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PUC DOCKET NO. 56799

DIRECT TESTIMONY
OF AMY L. ZAPLETAL, P.E., WITNESS FOR
ONCOR ELECTRIC DELIVERY COMPANY LLC

DIRECT TESTIMONY OF AMY L. ZAPLETAL, P.E.

I. POSITION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Amy L. Zapletal. I am employed as a Project Manager Senior in the Transmission Engineering Right-of-Way group at Oncor Electric Delivery Company LLC ("Oncor"). My business address is 777 Main Street, Suite 707, Fort Worth, Texas 76102.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS.

A. I have been employed at Oncor as a Project Manager Senior since June of 2021 and have provided support for the engineering and right-of-way ("ROW") acquisition of numerous projects. Prior to my employment at Oncor, my professional experience was dedicated to project management and utility district engineering consulting services. I am a licensed professional engineer in the State of Texas (License No. 94680). I received a Bachelor of Science degree in civil engineering from Texas A&M University in 2000. My educational and professional qualifications are more fully presented in my resume, which is attached hereto as Exhibit ALZ-1.

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

A. Yes. I provided testimony in Docket Nos. Docket Nos. 54733, 55067, 55574, 55575, 56396, and 56597.

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 Reiter Switch-Tesoro Switch 345 kV transmission line project (the "Proposed Transmission Line Project"), including:

- routing considerations, including selection of the route that best meets the factors set forth in PURA § 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 (the "Application");

- the adequacy and geographic diversity of Oncor's filed routes; and
- the notice provided by Oncor pursuant to Commission rules.

The statements and opinions expressed in this testimony are based on my: (1) previously described industry experience in the evaluation of transmission line routes; (2) independent review and evaluation of the data included in the *Environmental Assessment and Routing Study for the Proposed Reiter Switch—Tesoro Switch 345 kV Transmission Line Project in Ector and Midland Counties, Texas* ("Environmental Assessment and Routing Study"), prepared by Halff Associates, Inc. ("Halff"), and included as Attachment No. 1 to the Application; (3) discussions with Oncor personnel; (4) discussions with Halff personnel who participated in the development of the Environmental Assessment and Routing Study; (5) observations of the project area during a reconnaissance investigation; (6) understanding of PURA §§ 37.054 and 37.056 and 16 Texas Administrative Code ("TAC") §§ 22.52 and 25.101 (attached hereto as Exhibits ALZ-2, ALZ-3, ALZ-4, and ALZ-5, respectively); and other factors.

In addition to the testimony offered herein, I sponsor Oncor's responses to Question Nos. 17-19 and 21-29 in the Application filed in this docket, as well as Attachment Nos. 10-16 to the Application. The facts and statements set forth in those responses and attachments are true and correct to the best of my knowledge. Oncor will offer the Application and its attachments, as may be amended and/or supplemented, into evidence in this proceeding.

III. ROUTE SELECTION

Q. DID YOU SELECT ALTERNATIVE ROUTES TO BE FILED WITH THE APPLICATION?

A. Yes. As discussed in the response to Question No. 17 of the Application, I selected Route 10 as the route that best meets the requirements of the

Texas Utilities Code and the Commission's Substantive Rules. I also selected 20 alternative routes, in addition to Route 10, for inclusion in the Application. Additional information concerning my analysis of Route 10 and the other filed alternative routes is contained in a memorandum I prepared, which is included as Attachment No. 10 to the Application and as Exhibit ALZ-6 to my direct testimony.

Q. PLEASE DESCRIBE SOME OF THE KEY ATTRIBUTES OF THE 21 FILED ROUTES.

A. Each of the 21 filed routes complies with PURA § 37.056(c)(4)(A)-(D) and 16 TAC § 25.101, including the Commission's policy of prudent avoidance, and were developed in compliance with 16 TAC § 22.52. 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 were judged as feasible from an engineering perspective, based on presently known conditions and constraints. All 21 filed routes meet all of the statutory and regulatory requirements and are acceptable to Oncor, though, as I discuss below, Route 10 is the route that I believe best meets the applicable routing factors.

Q. WHY DID YOU SELECT ROUTE 10 AS THE "BEST-MEETS" ROUTE?

A. My selection of Route 10, which consists of links A-B4-D3-F4-H4-I4-I5-I6-J, is based on the criteria established in PURA § 37.056(c)(4)(A)-(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. Kaleb Roberts regarding cost estimates and engineering constraints, the information included in the Environmental Assessment and Routing Study, and my personal reconnaissance of the study area. As presented in the Application, I also recommend that the Commission consider the 20 additional alternative routes as potential alternatives to Route 10. All 21 of the routes included in the Application comply with the routing requirements of PURA § 37.056(c)(4)(A)-(D) and 16 TAC § 25.101.

Q. PLEASE EXPLAIN THE BASIS FOR YOUR SELECTION OF ROUTE 10.

A. Halff provided me with information on 150 preliminary alternative routes in the Environmental Assessment and Routing Study. After analyzing those 150 preliminary alternative routes, I recommended filing 21 of those routes with the Application for the Commission's consideration. In addition to geographic differences, the more significant differences between the 21 filed routes are route lengths and costs. Route lengths for the filed routes range from approximately 4.0 miles to approximately 5.2 miles. The estimated project costs for the filed routes, including station costs, range from approximately $23,418,000 to $34,219,000. There are no known habitable structures within 500 feet of any filed route.

Given the balance of the factors, I selected Route 10 as the route that best meets the requirements of Texas Utilities Code § 37.056(c)(4)(A)-(D) and 16 TAC § 25.101. Specifically, this route:

- is approximately 4.43 miles long, which is only 0.38 miles longer than the shortest among all filed routes and approximately 0.80 miles shorter than the longest alternative route;
- utilizes existing Oncor right-of-way for 10.2% of its length, which is only 2% less than the route with the highest percentage of and its route length within existing Oncor right-of-way; and
- has an estimated transmission line cost of $18,115,000, which is approximately 0.68% more than the least expensive alternative route and approximately 58.9% less than the most expensive alternative route.

In addition, Route 10 was judged to be feasible from an engineering perspective based on currently known conditions, without the benefit of on-the-ground surveys, as further discussed in the direct testimony of Oncor witness Mr. Kaleb Roberts.

Q. PLEASE DISCUSS ONCOR'S PROCESS PRIOR TO FINALIZING THE ROUTES FILED IN THE APPLICATION.

A. Prior to finalizing the preliminary routes, Oncor and Halff conducted field reconnaissance to ensure the feasibility of the potential route links. Oncor then received feedback from landowners requesting additional routing options to the south. Oncor added links based on the data received from landowners, and in conjunction with the results of its field reconnaissance, finalized the routes for filing.

Q. DOES ROUTE 10 COMPLY WITH PURA § 37.056(c)(4)(A)-(D) AND 16 TAC § 25.101(b)(3)(B)?

A. Yes. Route 10 does not significantly impact community values, historical and aesthetic values, or the environmental integrity of the area traversed by the Proposed Transmission Line Project. No parks or recreational areas are crossed by, or within 1,000 feet of the centerline of, Route 10. Route 10 limits exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort and gives adequate consideration to the utilization and paralleling of existing compatible corridors. Route 10 does not significantly impact communication facilities, and is not anticipated to impact any airports or heliports, cropland irrigated by traveling irrigation systems, or known cultural resource sites. The proposed route is routed to the extent reasonable to moderate the impact on the affected community and directly affected landowners.

