



Filing Receipt

Filing Date - 2025-02-19 03:43:55 PM

Control Number - 57648

Item Number - 4

DOCKET NO. 57648

**APPLICATION OF ENTERGY
TEXAS, INC. TO AMEND ITS
CERTIFICATE OF CONVENIENCE AND
NECESSITY FOR THE SETEX AREA
RELIABILITY PROJECT IN JASPER,
MONTGOMERY, NEWTON, POLK, SAN
JACINTO, TRINITY, TYLER, AND
WALKER COUNTIES**

§
§
§
§
§
§
§

**BEFORE THE
PUBLIC UTILITY COMMISSION
OF TEXAS**

DIRECT TESTIMONY

OF

ERIK M. GUILLOT

ON BEHALF OF

ENTERGY TEXAS, INC.

FEBRUARY 2025

DIRECT TESTIMONY OF ERIK M. GUILLOT
ENTERGY TEXAS, INC.
DOCKET NO. 57648

TABLE OF CONTENTS

	<u>Page</u>
I. Introduction	1
II. Purpose of Testimony	2
III. Overview of the Project and Project Team	5
IV. Project Components	13
A. Conductors	13
B. Structures	14
C. Right of Way	15
D. Stations	16
V. The Project Routing Study	18
VI. Route Best Addressing PURA and Commission Routing Criteria	20
VII. Estimated Costs	22
VIII. Affected Counties, Municipalities, and Utilities	25
IX. Notice	28
X. Conclusion	29

I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Erik M. Guillot. My office is located at 639 Loyola Ave, New Orleans, LA 70113.

Q2. PLEASE STATE HOW YOU ARE EMPLOYED.

A. I am employed by Entergy Services, LLC (“ESL”)¹ as a Senior Manager of Project Management - Capital Projects—Transmission. My area of responsibility includes management of new transmission projects for Entergy Texas, Inc. (“ETP” or the “Company”).

Q3. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL QUALIFICATIONS AND BUSINESS EXPERIENCE.

A. I graduated from Louisiana State University in 1994 with a degree in Electrical Engineering. I began my career at ESL as a design engineer in 1998. I served in various roles of increasing and varying responsibility from 1998 through May 2019 in the Transmission group, including project manager, engineering lead, design supervisor and design manager. Since May 2019, I have served in my current role as Senior Manager of - Capital Projects—Transmission where I am responsible for managing the work of a group of employees whose job is to execute safely a

¹ ESL is an affiliate of the Entergy Operating Companies (“EOCs”) that provides engineering, planning, accounting, legal, technical, regulatory, and other administrative support services to each of the EOCs. The EOCs are Entergy Arkansas, LLC; Entergy Louisiana, LLC; Entergy Mississippi, LLC; Entergy New Orleans, LLC; and Entergy Texas, Inc.

1 portfolio of projects in locations across the areas served by the EOCs in Texas,
2 Arkansas, Mississippi, and Louisiana. My current team includes four internal
3 Project Managers and multiple contract project management resources responsible
4 for developing a variety of projects, including greenfield and brownfield projects,
5 substations, transmission line projects, and distribution line projects.
6

7 **II. PURPOSE OF TESTIMONY**

8 Q4. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

9 A. The purpose of my Direct Testimony before the Public Utility Commission of
10 Texas (“PUCT” or “Commission”) is to describe the proposed new SETEX Area
11 Reliability Project, which includes a single-circuit 500 kilovolt (“kV”) transmission
12 line and associated facilities in Jasper, Montgomery, Newton, Polk, San Jacinto,
13 Trinity, Tyler, and Walker Counties (“SETEX,” the “SETEX Project” or the
14 “Project”), and for which ETI seeks to amend its Certificate of Convenience and
15 Necessity (“CCN”) in this docket. I also (1) explain how SETEX is part of ETI’s
16 overall growth plan to upgrade and expand transmission infrastructure to deliver
17 reliable power to fast-growing areas; (2) identify the other ETI witnesses who are
18 also filing direct testimony in this proceeding and briefly introduce the subject areas
19 they address; (3) describe the ETI Project Team and its functions; and (4) describe
20 the Project components, including conductor, structures, rights-of-way (“ROW”),
21 switching station, and substation. Further, I describe the route alternative ETI

1 believes best addresses the requirements of the Public Utility Regulatory Act² and
2 the Commission's Substantive Rules.³ Finally, I describe how the cost estimates
3 for the Project were developed; identify the affected counties, municipalities, and
4 utilities; and describe the notice that will be provided related to the Project.

5
6 Q5. PLEASE IDENTIFY THE OTHER WITNESSES PROVIDING DIRECT
7 TESTIMONY IN THIS CASE.

8 A. In addition to my testimony, ETI's Application is supported by the direct testimony
9 of the following witnesses:

- 10 • **Gary L. McClanahan, Jr.**, a Department Manager and Project Manager in
11 the Environmental Division of POWER Engineers, Inc. ("POWER") –
12 Mr. McClanahan discusses the Environmental Assessment and Alternative
13 Route Analysis ("EA") for the Project and identifies and explains the
14 criteria evaluated by POWER in the route analysis process.
- 15 • **Chad Ladner**, Manager of Transmission Planning – ESL – Mr. Ladner
16 provides an overview of the Project from a transmission planning
17 perspective, identifies and supports the need for the Project, and addresses
18 review of the Project by the Midcontinent Independent System Operator,
19 Inc. ("MISO").

