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DIRECT TESTIMONY OF KIMBERLY M. BUCKLEY, WITNESS FOR ONCOR ELECTRIC DELIVERY COMPANY LLC

١.	POSITION AND QUALIFICATIONS						
11.	PURPOSE OF TESTIMONY						
III.	ENVIRONMENTAL ASSESSMENT						
IV.	PUBLIC INVOLVEMENT						
V.	EVALUATION OF ROUTING ALTERNATIVES1						
VI.	CONCLUSION						
	AFFIDAVIT						
	Exhibit KMB-1	Resume of Kimberly Buckley					
	Exhibit KMB-2	Texas Utilities Code § 37.056					
	Exhibit KMB-3	16 Texas Administrative Code § 25.101					

DIRECT TESTIMONY OF KIMBERLY M. BUCKLEY I. POSITION AND QUALIFICATIONS

- 3 Q. PLEASE STATE YOUR NAME AND ADDRESS:
- 4 A. My name is Kimberly M. Buckley. I am employed by Freese and Nichols,
- 5 Inc. ("Freese and Nichols"), an engineering consulting firm. I am an
- 6 Associate of the firm and hold the position of Environmental Science
- 7 Assistant Group Manager. Beginning January 3, 2022, I will assume the
- 8 position of Environmental Science Group Manager for our North Texas and
- 9 Oklahoma Region. My business address is 801 Cherry Street, Suite 2800,
- 10 Fort Worth, Texas 76102.

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- 11 Q. PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS.
- 12 A. I have almost 20 years of experience as an environmental scientist
- providing environmental planning and consulting services for electric
- transmission line and substation projects; aviation projects; and natural gas
- processing, storage, and pipeline projects. I have served as a Project
- 16 Manager since 2005 and concurrently served as Geoscience Team
- Manager from 2018 until I assumed my current role in 2021. I managed the
- 18 environmental assessment and routing study for the proposed Old Country
- 19 Switch 345 kV Tap Transmission Line Project ("Proposed Transmission
- 20 Line Project") proposed by Oncor Electric Delivery Company LLC ("Oncor").
- 21 My educational and professional qualifications are more fully presented in
- 22 Exhibit KMB-1, attached hereto.
- 23 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITY
- 24 COMMISSION OF TEXAS ("COMMISSION")?
- 25 A. No, I have not.
- 26 <u>II. PURPOSE OF TESTIMONY</u>
- 27 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?
- 28 A. The purpose of my testimony is to introduce, support, sponsor, and describe
- 29 the Environmental Assessment and Alternative Route Analysis for the

Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas ("Environmental Assessment and Routing Study") prepared by Freese and Nichols at the request of Oncor. The Environmental Assessment and Routing Study is included as Attachment No. 1 to Oncor's Application for a Certificate of Convenience and Necessity ("CCN") for a Proposed Transmission Line filed by Oncor on August 26, 2021 (the "Application"). The Application, as it may be amended and/or supplemented, will be offered into evidence by Oncor at the hearing. The facts and statements contained in the Environmental Assessment and Routing Study, which I am sponsoring, are true and correct to the best of my knowledge.

III. ENVIRONMENTAL ASSESSMENT AND ROUTING STUDY

- Q. WHY DID FREESE AND NICHOLS PREPARE THE ENVIRONMENTAL
 ASSESSMENT AND ROUTING STUDY?
- 15 A. Oncor retained Freese and Nichols to perform and prepare the
 16 Environmental Assessment and Routing Study for the Proposed
 17 Transmission Line Project. My responsibilities included oversight and
 18 participation in all elements of the preparation of the Environmental
 19 Assessment and Routing Study from baseline data acquisition to
 20 development of the alternative routes.
- 21 Q. WAS ANYONE OTHER THAN YOU INVOLVED IN THE 22 ENVIRONMENTAL ASSESSMENT PROCESS?
- Yes. Freese and Nichols assembled a team of professionals with expertise 23 Α. in different environmental and land use disciplines, including soils, 24 physiography, geology, water resources, terrestrial and wetland ecology, 25 community values and resources, aesthetics, cultural resources, and 26 mapping, among others (the "Freese and Nichols Project Team"), all of 27 involved in data acquisition, routing analysis, and 28 whom were 29 environmental assessment for the Proposed Transmission Line Project.

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- Section 8.0 of the Environmental Assessment and Routing Study presents a list of the primary preparers of the document.
- 3 Q. WHAT DOES THE ENVIRONMENTAL ASSESSMENT AND ROUTING 4 STUDY ADDRESS?
- The Environmental Assessment and Routing Study provides a detailed description of the data gathered and analyzed by Freese and Nichols with respect to the Proposed Transmission Line Project, the project area, and the routing procedures and methodology Freese and Nichols utilized to delineate and evaluate alternative routes.
- 10 Q. PLEASE DESCRIBE THE OBJECTIVES OF THE ENVIRONMENTAL
 11 ASSESSMENT AND ROUTING STUDY.
- The objectives of the Environmental Assessment and Routing Study were 12 Α. to identify and evaluate alternative transmission line routes for the Proposed 13 Transmission Line Project. Freese and Nichols' approach involved a series 14 15 of tasks designed to address the requirements of Texas Utilities Code § 37.056(c)(4)(A)–(D); 16 Texas Administrative Code § 25.101(b)(3)(B), 16 including the Commission's policy of prudent avoidance; CCN application 17 form requirements (including but not limited to Question Nos. 9-10 and 17-18 29); and Oncor's routing policies. The tasks included scoping and study 19 area delineation, data collection, constraints mapping, preliminary 20 alternative route identification, participation in a public participation meeting, 21 modification/addition of alternative route links following the public 22 participation meeting, and alternative route development. True and correct 23 24 copies of Texas Utilities Code § 37.056 and 16 Texas Administrative Code § 25.101 are attached to my direct testimony as Exhibits KMB-2 and KMB-25 26 3, respectively.
- Q. PLEASE EXPLAIN HOW THE STUDY AREA WAS DELINEATED FOR
 THE PROPOSED TRANSMISSION LINE PROJECT.

