed by the electric facilities have given prior written consent.

(C) The installation, on an existing transmission line, of an additional circuit not previously certificated, provided that:

(i) the additional circuit is not greater than 230 kV; and

(ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.

(D) The relocation of all or part of an existing transmission facility due to a request for relocation, provided that:

(i) the relocation is to be done at the expense of the requesting party; and

(ii) the relocation is solely on a right-of-way provided by the requesting party.

(E) The relocation or alteration of all or part of an existing transmission facility to avoid or eliminate existing or impending encroachments, provided that all landowners of property crossed by the electric facilities have given prior written consent.

(F) The relocation, alteration, or reconstruction of a transmission facility due to the requirements of any federal, state, county, or municipal governmental body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air and water quality, provided that:

(i) all landowners of property crossed by the electric facilities have given prior written consent; and

(ii) the relocation, alteration, or reconstruction is responsive to the governmental request.

(6) Upgrades to an existing transmission line by an MPE that do not require any additional land, right-of-way, easement, or other property not owned by the MOU;

(7) The construction, installation, or extension of a transmission facility by an MPE that is entirely located not more than 10 miles outside of an MOU's certificated service area that occurs before September 1, 2021; or

(8) A transmission facility by an MOU placed in service after September 1, 2015, that is developed to interconnect a new natural gas generation facility to the ERCOT transmission grid and for which, on or before January 1, 2015, an MOU was contractually obligated to purchase at least 190 megawatts of capacity.

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(d) **Standards of construction and operation.** In determining standard practice, the commission shall be guided by the provisions of the American National Standards Institute, Incorporated, the National Electrical Safety Code, and such other codes and standards that are generally accepted by the industry, except as modified by this commission or by municipal regulations within their jurisdiction. Each electric utility shall construct, install, operate, and maintain its plant, structures, equipment, and lines in accordance with these standards, and in such manner to best accommodate the public, and to prevent interference with service furnished by other public utilities insofar as practical.

(1) The standards of construction shall apply to, but are not limited to, the construction of any new electric transmission facilities, rebuilding, upgrading, or relocation of existing electric transmission facilities.

(2) For electric transmission line construction requiring the acquisition of new rights-of-way, electric utilities must include in the easement agreement, at a minimum, a provision prohibiting the new construction of any above-ground structures within the right-of-way. New construction of structures shall not include necessary repairs to existing structures, farm or livestock facilities, storage barns, hunting structures, small personal storage sheds, or similar structures. Utilities may negotiate appropriate exceptions in instances where the electric utility is subject to a restrictive agreement being granted by a governmental agency or within the constraints of an industrial site. Any exception to this paragraph must meet all applicable requirements of the National Electrical Safety Code.

(3) Measures shall be applied when appropriate to mitigate the adverse impacts of the construction of any new electric transmission facilities, and the rebuilding, upgrading, or relocation of existing electric transmission facilities. Mitigation measures shall be adapted to the specifics of each project and may include such requirements as:

(A) selective clearing of the right-of-way to minimize the amount of flora and fauna disturbed;

(B) implementation of erosion control measures;

(C) reclamation of construction sites with native species of grasses, forbs, and shrubs; and

(D) returning site to its original contours and grades.

(e) **Certificates of convenience and necessity for existing service areas and facilities.** For purposes of granting these certificates for those facilities and areas in which an electric utility was providing service on September 1, 1975, or was actively engaged in the construction, installation, extension, improvement of, or addition to any facility actually used or to be used in providing electric utility service on September 1, 1975, unless found by the commission to be otherwise, the following provisions shall prevail for certification purposes:

(1) The electrical generation facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise provided, to the facilities and real property on which the facilities were actually located, used, or dedicated as of September 1, 1975.

(2) The transmission facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be, unless otherwise provided, the facilities and a corridor extending 100 feet on either side of said transmission facilities in place, used or dedicated as of September 1, 1975.

(3) The facilities and service area boundary for the following types of electric utilities providing distribution or collection service to any area, or actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise found by the commission, to the facilities and the area which lie within 200 feet of any point along a distribution line, which is specifically deemed to include service drop lines, for electrical utilities.

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(f) **Transferability of certificates.** Any certificate granted under this section is not transferable without approval of the commission and shall continue in force until further order of the commission.