Q. WHAT IS YOUR BASIS FOR RECOMMENDING THAT THE COMMISSION CONSIDER THE OTHER 20 ALTERNATIVE ROUTES FILED WITH THE APPLICATION?

A. Each of the 20 other alternative routes filed with the Application also comply with the provisions of PURA § 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, I am.

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.

Q. DO THE PROPOSED ROUTING ALTERNATIVES ADHERE TO THE COMMISSION'S POLICY OF PRUDENT AVOIDANCE?

A. Yes, all of the 21 alternative routes proposed in the Application comply with the Commission's policy of prudent avoidance.

IV. ADEQUACY OF ROUTES

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

A. Yes. Visual inspection of Figure 3-1 (Appendix D) in the Environmental Assessment and Routing Study shows the nature of the project area. Within this area, Oncor's Application includes 21 reasonably differentiated and geographically diverse alternative routes that are reasonably forward-progressing given the area constraints and are consistent with the relevant provisions of PURA and the Commission's Substantive Rules.

Based on my experience, my visual inspection of the area on a reconnaissance visit, 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 DEVELOPED BY HALFF UTILIZED IN YOUR SELECTION OF ALTERNATIVE ROUTES?

A. Yes.

V. NOTICE

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

A. Yes. Public notice of the Application will be published in the *Odessa American*, a newspaper of general circulation in Ector County and the *Midland Reporter-Telegram*, a newspaper of general circulation in Midland County. Publishers' affidavits attesting to the publication of the newspaper notice will be attached to an affidavit from Oncor attesting to the provision of newspaper notice.

On the date the Application is filed with the Commission, Oncor will also provide notice in the following ways:

- mail written notice of the Application (in the form required by the Commission) to each landowner of record, based on a review of current county property tax rolls for both Ector and Midland counties, that would be directly affected (as defined in 16 TAC § 22.52(a)(3)) by the Commission's approval of the Application on one or more of the proposed routes;
- mail written notice of the Application to the county judges and county commissioners in Ector and Midland counties, the only two counties where any portion of the requested facilities will be located;
- mail written notice of the Application to the mayor and city council members in the cities of Odessa and Midland, the only municipalities within five (5) miles of the requested facilities;
- mail written notice of the Application to Garland Power & Light and Wind Energy Transmission Texas, LLC, the only two utilities to which such notice is required;

- mail courtesy written notice of the Application to certain pipeline owners/operators and associations (a representative copy of the courtesy notice is included as Attachment No. 15 to the Application);
- e-mail and mail written notice of the Application to the Department of Defense Military Aviation and Installation Siting Clearinghouse at the email and physical addresses contained in the Application;
- mail a copy of the Application and its attachments to the Office of Public Utility Counsel; and
- mail a copy of the Environmental Assessment and Routing Study to the Texas Parks and Wildlife Department within seven days of the Application's filing.

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

A. No. No public meeting was required under 16 TAC § 22.52(a)(4) because there were fewer than 25 directly affected landowners.

Q. WILL ONCOR PROVIDE ANY NOTICES OF THE FILING OF THE APPLICATION IN ADDITION TO THE NOTICES REQUIRED BY THE COMMISSION'S PROCEDURAL RULES?

A. Yes. In the form required by the Commission, Oncor will mail written notice of the Application to each landowner of record, according to current county tax rolls, of property within 520 feet of the centerline of all filed routes, irrespective of whether a habitable structure is located on such properties. Oncor is intentionally over-inclusive in mailing written notice of the Application to landowners.

As mentioned above, Oncor will also send courtesy written notice of the Application to certain pipeline owners/operators and associations in the surrounding area, though not required by Commission rules.

Q. WILL ONCOR'S PROVISION OF NOTICE FOR THE PROPOSED TRANSMISSION LINE PROJECT COMPLY WITH 16 TAC §§ 22.52 and 37.054(c)?

A. Yes. Oncor will file affidavits in the docket attesting to the provision of notice in compliance with 16 TAC § 22.52. The Proposed Transmission Line Project does not seek authorization of a new substation, and therefore 16 TAC § 37.054(c) does not apply to this project.

VI. 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 Amy L. Zapletal who, having been placed under oath by me, did depose as follows:

My name is Amy L. Zapletal. I am of legal age and a resident of the State of Texas. The foregoing testimony and exhibits 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.

Amy L. Zapletal

Amy L. Zapletal

SUBSCRIBED AND SWORN TO BEFORE ME on this 16th day of July, 2024.

Terri Watts

Notary Public, State of Texas

My Commission Expires:
07-07-2028

TERRI WATTS
Notary Public, State of Texas
Comm. Expires 07-07-2028
Notary ID 1129360-0

AMY L. ZAPLETAL, P.E.

Oncor Electric Delivery Company • 777 Main Street, Suite 707 • Fort Worth, TX 76102

Amy.Zapletal@oncor.com

Professional Experience

ONCOR ELECTRIC DELIVERY COMPANY, TRANSMISSION ENGINEERING **6/2021 to Present**
Right-of-Way Project Manager Sr. **Fort Worth, TX**

- Provide overall project management for assigned projects including contractor oversight and direction, budget and schedule adherence, communication and consultation with key stakeholders on emergent issues, while supporting Legal and Regulatory throughout
- Provide consultation and expertise on ROW matters that impact maintenance and capital transmission projects
- Oversee ROW acquisition including landowner negotiations, addressing associated financial and schedule constraints
- Support ROW acquisition activities including mediation, settlement negotiations, and trial support throughout condemnation and appeals processes
- Assist in coordinating, prioritizing, and communicating schedule and scoping changes related to ROWon capital transmission projects
- Facilitate and manage Special Project assignments on an as-needed basis
    - Engineering Witness for greenfield capital transmission line projects
    - Lead team of transmission line and station engineers to successfully scope and estimate project schedules and costs for a portfolio of related capital projects
    - Support related future ROW acquisition efforts as Engineering Witness during condemnation hearings

INDEPENDENT CONSULTANT **7/2012 to 6/2021**
Project Manager **Texas**

- Develop design documents and construction plan sets, technical specifications and manuals, contract documents, and obtain City approvals of preliminary / final plats
- Procure and manage professional services provided by client's external consultants
- Supervise preparation of developer receivables summaries for municipal utility district ("MUD") financial planning and annual audits
- Research and analyze Summary of Costs to calculate bond funding requirements, incorporating the financial feasibility recommendations by the MUD's Financial Advisor, to achieve construction goals without property tax or customer rate increases
- Compile Engineering Reports, Attachments, and TCEQ Construction Contract Check Lists
- Coordinate with client's Production Manager for exhibits created in AutoCAD or GIS
- Facilitate TCEQ application submittal, reproduction, distribution, and archive of documents
- Effectively communicate project status updates with supporting documentation for monthly Board of Directors meeting reports
- Organize financial documentation and collaborate with MUD's Bookkeeper and Auditor during development reimbursement audits and fiscal year operating budget projections

BGE, INC. (FORMERLY BROWN & GAY ENGINEERS, INC.) **11/2002 to 5/2012**
Project Manager / Project Engineer / Graduate Engineer **Houston, TX**

Dedicated Project Manager with excellent technical, analytical, communication and client relationship skills with land development experience including project management, design and construction of various single-family residential subdivision projects and of facility expansion and rehabilitation projects

