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SOAH DOCKET NO. 473-25-02531
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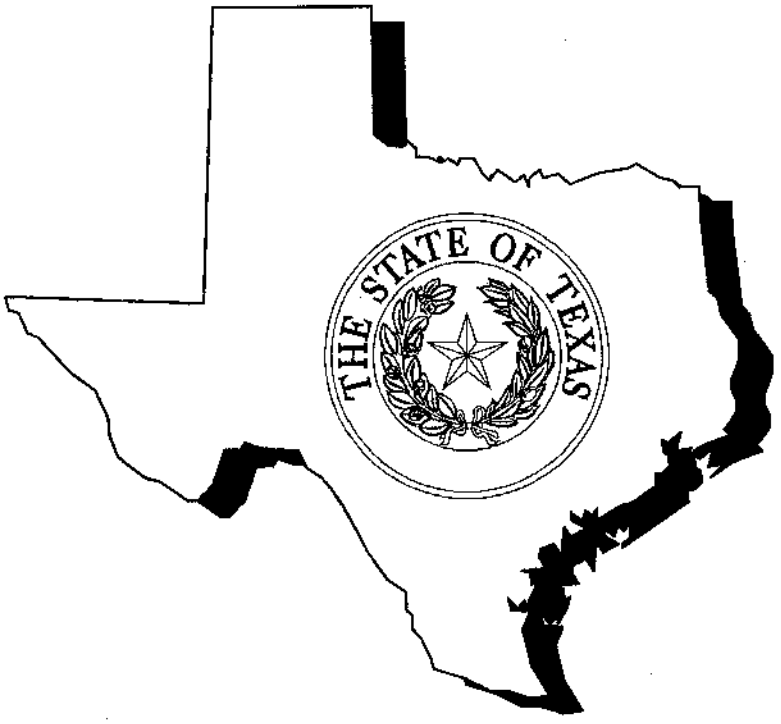
APPLICATION OF THE CITY OF SAN ANTONIO, ACTING BY AND THROUGH THE CITY PUBLIC SERVICE BOARD (CPS ENERGY), AND SOUTH TEXAS ELECTRIC COOPERATIVE, INC. (STEC) TO AMEND THEIR CERTIFICATES OF CONVENIENCE AND NECESSITY FOR THE PROPOSED HOWARD ROAD-TO-SAN MIGUEL 345-KV TRANSMISSION LINE IN BEXAR AND ATASCOSA COUNTIES	**§**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**



DIRECT TESTIMONY OF

JOHN POOLE, P.E.

INFRASTRUCTURE DIVISION

PUBLIC UTILITY COMMISSION OF TEXAS

NOVEMBER 21, 2024

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ATTACHMENTS

I. STATEMENT OF QUALIFICATIONS

Q. Please state your name, occupation and business address.

A. My name is John Poole. I am employed by the Public Utility Commission of Texas (Commission) as an Engineer within the Infrastructure Division. My business address is 1701 North Congress Avenue, Austin, Texas 78701.

Q. Please briefly outline your educational and professional background.

A. I have a Bachelor of Science degree in Electrical Engineering. I completed my degree in December of 2014 and have been employed at the Commission since February of 2015. A more detailed resume is provided in Attachment JP-1.

Q. Are you a registered professional engineer?

A. Yes, I am a registered Professional Engineer in Texas. My member number is 133982.

Q. Have you previously testified as an expert before the Commission?

A. Yes. A list of previous testimony is provided in Attachment JP-2.

II. SCOPE OF TESTIMONY

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to present Commission Staff's recommendations

concerning the application of the City of San Antonio, acting by and through the City Public Service Board (CPS Energy) and the South Texas Electric Cooperative, Inc. (STEC) to amend their Certificates of Convenience and Necessity (CCN) to allow them to build a new double-circuit 345 kilovolt (kV) transmission line to be built on double-circuit steel monopole structures. The structures will support two 345-kV circuits, with two conductors per phase. The new transmission line will begin at the under-construction CPS Energy Howard Road Station, located approximately three miles northeast of the intersection of State Highway (SH) 16 and SH 1604 in Bexar County, Texas.[1] The new transmission line will then extend between 45 to 59 miles, depending on the route selected, in a generally southerly direction to the existing STEC San Miguel Station which is located approximately four miles east of SH 16 and Farm-to-Market Road (FM) 3387 in Atascosa County, Texas.[2]

Q. What is the scope of your testimony?

A. The scope of my testimony is to provide Commission Staff's recommendation regarding the need for the project and regarding selection of routes from among the proposed alternative routes presented by CPS Energy and STEC.

Q. What are the statutory requirements that a utility must meet to amend its CCN

[1] Joint Application of the City of San Antonio, Acting by and Through the City Public Service Board, and South Texas Electric Cooperative, Inc. to Amend their Certificates of Convenience and Necessity for the Proposed Howard Road-to-San Miguel 345-kV Transmission Line in Bexar and Atascosa Counties at 6 (Oct. 4, 2024). (Application).

[2] *Id.*

to construct a new transmission line?

A. Section 37.056(a) of the Public Utility Regulatory Act (PURA)[3] states that the Commission may approve an application for a CCN only if the Commission finds that the CCN is necessary for the service, accommodation, convenience, or safety of the public. Further, PURA provides that the Commission shall approve, deny, or modify a request for a CCN after considering the factors specified in PURA § 37.056(c), which are as follows:

(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 Electric Reliability Council of Texas (ERCOT) power region; and

[3] Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 11.001-66.016 (PURA).

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

(i) the existing transmission service is unreasonably remote;

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

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

Q. Do the Commission's rules provide any instruction regarding routing criteria?

A. Yes. 16 Texas Administrative Code (TAC) § 25.101(b)(3)(B) requires that an application for a new transmission line address the criteria in PURA § 37.056(c), and that upon 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 CPS Energy's and STEC's proposed alternative routes:

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

(ii) Whether the routes parallel or utilize other existing compatible

rights-of-way, including roads, highways, railroads, or telephone utility rights-of-way;

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

(iv) Whether the routes conform with the policy of prudent avoidance.[4]

Q. What issues identified by the Commission must be addressed in this docket?

A. In the Order of Referral and Preliminary Order filed on October 7, 2024, the Commission identified the following issues that must be addressed:

1. Is the applicants' joint application to amend their CCNs adequate? Does the joint application contain an adequate number of reasonably differentiated alternative routes to conduct a proper evaluation? In answering this question, consideration must be given to the number of proposed alternatives, the locations of the proposed transmission line, and any associated proposed transmission facilities that influence the location of the line. Consideration may also be given to the facts and circumstances specific to the geographic area under consideration and to any analysis and reasoned justification presented for a limited number of alternative routes. A limited number of alternative routes is not in itself a sufficient basis for finding an application inadequate when the facts and circumstances or a reasoned justification demonstrates a reasonable basis for presenting a limited number of alternatives. If an adequate number of routes is not presented in the

[4] 16 Tex. Admin. Code (TAC) § 25.101(b)(3)(B).

application, the ALJ must allow the applicant to amend the application and to provide proper notice to affected landowners; however, if the applicant chooses not to amend the application, then the ALJ may dismiss the case without prejudice.

2. Did the applicants provide notice of the application in accordance with 16 TAC § 22.52(a)(1), (2), and (3) and PURA § 37.054(a)(1) and (c)?

3. Did the applicants provide notice of the public meeting in accordance with 16 TAC § 22.52(a)(4)?

4. What were the principal concerns expressed in the questionnaire responses received at or after any public meetings held by the applicants regarding the proposed transmission facilities?

5. Taking into account the factors set out in the PURA § 37.056(c), are the proposed transmission facilities necessary for the service, accommodation, convenience, or safety of the public within the meaning of PURA § 37.056(a)? In addition, please address the following issues:

   a. How do the proposed transmission facilities support the reliability and adequacy of the interconnected transmission system?

   b. Do the proposed transmission facilities facilitate robust wholesale competition?

   c. What recommendation, if any, has an independent organization, as defined in PURA § 39.151, made regarding the proposed transmission facilities?

d. Are the proposed transmission facilities needed to interconnect a new transmission service customer?

