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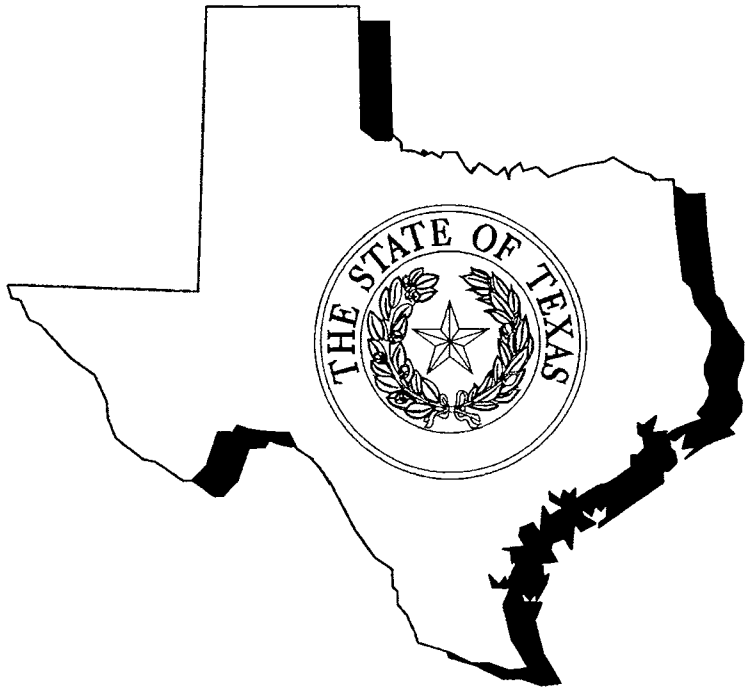
SOAH DOCKET NO. 473-21-0247
PUC DOCKET NO. 51023

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	§	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**



DIRECT TESTIMONY OF

JOHN POOLE, P.E., ENGINEER

INFRASTRUCTURE DIVISION

PUBLIC UTILITY COMMISSION OF TEXAS

MARCH 22, 2021

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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 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 and 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) to amend its Certificate of Convenience and Necessity (CCN) to construct a new double circuit 138-kilovolt (kV) electric transmission line to be built on brown colored steel monopole structures in Bexar County, Texas.[1] The proposed transmission line will connect the existing Ranchtown to Menger Creek 138-kV to the proposed Scenic Loop Substation that will be located in one of several locations in the area of the intersection of Scenic Loop Road and Toutant Beauregard Road (Proposed Project).[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 alternative routes presented by CPS Energy.

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

[1] 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 Project in Bexar County (Application) at 4-5 (July 22, 2020).

[2] Application at 7.

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

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; and

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

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 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 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.

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

A. In the Order of Referral and Preliminary Order issued on September 29, 2020, the Commission identified the following issues that must be addressed:

1. Is CPS Energy's application to amend its CCN adequate? Does the 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 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 application, the ALJ must allow CPS Energy to amend the application and to provide proper notice to affected landowners; if CPS Energy chooses not to amend the application, the ALJ may dismiss the case without prejudice.

2. Are the proposed facilities necessary for the service, accommodation, convenience, or safety of the public within the meaning of PURA § 37.056(a) taking into account the factors set out in PURA § 37.056(c)? In addition,

   a) How does the proposed facility support the reliability and adequacy of the interconnected transmission system?

   b) Does the proposed facility facilitate robust wholesale competition?

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

   d) Is the proposed facility needed to interconnect a new transmission service customer?

3. Is the transmission project the better option to meet this need when

compared to employing distribution facilities? If CPS Energy is not subject to the unbundling requirements of PURA § 39.051, is the project the better option to meet the need when compared to a combination of distributed generation and energy efficiency?

4. Which proposed transmission line route is the best alternative weighing the factors set forth in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B)?

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

6. If alternative routes or facility configurations are considered due to individual landowner preference:

   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?

7. On or after September 1, 2009, did the Texas Parks and Wildlife Department provide any recommendations or informational comments regarding this application in accordance with Section 12.0011(b) of the Texas Parks and Wildlife Code? If so, please address the following issues:

   a) What modifications, if any, should be made to the proposed project as a result of any recommendations or comments?

b) What conditions or limitations, if any, should be included in the final order in this docket as a result of any recommendations or comments?

c) What other disposition, if any, should be made of any recommendations or comments?

d) If any recommendation or comment should not be incorporated in this project or the final order, or should not be acted upon, or is otherwise inappropriate or incorrect in light of the specific facts and circumstances presented by this application or the law applicable to contested cases, please explain why that is the case.

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

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

A. I have addressed all issues included in 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?

A. No. The fact that I do not address an issue in my testimony should not be construed 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 application and the application's accompanying attachments, including the *Environmental Assessment* (EA)[4] prepared by Power Engineers, Inc. (Power Engineers). 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 the intervenors, responses to requests for information, and the letters from the Texas Parks and Wildlife Department (TPWD) to Ms. Rachelle Robles, dated September 10, 2020 and February 18, 2021.[5]

III. CONCLUSIONS AND RECOMMENDATIONS

Q. Based on your evaluation of CPS Energy'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 proposed routes are adequate in number and geographic diversity.
2. I conclude that the application complies with the notice requirements in 16 TAC § 22.52(a).

[4] Application Attachment 1

[5] Attachment JP-3 and JP-4.

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 P (Substation Site 6, Segments 50, 15, 22, 25, 37, 38, and 43) 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).

6. I conclude that TPWD recommended mitigation measures regarding the application, and that the mitigation measures I recommend on Pages 12 through 15 of my testimony, as well as mitigation measures recommended in the environmental concerns on pages 28 through 31 of my testimony, are sufficient to address TPWD's mitigation recommendations. I also conclude that CPS Energy has the resources and procedures in place in order to accommodate the mitigation recommendations.

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

A. I recommend that the Commission approve CPS Energy's application to amend their CCN in order to construct a new 138-kV electric transmission line in Bexar County, Texas.

I also recommend that the Commission order CPS Energy to construct the Proposed Project on Route P (Substation Site 6, Segments 50, 15, 22, 25, 37, 38, and 43). I further recommend that the Commission include in its order approving

CPS Energy's application the following paragraphs in order to mitigate the impact of the Proposed Project:

1. CPS Energy 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 encounters 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 must take action as directed by the Texas Historical Commission.
3. CPS Energy 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 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 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 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 must minimize the amount of flora and fauna disturbed during construction of the transmission lines, except to the extent necessary to establish appropriate right-of-way clearance for the transmission lines. In addition, CPS Energy must revegetate, using native species and must consider landowner preferences and wildlife needs in doing so. Furthermore, to the maximum extent practical, CPS Energy must avoid adverse environmental influence on sensitive plant and animal species and their habitats, as identified by the TPWD and the United States Fish and Wildlife Service (USFWS).