- Provide feasibility, design, project management and construction administration services to multiple MUD and land development clients
- Utility District administration including direct client communication; project status reporting; coordination with clients' external consultants; capacity demand planning and customer commitments; and commercial development plan reviews
- Facilitate final design, cost estimates, specifications, bid documents and construction administration for water, wastewater, storm drainage, paving, and various utility facility expansion and rehabilitation projects
- Coordinate with property owners and/or legal condemnation counsel to acquire necessary easements or sites for infrastructure extensions or expansions
- Assist condemnation counsel with exhibits, project schedule and cost analysis for use in mediation or in settling disputes
- Collaborate with client, engineering support staff, and construction contractors for facility condition assessments; for project phasing feasibility and budgeting; and for resolutions to special construction constraints or limitations
- Implement CIP for asset management, funding projections, and annual revenue requirements
- Collaborate and provide training within the Districts Services Group, specializing in consulting services for mature MUDs
- Anticipate and coordinate requests to the TCEQ for compliance approvals of alternative service requirements for public water systems with more than 2,500 connections
- Supervise preparation of Expedited and Non-Expedited Bond Application Reports, Emergency Project Requests, and other special Utility District applications submitted to TCEQ
- Advise fellow / Senior Project Managers on regulatory requirements and conduct internal reviews to determine compliance with time-sensitive Expedited Bond Application Reports prior to submittal to TCEQ

CARTER & BURGESS, INC. **5/2000 to 11/2002**
Graduate Engineer **Houston, TX**

Assist Project Managers with design and AutoCAD production of final construction plan sets for water, wastewater, paving and storm drainage to serve single-family residential subdivisions

Education and Licenses

Bachelor of Science in Civil Engineering - Texas A&M University, August 2000
Licensed Professional Engineer No. 94680 - State of Texas
TBPELS Firm Registration No. F-15098 - State of Texas

Section 37.054 - Notice and Hearing on Application

(a) When an application for a certificate is filed, the commission shall:

(1) give notice of the application to interested parties and to the office; and

(2) if requested:

(A) set a time and place for a hearing; and

(B) give notice of the hearing.

(b) A person or electric cooperative interested in the application may intervene at the hearing.

(c) In addition to any notice provided under Subsection (a), the commission shall require the applicant to provide written notice of each substation proposed to be authorized by a certificate of convenience and necessity to each owner of:

(1) property adjacent to the property on which the substation will be located; and

(2) property located directly across a highway, road, or street that is adjacent to the property on which the substation will be located.

Tex. Util. Code § 37.054

Amended by Acts 2023, Texas Acts of the 88th Leg.- Regular Session, ch. 1053,Sec. 1, eff. 9/1/2023.

Amended by: Acts 2011, 82nd Leg., R.S., Ch. 416 (S.B. 855), Sec. 2, eff. June 17, 2011

Amended by Acts 1999, 76th Leg., ch. 405, Sec. 31, eff. Sept. 1, 1999

Acts 1997, 75th Leg., ch. 166, Sec. 1, eff. Sept. 1, 1997.

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) the need for extending transmission service where existing or projected electrical loads will be underserved, including where:

(i) the existing transmission service is unreasonably remote;

(ii) the available capacity is unreasonably limited at transmission or distribution voltage level; or

(iii) the electrical load cannot be interconnected in a timely manner.

(c-1) In considering the need for additional service under Subsection (c)(2) for a reliability transmission project that serves

the ERCOT power region or under Subsection (c)(4)(F), the commission must consider the historical load, forecasted load growth, and additional load currently seeking interconnection, including load for which the electric utility has yet to sign an interconnection agreement, as determined by the electric utility with the responsibility for serving the load.

(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 and that is not necessary to meet state or federal reliability standards. 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.

Acts 1997, 75th Leg., ch. 166, Sec. 1, eff. Sept. 1, 1997. Amended by Acts 2003, 78th Leg., ch. 295, Sec. 2, eff. June 18, 2003. Amended by:

Acts 2011, 82nd Leg., R.S., Ch. 949 (H.B. 971), Sec. 2(a), eff. June 17, 2011.

Acts 2019, 86th Leg., R.S., Ch. 44 (S.B. 1938), Sec. 4, eff. May 16, 2019.

Acts 2021, 87th Leg., R.S., Ch. 198 (H.B. 1510), Sec. 3, eff. June 1, 2021.

Acts 2021, 87th Leg., R.S., Ch. 876 (S.B. 1281), Sec. 2, eff. September 1, 2021.

Acts 2023, 88th Leg., R.S., Ch. 410 (H.B. 1500), Sec. 12, eff. September 1, 2023.

Acts 2023, 88th Leg., R.S., Ch. 892 (H.B. 5066), Sec. 1, eff. June 13, 2023.

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 must give notice in the following ways:

(1) Applicant must 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 must identify the commission's docket number and the style assigned to the case by Central Records. In electric transmission line cases, the applicant must 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 must identify in general terms the type of facility if applicable, and the estimated expense associated with the project. The notice must 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 must include all the information required by the standard format established by the commission for published notice in electric licensing proceedings. The notice must 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(c) or an application for a certificate of convenience and necessity for a new transmission facility subject to PURA §37.057) and that a letter requesting intervention should be received by the commission by that date.

(B) The notice must 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 must 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 must 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 must state a location where a detailed routing map may be reviewed. The map must 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 must 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 must be in the form of a publisher's affidavit which must specify each newspaper in which the notice was published, the county or counties in which each newspaper is of general circulation, the dates upon which the notice was published, and a copy of the notice as published. Proof of publication must be submitted to the commission as soon as available.

(E) The applicant must provide a copy of each environmental impact study 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 must be provided in the form of an affidavit to the commission, which must specify the date the information was mailed or otherwise provided to TPWD, and must provide a copy of the cover letter or other documentation that confirms that the information was provided to TPWD.

(2) Applicant must, 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, each county government

for 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 must, 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 must 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 must 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 to the applicant's proposed route, applicant must 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 must state such entities will have 20 days to intervene.

(3) Applicant must, on the date it files an application, mail notice of its application to the owners of land, as stated on the current county tax rolls, 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. For purposes of this paragraph, land is also directly affected if it is adjacent to a property on which a substation proposed to be authorized by the certificate of convenience and necessity will be located or is directly across a highway, road, or street that is adjacent to a property on which such a substation will be located.

(A) **Required contents of notice.** The notice must contain all information required in paragraph (1) of this subsection and must 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) **Map of route.** The notice must include a map as described in paragraph (1)(C) of this subsection.

(C) **Notice of proposed substations.** Notice of each substation proposed to be authorized by a certificate of convenience and necessity to each owner of:

(i) property adjacent to the property on which the proposed substation will be located; and

(ii) property located directly across a highway, road, or street that is adjacent to the property on which the proposed substation will be located.

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

(E) **Proof of notice.** 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 rolls. The proof of notice must 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 must be filed with the commission no later than 20 days after the filing of the application.

(F) **Cure of insufficient notice.** Upon the filing of proof of notice as described in subparagraph (E) 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 must immediately advise the commission by written pleading and must provide notice to such landowners by priority mail, with delivery confirmation, in the same form described in

subparagraphs (A) through (C) of this paragraph, except that the notice must state that the person has fifteen days from the date of delivery to intervene. The utility must immediately file a supplemental affidavit of notice with the commission.

(4) The utility must 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 must 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, an owner of land within 500 feet of the centerline of a transmission project greater than 230kV, an owner of land adjacent to a property on which a substation proposed to be authorized by the certificate of convenience and necessity will be located, or an owner of land directly across a highway, road, or street that is adjacent to such a substation. The utility must 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 must 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 must 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 will 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 must provide notice to all owners of land who previously received direct notice. Proof of notice under this subsection must be provided to the commission's staff.