6. In considering the need for additional service under PURA § 37.056(c)(2) for a reliability transmission project, please address the historical load, forecasted load growth, and additional load currently seeking interconnection.

7. Are the proposed transmission facilities the better option to meet this need when compared to using distribution facilities? If the applicants are not subject to the unbundling requirements of PURA § 39.051, are the proposed transmission facilities the better option to meet the need when compared to a combination of distribution facilities, distributed generation, and energy efficiency? In answering this issue, if the proposed transmission facilities include a transmission line to address distribution load growth, please address the following:

a. The data used to calculate the applicants' load-growth projections that support the need for a transmission-line solution;

b. The date, origin, and relevance of the data used to calculate the applicants' load-growth projections;

c. The assumptions made and relied on to generate the load-growth projections, including but not limited to the assumed rates of load growth, the factors (if any) applied to calculate forecasted loads for new developments in the need study area, and adjustments (if any) made to forecasted loads to account for customer load served by any

other electric utilities also providing electric service within the applicants' need study area;

d. The location, described in writing and depicted on a map, of the boundaries of the need study area and all existing transmission facilities (including proposed substations or switching stations) within the need study area used for the load-growth projections;

e. If included in the applicants' load-growth projections, the nature, scope, and location depicted on a map of the following loads:

i. the applicants' current consumers,

ii. the applicants' pending load request, and

iii. future development projects included in the applicants' load-growth projections;

f. The location depicted on a map of the existing load center, the load center including existing load and currently requested loads, and the load center including existing load, currently requested loads, and the applicants' projected load growth;

g. The location and identity of any existing transmission lines, whether inside or outside the need study area, that are as close as, or closer to, any load-serving substation proposed in this application compared to the existing transmission line or substation used for the proposed interconnection or tap;

h. The location and identity of any existing substations with remaining transformer capacity, whether inside or outside the need

study area, that are as close as, or closer to, any load-serving substation proposed in this application compared to the existing transmission line or substation used for the proposed interconnection or tap;

i. If other utilities are providing distribution service within the applicants' need study area, the location and nature of the other utilities' distribution facilities described in writing and depicted on a map;

j. An analysis of the feasibility, design, and cost effectiveness of a distribution-voltage level alternative that uses the same point(s) of interconnection or tap and endpoint(s) and that is routed along the same alternative routes as the transmission-level radial line that is requested to be approved;

k. The applicants' planning study or other reports reflecting the nature and scope of new-build distribution facilities or existing distribution-facility upgrades necessary for projected load growth anticipated before the projected load growth that is the basis for this joint application; and

l. A comparative cost analysis between all new-build distribution facilities or existing distribution-facility upgrades and the proposed radial transmission facilities that segregates the distribution-alternative costs to support the pending load requests and specific

future development loads from general load growth in the need study area.

8. Weighing the factors set forth in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B), which proposed transmission-line route is the best alternative?

9. Are there alternative routes or configurations of facilities that would have a less negative effect on landowners? What would be the incremental cost of those routes or configurations of facilities?

10. If alternative routes or configurations of facilities are considered because of individual landowners' preferences, please address the following issues:

a. Have the affected landowners made adequate contributions to offset any additional costs associated with the accommodations?

b. Have the accommodations to landowners diminished the electric efficiency of the line or reliability?

11. Are the proposed transmission facilities necessary to meet state or federal reliability standards?

12. What is the estimated cost of the proposed transmission facilities to consumers?

13. What is the estimated congestion cost savings for consumers that may result from the proposed transmission facilities considering both current and future expected congestion levels and the ability of the proposed transmission facilities to reduce those congestion levels?

14. Are the best management practices for construction and operating transmission facilities that are standard in the Commission's electric CCN orders adequate? If not, what additional practices should be required for the proposed transmission facilities?

15. For each additional practice proposed, please address the following:

a. What is the additional cost to design, construct and operate the proposed transmission facilities, including the cost to consumers?

b. What benefit, if any, will the proposed practice provide?

c. What effect, if any, will the proposed practice have on the reliability of the transmission system?

d. What effect, if any, will the proposed practice have on the design, construction, or operation of the proposed transmission facilities?

e. What effect, if any, will the proposed practice have on the expected date to energize the proposed transmission facilities?

16. Did the Texas Parks and Wildlife Department provide any recommendations or informational comments regarding this joint application in accordance with section 12.0011(b) of the Texas Parks and Wildlife Code? If so, how should the Commission respond through its order?

17. What permits, licenses, plans, or permission will be required for construction and operation of the proposed transmission facilities? If any alternative route requires permission or an easement from a state or federal agency, please address in detail the following:

a. What agency is involved, and what prior communication has the applicant had with the agency regarding the proposed transmission facilities?

b. Has the agency granted the required permission or easement? If not, when is a decision by the agency expected?

c. What contingencies are in place if the agency does not grant the required permission or easement or if the process to obtain the required permission or easement would materially affect the estimated cost, proposed design plans, or anticipated timeline to construct the proposed transmission facilities?

18. Is any part of the proposed transmission facilities located within the coastal management program boundary as defined in 31 TAC § 27.1(a)? If so, please address the following issues:

a. Do the facilities comply with the goals and applicable policies of the Coastal Management Program in accordance with 16 TAC § 25.102(a)?

b. Will the facilities have any direct and significant effects on any of the applicable coastal natural resource areas specified in 3 1 TAC § 26.3(b)?

c. Do the facilities cross coastal barrier resource system units or other protected areas designated on maps dated October 24, 1990, as those maps may be modified, revised, or corrected, under the Coastal Barrier Resources Act, 16 United States Code Annotated, § 3503, on coastal barriers? If so, do the facilities comply with the applicable policies under 31 TAC § 26.16(a)(4)?

19. Are the circumstances for this line such that the seven-year limit discussed in section VI of this Order should be changed?

20. Will anything occur during construction that will preclude or limit a generator from generating or delivering power or that will adversely affect the reliability of the ERCOT system?

21. If complete or partial agreement of the parties is reached on a route that relies on modifications to the route segments as noticed in the joint application, please address the following issues:

a. Did the applicants comply with the additional notice requirements of 16 TAC § 22.52(a)(3)(D), including providing notice under 16 TAC § 22.52(a)(3)(A) through (C) to all landowners directly affected by the modification regardless of whether the landowner affected by the modification received notice of the original application under 16 TAC § 22.52(a)(1) through (3)?

b. Was written consent obtained from landowners directly affected by the proposed modifications to the route segments?[5]

Q. Which issues in this proceeding have you addressed in your testimony?

A. I have addressed the issues from the Order of Referral and Preliminary Order and the requirements of PURA § 37.056 and 16 TAC § 25.101.

Q. If you do not address an issue or position in your testimony, should that be interpreted as Staff supporting any other party's position on that issue?

[5] Order of Referral and Preliminary Order at 5-11 (Oct. 7, 2024).

A. No. The fact that I do not address an issue in my testimony should not be considered as agreeing, endorsing, or consenting to any position taken by any other party in this proceeding.

Q. What have you relied upon or considered to reach your conclusions and make your recommendation?

A. I have relied upon my review and analysis of the data contained in CPS Energy's and STEC's application and the application's accompanying attachments, including the *Environmental Assessment and Alternative Route Analysis* (EA) prepared by POWER Engineers, Inc. (Power).[6] I have also relied upon my review of the direct testimonies and statements of position filed in this proceeding by or on behalf of CPS Energy and STEC and the intervenors. I have also relied upon my review of the responses to requests for information.

III. CONCLUSIONS AND RECOMMENDATIONS

Q. Based on your evaluation of CPS Energy's and STEC's application and other relevant material, what conclusions have you reached regarding the application and the Proposed Project?