A. To identify preliminary alternative routes for the Proposed Transmission Line Project, Freese and Nichols first delineated a study area, gathered data regarding the study area, and mapped constraints within the study area.

The study area for the Proposed Transmission Line Project was first delineated to include the termination points for the Proposed Transmission Line Project—Oystercatcher Solar, LLC's planned Oystercatcher Solar substation and Oncor's proposed Old Country Switch station—and to include an area large enough that a reasonable number of forward-progressing, geographically diverse routes could be identified. The purpose of delineating the study area was to establish boundaries and limits for the information gathering process (i.e., the identification of environmental and land use constraints). Figure 1-1 of the Environmental Assessment and Routing Study depicts the study area delineated by Freese and Nichols.

Freese and Nichols reviewed United States Geological Survey ("USGS") topographic maps and aerial photography to develop the study area boundary for the Proposed Transmission Line Project. Freese and Nichols located and depicted the project endpoints on the maps and identified major features in the study area, such as Interstate Highway 35 East, U.S. Highway 77, Farm-to-Market Road ("FM") 876, Chambers Creek, the City of Italy, existing transmission line infrastructure, and other features. The study area is roughly rectangular and encompasses approximately 24 square miles, with the longer axis being approximately six miles from northwest to southeast and the shorter axis approximately four miles from northeast to southwest.

- Q. HOW DID FREESE AND NICHOLS IDENTIFY ENVIRONMENTAL AND
 LAND USE CONSTRAINTS IN THE STUDY AREA?
- 27 A. Once the study area boundary was identified, Freese and Nichols initiated 28 a variety of data collection activities. One of the first such activities was the 29 development of a list of officials to be mailed a consultation letter regarding

the Proposed Transmission Line Project. Freese and Nichols mailed out consultation letters beginning in April 2021. The purpose of the letters was to inform the various officials and agencies about the Proposed Transmission Line Project and to give those officials and agencies the opportunity to provide any information they had regarding the project and/or general project area. In response, Freese and Nichols and Oncor received information from various public officials and agencies. The consultation letters and related correspondence are included as Appendix A to the Environmental Assessment and Routing Study.

Among other things, data collection activities also consisted of file and record reviews of various regulatory agency databases; a review of published literature; and review of a variety of maps, including recent aerial photography, seamless topographical maps from the USGS, Texas Department of Transportation maps, county highway maps, U.S. Fish & Wildlife Service National Wetlands Inventory maps, and county appraisal district land parcel boundary maps. During the course of the data collection activities, Freese and Nichols personnel also conducted reconnaissance surveys of the study area on April 13, May 7, and May 20, 2021 to confirm findings of research and identify constraints that were not previously noted. The data collection effort began in the early stages of the planning of the Proposed Transmission Line Project and continued until the point of the final development of the alternative routes.

- Q. HOW DID FREESE AND NICHOLS USE THE DATA COLLECTED
 THROUGH THIS PROCESS?
- 25 A. Information gathered during data collection was used to develop an environmental and land use constraints map, which is included as Figure 327 1 (Appendix F) of the Environmental Assessment and Routing Study ("Figure 3-1"). Figure 3-1 depicts the environmental and land use constraints identified by Freese and Nichols through the data collection

1	process and field investigations. In this context, constraints are land use or
2	landscape features that may affect or be affected by the location of a
3	transmission line. The goal of this approach is to identify opportunity areas,
4	which are areas where constraints are absent or fewer, or those areas with
5	a lower likelihood of containing existing natural or human resources that
6	could be negatively affected by a transmission line.

- 7 Q. WHAT PROCESS DID FREESE AND NICHOLS UTILIZE TO IDENTIFY
 8 PRELIMINARY ALTERNATIVE ROUTES FOR THE PROPOSED
 9 TRANSMISSION LINE PROJECT?
- 10 A. Given that a number of potential routes could be drawn to connect the termination points, the constraints mapping process was used in selecting and refining possible alternative routes.

Upon completion of the initial data collection activities and constraints mapping process, the next step in the routing process was to identify preliminary alternative links to connect the endpoints for the Proposed Transmission Line Project. Freese and Nichols identified 61 preliminary alternative links forming 157 preliminary alternative routes. As discussed later in my testimony, Freese and Nichols, in consultation with Oncor and with input from local landowners, continued to refine the number and location of potential alternative links and routes for the Proposed Transmission Line Project.

In identifying preliminary alternative links, Freese and Nichols considered a variety of information, including, among other things: input received from correspondence with public officials and representatives of state and federal agencies; results of the visual reconnaissance surveys of the study area; review of aerial photography; findings of the other various data collection activities; the environmental and land use constraints map; the location of existing development; the location of existing compatible corridors; and apparent property boundaries. The preliminary alternative