² Public Utility Regulatory Act ("PURA"), Tex. Util. Code § 37.056(c).

³ 16 Texas Administrative Code ("TAC") § 25.101(b)(3)(B).

1 Q6. WHAT QUESTIONS IN THE APPLICATION ARE YOU SPONSORING?

2 A. I am sponsoring or cosponsoring in whole or in part the responses to Question Nos.
3 1 through 13, 17 through 19, and 25 of the Company's CCN application
4 ("Application").
5

6 Q7. WHAT APPLICATION ATTACHMENTS ARE YOU SPONSORING?

7 A. I am sponsoring or cosponsoring the following Application attachments in whole
8 or in part:

- 9 • Application Attachment 2 – CCN Route Cost Estimates
- 10 • Application Attachment 3 – Landowner Maps
- 11 • Application Attachment 4 – List of Landowners
- 12 • Application Attachment 5 – Notice to Landowners (including attachments for
13 Route Segment Descriptions, Notice Maps, Landowners Brochure, Protest
14 Form, and Intervention Form)
- 15 • Application Attachment 6 – Notice to Utilities and List of Utilities
- 16 • Application Attachment 7 – Notice to Counties/Cities and List of
17 Counties/Cities
- 18 • Application Attachment 8 – Notice to Department of Defense Siting
19 Clearinghouse
- 20 • Application Attachment 9 – Newspaper Notice Publication and List of
21 Newspapers
- 22 • Application Attachment 10 – Notice to Office of Public Utility Counsel

- Application Attachment 11 – Notice to Texas Parks and Wildlife Department

III. OVERVIEW OF THE PROJECT AND PROJECT TEAM

Q8. PLEASE PROVIDE AN OVERVIEW OF THE PROJECT.

A. The SETEX Area Reliability Project is a transmission planning project to install a new single-circuit 500 kV transmission line from near Toledo Bend in Newton County, Texas (at the new Babel 500 kV Switching Station) to the Willis, Texas area in Montgomery County, Texas (at the new Running Bear 500 kV Substation), along with the associated stations and interconnection facilities. SETEX is a critical part of ETI's integrated transmission and generation strategy to meet the power needs of Southeast Texas. With significant population increases and rapid business development, Southeast Texas is experiencing unprecedented growth that is driving significant capacity and energy needs. The SETEX Project will provide new transmission infrastructure needed to deliver reliable power to help enable this growth.

As further detailed in the Direct Testimony of ETI witness Chad J. Ladner, the Project was identified during the 2023 MISO Transmission Expansion Plan ("MTEP23") process. During that process, MISO identified the Project as needed to comply with Electric Reliability Organization (*i.e.*, the North American Electric Reliability Corporation or "NERC") reliability standards for transmission planning. The Project will also enable ETI to meet local planning criteria for "load pockets," such as ETI's Western Region. Finally, the Project will increase operational

1 flexibility and enhance reliability and resiliency by creating geographically diverse
2 transmission resources, which are especially important in extreme events.

3

4 Q9. PLEASE DESCRIBE THE LOCATION OF THE PROJECT.

5 A. On the east side of the Project area, the proposed 500 kV transmission line would
6 cut-in and connect ETI's existing 500 kV Layfield to Hartburg (L559) transmission
7 line with the new Babel Switching Station. On the west side of the Project area, the
8 new Running Bear Substation would interconnect into either (a) the existing Lewis
9 Creek 230/138 kV Substation, which is approximately two miles west of Interstate
10 45, or (b) ETI's existing transmission facilities east of Willis between Farm-to-
11 Market ("FM") Road 1097 and County Line Road in Montgomery County, located
12 approximately three miles east of Interstate 45.

13 The new 500 kV transmission line will have a length of approximately 131
14 to 160 miles, depending on the final route approved by the Commission. The
15 location of ETI's existing 500 kV Layfield to Hartburg transmission line and the
16 approximate locations of the new Running Bear and Babel stations, as well as the
17 locations of existing ETI transmission lines, are shown on Figures 1-1 and 2-1 of
18 the EA provided as Attachment 1 to the Application.

19

20 Q10. WHAT IS DRIVING THE NEED FOR THIS PROJECT?

21 A. Southeast Texas is experiencing once-in-a-generation load growth. The state's
22 world-class infrastructure, favorable commodity spreads, business-friendly
23 environment, workforce availability, and access to deep water ports position Texas

1 and ETI to lead the United States in the location of new industry and the expansion
2 of its industrial base. For example, in its Eastern Region, ETI has historically
3 encountered industrial projects or expansions ranging from 5 to 50 MW, but now
4 must plan to serve multiple projects of several hundred megawatts or more
5 requiring electric service on aggressive timeframes. In the Western Region, ETI is
6 experiencing some of the fastest residential and commercial growth anywhere in
7 the United States – nearly twice the average rate of growth nationally. Looking
8 forward, ETI forecasts that trend will continue if not accelerate through 2030, with
9 some of the fastest growing areas in the cities of New Caney, Cleveland, and
10 Conroe in Montgomery and Liberty Counties, which are primarily in ETI's Western
11 Region.