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

8. CPS Energy must cooperate with directly affected landowners to implement minor deviations from the approved route to minimize the burden of the transmission lines. 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 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 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 believes best addresses the requirements of PURA and the Commission's rules?

A. Yes. CPS Energy believes Route Z best meets the requirements of PURA and the

Commission's rules.[6] However, in CPS Energy's Application Amendment, it appears CPS Energy replaced the original Route Z with Route Z1 following some segment adjustments.[7]

IV. PROJECT JUSTIFICATION

A. DESCRIPTION OF THE PROJECT

Q. Please describe the Proposed Project.

A. The Proposed Project consists of the construction of a new double circuit 138-kV electric transmission line to be built on brown colored steel monopole structures in Bexar County, Texas.[8] The transmission line project will begin at the proposed CPS Energy Scenic Loop Substation, that will be built in one of seven locations in the area of the intersections of Scenic Loop Road and Toutant Beauregard Road. The transmission line will then proceed generally westwards to one of six points along the existing CPS Energy Ranchtown to Menger Creek 138-kV transmission line.[9] CPS Energy proposes to support the transmission line using single circuit steel single pole structures generally ranging between 70 to 130 feet in height.[10]

Q. Does CPS Energy's application contain a number of alternative routes

[6] Application at 29.

[7] Amendment to CPS Energy's Application (Application Amendment) at 2 (Dec. 22, 2020).

[8] Application at 4-5.

[9] Application at 3.

[10] Application Attachment 1 at 1-17 through 1-20.

sufficient to conduct a proper evaluation?

A. Yes. CPS Energy's application and application amendment proposed three routes from Substation Site 1 (Routes A, B1, and C1), three routes routes from Substation Site 2 (Routes D1, E, and F1), six routes from Substation Site 3 (Routes G1, H, I1, J1, K, and L), one route from Substation Site 4 (Route M1), two routes from Substation Site 5 (Routes N1 and O), eight routes from Substation Site 6 (Routes P, Q1, R1, S, T1, U1, V, and W), and eight routes from Substation Site 7 (Routes X1, Y, Z1, AA1, BB, CC, DD, and EE). Four routes then terminate at the existing CPS Energy Ranchtown to Menger Creek 138-kV transmission line at Segment 40 (Routes A, E, H, and Y), nine routes terminate at Segment 46b (Routes B1, C1, D1, I1, M1, T1, X1, Z1, and DD), four routes terminate at Segment 49a (Routes G1, J1, AA1, and EE), seven routes terminate at Segment 43 (Routes F1, K, N1, P, R1, BB, and CC), four routes terminate at Segment 44 (Routes O, Q1, V, and W), and three routes terminate at Segment 45 (Routes L, S, and U1).[11]

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

A. None of alternative routes would be constructed within an incorporated municipality.[12]

B. TEXAS COASTAL MANAGEMENT PROGRAM

[11] Application Amendment Attachment 2 at Table 2-1.

[12] Application at 8.

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

A. No. The Proposed Project is not located, either in whole or in part, within the TCMP boundary.[13]

C. NEED FOR THE PROJECT

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

A. Yes. As stated in the Application, this CCN is needed to address a projected 4-7 percent annual growth rate in the northwest corner of Bexar County.[14] This growth is projected to see the 2018 load in the area of Scenic Loop grow from 149,952 kilowatts (kW) to 255,932 kW by 2031. This CCN would also address the very long distribution circuits origination from the CPS Energy La Sierra and Fair Oaks Ranch Substations which are up to seven times longer than the average CPS Energy distribution circuit needed to support the current load. The combination of this load growth and long distribution circuits is projected, by Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) in its Scenic Loop Substation Analysis Report attached to the application as Attachment 13, to reach the existing distribution system's reliability limit by 2024.[15]

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[13] Application at 41.

[14] Application Attachment 13 at 5.

[15] Application Attachment 13 at 44.

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

A. No. This project is for a radial transmission line to service load growth and is therefore classified as a Tier 4 Neutral project. The Electric Reliability Council of Texas (ERCOT) protocols do not require Tier 4 Neutral projects to be submitted to ERCOT for review.[16]

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 my opinion, based on the data and load projections provided by CPS Energy and Burns & McDonnell in the Scenic Loop Substation Analysis Report,[17] it is evident that this project is necessary and is the best way to address the reliability issues resulting from the load growth in the area.

D. PROJECT ALTERNATIVES

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

A. Yes. Burns & McDonnell studied five different alternatives to the Proposed

[16] Application at 4.

[17] Application Attachment 13.

Project, three of which were distribution alternatives.[18]

Q. What was the conclusion Burns & McDonnell reached as a result of that study?

A. Burns & McDonnell investigated three distribution alternatives and none of them met the reliability criteria for serving both the forcasted load growth and resolving the issues with the length of the distribution circuits in a cost effective fashion.[19] Burns & McDonnell also investigated distributed generation alternatives but these were substantially more expensive then the transmission project alternative.[20] Burns & McDonnell therefore concluded that the current Proposed Project by CPS Energy was the most cost-effective solution..[21]

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

A. Yes.

V. ROUTING

A. STAFF RECOMMENDATION

Q. What routes do you recommend upon considering all factors, including the

[18] Application Attachment 13 at 39.

[19] Application Attachment 13 at 37-41.

[20] Application Attachment 13 at 38-40.

[21] Application at 17.

factors in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B)?

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 P 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 select as the route that it believes best meets the requirements of PURA and the Commission's rules?

A. CPS Energy selected Route Z as the route that it believes best meets the requirements of PURA and the Commission's rules.[22] However, in CPS Energy's Application Amendment, it appears CPS Energy replaced the original Route Z with Route Z1 following some segment adjustments.[23]

B. COMMUNITY VALUES

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

A. Yes. CPS Energy held a public meeting as required by 16 TAC § 22.52(a)(4). The public meeting was conducted on October 3, 2019, from 5:30 pm to 7:30 pm at the Cross Mountain Church, 24891 Boerne Stage Road in San Antonio, Texas.[24] CPS

[22] Application at 29.

[23] Application Amendment at 2.

[24] Application Attachment 1 at 6-1.