1		links identified by Freese and Nichols are shown in Appendix C and Table
2		7-1 (Appendix C) of the Environmental Assessment and Routing Study.
3		IV. PUBLIC INVOLVEMENT
4	Q.	PLEASE DESCRIBE THE PUBLIC INVOLVEMENT PROGRAM UTILIZED
5		FOR THE PROPOSED TRANSMISSION LINE PROJECT.
6	A.	In addition to the consultation with local officials and departments and local,
7		state, and federal regulatory agencies, the public involvement program
8		included a public participation meeting and information received from other
9		interested parties. The purpose of consulting with public officials and other
10		interested parties was to provide those parties with information regarding
11		the process of transmission line routing and to get input from those parties
12		regarding proposed projects or other land use constraints that could have
13		an impact on potential alternative routes.
14		The purpose of the public participation meeting, which was held on
15		May 20, 2021, was to: (1) solicit comments and input from residents,
16		landowners, public officials, and other interested parties concerning the
17		Proposed Transmission Line Project, the preliminary alternative links, and
18		the overall transmission line routing process; (2) promote a better
19		understanding of the Proposed Transmission Line Project, including the
20		purpose, need, potential benefits, potential impacts, and the CCN
21		certification process; (3) inform the public regarding the routing process,
22		schedule, and decision-making process; and (4) gather information about the
23		values and concerns of the public and community leaders.
24		The public involvement program also included consultation and
25		solicitation of information from local officials and various state and federal
26		agencies in order to give such officials and agencies the opportunity to
27		provide Freese and Nichols with any information they had regarding the
28		project and/or project area. Information received from the public

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involvement program was considered and incorporated into Freese and

- Nichols' evaluation of the Proposed Transmission Line Project, routes, and alternative route links.
- Q. PLEASE DESCRIBE THE OPPORTUNITIES FOR FEEDBACK AT THE
 PUBLIC PARTICIPATION MEETING.
 - Feedback from the public participation meeting occurred in two primary ways. First, one-on-one conversations with personnel from Freese and Nichols and Oncor, as well as property abstracting company 7Arrows Land Staff, LLC, provided information regarding interests and comments about the project. During the one-on-one conversations, attendees were able to provide comments and clarifications regarding structures and features depicted on the large aerial photographs displayed at the public participation meeting. Attendees were encouraged to locate and mark particular features of interest on the aerial exhibits and at the Geographic Information System (GIS) computer stations. In that manner, Freese and Nichols gained insight into particular features of the study area as well as a sense of those values important to the communities potentially impacted by the Proposed Transmission Line Project.

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

In addition to the opportunities for real-time feedback, each attendee at a public participation meeting, including participants through the virtual

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public	participation	website,	received	a q	uestionn	aire that	solicited
commer	nts on the Pro	posed Tr	ansmissior	ı Line	Project.	Oncor an	d Freese
and Nicl	hols received	one ques	tionnaire th	nat wa	ıs submit	ted at the	in-person
meeting	, one questic	onnaire th	at was sul	omitte	d throug	h the virtu	ıal public
meeting	website, and	l one emai	il from a lar	ndowr	er that w	as submit	ted in lieu
of a que	estionnaire.	These co	mments w	ere c	onsidere	d and fact	ored into
Freese	and Nichols	and One	cor's evalı	uation	of the	alternativ	e routes.
Addition	nal details on	the public	: participati	on m	eeting pr	ocess are	provided
in the di	rect testimon	y of Onco	r witness N	/ls. Br	enda J. F	Perkins.	

- 10 Q. WHAT MODIFICATIONS TO THE PRELIMINARY ALTERNATIVE LINKS
 11 DID FREESE AND NICHOLS MAKE FOLLOWING THE PUBLIC
 12 INVOLVEMENT PROGRAM?
- A. Based on information gathered through the public participation meeting,
 Freese and Nichols further evaluated the constraints in the study area and
 modified, added, or deleted several alternative route links as a result.
 These changes were intended to minimize the length of transmission line
 right-of-way ("ROW") through a native forest area, follow natural clearings,
 and provide additional pathways through the study area.

Freese and Nichols obtained additional information on the study area during subsequent field reconnaissance, which resulted in the addition of several links to provide an option for a straighter, more direct route with fewer angle structures along FM 876. These modifications are described in greater detail in Section 6.0 of the Environmental Assessment and Routing Study.

V. EVALUATION OF ROUTING ALTERNATIVES

- Q. PLEASE DESCRIBE THE PROCESS FOLLOWED BY FREESE AND
 NICHOLS TO EVALUATE THE ALTERNATIVE ROUTES.
- 28 A. Once the preliminary alternative routes were identified, the Freese and Nichols Project Team evaluated the preliminary alternative routes based

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- upon the requirements set forth in Texas Utilities Code § 37.056(c)(4)(A)-1 (D), 16 Texas Administrative Code § 25.101(b)(3)(B), the Commission's 2 3 CCN application form requirements, environmental and land use constraints present along each route, and Oncor's routing policies. Section 4 7.0 of the Environmental Assessment and Routing Study describes the 5 evaluation of the alternative routes. Each professional on the Freese and 6 7 Nichols Project Team independently analyzed the routes defined in Table 7-1 of the Environmental Assessment and Routing Study to identify the 8 9 environmental and land use data for each alternative route, which is presented in Table 7-2 (Appendix D) of the Environmental Assessment and 10 11 Routing Study.
- 12 Q. HOW DID FREESE AND NICHOLS IDENTIFY HABITABLE 13 STRUCTURES IN THE STUDY AREA?
- Freese and Nichols reviewed and interpreted aerial photography to identify 14 Α. 15 the location of habitable structures within 500 feet of the centerline of each alternative route, then verified those results during reconnaissance surveys 16 where practical. The aerial photography used to determine the distance of 17 habitable structures from each alternative route has a horizontal accuracy 18 of +/- 20 feet. To account for this margin of error, Freese and Nichols 19 identified habitable structures within a measured distance of 520 feet of 20 each alternative route's centerline. The habitable structures identified by 21 Freese and Nichols primarily consist of single-family residences or ranch 22 facilities concentrated near major roadways or ranch roads. Habitable 23 24 structures within 520 measured feet of each alternative route are documented in table 7-3 (Appendix E) of the Environmental Assessment 25 26 and Routing Study and shown in Figure 3-1.
- Q. BRIEFLY DESCRIBE YOUR UNDERSTANDING OF THE COMMISSION'S
 POLICY OF PRUDENT AVOIDANCE.