(g) **Certification forms.** All applications for certificates of convenience and necessity shall be filed on commission-prescribed forms so that the granting of certificates, both contested and uncontested, may be expedited. Forms may be obtained from Central Records.

(h) **Commission authority**. Nothing in this section is intended to limit the commission's authority to recommend or direct the construction of transmission under PURA §§35.005, 36.008, or 39.203(e).

Office Memorandum

Date: August 4, 2021

To: File

From: Brenda J. Perkins

Subject: Alternative Routes Evaluation: Old Country Switch 345 kV Tap Transmission Line Project

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This memorandum discusses my evaluation of routing alternatives for Oncor Electric Delivery Company LLC's ("Oncor's") proposed Old Country Switch 345 kV Tap Transmission Line Project ("Proposed Transmission Line Project"). In addition to the recommendation for a route that best meets the requirements of the Texas Utilities Code and the Substantive Rules of the Public Utility Commission of Texas ("Commission"), I also selected alternative routes to be filed with this CCN Application.

The goal of this process is to provide the Commission with an adequate number of alternative routes to conduct a proper evaluation. These alternative routes provide good geographic diversity while complying with Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code, Commission Procedural Rule 22.52(a)(4), and Commission Substantive Rule 25.101(b)(3)(B), including the Commission's policy of prudent avoidance.

My recommendations are based on my reconnaissance and observations of the project area, my independent review of the data included in the *Environmental Assessment and Alternative Route Analysis for Oncor Electric Delivery Company LLC's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas* ("Environmental Assessment and Routing Study"), prepared by Freese and Nichols, Inc. ("FNI"), my discussions with FNI personnel, my discussions with Oncor personnel, my participation in the public participation meeting process, my review of correspondence related to the Proposed Transmission Line Project, my understanding of other input that Oncor received from interested parties, and other information. My recommendation incorporates consideration of engineering feasibility, the estimated cost of alternative routes, construction limitations, and other information.

FNI documented its efforts to identify potential preliminary alternative routes for the Proposed Transmission Line Project in Section 4.0 of the Environmental Assessment and Routing Study. After FNI completed the initial data gathering and constraints mapping process, they identified preliminary alternative route links on recent aerial photography from the United States Department of Agriculture National Agriculture Imagery Program. These preliminary alternative route links were selected considering the location of existing corridors, apparent property boundaries and routing constraints. Numerous preliminary alternative route links were identified by FNI, prior to the public participation meeting, that when combined, formed many preliminary alternative routes

to connect the proposed Oystercatcher Solar Substation to the proposed Oncor Old Country Switch. The preliminary alternative route links evaluated by FNI are depicted in Figure 3-1 located in Appendix F of the Environmental Assessment and Routing Study.

Following the public participation meeting, modifications were made as a result of FNI's further evaluation of the preliminary alternative route links. The modified preliminary alternative route links are discussed in detail in Section 6.0 of the Environmental Assessment and Routing Study and are briefly summarized below.

In general, links were modified where possible to: minimize the length of line within native forest area, cross Chambers Creek along a natural clearing in the riparian vegetation, and provide straighter route alignment while increasing the distance from habitable structures. Following the preliminary alternative route link revisions, FNI identified a total of 157 alternative routes that were further evaluated, as discussed in Section 7.0 of the Environmental Assessment and Routing Study.

Each of the 157 preliminary alternative routes identified by FNI possesses both positive and negative comparative attributes. I considered each of these attributes to select a set of geographically diverse routing alternatives to be filed as a part of this Application. Each alternative route complies with Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code and the Commission's Substantive Rule 25.101, including the Commission's policy of prudent avoidance.

Below, I will discuss the alternative routes that I have selected to be filed with the Application. The routes can be grouped in many different ways; one approach is the grouping of routes into geographic corridors. Alternative routes can be grouped into six different geographic corridors. These six corridors are identified as: the west corridor using Link F; the west corridor using Link H; the central corridor using Link Z; the central corridor using Link AA; the east corridor using Link CCC; and the east corridor using Link GGG. Due to the location of this project's endpoints being on opposite sides of Chambers Creek, all routes cross this creek. As shown in Figure 3-1 in the Environmental Assessment and Routing Study, most of the project's potential wetlands are near Chambers Creek or its tributaries.