Energy sent 592 notices of the meeting to land owners owning property within 300 feet of each of the proposed alternative route segment centerlines.[25] Notice of the meeting was also published in the San Antonio Express News on September 22 and 29, 2019.[26] A total of 172 individuals signed in at the meeting and CPS Energy received 146 questionnaire responses at, or shortly after, the meeting with 40 additional questionnaires received later.[27]

Q. Did members of the community who returned questionnaires express concerns about the Proposed Project?

A. Yes. CPS Energy received 186 questionnaires at and after the public meeting. Section 6.0 of Attachment 1 of CPS Energy's application, the EA, contains a discussion and summary of the questionnaire responses. The respondents were asked to rank criteria in routing the project that they considered to be the most important. The two criteria that ranked highest were maximizing distance from residences and visibility of structures.[28] The respondents were asked to list any segments or substation sites for which they had concerns. The segments which had the most negative comments were Segments 15, 26, and 16.[29] The Substation Sites which had the most negative comments were Substation sites 5, 2, and 4. However, other segments such as Segments 46a, 42a, 26a, and 54 were added only

[25] Application Attachment 1 at 6-1.

[26] Application Attachment 1 at 6-1.

[27] Application Attachment 1 at 6-2.

[28] Application Attachment 1 at 6-2

[29] Application Attachment 1 at 6-4

after the public meetings and thus did not receive any direct opposition at the meetings.[30] Likewise some substation sites such as Substation Site 6 and Substation Site 7 were added only after the public meetings and thus did not receie any direct opposition at the meetings.[31]

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

A. In my opinion, Route P would mitigate some of the concerns expressed by members of the community at the open houses. Route P does contain one of the segments negatively mentioned in the questionnaires received during and after the public meetings, Segment 15. The criteria that ranked first in the questionnaires received during and after the public meeting was maximizing distance from residences. Route P has only 12 habitable structures within 300 feet of the centerline of its segments, which is tied for the fifth fewest among the 31 alternative routes. The criteria that ranked second in the questionnaires received during and after the public meeting was reducing visibility of structures and Route P is 4.89 miles long, which is the sixth longest route and only 0.36 miles longer than the shortest route.[32]

I will specifically address recreational and park areas, historical values, aesthetic

[30] Application Attachment 1 at 6-5 and Application Amendment Attachment 2 at 33-35.

[31] Application Attachment 1 at 6-5.

[32] Application Amendment Attachment 2 at Table 4-1 Amended

values, environmental integrity, engineering constraints, costs, moderation of impact on the affected community and landowners, and right-of-way later in my testimony.

Q. Are property values and the impact on future/potential development factors 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 rights-of-way, which may minimize concerns about these impacts.

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 alternative routes?

A. No, none of the proposed alternative routes cross or are located within 1,000 feet

of any park or recreation area.[33]

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 alternative routes?

A. There are seventeen recorded archeological or historical sites with an additional three National Register of Historic Places (NRHP) listed resources and two cemeteries are within 1,000 feet from the centerline of at least one routing segment of the proposed alternative routes.[34] Some routes, such as Routes A, B1, C1, D1, E, G1, H, I1, J1, M1, X1, Y, Z1, AA1, DD, and EE do not cross any cultural resource sites and but every route has at least one cultural site within 1,000 feet of their centerlines.[35] Route P crosses one recorded archeological or historic site and crosses one NRHP listed site. Route P has 10 additional archeological or historic sites within 1,000 feet of its centerline along with one cemetery within 1,000 feet of its centerline.[36] The table below shows the proposed alternative routes in this project and how many cultural resources they cross and the number of additional

[33] Application Amendmenat Attachment 2 at 4-25.

[34] Application Amendment Attachment 2 at 4-27.

[35] Application Amendment Attachment 2 at Table 4-1 Amended.

[36] Application Amendment Attachment 2 at Table 4-1 Amended.

cultural resources within 1,000 feet of each of their centerlines.[37]

Route	Number of Recorded Archeological or Historical Sites Crossed	Number of additional Recorded Archeological or Historical Sites within 1,000 feet of the centerline	Number of NRHP listed properties crossed	Number of additional NRHP listed properties within 1,000 feet of the centerline	Number of Cemeteries within 1,000 feet of the centerline
A	0	0	0	1	0
H	0	0	0	1	0
K	0	0	1	0	0
L	0	0	1	0	0
BB	0	0	1	0	0
CC	0	0	1	0	0
E	0	2	0	1	0
X1	0	2	0	1	0
C1	0	2	0	1	1
D1	0	2	0	1	1
I1	0	2	0	1	1
J1	0	2	0	1	1
M1	0	2	0	1	1
Z1	0	2	0	1	1
AA1	0	2	0	1	1
DD	0	2	0	1	1
EE	0	2	0	1	1

[37] Application Amendment Attachment 2 at Table 4-1 Amended.

B1	0	2	0	2	1
G1	0	2	0	2	1
Y	0	2	0	2	1
V	1	0	1	0	0
O	1	1	1	0	0
S	1	1	1	0	0
W	1	1	1	0	0
P	**1**	**10**	**1**	**0**	**1**
T1	1	12	0	1	2
F1	2	12	1	0	1
N1	2	12	1	0	1
Q1	2	12	1	0	1
R1	2	12	1	0	1
U1	2	12	1	0	1

The lengths of the proposed alternative routes that cross areas of high archeological potential range from 1.14 miles for Route H to 4.77 miles for Route U1.[38] Route P crosses 2.49 miles of high archeological potential, which is the ninth least of the proposed alternative routes. While Route P has 10 Recorded Archeological or Historical Sites sites and 1 cemetery within 1,000 feet of its centerline, it only crosses 1 Recorded Archeological or Historical Site and 1 NHRP listed property while being ninth among all proposed alternative routes in areas of high archeological potential crossed. Therefore, I conclude that Route P is

[38] Application Amendment Attachment 2 at Table 4-1 Amended.

acceptable from a historical values perspective.

Should the Commission order that one of the routes that crosses a Recorded Archeological or Historical Sites site be constructed (Routes V, O, S, W, P, T1, F1, N1, Q1, R1, or U1), CPS Energy should work with the Texas Historical Commission to determine what appropriate actions should be taken to mitigate the impacts on the site. If any further archeological or cultural resources are found during construction of the proposed transmission line, CPS Energy should immediately cease work in the vicinity of the archeological or cultural resources, and should immediately notify the Texas Historical Commission.

E. AESTHETIC VALUES

Q. In your opinion, which of the proposed 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. However, Route P is the sixth shortest of the proposed alternative routes, only 0.36 miles longer than the shortest route, and impacts the fifth fewest habitable structures of the proposed alternative routes, both of which would help to mitigate those impacts compared to the majority of the proposed alternative routes in this docket.