12 The growth across both the Eastern and Western Regions of ETI's service
13 area represents a true step change in the size and speed of industrial projects seeking
14 electric service as well as in residential and commercial growth in Southeast Texas.
15 In order to continue delivering reliable, affordable, and sustainable power to the
16 region, ETI must pursue a holistic, integrated plan to meet its customers'
17 considerable needs. This plan includes an integrated transmission and generation
18 solution to meet the region's power needs and to drive and support economic
19 growth, while striving to keep rates affordable for all ETI customers. It also
20 includes components to make the grid more resilient in light of the increasing
21 number and severity of storms that are being experienced in Texas.

22 In sum, increasing both generation and transmission capacity and improving
23 reliability and resiliency are paramount to serving new developments in a region of

1 the state that significantly impacts our state, national, and global economies. The
2 SETEX Project is a critical part of ETI's strategy to deliver reliable power to fast-
3 growing areas in Texas.

4
5 Q11. PLEASE DESCRIBE THE KEY BENEFITS ETI EXPECTS TO SEE FROM THE
6 SETEX PROJECT.

7 A. As further detailed below and by Mr. Ladner, key benefits from the Project include
8 the following:

9 **1. Supports customer growth and drives economic benefits for local**
10 **communities.**

11 • **Customer growth:** The Project will increase the Company's load-serving
12 capability in the fast-growing Western Region of its service territory by adding an
13 additional transmission feed into the historically constrained Western Region. This
14 feed will serve both current customer demand and the expected growth in the region
15 by 2030 and provide additional headroom for future growth.

16 **2. Enhances and improves reliability, resiliency and operational flexibility.**

17 • **Resiliency:** The SETEX Project helps create a geographically
18 diverse transmission system, which is especially important in an extreme weather
19 scenario, like Hurricanes Laura and Beryl when multiple ties to the Western Region
20 were severed.

1 • **Operational flexibility:** The additional transmission line serving
2 the Western Region will provide access to additional generation while adding the
3 ability to optimally schedule outages for maintenance of existing facilities.

4 **3. Addresses critical voltage stability compliance needs while increasing**
5 **benefits to the region.**

6 • **Maintain voltage stability:** As Mr. Ladner explains, the project
7 provides the voltage support needed to satisfy Entergy Local Planning Criteria and
8 NERC planning requirements.

9
10 Q12. ARE PROJECTS LIKE SETEX IMPORTANT TO THE COMPANY'S KEY
11 GOALS FOR LONG-TERM RESOURCE PLANNING?

12 A. Yes. ETT's long-term resource planning processes are driven by the fundamental
13 goal to deliver a reliable, affordable, and sustainable resource portfolio that is
14 centered on positive customer outcomes. Balancing the key objectives of reliability,
15 affordability, and sustainability requires evaluating both the near-term and long-
16 term benefits and risks associated with each of these key objectives. In particular,
17 with regard to projects like the SETEX Project, the ability of the transmission
18 system to deliver resources to customers is a key aspect of maintaining reliability,
19 and the careful integration of generation, transmission, and distribution resources
20 ensures that reliability can be delivered, while also balancing affordability.

1 Q13. IN ADDITION TO ADDRESSING THE IDENTIFIED RELIABILITY NEEDS
2 FOR THE SETEX PROJECT AND OTHER PROJECT BENEFITS, IS THE
3 SETEX PROJECT IN ALIGNMENT WITH OTHER COMMUNITY-FOCUSED
4 EXPANSION PROJECTS IN THE WESTERN REGION?

5 A. Yes. ETI's investment in the SETEX Project will enable customer growth in the
6 Western Region, which will support increased business activity and tax revenues.
7 Continued investments by three of the top major employers in the Western Region
8 demonstrate the need for expansion to meet the rapidly growing population.

- 9 • **Conroe Independent School District:** Less than a year ago, CISD passed
10 a significant bond totaling \$1.9 billion that will include construction of eight
11 new schools, renovations of existing facilities, and technology upgrades.
- 12 • **Memorial Hermann the Woodlands Medical Center:** A \$250 million
13 expansion project will add nearly a half-million square feet of new and
14 renovated service areas, including operating rooms, laboratories, patient
15 care units and more.
- 16 • **Houston Methodist the Woodlands Hospital:** A \$250 million expansion
17 recently opened a state-of-the-art patient tower that will include increasing
18 patient rooms, expanding the emergency department, and adding operating
19 rooms.

