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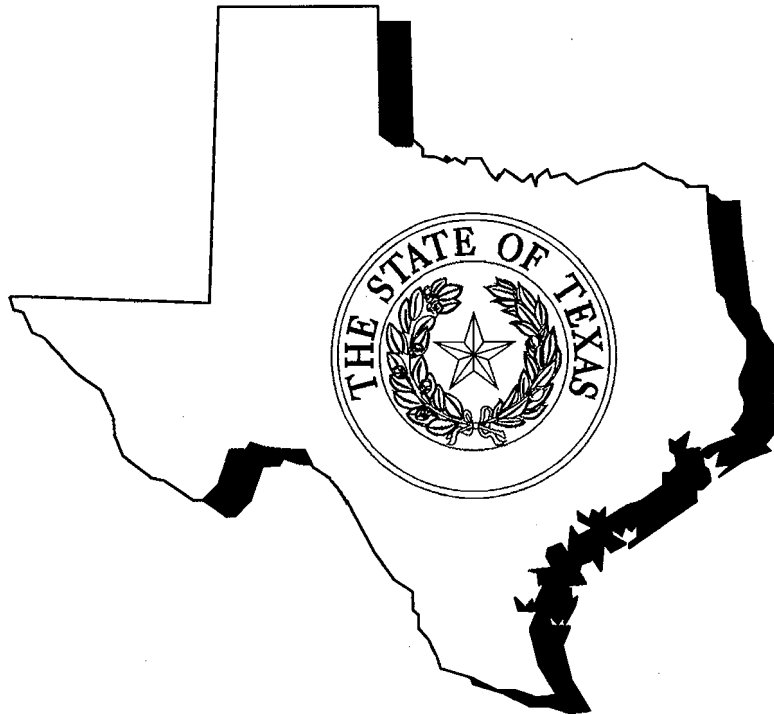
**APPLICATION OF EL PASO
ELECTRIC COMPANY TO AMEND
ITS CERTIFICATE OF
CONVENIENCE AND NECESSITY
FOR THE SEABECK-TO-SAN
FELIPE 115-KV TRANSMISSION
LINE IN EL PASO COUNTY**

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BEFORE THE STATE OFFICE

OF

ADMINISTRATIVE HEARINGS



**DIRECT TESTIMONY OF
JOHN POOLE, P.E., ENGINEER
INFRASTRUCTURE DIVISION
PUBLIC UTILITY COMMISSION OF TEXAS
SEPTEMBER 16, 2021**

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ATTACHMENTS

JP-1	Qualifications of John Poole
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JP-3	Letter from Texas Parks and Wildlife Department dated December 18, 2020
JP-4	Letter from Texas Parks and Wildlife Department dated July 8, 2021

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

1 concerning the application of El Paso Electric Company (EPE) to amend its
2 Certificate of Convenience and Necessity (CCN) to construct a new 115 kilovolt
3 (kV) transmission line to be built on delta or vertical steel monopole structures,
4 with steel H-frame structures used for segments in the vicinity of the Fabens
5 Airport in El Paso County, Texas (proposed project). This transmission line will
6 start at the proposed EPE Seabeck Substation, to be located at the northeast corner
7 of Seabeck and Farm Road 1281 in El Paso County and will be constructed as part
8 of Docket 51476. The transmission line will be between 14.58 to 18.87 miles to
9 the proposed EPE San Felipe Substation which will be constructed in 2022
10 approximately 12 miles south of the proposed Seabeck Substation site just south of
11 I-10 and 1,700 feet southeast of Fabens Road.¹

12
13 **Q. What is the scope of your testimony?**

14 A. The scope of my testimony is to provide Commission Staff's recommendation
15 regarding the need for the project and regarding selection of routes from among
16 the alternative routes presented by EPE.

17
18 **Q. What are the statutory requirements that a utility must meet to amend its**
19 **CCN to construct a new transmission line?**

20 A. Section 37.056(a) of the Public Utility Regulatory Act (PURA)² states that the
21 Commission may approve an application for a CCN only if the Commission finds

¹ Amended Application at 3.

² Public Utility Regulatory Act, Tex. Util. Code Ann. §§ 11.001-66.016 (PURA).

1 that the CCN is necessary for the service, accommodation, convenience, or safety
2 of the public. Further, PURA provides that the Commission shall approve, deny, or
3 modify a request for a CCN after considering the factors specified in PURA
4 § 37.056(c), which are as follows:

- 5 (1) The adequacy of existing service;
- 6 (2) The need for additional service;
- 7 (3) The effect of granting the certificate on the recipient of the
8 certificate and any electric utility serving the proximate area; and
- 9 (4) Other factors, such as:
 - 10 (A) Community values;
 - 11 (B) Recreational and park areas;
 - 12 (C) Historical and aesthetic values;
 - 13 (D) Environmental integrity;
 - 14 (E) The probable improvement of service or lowering of cost to
15 consumers in the area if the certificate is granted; and
 - 16 (F) To the extent applicable, the effect of granting the certificate
17 on the ability of this state to meet the goal established by
18 PURA § 39.904(a).

19
20 **Q. Do the Commission's rules provide any instruction regarding routing**
21 **criteria?**

22 A. Yes. 16 Texas Administrative Code (TAC) § 25.101(b)(3)(B) requires that an
23 application for a new transmission line address the criteria in PURA § 37.056(c),

1 and that upon considering those criteria, engineering constraints and costs, the line
2 shall be routed to the extent reasonable to moderate the impact on the affected
3 community and landowners, unless grid reliability and security dictate otherwise.
4 The following factors shall be considered in the selection of EPE's alternative
5 routes:

- 6 (i) Whether the routes parallel or utilize existing compatible rights-of-
7 way for electric facilities, including the use of vacant positions on
8 existing multiple-circuit transmission lines;
 - 9 (ii) Whether the routes parallel or utilize existing compatible rights-of-
10 way, including roads, highways, railroads, or telephone utility
11 rights-of-way;
 - 12 (iii) Whether the routes parallel property lines or other natural or
13 cultural features; and
 - 14 (iv) Whether the routes conform with the policy of prudent avoidance.
- 15

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

17 A. In the Order of Referral and Preliminary Order filed on February 27, 2021, the
18 Commission identified the following issues that must be addressed:

- 19 1. Is El Paso Electric Company's application to amend its CCN adequate?
20 Does the application contain an adequate number of reasonably
21 differentiated alternative routes to conduct a proper evaluation? In
22 answering this question, consideration shall be given to the number of
23 proposed alternatives, the locations of the proposed transmission line, and

1 any associated proposed facilities that influence the location of the line.
2 Consideration may also be given to the facts and circumstances specific to
3 the geographic area under consideration, and to any analysis and reasoned
4 justification presented for a limited number of alternative routes. A limited
5 number of alternative routes is not in itself a sufficient basis for finding an
6 application inadequate when the facts and circumstances or a reasoned
7 justification demonstrates a reasonable basis for presenting a limited
8 number of alternatives. If an adequate number of routes is not presented in
9 the application, the ALJ shall allow El Paso Electric Company to amend
10 the application and to provide proper notice to affected landowners; if El
11 Paso Electric Company chooses not to amend the application, the ALJ may
12 dismiss the case without prejudice.

13 2. Are the proposed facilities necessary for the service, accommodation,
14 convenience, or safety of the public within the meaning of PURA §
15 37.056(a) taking into account the factors set out in PURA § 37.056(c)? In
16 addition,

- 17 a) How does the proposed facility support the reliability and adequacy
18 of the interconnected transmission system?
19 b) Does the proposed facility facilitate robust wholesale competition?
20 c) What recommendation, if any, has an independent organization, as
21 defined in PURA § 39.151, made regarding the proposed facility?
22 d) Is the proposed facility needed to interconnect a new transmission
23 service customer?

- 1 3. Is the transmission project the better option to meet this need when
2 compared to employing distribution facilities? If El Paso Electric Company
3 is not subject to the unbundling requirements of PURA § 39.051, is the
4 project the better option to meet the need when compared to a combination
5 of distributed generation and energy efficiency?
- 6 4. Which proposed transmission line route is the best alternative weighing the
7 factors set forth in PURA § 37.056(c) and 16 TAC § 25.101(b)(3)(B)?
- 8 5. Are there alternative routes or facilities configurations that would have a
9 less negative impact on landowners? What would be the incremental cost
10 of those routes?
- 11 6. If alternative routes or facility configurations are considered due to
12 individual landowner preference:
 - 13 a) Have the affected landowners made adequate contributions to offset
14 any additional costs associated with the accommodations?
 - 15 b) Have the accommodations to landowners diminished the electric
16 efficiency of the line or reliability?
- 17 7. On or after September 1, 2009, did the Texas Parks and Wildlife
18 Department provide any recommendations or informational comments
19 regarding this application in accordance with Section 12.0011(b) of the
20 Texas Parks and Wildlife Code? If so, please address the following issues:
 - 21 a) What modifications, if any, should be made to the proposed project
22 as a result of any recommendations or comments?

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

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

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

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

13
14 **Q. Which issues in this proceeding have you addressed in your testimony?**

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

17
18 **Q. What have you relied upon or considered to reach your conclusions and make**
19 **your recommendation?**

20 A. I have relied upon my review and analysis of the data contained in EPE's
21 application and the application's accompanying attachments, including the

1 *Environmental Assessment* (EA)³ prepared by HDR, Inc. (HDR). I have also relied
2 upon my review of the direct testimonies and statements of position filed in this
3 proceeding by or on behalf of EPE and the intervenors, responses to requests for
4 information, and the letters from the Texas Parks and Wildlife Department
5 (TPWD) to Ms. Rachelle Robles, dated December 18, 2020⁴ and July 8, 2021.⁵

6
7 **III. CONCLUSIONS AND RECOMMENDATIONS**

8
9 **Q. Based on your evaluation of EPE's application and other relevant material,**
10 **what conclusions have you reached regarding the application and the**
11 **proposed project?**

- 12 1. I conclude that the application is adequate and that EPE's proposed
13 alternative routes are adequate in number and geographic diversity.
- 14 2. I conclude that the application complies with the notice requirements in 16
15 TAC § 22.52(a).
- 16 3. I conclude that, taking into account the factors set out in PURA
17 § 37.056(c), the proposed project is necessary for the service,
18 accommodation, convenience and safety of the public.
- 19 4. I conclude that the proposed project is the best option to meet the need
20 when compared with other alternatives.

³ Amended Application at Attachment 1.

⁴ Attachment JP-3.

⁵ Attachment JP-4.

1 5. I conclude that Route 1 is the best route when weighing, as a whole, the
2 factors set forth in PURA § 37.056(c)(4) and in 16 TAC § 25.101(b)(3)(B).

3 6. I conclude that TPWD provided mitigation measures regarding the
4 application, and that the mitigation measures provided on pages 12 through
5 15 of my testimony, as well as mitigation measures mentioned in the
6 environmental concerns on pages 24 through 26 of my testimony, are
7 sufficient to address TPWD's mitigation recommendations. I also conclude
8 that EPE has the resources and procedures in place in order to
9 accommodate the mitigation recommendations.
10

11 **Q. What recommendation do you have regarding EPE's application?**

12 A. I recommend that the Commission approve EPE's application to amend its CCN in
13 order to construct a new 115-kV transmission line in El Paso County, Texas. I also
14 recommend that the Commission order EPE to construct the proposed project on
15 Route 1 (Segments A2, G2, P2A, P2C, P2B, V2A, V2C, V2B, and Y2). I further
16 recommend that the Commission include in its order approving EPE's application
17 the following paragraphs in order to mitigate the impact of the proposed project:

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

22 2. If EPE encounters any archeological artifacts or other cultural resources
23 during project construction, work must cease immediately in the vicinity of

1 the artifact or resource, and the discovery must be reported to the Texas
2 Historical Commission. In that situation, EPE must take action as directed
3 by the Texas Historical Commission.

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

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

- 23 5. EPE must minimize the amount of flora and fauna disturbed during

1 construction of the transmission line, except to the extent necessary to
2 establish appropriate right-of-way clearance for the transmission line. In
3 addition, EPE must revegetate, using native species and must consider
4 landowner preferences and wildlife needs in doing so. Furthermore, to the
5 maximum extent practical, EPE must avoid adverse environmental
6 influence on sensitive plant and animal species and their habitats, as
7 identified by the Texas Parks and Wildlife Department and the United
8 States Fish and Wildlife Service.

9 6. EPE must implement erosion control measures as appropriate. Erosion
10 control measures may include inspection of the right-of-way before and
11 during construction to identify erosion areas and implement special
12 precautions as determined necessary. EPE must return each affected
13 landowner's property to its original contours and grades unless otherwise
14 agreed to by the landowner or the landowner's representative. EPE is not
15 required to restore the original contours and grades where a different
16 contour or grade is necessary to ensure the safety or stability of the
17 project's structures or the safe operation and maintenance of the lines.

18 7. EPE must use best management practices to minimize the potential impacts
19 to migratory birds and threatened or endangered species.

20 8. EPE must cooperate with directly affected landowners to implement minor
21 deviations from the approved route to minimize the burden of the
22 transmission line. Any minor deviations from the approved route must only
23 directly affect landowners who were sent notice of the transmission line in

1 accordance with 16 TAC § 22.52(a)(3) and landowners that have agreed to
2 the minor deviation.

- 3 9. EPE must report the transmission line approved by the Commission on its
4 monthly construction progress reports before the start of construction to
5 reflect the final estimated cost and schedule in accordance with 16 TAC
6 § 25.83(b). In addition, EPE must provide final construction costs, with
7 any necessary explanation for cost variance, after completion of
8 construction when all costs have been identified.