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 the transitional area between the Balcones Escarpment/Blackland Prairies and the Edwards Plateau physiographic region of Texas. The region's topography is characterized by flat upper surfaces, interspersed by drainages that open up into larger draws or box canyons. The study area has its lowest elevation at approximately 1,250 feet above mean sea level and its highest elevation at 1,400 feet above mean sea level. The elevation tends to decrease from northeast to southeast.[39]

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 Application Amendment, the direct testimonies and statements of position of the

[39] Application Attachment 1 at 3-1.

intervenors, responses to requests for information, and the letters from TPWD to Ms. Rachelle Robles, dated September 10, 2020 and February 18, 2021.[40]

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 intial construction and would be erosion and soil compaction. However, CPS Energy has confirmed that it will employ erosion control during initial construction.[41] Impacts on vegetation would be the result of clearing and maintaining the right-of-way, and the length of upland woodland or brushland along the right-of-way of the proposed alternative routes range from 3.12 miles for Route DD to 6.52 miles for Route V.[42] Power Engineers do not anticipate encountering endangered or threatened plant or animal species in the study area, though the bracted twistflower, the Madla Cave meshweaver, two unnamed beetles, the Helotes mold beetle, the whooping crane, or golden-cheeked warbler might occur.[43] In the event endangered or threatened plant or animal species are encountered, CPS Energy should attempt to span or avoid them as much as practicable. None of the proposed alternative routes cross any known

[40] Attachment JP-3 and JP-4

[41] Application Amendment Attachment 2 at 4-9.

[42] Application Attachment 1 at 4-4.

[43] Application Amendment Attachment 2 at 4-16.

occupied habitat for any federally listed endangered or threatened species.[44] Nevertheless, construction of some of the alternative routes could, at some locations, present a negative impact on the environment.

In its letter dated February 18, 2021, TPWD stated that it selects Route DD as the route having the least potential impact on environmental integrity.[45]

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

A. The Proposed Project is expected to cause only short-term effects to water, soil, and ecological resources during the initial construction phase. Route P is generally ranked well among the proposed alternative routes in most alternative categories. It has the sixth least length of right-of-way across the Edwards Aquifer contributing zone, it has the fifth least length across FEMA mapped 100-year floodplains, and it has the fifth least stream crossings. However, Route P does cross 25.11 acres of golden-cheeked warbler modeled habitat designated as 3-Moderate High and 4-High Quality which is the worst of any route.[46] CPS Energy has not yet confirmed this or the presence of the golden-cheeked warbler in the study area via field survey. TPWD recommended that CPS should, prior to conducting surveys of the approved alternative route, contact the United States

[44] Application Amendment Attachment 2 at 4-15.

[45] Attachment JP-4 at 2.

[46] Application Amendment Attachment 2 at Table 4-1 Amended.

Fish and Wildlife Services (USFWS) for appropriate survey protocols for surveying for golden-cheeked warblers.[47]

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

A. Yes.

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 typical transmission line projects. 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 line?

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

H. COSTS

[47] Attachemnt JP-3 at 4.

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

A. Attachment 3 of the Application Amendment lists CPS Energy's estimated costs of constructing each proposed route. The cost of each route has three components: the proposed CPS Energy Scenic Loop Substation, the transmission line, and a 10% contingency fee to cover unknown project costs not evident at the time of the estimate.[48] The cost for the Scenic Loop Substation varies, depending on which subsite is selected.[49] The table below shows the total estimated cost, with all three components included, for each of the routes from least expensive to the most expensive proposed alternative route:

Route	Estimated Cost of the Route
AA1	$38,291,571.63
Z1	$38,474,771.50
DD	$38,996,942.59
EE	$39,757,434.71
Y	$42,723,886.97
BB	$42,741,654.35
I1	$42,877,497.33
P	**$43,408,742.18**
R1	$43,522,858.14
CC	$43,897,472.16
D1	$43,904,817.64
J1	$44,068,605.60
X1	$45,496,086.62
Q1	$45,890,914.04
M1	$46,044,319.76
K	$46,467,251.17
N1	$46,803,781.14
T1	$47,259,332.79
C1	$47,373,300.80

[48] Application Amendment at 136-138.

[49] Application Amendment at 138.

F1	$49,658,757.14
B1	$50,551,923.25
U1	$50,562,535.51
G1	$51,216,233.88
W	$52,869,827.60
H	$53,621,914.79
L	$54,086,148.54
V	$54,169,034.11
E	$54,505,459.92
A	$54,695,383.90
S	$55,327,169.75
O	$56,194,702.73

As the table illustrates, Route P is the eighth least expensive proposed alternative route.

Q. Could you briefly discuss the routes less expensive than Route P and why Route P is still preferred?

A. Yes. All Routes that are less expensive than Route P impact more habitable structures. Routes AA1, BB, DD, and Z1 have more habitable structures within 300 feet of their centerlines and make less use of compatible right-of-way or property lines as a percentage of their length. Routes EE has more habitable structures within 300 feet of its centerline, makes less use of compatible right-of-way or property lines as a percentage of its length, and is longer. Routes Y and I1 have more habitable structures within 300 feet of their centerlines and are longer.

Q. Does CPS Energy's estimated cost of constructing the Proposed Project appear to be reasonable?

A. After reviewing CPS Energy's estimates, the estimated costs for the alternative routes are roughly what I would expect considering the 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 rate 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 its application, has CPS Energy made or proposed any routing adjustments to accommodate landowners?

A. Yes. These routing adustments were made in CPS Energy's Application Amendment.

Q. Has CPS Energy 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. 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 proposes to use existing, parallel, or compatible right-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 P length that parallels or utilizes existing compatible right-of-way and apparent property boundaries is approximately 71% of its length. The table below summarizes the overall length, the length parallel to a compatible rights-of-way or to a property boundary, and the total percentage of parallel rights-of-way used by

the proposed alternative routes. Commission Rule 16 TAC § 25.101(b)(3)(B) does not consider existing pipeline rights-of-way as compatible rights-of-way.