- 1 16 Texas Administrative Code § 25.101 defines prudent avoidance as "the Α. 2 limiting of exposures to electric and magnetic fields that can be avoided with 3 reasonable investments of money and effort." My understanding of the 4 Commission's policy of prudent avoidance is that the process of routing a 5 proposed transmission line should include consideration of routing options that will reasonably avoid population centers and other locations where 6 7 people gather. This does not mean that a proposed transmission line must avoid habitable structures at all costs, but that reasonable alternatives 8 9 should be considered.
- 10 Q. DO THE ALTERNATIVE ROUTES EVALUATED BY FREESE AND
 11 NICHOLS ADHERE TO THE COMMISSION'S POLICY OF PRUDENT
 12 AVOIDANCE?
- 13 A. Yes, all of the alternative routes evaluated by Freese and Nichols adhere to 14 the Commission's policy of prudent avoidance.
- Q. IN DEVELOPING THE PROPOSED ALTERNATIVE ROUTES, DID
 FREESE AND NICHOLS ATTEMPT TO FOLLOW PROPERTY
 BOUNDARIES?
- Yes. However, for a number of reasons, paralleling property lines was not 18 A. 19 possible in all instances. For example, an inverse relationship often exists 20 between following compatible corridors and property boundaries. Given that most existing compatible corridors do not follow property boundaries, 21 as the amount of a proposed route parallel to corridors increases, the 22 amount of the line parallel to property boundaries will typically decrease. 23 24 Additionally, in some parts of the study area, the orientation of property boundaries makes paralleling impractical. For example, curved or irregular 25 26 property lines make it difficult to parallel property boundaries without adding substantial additional length or numerous large angle structures. However, 27 28 even given these limitations, Freese and Nichols considered the paralleling 29 of property boundaries and, in the absence of other compatible corridors,

- attempted to follow property boundaries where appropriate when routing for
 the Proposed Transmission Line Project.
- Q. WHAT ARE THE RESULTS OF FREESE AND NICHOLS'
 INVESTIGATIONS REGARDING THE PROPOSED TRANSMISSION LINE
 PROJECT?
- Along the alternative routes Freese and Nichols evaluated, construction of 6 Α. 7 the Proposed Transmission Line Project should not have a significant impact on existing: physiographic or geologic features/resources; soils and 8 9 prime farmland; water resources; fish and wildlife species, habitat, and 10 ecosystems: natural resources; land use; or cultural resources. The primary 11 impact on terrestrial vegetation due to construction of the Proposed Transmission Line Project is the potential removal of existing woody 12 13 vegetation from areas required for the transmission line ROW. However, these impacts can be mitigated by minimizing the length of the transmission 14 15 line through existing wooded areas and by paralleling existing roads or transmission line corridors wherever possible. Moreover, construction 16 within the ROW will be performed in such a manner as to minimize adverse 17 impacts to vegetation and to retain existing ground cover where feasible. 18 Section 7.0 of the Environmental Assessment and Routing Study describes 19 in detail the results of the alternative route evaluations and any potential 20 21 impacts for all the routes.
- Q. ARE THE ALTERNATIVE ROUTES PROVIDED TO ONCOR
 CONSISTENT WITH THE APPLICABLE PROVISIONS OF THE TEXAS
 UTILITIES CODE AND THE COMMISSION'S SUBSTANTIVE RULES?
- Yes. The Freese and Nichols Project Team, with expertise in different 25 Α. disciplines (physiography, geology, water resources, soils, vegetation 26 ecology, wildlife land use/aesthetics, 27 fish and ecology, maps/figures/graphics, cultural resources, etc.), delineated and evaluated 28 potential alternative routes for the Proposed Transmission Line Project 29

based upon environmental and land use conditions present along each potential route, reconnaissance surveys, and the public involvement program. The routes provided to Oncor were evaluated by Freese and Nichols in accordance with the requirements of Texas Utilities Code § 37.056(c)(4)(A)-(D) and 16 Texas Administrative Code § 25.101. All of the alternative routes provided to Oncor comply with the routing requirements of Texas Utilities Code § 37.056(c)(4)(A)-(D) and 16 Texas Administrative Code § 25.101.

9 VI. CONCLUSION

- 10 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?
- 11 A. Yes, it does.

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STATE OF TEXAS S
COUNTY OF DALLAS

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

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

Kimberly M. Buckley

SUBSCRIBED AND SWORN TO BEFORE ME on this 16th day of December, 2021.

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

Notary Public, State of Texas

My Commission Expires: 06-30-2022



EXPERIENCE 20 years

EDUCATION

M.S., Geology, University of New Orleans

B.S., Environmental Management Systems, Louisiana State University

REGISTRATIONS/CERTIFICATIONS

Professional Geoscientist, TX #10385

AFFILIATIONS

ASTM International E-50 Environmental Assessment Committee (Voting Member)

ROLE at FNI

Environmental Science Assistant Group Manager, 2021 – Present

Geoscience Team Manager, 2018 – 2021

Project Manager, 2005 – 2018

Environmental Scientist, 2002 – 2005

KIMBERLY BUCKLEY, PG

Kimberly Buckley is a firm Associate and licensed Professional Geoscientist, who has served as Project Manager on more than 40 environmental projects. Ms. Buckley manages FNI's North Texas geoscience services. She has experience in a diverse selection of environmental-related projects, including environmental site assessments, affected property assessments, municipal setting designation applications, waste classification and disposal, and preparation of spill prevention control and countermeasure plans. She is a registered Corrective Action Project Manager with the state of Texas and is versed in TCEQ and EPA regulations governing the handling of petroleum products and hazardous substances in storage tanks. Ms. Buckley is a member of the ASTM International subcommittee responsible for maintaining and updating standards related to environmental site assessments and environmental services. Some of her relevant experience includes:

RELEVANT EXPERIENCE:

Environmental Assessment and Routing Studies to Support Certificates of Convenience and Necessity, Oncor Electric Delivery — As Project Manager, led Environmental Assessment and Alternative Route Analysis efforts to support Public Utility Commission of Texas (PUCT) Certificate of Convenience and Necessity (CCN) Application for Oncor projects located in Dallas and Ellis Counties. Supervised team of environmental scientists, engineers, and GIS analysts to prepare technical sections of the Environmental Assessment document in accordance with National Environmental Policy Act (NEPA) documentation guidance and Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code, Public Utility Commission of Texas (PUCT) Substantive Rules Section 25.101, including the PUCT policy of prudent avoidance, and PUCT Procedural Rules Section 22.52(a)(4).