9
10 **Q. Does your recommended route differ from the routes that EPE and HDR**
11 **believe best address the requirements of PURA and the Commission's rules?**

12 A. No. EPE and HDR have identified Route 1 as the route that best addresses the
13 requirements of PURA and the Commission's rules.⁶

14
15 **IV. PROJECT JUSTIFICATION**

16
17 **A. DESCRIPTION OF THE PROJECT**

18 **Q. Please describe the proposed project.**

19 A. The proposed project will consist of a new 155-kV transmission line to be built on
20 delta or vertical steel monopole structures, with steel H-frame structures used for
21 segments in the vicinity of the Fabens Airport. This transmission line will start at
22 the proposed EPE Seabeck Substation, to be located at the northeast corner of

⁶ Amended Application at 16.

1 Seabeck and Farm Road 1281 in El Paso County and will be constructed as part of
2 Docket 51476. The transmission line will be between 14.58 to 18.87 miles to the
3 proposed EPE San Felipe Substation which will be constructed in 2022
4 approximately 12 miles south of the proposed Seabeck Substation site just south of
5 I-10 and 1,700 feet southeast of Fabens Road.

6
7 **Q. Does EPE's application contain a number of proposed alternative routes**
8 **sufficient to conduct a proper evaluation?**

9 A. Yes.

10
11 **Q. Is the proposed project located within the incorporated boundaries of any**
12 **municipality?**

13 A. No. None of the proposed alternative routes would be constructed with the
14 boundaries of any municipality.⁷

15
16 **B. TEXAS COASTAL MANAGEMENT PROGRAM**

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

19 A. No. None of the proposed alternative routes for this project are located in part
20 within the TCMP boundary as defined by 31 TAC § 503.1.⁸

21

⁷ Amended Application at 7.

⁸ Amended Application at 25.

C. NEED FOR THE PROJECT

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

A. Yes. As stated in the application, the propose project is needed as part of a larger project, the Eastside Loop Expansion Project, to address projected overload conditions on the existing transmission system under contingency planning scenarios and address expected load growth in eastern El Paso County.⁹

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

A. No. EPE is not part of the Electric Reliability Council of Texas (ERCOT) or any other Regional Transmission Organization.

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, and based on the data and load projections provided by EPE, 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 EPE consider distribution alternatives to the proposed project?

A. Distribution alternatives were not considered viable alternatives as the project was

⁹ Amended Application at 8.

1 designed to address projected overloads on the transmission system.¹⁰ The primary
2 transmission alternative was to upgrade the existing lines, which EPE estimates is
3 considerably more expensive than the proposed Eastside Loop Expansion Project,
4 of which the proposed project is one part.¹¹

5
6 **Q. Do you agree that the proposed project is the best option when compared to**
7 **other alternatives?**

8 A. Yes.

9
10 **V. ROUTING**

11 **A. STAFF RECOMMENDATION**

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

14 A. Based on my analysis of all the factors that the Commission must consider under
15 PURA § 37.056 and 16 TAC § 25.101 I recommend that Route 1 be approved for
16 the proposed project. The basis for my recommendation is discussed in more detail
17 in the remainder of my testimony.

18
19 **Q. Which route did EPE and HDR select as the route that best addresses the**
20 **requirements of PURA and the Commission's rules?**

21 A. EPE and HDR also selected Route 1 as the route that they believe best address the

¹⁰ Amended Application at 13.

¹¹ Amended Application at 14.

requirements of PURA and the Commission's rules.¹²

B. COMMUNITY VALUES

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

A. Yes. EPE held a public meeting as required by 16 TAC § 22.52(a)(4). The meeting was held on July 11, 2019 at the Clint ISD Central Office from 5:00pm to 8:00pm.¹³ EPE sent notice of the meeting to 3,684 landowners owning property within 350 feet of any of the proposed route segment centerlines and/or had a habitable structure within 1,000 feet of any of the proposed route segment centerlines for any part of the Eastside Loop Expansion Phases I and II.¹⁴ A total of 20 individuals attended the meeting and AEP Texas received three questionnaire responses.¹⁵

Q. Did members of the community who attended the public meeting or intervene in this case express concerns about the proposed project?

A. Section 3.5.2.1 of Attachment 1 of the amended application, the EA, contains a discussion and summary of the questionnaire responses. All three received

¹² Amended Application at 16.

¹³ Amended Application at 17.

¹⁴ Amended Application at 17.

¹⁵ Amended Application at 17.

1 questionnaires said the process met their needs.¹⁶

2 The respondents were asked to rank 11 criteria in routing the project that they
3 considered to be the most important.¹⁷ The most important were: maximizing
4 distance from residences, businesses, schools, and churches; minimizing length
5 through wetlands/floodplains; and avoiding recreation and park areas.¹⁸

6 Respondents were asked which features should the transmission line follow within
7 the study area with the highest ranked replies being property lines and roads.¹⁹

8 Respondents were asked to list any segments they had concerns with and the only
9 segment mentioned was Segment D2 which was on one of the respondent's land.²⁰

10
11 **Q. In your opinion, would construction of the proposed project on Route 1**
12 **mitigate the concerns expressed by members of the community at the open**
13 **houses and in comments by intervenors?**

14 A. In my opinion, Route 1 would mitigate some of the concerns I have summarized
15 here. Route 1 does not contain Segment D2, which is contained in Route 13. Route
16 1 has no habitable structures within 300 feet of the centerline of any of its
17 segments, though it shares attribute this with all but Route 4, Route 7, and Route
18 10.²¹ Route 1 has the least of its length across National Wetland Inventory (NWI)

¹⁶ Amended Application at 3-11.

¹⁷ Amended Application at 3-12.

¹⁸ Amended Application at 3-12.

¹⁹ Amended Application at 3-12.

²⁰ Amended Application at 3-13.

²¹ Amended Application, Attachment 1 at Table 4-2.

1 mapped wetlands, playa lakes, 100-year floodplains, and across open water.²²

2 Route 1 crosses no parks or recreational areas, has none within 1,000 feet of its
3 centerline, and has zero feet of its length within the foreground visual zone of
4 parks and recreational areas.²³

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

9
10 **Q. Are property values and the impact on future or potential development**
11 **factors that are considered by the Commission in a CCN proceeding under**
12 **PURA § 37.056(c)(4) or in 16 TAC § 25.101(b)(3)(B)?**

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

18
19 **Q. Are there any routes that did not receive specific opposition from**
20 **intervenors?**

21 A. Of the routes only Route 13 has received specific opposition from either the

²² Amended Application, Attachment 1 at Table 4-2.

²³ Amended Application Attachment 1 at Table 4-2.

questionnaire respondents or intervenors in this case. However, intervenors have stated preferences for some routes over others while not necessary having specific opposition to certain routes.²⁴

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. Yes. San Felipe Park, owned by El Paso County, is within 1,000 feet of the centerline of Routes 3, 4, 10, and 14.²⁵

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 9 previously recorded archeological or historical sites within 1,000 feet of the centerline of any of the proposed routes.²⁶ There are no cemeteries or properties listed on the National Register of Historic Places within 1,000 feet of any of the centerlines of any proposed alternative routes.²⁷ Additionally, no route

²⁴ Statement of Position of Howard Pearlmuter at 1.

²⁵ Amended Application at 24.

²⁶ Amended Application at 24.

²⁷ Amended Application Attachment 1 at 2-9 and 2-26.

1 crosses any recorded archeological or historical site.²⁸ Route 10 have no cultural or
2 historical sites located within 1,000 feet of their centerline.²⁹ The other routes
3 range from having one to five historical or archeological sites within 1,000 feet of
4 their centerlines.³⁰ Route 1 has three historical or archeological sites within 1,000
5 feet of its centerline.³¹ The length of the proposed alternative routes that cross
6 areas of high archeological potential ranges from 2,194 feet for Route 10 to 14,519
7 feet for Routes 4 and 10.³² Route 1 crosses 2,463 miles of high archeological
8 potential.³³

9 If any further archeological or cultural resources are found during construction of
10 the proposed transmission line, EPE should immediately cease work in the vicinity
11 of the archeological or cultural resources, and should immediately notify the Texas
12 Historical Commission.

13
14 **E. AESTHETIC VALUES**

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

18 **A.** In my opinion, all of the proposed alternative routes would result in a negative

²⁸ Amended Application Attachment 1 at Table 4-2.

²⁹ Amended Application Attachment 1 at Table 4-2.

³⁰ Amended Application Attachment 1 at Table 4-2.

³¹ Amended Application Attachment 1 at Table 4-2.

³² Amended Application Attachment 1 at Table 4-2.

³³ Amended Application Attachment 1 at Table 4-2.

1 impact on aesthetic values, some routes more than others, depending on the
2 visibility from homes and public roadways. Temporary effects would include
3 views of the actual transmission line construction (e.g. assembly and erection of
4 the structures) and of any clearing of right-of-way. Permanent effects would
5 involve the visibility of the structures and the lines. I therefore conclude that
6 aesthetic values would be impacted throughout the study area, and that these
7 temporary and permanent negative aesthetic effects will occur on any proposed
8 alternative routes approved by the Commission. However, while Route 1 is the
9 11th longest and route 19,869 feet longer than the shortest route, Route 10, it does
10 however avoid all water features and habitable structures³⁴ and has zero feet of its
11 length estimated to be within the foreground visual zone of parks and recreational
12 areas, which was tied for first among all proposed alternative routes.³⁵

13
14 **F. ENVIRONMENTAL INTEGRITY**

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

17 **A.** The area traversed by the project is within the Chihuahuan Desert. The study area
18 is desert with little development and the terrain can be characterized as open desert
19 shrubland with occasional bluffs.³⁶

³⁴ Amended Application at 16.

³⁵ Amended Application Attachment 1 at Table 4-2.

³⁶ Application Attachment 1 at 2-29.

1 **Q. What was involved in your analysis of the environmental impact of the**
2 **proposed project?**

3 A. I reviewed the information provided in the application and the EA, the direct
4 testimonies and statements of position of the intervenors, responses to requests for
5 information, and the letters from TPWD to Ms. Rachelle Robles, dated December
6 18, 2020 and July 8, 2021.³⁷

7
8 **Q. Based on your review of the information identified above, in your opinion,**
9 **will the proposed project present a significant negative impact to**
10 **environmental integrity?**

11 A. I do not believe so. Transmission lines do not often create many long-term impacts
12 on soils. Most of those impacts will be during initial construction and would be
13 erosion and soil compaction; however, EPE will employ erosion control during
14 initial construction.³⁸ With no length of any routes crossing any woodlands,³⁹ the
15 impacts on vegetation would be minimal as typically the impacts would be the
16 result of clearing and maintaining the right-of-way.⁴⁰ HDR does not anticipate
17 encountering endangered or threatened plant or animal species along the right-of-
18 way of any of the proposed routes,⁴¹ and in the unlikely event they are
19 encountered, EPE should attempt to span or avoid them as much as practicable.

³⁷ Attachments JP-3 and JP-4.

³⁸ Amended Application Attachment 1 at 4-18 and 4-19.

³⁹ Amended Application Attachment 1 at Table 4-2.

⁴⁰ Amended Application Attachment 1 at 4-17 and 4-18.

⁴¹ Amended Application Attachment 1 at 4-24 and 4-25.

1 However, construction of some of the alternative routes could, at some locations,
2 present a negative impact on the environment, particularly in sensitive areas such
3 as wetlands and floodplains. The proposed routes range from 21 feet across NWI
4 mapped wetlands for Routes 1, 7, 8, and 9 to 197 feet for Routes 4 and 10.⁴² The
5 proposed routes range from zero feet across 100-year floodplains for Routes 1, 7,
6 8, and 9 to 11,052 feet for Routes 4 and 10.⁴³

7
8 **Q. In your opinion, how would construction of the proposed project on Route 1**
9 **compare from an environmental perspective to construction on the other**
10 **routes?**

11 A. Route 1 was ranked first, or tied for first, among the proposed alternative routes in
12 all environmental integrity categories.⁴⁴ In its letters dated December 18, 2020 and
13 July 8, 2021 TPWD selected Route 1 as the route having the least potential impact
14 on environmental integrity.⁴⁵

15
16 **Q. Do you conclude that Route 1 is acceptable from an environmental and land**
17 **use perspective?**

18 A. While some of the routes, such as Route 10, do have concerning lengths across
19 floodplains and water resources I do not consider any unacceptable from an
20 environmental and land use perspective. However, Route 1 is the best overall

⁴² Amended Application Attachment 1 at Table 4-2.

⁴³ Amended Application Attachment 1 at Table 4-2.

⁴⁴ Amended Application Attachment 1 at Table 4-2.

⁴⁵ Attachment JP-3 at 5; Attachment JP-4 at 5.

performing route from this perspective.

G. ENGINEERING CONSTRAINTS

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

A. EPE has mentioned engineering challenges utilizing Segment O2 which includes a sudden elevation change of 60 feet. While this issue can be adequately addressed through its design this is not a desirable feature for easy access for both construction and maintenance.⁴⁶

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, EPE has not described any special circumstances that would merit an extension of this limit for this project.

H. COSTS

Q. What are EPE's estimated costs of constructing the proposed project on each of the proposed alternative routes?

A. Attachment 4 of the amended application list EPE's estimated costs of constructing each proposed route. The table below shows the total estimated cost for each of the routes from least expensive to the most expensive proposed alternative route:

⁴⁶ Amended Application at 16.