Route	Length (Miles)	Length Parallel to Right-of-Way (Miles)	Percentage
A	6.66	5.50	82.59%
Y	5.23	4.27	81.53%
H	6.32	5.09	80.46%
E	6.62	4.99	75.38%
T1	5.93	4.46	75.24%
CC	5.23	3.84	73.43%
V	6.60	4.82	73.01%
M1	5.85	4.25	72.67%
I1	5.03	3.59	71.43%
P	**4.89**	**3.47**	**71.00%**
DD	4.64	3.27	70.49%
F1	5.66	3.97	70.12%
K	5.29	3.71	70.07%
BB	4.73	3.30	69.81%
D1	5.22	3.62	69.38%
Q1	5.56	3.83	68.80%
N1	5.33	3.64	68.28%
Z1	4.53	3.09	68.21%
B1	6.19	4.19	67.69%
C1	5.77	3.82	66.23%
X1	5.34	3.46	64.87%
R1	4.76	3.06	64.32%
L	6.91	4.38	63.42%
O	6.83	4.21	61.58%
U1	6.36	3.74	58.77%
W	6.25	3.63	58.03%
AA1	4.82	2.72	56.48%
EE	4.99	2.81	56.22%
J1	5.46	3.04	55.71%
G1	6.20	3.31	53.37%
S	6.73	3.31	49.09%

As the chart shows, Route P is the sixth shortest route and ranks tenth in terms of percentage of compatible right-of-way compared to the other alternative routes.

Q. Could you briefly discuss the routes with a higher percentage of compatible right-of-way and why Route P is still preferred?

A. Yes. Routes A, H, E, T1, CC, V, and M1 are more expensive, have more habitable structures within 300 feet of their centerlines, and are longer. Routes Y and I1 have more habitable structures within 300 feet of their centerlines and are longer.

2. PARALLELING OF NATURAL OR CULTURAL FEATURES

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

A. None of the proposed alternative routes parallel natural or cultural features.

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 300 feet of the centerline of the proposed routes in this project.

Route	Number of habitable structures
Q1	6
U1	6
R1	7
N1	11
P	**12**
F1	12
BB	24
S	25
W	25
O	29
Z1	30
AA1	30
V	31
EE	31
DD	32
T1	34
L	35
K	36
Y	39
X1	40
J1	41
D1	43
I1	43
M1	43
C1	48
G1	52

CC	54
E	60
B1	61
H	61
A	69

There are 12 habitable structures that are within 300 feet of the centerline of Route P. Therefore, Route P ranks tied for fifth among all the proposed alternative routes with regard to this criterion.

Q. Could you briefly discuss the routes with the same or fewer habitable structures and why Route P is still preferred?

A. Yes. Route Q1, U1, N1, and F1 are more expensive, make less use of compatible right-of-way or property lines as a percentage of their length, and are longer. Route R1 is more expensive and makes less use of compatible right-of-way or property lines as a percentage of its length.

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

A. Yes.

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, why have you recommended Route P 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 P best meets the criteria of PURA and the Commission's rules because:

(1) Route P is the eighth least expensive route at $43,408,742.18,

(2) Route P is tied for fifth-least number of habitable structures within 300 feet of its centerline with 12,

(3) Route P is the sixth shortest route at 4.89 miles, and

(4) Route P is tenth best proposed alternative route utilizing existing compatible right-of-way and property lines at 71% of its total length.

Route P, like all of the proposed alternative routes, has some advantages and some disadvantages as I have discussed in my testimony. However, I consider Route P 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
Engineering Specialist **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 Electric Power Company for Approval of a Distribution Cost Recovery Factor, SOAH Docket No. 473-16-3306, PUC Docket No. 45712

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

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 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 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 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

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

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. for Authority to Change Rates, SOAH Docket No. 473-19-4421, PUC Docket No. 49494

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

Attachment JP-3

Letter from Texas Parks and Wildlife Department dated September 10, 2020

TEXAS PARKS & WILDLIFE

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T. Dan Friedkin
Chairman-Emeritus
Houston

Carter P. Smith
Executive Director

September 10, 2020

Ms. Rachelle Robles
Public Utility Commission
P.O. Box 13326
Austin, TX 78711-3326

RE: PUC Docket No. 51023: Application of the City of San Antonio through City Public Service Board to amend its Certificate of Convenience and Necessity for the proposed Scenic Loop 138-kilovolt Double-Circuit Transmission Line, Bexar County, Texas

Dear Ms. Robles:

Texas Parks and Wildlife Department (TPWD) has received and reviewed the Environmental Assessment and Alternative Route Analysis (EA) regarding the above-referenced proposed transmission line project. TPWD offers the following recommendations and comments concerning this project.

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see the Texas Parks and Wildlife (TPW) Code, Section 12.0011. For tracking purposes, please refer to TPWD project number 44546 in any return correspondence regarding this project.

Project Description

The City of San Antonio, acting by and through City Public Service Board (CPS Energy), is proposing to construct a new double-circuit 138-kilovolt (kV) transmission line. The goal of the proposed Scenic Loop 138-kV electric transmission line is to connect the existing transmission grid to a proposed Scenic Loop Substation in the general area of the intersection of Scenic Loop Road and Toutant Beauregard Road. The footprint of the new substation would be between four and six acres and will be connected to the existing Ranchtown to Menger Creek 138-kV transmission line. Depending on the route selected, the transmission line would be approximately five to seven miles in length. CPS Energy proposes to use 138-kV double-circuit pole structures ranging in height from 70 to 130 feet tall. The project would be constructed within a 100-foot right-of-way (ROW).

CPS Energy retained POWER Engineers, Incorporated (POWER) to prepare an Environmental Assessment and Alternative Route Analysis (EA). The EA will support CPS Energy's application to amend its Certificate of Convenience and Necessity

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.texas.gov

(CCN) for this project. The EA was prepared to provide information and address the requirements of Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code, Public Utilities Commission (PUC) Procedural Rules Section 22.52(a)(4), PUC Substantive Rules Section 25.101, and the PUC CCN application form for the proposed transmission line.

Previous Coordination

TPWD's Wildlife Habitat Assessment Program provided information and recommendations regarding the preliminary study area for this project to POWER on August 1, 2019. This letter is included in Appendix A of the EA. The TPWD Texas Natural Diversity Database (TXNDD) provided rare resources data to POWER on April 4, 2019.

> **Comment:** Please review the TPWD correspondence in Appendix A and consider the recommendations provided, as they remain applicable to the project as proposed.

Proposed Route

CPS Energy and POWER identified seven potential substation locations and developed 48 primary alternative segments that were used to develop 29 primary alternative routes that were filed with the CCN application. Each of the seven proposed alternative substation locations was incorporated into at least three alternative routes that were developed. Each primary alternative link was incorporated in at least one route. POWER evaluators did not recommend a route that best-balanced land use, ecological, and cultural factors. CPS Energy identified Route Z as the alternative route that best addresses the requirements of the Public Utility Regulatory Act (PURA) and the PUC's Substantive Rules.