Permitting Department Program Management, Oncor Electric Delivery — As Permitting Coordinator, coordinated with agencies to obtain crossing permits for high voltage transmission line projects throughout Texas. Developed streamlined permitting processes and workflow documentation. Completed applications and obtained permits from local water authorities, U.S. Army Corps of Engineers, and Texas Department of Transportation. Coordinated with other departments (right-of-way, survey, engineering, project management) to streamline procedures.

Phase I and II Environmental Site Assessment for Substation Expansion – Denton Municipal Electric – As Environmental Professional, managed a Phase I and limited Phase II Environmental Site Assessment for proposed substation expansion project in Denton, Texas. Characterized environmental conditions at the sites by evaluating factors such as land use, site history, and obvious indicators of environmental contamination in accordance with ASTM Standards E-1527 and E-1903. Collected soil samples and analyzed laboratory data to determine presence or absence of environmental contamination on property in accordance with applicable TCEQ Texas Risk Reduction Program standards.

Phase I Environmental Site Assessment and Desktop Screening Evaluation, Energy Client, Missouri City, Texas – Managed and conducted a Phase I ESA for ten parcels of land in Missouri City being considered for a future natural gas storage facility. The properties were evaluated to determine if any historical or current land uses on the subject properties or in the surrounding area would pose an environmental concern for the proposed storage facility. Several oil wells were located on the parcels with associated tank farms. The condition of each tank was observed during the site visit. A separate subject property was studied in San Jacinto County as part of a desktop screening evaluation for hazardous sites in the surrounding area.

Environmental Condition Assessments for Airport Capital Improvement Projects, City of San Antonio Aviation Department, San Antonio, Texas, Project Geoscientist. Conducted and provided quality control technical review for environmental condition assessments for planned airport improvement projects. Conducted limited site investigations of sites through the installation of soil borings and temporary monitor wells to collect soil and groundwater samples and analysis of laboratory data to determine presence or absence and location of environmental contamination on property. Evaluated sites under the TCEQ's Leaking Petroleum Storage Tank Program and Texas Risk Reduction Program to evaluate petroleum hydrocarbons detected in soils underlying proposed improvement footprint.

TPDES Permit Evaluation and Amendment, Enterprise Products Partners LP. Conducted Permitting Needs Evaluation for facilities in Houston area. Prepared Texas Pollutant Discharge Elimination System (TPDES) permit amendment for modifications to existing facility. Major tasks including review of benchmark wastewater effluent quality data, evaluation of new outfall locations, and submittal of the permit application.

Spill Prevention, Control, and Countermeasure Plan – Momentum Energy, Tolar, Texas – As Project Scientist, conducted facility assessment and updated Spill Prevention, Control, and Countermeasure (SPCC) Plan for a gas processing plant. Recommended appropriate spill prevention measures as necessary to comply with EPA Oil Pollution Prevention regulations including foundations for several large tanks, compressors and processing equipment.

Phase I and II Environmental Site Assessments for Facility Expansions – Sandy Creek Energy, Central and Southeast Texas – As Environmental Professional, managed and reviewed an update of a Phase I Environmental Site Assessments for proposed natural gas facilities in McLennan and Brazoria Counties in Texas. Characterized environmental conditions at the sites by evaluating factors such as land use, site history, and obvious indicators of environmental contamination in accordance with ASTM Standard E-1527. Collected soil samples and analyzed laboratory data to determine presence or absence of environmental contamination on property in accordance with applicable TCEQ Texas Risk Reduction Program standards.

Storm Water Pollution Prevention Plan – Brazos Electric Power Cooperative, Waco, Texas – Project Scientist responsible for developing storm water pollution prevention plans (SWPPP) for construction site activity in compliance with TCEQ and Texas Pollutant Discharge Elimination System (TPDES) requirements.

Permitting Department Program Management - Chesapeake Energy, Fort Worth, Texas — As Permitting Coordinator and Interim Permitting Department Manager, managed a team of 5 to 10 contract permit agents to obtain crossing permits for a large natural gas pipeline company in Tarrant, Johnson, and Ellis Counties, Texas. Developed streamlined permitting processes and workflow documentation. Compiled weekly permitting department metrics to evaluate the progress and efficiencies in the Permitting Department. Completed applications and obtained pipeline crossing permits from local water authorities, U.S. Army Corps of Engineers, and Texas Department of Transportation. Coordinated with other departments (right-of-way, survey, engineering, project management) to streamline overarching company processes and workflow procedures.

Specialized Environmental Services - Chesapeake Energy, Fort Worth, Texas – Environmental Coordinator responsible for specialized environmental services, including U.S. Army Corps of Engineers utility easement acquisition and crossings, tree surveys and urban forestry permitting, and U.S. Army Corps of Engineers flowage easement requests for a large natural gas pipeline company in Tarrant, Johnson, and Ellis Counties, Texas. Provided weekly team updates of the status of project tasks and coordinated with local municipalities and government agencies to obtain permits or permissions in timely manner.