I selected 43 geographically diverse alternative routes to be filed with the CCN Application to allow for an adequate number of alternative routes to conduct a proper evaluation. The links that comprise these routes are presented in Table 1. Table 2 presents quantifiable environmental data on the 43 alternative routes filed as a part of the CCN Application.

I then presented these 43 alternative routes to Oncor's engineer overseeing this project, Mr. Oscar Rodriguez, for consideration of engineering feasibility, construction limitations, and alternative route cost estimates. Below is a discussion of each of the six geographic corridors and the alternative routes selected for filing within each corridor.

The west corridor routes containing Link F ("Link F Corridor Routes") vary in length from approximately 4.0 to 4.3 miles. Transmission line costs for Link F Corridor Routes range from $11,894,000 to $12,997,000. Link F Corridor Routes vary in the number of habitable structures within 500 feet of the route centerline from 4 to 5. The filed Link F Corridor Routes cross

Chambers Creek using Links K, I or R. Unlike the Chambers Creek crossing of Links I and R, Link K's crossing of Chambers Creek has no potential wetland areas mapped by United States Fish and Wildlife Services ("USFWS"). The riparian areas crossed by the filed Link F Corridor Routes vary from 1,575 to 2,832 feet. The 4 alternatives filed in the Application that are in the west Link F corridor include Alternative Routes 2, 3, 5 and 7.

The west corridor routes containing Link H ("Link H Corridor Routes") vary in length from approximately 3.8 to 4.4 miles. Transmission line costs for Link H Corridor Routes range from $12,124,000 to $13,695,000. Link H Corridor Routes vary in the number of habitable structures within 500 feet of the route centerline from 4 to 5. The filed Link H Corridor Routes cross Chambers Creek using Links L, K or I. Unlike the Chambers Creek crossing of Links I and L, Link K's crossing of Chambers Creek has no potential wetland areas mapped by USFWS. The riparian areas crossed by the filed Link H Corridor Routes vary from 1,226 to 2,305 feet. The 8 alternatives filed in the Application that are in the west Link H corridor include Alternative Routes 69, 70, 71, 72, 73, 74, 139 and 140.

The central corridor routes using Link Z ("Link Z Corridor Routes") contain the shortest filed route (Route 54) with route lengths varying from approximately 3.2 to 3.7 miles. Transmission line costs for Link Z Corridor Routes range from $10,392,000 to $11,432,000. Link Z Corridor Routes vary in the number of habitable structures within 500 feet of the route centerline from 4 to 9. The filed Link Z Corridor Routes cross Chambers Creek using Link Z. No potential wetland areas have been mapped by USFWS near Link Z's crossing of Chambers Creek. Filed Link Z Corridor Routes have the second to lowest range of riparian areas crossed: from 701 to 1,878 feet. The 10 alternatives filed in the Application that are in the central Link Z corridor include Alternative Routes 13, 14, 17, 18, 31, 54, 55, 57, 58 and 100.

The central corridor routes containing Link AA ("Link AA Corridor Routes") vary in length from approximately 3.6 to 4.0 miles. Transmission line costs for Link AA Corridor Routes range from $11,432,000 to $12,770,000. Link AA Corridor Routes vary in the number of habitable structures within 500 feet of the route centerline from 3 to 5. The filed Link AA Corridor Routes cross Chambers Creek using Link AA. Just to the north of Link AA's crossing of Chambers Creek, a potential wetland area has been mapped by USFWS. Filed Link AA Corridor Routes have the lowest range of riparian areas crossed: from 650 to 1,827 feet. The 15 alternatives filed in the Application that are in the central Link AA corridor include Alternative Routes 19, 21, 22, 24, 25, 59, 60, 61, 62, 64, 65, 130, 131, 133 and 134.

The east corridor routes containing Link CCC ("Link CCC Corridor Routes") vary in length from approximately 4.0 to 4.6 miles. Transmission line costs for Link CCC Corridor Routes range from $11,707,000 to $13,423,000. Link CCC Corridor Routes vary in the number of habitable structures within 500 feet of the route centerline from 1 to 2. The filed Link CCC Corridor Routes cross Chambers Creek using Link EEE1. No potential wetland areas have been mapped by USFWS near Link EEE1's crossing of Chambers Creek. Filed Link CCC Corridor Routes have the highest range of riparian areas crossed: from 4,245 to 5,140 feet. The 4 alternatives filed in the Application that are in the east Link CCC corridor include Alternative Routes 144, 145, 147 and 151.