The Application states the following primary reasons that led to the selection of Route Z:

- has the lowest cost of any of the 29 alternative routes, at $38,330,469;
- is the shortest of any of the 29 alternative routes, at 4.58 miles;
- has a relatively high percentage of ROW parallel and adjacent to existing roadways and apparent property lines at 69%;
- has the second shortest length across upland woodland/brushland, at 3.59 acres;
- has a moderate area of ROW across golden-cheeked warbler modeled habitat designated as a 3-Moderate High and 4-High Quality, at 9.47 acres.

The EA failed to provide sufficient information based on surveys (aerial or field), remote sensing, modeling, or other available analysis techniques to determine which route would best minimize impacts to important, rare, and protected species. Therefore, TPWD's routing recommendation is based solely on the natural resource information

provided in the CCN amendment application and the EA, as well as publicly available information examined in a Geographic Information System (GIS).

Recommendation: Of the 29 alternative routes evaluated in the EA, Alternative Route AA appears to be the route that causes the least adverse impacts to natural resources. TPWD's primary recommendation to the PUC is to select a route that minimizes the fragmentation of intact lands because such a route should have the least adverse impacts to natural resources. TPWD believes the State's long-term interests are best served when new utility lines and pipelines are sited where possible in or adjacent to existing utility corridors, roads, or rail lines instead of fragmenting intact lands. Of the proposed routes, Route AA would appear to be the preferred route.

Alternative Route AA was selected as the recommended route primarily because it:

- is the fourth shortest route of the 29 alternative routes, at 4.77 miles (Route Z is the shortest at 4.58 miles);
- is the fourth shortest route across upland woodlands/bushlands; at 3.77 miles (Route Z is the shortest at 3.59),
- has a relatively high percentage of ROW parallel to other existing ROW at 39% (Route Y has the highest percentage at 58%, Route T has the lowest at 9%);
- is tied with Route J as having the fifth least amount of area of ROW across golden-cheeked warbler modeled habitat designated as 3-Moderate High and 4-High Quality, at 7.39 acres.
- is located almost entirely in Karst Zone 5, defined as cavernous and non-cavernous areas that do not contain endangered karst invertebrate species. Approximately 650 feet of the west end of the 4.77-mile long route occurs in Karst Zone 3, defined as areas that probably do not contain endangered karst species.

Federal Laws

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits direct and affirmative purposeful actions that reduce migratory birds, their eggs, or their nests, by killing or capturing, to human control, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species.

Section 4.1.9 of the EA states, "If ROW clearing occurs during bird nesting seasons, potential impacts could occur within the ROW area related to migratory bird eggs and/or nestlings. Increases in noise and equipment activity levels during construction could also potentially disturb breeding or other activities of species nesting in areas immediately adjacent to the ROW." If ROW clearing is necessary during the nesting

season, CPS Energy stated they will ensure a qualified biologist conducts surveys for active nests prior to vegetation clearing.

Recommendation: TPWD recommends any PUC certificate preclude vegetation clearing activities during the general bird nesting season, March 15 through September 15, to avoid adverse impacts to birds. If clearing vegetation during the migratory bird nesting season is unavoidable, TPWD recommends CPS Energy survey the proposed route for active nests (nests with eggs or young), including ground nests. Nest surveys should be conducted no more than five days prior to the scheduled clearing to ensure recently constructed nests are identified. TPWD recommends that a minimum 150-foot buffer of vegetation remain around any nests that are observed prior to disturbance and occupied nests and buffer vegetation not be disturbed until the eggs have hatched and the young have fledged.

Also, please note, TPW Code Section 64.002, regarding protection of nongame birds, provides that no person may catch, kill, injure, pursue, or possess a bird that is not a game bird. TPW Code Section 64.003, regarding destroying nests or eggs, provides that no person may destroy or take the nests, eggs, or young and any wild game bird, wild bird, or wild fowl.

Endangered Species Act

Federally-listed animal species and their habitat are protected from take on any property by the Endangered Species Act (ESA). Take of a federally-listed species can be allowed if it is incidental to an otherwise lawful activity and must be permitted in accordance with Section 7 or 10 of the ESA. Federally-listed plants are not protected from take except on lands under federal/state jurisdiction or for which a federal/state nexus (i.e., permits or funding) exists. Any take of a federally-listed species or its habitat without the required take permit (or allowance) from the USFWS is a violation of the ESA.

All the proposed alternative routes cross potential suitable golden-cheeked warbler habitat as defined by the Diamond et al. (2010) Model C. The EA states that a field survey for potential habitat for federally listed species will be conducted after PUC approval of a route. CPS Energy will consult with the USFWS if suitable habitat for the golden-cheeked warbler is identified and may contact the City of San Antonio to enroll in the Southern Edwards Plateau Habitat Conservation Plan in order to comply with the ESA.

Recommendation: Prior to conducting surveys of the approved alternative route, TPWD recommends contacting the USFWS for appropriate survey protocols for surveying for golden-cheeked warblers. In addition to the Southern Edwards Plateau Habitat Conservation Plan, TPWD recommends also considering the Bandera Corridor Conservation Bank (BCCB) to fulfill any mitigation requirements. For more information, please contact the BCCB at 512-751-9100.

State Law

State Law: Parks and Wildlife Code, Section 68.015

TPW Code regulates state-listed threatened and endangered species. The capture, trapping, taking, or killing of state-listed threatened and endangered species is unlawful unless expressly authorized under a permit issued by USFWS or TPWD. *TPWD Guidelines for Protection of State-Listed Species* includes a list of penalties for take of species and can be found on the Wildlife Habitat Assessment Program website. State-listed species may only be handled by persons with authorization obtained through TPWD. For more information on this permit, please contact the Wildlife Permits Office at (512) 389-4647.

Based on a review of the annotated county list of rare species accessed electronically by POWER in June 2020, Sections 3.1.11 and 4.1.11 of the EA states the following state-listed species "may occur within the study area in areas of suitable habitat:"

- Cascade Caverns salamander (*Eurycea latitans*)
- Mexican treefrog (*Smilisca baudinii*)
- Texas salamander (*Eurycea neotenes*)
- Reddish egret (*Egretta rufescens*)
- Tropical parula (*Setophaga pitiayumi*)
- White-faced ibis (*Plegadis chihi*)
- Zone-tailed hawk (*Buteo albonotatus*)
- Toothless blindcat (*Trogloglanis pattersoni*)
- Widemouth blindcat (*Satan eurystomus*)
- American black bear (*Ursus americanus*)
- White-nosed coati (*Nasua narica*)
- Texas horned lizard (*Phrynosoma cornutum*)
- Texas tortoise (*Gopherus berlandieri*)

Recommendation: Beneficial management practices (BMP) and recommendations for species and taxonomic groups that may occur in the study area were provided in TPWD's previous correspondence. Please review those recommendations as they remain applicable.