Environmental Baseline Survey & Environmental Assessment for Land Exchange Between U.S. Army and USFS - U.S. Army Corps of Engineers, Fort Polk, Louisiana - As Project Scientist, prepared NEPA and ASTM Standard 1527 compliant environmental baseline survey and environmental assessment for land exchange of approximately 880 acres between U.S. Army and U.S. Forest Service. Coordinated with military officials at Fort Polk and the U.S. Forest Service. Reviewed historical topographic maps, aerial photographs, and regulatory records for environmental conditions on property. Utilized global positioning system (GPS) technology to document field conditions during site visits.

CHAPTER 37. CERTIFICATES OF CONVENIENCE AND NECESSITY.

Subchapter B. CERTIFICATE OF CONVENIENCE AND NECESSITY.

Sec. 37.056. GRANT OR DENIAL OF CERTIFICATE.

- (a) The commission may approve an application and grant a certificate only if the commission finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public.
 - (b) The commission may:
 - (1) grant the certificate as requested;
 - (2) grant the certificate for the construction of a portion of the requested system, facility, or extension or the partial exercise of the requested right or privilege; or
 - (3) refuse to grant the certificate.
 - (c) The commission shall grant each certificate on a nondiscriminatory basis after considering:
 - (1) the adequacy of existing service;
 - (2) the need for additional service;
 - (3) the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area; and
 - (4) other factors, such as:
 - (A) community values;
 - (B) recreational and park areas;
 - (C) historical and aesthetic values:
 - (D) environmental integrity;
 - (E) the probable improvement of service or lowering of cost to consumers in the area if the certificate is granted, including any potential economic or reliability benefits associated with dual fuel and fuel storage capabilities in areas outside the ERCOT power region; and
 - (F) to the extent applicable, the effect of granting the certificate on the ability of this state to meet the goal established by Section 39.904(a) of this title.
- (c-1) In considering the need for additional service under Subsection (c)(2) for a reliability transmission project that serves the ERCOT power region, the commission must consider the historical load, forecasted load growth, and additional load currently seeking interconnection.
- (d) The commission by rule shall establish criteria, in addition to the criteria described by Subsection (c), for granting a certificate for a transmission project that serves the ERCOT power region, that is not necessary to meet state or federal reliability standards, and that is not included in a plan developed under Section 39.904(g). The criteria must include a comparison of the estimated cost of the transmission project for consumers and the estimated congestion cost savings for consumers that may result from the transmission project, considering both current and future expected congestion levels and the transmission project's ability to reduce those congestion levels. The commission shall include with its decision on an application for a certificate to which this subsection applies findings on the criteria.
- (e) A certificate to build, own, or operate a new transmission facility that directly interconnects with an existing electric utility facility or municipally owned utility facility may be granted only to the owner of that existing facility. If a new transmission facility will directly interconnect with facilities owned by different electric utilities or municipally owned utilities, each entity shall be certificated to build, own, or operate the new facility in separate and discrete equal parts unless they agree otherwise.
- (f) Notwithstanding Subsection (e), if a new transmission line, whether single or double circuit, will create the first interconnection between a load-serving station and an existing transmission facility, the entity with a load-serving responsibility or an electric cooperative that has a member with a load-serving

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

- (g) Notwithstanding any other provision of this section, an electric utility or municipally owned utility that is authorized to build, own, or operate a new transmission facility under Subsection (e) or (f) may designate another electric utility that is currently certificated by the commission within the same electric power region, coordinating council, independent system operator, or power pool or a municipally owned utility to build, own, or operate a portion or all of such new transmission facility, subject to any requirements adopted by the commission by rule.
- (h) The division of any required certification of facilities described in this section shall apply unless each entity agrees otherwise. Nothing in this section is intended to require a certificate for facilities that the commission has determined by rule do not require certification to build, own, or operate.
- (i) Notwithstanding any other provision of this section, an electric cooperative may be certificated to build, own, or operate a new facility in place of any other electric cooperative if both cooperatives agree.

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

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

§25.101. Certification Criteria.

- (a) **Definitions.** The following words and terms, when used in this section, shall have the following meanings unless the context clearly indicates otherwise:
 - (1) **Construction and/or extension** -- Shall not include the purchase or condemnation of real property for use as facility sites or right-of-way. Acquisition of right-of-way shall not be deemed to entitle an electric utility to the grant of a certificate of convenience and necessity without showing that the construction and/or extension is necessary for the service, accommodation, convenience, or safety of the public.
 - (2) **Generating unit** -- Any electric generating facility. This section does not apply to any generating unit that is less than ten megawatts and is built for experimental purposes only.
 - (3) **Habitable structures** -- Structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis. Habitable structures include, but are not limited to: single-family and multi-family dwellings and related structures, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, and schools.
 - (4) **Municipal Power Agency (MPA)** -- Agency or group created under Texas Utilities Code, Chapter 163 Joint Powers Agencies.
 - (5) Municipal Public Entity (MPE) -- A municipally owned utility (MOU) or a municipal power agency.
 - (6) **Prudent avoidance** -- The limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort.
 - (7) **Tie line --** A facility to be interconnected to the Electric Reliability Council of Texas (ERCOT) transmission grid by a person, including an electric utility or MPE, that would enable additional power to be imported into or exported out of the ERCOT power grid.
- (b) Certificates of convenience and necessity for new service areas and facilities. Except for certificates granted under subsection (e) of this section, the commission may grant an application and issue a certificate only if it finds that the certificate is necessary for the service, accommodation, convenience, or safety of the public, and complies with the statutory requirements in the Public Utility Regulatory Act (PURA) §37.056. The commission may issue a certificate as applied for, or refuse to issue it, or issue it for the construction of a portion of the contemplated system or facility or extension thereof, or for the partial exercise only of the right or privilege. The commission shall render a decision approving or denying an application for a certificate within one year of the date of filing of a complete application for such a certificate, unless good cause is shown for exceeding that period. A certificate, or certificate amendment, is required for the following:
 - (1) **Change in service area**. Any certificate granted under this section shall not be construed to vest exclusive service or property rights in and to the area certificated.
 - (A) Uncontested applications: An application for a certificate under this paragraph shall be approved administratively within 80 days from the date of filing a complete application if:
 - (i) no motion to intervene has been filed or the application is uncontested;
 - (ii) all owners of land that is affected by the change in service area and all customers in the service area being changed have been given direct mail notice of the application; and
 - (iii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
 - (B) Minor boundary changes or service area exceptions: Applications for minor boundary changes or service area exceptions shall be approved administratively within 45 days of the filing of the application provided that:

Subchapter E. CERTIFICATION, LICENSING AND REGISTRATION.