1. I conclude that the application is adequate and that CPS Energy's and STEC's proposed alternative routes are adequate in number and geographic diversity.

[6] Application, Attachment 1.

2. I conclude that the application complies with the notice requirements in 16 TAC § 22.52(a).

3. I conclude that, taking into account the factors set out in PURA § 37.056(c), the Proposed Project is necessary for the service, accommodation, convenience and safety of the public.

4. I conclude that the Proposed Project is the best option to meet the need when compared with other alternatives.

5. I conclude that Route M is the best route when weighing, as a whole, the factors set forth in PURA § 37.056(c)(4) and in 16 TAC § 25.101(b)(3)(B).

Q. What recommendation do you have regarding CPS Energy's and STEC's application?

A. I recommend that the Commission approve CPS Energy's and STEC's application to amend their CCN in order to construct a new double-circuit 345-kV transmission line to be built on double-circuit steel monopole structures along with modifications to the under-construction CPS Energy Howard Road Station and the existing STEC San Miguel Station. I also recommend that the Commission order CPS Energy and STEC to construct the Proposed Project on Route M (Segments 3, 6, 15, 21, 30, 31, 35, 41, 45A, 45B, 52, 54, 55, 58, 59, 65, 68B, 74, 82, 86, 98, 106, 108, and 110). I further recommend that the Commission include in its order approving CPS Energy's and STEC's application the following paragraphs in order to mitigate the impact of the Proposed Project:

1. CPS Energy and STEC shall conduct surveys, if not already completed, to identify pipelines that could be affected by the transmission lines and coordinate with pipeline owners in modeling and analyzing potential hazards because of alternating-current interference affecting pipelines being paralleled.

2. If CPS Energy and STEC encounter any archeological artifacts or other cultural resources during project construction, work must cease immediately in the vicinity of the artifact or resource, and the discovery must be reported to the Texas Historical Commission. In that situation, CPS Energy and STEC must take action as directed by the Texas Historical Commission.

3. CPS Energy and STEC must follow the procedures to protect raptors and migratory birds as outlined in the following publications: *Reducing Avian Collisions with Power Lines: The State of the Art in 2012,* Edison Electric Institute and Avian Power Line Interaction Committee, Washington, D.C. 2012; *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*, Edison Electric Institute, Avian Power Line Interaction Committee, and the California Energy Commission, Washington, D.C. and Sacramento, CA 2006; and *Avian Protection Plan Guidelines,* Avian Power Line Interaction Committee and United States Fish and Wildlife Service, April 2005. CPS Energy and STEC must take precautions to avoid disturbing occupied nests and take steps to minimize the burden of construction on migratory birds during the nesting season of the migratory bird species identified in the area of construction.

4. CPS Energy and STEC must exercise extreme care to avoid affecting non-targeted vegetation or animal life when using chemical herbicides to control vegetation within rights-of-way. CPS Energy and STEC must ensure that the use of chemical herbicides to control vegetation within the rights-of-way complies with rules and guidelines established in the Federal Insecticide Fungicide and Rodenticide Act and with Texas Department of Agriculture regulations.

5. CPS Energy and STEC must minimize the amount of flora and fauna disturbed during construction of the transmission line, except to the extent necessary to establish appropriate right-of-way clearance for the transmission line. In addition, CPS Energy and STEC must revegetate, using native species and must consider landowner preferences and wildlife needs in doing so. Furthermore, to the maximum extent practical, CPS Energy and STEC must avoid adverse environmental influence on sensitive plant and animal species and their habitats, as identified by the Texas Parks and Wildlife Department and the United States Fish and Wildlife Service.

6. CPS Energy and STEC must implement erosion control measures as appropriate. Erosion control measures may include inspection of the right-of-way before and during construction to identify erosion areas and implement special precautions as determined necessary. CPS Energy and STEC must return each affected landowner's property to its original contours and grades unless otherwise agreed to by the landowner or the landowner's representative. CPS Energy and STEC are not required to

restore the original contours and grades where a different contour or grade is necessary to ensure the safety or stability of the project's structures or the safe operation and maintenance of the lines.

7. CPS Energy and STEC must use best management practices to minimize the potential impacts to migratory birds and threatened or endangered species.

8. CPS Energy and STEC must cooperate with directly affected landowners to implement minor deviations from the approved route to minimize the burden of the transmission line. Any minor deviations from the approved route must only directly affect landowners who were sent notice of the transmission line in accordance with 16 TAC § 22.52(a)(3) and landowners that have agreed to the minor deviation.

9. CPS Energy and STEC must report the transmission line approved by the Commission on its monthly construction progress reports before the start of construction to reflect the final estimated cost and schedule in accordance with 16 TAC § 25.83(b). In addition, CPS Energy and STEC must provide final construction costs, with any necessary explanation for cost variance, after completion of construction when all costs have been identified.

Q. Does your recommended route differ from the route that CPS Energy and STEC believes best addresses the requirements of PURA and the Commission's rules?

A. Yes. CPS Energy and STEC identified Route U as the route that best addresses the

requirements of PURA and the Commission's rules.[7]

IV. PROJECT JUSTIFICATION

A. DESCRIPTION OF THE PROJECT

Q. Please describe the Proposed Project.

A. The Proposed Project will consist of constructing a new double-circuit 345-kV transmission line to be built on double-circuit steel monopole structures.[8] The structures will support two 345-kV circuits, with two conductors per phase.[9] The new transmission line will begin at the under-construction CPS Energy Howard Road Station, located approximately three miles northeast of the intersection of SH 16 and SH 1604 in Bexar County, Texas.[10] The new transmission line will then extend between 45 to 59 miles, depending on the route selected, in a generally southerly direction to the existing STEC San Miguel Station which is located approximately four miles east of SH 16 and FM 3387 in Atascosa County, Texas.[11]

Q. Does CPS Energy's and STEC's application contain a number of proposed alternative routes sufficient to conduct a proper evaluation?

A. Yes.

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[7] Application at 20.

[8] *Id.* at 6.

[9] *Id.* at 6-7.

[10] *Id.* at 9.

[11] *Id.* at 6-8.

Q. Is the Proposed Project located within the incorporated boundaries of any municipality?

A. Yes. Portions of all of the proposed alternative routes would be constructed within the incorporated boundaries of the City of San Antonio, Texas.[12] Additionally, portions of some routes will be constructed within the incorporated boundaries of the City of Jourdanton, Texas and the City of Pleasanton, Texas.[13]

B. TEXAS COASTAL MANAGEMENT PROGRAM

Q. Does any part of this project lie within the Texas Coastal Management Program (TCMP) boundary?

A. No. The study area is not located within the TCMP boundary.[14]

C. NEED FOR THE PROJECT

Q. Could you briefly summarize the need for the project?

A. Yes. As stated in the application, the Proposed Project is needed to address thermal overloads in the south San Antonio area due to new generation south and east of the city, new 345-kV transmission lines going to the Rio Grande Valley, and generation retirements in the area. CPS Energy expects these thermal violations to take place under certain contingencies by summer 2027.[15] To address these issues, CPS Energy

[12] *Id.* at 6.

[13] *Id.* at 11.

[14] *Id.* at 31.

[15] Application, Attachment 3 at 3-4.

submitted the San Antonio South Reliability Project to the ERCOT Regional Planning Group (RPG) and ERCOT conducted its own independent review and confirmed the reliability issues CPS Energy identified.[16]

Q. Has an independent organization, as defined in PURA § 39.151, determined that there is a need for the Proposed Project?

A. Yes. ERCOT recommended the Proposed Project, as part of the CPS San Antonio South Reliability Project.[17] The project was recommended as a Tier 1 transmission project that is critical to the reliability of the ERCOT system pursuant to 16 TAC § 25.101(b)(3)(D) by the ERCOT Regional Planning Group. A copy of ERCOT's independent review, dated June 23, 2023, is included with the application.[18]

Q. Are the proposed facilities necessary for the service, accommodation, convenience, or safety of the public within the meaning of PURA § 37.056(a)?