As suggested in the EA, once an alternative route is approved by the PUC, TPWD recommends that CPS Energy survey the route to determine the potential of the site to support state-listed species or their habitat. Surveying the route prior to construction would aid in protecting state-listed species from potential take. Please be aware that species ***not*** observed during site surveys may utilize the habitat within the project area at times beyond those during which surveys were conducted. That is, their presence in an area may depend on the season or time of day in which surveys occurred. For instances in which field surveys reveal the occurrence of state-listed species, TPWD recommends route adjustments to avoid impacting state-listed species and their habitat. If route adjustments cannot be made, TPWD

recommends CPS Energy coordinate with TPWD to develop impact-minimization measures specific to the species.

Mexican treefrog

In the United States, the Mexican treefrog is a tropical frog species found only in south Texas. The Mexican tree frog typically occurs near mouths of rivers or in wooded areas near streams and resacas. They may also occur in suburban areas where lawns are watered regularly. They are arboreal (inhabiting trees) and nocturnal but will seek shelter in burrows or under grass clumps, dead vegetation, or rocks during the day. It breeds explosively following rainfall events throughout the year. Water bodies, including resacas and drainage canals, as well as roadside ditches, and ephemeral ponds located in or near the project areas may provide suitable habitat for this species

Recommendation: Contractors should be made aware of the potential to encounter state-listed amphibians in the project area and be instructed to avoid negatively impacting them, if encountered. TPWD recommends minimizing impacts to water features and their associated vegetation. Also, erosion control BMPs should be installed and staging areas and fuels or other hazardous chemicals should be stored away from water bodies to avoid potential spills or leaks into adjacent aquatic areas.

Texas salamander

The Texas salamander is a strictly aquatic species that occurs in subterranean steams, springs, and creek headwaters with rocky or cobble beds. As proposed, the project would span all surface waters and implement a storm water pollution prevention plan (SWPPP).

Recommendation: TPWD recommends avoiding disturbances to any habitats that may be occupied by the Texas salamander (e.g., spring-fed habitats). TPWD recommends use of BMPs for work near these areas to minimize impacts on salamanders and other sensitive aquatic species. BMPs would include measures such as: 1) placement of fencing surrounding spring features to exclude equipment and personnel, 2) employee and contractor training on the need to avoid impacts to springs, and 3) use of double erosion control features and doubling soil stabilization measures along any nearby work areas to avoid increasing the turbidity of springs.

Toothless blindcat and widemouth blindcat

Both species are restricted to five artesian wells penetrating the San Antonio Pool of the Edwards Aquifer and are found at depths of 305 to 582 meters. They range in size from 10 to 13 centimeters.

Recommendation: Activities that may contribute to the depletion of the aquifer (e.g., overpumping) pose the greatest threat to these species. TPWD does not anticipate that activities related to the construction of the proposed transmission line would result in significant impacts to these species.

White-nosed coati

The white-nosed coati inhabits woodlands, riparian corridors, and rocky canyons. They are sociable animals and require a sizeable area of habitat to maintain a viable population.

Recommendation: TPWD recommends selecting a route that would avoid the fragmentation of large, intact woodland tracts and recommends minimizing impacts to woodlands in general. TPWD appreciates that CPS Energy would perform tree and vegetation clearing in accordance with the City of San Antonio Tree Preservation Ordinance.

Texas tortoise

The Texas tortoise has a home range of approximately five to ten acres. Suitable habitat for the Texas tortoise may be present within or adjacent to the project areas. They are often found near or at the base of prickly pear cactus and occasionally seek shade by crawling under parked vehicles at construction sites.

Recommendation: TPWD recommends that contractors be made aware of the potential for the state-listed Texas tortoise to occur in the area and avoid contacting them if encountered. Additionally, TPWD recommends that before driving vehicles that have been parked at the project site, contractors should check underneath the vehicles to ensure no tortoises are present.

If a tortoise is located at the project site, it should be relocated only if it is found in an area in which imminent danger is present. Individuals that must be relocated should be transported to the closest suitable habitat outside of the proposed disturbance area but preferably within its five to ten-acre home range. After tortoises are removed from the immediate project area, TPWD recommends constructing an exclusion fence. In many cases, sediment control fence placement for the purposes of controlling erosion and protecting water quality can be modified minimally to also provide the benefit of excluding wildlife access to construction areas. The exclusion fence should be buried at least six inches and be at least 24 inches high. The exclusion fence should be maintained for the life of the project and only be removed after the project activities are completed and the disturbed sites have been revegetated or otherwise stabilized. Construction personnel should be encouraged to examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.

Regarding trenches or excavations for support structure foundations or any buried infrastructure, TPWD recommends that any open trenches or deep excavation areas be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated areas that cannot be backfilled at the end of the day or covered overnight, escape ramps should be installed at an angle of less than 45 degrees (1:1) in excavated areas that will allow trapped

wildlife to climb out on their own. If any state-listed species are trapped in trenches or excavated areas, they should be removed by personnel permitted by TPWD to handle state-listed species.

Additional information regarding Texas tortoise BMPs are described in the *Texas Tortoise Best Management Practices* available on TPWD's Wildlife Habitat Assessment Program website.

If possible, TPWD recommends completing major ground disturbing activities before October when reptiles become inactive and could be utilizing burrows in areas subject to disturbance.

In addition to being naturally slow-moving animals susceptible to vehicle collisions, when startled (e.g., by traffic or heavy machinery), the Texas tortoise may withdraw into its shell rather than fleeing, thus increasing its risk for collision with vehicles and construction equipment.

Recommendation: TPWD recommends establishing and enforcing low speed limits (<15 MPH) in construction areas in order to minimize the potential of vehicle collisions with tortoises and other wildlife.

Texas Natural Diversity Database

The TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Absence of information in the database does not imply that a species is absent from that area. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. This information cannot be substituted for field surveys.

Recommendations: The TXNDD data used to prepare the EA was more than a year old when the EA was made available for comment. The TXNDD is updated continuously based on new, updated and undigitized records; therefore, TPWD recommends requesting the most recent TXNDD data on a regular basis. For questions regarding a record or to request the most recent data, please contact TexasNatural.DiversityDatabase@tpwd.texas.gov.