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

(B) If the owner's land is not directly affected by the approved route, the notice must 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 must 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 must give notice in the following ways:

(1) Applicants must 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 must 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 must 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 may contact the commission through Relay Texas at 1-800-735-2989. 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 must be in the form of a publisher's affidavit, which must 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 must be submitted to the commission as soon as available.

(2) Applicant must also mail notice of its application, which must 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 must 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 must be identical to that provided to cities and to neighboring utilities. An affidavit attesting to the provision of notice to counties must 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 will 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, have the following meanings unless the context indicates otherwise:

(1) **Construction or extension** -- Does not include the purchase or condemnation of real property for use as facility sites or right-of-way. Acquisition of right-of-way must not be deemed to entitle an electric utility to the grant of a certificate of convenience and necessity without showing that the construction 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 ten megawatts or less 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 will 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 will 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 must 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 must 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 must 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 will 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 will 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).

(C) An electric utility operating solely outside of the ERCOT region may, but is not required to, obtain a certificate to install, own, or operate a generation facility with a capacity of 10 megawatts or less.

(3) **Electric transmission line.** All new electric transmission lines must 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) **Determination of need**:

(i) **Economic projects.** Except as otherwise stated in this subparagraph, the following must be met for a transmission line in the ERCOT region. The applicant must present an economic cost-benefit study that analyzes the transmission project under a congestion cost savings test and a production cost savings test. The commission will give great weight to such a study if it is conducted by the ERCOT independent system operator. Adequately quantifiable and ongoing direct and indirect costs and benefits to the transmission system attributable to the project may be included in the cost-benefit study.

(I) **Congestion cost savings test.** ERCOT, in consultation with commission staff, must develop a congestion cost savings test.

(-a-) The congestion cost savings test must include an analysis of whether the levelized ERCOT-wide annual congestion cost savings attributable to the proposed project are equal to or greater than the average of the first three years annual revenue requirement of the proposed project of which the transmission line is a part.

(-b-) Prior to the effective date of the test developed by ERCOT under this subclause ERCOT may immediately, without updating its current protocols, utilize the generator revenue reduction test, effective Dec. 1, 2011 under

ERCOT Nodal Protocols §3.11.2(6), as the congestion cost benefit test required under this clause. ERCOT may continue to rely upon completed calculations using the generator revenue reduction test to evaluate ongoing applications after the effective date of the test developed under this subclause.

(II) **Production cost savings test.** The production cost savings test must include an analysis of whether 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.

(III) Economic cost-benefit analysis must be studied for the projected in-service date of the project using the study case identified in the ERCOT planning guide.

(IV) ERCOT may recommend, and the commission may approve, a transmission line in the ERCOT region that demonstrates a savings under either a congestion cost savings test or a production cost savings test.

(ii) **Reliability projects.**

(I) The requirements of clause (i) of this subparagraph do 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 will consider, among other factors, the needs of the interconnected transmission systems to support a reliable and adequate network and to facilitate robust wholesale competition. When evaluating reliability for a proposed project in the ERCOT region, the commission will consider and any review conducted by ERCOT must incorporate the historical load, forecasted load growth, and additional load currently seeking interconnection. The forecasted load growth and additional load currently seeking interconnection must be substantiated by quantifiable evidence of projected load growth. The commission will give great weight to:

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

(-b-) written documentation provided by a transmission service provider to ERCOT that the transmission line is needed to interconnect transmission service or retail customers.

(iii) **Resiliency.** ERCOT may recommend, and the commission may approve, a transmission project that is submitted as an economic or reliability project and does not demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds if ERCOT determines the line would

address a resiliency issue identified in the grid reliability and resiliency assessment required by subparagraph (E) of this paragraph. In determining whether to approve such a project the commission will consider:

(I) the margin by which the transmission project was unable to demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds;

(II) whether the resiliency benefits the transmission project would provide by reducing the impacts to customers of potential outages caused by regional extreme weather scenarios are sufficient to compensate for the project's inability to demonstrate sufficient economic savings or reliability benefits to merit approval on those grounds.

(III) the cost effectiveness of the transmission project's ability to address the resiliency issue identified by ERCOT compared to other possible solutions.

(IV) other factors listed in PURA §37.056(c), as appropriate.

(B) **Routing**: An application for a new transmission line must address the criteria in PURA §37.056(c) and considering those criteria, engineering constraints, and costs, the line must 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 must 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 will 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 will be considered by the commission on an expedited basis. The commission will 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.

(E) **Grid reliability and resiliency assessment.** ERCOT must conduct a biennial assessment of the ERCOT power grid's reliability and resiliency in extreme weather scenarios. Each assessment must:

(i) consider the impact of different levels of thermal and renewable generation availability;

(ii) identify areas of the state that face significant grid reliability and resiliency issues, taking into account the impact of potential outages caused by regional extreme weather scenarios on customers, including multiple element outage analysis when appropriate, and

(iii) recommend transmission projects that may increase the grid's reliability or resiliency in extreme weather scenarios.

(4) **Tie line**. An application for a tie line must include a study of the tie line by ERCOT. The study must 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 must file notice with the commission at least 45 days prior to the commencement of such a study or the provision of such information.

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

(1) An extension of facilities as described in PURA §37.052(a) and (b);

(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 should proceed without delay or prior approval of the commission and must 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;

(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 must 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, construction, or extension of a transmission line that connects existing transmission facilities to a substation or metering point provided that:

(i) the transmission line modification, construction, or extension does not exceed:

(I) three miles if the line connects to a load-serving substation or metering point; or

(II) two miles if the line connects to a generation substation or metering point; and

(ii) all rights-of-way necessary for the modification, construction, or extension have been acquired, and

(iii) all landowners whose property is directly affected by the transmission line, as defined in §22.52(a)(3) of this title, have given written consent for the modification, construction, or extension. If the transmission line

modification, construction, or extension does not exceed one mile to provide service to a substation or metering point, written consent is only required by landowners whose property is crossed by the transmission line.

(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.

(d) **Standards of construction and operation.** In determining standard practice, the commission will 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 must 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 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, an electric utility 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. For this purpose, new construction of above-ground structures does not include necessary repairs to existing structures, farm or livestock facilities, storage barns, hunting structures, small personal storage sheds, or similar structures. A utility 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 must 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 must 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 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, must 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, must 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, must 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.

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

CHAPTER 25. SUBSTANTIVE RULES APPLICABLE TO ELECTRIC SERVICE PROVIDERS.

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

(g) **Certification forms.** All applications for certificates of convenience and necessity must 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).

ONCOR. THINK BIG. THINK TEXAS.

Amy L. Zapletal, P.E.
Project Manager Senior
Transmission Engineering Right-of-Way

Office Memorandum

Date: July 2, 2024

To: File

From: Amy L. Zapletal. P.E.

Subject: Alternative Routes Evaluation: Reiter Switch – Tesoro Switch 345 kV 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 Reiter Switch – Tesoro Switch 345 kV 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 the CCN Application.

Background

The goal of this route evaluation 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.