The east corridor routes using Link GGG ("Link GGG Corridor Routes") include the longest filed route (Route 150) with routes within this corridor varying in length from approximately 4.8 to 4.9 miles. Transmission line costs for Link GGG Corridor Routes range from $13,400,000 to $13,694,000. Link GGG Corridor Routes vary in the number of habitable structures within 500 feet of the route centerline from 1 to 2. Similar to Link CCC Corridor Routes, the filed Link GGG Corridor Routes cross Chambers Creek using Link EEE1. No potential wetland areas have been mapped by USFWS near Link EEE1's crossing of Chambers Creek. Filed Link GGG Corridor Routes have the second-highest range of riparian areas crossed: from 3,635 to 3,892 feet. The 2 alternatives filed in the Application that are in the east Link GGG corridor include Alternative Routes 149 and 150.

After analyzing each of the 43 routes within the six geographic corridors, I selected Route 54 (Links A-T-U1-V1-X1-Y-Z-DD-FF-JJ-NN-OO) as the route that best meets the requirements of the Texas Utilities Code and the Commission's Substantive Rules.

The other significant factors which led to the selection of Route 54 include the following:

- The length of Alternative Route 54 is approximately 3.2 miles, which is the shortest among all the filed routes and approximately 1.7 miles shorter than the longest alternative route included in the Application (Alternative Route 150 is the longest at approximately 4.9 miles);
- The transmission line estimated cost for alternative Route 54 is the least expensive route at $10,392,000. It is $3,303,000 less than the most expensive alternative route (Route 72);
- Alternative Route 54 parallels existing compatible corridors for 43.8% of its length (including apparent property boundaries). Alternative Route 69 had the lowest percentage (8.3%) parallel to existing corridors; the highest percentage (59%) was along Alternative Route 55;
- there are five habitable structures within 500 feet of the centerline of Alternative Route 54 (Alternative Route 31 had the highest number of habitable structures (9) within 500 feet of the centerline);
- Alternative Route 54 crosses Chambers Creek parallel to an existing road corridor, Farm to Market ("FM") 876, utilizing Link Z, where no potential wetland areas have been mapped by the USFWS;
- Alternative Route 54 has no recorded cultural resource sites within 1,000 feet of its centerline (15 of the filed routes have one recorded cultural resource site within 1,000 feet of their centerline);
- Alternative Route 54 has no FAA-registered airport with a runway greater than 3,200 feet within 20,000 feet of the centerline along its entire length;
- Alternative Route 54 has no FAA-registered airports with a runway greater than 3,200 feet within 10,000 feet of the centerline along its entire length;
- Alternative Route 54 has no electronic installations within 2,000 feet of its centerline along its entire length;
- Alternative Route 54 crosses three FM, county roads or other streets along its entire length (the alternative route that crossed the greatest number of FM, county roads or other street crossings was Route 72, with 7 crossings);

- Alternative Route 54 has been judged to be feasible from an engineering perspective based on currently known conditions, without the benefit of on-the-ground and subsurface surveys, and there are no currently identifiable engineering constraints that impact this route that cannot be addressed with additional consideration by Oncor during the engineering and construction process.

Additional information concerning the issues addressed in this memorandum can be found in the Environmental Assessment and Routing Study, included as Attachment No. 1 to the CCN Application.

After considering all of the parameters and issues as discussed in this memo, I selected Route 54 as the route that best meets the requirements of the Texas Utilities Code and the Commission's Substantive Rules.