20 Other major economic expansion projects in the Western Region that have
21 recently published economic impacts include:

- 1 • **EMCID Convention Center:** A \$108 million facility located in the Valley
2 Ranch development in New Caney that is expected to have a \$1.73 billion
3 economic impact over 30 years.
- 4 • **New Caney Independent School District:** A \$695 million bond issuance
5 approved to fund the construction of new schools to accommodate the
6 school district's growing student population.
- 7 • **BNSF Logistics Center:** The development of 1,200 acres of rail-adjacent
8 land for up to 39 companies in Cleveland, Texas is expected to create
9 hundreds of jobs and contribute \$40 million in growth for this market in the
10 Houston adjacent area.
- 11 • **GCP Paper:** Expansion in New Caney that includes a warehouse and
12 packing facility and is expected to bring over 200 new jobs.
- 13 • **Valley Ranch:** The largest mixed-use development in the area, generating
14 \$35.1 million in sales tax revenue.
- 15 • **New Residential Developments:** Spring Branch Crossing (1,200 mobile
16 homes), Evergreen (2,000 lots), The Highlands (4,000 lots), Tavola (3,800
17 lots) and others.

18

19 Q14. PLEASE DESCRIBE YOUR INVOLVEMENT IN THE SETEX PROJECT.

20 A. As Senior Manager of Capital Projects—Transmission, I secured the resources and
21 personnel necessary to form the ETI Project Team for the Project. I am also

1 managing the team's progress and performance throughout the entire life cycle of
2 the Project, including scoping, construction, and energization.

3

4 Q15. PLEASE DESCRIBE THE PROCESS OF DEVELOPING A TRANSMISSION
5 LINE PROJECT FROM YOUR PERSPECTIVE AS PROJECT MANAGER.

6 A. Once the need for a transmission line project is identified, ETT's Technical System
7 Planning group, MISO, and other stakeholders develop a solution to satisfy the
8 identified electrical need. In my role, I request resources from various departments
9 and form the project team to start development of the project plan to execute the
10 solution identified. I also direct a team of subject matter experts to ensure that the
11 project is completed on time, within budget, and performs as intended. Generally,
12 the ETI Project Team is comprised of individuals with expertise in transmission
13 planning, ROW acquisition, transmission design, electrical engineering and design,
14 maintenance, operations, customer service, construction, environmental aspects,
15 legal, and regulatory affairs. The ETI Project Team develops a detailed project
16 execution plan, which defines the scope of work, schedule, cost estimate, and
17 project construction plan. Once the project execution plan is complete, the project
18 is forwarded to upper management for approval.

19

20 Q16. WHAT IS THE ESTIMATED SCHEDULE FOR THE PROJECT?

21 A. The following table provides the projected start and completion dates for certain
22 Project milestones consistent with the Company's response to Question 8 in the
23 Application.

Milestone	Estimated Start Date	Estimated Completion Date
ROW and Land Acquisition	11/2025	4/2027
Engineering and Design	11/2025	10/2027
Material and Equipment Procurement	9/2024	11/2027
Construction of Facilities	9/2027	8/2029
Energize Facilities	2/2029	8/2029

1

2

IV. PROJECT COMPONENTS

3

A. Conductors

4

Q17. PLEASE DESCRIBE THE TYPE OF CONDUCTOR ETI PLANS TO USE FOR
THE PROPOSED 500 KV TRANSMISSION LINE.

5

6

A. ETI intends to use 954 Thousand Circular Mils (“kcmil”) Aluminum Conductor,
Steel Reinforced (“ACSR”) conductor with three wires per phase.

7

8

9

Q18. WHAT IS THE CONTINUOUS SUMMER STATIC CURRENT RATING FOR
THE PROJECT?

10

11

A. The continuous summer static current rating is 3,000 Amps.

12

13

Q19. WHAT IS THE CONTINUOUS SUMMER STATIC LINE CAPACITY AT
OPERATING VOLTAGE FOR THE PROJECT?

14

15

A. The continuous summer static line capacity at operating voltage is 2,598 Million
Volt Amps (“MVA”) at 500 kV.

16

1 Q20. WHAT IS THE CONTINUOUS SUMMER STATIC LINE CAPACITY AT
2 DESIGN VOLTAGE FOR THE PROJECT?

3 A. The continuous summer static line capacity at design voltage is 2,598 MVA at 500
4 kV.

5

6 **B. Structures**

7 Q21. PLEASE DESCRIBE THE TYPES OF STRUCTURES THAT WILL BE USED
8 FOR THE PROJECT.

9 A. As illustrated in response to Question No. 5 of the Application, the new 500 kV
10 transmission line will be constructed using single-circuit steel structures, including
11 either tubular steel H-Frames, Self-Supporting, or Guyed Lattice as typical
12 structures. The 138/230 kV extensions that will interconnect substation yards or
13 substation facilities to the existing transmission lines will likely be constructed
14 using steel monopole structures.