The alternative route selections are based on my: (1) reconnaissance and observations of the project area; (2) independent review of the data included in the *Environmental Assessment and Alternative Route Analysis for Oncor Electric Delivery Company LLC's Proposed Reiter Switch – Tesoro Switch 345 kV Transmission Line Project in Ector and Midland Counties, Texas* ("Environmental Assessment and Routing Study"), prepared by Halff Associates, Inc. ("Halff"); (3) discussions with Halff personnel; (4) discussions with Oncor personnel; and (5) other information. My recommendation incorporates consideration of information in the Environmental Assessment and Routing Study, engineering feasibility, the estimated cost of alternative routes, and construction limitations.

Development of Alternative Route Links

Halff 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 completing the initial data gathering and constraints mapping process, Halff identified preliminary alternative route links on recent aerial photography obtained from NearMap (available through Halff's subscription service). These preliminary alternative route links were selected considering the location of existing corridors, apparent property boundaries and routing constraints. Some of the routing constraints within the study area include: (1) oil and gas facilities; (2) existing transmission lines; (3) State Highway

("SH") Loop 338 and other state-maintained roadways where 90-degree roadway crossings by transmission lines are typically required by the Texas Department of Transportation; (4) residential development; and (5) commercial and industrial development. Numerous preliminary alternative route links were identified by Halff that, when combined, formed numerous preliminary alternative routes to connect Oncor's proposed Reiter Switch 345 kV switchyard to its existing Tesoro Switch. The preliminary alternative route links evaluated by Halff are depicted in Figure 3-1 (Appendix D) in the Environmental Assessment and Routing Study.

The Proposed Transmission Line Project, including both endpoints, traverses property owned by seven (7) landowners, including Oncor. Oncor did not hold public meetings because the prerequisites for public meetings under 16 TAC § 22.52 were not met. Therefore, the preliminary alternative route links were finalized after incorporating the findings of field reconnaissance by Halff and Oncor and data received from landowners. These route links are discussed in Section 4.0 of the Environmental Assessment and Routing Study.

In general, links were proposed to coordinate with routing constraints and to comply with the Commission's policy of prudent avoidance after field investigation. Following review of the preliminary alternative route links, a total of 52 alternative route links were adopted, from which 150 alternative routes were delineated and further evaluated, as discussed in Section 5.0 of the Environmental Assessment and Routing Study.

Development of Alternative Routes

Halff identified multiple potential alternative routes using these 52 alternative route links. Ultimately, a total of 150 alternative routes were identified for further routing analysis. I initially identified three alternative route links that created corridors in which to group potential alternative routes. The alternative route combinations within each of the three routing corridors were identified. Each of the alternative route link corridors were analyzed to identify a select number of geographically diverse and forward-progressing route alternatives from which the Commission could compare the routing possibilities for the Proposed Transmission Line Project. Below, I discuss the 21 alternative routes that I selected to be filed with the CCN Application, as shown in Table 2 attached to this Memorandum.

Discussion of Alternative Routes

Each of the 150 preliminary alternative routes identified possesses both positive and negative comparative attributes. I considered these attributes to select a set of geographically diverse routing alternatives to be filed as a part of the CCN Application. Below is a discussion of the 21 alternative routes that were identified to be filed with the CCN Application. Each alternative route complies with Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code and Commission Substantive Rule 25.101, including the Commission's policy of prudent avoidance. None of the 150 preliminary alternative routes identified for the Proposed Transmission Line Project have habitable structures within 500 feet of the route centerline.

The alternative routes can be grouped in many different ways; one approach is to group them into geographic corridors. I grouped the alternative routes into three different geographic corridors following the north-south orientation of the alternative route links. These three corridors are identified as the: (1) west corridor using Link E4; (2) central corridor using Link G4; and (3) east corridor using Link I4. The map

attached to this Memorandum shows these alternative route link locations. All alternative routes cross SH Loop 338.

I presented the 52 alternative route links and all 150 preliminary alternative routes to Oncor's engineering witness for this project, Mr. Kaleb Roberts, for consideration of engineering feasibility, construction limitations, and alternative route cost estimates. Mr. Roberts confirmed the engineering feasibility based on known constraints for each of the alternative routes, and he also provided cost estimates for each alternative route.

Based on my analysis, I selected 21 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. Table 1, attached to this Memorandum, presents the route links that comprise these alternative routes. Table 2, attached to this Memorandum, presents quantifiable environmental data on the 21 alternative routes filed as a part of the CCN Application. The filed alternative routes use each of the 52 alternative route links in at least one route. Below is a discussion of each of the geographic corridors and the alternative routes selected for filing within each corridor.

The west corridor routes containing Link E4 ("Link E4 Corridor Routes") vary in length from approximately 4.05 to 4.78 miles. Transmission line costs for Link E4 Corridor Routes range from an estimated $19,518,000 to $24,875,000. The Link E4 Corridor Routes range have a range of 31.3% to 64.0% of their total route length parallel to existing compatible corridors and a range of 6.8% to 10.7% of their total route length within existing Oncor easement or fee-owned property (collectively, Oncor right-of-way ["ROW"]). The seven alternatives filed in the CCN Application from the Link E4 Corridor Routes include Alternative Routes 1, 4, 5, 6, 46, 61, and 88.

The central corridor routes containing Link G4 ("Link G4 Corridor Routes") vary in length from approximately 4.11 to 4.66 miles. Transmission line costs for Link G4 Corridor Routes range from an estimated $19,514,000 to $25,591,000. The Link G4 Corridor Routes have a range of 26.6% to 68.3% of their total route length parallel to existing compatible corridors and a range of 6.7% to 10.2% of their total route length within existing Oncor. The six alternatives filed in the CCN Application from the Link G4 Corridor Routes include Alternative Routes 7, 13, 14, 50, 53, and 65.

The east corridor routes containing Link I4 ("Link I4 Corridor Routes") vary in length from approximately 4.20 to 5.23 miles. Transmission line costs for Link I4 Corridor Routes range from an estimated $18,115,000 to $28,794,000. The Link I4 Corridor Routes range have a range of 7.6% to 49.1% of their total route length parallel to existing compatible corridors and a range of 6.4% to 12.2% of their total route length within existing Oncor. The eight alternatives filed in the CCN Application from the Link I4 Corridor Routes include Alternative Routes 10, 15, 27, 52, 66, 73, 106, and 123.

Selection of Route 10 as the Route Best Addressing the Applicable Routing Factors

After holistically analyzing each of the 21 routes within the three geographic corridors, I selected Route 10 of the Link I4 Corridor Routes as the route that best meets the requirements of Texas Utilities Code Section 37.056 (c)(4)(A)-(D) and Commission Substantive Rule 25.101(b)(3)(B). Route 10 is comprised of Links A-B4-D3-F4-H4-I4-I5-I6-J.