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

(2) Generation facility.

- (A) In a proceeding involving the purchase of an existing electric generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 181st day after the date a request for the certificate is filed with the commission under PURA §37.058(b).
- (B) In a proceeding involving a newly constructed generating facility by an electric utility that operates solely outside of ERCOT, the commission shall issue a final order on a certificate for the facility not later than the 366th day after the date a request for the certificate is filed with the commission under PURA §37.058(b).
- (3) **Electric transmission line.** All new electric transmission lines shall be reported to the commission in accordance with §25.83 of this title (relating to Transmission Construction Reports). This reporting requirement is also applicable to new electric transmission lines to be constructed by an MPE seeking to directly or indirectly construct, install, or extend a transmission facility outside of its applicable boundaries. For an MOU, the applicable boundaries are the municipal boundaries of the municipality that owns the MOU. For an MPA, the applicable boundaries are the municipal boundaries of the public entities participating in the MPA.
 - (A) Need:
 - Except as stated below, the following must be met for a transmission line in (i) the ERCOT power region. The applicant must present an economic costbenefit study that includes an analysis that shows that the levelized ERCOTwide annual production cost savings attributable to the proposed project are equal to or greater than the first-year annual revenue requirement of the proposed project of which the transmission line is a part. Indirect costs and benefits to the transmission system may be included in the cost-benefit study. The commission shall give great weight to such a study if it is conducted by the ERCOT independent system operator. This requirement also does not apply to an application for a transmission line that is necessary to meet state or federal reliability standards, including: a transmission line needed to interconnect a transmission service customer or end-use customer; or needed due to the requirements of any federal, state, county, or municipal government body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air or water quality.
 - (ii) For a transmission line not addressed by clause (i) of this subparagraph, the commission shall consider among other factors, the needs of the interconnected transmission systems to support a reliable and adequate network and to facilitate robust wholesale competition. The commission shall give great weight to:
 - (I) the recommendation of an organization that meets the requirement of PURA §39.151; and/or
 - (II) written documentation that the transmission line is needed to interconnect a transmission service customer or an end-use customer.

- (B) **Routing:** An application for a new transmission line shall address the criteria in PURA §37.056(c) and considering those criteria, engineering constraints, and costs, the line shall be routed to the extent reasonable to moderate the impact on the affected community and landowners unless grid reliability and security dictate otherwise. The following factors shall be considered in the selection of the utility's alternative routes unless a route is agreed to by the utility, the landowners whose property is crossed by the proposed line, and owners of land that contains a habitable structure within 300 feet of the centerline of a transmission project of 230 kV or less, or within 500 feet of the centerline of a transmission project greater than 230 kV, and otherwise conforms to the criteria in PURA §37.056(c):
 - whether the routes parallel or utilize existing compatible rights-of-way for electric facilities, including the use of vacant positions on existing multiplecircuit transmission lines;
 - (ii) whether the routes parallel or utilize other existing compatible rights-ofway, including roads, highways, railroads, or telephone utility rights-ofway;
 - (iii) whether the routes parallel property lines or other natural or cultural features;
 - (iv) whether the routes conform with the policy of prudent avoidance.
- (C) Uncontested transmission lines: An application for a certificate for a transmission line shall be approved administratively within 80 days from the date of filing a complete application if:
 - (i) no motion to intervene has been filed or the application is uncontested; and
 - (ii) commission staff has determined that the application is complete and meets all applicable statutory criteria and filing requirements, including, but not limited to, the provision of proper notice of the application.
- (D) Projects deemed critical to reliability. Applications for transmission lines which have been formally designated by a PURA §39.151 organization as critical to the reliability of the system shall be considered by the commission on an expedited basis. The commission shall render a decision approving or denying an application for a certificate under this subparagraph within 180 days of the date of filing a complete application for such a certificate unless good cause is shown for extending that period.
- (4) **Tie line**. An application for a tie line must include a study of the tie line by the ERCOT independent system operator. The study shall include, at a minimum, an ERCOT-approved reliability assessment of the proposed tie line. If an independent system operator intends to conduct a study to evaluate a proposed tie line or intends to provide confidential information to another entity to permit the study of a proposed tie line, the independent system operator shall file notice with the commission at least 45 days prior to the commencement of such a study or the provision of such information. This paragraph does not apply to a facility that is in service on December 31, 2014.
- (c) **Projects or activities not requiring a certificate.** A certificate, or certificate amendment, is not required for the following:
 - (1) A contiguous extension of those facilities described in PURA §37.052;
 - (2) A new electric high voltage switching station, or substation;
 - (3) The repair or reconstruction of a transmission facility due to emergencies. The repair or reconstruction of a transmission facility due to emergencies shall proceed without delay or prior approval of the commission and shall be reported to the commission in accordance with §25.83 of this title;
 - (4) The construction or upgrading of distribution facilities within the electric utility's service area;