A. Yes. In the ERCOT Independent Review of CPS San Antonio South Reliability Project, ERCOT determined that thermal overloads were present under some contingencies.[19] They evaluated five different options to address those issues.[20] Three of those options were found to satisfy the reliability issues ERCOT

[16] Application at 14.

[17] Application, Attachment 3 at 16-17.

[18] Application, Attachment 3A.

[19] *Id.* at 6.

[20] *Id.* at 7-9.

identified.[21] The fifth option, which included the Proposed Project, was found to best address those reliability issues.[22]

D. PROJECT ALTERNATIVES

Q. Did CPS Energy and STEC consider distribution and transmission alternatives to the Proposed Project?

A. ERCOT considered five different system improvement options to address the reliability issues in south San Antonio.[23] ERCOT eventually selected the fifth option, which included the Proposed Project.[24]

Q. Do you agree that the Proposed Project is the best option when compared to other alternatives?

A. Yes. ERCOT carefully considered five different options but determined that the three options that resolved the reliability issues included the Proposed Project.[25]

V. ROUTING

A. STAFF RECOMMENDATION

Q. What routes do you recommend upon considering all factors, including the factors in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B)?

[21] *Id.* at 9.

[22] *Id.* at 16-17.

[23] *Id.* at 7-9.

[24] *Id.* at 16-17.

[25] *Id.* at 9.

A. Based on my analysis of all the factors that the Commission must consider under PURA § 37.056 and 16 TAC § 25.101, I recommend that Route M be approved for the Proposed Project. The basis for my recommendation is discussed in more detail in the remainder of my testimony.

Q. Which route did CPS Energy and STEC select as the route that best addresses the requirements of PURA and the Commission's rules?

A. CPS Energy and STEC identified Route U as the route that they believe best address the requirements of PURA and the Commission's rules.[26]

B. COMMUNITY VALUES

Q. Has CPS Energy and STEC sought input from the local community regarding community values?

A. Yes. CPS Energy and STEC held public meetings as required by 16 TAC § 22.52(a)(4). There were two public meetings, the first was held on April 2, 2024 from 6:00pm to 8:00pm at Southside High School in San Antonio, Texas and the second was held on April 4, 2024 from 6:00pm to 8:00pm at Pleasanton High School in Pleasanton, Texas.[27] CPS Energy and STEC sent 2,700 notices of the meeting to landowners owning property within 500 feet of each of the preliminary alternative route segment centerlines.[28] CPS Energy and STEC also posted notices of the

[26] Application at 20.

[27] *Id.* at 21.

[28] Application, Attachment 1 at 6-1.

meeting in the Pleasanton Express on March 27, 2024 and April 3, 2024.[29] Notices of the meeting were also posted in the San Antonio Express News on March 24 and 31, 2024.[30] A total of 192 individuals attended the meetings and CPS Energy and STEC received 99 questionnaire responses during or after the meetings.[31]

Q. Did members of the community who attended the public meeting express concerns about the Proposed Project?

A. Overall, the respondents indicated a preference for limiting the impact to residences with that listed as the most important consideration in routing in 43% of questionnaires received by CPS Energy and STEC. Other leading considerations expressed by respondents were impact to trees and other vegetation (7%), visibility of structures (6%), and parallel to existing roadways/highways (6%).[32] Respondents were asked to identify preliminary alternative route segments that they most preferred or least preferred. The segments that received the most positive preference were Segments 107, 62, and 78 and the segments that received the least preference were Segments 46, 64, 12 and 20.[33]

Other general comments were made by respondents stating their concerns about historical sites, health concerns, flooding, property values, future development, and

[29] *Id.*

[30] *Id.* at 6-1.

[31] *Id.* at 6-2.

[32] *Id.* at 6-2.

[33] *Id.* at 6-3.

trees and wildlife. [34]

Q. In your opinion, would construction of the Proposed Project on Route M mitigate the concerns expressed by members of the community at the open houses and in comments by intervenors?

A. To some extent Route M can mitigate these concerns. Route M is the 2nd shortest route and utilizes the second largest amount of parallel and compatible rights-of-way by percentage of its length, which will hopefully reduce the impact on residences and limit its visibility. [35] Route M also has the 3rd shortest length across upland woodlands/brushlands and the 7th shortest length across bottomland/riparian woodlands which will hopefully reduce the impact on trees and other vegetation.[36] Route M does not utilize Segments 46, 64, 12, or 20 which were the segments that were identified as being least preferred by respondents. However, preliminary Segment 64 was removed, and preliminary Segment 12 was modified after the open houses so are currently not utilized by any proposed alternative routes.[37]

I will specifically address additional issues regarding recreational and park areas, historical values, aesthetic values, environmental integrity, engineering constraints, costs, moderation of impact on the affected community and landowners, and right-of-way later in my testimony.

[34] *Id.* at 6-3, 6-4.

[35] *Id.* at 4-3 to 4-5.

[36] *Id.*

[37] *Id.* at 6-4, 6-5.

Q. Are property values and the impact on future or potential development factors that are considered by the Commission in a CCN proceeding under PURA § 37.056(c)(4) or in 16 TAC § 25.101(b)(3)(B)?

A. No. PURA and the Commission's rules do not list these two issues as factors that are to be considered by the Commission in a CCN proceeding. However, these rules do require consideration of using or paralleling existing right-of-way, which may minimize concerns about the impact on property values or planned development.

Q. Are there any routes that did not receive specific opposition from intervenors?

A. No.

C. RECREATIONAL AND PARK AREAS

Q. Are any parks or recreational areas located within 1,000 feet of the centerline of any of the proposed alternative routes or a substation site?

A. Six parks and recreational areas are either crossed or within 1,000 feet of the centerline of the proposed alternative routes.[38] The number of parks or recreational areas either crossed or within 1,000 feet of the centerline of the proposed alternative routes ranges from 0 (Routes B and AH) to 3 (Routes C, H, I, L, M, N, O, P, Q, R, U, V, W, AB, and AF).[39] Routes range from crossing no parks or recreational areas (Routes A, B, C, D, E, F, G, H, I, J, and AH) to crossing 4.54 miles of parks and

[38] Application at 30.

[39] Application, Attachment 1 at 4-3 to 4-5, 4-33.

recreational areas (Routes AE, AF, AG).[40] Route M crosses two parks or recreational areas, for a total of 2.64 miles, and has one additional park and recreational area within 1,000 feet of its centerline.[41]

D. HISTORICAL VALUES

Q. Are there possible impacts from the Proposed Project on archeological and historical values, including known cultural resources crossed by any of the proposed alternative routes or that are located within 1,000 feet of the centerline of any of the proposed alternative routes?

A. There are 12 cemeteries located within 1,000 feet of the proposed alternative routes, though none are crossed by any proposed alternative routes.[42] Two of the proposed alternative routes, Routes J and AH, have zero cemeteries within 1,000 feet of their centerlines and two of the proposed alternative routes, Routes P and Q have seven cemeteries within 1,000 feet of their centerlines.[43] The closest any proposed alternative route gets to any cemetery is 154 feet on Routes AE, AF, and AG. Route M has four cemeteries within 1,000 feet of its centerline, with the closest cemetery being the Oak Island Cemetery 214 feet away.[44]

A total of 77 archeological sites and two determined-eligible National Register of Historic Places (NRHP) properties are within 1,000 feet of the proposed alternative

[40] *Id.* at 4-3 to 4-5.

[41] *Id.*

[42] *Id.* at 4-41 to 4-43.

[43] *Id.* at 4-3 to 4-5.