<u>Route</u>	<u>Estimated Cost of the Route</u>
Route 10	\$13,028,599.94
Route 11	\$13,125,896.25
Route 13	\$13,297,907.42
Route 12	\$13,390,663.73
Route 7	\$13,419,310.08
Route 4	\$13,747,721.36
Route 3	\$13,858,446.01
Route 14	\$14,244,887.01
Route 2	\$14,250,690.93
Route 5	\$14,368,232.50
Route 1	\$14,568,574.46
Route 8	\$14,869,267.76
Route 9	\$14,916,916.68
Route 6	\$14,931,293.23

As the table illustrates, Route 1 is the 11th least expensive proposed alternative route, \$1,539,974.52 more than the least expensive route, Route 10.

Q. Could you briefly discuss the routes less expensive than Route 1 and why Route 1 is still preferred?

A. Yes. Route 1 makes more use of parallel or compatible right-of-way and has less of its length across 100-year floodplains and water features of any proposed route. Routes 10, 7, and 4 also have more habitable structures within 300 feet of their centerline. Route 1 also avoids the engineering issues EPE made regarding the difficulties of utilizing Segment O2, which is contained in Route 11.

Q. Do EPE's estimated costs of constructing the proposed project appear to be reasonable?

A. After reviewing EPE's estimates, the estimated costs for the alternative routes are

1 about what I would expect. However, the reasonableness of the final installed cost
2 of the completed project will be determined at a future date in the course of
3 transmission cost-of-service proceedings.
4

5 **I. MODERATION OF IMPACT ON THE AFFECTED COMMUNITY AND**
6 **LANDOWNERS**

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

9 A. Yes. Under 16 TAC § 25.101(b)(3)(B), "the line shall be routed to the extent
10 reasonable to moderate the impact on the affected community and landowners
11 unless grid reliability and security dictate otherwise."
12

13 **Q. Subsequent to filing its application, has EPE made or proposed any routing**
14 **adjustments to accommodate landowners?**

15 A. Not to my knowledge.
16

17 **Q. Has EPE proposed any specific means by which it will moderate the impact of**
18 **the proposed project on landowners or the affected community other than**
19 **adherence to the Commission's orders, the use of good utility practices,**
20 **acquisition of and adherence to the terms of all required permits, and what**
21 **you have discussed above?**

22 A. Not to my knowledge.
23

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 EPE 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 1's length that parallels or utilizes existing compatible right-of-way and apparent property boundaries is approximately 95.04% 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).

<u>Route</u>	<u>Length (Feet)</u>	<u>Length Parallel to Right-of-Way (Feet)</u>	<u>Percentage</u>
--------------	----------------------	---	-------------------

Route 1	96,856	92,054	95.04%
Route 8	97,613	92,406	94.67%
Route 9	97,689	92,240	94.42%
Route 5	94,002	85,665	91.13%
Route 12	79,710	72,137	90.50%
Route 11	81,135	73,361	90.42%
Route 2	93,448	84,441	90.36%
Route 13	79,535	70,210	88.28%
Route 7	88,058	77,684	88.22%
Route 3	90,931	75,487	83.02%
Route 14	91,689	75,839	82.71%
Route 4	85,037	68,425	80.46%
Route 10	76,987	60,709	78.86%
Route 6	99,648	76,726	77.00%

As the chart shows, Route 1 is the 11th shortest route and has the highest percentage of compatible right-of-way compared to the other alternative routes.

2. PARALLELING OF NATURAL OR CULTURAL FEATURES

Q. Describe how EPE 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.”

1
2 **Q. How can exposure to electric and magnetic fields be limited when routing**
3 **transmission lines?**

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

7
8 **Q. How many habitable structures are located in close proximity to each of the**
9 **proposed alternative routes?**

10 A. The table below ranks the number of habitable structures that are within 300 feet
11 of the centerline of the proposed alternative routes in this project.

<u>Route</u>	<u>Number of habitable structures</u>
Route 1	0
Route 2	0
Route 3	0
Route 5	0
Route 6	0
Route 8	0
Route 9	0
Route 11	0
Route 12	0
Route 13	0
Route 14	0
Route 7	1
Route 4	3
Route 10	3

13 There are no habitable structures that are within 300 feet of the centerline of Route
14 1. This makes Route 1 tied for first with 10 of the other proposed alternative
15 routes.

1

2 **Q. Do you conclude that EPE's proposed alternative routes have minimized, to**
3 **the extent reasonable, the number of habitable structures located in close**
4 **proximity to the routes?**

5 A. EPE has designed its proposed segments in such a way as to minimize, to the
6 extent reasonable, the number of habitable structures located in close proximity to
7 the routes. However, some routes perform better in this area than others.

8

9 **VI. CONCLUSION**

10 **Q. In your opinion, is any one of the proposed alternative routes better than all**
11 **of the other routes in all respects?**

12 A. No.

13

14 **Q. If no proposed alternative route is better than all of the others in all respects,**
15 **why have you recommended Route 1 instead of the other proposed alternative**
16 **routes?**

17 A. In summary, after analyzing all the factors that the Commission must consider
18 under PURA § 37.056 and 16 TAC § 25.101, I conclude that Route 1 best meets
19 the criteria of PURA and the Commission's rules because: (1) Route 1 is tied with
20 10 other routes with no habitable structures within 300 feet of its ROW; (2) Route
21 1 is tied for the least number of habitable structures within 300 feet of its
22 centerline with 0; (3) Route 1 makes the most use of any route of paralleling
23 existing compatible ROW and parallel property lines with over 95% of its length;

1 (4) Route 1 has the least distance across NWI mapped wetlands and playa lakes
2 with 21 feet; (5) Route 1 avoids the engineering issues created by the sudden
3 elevation change on Segment O2; (6) Route 1 has received no specific opposition
4 from any intervenor; and (7) Route 1 is tied for the least distance across 100-year
5 floodplains with 0 feet. Route 1, like all of the proposed alternative routes, has
6 some advantages and some disadvantages as I have discussed in my testimony.
7 However, I consider Route 1 overall to have the most advantages and to be
8 superior to the other proposed alternative routes.

9
10 **Q. Does this conclude your testimony?**

11 **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

Administrative Associate

12/04-9/14

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

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

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



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

RE: PUC Docket No. 51480. Application of El Paso Electric Company to Amend their Certificate of Convenience and Necessity for the Proposed Eastside Loop Expansion, Phase II –Seabeck to San Felipe 115-kilovolt Transmission Line Project in El Paso County, Texas

Dear Ms. Robles:

The Texas Parks and Wildlife Department (TPWD) has received the Environmental Assessment (EA) regarding the above-referenced proposed transmission line project. The TPWD offers the following comments and recommendations 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 the TPWD project number 45563 in any return correspondence regarding this project.

Project Description

El Paso Electric Company (EPE) proposes to construct two new 115-kilovolt (kV) transmission lines (Phases I and II of the Eastside Loop Expansion Project) in eastern El Paso County, Texas. The Eastside Loop Expansion – Phase II, the subject of this letter, will connect two new substations. The northern-most substation site (Seabeck Substation Site) will be located on the northeast corner of Farm to Market (FM) 1281/Horizon Boulevard (FM 1281) and Seabeck Street, approximately four miles east of the intersection of Ascencion Street and FM 1281. The southernmost substation site (San Felipe Substation Site) will be located on the southwest side of Interstate Highway (IH) 10 (IH-10), approximately 0.35 mile southeast of the intersection of IH-10 and Fabens Road/FM 793.

EPE proposes to utilize single-circuit steel dead-end monopoles for the construction of the 115-kV transmission line. Anticipated typical dead-end structure heights are approximately 70 feet above ground, while typical tangent structure heights are proposed at approximately 65 feet above ground. However, both structure heights may generally vary from 60 to 95 feet, and as little as 40 feet in specific locations near Fabens Airport, depending on route alignment, topography, and requirements for

near Fabens Airport, depending on route alignment, topography, and requirements for minimum ground clearances. The proposed project will be approximately 14.58 to 18.34 miles depending on the route chosen and will require a 150-foot wide right-of-way (ROW).

EPE retained HDR, Inc. (HDR) to prepare an EA to support the application for a Certificate of Convenience and Necessity (CCN) for the proposed project. The EA discusses the environmental and land use constraints identified within the study area, documents routing methodologies and public involvement, and provides an evaluation of alternative routes. The document provides information regarding the requirements of Section 37.056(c)(4)(A)–(D) of the Texas Utilities Code (Public Utility Regulatory Act or PURA), the Public Utility Commission of Texas (PUC) CCN application form, and PUC Substantive Rule 25.101.

Previous Coordination

The TPWD provided information and recommendations regarding the preliminary study area for this project to HDR on May 9, 2019. This response was included in Appendix A of the EA.

Recommendation: Please review the previous TPWD correspondence and consider the recommendations provided, as they remain applicable to the project as proposed.

Proposed Route

EPE's Recommended Route

For the proposed project, HDR and EPE evaluated a total of 5 alternative transmission line routes and considered 44 routing criteria addressing factors such as land use, aesthetics, and potential environmental impacts for each of the alternative routes. A comparative potential impact assessment of the alternative transmission line routes was completed culminating in the identification of the route that HDR and EPE believe best addresses the requirements of PURA and the PUC Substantive Rules.

The CCN included the following information outlining the factors that contributed to HDR and EPE's selection of **Route 1** as the route that best addresses the requirements of PURA and PUC's Substantive Rules:

Alternative Route 1 was selected by HDR as the route that best addresses the requirements of PURA and PUC Substantive Rules from an environmental

and land use perspective. This rationale was based on the established Key Evaluation Criteria:

- *Alternative Route 1 is not within 300 feet of any habitable structures.*
- *It crosses the fewest number of parcels, 188.*
- *It parallels the most existing transmission line ROW, 11,672 feet.*
- *It parallels the most compatible ROW, 21,212 feet.*
- *It parallels the second most apparent property line, 59,170 feet.*
- *It has the highest percentage of length paralleling existing linear features (95%).*
- *It is not within 1,000 feet of any parks/recreational areas.*
- *It has the fewest pipeline crossings, three.*
- *It is in proximity to the fewest communication towers, one.*
- *It is not within 200 feet of any water wells.*
- *It has the second shortest length within the foreground visual zone of any US or state highway, 4,400 feet.*
- *It is not within the foreground visual zone of any park/recreational areas.*
- *It has no archeological sites within the proposed ROW.*
- *It has the second shortest length of ROW across areas of high archeological site potential, 2,463 feet.*
- *It has the least number of stream crossings (one) and no length parallel to a stream.*
- *It has no open water crossings.*
- *It has the shortest length across potential wetlands, at 21 feet.*
- *It has no floodplain crossings.*

In addition to the factors utilized by HDR and building on their recommendation, EPE also evaluated each primary alternative route considering engineering, design, constructability, operation, and maintenance ("O&M"), and estimated cost. The estimated costs of the five proposed alternative routes varied by approximately \$1.54 million, which is relatively modest when considering the total projected costs of the Eastside Loop Expansion Project. As for distinguishing engineering, design, constructability, or O&M factors among the routes, Route 10 would require the most attention to water features and involves crossing the San Felipe Arroyo multiple times. As indicated above, Route 1 enables the project to avoid the most water features, any habitable structures, and to avoid the single county park in the study area. Based on a consideration of all factors, EPE believes that Alternative Route 1 best addresses the requirements of PURA and PUC Substantive Rules.

TPWD's Recommended Route

To evaluate the potential impacts to fish and wildlife resources, 17 criteria from Table 4-2 in the EA were used. The criterion the TPWD used to evaluate potential impacts to fish and wildlife resources include:

1. Length of alternative route;
2. Length of ROW using existing transmission line ROW;
3. Length of ROW parallel to existing transmission line ROW;
4. Length of ROW parallel to other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines);
5. Length of ROW through parks/recreational areas;
6. Number of parks/recreational areas crossed by ROW centerline;
7. Number of additional parks/recreational areas within 1,000 feet of ROW centerline;
8. Length of ROW through cropland;
9. Length of ROW through pasture/rangeland;
10. Length of ROW through upland woodlands;
11. Length of ROW through bottomland/riparian woodlands;
12. Length of ROW across mapped National Wetland Inventory (NWI) wetlands and playa lakes;
13. Length of ROW across known habitat of federally-listed endangered or threatened species;
14. Length of ROW across open water (lakes, ponds);
15. Number of stream crossings;
16. Length of ROW parallel (within 100 feet) to streams; and
17. Length of ROW across 100-year floodplains.

The TPWD typically recommends that transmission line routes be located adjacent to previously disturbed areas such as existing utility or transportation ROWs and discourages fragmenting habitat or locating in areas that could directly negatively impact wildlife, including listed species. After careful evaluation of the 5 routes filed with the CCN application, the TPWD selected **Route 1** as the route having the least-potential to impact fish and wildlife resources. This is in concurrence with the applicant's selection. The decision to recommend **Route 1** was based primarily on the following factors:

- Route 1 parallels the most existing transmission line ROW at 11,672 feet;
- Route 1 parallels the most other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines) at 21,212 feet;
- 6.22 miles of Route 1 (34 percent of the total route length) is parallel to existing transmission line ROW or other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines);
- Route 1 does not cross any upland woodlands;

- Route 1 does not cross any parks/recreational areas and there are no parks/recreational areas within 1,000 feet of its centerline;
- Route 1 does not cross any bottomland/riparian woodlands;
- Route 1 has the shortest length of ROW crossing NWI wetlands or playa lakes at 21 feet;
- Route 1 does not cross any open water (lakes, ponds);
- Route 1 crosses the fewest streams with 1 stream crossing;
- Route 1 does not run parallel (within 100 feet) to any streams;
- Route 1 does not cross any known habitat of federally-listed endangered or threatened species;
- Route 1 does not cross any 100-year floodplains.