15

16 Q22. WHY DID ETI SELECT THESE STRUCTURE TYPES FOR THE PROJECT?

17 A. Steel structures are required to support the expected structural loading requirements
18 of the Project. Other materials such as wood or concrete were not selected because
19 of cost or structural limitations. Steel structures can be engineered to meet a variety
20 of loading requirements and have a proven track record of reliability when properly
21 designed. Due to the length and various geographical areas traversed by the 500
22 kV line, several steel structure types have been identified for use. During detailed
23 design, the Project team will refine the structure selection for particular locations

1 based upon costs, constraints at a particular point in a proposed route, and
2 constructability considerations. For example, a Guyed Lattice structure may be the
3 typical structure for most of the route because of the lower construction costs.
4 However, if a route is selected that crosses Lake Livingston, then a Tubular Steel
5 H-Frame structure would likely be utilized to avoid guying and anchoring in the
6 waterway. The tangent structures will be consistent with industry standards for this
7 type of project and will likely be one of three types, as illustrated in ETI's
8 Application in response to Question No. 5.

9
10 **C. Right of Way**

11 Q23. PLEASE DESCRIBE THE NEW ROW REQUIRED FOR THE PROJECT.

12 A. Depending on the route chosen, the necessary new ROW length will range from
13 approximately 131 to 160 miles. All the alternative routes will require new ROW.
14 The nominal width of the ROW for the 500 kV line will be up to 225 feet, which
15 will consist of approximately 112.5 feet on either side of the centerline of the
16 proposed transmission facilities. The nominal ROW width of the 138/230 kV line
17 extensions will be 125 to 250 feet. A single 230 kV extension would utilize a ROW
18 width of 125 feet, while the extension with one 230 kV and three 138 kV circuits
19 would utilize a ROW width of up to 250 feet.

D. Stations

Q24. YOU MENTIONED THAT THE ENDPOINTS OF THE PROJECT WILL INCLUDE NEW STATIONS. PLEASE DESCRIBE THE TECHNICAL ASPECTS OF THESE NEW STATIONS.

A. On the east side of the Project, ETI is proposing to construct the new Babel 500 kV Switching Station on the existing 500 kV Layfield to Hartburg (L559) transmission line near the Toledo Bend Reservoir. The Babel Switching Station will initially be constructed as a 500 kV three (3) breaker folded ring bus with three (3) 500 kV transmission line terminals. The ultimate arrangement to support three (3) additional 500 kV transmission lines will be a breaker-and-one-half arrangement.

On the west side of the Project, for the new Running Bear 500 kV Substation site options A, B, and C, ETI is proposing to construct a new 500 kV three (3) breaker ring bus substation north of the existing Lewis Creek 230 kV yard and to install a new 1,200 MVA 500/230 kV autotransformer bank. The Running Bear Substation at these site options would be constructed with provisions for an ultimate 500 kV three (3) ring bus arrangement to support one (1) additional 500 kV transmission line. In addition, the existing 230 kV and 138 kV yards at Lewis Creek would be upgraded by:

- converting the 230 kV yard from the existing ring bus into a four-bay, breaker-and-half arrangement to accommodate one (1) 750MVA, 230/138 kV autotransformer bank and one (1) additional 230kV transmission line to connect to the 500 kV substation at Running Bear;

- 1 • upgrading the existing 138 kV yard to add one (1) 138 kV
2 transmission line to connect to the existing Lewis Creek 230 kV
3 yard; and
- 4 • installing one (1) new 230 kV, 3000A, 63kA, Independent Pole
5 Operated, 3-cycle circuit breaker and associated bus and equipment
6 at the Lewis Creek 230 kV yard.

7 For site option D for the Running Bear Substation, located east of Interstate
8 45, ETI would need to construct a 500 kV yard with a new 500 kV three (3) breaker
9 ring bus substation and install a new 1,200 MVA 500/230 kV autotransformer bank.
10 This site would also require the construction of a new 230/138 kV yard and cut in
11 to the existing 230 kV and 138 kV transmission lines via the following connections:

- 12 • The new 230 kV side will be constructed as a breaker-and-one-half
13 to allow five (5) 230 kV transmission line terminals.
 - 14 • The new 138 kV side will be constructed as a breaker-and-one half
15 to allow six (6) 138 kV transmission line terminals.
 - 16 • The new 230 kV side will require new line extensions to
17 interconnect into two existing 230 kV transmission lines and the
18 proposed 500 kV yard.
- 19 The new 138 kV side will require new line extensions to
20 interconnect into three existing 138 kV transmission lines at or near
21 the proposed Running Bear Substation site.

1 Q25. WHERE WILL THE NEW STATIONS BE LOCATED?

2 A. The location of the new stations will depend on the transmission line route selected
3 by the Commission. The Babel Switching Station would be located on one of three
4 potential site options in Jasper County along FM 692 adjacent to the existing 500
5 kV Layfield to Hartburg Line. All three potential site options are located within
6 approximately 5 miles of each other. Babel site option A is located approximately
7 0.5 mile south of Toledo Bend Station. Babel site option B is located approximately
8 5.5 miles south of Toledo Bend Station. Babel site option C is located
9 approximately 2 miles south of Toledo Bend Station.

10 The Running Bear Substation would be located at one of four locations in
11 Montgomery County. Three of the potential locations for the 500 kV substation
12 would be located along Longstreet Road, north of the Lewis Creek Reservoir and
13 the existing ETI Lewis Creek Power Station. The fourth potential substation site
14 would be located 3 miles east of Interstate 45 to the south of E. Stewart St. (FM
15 1097).