[44] *Id.* at 4-42, 4-43.

routes.[45] Additionally, a total of 26 archeological sites are crossed by proposed alternative routes rights-of-way.[46] The proposed alternative routes have from seven historic or archeological site within 1,000 feet of its centerline (for Routes M, N, and R) to 16 (for Routes B, J, AE, and AG.[47] The proposed alternative routes have right-of-way that crosses from zero archeological sites (for Routes M, O, and R) to five archeological sites (for Routes B and J).[48]

One of the determined-eligible NRHP properties, the Theodore Herrmann Barn and Ruins, is approximately 481 feet from Routes A and B and 894 feet from Routes C, D, E, F, G, H, I, and J.[49] The other determined-eligible NRHP property, the Ruiz-Herrera House Farm and Ranch, is approximately 755 feet from Route AH.[50]

The length of the routes across areas of high archeological/historical site potential ranges from 29.42 miles for Route W to 40.58 miles for Route J.[51] Route M crosses 31.37 miles of areas of high archeological/historical site potential.[52]

If any further archeological or cultural resources are found during construction of the proposed transmission line, CPS Energy and STEC should immediately cease work in the vicinity of the archeological or cultural resources and should immediately notify the Texas Historical Commission.

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[45] *Id.* at 4-35 to 4-36.

[46] *Id.* at 4-42, 4-43.

[47] *Id.* at 4-3 to 4-5.

[48] *Id.*

[49] *Id.* at 4-41.

[50] *Id.*

[51] *Id.* at 4-43.

[52] *Id.* at 4-3 to 4-5.

E. AESTHETIC VALUES

Q. In your opinion, which of the proposed alternative routes would result in a negative impact on aesthetic values, and which portions of the study area will be affected?

A. In my opinion, all of the proposed alternative routes would result in a negative impact on aesthetic values, some routes more than others, depending on the visibility from homes and public roadways. Temporary effects would include views of the actual transmission line construction (e.g. assembly and erection of the structures) and of any clearing of right-of-way. Permanent effects would involve the visibility of the structures and the lines. I therefore conclude that aesthetic values would be impacted throughout the study area, and that these temporary and permanent negative aesthetic effects will occur on any proposed alternative routes approved by the Commission. Route M is the second shortest route, at 46.99 miles, which will hopefully mitigate its impact to some degree.[53]

F. ENVIRONMENTAL INTEGRITY

Q. Please provide a general description of the area traversed by the proposed alternative routes.

A. The area traversed by the project is within the Blackland Prairies and Interior Coastal Plains physiographic regions.[54] The Blackland Prairies generally consists of

[53] *Id.*

[54] *Id.* at 3-1.

gently rolling terrain over chalk and marl bedrock.[55] The Interior Coastal Plains generally consists of alternating belts of resistant uncemented sands among weaker shale. The study area elevation generally decreases from northwest to southeast ranging from roughly 800 to 400 feet above mean sea level.[56]

Q. What was involved in your analysis of the environmental impact of the Proposed Project?

A. I reviewed the information provided in the application and the EA, the direct testimonies and statements of position of the intervenors, and responses to requests for information.

Q. Based on your review of the information identified above, in your opinion, will the Proposed Project present a significant negative impact to environmental integrity?

A. No. Transmission lines do not often create many long-term impacts on soils. Most of those impacts will be during initial construction and would be erosion and soil compaction; however, CPS Energy and STEC will employ erosion control during initial construction including development of a Storm Water Pollution Prevention Plan to minimize impacts.[57]

Primary impacts on vegetation would be the result of site preparation and clearing

[55] *Id.*

[56] *Id.*

[57] *Id.* at 4-19.

of existing woody vegetation in the right-of-way,[58] further disturbances would then occur during maintenance activities.[59] CPS Energy and STEC will attempt to minimize adverse impacts to vegetation and retain existing ground cover where possible, and routed the project with consideration to avoid wooded areas.[60] The length of upland woodlands/brushlands along the right-of-way of the proposed routes ranges from 17.23 miles for Route T to 22.84 miles for Route E.[61] The length of bottomland/riparian woodlands along the right-of-way of the proposed routes ranges from 2.90 miles for Route AA to 6.45 miles for Route C.[62] The length of upland woodlands/brushlands along the right-of-way of Route M is 18.10 miles, the 3rd least amount, and the length of bottomland/riparian woodlands along the right-of-way of Route M is 3.64 miles, the 7th least amount.[63]

The length across National Wetland Inventory (NWI) mapped wetlands ranges from Routes A, C, H, I, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, and AG which do not cross any wetlands at all, to Routes B, D, E, F, G, J and AH which cross 0.02 miles of NWI mapped wetlands.[64] CPS Energy and STEC will attempt to use erosion controls, avoidance, and mitigation measures to minimize impacts to aquatic systems should a route be selected which crosses

[58] *Id.* at 4-21.

[59] *Id.*

[60] *Id.*

[61] *Id.* at 4-3 to 4-5.

[62] *Id.*

[63] *Id.*

[64] *Id.*

wetland areas.[65]

CPS Energy and STEC identified three plant and 34 animal species that are federal or state listed threatened or endangered species that may occur within Bexar and Atascosa Counties.[66] However, CPS Energy and STEC do not anticipate the proposed project to have adverse effects on federally listed threatened or endangered plant species and none of the proposed alternative routes cross known critical habitat of federally listed or endangered species.[67] Field surveys for potential habitat for federally protected species will be conducted by CPS Energy and STEC once a proposed alternative route is selected.[68]

However, construction of some of the proposed alternative routes could, at some locations, present a negative impact on the environment, particularly in sensitive areas such as wetlands, riparian areas, and woodlands.

Q. In your opinion, how would construction of the Proposed Project on Route M compare from an environmental perspective to construction on the other routes?

A. Route M has a length of upland woodlands/brushlands along the right-of-way of 18.10 miles, the 3rd least amount, which is 0.87 miles longer than the least amount Route T.[69] Route M has a length of bottomland/riparian woodlands along the right-

[65] *Id.* at 4-20.

[66] *Id.* at 4-23 to 4-25.

[67] *Id.*

[68] *Id.*

[69] *Id.* at 4-3 to 4-5.

of-way of 3.64 miles, the 7th least amount, which is 0.74 longer than the least amount Route AA.[70] Route M crosses no potential wetlands.[71]

Q. Do you conclude that Route M is acceptable from an environmental and land use perspective?

A. Yes, however I do not think any of the routes in this project are unacceptable from an environmental and land use perspective. I conclude that Route M is acceptable from this perspective.

G. ENGINEERING CONSTRAINTS

Q. Are there any possible engineering constraints associated with this project?

A. There are no specific engineering constraints that are not present in a usual transmission line project. In my opinion, all of the possible constraints can be adequately addressed by using design and construction practices and techniques that are usual and customary in the electric utility industry.

Q. Are there any special circumstances in this project that would warrant an extension beyond the seven-year limit for the energization of the lines?

A. No, CPS Energy and STEC have not described any special circumstances that would merit an extension of this limit for this project.

[70] *Id.*

[71] *Id.*

H. COSTS

Q. What are CPS Energy's and STEC's estimated costs of constructing the Proposed Project on each of the proposed alternative routes?

A. CPS Energy's and STEC's Attachment 2 of the Application lists estimated costs of constructing each proposed alternative route. The table below shows the total estimated cost for each of the routes from least expensive to the most expensive. Each listed cost includes $3,480,000 for modifications to the under-construction CPS Howard Road Station and $5,000,000 for modifications to the existing STEC San Miguel Station.[72]

Route	Estimated Cost of the Route and Substation Upgrades
N	$274,601,000.00
R	$275,390,000.00
M	**$276,258,000.00**
T	$284,492,000.00
AB	$285,232,000.00
Q	$286,928,000.00
Z	$287,300,000.00
L	$289,764,000.00
AC	$289,787,000.00
Y	$289,833,000.00
O	$290,180,000.00
U	$293,356,000.00
AD	$293,554,000.00
AA	$294,443,000.00
I	$295,705,000.00
W	$295,819,000.00
S	$297,629,000.00
K	$302,761,000.00
P	$303,129,000.00
V	$304,289,000.00
X	$308,218,000.00
AF	$310,425,000.00
C	$312,318,000.00

[72] Application, Attachment 2.