The EA did not 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, the routing recommendation below is based solely on the natural resource information provided in the CCN application and the EA, as well as publicly available information examined in a Geographic Information System (GIS).

Recommendation: Of the routes evaluated in the EA, Alternative **Route 1** appears to best minimize adverse impacts to natural resources while paralleling existing transmission line ROW or other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines) for a portion of the total route length and avoiding any impacts to San Felipe Arroyo. The TPWD recommends the PUC select a route that would minimize adverse impacts to natural resources, such as Alternative **Route 1**.

Construction Recommendations

General Construction Recommendations

Recommendation: The TPWD recommends the judicious use and placement of a sediment control fence to exclude wildlife from the construction area. 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 removed after the construction is completed and the disturbed site has been revegetated. 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. The TPWD recommends that any open trenches or

excavation areas be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated pits, install escape ramps at an angle of fewer than 45 degrees (1:1) in areas left uncovered. Also, inspect excavation areas for trapped wildlife prior to refilling.

Recommendation: For soil stabilization and/or revegetation of disturbed areas within the proposed project area, the TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats poses an entanglement hazard to wildlife, the TPWD recommends the use of no-till drilling, hydromulching, and/or hydroseeding due to a reduced risk to wildlife. If erosion control blankets or mats will be used, the product should not contain netting, but if it must contain netting it should contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. The TPWD recommends avoiding the use of plastic mesh matting.

Lighting for the Proposed Substations

The proposed transmission line project involves the construction of two new substations, Seabeck Substation and San Felipe Substation. The CCN and EA did not include information regarding the proposed lighting for the new substations. Sky glow as a result of light pollution can have negative impacts on wildlife and ecosystems by disrupting natural day and night cycles inherent in managing behaviors such as migration, reproduction, nourishment, sleep, and protection from predators. Wildlife impacts from light pollution are of concern to the TPWD. Therefore, the TPWD has provided the following recommendation to assist in project planning.

Recommendation: The TPWD recommends committing to dark sky lighting practices for the proposed substations. When lighting is added, the TPWD recommends minimizing sky glow by focusing light downward, with full cutoff luminaries to avoid light emitting above the horizontal. The TPWD recommends using the minimum amount of night-time lighting needed for safety and security and to use dark sky friendly lighting that is on only when needed, down-shielded, only as bright as needed, and minimizing blue light emissions. Appropriate lighting technologies and beneficial management practices (BMPs) can be found on the International Dark-Sky Association website.

Federal Law: 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. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Section 4.5.5 (page 4-23 and 4-24) of the EA states, "The danger of electrocution to birds should be insignificant, because the distance between conductors, conductor to structure, or conductor to ground wire for the proposed 115-kV transmission line structure types is greater than the wingspan of most birds in the area. The structures and lines may be a collision hazard to birds in flight. All of the alternatives are located within the Central Migratory Flyway for neo-tropical migratory birds. The risk for bird strikes increases in the fall migration period when low visibility is common due to inclement weather conditions. EPE will follow 'Suggested Practices for Avian Protection on Power Lines' during construction and operation of the proposed transmission line to limit these potential impacts."

Recommendation: To prevent electrocution of perching birds, the TPWD recommends utilizing avian-safe designs that provide appropriate separation between two energized phases or between an energized phase and grounded equipment. The TPWD recommends covering energized components with appropriate bird protection materials where adequate spacing cannot be achieved, such as installing insulated jumper wires, insulator covers, bushing caps, and arrester caps. The TPWD recommends that lines that cross or are located near rivers, creeks, drainages, wetlands, and lakes have line markers installed at the crossings or closest points to the drainages to reduce potential collisions by birds flying in the vicinity of water features. The TPWD concurs with the commitment to follow *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* and also recommends reviewing *Reducing Avian Collisions with Power Lines: The State of the Art in 2012*. Both documents are published by the Avian Powerline Interaction Committee (APLIC) and can be found on the APLIC website.

Section 4.5.5 (page 4-23) of the EA states, "If ROW clearing occurs during the nesting season, potential impacts could occur within the ROW related to takes of migratory bird eggs or nestlings. Increases in noise and activity levels during construction could also potentially disturb breeding or other activities of species nesting in areas immediately adjacent to the ROW."

Recommendation: If migratory bird species are found nesting on or adjacent to the project area, they must be dealt with in a manner consistent with the MBTA. The 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 breeding birds. If clearing vegetation during the migratory bird nesting season is unavoidable, the TPWD recommends surveying the area proposed for disturbance, as close to the date of construction as possible, to ensure that no nests with eggs or young will be disturbed by operations. The TPWD recommends that a minimum 150-foot buffer of vegetation remain around any nests that are observed prior to disturbance. Any vegetation (such as trees, shrubs, and grasses) or other open areas where occupied nests are located should not be disturbed until the eggs have hatched and the young have fledged.

State Law: Parks and Wildlife Code – Chapter 64, Birds

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.

Recommendation: Please review the *Federal Law: Migratory Bird Treaty Act* section above for recommendations as they are also applicable for Chapter 64 of the TPW Code compliance.

State Law: Parks and Wildlife Code – Section 68.015, State-listed Species

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

*Texas horned lizard (*Phrynosoma cornutum*)*

Table 2-11 in the EA lists the Texas horned lizard as a “Reptilian Species Potentially Occurring within the Study Area”. As stated in Section 2.5.7.1 (page 2-53) of the EA, “The Texas horned lizard forages primarily on red harvester ants (*Pogonomyrmex barbatus*), but also consumes grasshoppers, beetles, and grubs. The lizard inhabits open, arid to semiarid regions with sparse vegetation and thermo-regulates by basking or burrowing into the soil. The Texas horned lizard was observed once in the study area in 1992, with two other occurrences that year within 1.5 miles of the study area and is likely to currently occur within the study area.”

Mountain short-horned lizard (*Phrynosoma hernandesi*)

Table 2-11 in the EA lists the mountain short-horned lizard as a "Reptilian Species Potentially Occurring within the Study Area". As stated in Section 2.5.7.1 (page 2-53) of the EA, "Mountain short-horned lizard habitats range from semiarid plains to high mountains, but they are usually found in open woodland, shrubland, or chaparral habitats. Although the study area has no chaparral or woodland habitats where the mountain short-horned lizard is usually found, shrubland and semi-arid plains in the study area could provide suitable habitat for the short-horned lizard."

Please note that the following recommendations are applicable to both the Texas horned lizard and mountain short-horned lizard.

Recommendation: The TPWD recommends implementing the following BMPs to assist in minimizing potential impacts to the Texas horned lizard and mountain short-horned lizard. The TPWD notes that implementing the following BMPs could also help minimize impacts to a variety of native wildlife species that may inhabit the project area:

Surveys – The TPWD recommends having a qualified biologist survey the PUC-selected route for any horned lizards that may be in the area that is proposed for disturbance. A useful indication that the Texas horned lizard may occupy the site is the presence of harvester ant mounds. The survey should be performed during the warm months of the year when horned lizards are active.

Contractor Training for Protected Species – The TPWD recommends providing training for project contractors prior to the construction of the proposed transmission line and substations. Wildlife training should consist of identification of both horned lizards and the primary food source for the Texas horned lizard (harvester ants), and the proper protocol to avoid impact if a lizard is encountered. The TPWD recommends instructing contractors to avoid impacts to harvester ant mounds, where feasible. The TPWD understands that ant mounds in the direct path of construction would be difficult to avoid, but contractors should be mindful of these areas when deciding where to place project specific locations and other disturbances associated with construction.

Biological Monitor – The TPWD recommends that a permitted biologist be on-site during construction activities, especially during site clearing and trenching, to look for protected species, advise the construction crews on appropriate action if horned lizards are observed, and relocate any protected individuals that are in imminent harm. Biologists must be authorized to

handle horned lizards and other state-listed species. If a biological monitor cannot be on-site during construction, site personnel should be trained for encounters with protected species and a qualified biologist should be notified of the siting and consulted on appropriate action.

Horned Lizard Encounters – If a Texas horned lizard or mountain short-horned lizard is encountered, they should be avoided and allowed to leave the project area on their own. If a horned lizard must be relocated, the TPWD recommends relocating them off-site to an area that is close-by and contains similar habitat. The TPWD recommends that any translocations of reptiles be the minimum distance possible, no greater than one mile, and preferably within 100 to 200 yards from the initial encounter location. After horned lizard translocation, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude horned lizards and other wildlife.

The exclusion fence should be constructed and maintained as follows:

- The exclusion fence should be constructed with metal flashing or drift fence material. Rolled erosion control mesh material should not be used.
- The exclusion fence should be buried at least 6 inches deep and be at least 24 inches high.
- The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated with site-specific native species.

Speed Limits – The TPWD recommends reducing speed limits in the project area to at least 15 mph to help prevent vehicle-induced mortality of these species.

Work During Cold Weather – If construction activities take place during cold weather, it is recommended that construction personnel stay observant of activities that may harm horned lizards, such as disruption of burrows. In cold weather, this species will use burrows or pallets near the base of vegetation for shelter. Their slow metabolism in cold weather can reduce movements, restricting their ability to flee from danger.

Trenches – To avoid direct harm to state-listed species and other wildlife that may occur in the project area, the TPWD recommends that any open trenches or excavation areas be covered overnight and/or inspected every morning to ensure no horned lizards or other wildlife have been trapped. For open trenches and excavated pits, install escape ramps at an angle of less than 45

degrees (1:1) in areas left uncovered. Also, inspect excavation areas for trapped wildlife prior to refilling. As previously mentioned, if state-listed species are trapped in trenches, they should be removed by personnel permitted by the TPWD to handle state-listed species.

No Kill Wildlife Policy – The TPWD recommends implementing a “No Kill Wildlife Policy” during the construction and operation of the proposed project. This policy prevents inadvertently killing protected species that may be mistaken for common species.

Species of Greatest Conservation Need

In addition to state- and federally-protected species, the TPWD tracks Species of Greatest Conservation Need (SGCN) and other special features and natural communities that are not listed as threatened or endangered. The TPWD notes that the EA did not include a discussion of SGCN that may be present within the study area or potentially impacted by the proposed project. These species and communities are tracked in the TXNDD, and the TPWD actively promotes their conservation. The TPWD considers it important to evaluate and, if necessary, minimize impacts to SGCN and their habitat to reduce the likelihood of endangerment and preclude the need to list as threatened or endangered in the future.

Sand prickly-pear (Opuntia arenaria)

There are two TXNDD records for sand prickly-pear located within the study area. This species is found in deep, loose or semi-stabilized sands in sparsely vegetated dune or sandhill areas or sandy floodplains in arroyos. Sand prickly-pear flowers from May through June.

Wheeler’s spurge (Chamaesyce geyeri var wheeleriana)

This species is found on sparingly vegetated, loose eolian quartz sand on reddish sand dunes or coppice mounds. The Wheeler’s spurge flowers and fruits at least August through September, but probably earlier and later as well.

Section 2.5.7.3 (page 2-60) of the EA states, “The sand dune, coppice mound, and sandy alluvial plains features which make up a majority of the study area may provide suitable habitat for the sand prickly-pear and the Wheeler’s spurge.”

Recommendation: The TPWD recommends surveying the PUC-selected route for the plant SGCN listed above where suitable habitat may be present and particularly in areas where ground disturbance may occur. The survey should be performed by a qualified biologist at the time of year when these species are most

likely to be found, usually during their respective flowering periods. If these species are present, plans should be made to avoid adverse impacts to the greatest extent possible. If plant SGCN are found in the path of construction, including the placement of staging areas and other project related sites, this office should be contacted for further coordination and possible salvage of plants and/or seeds for seed banking. Plant SGCN not in the direct path of construction should be protected by markers or fencing and by instructing construction crews to avoid any harm.

Table 2-15 in the EA lists the following bat SGCN as “Mammalian Species Potentially Occurring within the Study Area”.

- Big brown bat (*Eptesicus fuscus*)
- Cave myotis bat (*Myotis velifer*)
- Mexican free-tailed bat (*Tadarida brasiliensis*)
- Big free-tailed bat (*Nyctinomops macrotis*)
- Hoary bat (*Lasiurus cinereus*)
- Long-legged myotis bat (*Myotis volans*)
- Townsend’s big-eared bat (*Corynorhinus townsendii*)
- Western small-footed myotis bat (*Myotis ciliolabrum*)

Adverse impacts to bats, such as habitat loss, are being compounded due to a deadly disease known as white-nose syndrome (WNS). This disease is associated with the fungus, *Pseudogymnoascus destructans*, which appears to impact certain species of hibernating bats and frequently results in death of the infected bats. This fungus has wiped out entire colonies of hibernating bats in states east of Texas. As of May 2019, the fungus that causes WNS has been detected in 22 Texas Counties and as of March 5, 2020, the TPWD biologists have confirmed the WNS disease in a Texas bat. The infected bat was a cave myotis found dead in Central Texas (Gillespie County). Bats appear to spread the WNS among colonies and roosts; however, there is evidence that humans can transport the fungus on their shoes, gear, and clothing after entering infected bat caves and roosts. The TPWD is concerned that the WNS could be spread by personnel or consultants working on development projects in states where the WNS has been detected, and then inadvertently bring the fungus to Texas on gear or clothing that has not been properly decontaminated.

To determine the appropriate BMP to avoid or minimize impacts to bats, review the habitat descriptions for the above-listed species on the TPWD Rare, Threatened, and Endangered Species of Texas by County online application (RTEST or the TPWD county list) or other trusted resources. All bat surveys and other activities that include direct contact with bats shall comply with the TPWD-recommended WNS protocols located on the TPWD Wildlife Habitat Assessment Program website under “Project Design and Construction”.