Some of the significant factors which led to the selection of Route 10 include the following:

- The length of Route 10 is approximately 4.43 miles, which is only 0.38 mile longer than the shortest among all the filed routes (Routes 46 and 61) and approximately 0.80 mile shorter than the longest alternative route included in the Application (Route 123 is the longest at approximately 5.23 miles);
- The estimated transmission line cost for Route 10 is $18,115,000, which is approximately 0.68% more than the least expensive project cost (Route 52 estimated at $17,993,000) and is approximately 58.9% less than the most expensive (Route 106 estimated at $28,794,000);
- There are no habitable structures within 500 feet of the centerline of Route 10, and there are no habitable structures within 500 feet of the centerline of any alternative route included in the Application;
- Route 10 parallels existing compatible corridors (including apparent property boundaries) for approximately 35.4% of its length. Route 13 possesses the highest percentage parallel to existing compatible corridors (68.3%) but is longer in route length (4.66 miles). Route 66 has the lowest percentage parallel to existing compatible corridors (7.6%);
- Route 10 utilizes existing Oncor ROW for 10.2% of its length. Route 106 possesses the highest percentage of its route length within existing Oncor ROW (12.2%) but is longer in route length (5.15 miles). Route 73 had the lowest percentage (6.4%) of its route length within existing Oncor ROW;
- Route 10 has 1,941 feet of its route through commercial/industrial areas. Route lengths through commercial/industrial areas vary from 1,748 feet (Route 123) to 2,398 feet (Route 4);
- Route 10 crosses 21,458 feet of rangeland pasture. Route lengths crossing rangeland pasture vary from 19,374 feet (Route 61) to 25,844 feet (Route 123);
- Route 10 crosses no parks/recreational areas, does not have any parks/recreational areas within 1,000 feet of its centerline, and does not have any length of ROW within a foreground visual zone (0.5 mile of unobstructed view) of any parks/recreational areas. Because there are no parks/recreational areas within the study area, all alternative filed routes share these characteristics;
- Route 10 has no length of its route across potential wetlands. No filed route crosses potential wetlands;
- Route 10 has no streams crossed by its centerline. No filed route crosses a stream;
- Route 10 has no length of its route parallel to streams (within 100 feet), and there are no routes with any length parallel to streams (within 100 feet) included in the Application;
- Route 10 has no length of its route across lakes or ponds (open waters). No filed route crosses lakes or ponds (open waters);
- Route 10 has no recorded cultural resource site crossed by its centerline. No filed route has a recorded cultural resource site crossed by its centerline;
- Route 10 has: (i) no private airstrip or FAA-registered airport with all runways 3,200 feet or less within 10,000 feet of the centerline along its entire length; (ii) no FAA-registered airport with a runway greater than 3,200 feet within 20,000 feet of the centerline along its entire length; and (iii) no heliport within 5,000 feet of its centerline. All alternative filed routes share these characteristics;
- Route 10 has one electronic installation within 2,000 feet of its centerline. The range in electronic installations within 2,000 feet of the alternative filed route centerlines varies from 0 to 1;
- Route 10 crosses one State Highway, SH Loop 338, along its entire length. Due to the locations of the Reiter Switch and Tesoro Switch stations, all routes cross SH Loop 338;

- Route 10 crosses one Farm-to-Market ("FM") road, county road or other street along its entire length. All filed routes have one FM, county road or other street crossing;
- Route 10 has 5,281 feet of estimated ROW length within the foreground visual zone (0.5 mile of unobstructed view) of US and SH, which is the least (along with Route 7) among all filed routes. The filed routes range in estimated ROW length within the foreground visual zone of US and SH from 5,281 feet to 16,558 feet; and
- Route 10 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. There are no currently-identifiable engineering constraints that impact this alternative route that cannot be addressed with additional consideration by Oncor during the engineering and construction processes.

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, as well as my direct testimony filed concurrently with the CCN Application.

TABLE 1 - LINK COMPOSITION OF ALTERNATIVE FILED ROUTES
REITER SWITCH - TESORO SWITCH 345 KV TRANSMISSION LINE

Route	Link Sequence	Total Length (feet)	Total Length (miles)
1	A-B4-D3-E4-F5-H5-I5-I6-J-	23,385	4.43
4	A-B4-D3-E4-E5-F6-F8-F9-H7-J-	22,597	4.28
5	A-B4-D3-E4-E5-F6-F7-G7-H7-J-	22,284	4.22
6	A-B4-D3-E4-E5-E6-F9-H7-J-	22,366	4.24
7	A-B4-D3-F4-G4-H5-I5-I6-J-	23,353	4.42
10	A-B4-D3-F4-H4-I4-I5-I6-J-	23,399	4.43
13	A-A1-B2-D1-F2-G2-G3-G4-G5-H6-I6-J-	24,612	4.66
14	A-A1-B2-D1-F2-G2-G3-G4-G5-G6-G7-H7-J-	24,323	4.61
15	A-A1-B2-D1-F2-G2-G3-H4-I4-I5-I6-J-	25,101	4.75
27	A-A1-B2-C1-D2-F3-H3-I3-I4-I5-I6-J-	23,121	4.38
46	A-B3-C2-D3-E4-E5-F6-F7-G7-H7-J-	21,382	4.05
50	A-B3-C2-D3-F4-G4-G5-G6-G7-H7-J-	21,720	4.11
52	A-B3-D2-F3-H3-I3-I4-I5-I6-J-	22,193	4.20
53	A-B3-D2-F3-G3-G4-H5-I5-I6-J-	22,495	4.26
61	A-B3-D2-E3-E4-E5-F6-F7-G7-H7-J-	21,378	4.05
65	A-B3-D2-E3-F4-G4-G5-G6-G7-H7-J-	21,715	4.11
66	A-B3-D2-E3-F4-H4-I4-I5-I6-J-	22,493	4.26
73	A-B0-B1-E0-F1-G1-H2-I2-I3-I4-I5-I6-J-	26,727	5.06
88	A-B0-B1-E0-E1-E2-E3-E4-E5-F6-F8-F9-H7-J-	25,227	4.78
106	A-A1-A2-A4-E0-E1-F2-G2-G3-H4-I4-I5-I6-J-	27,166	5.15
123	A-B0-A3-A4-E0-F1-H1-I1-I2-I3-I4-I5-I6-J-	27,592	5.23

TABLE 2 - ENVIRONMENTAL DATA FOR ALTERNATIVE FILED ROUTES
REITER SWITCH - TESORO SWITCH 345 KV TRANSMISSION LINE

Alternative Route Number	1	4	5	6	7	10	13
Length of alternative route (feet)	23,385	22,597	22,284	22,366	23,353	23,399	24,612
Length of alternative route (miles)	4.43	4.28	4.22	4.24	4.42	4.43	4.66
Length of route parallel to existing electric transmission lines	796	6,993	6,419	4,180	796	796	3,076
Length of route parallel to railroads	0	0	0	0	0	0	0
Length of route parallel to existing public roads/highways	0	0	0	0	0	0	0
Length of route parallel to pipelines[1]	0	0	0	0	0	0	0
Length of route parallel to apparent property boundaries	5,895	5,895	5,895	5,895	8,675	5,895	12,857
Length of route within existing Oncor easement or fee-owned property	2,379	2,379	2,379	2,379	2,379	2,379	1,666
Total length of route parallel to existing compatible rights-of-way	8,274	14,471	13,896	11,656	11,054	8,274	16,803
Number of habitable structures within 500 feet of the route centerline[2]	0	0	0	0	0	0	0
Number of parks or recreational areas within 1,000 feet of the route centerline[3]	0	0	0	0	0	0	0
Length of the route across parks/recreational areas	0	0	0	0	0	0	0
Length of route through commercial/industrial areas	1,781	2,398	1,933	2,327	1,784	1,941	2,065
Length of the route across cropland/hay meadow	0	0	0	0	0	0	0
Length across rangeland pasture	21,604	20,199	20,351	20,040	21,569	21,458	22,546
Length of route across agricultural cropland with mobile irrigation systems	0	0	0	0	0	0	0
Length of route across upland woodlands	0	0	0	0	0	0	0
Length of route across riparian areas	0	0	0	0	0	0	0
Length of route across potential wetlands	0	0	0	0	0	0	0
Number of stream crossings by the route	0	0	0	0	0	0	0
Length of route parallel to streams (within 100 feet)	0	0	0	0	0	0	0
Length across lakes or ponds (open waters)	0	0	0	0	0	0	0
Number of known rare/unique plant locations within the right-of-way	0	0	0	0	0	0	0
Length of route through known habitat of endangered or threatened species	0	0	0	0	0	0	0
Number of recorded cultural resource sites crossed by the route	0	0	0	0	0	0	0
Number of recorded cultural resources within 1,000 feet of the route centerline	0	0	0	0	0	0	0
Length of route across areas of high archaeological/historical site potential	5,508	4,849	3,696	4,849	5,065	5,193	4,737
Number of private airstrips within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of FAA-registered airports with at least one runway more than 3,200 feet in length within 20,000 feet of route centerline	0	0	0	0	0	0	0
Number of FAA-registered airports with no runway greater than 3,200 feet in length within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of heliports located within 5,000 feet of the route centerline	0	0	0	0	0	0	0
Number of commercial AM radio transmitters located within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of FM, microwave and other electronic installations within 2,000 feet of the route centerline	1	1	1	1	1	1	0
Number of U.S. or State Highway crossings by the route	1	1	1	1	1	1	1
Number of Farm to Market (F.M.), county roads, or other street crossings by the route	1	1	1	1	1	1	1
Estimated length of right-of-way within foreground visual zone of U.S. and State Highways	8,095	10,284	10,284	11,303	5,281	5,281	5,614
Estimated length of right-of-way within foreground visual zone of park/recreational areas	0	0	0	0	0	0	0
Estimated Transmission Line Cost	$ 19,518,000	$ 20,590,000	$ 20,665,000	$ 19,605,000	$ 19,514,000	$ 18,115,000	$ 24,341,000