H	$316,234,000.00
AG	$316,754,000.00
F	$317,709,000.00
G	$320,916,000.00
A	$329,450,000.00
AH	$333,226,000.00
AE	$333,447,000.00
D	$337,726,000.00
E	$338,936,000.00
J	$355,662,000.00
B	$390,539,000.00

As the table illustrates, Route M is the 3rd least expensive proposed alternative route.

Q. Could you briefly discuss the routes that are less expensive and why Route M is still preferred?

A. Yes. The two less expensive routes have more habitable structures within 500 feet of their centerlines than Route M.[73] Route M makes better use of compatible right-of-way as a percentage of its total length than Routes N and R.[74] Route M is shorter than Route N.[75] Route M has less of its length across upland woodlands/brushlands than Routes N and R.[76]

Q. Do CPS Energy's and STEC's estimated costs of constructing the Proposed Project appear to be reasonable?

A. After reviewing CPS Energy's and STEC's estimates, the estimated costs for the

[73] Application, Attachment 1 at 4-3 to 4-5.

[74] *Id.*

[75] *Id.*

[76] *Id.*

proposed alternative routes are about what I would expect for a double-circuit 345-kV monopole project in this terrain. However, the reasonableness of the final installed cost of the completed project will be determined at a future date in the course of a transmission cost-of-service proceeding.

I. MODERATION OF IMPACT ON THE AFFECTED COMMUNITY AND LANDOWNERS

Q. Do the Commission's rules address routing alternatives intended to moderate the impact on landowners?

A. Yes. Under 16 TAC § 25.101(b)(3)(B), "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."

Q. Subsequent to filing their application, have CPS Energy and STEC made or proposed any routing adjustments to accommodate landowners?

A. No, not to my knowledge.

Q. Have CPS Energy and STEC proposed any specific means by which it will moderate the impact of the Proposed Project on landowners or the affected community other than adherence to the Commission's orders, the use of good utility practices, acquisition of and adherence to the terms of all required permits, and what you have discussed above?

A. No, not to my knowledge.

J. RIGHT-OF-WAY

Q. Do the Commission's rules address routing along existing corridors?

A. Yes. The following factors are to be considered under 16 TAC § 25.101(b)(3)(B):

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

(ii) whether the routes parallel existing compatible rights-of-way;

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

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

1. USE AND PARALLELING OF EXISTING, COMPATIBLE RIGHT-OF-WAY (INCLUDING APPARENT PROPERTY BOUNDARIES)

Q. Describe how CPS Energy and STEC propose to parallel or utilize compatible rights-of-way for the Proposed Project.

A. Each proposed alternative route parallels apparent property boundaries and parallels or utilizes existing compatible rights-of-way. The percentage of Route M's length that parallels or utilizes existing compatible right-of-way and apparent property boundaries is approximately 56.59% of its length. The table below summarizes the overall length, the length parallel to compatible rights-of-way or to property boundaries, and the total percentage of parallel rights-of-way used by the proposed alternative routes. Existing pipeline rights-of-way are not listed as compatible rights-of-way under 16 TAC § 25.101(b)(3)(B).

Route	Length (Miles)	Length Parallel to Right-of-Way (Miles)	Percentage
L	49.02	28.20	57.53%
M	**46.99**	**26.59**	**56.59%**
U	49.15	27.74	56.44%
AF	50.66	28.19	55.65%
W	49.44	26.66	53.92%
AH	56.19	30.16	53.68%
N	47.47	25.41	53.53%
J	58.92	31.39	53.28%
V	50.47	26.14	51.79%
E	55.81	28.83	51.66%
G	52.23	26.74	51.20%
X	50.85	25.49	50.13%
K	49.78	24.13	48.47%
AB	49.88	23.80	47.71%
D	55.95	26.38	47.15%
R	45.32	21.33	47.07%
AG	50.64	23.71	46.82%
H	50.05	22.90	45.75%
P	50.48	22.82	45.21%
O	47.60	21.49	45.15%
A	47.77	21.48	44.97%
B	56.67	25.48	44.96%
Y	48.87	21.96	44.94%
Q	48.23	21.66	44.91%
Z	49.05	21.86	44.57%
I	50.81	22.60	44.48%
F	53.42	22.99	43.04%
AA	49.34	20.79	42.14%
AE	51.03	20.93	41.02%
T	47.90	18.97	39.60%
C	50.71	19.89	39.22%
S	49.05	19.23	39.20%
AC	48.35	18.88	39.05%
AD	48.64	17.80	36.60%

As the chart shows, Route M is the 2nd shortest route and has the 2nd highest percentage of compatible right-of-way compared to the other proposed alternative routes.

Q. Could you briefly discuss the routes that are shorter and utilize a higher percentage of compatible right-of-way and why Route M is still preferred?

A. Yes. Route M is less expensive than Route L.[77] Route M is shorter than Route L.[78] Route M has fewer habitable structures within 500 feet of its centerline than Route L.[79] Route M has less of its length across upland woodlands/brushlands and bottomland/riparian woodlands than Route L.[80] Route M crosses no recorded cultural resource sites while Route L crosses 3.[81]

2. PARALLELING OF NATURAL OR CULTURAL FEATURES

Q. Describe how CPS Energy and STEC propose to parallel natural or cultural features for the Proposed Project.

A. None of the proposed alternative routes parallel natural or cultural features. This is favorable because paralleling such features could negatively impact them.

[77] Application, Attachment 2.

[78] Application, Attachment 1 at 4-3 to 4-5.

[79] *Id.*

[80] *Id.*

[81] *Id.*

K. PRUDENT AVOIDANCE

Q. Define prudent avoidance.

A. Prudent avoidance is defined by 16 TAC § 25.101(a)(6) as follows: "The limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort."

Q. How can exposure to electric and magnetic fields be limited when routing transmission lines?

A. Primarily by proposing alternative routes that would minimize, to the extent reasonable, the number of habitable structures located in close proximity to the routes.

Q. How many habitable structures are located in close proximity to each of the proposed alternative routes?

A. The table below ranks the number of habitable structures that are within 500 feet of the centerline of the proposed alternative routes in this project.[82]

Route	Number of habitable structures
X	40
Y	40
V	41
W	41
AA	41
AD	44
U	50
Z	50
AC	53

[82] *See id.*

AB	62
T	68
Q	73
S	75
O	76
M	**77**
P	77
N	78
R	81
K	84
L	88
I	102
C	122
A	130
J	133
AH	137
D	144
E	144
B	150
F	153
AE	158
G	161
H	170
AG	176
AF	179

There are 77 habitable structures that are within 500 feet of the centerline of Route M which is tied for the 15th least of any route.

Q. Could you briefly discuss the routes with an equal or fewer number of impacted habitable structures and why Route M is still preferred?

A. Yes. Routes M is shorter, less expensive, and makes better use of compatible right-of-way as a percentage of its length than Routes X, Y, V, W, AA, AD, U, Z, AC, AB, T, Q, S, and O.[83] Route M has less of its length across upland

[83] Application, Attachment 2; Application, Attachment 1 at 4-3 to 4-5.

woodlands/brushlands than Routes X, Y, V, W, AA, D, U, Z, AC, AB, Q, S, and O.[84] Route M has less of its length across bottomland/riparian woodlands than Route W, D, U, Z, AC, AB, T, Q, S, and O.[85] Route M crosses no recorded cultural resource sites while Routes X, Y, V, W, AA, AD, U, Z, AC, AB, T, Q, and O all cross at least 1.[86]

Q. Do you conclude that CPS Energy's and STEC's proposed alternative routes have minimized, to the extent reasonable, the number of habitable structures located in close proximity to the routes?