The following survey and exclusion protocols should be followed prior to commencement of construction activities. For the purposes of this letter, structures are defined as bridges, culverts (concrete or metal), wells, and buildings. For activities that have the potential to impact structures, cliffs or caves, or trees; a qualified biologist should perform a habitat assessment and occupancy survey of the feature(s) with roost potential as early in the planning process as possible or within one year before construction is scheduled to begin.

Recommendation: The TPWD recommends surveying the PUC-selected route for potential bat habitat. Surveys should be conducted by a qualified biologist to determine roost site potential and occupancy. Bat surveys of structures or features should include visual inspections for the presence of bats. If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction. For roosts where occupancy is strongly suspected but unconfirmed during the initial survey, revisit feature(s) at most four weeks prior to scheduled disturbance to confirm absence of bats.

Recommendation: For exclusion of bats, the TPWD recommends locating and sealing the entrances through which bats make ingress or egress. Before excluding bats from any occupied structure/feature, bat species, weather, temperature, season, and geographic location must be incorporated into any exclusion plans to avoid unnecessary harm or death to bats. Winter exclusion must entail a survey to confirm either, 1) bats are absent or 2) present but active (i.e. continuously active – not intermittently active due to arousals from hibernation). Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, install alternate roosts to mitigate for the loss of an occupied roost. If alternate roost sites are not provided, bats may seek shelter in other inappropriate sites, such as buildings, in the surrounding area.

Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50°F and minimum daytime temperatures are above 70°F. The TPWD offers the following BMPs regarding bat exclusion devices and activities:

- Avoid using materials that degrade quickly, like paper, steel wool or rags, to close holes.

- Avoid using products or making structural modifications that may block natural ventilation, like hanging plastic sheeting over an active roost entrance, thereby altering roost microclimate.
- Avoid using chemical and ultrasonic repellents.
- Avoid use of silicone, polyurethane or similar non-water-based caulk products.
- Avoid use of expandable foam products at occupied sites.
- Avoid the use of flexible netting attached with duct tape.
- In order to avoid entombing bats, exclusion activities should be only implemented by a qualified individual. A qualified individual or company should possess at least the following minimum qualifications:
 - Experience in bat exclusion (the individual, not just the company).
 - Proof of rabies pre-exposure vaccinations.
 - Demonstrated knowledge of the relevant bat species, including maternity season date range and habitat requirements.
 - Demonstrated knowledge of rabies and histoplasmosis in relation to bat roosts.
- Contact the TPWD for additional resources and information to assist in executing successful bat exclusions that will avoid unnecessary harm or death in bats.

Black-tailed prairie dog (*Cynomys ludovicianus*)

Table 2-15 in the EA lists the black-tailed prairie dog as a “Mammalian Species Potentially Occurring within the Study Area.” Black-tailed prairie dogs inhabit dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle. The black-tailed prairie dog is a keystone species that provides food and/or shelter for rare species tracked by the TPWD such as the ferruginous hawk and the western burrowing owl, as well as many other wildlife species.

Recommendation: The TPWD recommends surveying the PUC-selected route for prairie dog towns or burrows and species that depend on them. If prairie dog towns or burrows are found in the area proposed for disturbance, the TPWD recommends avoiding these areas during construction and installing exclusion fence to keep prairie dogs from entering the project area. If prairie dog burrows will be disturbed as a result of the proposed project, the TPWD recommends non-harmful exclusion methods be used to encourage the animals to vacate the area prior to disturbance and discourage them from returning to the area during construction. If prairie dogs are encountered on the project site, the TPWD recommends contacting a prairie dog relocation specialist. If impacting a portion of a larger colony, time relocation efforts and/or humane removal immediately before construction to discourage recolonization of the project area. Prairie dogs can be encouraged to move away from a project area by mowing overgrown

adjacent areas. Conversely, prairie dogs can be discouraged from utilizing areas by not mowing and allowing grass or other tall vegetation to grow or by scraping all vegetation off the project site and leaving soil exposed.

Western burrowing owl (*Athene cunicularia hypugaea*)

Table 2-14 in the EA lists the western burrowing owl as a “Summer Resident Bird Species Potentially Occurring within the Study Area”. The western burrowing owl is a ground-dwelling owl that uses the burrows of prairie dogs and other fossorial animals for nesting and roosting. When natural burrows are limited, this species will breed in urban habitats which may lead to problems for the owls or their young. The owls opportunistically live and nest in road and railway ROWs, parking lots, baseball fields, school yards, golf courses, and airports. They have also been found nesting on campuses, in storm drains, drainage pipes, and cement culverts, on banks, along irrigation canals, under asphalt or wood debris piles, or openings under concrete pilings or asphalt. The western burrowing owl is protected under the MBTA, and take of these birds, their nests, and eggs is prohibited. Potential impacts to the western burrowing owl could include habitat removal as well as displacement and/or destruction of nests and eggs if ground disturbance occurs during the breeding season.

Recommendation: As previously mentioned, the TPWD recommends surveying the PUC-selected route for prairie dog or other mammal burrows prior to construction. If mammal burrows or other suitable habitat would be disturbed as a result of the proposed project, the TPWD recommends they be surveyed for burrowing owls. If nesting owls are found, disturbance should be avoided until the eggs have hatched and the young have fledged.

Western box turtle (*Terrapene ornata*)

Table 2-11 in the EA lists the western box turtle as a “Reptilian Species Potentially Occurring within the Study Area”. The western box turtle occurs throughout Texas, typically in open habitats such as prairie grasslands, pastures, fields, sandhills, and open woodlands. Adults have a home-range size of approximately 6 to 14 acres. This species is active spring through fall with courtship and mating occurring primarily in the spring. For shelter, they burrow into soil (e.g., under plants such as yucca) or enter burrows made by other species. Eggs are laid in nests dug in soft well-drained soil in open areas. Western box turtles are threatened by habitat loss and fragmentation, vehicle strikes on roads, and collection for the pet trade and food markets.

Recommendation: The TPWD recommends referring to the recommendations listed above for the Texas horned lizard and the mountain short-horned lizard as those recommendations are applicable to the western box turtle as well.

Western rattlesnake (*Crotalus viridis*)

Table 2-11 in the EA lists the western rattlesnake as a “Reptilian Species Potentially Occurring within the Study Area”. The western rattlesnake inhabits grasslands, both desert and prairie, as well as shrub desert rocky hillsides. This species can also be found at the edges of arid and semi-arid river breaks.

Chihuahuan Desert lyre snake (*Trimorphodon vilkinsonii*)

Table 2-11 in the EA lists the Chihuahuan Desert lyre snake as a “Reptilian Species Potentially Occurring within the Study Area”. As stated in Section 2.5.7.1 of the EA (page 2-53), “In Texas, Chihuahuan lyre snake is present along the Rio Grande from El Paso to Big Bend and can be found up to 50 miles from the river. The Chihuahuan lyre snake occurs most commonly in dry, rocky terrain of mountains, canyons, hills, rock outcrops, fissured bluffs, and arroyos, in areas with desert plants (e.g., ocotillo [*Fouquieria splendens*], catclaw mimosa, white thorn [*Vachellia constricta*], yucca [*Yucca* spp.], pricklypear [*Opuntia* spp.], and grasses) or riparian vegetation, sometimes on desert flats dominated by creosotebush or in shallow canyons with honey mesquite. The study area contains suitable habitat for the Chihuahuan lyre snake; therefore, the lyre snake is likely to occur in the study area.”

Recommendation: The TPWD recommends avoiding disturbance of the above-listed snake SGCN if found during clearing and construction. Because snakes are generally perceived as a threat and killed when encountered, and since the project area contains suitable habitat for the western rattlesnake and the Chihuahuan Desert lyre snake, the TPWD recommends construction personnel and contractors be advised to avoid injury or harm to all snakes encountered during clearing and construction. Injury to humans usually occurs when the snake becomes agitated following harassment or when someone attempts to handle a recently dead venomous snake that still contains its bite reflex. Therefore, contractors should avoid contact with snakes if encountered and allow all native snakes to safely leave the premises.

Woodhouse’s toad (*Anaxyrus woodhousii*)

Table 2-10 in the EA lists the Woodhouse’s toad as an “Amphibian Species Potentially Occurring within the Study Area”. Woodhouse’s toad has a wide geographic range, occurring from the eastern coast of North America to Nevada and northern Mexico. This species is a year-round resident where found, although its

presence can most easily be detected during the breeding season, when males may be heard calling. Woodhouse's toad is associated with sandy substrates in lowlands such as river bottoms and desert streams, as well as irrigated fields and lawns.

Recommendation: The TPWD recommends the project proponent inform employees and contractors of the potential for the Woodhouse's toad to occur in the project area. The TPWD recommends avoiding disturbance to wetlands and temporary and permanent open water features, including depressions.

American badger (*Taxidea taxus*)

Table 2-15 in the EA lists the American badger as a "Mammalian Species Potentially Occurring within the Study Area." Badgers live in a variety of habitats, but they are most commonly found in open country such as prairies and plains. Badgers usually have several different dens and burrows, using them for sleeping, hunting, storing food, and giving birth.

Western spotted skunk (*Spilogale gracilis*)

Table 2-15 in the EA lists the western spotted skunk as a "Mammalian Species Potentially Occurring within the Study Area." The western spotted skunk can be found in open fields, prairies, croplands, fence rows, forest edges, and woodlands.

Kit fox (*Vulpes macrotis*)

Table 2-15 in the EA lists the kit fox as a "Mammalian Species Potentially Occurring within the Study Area." There is also a TXNDD record for this species located within the study area. This species primarily inhabits open desert, shrubby or shrub-grass habitat.

Long-tailed weasel (*Mustela frenata*)

Table 2-15 in the EA lists the long-tailed weasel as a "Mammalian Species Potentially Occurring within the Study Area." Suitable habitat for this species includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges, and rocky desert scrub. The long-tailed weasel usually lives close to water.

Pecos River muskrat (*Ondatra zibethicus ripensis*)

Table 2-15 in the EA lists the Pecos River muskrat as a "Mammalian Species Potentially Occurring within the Study Area." There is also a TXNDD record for this species located within the study area. The Pecos River muskrat is found near creeks, rivers, lakes, drainage ditches, and canals and prefers shallow, fresh water with

clumps of marshy vegetation, such as cattails, bulrushes, and sedges. They live in dome-shaped lodges constructed of vegetation and their diet is mainly vegetation.

Desert pocket gopher (*Geomys arenarius*)

Table 2-15 in the EA lists the desert pocket gopher as a “Mammalian Species Potentially Occurring within the Study Area.” This species is found in the cottonwood-willow vegetation association along the Rio Grande in El Paso and Hudspeth counties. The Desert pocket gopher lives underground but builds large and conspicuous mounds.

Recommendation: If any of the mammal SGCN listed above are encountered during construction, the TPWD recommends that precautions be taken to avoid direct or indirect impacts to these species and their dens, mounds, or lodges.

Evaluation of SGCN in the Environmental Assessment

The TPWD notes that it is the responsibility of the project proponent to evaluate all of the species listed on the TPWD county list, not just state- and federally-listed species, and to determine if those species have habitat within the project area and if those species have the potential to be impacted by the construction of the proposed project.

Recommendation: Please review the most recent TPWD county list for El Paso County because species in addition to those discussed in this letter could be present within the project area depending upon habitat availability. The TPWD recommends including a discussion and evaluation of potential impacts to SGCN (in addition to state-listed and federally-listed species) for all projects coordinated with this office. The USFWS should be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally-listed species.

Determining the actual presence of a species in an area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, considering all the variable factors contributing to the lack of detectable presence. If encountered during construction, measures should be taken to avoid impacting all wildlife, regardless of listing status.

Ms. Rachelle Robles
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December 18, 2020

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 the 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.

Recommendation: The TXNDD is updated continuously based on new, updated and undigitized records; therefore, the TPWD recommends requesting the most recent TXNDD data on a regular basis. Please email the TXNDD at TexasNatural.DiversityDatabase@tpwd.texas.gov for questions regarding a record or to request the most recent data.

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

The TPWD appreciates the opportunity to review and comment on this EA. Please contact Habitat Assessment Biologist Ms. Jessica Schmerler by email at jessica.schmerler@tpwd.texas.gov or by phone at (512) 389-8054 if you have any questions. Thank you for your favorable consideration.

Sincerely,


John Silovsky
Wildlife Division Director

JS:JES:bdk

cc: Mr. Edward Madrid, EPE
Mr. John Davis
Ms. Laura Zebehazy
Mr. Todd George



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Public Utility Commission of Texas
P.O. Box 13326
Austin, TX 78711-3326

RE: Amended Submittal of PUC Docket No. 51480: Application of El Paso Electric Company to Amend their Certificate of Convenience and Necessity for the Proposed Eastside Loop Expansion, Phase II –Seabeck to San Felipe 115-kilovolt Transmission Line Project in El Paso County, Texas

Dear Ms. Robles:

The Texas Parks and Wildlife Department (TPWD) has received the amended Environmental Assessment (EA) and routing study regarding the above-referenced proposed transmission line project. TPWD offers the following comments and recommendations 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 (PWC) Code, Section 12.0011. For tracking purposes, please refer to TPWD project number 46610 in any return correspondence regarding this project.

Project Description

El Paso Electric Company (EPE) proposes to construct two new 115-kilovolt (kV) transmission lines (Phases I and II of the Eastside Loop Expansion Project) in eastern El Paso County, Texas. The Eastside Loop Expansion – Phase II, the subject of this letter, will connect two new substations. The northern-most substation site (Seabeck Substation Site) will be located on the northeast corner of Farm to Market (FM) 1281/Horizon Boulevard (FM 1281) and Seabeck Street, approximately four miles east of the intersection of Ascencion Street and FM 1281. The southernmost substation site (San Felipe Substation Site) will be located on the southwest side of Interstate Highway (IH) 10 (IH-10), approximately 0.35 mile southeast of the intersection of IH-10 and Fabens Road/FM 793.