16

17 **V. THE PROJECT ROUTING STUDY**

18 Q26. WAS A ROUTING STUDY PREPARED FOR THE PROJECT?

19 A. Yes. ETI retained POWER, an engineering and environmental consulting firm, to
20 prepare an EA for the Project. As described in more detail in Mr. McClanahan's
21 direct testimony, POWER, together with the ETI Project Team, developed and
22 evaluated 34 primary alternative routes made up of 271 primary alternative route
23 segments associated with the Project.

1 Q27. PLEASE SUMMARIZE THE ROUTING STUDY PROCESS.

2 A. As Mr. McClanahan explains in his testimony, the routing study was prepared by
3 first selecting the study area based on the Project endpoints and other constraints
4 within the area, identifying and characterizing the existing land use and
5 environmental and cultural resource constraints, and developing route segments
6 and ultimately the alternative routes within the study area. POWER also contacted
7 governmental officials and other stakeholders, whose comments were considered
8 in the route development process. Four public meetings were held on May 7, 8, and
9 9, and June 18, 2024 in Willis, Livingston and Jasper, Texas to collect and
10 incorporate public input in the route development process. Additional details on
11 these public meetings are contained in Section 7 of the EA and in Mr.
12 McClanahan's testimony. Once individual route segments were developed, they
13 were linked to create geographically diverse alternative routes for analysis based
14 on their potential impacts on existing land use and environmental and cultural
15 resources. Environmental data regarding each of the route segments and routes
16 were compiled in Table 4-1 of the EA. Finally, POWER ranked the alternative
17 routes included in ETI's Application from an environmental, land use, and cultural
18 resource perspective. ETI then considered POWER's ranking as part of its analysis
19 to identify a route that ETI believes best addresses the requirements of PURA and
20 the Commission's Substantive Rules.

1 Q28. DID ETI HAVE INPUT INTO THE PROJECT'S ROUTING STUDY?

2 A. Yes. Specifically, ETI participated in the consideration of and decisions related to:
3 (1) the delineation of the study area; (2) the format and dates of the public meetings;
4 (3) the information gathering process at the public meetings and from governmental
5 agencies and other stakeholders; (4) the preliminary alternative route segments
6 presented at those meetings; (5) routing adjustments based on public input,
7 engineering considerations, land use impacts, and input from governmental
8 agencies and officials; and (6) the primary alternative routes proposed in the
9 Application.

10

11 **VI. ROUTE BEST ADDRESSING PURA AND COMMISSION ROUTING**

12 **CRITERIA**

13 Q29. HAS ETI IDENTIFIED A ROUTE THAT IT BELIEVES BEST ADDRESSES
14 THE REQUIREMENTS OF PURA AND THE COMMISSION'S
15 SUBSTANTIVE RULES?

16 A. Yes. ETI identified Route 10 as the route that ETI believes best addresses the
17 requirements of PURA and the Commission's Substantive Rules.⁴ Route 10 would
18 utilize the proposed Babel Station Option B and Running Bear Substation Option
19 B. Route 10 is approximately 145 miles long and consists of Segments 2-5-7-11-
20 14-17-20a-287-19b-28-42-43-46-48-59-81-82a-291-82c-91-121-128-138-162-

⁴ For example, PURA § 37.056(c); 16 TAC § 25.101(b)(3)(B).

1 179-289-188-201-205-221-223-224-229-231-236-261. However, all routes and
2 route segments are available for selection and approval by the Commission.
3

4 Q30. PLEASE EXPLAIN ETI'S BASIS FOR SELECTING ROUTE 10 AS THE
5 ROUTE BEST ADDRESSING THE REQUIREMENTS OF PURA AND THE
6 COMMISSION'S SUBSTANTIVE RULES.

7 A. ETI's identification of Route 10 as the route that ETI believes best addresses the
8 requirements of PURA and the Commission's Substantive Rules was the product
9 of balancing many factors, including environmental and land use analysis;
10 engineering, design, and construction constraints; costs; community values; and
11 future planning needs. Primary drivers in ETI's selection of Route 10 were prudent
12 avoidance, estimated cost, and POWER's environmental ranking. Route 10 has the
13 fewest number of habitable structures within 500 feet of the centerline (at 49) of
14 any of the alternative routes. Route 10 is also the second least expensive route
15 option. While it is not the lowest estimated cost option, the additional 2.5% in
16 estimated project costs reduces the number of habitable structures by approximately
17 two-thirds (from 151 to 49) compared to the route with the lowest estimated cost
18 (Route 29).

1 Q31. PLEASE DESCRIBE IN GREATER DETAIL THE EVALUATION PROCESS
2 USED TO IDENTIFY ROUTE 10 AS THE ROUTE THAT BEST ADDRESSES
3 THE REQUIREMENTS OF PURA AND THE COMMISSION'S
4 SUBSTANTIVE RULES.