To aid in the scientific knowledge of a species' status and current range, TPWD encourages project proponents and their contractors to report all encounters of rare, state-listed, and federally-listed species to the TXNDD according to the data submittal instructions found on the TXNDD website.

TPWD appreciates the opportunity to review and comment on this EA. Please contact Russell Hooten at (361) 825-3240 or Russell.Hooten@tpwd.texas.gov if you have any questions. Thank you for your favorable consideration.

Sincerely,

John Silovsky
Acting Wildlife Division Director

RH:jn.44546

cc: Adam Marin, CPS Energy, Regulatory Case Manager

References

Diamond, D.D., L.F. Elliot, and R. Lea. 2010. Golden-cheeked warbler habitat up-date. Final Report to Texas Parks and Wildlife, Austin, Texas.

Attachment JP-4

Letter from Texas Parks and Wildlife Department dated February 18, 2021

TEXAS PARKS & WILDLIFE

Life's better outside.®

February 18, 2021

Ms. Rachelle Robles
Public Utility Commission
P.O. Box 13326
Austin, TX 78711-3326

RE: PUC Docket No. 51023. Amendment to the Application of the City of San Antonio through City Public Service Board to amend its Certificate of Convenience and Necessity for the proposed Scenic Loop 138-kilovolt Double-Circuit Transmission Line, Bexar County, Texas

Dear Ms. Robles:

Texas Parks and Wildlife Department (TPWD) has received and reviewed the Application Amendment and amended Environmental Assessment and Alternative Route Analysis (EA) regarding the above-referenced proposed transmission line project. TPWD offers the following recommendations and comments concerning this project.

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see the Texas Parks and Wildlife (TPW) Code, Section 12.0011. For tracking purposes, please refer to TPWD project number 44546 in any return correspondence regarding this project.

Project Description

In December 2020, the presiding Administrative Law Judge in Public Utilities Commission of Texas (PUC) Docket No. 51023 ordered the City of San Antonio, acting by and through City Public Service Board (CPS Energy) to amend its application to address landowner requested modifications to four primary alternative route segments (Segments 42, 46, 48, and 49). Subsequent to the order, CPS Energy determined that an adjustment to another primary alternative route (Segment 26) was necessary due to recent development activities in the study area. The Environmental Assessment and Alternative Route Analysis (EA) prepared by POWER Engineers, Incorporated (POWER) was amended to document the changes. Changes relevant to TPWD's review that were described in the EA Amendment include:

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- Alignment changes made to Segments 26, 42, 46, and 49; Segment 48 was eliminated. Segments 42, 46, 48, and 49 are located on a single landowner's property.
- The location of Segments 26a, 42a, 46a, and 49a;
- The amended set of proposed alternative routes;
- Revision of Section 4.0 of the EA to account for environmental impacts of the modified segments and routes; and
- The amended land use and environmental data for route and segment evaluation (Table 4-1 Amended, Table 4-2 Amended).

Previous Coordination

TPWD's Wildlife Habitat Assessment Program provided information and recommendations regarding the preliminary study area for this project to POWER on August 1, 2019. On September 10, 2020, TPWD provided comments and recommendations for the original EA to the PUC. TPWD's most recent comments are included on the PUC Interchange Filings for Docket No. 51023, Item #343.

Comment: Please review the September 10, 2020, correspondence from TPWD. With the exception of TPWD's recommended proposed route, all comments and recommendations remain applicable to the project.

Proposed Route

The original EA identified 29 primary alternative routes developed from 48 primary alternative segments. The EA Amendment identified 31 primary alternative routes developed from 49 primary alternative route segments.

In the original Application, CPS Energy identified Route Z as the alternative route that best addresses the requirements of the Public Utility Regulatory Act (PURA) and the PUC's Substantive Rules. A CPS Energy preferred route was not identified in the Application Amendment.

While the EA Amendment revised applicable data presented in the original EA, it failed to provide sufficient information based on surveys (aerial or field), remote sensing, modeling, or other available analysis techniques to determine which route would best minimize impacts to important, rare, and protected species. Therefore, TPWD's routing recommendation is based solely on the natural resource information provided in the amended CCN amendment application and the EA Amendment, as well as publicly available information examined in a Geographic Information System (GIS).

Recommendation: Of the 31 alternative routes evaluated in the EA Amendment, **Alternative Route DD** appears to be the route that causes the least adverse impacts to natural resources. TPWD's primary recommendation to the PUC is to select a route that minimizes the fragmentation of intact lands because such a route should have the least adverse impacts to natural resources. TPWD believes the State's long-term interests are best served when new utility lines and pipelines are sited

where possible in or adjacent to existing utility corridors, roads, or rail lines instead of fragmenting intact lands. Of the proposed routes, **Route DD** would appear to be the preferred route.

Based on information in the original EA, TPWD originally selected Alternative Route AA as the route that would result in the least adverse impact to natural resources. A comparison between the information provided in the original EA and the information in the EA Amendment indicates that the minor adjustments to segments that were used in developing both Alternative Routes Z1 and AA1 resulted in decreased impacts in low to moderate quality wildlife habitat (i.e., pasture) and increased impacts in higher quality wildlife habitat (woodland, golden-cheeked warbler (*Setophaga chrysoparia*) high quality habitat). However, the newly created Alternative Route DD, balances the preferable qualities of both Alternative Routes Z1 and AA1.

Alternative Route DD was selected as the recommended route primarily because it:

- is the second shortest route of the 31 alternative routes, at 4.64 miles (Route Z is the shortest at 4.53 miles);
- is the shortest route across upland woodlands/bushlands; at 3.12 miles, which equates to 37.84 acres of woodland impact;
- has the ninth-largest percentage of ROW parallel to other existing ROW at 40% (Route Y has the highest percentage at 58%, Route T1 has the lowest at 9%);
- has the eighth least amount of area of ROW across golden-cheeked warbler modeled habitat designated as 3-Moderate High and 4-High Quality, at 10.74 acres; and
- is located entirely in Karst Zone 5, defined as cavernous and non-cavernous areas that do not contain endangered karst invertebrate species. Approximately 650 feet of the west end of Alternative Route AA1 occurs in Karst Zone 3, defined as areas that probably do not contain endangered karst species

TPWD appreciates the opportunity to review and comment on this amended EA. If you have any questions, please contact Habitat Assessment Biologist Mr. Russell Hooten by email at russell.hooten@tpwd.texas.gov or by phone at (361) 825 3240. Thank you for your favorable consideration.

Sincerely,

John Silovsky

Wildlife Division Director

JS:RH:bdk

cc: Mr. Adam Marin, CPS Energy, Regulatory Case Manager