EPE proposes to utilize single-circuit steel dead-end and steel tangent monopoles for the construction of the 115-kV transmission line. Anticipated typical dead-end structure heights are approximately 70 feet above ground, while typical tangent structure heights are proposed at approximately 65 feet above ground. However, both structure heights may generally vary from 60 to 95 feet, and as little as 40 feet in specific locations near Fabens Airport, depending on route alignment, topography,

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and requirements for minimum ground clearances. The proposed project will be approximately 14.58 to 18.87 miles depending on the route chosen and will require a 150-foot wide right-of-way (ROW).

EPE retained HDR, Inc. (HDR) to prepare an EA to support the application for a Certificate of Convenience and Necessity (CCN) for the proposed project. The EA discusses the environmental and land-use constraints identified within the study area, documents routing methodologies and public involvement, and provides an evaluation of alternative routes. The document provides information in compliance with the requirements of Section 37.056(c)(4)(A)–(D) of the Texas Utilities Code (Public Utility Regulatory Act or PURA), the Public Utility Commission of Texas (PUC) CCN application form, and PUC Substantive Rule 25.101.

Docket No. 51480 was originally submitted to the PUC on November 6, 2020. However, this project was amended and resubmitted to the PUC on May 7, 2021, with nine additional routes for review as requested by the PUC.

Previous Coordination

TPWD provided information and recommendations regarding the preliminary study area for this project to HDR on May 9, 2019. This response was included in Appendix A of the amended EA. TPWD provided information and recommendations regarding the EA and routing study for this project to the PUC on December 18, 2020. This letter was not included in the amended EA provided for the current resubmittal; therefore, TPWD is including the December 18, 2020 letter to the PUC as an attachment.

Recommendation: Please review the attached TPWD correspondence dated December 18, 2020, and consider the recommendations provided, as they remain applicable to the project as currently proposed.

Proposed Route

EPE's Recommended Route

For the amended proposed project, HDR and EPE evaluated a total of 14 alternative transmission line routes that provide geographically diverse alternatives across the study area and considered 44 routing criteria addressing factors such as land use, aesthetics, and potential environmental impacts for each of the alternative routes. A comparative potential impact assessment of the alternative transmission line routes was completed culminating in the identification of the route that HDR and EPE believes best addresses the requirements of PURA and the PUC Substantive Rules.

The amended CCN included the following information outlining the factors that contributed to HDR and EPE's selection of Route 1 as the route that best addresses the requirements of PURA and PUC's Substantive Rules:

Alternative Route 1 was selected by HDR as the route that best addresses the requirements of PURA and PUC Substantive Rules from an environmental and land use perspective. This rationale was based on the established Key Evaluation Criteria:

- *Alternative Route 1 is not within 300 feet of any habitable structures.*
- *It crosses the second-fewest number of parcels, 188.*
- *It parallels the most existing transmission line ROW, 11,672 feet.*
- *It has the second-highest percentage of length paralleling existing linear features (95%).*
- *It is not within 1,000 feet of any parks/recreational areas.*
- *It has the fewest pipeline crossings, three.*
- *It is in proximity to the fewest communication towers, one.*
- *It is not within 200 feet of any water wells.*
- *It is not within the foreground visual zone of any park/recreational areas.*
- *It has no archeological sites within the proposed ROW.*
- *It has the second shortest length of ROW across areas of high archeological site potential, 2,463 feet.*
- *It has the least number of stream crossings (one) and no length parallel to a stream.*
- *It has no open water crossings.*
- *It has the shortest length across potential wetlands, at 21 feet.*
- *It has no floodplain crossings.*

In addition to the factors utilized by HDR and building on their recommendation, EPE also evaluated each primary alternative route considering engineering, design, constructability, operation, and maintenance ("O&M"), and estimated cost. The estimated costs of the 14 alternative routes varied by approximately \$1.9 million, which is relatively modest when considering the total projected costs of the Eastside Loop Expansion Project. As for distinguishing engineering, design, constructability, or O&M factors among the routes, Route 10 would require the most attention to water features and involves crossing the San Felipe Arroyo multiple times.

Route Segment O2, which is used in Route 11, presents engineering challenges. There is a ground elevation difference of approximately 60 feet where the line drops off a mesa, including crossing an identified arroyo. Although the line could

be constructed in a fashion to address this constraint, access along the line route would be limited by the elevation change and would require additional travel by crews to access the next structure. This is not a desirable feature for construction and maintenance.

As indicated above, Route 1 enables the project to avoid the most water features, avoid any habitable structures, and avoid the single county park in the study area. Based on a consideration of all factors, EPE believes that Alternative Route 1 best addresses the requirements of PURA and PUC Substantive Rules.

TPWD's Recommended Route

To evaluate the potential impacts to fish and wildlife resources, 17 criteria from Table 4-2 in the amended EA were used. The criterion TPWD used to evaluate potential impacts to fish and wildlife resources include:

1. Length of alternative route;
2. Length of ROW using existing transmission line ROW;
3. Length of ROW parallel to existing transmission line ROW;
4. Length of ROW parallel to other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines);
5. Length of ROW through parks/recreational areas;
6. Number of parks/recreational areas crossed by ROW centerline;
7. Number of additional parks/recreational areas within 1,000 feet of ROW centerline;
8. Length of ROW through cropland;
9. Length of ROW through pasture/rangeland;
10. Length of ROW through upland woodlands;
11. Length of ROW through bottomland/riparian woodlands;
12. Length of ROW across mapped National Wetland Inventory (NWI) wetlands and playa lakes;
13. Length of ROW across known habitat of federally-listed endangered or threatened species;
14. Length of ROW across open water (lakes, ponds);
15. Number of stream crossings;
16. Length of ROW parallel (within 100 feet) to streams;
17. Length of ROW across 100-year floodplains;

TPWD typically recommends that transmission line routes be located adjacent to previously disturbed areas such as existing utility or transportation ROWs and discourages fragmenting habitat or locating in areas that could directly negatively impact wildlife, including listed species. After careful evaluation of the 14 routes filed with the amended CCN application, TPWD selected **Route 1** as the route having

the least potential to impact fish and wildlife resources. This is in concurrence with the applicant's selection. The decision to recommend **Route 1** was based primarily on the following factors:

- Route 1 parallels the most existing transmission line ROW at 11,672 feet;
- Route 1 parallels the second most other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines) at 21,212 feet;
- 6.22 miles of Route 1 (34 percent of the total route length) is parallel to existing transmission line ROW or other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines);
- Route 1 does not cross any upland woodlands;
- Route 1 does not cross any parks/recreational areas and there are no parks/recreational areas within 1,000 feet of its centerline;
- Route 1 does not cross any bottomland/riparian woodlands;
- Route 1 has the shortest length of ROW crossing NWI wetlands or playa lakes at 21 feet;
- Route 1 does not cross any open water (lakes, ponds);
- Route 1 crosses the fewest streams with 1 stream crossing;
- Route 1 does not run parallel (within 100 feet) to any streams;
- Route 1 does not cross any known habitat of federally-listed endangered or threatened species;
- Route 1 does not cross any 100-year floodplains.

The amended EA did not 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, the routing recommendation below is based solely on the natural resource information provided in the amended CCN application and EA, as well as publicly available information examined in a Geographic Information System (GIS).

Recommendation: Of the routes evaluated in the amended EA, Alternative **Route 1** appears to best minimize adverse impacts to natural resources while paralleling existing transmission line ROW or other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines) for a portion of the total route length and avoiding any impacts to San Felipe Arroyo. TPWD recommends the PUC select a route that would minimize adverse impacts to natural resources, such as Alternative **Route 1**.

Commitment to Implement Beneficial Management Practices

The coordination letter for this project states, "EPE will complete a route-specific field survey to identify the presence of any protected biological species within the project area, and the transmission line will be constructed pursuant to EPE's Avian

Protection Plan.” To minimize potential impacts to aquatic habitats, the amended EA states, “Additional avoidance and minimization techniques would be utilized through the spanning of stream channels along the alternative routes. In addition, EPE would implement a SWPPP [storm water pollution prevention plan], if required, and would seek to minimize impacts to surface waters during construction of the proposed project.”

A review of the amended EA indicates that the information and recommendations provided in TPWD’s May 9, 2019, scoping letter were acknowledged; however, the EA did not present commitments to implement the beneficial management practices (BMPs) recommended to avoid or minimize potential impacts to fish and wildlife resources.

Recommendation: TPWD recommends EPE and the PUC endorse commitments to utilize the following BMPs, which are more fully described in TPWD’s May 9, 2019, and December 18, 2020 letters, when specifically applicable to the project:

- Mark lines across portions of routes most attractive to birds, e.g., creeks, drainages, playa lakes, wetlands, floodplains;
- Survey for active bird nests and avoid disturbance until young have fledged;
- Use dark-sky friendly lighting practices on lighted facilities (proposed substations);
- Use existing bridges to cross creeks to avoid temporary stream crossings for construction equipment;
- Educate employees and contractors of state-listed species that are susceptible to project activities and potentially occurring within the project area;
- Utilize a biological monitor during construction;
- Allow wildlife to safely leave the site on their own, without harassment or harm;
- Use a TPWD-permitted individual to translocate state-listed threatened species that will not readily leave the site on their own;
- Use wildlife escape ramps in trenches and inspect trenches for trapped wildlife prior to backfilling;
- Avoid the use of erosion control blankets containing polypropylene fixed-intersection mesh;
- Report encounters of threatened and endangered species and Species of Greatest Conservation Need (SGCN) to the Texas Natural Diversity Database;
- Survey for and avoid disturbance of SGCN plants within the ROW;
- Fence or flag work zone exclusion areas to prevent disturbance to sensitive species or habitats when they are located within the ROW; and
- Revegetate and maintain the ROW with native vegetation for the benefit of wildlife, including pollinators.

Ms. Rachelle Robles

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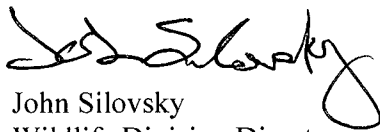
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As indicated in the amended EA, the TPWD "Annotated County List of Rare Species for El Paso County, Texas" was last accessed for this project in July 2019. The TPWD online application identifying rare, threatened, and endangered species of Texas by county (RTEST) has undergone significant updates since 2019 and continues to be updated on a regular basis.

Recommendation: TPWD recommends the PUC and EPE be aware of the most current RTEST list for El Paso County to ensure that the appropriate species are addressed during field surveys and when implementing impact avoidance and minimization BMPs.

TPWD appreciates the opportunity to review and comment on the amended EA and routing study for this project. Should you have any questions, please do not hesitate to contact Habitat Assessment Biologist Ms. Jessica Schmerler by email at Jessica.Schmerler@tpwd.texas.gov or by phone at (512) 389-8054. Thank you for your favorable consideration.

Sincerely,



John Silovsky
Wildlife Division Director

JS:bdk

cc: Mr. Edward Madrid

Enclosure



December 18, 2020

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

RE: PUC Docket No. 51480. Application of El Paso Electric Company to Amend their Certificate of Convenience and Necessity for the Proposed Eastside Loop Expansion, Phase II –Seabeck to San Felipe 115-kilovolt Transmission Line Project in El Paso County, Texas

Dear Ms. Robles:

The Texas Parks and Wildlife Department (TPWD) has received the Environmental Assessment (EA) regarding the above-referenced proposed transmission line project. The TPWD offers the following comments and recommendations 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 the TPWD project number 45563 in any return correspondence regarding this project.

Project Description

El Paso Electric Company (EPE) proposes to construct two new 115-kilovolt (kV) transmission lines (Phases I and II of the Eastside Loop Expansion Project) in eastern El Paso County, Texas. The Eastside Loop Expansion – Phase II, the subject of this letter, will connect two new substations. The northern-most substation site (Seabeck Substation Site) will be located on the northeast corner of Farm to Market (FM) 1281/Horizon Boulevard (FM 1281) and Seabeck Street, approximately four miles east of the intersection of Ascencion Street and FM 1281. The southernmost substation site (San Felipe Substation Site) will be located on the southwest side of Interstate Highway (IH) 10 (IH-10), approximately 0.35 mile southeast of the intersection of IH-10 and Fabens Road/FM 793.

EPE proposes to utilize single-circuit steel dead-end monopoles for the construction of the 115-kV transmission line. Anticipated typical dead-end structure heights are approximately 70 feet above ground, while typical tangent structure heights are proposed at approximately 65 feet above ground. However, both structure heights may generally vary from 60 to 95 feet, and as little as 40 feet in specific locations near Fabens Airport, depending on route alignment, topography, and requirements for

To manage and conserve the natural and cultural resources of Texas and to provide hunting, fishing and outdoor recreation opportunities for the use and enjoyment of present and future generations.

near Fabens Airport, depending on route alignment, topography, and requirements for minimum ground clearances. The proposed project will be approximately 14.58 to 18.34 miles depending on the route chosen and will require a 150-foot wide right-of-way (ROW).

EPE retained HDR, Inc. (HDR) to prepare an EA to support the application for a Certificate of Convenience and Necessity (CCN) for the proposed project. The EA discusses the environmental and land use constraints identified within the study area, documents routing methodologies and public involvement, and provides an evaluation of alternative routes. The document provides information regarding the requirements of Section 37.056(c)(4)(A)–(D) of the Texas Utilities Code (Public Utility Regulatory Act or PURA), the Public Utility Commission of Texas (PUC) CCN application form, and PUC Substantive Rule 25.101.