5 A. ETI used a consensus process to independently select Route 10 as the primary
6 alternative route that ETI believes best addresses the requirements of PURA and
7 the Commission's Substantive Rules for this Project. ETI reviewed each alternative
8 route and POWER's evaluation and recommendations. This review included the
9 consideration of the factors and criteria listed in PURA and the Commission's
10 Substantive Rules, including potential environmental, cultural, and land use
11 impacts; engineering and construction constraints; reliability issues; and estimated
12 costs. ETI concluded, after reviewing the results of POWER's routing study and a
13 wide range of factors, including cost, that Route 10 is the route which best overall
14 addresses the requirements of PURA and the Commission's Substantive Rules.
15 Route 10 is POWER's top-ranked route; therefore, it ranks very well from an
16 environmental and land use perspective. As such, POWER supports ETI's route
17 selection. Additional details can be found in Section 7.1 of the EA.

18
19 **VII. ESTIMATED COSTS**

20 Q32. WHAT IS THE ESTIMATED COST RANGE FOR THE PROJECT'S
21 ALTERNATIVE ROUTES?

22 A. The estimated costs for the 34 primary alternative routes presented in the
23 Application range from approximately \$1.33 billion (Route 29) to \$1.52 billion

(Route 1), including the station and station interconnection costs.⁵ The estimated cost for each primary alternative route and the associated station locations (broken down for each route and station cost) is provided in Attachment 2 to the Application. These cost estimates include the costs of acquiring the ROW, materials and transportation, engineering, construction, and other costs, including management and administration, allowance for funds used during construction (“AFUDC”), escalation, etc.

Q33. PLEASE DESCRIBE THE BASIS FOR THESE COST ESTIMATES.

A. ETI’s transmission cost estimates for the Project were developed utilizing a construction partner’s unit pricing for a reference project within the project study area. This partner has constructed similar scope projects for ETI and other EOCs. Additionally, ETI retained POWER’s engineering and project management teams to assist in the development of the technical scope of the station and transmission line materials for the Project. ROW costs were calculated for each route by utilizing the average easement costs within the Project study area. The average easement cost per acre was developed by reviewing the land values on over 500 parcels located across the study area. In addition, POWER performed an independent estimate of the Project, which was used to validate the ETI cost estimate.

⁵ I note that six of the viable routes (Routes 1, 4, 8, 22, 26 and 27) exceed the funding level approved for the Project. ETI will seek corporate approval for the funding of these six routes, but unless and until such approvals are received, ETI is not authorized to pursue construction of these six routes.

1 **Q34. HOW DID ETI DEVELOP THE COST ESTIMATES FOR THE INDIVIDUAL**
2 **ROUTES?**

3 A. The estimated route costs were developed by accumulating the costs of the
4 component parts of the Project, including engineering, materials and equipment
5 costs; ROW and land acquisition costs; construction labor; and project
6 management. The total route cost estimates are not based on per-mile pricing. These
7 components were developed by the ETI Project Team, which includes subject
8 matter experts in each of these specific disciplines.

9
10 **Q35. DO THE ESTIMATED COSTS DISCUSSED ABOVE REFLECT THE ACTUAL**
11 **PROJECT COSTS?**

12 A. No. These costs are only estimates and are provided for the purpose of evaluating
13 and ranking the routes and station location options. Estimates were produced on a
14 comparative basis for that purpose. Once the final route is selected, the final
15 surveying and engineering design can be performed. Afterwards, construction
16 costs can be re-estimated based on the bids received and information gathered. At
17 that time, ETI will update its estimated costs in the Company's monthly
18 transmission construction reports to the Commission. Actual costs for the Project
19 will be supplied to the Commission in the monthly transmission construction report
20 after the construction has been completed.

1 Q36. DO YOU BELIEVE THAT THESE ESTIMATED COSTS ARE REASONABLE?

2 A. Yes, I believe ETI's estimated costs are reasonable based on my experience with
3 projects requiring similar construction activities.
4

5 Q37. HOW DOES ETI PLAN TO FINANCE THE COSTS OF SETEX?

6 A. ETI plans to self-finance the Project as it has for other transmission projects, using
7 (1) internally generated funds, including earnings retained through withholding
8 dividend distributions to ETI's parent, Entergy Corporation ("Entergy"); (2) long-
9 term debt; and (3) additional equity contributions from Entergy. The specific levels
10 of long-term debt and equity utilized during the construction, and the specific
11 timing of financing activities, will be determined by ETI based on assessments of
12 its financial condition and capital market conditions as the Project moves forward.
13 This investment will be a significant financial event for ETI. Managing the
14 Company's underlying financial performance during the construction period will
15 be important due to the size of the Project in relation to ETI's overall rate base, and
16 it is my understanding that timely cost recovery will be critical to support ETI's
17 credit quality when the Project commences commercial operations.
18

19 **VIII. AFFECTED COUNTIES, MUNICIPALITIES, AND UTILITIES**

20 Q38. PLEASE IDENTIFY THE COUNTIES AND MUNICIPALITIES IN WHICH
21 THE PROJECT MAY BE LOCATED.

22 A. The alternative routes are located in Jasper, Montgomery, Newton, Polk, San
23 Jacinto, Trinity, Tyler, and Walker Counties. However, not all routes will traverse

1 all the counties listed above. Additional details on the counties traversed by each
2 route are provided in the response to Question 9 in the Application.