NOTES: All length measurements are in feet. Measurements for many of the environmental factors were obtained from mosaics of ortho-rectified images (NearMap, 2023), whose capture process utilizes global positioning system and precise point positioning technologies to achieve sub-meter (or approximately 2.2-7.8 inches) horizontal accuracy to true ground location.

[1] Not included in length of route parallel to existing compatible rights-of-way.

[2] Structures normally 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, churches, hospitals, nursing homes, and schools

[3] Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church.

TABLE 2 - ENVIRONMENTAL DATA FOR ALTERNATIVE FILED ROUTES
REITER SWITCH - TESORO SWITCH 345 KV TRANSMISSION LINE

Alternative Route Number	14	15	27	46	50	52	53
Length of alternative route (feet)	24,323	25,101	23,121	21,382	21,720	22,193	22,495
Length of alternative route (miles)	4.61	4.75	4.38	4.05	4.11	4.20	4.26
Length of route parallel to existing electric transmission lines	2,308	796	796	6,419	2,308	796	796
Length of route parallel to railroads	0	0	0	0	0	0	0
Length of route parallel to existing public roads/highways	0	0	0	0	0	0	0
Length of route parallel to pipelines[1]	0	0	0	0	0	0	0
Length of route parallel to apparent property boundaries	12,857	9,467	2,433	2,704	6,094	0	4,261
Length of route within existing Oncor easement or fee-owned property	1,666	1,666	1,666	1,713	1,713	1,713	1,713
Total length of route parallel to existing compatible rights-of-way	16,035	11,133	4,099	10,039	9,319	1,713	5,975
Number of habitable structures within 500 feet of the route centerline[2]	0	0	0	0	0	0	0
Number of parks or recreational areas within 1,000 feet of the route centerline[3]	0	0	0	0	0	0	0
Length of the route across parks/recreational areas	0	0	0	0	0	0	0
Length of route through commercial/industrial areas	2,094	1,970	1,788	1,978	2,111	1,823	1,789
Length of the route across cropland/hay meadow	0	0	0	0	0	0	0
Length across rangeland pasture	22,229	23,131	21,333	19,404	19,609	20,370	20,706
Length of route across agricultural cropland with mobile irrigation systems	0	0	0	0	0	0	0
Length of route across upland woodlands	0	0	0	0	0	0	0
Length of route across riparian areas	0	0	0	0	0	0	0
Length of route across potential wetlands	0	0	0	0	0	0	0
Number of stream crossings by the route	0	0	0	0	0	0	0
Length of route parallel to streams (within 100 feet)	0	0	0	0	0	0	0
Length across lakes or ponds (open waters)	0	0	0	0	0	0	0
Number of known rare/unique plant locations within the right-of-way	0	0	0	0	0	0	0
Length of route through known habitat of endangered or threatened species	0	0	0	0	0	0	0
Number of recorded cultural resource sites crossed by the route	0	0	0	0	0	0	0
Number of recorded cultural resources within 1,000 feet of the route centerline	0	0	0	0	0	0	0
Length of route across areas of high archaeological/historical site potential	3,610	4,573	5,473	5,502	6,036	4,545	4,865
Number of private airstrips within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of FAA-registered airports with at least one runway more than 3,200 feet in length within 20,000 feet of route centerline	0	0	0	0	0	0	0
Number of FAA-registered airports with no runway greater than 3,200 feet in length within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of heliports located within 5,000 feet of the route centerline	0	0	0	0	0	0	0
Number of commercial AM radio transmitters located within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of FM, microwave and other electronic installations within 2,000 feet of the route centerline	0	0	0	1	1	0	0
Number of U.S. or State Highway crossings by the route	1	1	1	1	1	1	1
Number of Farm to Market (F.M.), county roads, or other street crossings by the route	1	1	1	1	1	1	1
Estimated length of right-of-way within foreground visual zone of U.S. and State Highways	5,614	5,614	7,380	11,997	6,994	5,531	5,531
Estimated length of right-of-way within foreground visual zone of park/recreational areas	0	0	0	0	0	0	0
Estimated Transmission Line Cost	$ 25,591,000	$ 23,103,000	$ 20,615,000	$ 22,391,000	$ 23,736,000	$ 17,993,000	$ 19,689,000

NOTES: All length measurements are in feet. Measurements for many of the environmental factors were obtained from mosaics of ortho-rectified images (NearMap, 2023), whose capture process utilizes global positioning system and precise point positioning technologies to achieve sub-meter (or approximately 2.2-7.8 inches) horizontal accuracy to true ground location.

[1] Not included in length of route parallel to existing compatible rights-of-way.

[2] Structures normally 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, churches, hospitals, nursing homes, and schools

[3] Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church.