Route	Link Sequence	Total Length (miles)
2	A - B - C - F - J - K - M - O - MM - OO	4.2
3	A - B - C - F - I - N - M - O - MM - OO	4.0
5	A - B - C - F - I - Q - FF - JJ - NN - OO	4.0
7	A - B - C - F - R - GG - HH - NN - OO	4.3
13	A - B - D - S - Z - DD - FF - JJ - NN - OO	3.6
14	A - B - D - S - Z - DD - FF - JJ - JP - PP - QQ - OO	3.6
17	A - B - D - S - Z - EE - JJ - NN - OO	3.7
18	A - B - D - S - Z - EE - JJ - JP - PP - QQ - OO	3.7
19	A - B - D - S - AA - BB - GG - HH - NN - OO	4.0
21	A - B - D - S - AA - BB - GG - II - WW - VV - PP - QQ - OO	4.0
22	A - B - D - S - AA - BB - GG - II - WW - UU - TT - QQ - OO	4.0
24	A - B - D - S - AA - CC - XX - WW - VV - PP - QQ - OO	4.0
25	A - B - D - S - AA - CC - XX - WW - UU - TT - QQ - OO	4.0
31	A - T - U - V - X - Y - Z - DD - FF - JJ - NN - OO	3.3
54	A - T - U1 - V1 - X1 - Y - Z - DD - FF - JJ - NN - OO	3.2
55	A - T - U1 - V1 - X1 - Y - Z - DD - FF - JJ - JP - PP - QQ - OO	3.3
57	A - T - U1 - V1 - X1 - Y - Z - EE - JJ - NN - OO	3.3
58	A - T - U1 - V1 - X1 - Y - Z - EE - JJ - JP - PP - QQ - OO	3.3
59	A - T - U1 - V1 - X1 - Y - AA - BB - GG - HH - NN - OO	3.6
60	A - T - U1 - V1 - X1 - Y - AA - BB - GG - HH - JP - PP - QQ - OO	3.6
61	A - T - U1 - V1 - X1 - Y - AA - BB - GG - II - WW - VV - PP - QQ - OO	3.6
62	A - T - U1 - V1 - X1 - Y - AA - BB - GG - II - WW - UU - TT - QQ - OO	3.6
64	A - T - U1 - V1 - X1 - Y - AA - CC - XX - WW - VV - PP - QQ - OO	3.6
65	A - T - U1 - V1 - X1 - Y - AA - CC - XX - WW - UU - TT - QQ - OO	3.6
69	A - T - U1 - V1 - X1 - Y - S - G - H - J - L - O - MM - OO	4.4
70	A - T - U1 - V1 - X1 - Y - S - G - H - J - K - M - O - MM - OO	4.0
71	A - T - U1 - V1 - X1 - Y - S - G - H - I - N - M - O - MM - OO	3.8
72	A - T - U1 - V1 - X1 - Y - S - G - H - I - Q - FF - KK - P - M - O - MM - OO	4.2
73	A - T - U1 - V1 - X1 - Y - S - G - H - I - Q - FF - JJ - NN - OO	3.8
74	A - T - U1 - V1 - X1 - Y - S - G - H - I - Q - FF - JJ - JP - PP - QQ - OO	3.8
100	A - T - U - V - W - X1 - Y - Z - DD - FF - JJ - NN - OO	3.3
130	A - T - U1 - V1 - W2 - Y - AA - BB - GG - II - WW - VV - PP - QQ - OO	3.8
131	A - T - U1 - V1 - W2 - Y - AA - BB - GG - II - WW - UU - TT - QQ - OO	3.8
133	A - T - U1 - V1 - W2 - Y - AA - CC - XX - WW - VV - PP - QQ - OO	3.8
134	A - T - U1 - V1 - W2 - Y - AA - CC - XX - WW - UU - TT - QQ - OO	3.8
139	A - T - U1 - V1 - W2 - Y - S - G - H - J - K - M - O - MM - OO	4.1
140	A - T - U1 - V1 - W2 - Y - S - G - H - I - N - M - O - MM - OO	3.9
144	A - T - EEE - EEE1 - CCC - XX - WW - VV - PP - QQ - OO	4.0
145	A - T - EEE - EEE1 - CCC - XX - WW - UU - TT - QQ - OO	4.0
147	A - T - EEE - EEE1 - CCC - YY - ZZ - RR - OO	4.6
149	A - T - EEE - EEE1 - GGG - ZZ1 - ZZ - RR - OO	4.7
150	A - T - EEE - EEE1 - GGG - ZZ1 - ZZ - SS - TT - QQ - OO	4.9
151	A - T - U1 - DDD - EEE1 - CCC - XX - WW - VV - PP - QQ - OO	4.2

The following files are not convertible:

Exhibit BJP-5b.xlsx

Please see the ZIP file for this Filing on the PUC Interchange in order to access these files.

Contact centralrecords@puc.texas.gov if you have any questions.