3

4 Q39. DO ANY OF THE PROPOSED ALTERNATIVE ROUTES CROSS INTO ANY
5 MUNICIPALITIES?

6 A. Yes. One or more routes will cross into the cities of Willis, Chester, and Jasper,
7 Texas. Additional details on the routes that would traverse these municipalities are
8 provided in the response to Question 10 of the Application.

9

10 Q40. ARE ANY MUNICIPALITIES LOCATED WITHIN FIVE MILES OF THE
11 PROPOSED ALTERNATIVE ROUTES IN ADDITION TO THOSE CITIES
12 LISTED ABOVE THAT ARE CROSSED BY THE PROPOSED ALTERNATIVE
13 ROUTES?

14 A. Yes, the cities of Browndell, Point Blank, Livingston, Goodrich, Woodville,
15 Coldspring, New Waverly, Shepherd, Chester, Seven Oaks, Colmesneil, Onalaska,
16 Willis, Panorama Village, Conroe, and Jasper are located within five miles of one
17 or more routes.

18

19 Q41. WHAT OTHER CERTIFICATED ELECTRIC UTILITIES ARE LOCATED
20 WITHIN FIVE MILES OF THE PROJECT?

21 A. One or more routes will cross the service territory of Sam Houston Electric
22 Cooperative, Jasper-Newton Electric Cooperative, and Deep East Texas Electric
23 Cooperative. These cooperatives are members of East Texas Electric Cooperative.

1 In addition, the service territory of MidSouth Electric Cooperative, a member of
2 Brazos Electric Cooperative, is located within five miles of several alternative
3 routes.

4
5 Q42. ARE THERE ANY OTHER ELECTRIC UTILITIES INVOLVED WITH THE
6 PROJECT OR DIRECTLY AFFECTED BY IT?

7 A. There are no other certificated electric utilities involved with the Project. However,
8 East Texas Electric Cooperative and its member cooperatives, Sam Houston
9 Electric Cooperative, Jasper-Newton Electric Cooperative, and Deep East Texas
10 Electric Cooperative identified in the response to the previous Question may own
11 facilities that are crossed by the proposed 500 kV transmission line, depending on
12 the route selected by the Commission.

13
14 Q43. WHAT PUBLIC OUTREACH DID ETI CONDUCT TO SOLICIT FEEDBACK
15 FROM MEMBERS OF THE PUBLIC?

16 A. ETI hosted four public meetings and developed a website for the proposed Project
17 to solicit comments, concerns, and input from residents, landowners, public
18 officials, and other interested parties. The purpose of these meetings was to: (1)
19 promote a better understanding of the proposed Project; (2) inform the public
20 regarding the routing procedure, schedule, and decision-making process; and (3)
21 ensure that the decision-making process adequately identifies and considers the
22 values and concerns of the public and community leaders.

1 Prior to the public meetings, notice of the meetings was mailed to landowners
2 and a Project open house website was developed to provide landowners with
3 information and encourage them to participate in the public meetings. Each
4 individual that attended a public meeting received an opportunity to provide
5 feedback to the ETI Project Team through questionnaires. Additional details on the
6 public outreach efforts by ETI can be found in responses to Questions 17 and 18 of
7 the Application as well as in Mr. McClanahan's direct testimony.

8
9 **IX. NOTICE**

10 Q44. WILL ETI PROVIDE NOTICE OF THE FILING OF ITS APPLICATION WITH
11 THE COMMISSION?

12 A. Yes. ETI is providing notice of the filing of its Application in accordance with 16
13 TAC § 22.52. Copies of the notice are included as attachments to the Application.
14 Proof of notice will be filed when available.

15
16 Q45. WILL THE COMPANY PROVIDE A COPY OF THE EA TO THE TEXAS
17 PARKS AND WILDLIFE DEPARTMENT ("TPWD")?

18 A. Yes. Pursuant to 16 TAC § 22.52(a)(1)(e), the Company is providing a complete
19 copy of the EA associated with the Project to TPWD. A representative copy of the
20 cover letter sent to TPWD is provided as Attachment 11 to the Application, and an
21 affidavit confirming the transmittal of the EA will be provided with the Company's
22 proof of notice. ETI is also providing a copy of the Application to TPWD.

X. CONCLUSION

Q46. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My testimony supports ETI's Application to amend its CCN for the Project, which is critical to meeting the growth needs of Southeast Texas. My testimony provides an overview of the Project and an explanation of the Project's components. As the Senior Manager of Capital Projects-Transmission, I assembled the ETI Project Team to assist in all aspects of the Project, including developing a detailed project execution plan and managing the Project once construction is underway. POWER evaluated and ranked ETI's 34 proposed routes. ETI then conducted its own evaluation and identified Route 10 as the route it believes best addresses PURA and Commission routing criteria. As discussed above, the costs associated with the Project will ultimately depend on the route selected by the Commission. Finally, my testimony demonstrates that ETI plans to meet the notice requirements in 16 TAC § 22.52.

Q47. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.