A. CPS Energy and STEC have designed its proposed segments in such a way as to minimize, to the extent reasonable, the number of habitable structures located in close proximity to the routes. However, some routes perform better in this area than others.

VI. CONCLUSION

Q. In your opinion, is any one of the proposed alternative routes better than <u>all</u> of the other routes in <u>all</u> respects?

A. No.

Q. If no proposed alternative route is better than all of the others in all respects,

[84] Application, Attachment 1 at 4-3 to 4-5.

[85] *Id.*

[86] *Id.*

why have you recommended Route M instead of the other proposed alternative routes?

A. In summary, after analyzing all the factors that the Commission must consider under PURA § 37.056 and 16 TAC § 25.101, I conclude that Route M best meets the criteria of PURA and the Commission's rules because:

(1) Route M is the 3rd least expensive proposed route at $276,258,000.00, a $1,657,000.00 or 0.60% difference from the least expensive route;

(2) Route M is the 2nd shortest route at 46.99 miles, a 1.67 mile or 3.68% difference from the shortest route;

(3) Route M utilizes or is parallel to compatible rights-of-way or to property boundaries for the 2nd highest percentage of its total length at 57.53%, a 0.94% difference from the shortest route;

(4) Route M has a length of 18.10 miles across upland woodlands/brushlands, a 0.87 mile or 5.05% difference from the shortest route;

(5) Route M has a length of 3.64 miles across bottomland/riparian woodlands, a 0.74 mile or 25.52% difference from the shortest route;

(6) Route M does not cross any recorded cultural resource sites.

Route M, like all of the proposed alternative routes, has some advantages and some disadvantages as I have discussed in my testimony. However, I consider Route M overall to have the most advantages and to be superior to the other proposed alternative routes.

Q. Does this conclude your testimony?

A. Yes

Attachment JP-1

Qualifications of John Poole

JOHN R. POOLE, P.E.

Texas Board of Professional Engineers, Texas P. E. License #133982

EDUCATION

B.A., History/Mathematics, Southwestern University, 2000

BSEE, The University of Texas Cockrell School of Engineering, 2014
Grade Point Average 3.32

Technical Cores: Energy Systems and Renewable Energy, Electronics and Integrated Circuits

Related Courses: Circuit Theory, Linear Systems & Signals, Embedded Systems, Software Design, Vector Calculus, Electronic Circuits, Power Systems, Discrete Mathematics, Solid-state Electronic Devices, Electromagnetic Engineering, Power Electronics Laboratory, Automatic Control, Fundamentals of Electronic Circuits, Engineering Design, Power Systems, Power Quality & Harmonics, Digital Logic Design, Analog Integrated Circuit Design

PROFESSIONAL EXPERIENCE

PUBLIC UTILITY COMMISSION OF TEXAS
Engineer **2/15-Present**

Responsible for analyzing and providing recommendations regarding issues related to electric facility planning, construction, operations, and maintenance.

UNIVERSITY OF TEXAS AT AUSTIN
Solar powered three-phase motor drive/Dr. Ross Baldick **2/14-12/14**

Worked in a five-person team to design and implement a solar-powered motor system with a Maximum PowerPoint Tracker and a three-phase H-Bridge. Personal responsibility included project National Electrical Code (NEC) compliance.

UNIVERSITY OF TEXAS AT AUSTIN
Solar Vehicle Team (UTSVT)/Dr. Gary Hallock **9/14-12/14**

Coordinated team of 5 for the design, lay-out, and wiring of solar array for the new UTSVT vehicle. Research and execution of solar cell lamination techniques.

UNIVERSITY OF TEXAS AT AUSTIN **12/04-9/14**
Administrative Associate

Managed billing and collections for two departments independently.
Provided timely and efficient customer service to University cell phone users.
Worked as part of Returned Checks team in Student Accounts Receivable, managing high call volumes and communicating effectively with team.

Attachment JP-2

List of Previous Testimony

Application of LCRA Transmission Services Corporation to Amend its Certificate of Convenience and Necessity for the Proposed Blumenthal Substation and 138-kV Transmission Line in Blanco, Gillespie, and Kendall Counties, SOAH Docket No. 473-15-1589, PUC Docket No. 43599

Application of Brazos Electric Power Cooperative Inc. to Amend a Certificate of Convenience and Necessity for a 138-kV Transmission Line in Denton County, SOAH Docket No. 473-15-2855, PUC Docket No. 44060

Application of Entergy Texas, Inc. for Approval to Amend its Distribution Cost Recovery Factor, SOAH Docket No. 473-16-0076, PUC Docket No. 45083

Application of Southwestern Public Service Company for Authority to Change Rates, SOAH Docket No. 473-16-2520, PUC Docket No. 45524

Application of Southwestern Electric Power Company for Approval of a Distribution Cost Recovery Factor, SOAH Docket No. 473-16-3306, PUC Docket No. 45712

Application of LCRA Transmission Services Corporation to Amend a Certificate of Convenience and Necessity for the Round Rock-Leander 138-kV Transmission Line in Williamson County, SOAH Docket No. 473-16-4342, PUC Docket No. 45866

Joint Application of AEP Texas North Company and Electric Transmission Texas, LLC to Amend their Certificates of Convenience and Necessity for the AEP TNC Heartland to ETT Yellowjacket 138-kV Transmission Line in McCulloch and Menard Counties, SOAH Docket No. 473-17-0907, PUC Docket No. 46234

Application of Oncor Electric Delivery Company, LLC to Amend a Certificate of Convenience and Necessity for a 345/138-kV Transmission Line in Loving, Reeves, and Ward Counties, SOAH Docket No. 473-18-0373, PUC Docket No. 47368

Application of Rayburn Country Electric Cooperative, Inc. to Amend its Certificate of Convenience and Necessity for a 138-kV Transmission Line in Fannin County, Texas, SOAH Docket No. 473-18-0582, PUC Docket No. 47448

Application for the City of Lubbock Through Lubbock Power and Light for Authority to Connect a Portion of its System with The Electric Reliability Council of Texas, PUC Docket No. 47576

Application of Rayburn Country Electric Cooperative, Inc. to Amend a Certificate of Convenience and Necessity for the Lower Bois d'Arc Water Treatment Line Project in Fannin and Hunt Counties, Texas, SOAH Docket No. 473-18-2500, PUC Docket No. 47884

Application of Electric Transmission Texas, LLC to Amend Certificates of Convenience and Necessity for the Stewart Road 345-kV Transmission Line in Hidalgo County, SOAH Docket No. 473-18-3045, PUC Docket No. 47973

Application of Oncor Electric Delivery Company, LLC to Amend a Certificate of Convenience and Necessity for a 345-kV Transmission Line in Crane, Ector, Loving, Reeves, Ward, and Winkler Counties, Texas, SOAH Docket No. 473-18-2800, PUC Docket No. 48095

Joint Application of Rayburn Country Electric Cooperative and Lone Star Transmission LLC to Transfer Load to ERCOT, and For Sale of Transmission Facilities and Transfer of Certification Rights in Henderson and Van Zandt Counties, Texas, PUC Docket No. 48400

Application of South Texas Electric Cooperative, Inc. to Amend its Certificate of Convenience and Necessity for the Proposed Palmas to East Rio Hondo 138-kV Transmission Line in Cameron County, Texas, PUC Docket No. 48490

Application of CenterPoint Energy Houston Electric, LLC to Amend a Certificate of Convenience and Necesity for a 345-kV Transmission Line in Brazoria, Matagorda, and Wharton Counties, SOAH Docket No. 473-19-1857, PUC Docket No. 48629