- (5) Routine activities associated with transmission facilities that are conducted by transmission service providers. Nothing contained in the following subparagraphs should be construed as a limitation of the commission's authority as set forth in PURA. Any activity described in the following subparagraphs shall be reported to the commission in accordance with §25.83 of this title. The commission may require additional facts or call a public hearing thereon to determine whether a certificate of convenience and necessity is required. Routine activities are defined as follows:
 - (A) The modification or extension of an existing transmission line solely to provide service to a substation or metering point provided that:
 - (i) an extension to a substation or metering point does not exceed one mile; and
 - (ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.
 - (B) The rebuilding, replacement, or respacing of structures along an existing route of the transmission line; upgrading to a higher voltage not greater than 230 kV; bundling of conductors or reconductoring of an existing transmission facility, provided that:
 - (i) no additional right-of-way is required; or
 - (ii) if additional right-of-way is required, all landowners of property crossed by the electric facilities have given prior written consent.
 - (C) The installation, on an existing transmission line, of an additional circuit not previously certificated, provided that:
 - (i) the additional circuit is not greater than 230 kV; and
 - (ii) all landowners whose property is crossed by the transmission facilities have given prior written consent.
 - (D) The relocation of all or part of an existing transmission facility due to a request for relocation, provided that:
 - (i) the relocation is to be done at the expense of the requesting party; and
 - (ii) the relocation is solely on a right-of-way provided by the requesting party.
 - (E) The relocation or alteration of all or part of an existing transmission facility to avoid or eliminate existing or impending encroachments, provided that all landowners of property crossed by the electric facilities have given prior written consent.
 - (F) The relocation, alteration, or reconstruction of a transmission facility due to the requirements of any federal, state, county, or municipal governmental body or agency for purposes including, but not limited to, highway transportation, airport construction, public safety, or air and water quality, provided that:
 - (i) all landowners of property crossed by the electric facilities have given prior written consent; and
 - (ii) the relocation, alteration, or reconstruction is responsive to the governmental request.
- (6) Upgrades to an existing transmission line by an MPE that do not require any additional land, right-of-way, easement, or other property not owned by the MOU;
- (7) The construction, installation, or extension of a transmission facility by an MPE that is entirely located not more than 10 miles outside of an MOU's certificated service area that occurs before September 1, 2021; or
- (8) A transmission facility by an MOU placed in service after September 1, 2015, that is developed to interconnect a new natural gas generation facility to the ERCOT transmission grid and for which, on or before January 1, 2015, an MOU was contractually obligated to purchase at least 190 megawatts of capacity.

- (d) Standards of construction and operation. In determining standard practice, the commission shall be guided by the provisions of the American National Standards Institute, Incorporated, the National Electrical Safety Code, and such other codes and standards that are generally accepted by the industry, except as modified by this commission or by municipal regulations within their jurisdiction. Each electric utility shall construct, install, operate, and maintain its plant, structures, equipment, and lines in accordance with these standards, and in such manner to best accommodate the public, and to prevent interference with service furnished by other public utilities insofar as practical.
 - (1) The standards of construction shall apply to, but are not limited to, the construction of any new electric transmission facilities, rebuilding, upgrading, or relocation of existing electric transmission facilities.
 - (2) For electric transmission line construction requiring the acquisition of new rights-of-way, electric utilities must include in the easement agreement, at a minimum, a provision prohibiting the new construction of any above-ground structures within the right-of-way. New construction of structures shall not include necessary repairs to existing structures, farm or livestock facilities, storage barns, hunting structures, small personal storage sheds, or similar structures. Utilities may negotiate appropriate exceptions in instances where the electric utility is subject to a restrictive agreement being granted by a governmental agency or within the constraints of an industrial site. Any exception to this paragraph must meet all applicable requirements of the National Electrical Safety Code.
 - (3) Measures shall be applied when appropriate to mitigate the adverse impacts of the construction of any new electric transmission facilities, and the rebuilding, upgrading, or relocation of existing electric transmission facilities. Mitigation measures shall be adapted to the specifics of each project and may include such requirements as:
 - (A) selective clearing of the right-of-way to minimize the amount of flora and fauna disturbed:
 - (B) implementation of erosion control measures;
 - (C) reclamation of construction sites with native species of grasses, forbs, and shrubs; and
 - (D) returning site to its original contours and grades.
- (e) Certificates of convenience and necessity for existing service areas and facilities. For purposes of granting these certificates for those facilities and areas in which an electric utility was providing service on September 1, 1975, or was actively engaged in the construction, installation, extension, improvement of, or addition to any facility actually used or to be used in providing electric utility service on September 1, 1975, unless found by the commission to be otherwise, the following provisions shall prevail for certification purposes:
 - (1) The electrical generation facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise provided, to the facilities and real property on which the facilities were actually located, used, or dedicated as of September 1, 1975.
 - (2) The transmission facilities and service area boundary of an electric utility having such facilities in place or being actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be, unless otherwise provided, the facilities and a corridor extending 100 feet on either side of said transmission facilities in place, used or dedicated as of September 1, 1975.
 - (3) The facilities and service area boundary for the following types of electric utilities providing distribution or collection service to any area, or actively engaged in the construction, installation, extension, improvement of, or addition to such facilities or the electric utility's system as of September 1, 1975, shall be limited, unless otherwise found by the commission, to the facilities and the area which lie within 200 feet of any point along a distribution line, which is specifically deemed to include service drop lines, for electrical utilities.

- (f) **Transferability of certificates.** Any certificate granted under this section is not transferable without approval of the commission and shall continue in force until further order of the commission.
- (g) **Certification forms.** All applications for certificates of convenience and necessity shall be filed on commission-prescribed forms so that the granting of certificates, both contested and uncontested, may be expedited. Forms may be obtained from Central Records.
- (h) **Commission authority**. Nothing in this section is intended to limit the commission's authority to recommend or direct the construction of transmission under PURA §§35.005, 36.008, or 39.203(e).