Previous Coordination

The TPWD provided information and recommendations regarding the preliminary study area for this project to HDR on May 9, 2019. This response was included in Appendix A of the EA.

Recommendation: Please review the previous TPWD correspondence and consider the recommendations provided, as they remain applicable to the project as proposed.

Proposed Route

EPE's Recommended Route

For the proposed project, HDR and EPE evaluated a total of 5 alternative transmission line routes and considered 44 routing criteria addressing factors such as land use, aesthetics, and potential environmental impacts for each of the alternative routes. A comparative potential impact assessment of the alternative transmission line routes was completed culminating in the identification of the route that HDR and EPE believe best addresses the requirements of PURA and the PUC Substantive Rules.

The CCN included the following information outlining the factors that contributed to HDR and EPE's selection of **Route 1** as the route that best addresses the requirements of PURA and PUC's Substantive Rules:

Alternative Route 1 was selected by HDR as the route that best addresses the requirements of PURA and PUC Substantive Rules from an environmental

and land use perspective. This rationale was based on the established Key Evaluation Criteria:

- *Alternative Route 1 is not within 300 feet of any habitable structures.*
- *It crosses the fewest number of parcels, 188.*
- *It parallels the most existing transmission line ROW, 11,672 feet.*
- *It parallels the most compatible ROW, 21,212 feet.*
- *It parallels the second most apparent property line, 59,170 feet.*
- *It has the highest percentage of length paralleling existing linear features (95%).*
- *It is not within 1,000 feet of any parks/recreational areas.*
- *It has the fewest pipeline crossings, three.*
- *It is in proximity to the fewest communication towers, one.*
- *It is not within 200 feet of any water wells.*
- *It has the second shortest length within the foreground visual zone of any US or state highway, 4,400 feet.*
- *It is not within the foreground visual zone of any park/recreational areas.*
- *It has no archeological sites within the proposed ROW.*
- *It has the second shortest length of ROW across areas of high archeological site potential, 2,463 feet.*
- *It has the least number of stream crossings (one) and no length parallel to a stream.*
- *It has no open water crossings.*
- *It has the shortest length across potential wetlands, at 21 feet.*
- *It has no floodplain crossings.*

In addition to the factors utilized by HDR and building on their recommendation, EPE also evaluated each primary alternative route considering engineering, design, constructability, operation, and maintenance ("O&M"), and estimated cost. The estimated costs of the five proposed alternative routes varied by approximately \$1.54 million, which is relatively modest when considering the total projected costs of the Eastside Loop Expansion Project. As for distinguishing engineering, design, constructability, or O&M factors among the routes, Route 10 would require the most attention to water features and involves crossing the San Felipe Arroyo multiple times. As indicated above, Route 1 enables the project to avoid the most water features, any habitable structures, and to avoid the single county park in the study area. Based on a consideration of all factors, EPE believes that Alternative Route 1 best addresses the requirements of PURA and PUC Substantive Rules.

TPWD's Recommended Route

To evaluate the potential impacts to fish and wildlife resources, 17 criteria from Table 4-2 in the EA were used. The criterion the TPWD used to evaluate potential impacts to fish and wildlife resources include:

1. Length of alternative route;
2. Length of ROW using existing transmission line ROW;
3. Length of ROW parallel to existing transmission line ROW;
4. Length of ROW parallel to other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines);
5. Length of ROW through parks/recreational areas;
6. Number of parks/recreational areas crossed by ROW centerline;
7. Number of additional parks/recreational areas within 1,000 feet of ROW centerline;
8. Length of ROW through cropland;
9. Length of ROW through pasture/rangeland;
10. Length of ROW through upland woodlands;
11. Length of ROW through bottomland/riparian woodlands;
12. Length of ROW across mapped National Wetland Inventory (NWI) wetlands and playa lakes;
13. Length of ROW across known habitat of federally-listed endangered or threatened species;
14. Length of ROW across open water (lakes, ponds);
15. Number of stream crossings;
16. Length of ROW parallel (within 100 feet) to streams; and
17. Length of ROW across 100-year floodplains.

The TPWD typically recommends that transmission line routes be located adjacent to previously disturbed areas such as existing utility or transportation ROWs and discourages fragmenting habitat or locating in areas that could directly negatively impact wildlife, including listed species. After careful evaluation of the 5 routes filed with the CCN application, the TPWD selected **Route 1** as the route having the least-potential to impact fish and wildlife resources. This is in concurrence with the applicant's selection. The decision to recommend **Route 1** was based primarily on the following factors:

- Route 1 parallels the most existing transmission line ROW at 11,672 feet;
- Route 1 parallels the most other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines) at 21,212 feet;
- 6.22 miles of Route 1 (34 percent of the total route length) is parallel to existing transmission line ROW or other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines);
- Route 1 does not cross any upland woodlands;

- Route 1 does not cross any parks/recreational areas and there are no parks/recreational areas within 1,000 feet of its centerline;
- Route 1 does not cross any bottomland/riparian woodlands;
- Route 1 has the shortest length of ROW crossing NWI wetlands or playa lakes at 21 feet;
- Route 1 does not cross any open water (lakes, ponds);
- Route 1 crosses the fewest streams with 1 stream crossing;
- Route 1 does not run parallel (within 100 feet) to any streams;
- Route 1 does not cross any known habitat of federally-listed endangered or threatened species;
- Route 1 does not cross any 100-year floodplains.

The EA did not 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, the routing recommendation below is based solely on the natural resource information provided in the CCN application and the EA, as well as publicly available information examined in a Geographic Information System (GIS).

Recommendation: Of the routes evaluated in the EA, Alternative **Route 1** appears to best minimize adverse impacts to natural resources while paralleling existing transmission line ROW or other compatible existing ROW (highways, public roadways, railways, etc. - excluding pipelines) for a portion of the total route length and avoiding any impacts to San Felipe Arroyo. The TPWD recommends the PUC select a route that would minimize adverse impacts to natural resources, such as Alternative **Route 1**.

Construction Recommendations

General Construction Recommendations

Recommendation: The TPWD recommends the judicious use and placement of a sediment control fence to exclude wildlife from the construction area. 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 removed after the construction is completed and the disturbed site has been revegetated. 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. The TPWD recommends that any open trenches or

excavation areas be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For open trenches and excavated pits, install escape ramps at an angle of fewer than 45 degrees (1:1) in areas left uncovered. Also, inspect excavation areas for trapped wildlife prior to refilling.

Recommendation: For soil stabilization and/or revegetation of disturbed areas within the proposed project area, the TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats poses an entanglement hazard to wildlife, the TPWD recommends the use of no-till drilling, hydromulching, and/or hydroseeding due to a reduced risk to wildlife. If erosion control blankets or mats will be used, the product should not contain netting, but if it must contain netting it should contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. The TPWD recommends avoiding the use of plastic mesh matting.

Lighting for the Proposed Substations

The proposed transmission line project involves the construction of two new substations, Seabeck Substation and San Felipe Substation. The CCN and EA did not include information regarding the proposed lighting for the new substations. Sky glow as a result of light pollution can have negative impacts on wildlife and ecosystems by disrupting natural day and night cycles inherent in managing behaviors such as migration, reproduction, nourishment, sleep, and protection from predators. Wildlife impacts from light pollution are of concern to the TPWD. Therefore, the TPWD has provided the following recommendation to assist in project planning.

Recommendation: The TPWD recommends committing to dark sky lighting practices for the proposed substations. When lighting is added, the TPWD recommends minimizing sky glow by focusing light downward, with full cutoff luminaries to avoid light emitting above the horizontal. The TPWD recommends using the minimum amount of night-time lighting needed for safety and security and to use dark sky friendly lighting that is on only when needed, down-shielded, only as bright as needed, and minimizing blue light emissions. Appropriate lighting technologies and beneficial management practices (BMPs) can be found on the International Dark-Sky Association website.

Federal Law: 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. The U.S. Fish and Wildlife Service (USFWS) Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

Section 4.5.5 (page 4-23 and 4-24) of the EA states, “The danger of electrocution to birds should be insignificant, because the distance between conductors, conductor to structure, or conductor to ground wire for the proposed 115-kV transmission line structure types is greater than the wingspan of most birds in the area. The structures and lines may be a collision hazard to birds in flight. All of the alternatives are located within the Central Migratory Flyway for neo-tropical migratory birds. The risk for bird strikes increases in the fall migration period when low visibility is common due to inclement weather conditions. EPE will follow ‘Suggested Practices for Avian Protection on Power Lines’ during construction and operation of the proposed transmission line to limit these potential impacts.”

Recommendation: To prevent electrocution of perching birds, the TPWD recommends utilizing avian-safe designs that provide appropriate separation between two energized phases or between an energized phase and grounded equipment. The TPWD recommends covering energized components with appropriate bird protection materials where adequate spacing cannot be achieved, such as installing insulated jumper wires, insulator covers, bushing caps, and arrester caps. The TPWD recommends that lines that cross or are located near rivers, creeks, drainages, wetlands, and lakes have line markers installed at the crossings or closest points to the drainages to reduce potential collisions by birds flying in the vicinity of water features. The TPWD concurs with the commitment to follow *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* and also recommends reviewing *Reducing Avian Collisions with Power Lines. The State of the Art in 2012*. Both documents are published by the Avian Powerline Interaction Committee (APLIC) and can be found on the APLIC website.

Section 4.5.5 (page 4-23) of the EA states, “If ROW clearing occurs during the nesting season, potential impacts could occur within the ROW related to takes of migratory bird eggs or nestlings. Increases in noise and activity levels during construction could also potentially disturb breeding or other activities of species nesting in areas immediately adjacent to the ROW.”

Recommendation: If migratory bird species are found nesting on or adjacent to the project area, they must be dealt with in a manner consistent with the MBTA. The 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 breeding birds. If clearing vegetation during the migratory bird nesting season is unavoidable, the TPWD recommends surveying the area proposed for disturbance, as close to the date of construction as possible, to ensure that no nests with eggs or young will be disturbed by operations. The TPWD recommends that a minimum 150-foot buffer of vegetation remain around any nests that are observed prior to disturbance. Any vegetation (such as trees, shrubs, and grasses) or other open areas where occupied nests are located should not be disturbed until the eggs have hatched and the young have fledged.

State Law: Parks and Wildlife Code – Chapter 64, Birds

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.

Recommendation: Please review the *Federal Law: Migratory Bird Treaty Act* section above for recommendations as they are also applicable for Chapter 64 of the TPW Code compliance.

State Law: Parks and Wildlife Code – Section 68.015, State-listed Species

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

Texas horned lizard (*Phrynosoma cornutum*)

Table 2-11 in the EA lists the Texas horned lizard as a “Reptilian Species Potentially Occurring within the Study Area”. As stated in Section 2.5.7.1 (page 2-53) of the EA, “The Texas horned lizard forages primarily on red harvester ants (*Pogonomyrmex barbatus*), but also consumes grasshoppers, beetles, and grubs. The lizard inhabits open, arid to semiarid regions with sparse vegetation and thermo-regulates by basking or burrowing into the soil. The Texas horned lizard was observed once in the study area in 1992, with two other occurrences that year within 1.5 miles of the study area and is likely to currently occur within the study area.”

Mountain short-horned lizard (*Phrynosoma hernandesi*)

Table 2-11 in the EA lists the mountain short-horned lizard as a “Reptilian Species Potentially Occurring within the Study Area”. As stated in Section 2.5.7.1 (page 2-53) of the EA, “Mountain short-horned lizard habitats range from semiarid plains to high mountains, but they are usually found in open woodland, shrubland, or chaparral habitats. Although the study area has no chaparral or woodland habitats where the mountain short-horned lizard is usually found, shrubland and semi-arid plains in the study area could provide suitable habitat for the short-horned lizard.”

Please note that the following recommendations are applicable to both the Texas horned lizard and mountain short-horned lizard.

Recommendation: The TPWD recommends implementing the following BMPs to assist in minimizing potential impacts to the Texas horned lizard and mountain short-horned lizard. The TPWD notes that implementing the following BMPs could also help minimize impacts to a variety of native wildlife species that may inhabit the project area:

Surveys – The TPWD recommends having a qualified biologist survey the PUC-selected route for any horned lizards that may be in the area that is proposed for disturbance. A useful indication that the Texas horned lizard may occupy the site is the presence of harvester ant mounds. The survey should be performed during the warm months of the year when horned lizards are active.

Contractor Training for Protected Species – The TPWD recommends providing training for project contractors prior to the construction of the proposed transmission line and substations. Wildlife training should consist of identification of both horned lizards and the primary food source for the Texas horned lizard (harvester ants), and the proper protocol to avoid impact if a lizard is encountered. The TPWD recommends instructing contractors to avoid impacts to harvester ant mounds, where feasible. The TPWD understands that ant mounds in the direct path of construction would be difficult to avoid, but contractors should be mindful of these areas when deciding where to place project specific locations and other disturbances associated with construction.

Biological Monitor – The TPWD recommends that a permitted biologist be on-site during construction activities, especially during site clearing and trenching, to look for protected species, advise the construction crews on appropriate action if horned lizards are observed, and relocate any protected individuals that are in imminent harm. Biologists must be authorized to

handle horned lizards and other state-listed species. If a biological monitor cannot be on-site during construction, site personnel should be trained for encounters with protected species and a qualified biologist should be notified of the siting and consulted on appropriate action.