Joint Application of Sharyland Utilities, LP and City of Lubbock, Acting by and Through Lubbock Power & Light, for a Certificate of Convenience and Necessity for the Proposed Wadsworth to New Oliver to Farmland 345-kV Transmission Line in Lubbock and Lynn Counties and the Proposed Southeast to New Oliver to Oliver 115-kV Transmission Line in Lubbock County, SOAH Docket No. 473-19-2405, PUC Docket No. 48909

Application of AEP Texas Inc. to Amend its Certificate of Convenience and Necessity for the Three Rivers to Borglum to Tuleta 138-kV Transmission Line in Live Oak and Bee Counties, SOAH Docket No. 473-19-5729, PUC Docket No. 49347

Application of AEP Texas Inc. for Authority to Change Rates, SOAH Docket No. 473-19-4421, PUC Docket No. 49494

Application of LCRA Transmission Services Corporation to Amend its Certificate of Convenience and Necessity for the Proposed Mountain Home 138-kV Transmission Line Projects in Gillespie, Kerr, and Kimble Counties, Texas, SOAH Docket No, 473-19-6766, PUC Docket No. 49523

Application of Southwestern Public Service Company for Authority to Change Rates, SOAH Docket No. 473-19-6677, PUC Docket No. 49831

Complaint of Terry and Sara Faubion against Texas-New Mexico Power Company, SOAH Docket No. 473-20-1773, PUC Docket No. 50095

Complaint of Jaime Leonardo Sloss against AEP Texas Inc., SOAH Docket No. 473-20-3116, PUC Docket No. 50284

Application of Rayburn Country Electric, Inc. to Amend its Certificate of Convenience and Necessity for the New Hope 138-kV Transmission Line in Collin County, SOAH Docket No. 473-20-4592, PUC Docket No. 50812

Application of the City of San Antonio, Acting by and Through The City Public Service Board (CPS Energy) to Amend its Certificate of Convenience and Necessity for the Proposed Scenic Loop 138-kV Transmission Line in Bexar County, SOAH Docket No. 473-21-0247, PUC Docket 51023

Application of the City of Lubbock, Acting By and Through Lubbock Power & Light, to Establish Initial Wholesale Transmission Rates and Tariffs, SOAH Docket No. 473-21-0043, PUC Docket No. 51100

Application of Southwestern Electric Power Company for Authority to Change Rates, SOAH Docket No. 473-21-0538, PUC Docket 51415

Application of El Paso Electric Company to Amend its Certificate of Convenience and Necessity for the Pine-to-Seabeck 115-kV Transmission Line in El Paso County, SOAH Docket No. 473-21-1200, PUC Docket 51476

Application of El Paso Electric Company to Amend its Certificate of Convenience and Necessity for the Seabeck-to-San Felipe 115-kV Transmission Line in El Paso County, SOAH Docket No. 473-21-1201, PUC Docket 51480

Application of Sharyland Utilities, L.L.C. for Authority to Change Rates, SOAH Docket No. 473-21-1535, PUC Docket No. 51611

Application of AEP Texas Inc. to Amend its Certificate of Convenience and Necessity for the Angstrom-to-Grissom Double-Circuit 345-kV Transmission Line in Bee, Refugio, and San Patricio Counties, SOAH Docket No. 473-21-2084, PUC Docket 51912

Application of El Paso Electric Company for Advanced Metering System (AMS) Deployment Plan, AMS Surcharge, and Non-Standard Metering Service Fees, SOAH Docket No. 473-21-2607, PUC Docket 52040

Application of Entergy Texas, Inc. to Amend its Certificate of Convenience and Necessity for the Millbend 138-kV Transmission Line Project in Montgomery County, SOAH Docket No. 473-22-0126, PUC Docket 52241

Application of Entergy Texas, Inc. to Amend its Certificate of Convenience and Necessity for the Castle 230-kV Transmission Line Project in Montgomery and Grimes Counties, SOAH Docket No. 473-22-0127, PUC Docket 52304

Application of Oncor Electric Delivery LLC to Amend its Certificate of Convenience and Necessity for the Old Country Switch 345-kV Tap Transmission Line in Ellis County, SOAH Docket No. 473-22-0768, PUC Docket 52455

Application of Southwestern Public Service Company to Amend its Certificate of Convenience and Necessity to Convert Harrington Generating Station from Coal to Natural Gas, SOAH Docket No. 473-22-1073, PUC Docket 52485

Application of AEP Texas, Inc. to Amend its Certificate of Convenience and Necessity for the Angstrom to Naismith Double-Circuit 345-kV Transmission Line in San Patricio County, SOAH Docket No. 473-22-0493, PUC Docket 52656

Application of Oncor Electric Delivery Company, LLC to Amend its Certificate of Convenience and Necessity for the Proposed Ivy League 138-Kilovolt Transmission Line Project in Collin County, SOAH Docket No. 473-22-2156, PUC Docket 53053

Application of Oncor Electric Delivery Company, LLC to Amend its Certificate of Convenience and Necessity for the Old Country Switch 345-kV Tap Transmission Line in Ellis County, SOAH Docket No. 473-22-0768, PUC Docket 52455

Application of AEP Texas, Inc. to Amend its Certificate of Convenience and Necessity for the Goodlett-to-Quanah 138-kV Transmission Line in Hardeman County, SOAH Docket No. 473-22-2155, PUC Docket 52921

Application of Oncor Electric Delivery Company LLC for Authority to Change Rates, SOAH Docket No. 473-22-2695, PUC Docket 53601

Application of Southwestern Electric Power Company for Approval to Amend its Transmission Cost Recovery Factor, SOAH Docket No. 473-23-04811, PUC Docket 54040

Joint Application of AEP Texas Inc. and Electric Transmission Texas, LLC to Amend their Certificates of Convenience and Necessity for the Del Sol-To-Frontera 345-kV Transmission Line Project in Starr and Hidalgo Counties, SOAH Docket No. 473-23-20831, PUC Docket 55001

Application of Oncor Electric Delivery LLC to Amend its Certificate of Convenience and Necessity for the Ramhorn Hill-Dunham 345-kV Transmission Line in Denton and Wise Counties, SOAH Docket No. 473-23-21216, PUC Docket 55067

Joint Application of LCRA Transmission Services Corporation and Oncor Electric Delivery Company LLC to Amend their Certificates of Convenience and Necessity for the North McCamey to Sand Lake 345-kV Transmission Line in Crane, Crockett, Pecos, Reeves, Upton, and Ward Counties, SOAH Docket No. 473-23-22133, PUC Docket 55121

Application of Centerpoint Energy Houston Electric, LLC to Amend its Certificate of Concenience and Necessity for a 138-kV Transmission Line in Chambers County, SOAH Docket 473-23-26934, PUC Docket 55365

Application of Oncor Electric Delivery LLC to Amend its Certificate of Convenience and Necessity for the Exchange Switch-Keller Magnolia Substation 138-kV Transmission Line in Tarrant County, SOAH Docket 473-24-02657, PUC Docket 55574

Application of AEP Texas Inc. to Amend its Certificate of Convenience and Necessity for the Las Milpas-to-Stewart Road 138-kV Cut-In to Lion Substation Double-Circuit Transmission Line in Hildalgo County, SOAH Docket 473-24-06566, PUC Docket 54955

Application of LCRA Transmission Services Corporation for Authority to Change Rates, SOAH Docket 473-24-09296, PUC Docket 55867

Application of Centerpoint Energy Houston Electric, LLC for Authority to Change Rates, SOAH Docket 473-24-13232, PUC Docket 56211

Application of Oncor Electric Delivery Company LLC for Approval of a System Resiliency Plan, SOAH Docket 473-24-18029, PUC Docket 56545

Application of Entergy Texas, Inc. for Approval of a System Resiliency Plan, SOAH 473-24-20657, PUC Docket 56735

Complaint of Doug and Linda Crosson, Bo and Trish Lebo, and Bruce and Ann Ahlhorn against Pedernales Electric Cooperative, Inc., SOAH 473-24-17515, PUC Docket 50065