TABLE 2 - ENVIRONMENTAL DATA FOR ALTERNATIVE FILED ROUTES
REITER SWITCH - TESORO SWITCH 345 KV TRANSMISSION LINE

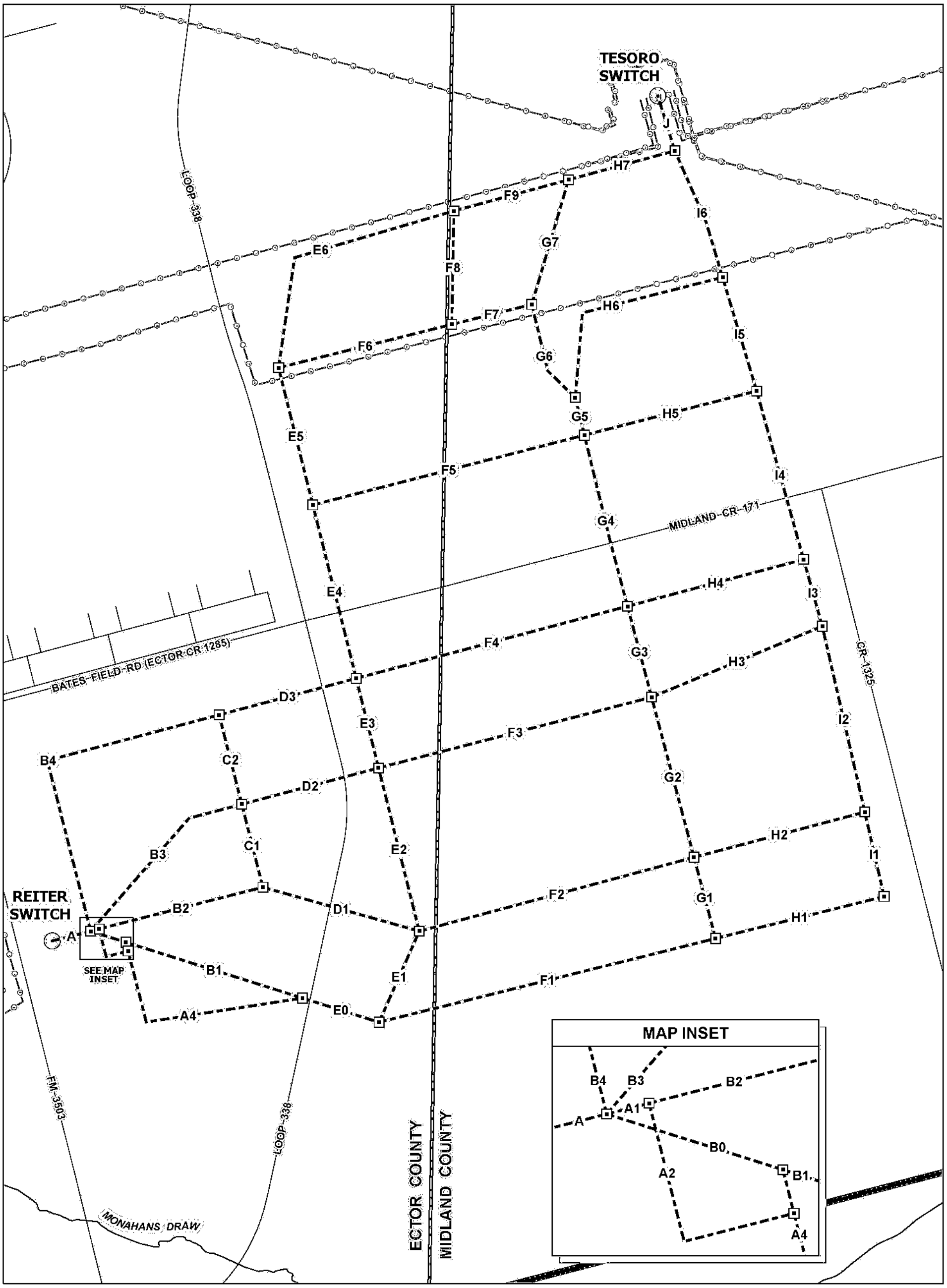
Alternative Route Number	61	65	66	73	88	106	123
Length of alternative route (feet)	21,378	21,715	22,493	26,727	25,227	27,166	27,592
Length of alternative route (miles)	4.05	4.11	4.26	5.06	4.78	5.15	5.23
Length of route parallel to existing electric transmission lines	6,419	2,308	796	796	6,993	796	796
Length of route parallel to railroads	0	0	0	0	0	0	0
Length of route parallel to existing public roads/highways	0	0	0	0	0	0	0
Length of route parallel to pipelines[1]	0	0	0	0	0	0	0
Length of route parallel to apparent property boundaries	0	3,390	0	4,108	0	10,031	921
Length of route within existing Oncor easement or fee-owned property	1,713	1,713	1,713	1,705	1,705	3,315	2,706
Total length of route parallel to existing compatible rights-of-way	7,336	6,615	1,713	5,812	7,902	13,346	3,627
Number of habitable structures within 500 feet of the route centerline[2]	0	0	0	0	0	0	0
Number of parks or recreational areas within 1,000 feet of the route centerline[3]	0	0	0	0	0	0	0
Length of the route across parks/recreational areas	0	0	0	0	0	0	0
Length of route through commercial/industrial areas	2,003	2,136	2,012	1,774	2,277	1,855	1,748
Length of the route across cropland/hay meadow	0	0	0	0	0	0	0
Length across rangeland pasture	19,374	19,579	20,481	24,953	22,949	25,310	25,844
Length of route across agricultural cropland with mobile irrigation systems	0	0	0	0	0	0	0
Length of route across upland woodlands	0	0	0	0	0	0	0
Length of route across riparian areas	0	0	0	0	0	0	0
Length of route across potential wetlands	0	0	0	0	0	0	0
Number of stream crossings by the route	0	0	0	0	0	0	0
Length of route parallel to streams (within 100 feet)	0	0	0	0	0	0	0
Length across lakes or ponds (open waters)	0	0	0	0	0	0	0
Number of known rare/unique plant locations within the right-of-way	0	0	0	0	0	0	0
Length of route through known habitat of endangered or threatened species	0	0	0	0	0	0	0
Number of recorded cultural resource sites crossed by the route	0	0	0	0	0	0	0
Number of recorded cultural resources within 1,000 feet of the route centerline	0	0	0	0	0	0	0
Length of route across areas of high archaeological/historical site potential	4,158	4,692	5,655	7,018	6,856	7,629	8,368
Number of private airstrips within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of FAA-registered airports with at least one runway more than 3,200 feet in length within 20,000 feet of route centerline	0	0	0	0	0	0	0
Number of FAA-registered airports with no runway greater than 3,200 feet in length within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of heliports located within 5,000 feet of the route centerline	0	0	0	0	0	0	0
Number of commercial AM radio transmitters located within 10,000 feet of the route centerline	0	0	0	0	0	0	0
Number of FM, microwave and other electronic installations within 2,000 feet of the route centerline	1	1	1	0	1	0	0
Number of U.S. or State Highway crossings by the route	1	1	1	1	1	1	1
Number of Farm to Market (F.M.), county roads, or other street crossings by the route	1	1	1	1	1	1	1
Estimated length of right-of-way within foreground visual zone of U.S. and State Highways	11,993	6,989	6,989	5,468	16,558	7,095	5,865
Estimated length of right-of-way within foreground visual zone of park/recreational areas	0	0	0	0	0	0	0
Estimated Transmission Line Cost	$ 20,834,000	$ 23,582,000	$ 19,689,000	$ 23,841,000	$ 24,875,000	$ 28,794,000	$ 25,257,000

NOTES: All length measurements are in feet. Measurements for many of the environmental factors were obtained from mosaics of ortho-rectified images (NearMap, 2023), whose capture process utilizes global positioning system and precise point positioning technologies to achieve sub-meter (or approximately 2.2-7.8 inches) horizontal accuracy to true ground location.

[1] Not included in length of route parallel to existing compatible rights-of-way.

[2] Structures normally 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, churches, hospitals, nursing homes, and schools

[3] Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church.



REITER SWITCH -- TESORO SWITCH
345 KV TRANSMISSION LINE PROJECT

N

MAP FEATURES

- STUDY AREA
- NODE BETWEEN ADJACENT ROUTE LINKS
- PRELIMINARY ALTERNATIVE ROUTE LINK
- PROJECT ENDPOINT
- PUBLIC ROAD
- EXISTING TRANSMISSION LINE
- RIVER / STREAM
- COUNTY BOUNDARY

0 1,500 3,000
SCALE IN FEET

Date: 7/11/2024