Horned Lizard Encounters – If a Texas horned lizard or mountain short-horned lizard is encountered, they should be avoided and allowed to leave the project area on their own. If a horned lizard must be relocated, the TPWD recommends relocating them off-site to an area that is close-by and contains similar habitat. The TPWD recommends that any translocations of reptiles be the minimum distance possible, no greater than one mile, and preferably within 100 to 200 yards from the initial encounter location. After horned lizard translocation, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude horned lizards and other wildlife.

The exclusion fence should be constructed and maintained as follows:

- The exclusion fence should be constructed with metal flashing or drift fence material. Rolled erosion control mesh material should not be used.
- The exclusion fence should be buried at least 6 inches deep and be at least 24 inches high.
- The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated with site-specific native species.

Speed Limits – The TPWD recommends reducing speed limits in the project area to at least 15 mph to help prevent vehicle-induced mortality of these species.

Work During Cold Weather – If construction activities take place during cold weather, it is recommended that construction personnel stay observant of activities that may harm horned lizards, such as disruption of burrows. In cold weather, this species will use burrows or pallets near the base of vegetation for shelter. Their slow metabolism in cold weather can reduce movements, restricting their ability to flee from danger.

Trenches – To avoid direct harm to state-listed species and other wildlife that may occur in the project area, the TPWD recommends that any open trenches or excavation areas be covered overnight and/or inspected every morning to ensure no horned lizards or other wildlife have been trapped. For open trenches and excavated pits, install escape ramps at an angle of less than 45

degrees (1:1) in areas left uncovered. Also, inspect excavation areas for trapped wildlife prior to refilling. As previously mentioned, if state-listed species are trapped in trenches, they should be removed by personnel permitted by the TPWD to handle state-listed species.

No Kill Wildlife Policy – The TPWD recommends implementing a “No Kill Wildlife Policy” during the construction and operation of the proposed project. This policy prevents inadvertently killing protected species that may be mistaken for common species.

Species of Greatest Conservation Need

In addition to state- and federally-protected species, the TPWD tracks Species of Greatest Conservation Need (SGCN) and other special features and natural communities that are not listed as threatened or endangered. The TPWD notes that the EA did not include a discussion of SGCN that may be present within the study area or potentially impacted by the proposed project. These species and communities are tracked in the TXNDD, and the TPWD actively promotes their conservation. The TPWD considers it important to evaluate and, if necessary, minimize impacts to SGCN and their habitat to reduce the likelihood of endangerment and preclude the need to list as threatened or endangered in the future.

*Sand prickly-pear (*Opuntia arenaria*)*

There are two TXNDD records for sand prickly-pear located within the study area. This species is found in deep, loose or semi-stabilized sands in sparsely vegetated dune or sandhill areas or sandy floodplains in arroyos. Sand prickly-pear flowers from May through June.

*Wheeler’s spurge (*Chamaesyce geyeri* var *wheeleriana*)*

This species is found on sparingly vegetated, loose eolian quartz sand on reddish sand dunes or coppice mounds. The Wheeler’s spurge flowers and fruits at least August through September, but probably earlier and later as well.

Section 2.5.7.3 (page 2-60) of the EA states, “The sand dune, coppice mound, and sandy alluvial plains features which make up a majority of the study area may provide suitable habitat for the sand prickly-pear and the Wheeler’s spurge.”

Recommendation: The TPWD recommends surveying the PUC-selected route for the plant SGCN listed above where suitable habitat may be present and particularly in areas where ground disturbance may occur. The survey should be performed by a qualified biologist at the time of year when these species are most

likely to be found, usually during their respective flowering periods. If these species are present, plans should be made to avoid adverse impacts to the greatest extent possible. If plant SGCN are found in the path of construction, including the placement of staging areas and other project related sites, this office should be contacted for further coordination and possible salvage of plants and/or seeds for seed banking. Plant SGCN not in the direct path of construction should be protected by markers or fencing and by instructing construction crews to avoid any harm.

Table 2-15 in the EA lists the following bat SGCN as “Mammalian Species Potentially Occurring within the Study Area”.

- Big brown bat (*Eptesicus fuscus*)
- Cave myotis bat (*Myotis velifer*)
- Mexican free-tailed bat (*Tadarida brasiliensis*)
- Big free-tailed bat (*Nyctinomops macrotis*)
- Hoary bat (*Lasiurus cinereus*)
- Long-legged myotis bat (*Myotis volans*)
- Townsend’s big-eared bat (*Corynorhinus townsendii*)
- Western small-footed myotis bat (*Myotis ciliolabrum*)

Adverse impacts to bats, such as habitat loss, are being compounded due to a deadly disease known as white-nose syndrome (WNS). This disease is associated with the fungus, *Pseudogymnoascus destructans*, which appears to impact certain species of hibernating bats and frequently results in death of the infected bats. This fungus has wiped out entire colonies of hibernating bats in states east of Texas. As of May 2019, the fungus that causes WNS has been detected in 22 Texas Counties and as of March 5, 2020, the TPWD biologists have confirmed the WNS disease in a Texas bat. The infected bat was a cave myotis found dead in Central Texas (Gillespie County). Bats appear to spread the WNS among colonies and roosts; however, there is evidence that humans can transport the fungus on their shoes, gear, and clothing after entering infected bat caves and roosts. The TPWD is concerned that the WNS could be spread by personnel or consultants working on development projects in states where the WNS has been detected, and then inadvertently bring the fungus to Texas on gear or clothing that has not been properly decontaminated.

To determine the appropriate BMP to avoid or minimize impacts to bats, review the habitat descriptions for the above-listed species on the TPWD Rare, Threatened, and Endangered Species of Texas by County online application (RTEST or the TPWD county list) or other trusted resources. All bat surveys and other activities that include direct contact with bats shall comply with the TPWD-recommended WNS protocols located on the TPWD Wildlife Habitat Assessment Program website under “Project Design and Construction”.

The following survey and exclusion protocols should be followed prior to commencement of construction activities. For the purposes of this letter, structures are defined as bridges, culverts (concrete or metal), wells, and buildings. For activities that have the potential to impact structures, cliffs or caves, or trees; a qualified biologist should perform a habitat assessment and occupancy survey of the feature(s) with roost potential as early in the planning process as possible or within one year before construction is scheduled to begin.

Recommendation: The TPWD recommends surveying the PUC-selected route for potential bat habitat. Surveys should be conducted by a qualified biologist to determine roost site potential and occupancy. Bat surveys of structures or features should include visual inspections for the presence of bats. If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction. For roosts where occupancy is strongly suspected but unconfirmed during the initial survey, revisit feature(s) at most four weeks prior to scheduled disturbance to confirm absence of bats.

Recommendation: For exclusion of bats, the TPWD recommends locating and sealing the entrances through which bats make ingress or egress. Before excluding bats from any occupied structure/feature, bat species, weather, temperature, season, and geographic location must be incorporated into any exclusion plans to avoid unnecessary harm or death to bats. Winter exclusion must entail a survey to confirm either, 1) bats are absent or 2) present but active (i.e. continuously active – not intermittently active due to arousals from hibernation). Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, install alternate roosts to mitigate for the loss of an occupied roost. If alternate roost sites are not provided, bats may seek shelter in other inappropriate sites, such as buildings, in the surrounding area.

Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50°F and minimum daytime temperatures are above 70°F. The TPWD offers the following BMPs regarding bat exclusion devices and activities:

- Avoid using materials that degrade quickly, like paper, steel wool or rags, to close holes.

- Avoid using products or making structural modifications that may block natural ventilation, like hanging plastic sheeting over an active roost entrance, thereby altering roost microclimate.
- Avoid using chemical and ultrasonic repellents.
- Avoid use of silicone, polyurethane or similar non-water-based caulk products.
- Avoid use of expandable foam products at occupied sites.
- Avoid the use of flexible netting attached with duct tape.
- In order to avoid entombing bats, exclusion activities should be only implemented by a qualified individual. A qualified individual or company should possess at least the following minimum qualifications:
 - Experience in bat exclusion (the individual, not just the company).
 - Proof of rabies pre-exposure vaccinations.
 - Demonstrated knowledge of the relevant bat species, including maternity season date range and habitat requirements.
 - Demonstrated knowledge of rabies and histoplasmosis in relation to bat roosts.
- Contact the TPWD for additional resources and information to assist in executing successful bat exclusions that will avoid unnecessary harm or death in bats.

Black-tailed prairie dog (*Cynomys ludovicianus*)

Table 2-15 in the EA lists the black-tailed prairie dog as a “Mammalian Species Potentially Occurring within the Study Area.” Black-tailed prairie dogs inhabit dry, flat, short grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle. The black-tailed prairie dog is a keystone species that provides food and/or shelter for rare species tracked by the TPWD such as the ferruginous hawk and the western burrowing owl, as well as many other wildlife species.

Recommendation: The TPWD recommends surveying the PUC-selected route for prairie dog towns or burrows and species that depend on them. If prairie dog towns or burrows are found in the area proposed for disturbance, the TPWD recommends avoiding these areas during construction and installing exclusion fence to keep prairie dogs from entering the project area. If prairie dog burrows will be disturbed as a result of the proposed project, the TPWD recommends non-harmful exclusion methods be used to encourage the animals to vacate the area prior to disturbance and discourage them from returning to the area during construction. If prairie dogs are encountered on the project site, the TPWD recommends contacting a prairie dog relocation specialist. If impacting a portion of a larger colony, time relocation efforts and/or humane removal immediately before construction to discourage recolonization of the project area. Prairie dogs can be encouraged to move away from a project area by mowing overgrown

adjacent areas. Conversely, prairie dogs can be discouraged from utilizing areas by not mowing and allowing grass or other tall vegetation to grow or by scraping all vegetation off the project site and leaving soil exposed.

Western burrowing owl (*Athene cunicularia hypugaea*)

Table 2-14 in the EA lists the western burrowing owl as a “Summer Resident Bird Species Potentially Occurring within the Study Area”. The western burrowing owl is a ground-dwelling owl that uses the burrows of prairie dogs and other fossorial animals for nesting and roosting. When natural burrows are limited, this species will breed in urban habitats which may lead to problems for the owls or their young. The owls opportunistically live and nest in road and railway ROWs, parking lots, baseball fields, school yards, golf courses, and airports. They have also been found nesting on campuses, in storm drains, drainage pipes, and cement culverts, on banks, along irrigation canals, under asphalt or wood debris piles, or openings under concrete pilings or asphalt. The western burrowing owl is protected under the MBTA, and take of these birds, their nests, and eggs is prohibited. Potential impacts to the western burrowing owl could include habitat removal as well as displacement and/or destruction of nests and eggs if ground disturbance occurs during the breeding season.

Recommendation: As previously mentioned, the TPWD recommends surveying the PUC-selected route for prairie dog or other mammal burrows prior to construction. If mammal burrows or other suitable habitat would be disturbed as a result of the proposed project, the TPWD recommends they be surveyed for burrowing owls. If nesting owls are found, disturbance should be avoided until the eggs have hatched and the young have fledged.

Western box turtle (*Terrapene ornata*)

Table 2-11 in the EA lists the western box turtle as a “Reptilian Species Potentially Occurring within the Study Area”. The western box turtle occurs throughout Texas, typically in open habitats such as prairie grasslands, pastures, fields, sandhills, and open woodlands. Adults have a home-range size of approximately 6 to 14 acres. This species is active spring through fall with courtship and mating occurring primarily in the spring. For shelter, they burrow into soil (e.g., under plants such as yucca) or enter burrows made by other species. Eggs are laid in nests dug in soft well-drained soil in open areas. Western box turtles are threatened by habitat loss and fragmentation, vehicle strikes on roads, and collection for the pet trade and food markets.

Recommendation: The TPWD recommends referring to the recommendations listed above for the Texas horned lizard and the mountain short-horned lizard as those recommendations are applicable to the western box turtle as well.

Western rattlesnake (*Crotalus viridis*)

Table 2-11 in the EA lists the western rattlesnake as a “Reptilian Species Potentially Occurring within the Study Area”. The western rattlesnake inhabits grasslands, both desert and prairie, as well as shrub desert rocky hillsides. This species can also be found at the edges of arid and semi-arid river breaks.

Chihuahuan Desert lyre snake (*Trimorphodon vilkinsonii*)

Table 2-11 in the EA lists the Chihuahuan Desert lyre snake as a “Reptilian Species Potentially Occurring within the Study Area”. As stated in Section 2.5.7.1 of the EA (page 2-53), “In Texas, Chihuahuan lyre snake is present along the Rio Grande from El Paso to Big Bend and can be found up to 50 miles from the river. The Chihuahuan lyre snake occurs most commonly in dry, rocky terrain of mountains, canyons, hills, rock outcrops, fissured bluffs, and arroyos, in areas with desert plants (e.g., ocotillo [*Fouquieria splendens*], catclaw mimosa, white thorn [*Vachellia constricta*], yucca [*Yucca* spp.], pricklypear [*Opuntia* spp.], and grasses) or riparian vegetation, sometimes on desert flats dominated by creosotebush or in shallow canyons with honey mesquite. The study area contains suitable habitat for the Chihuahuan lyre snake; therefore, the lyre snake is likely to occur in the study area.”

Recommendation: The TPWD recommends avoiding disturbance of the above-listed snake SGCN if found during clearing and construction. Because snakes are generally perceived as a threat and killed when encountered, and since the project area contains suitable habitat for the western rattlesnake and the Chihuahuan Desert lyre snake, the TPWD recommends construction personnel and contractors be advised to avoid injury or harm to all snakes encountered during clearing and construction. Injury to humans usually occurs when the snake becomes agitated following harassment or when someone attempts to handle a recently dead venomous snake that still contains its bite reflex. Therefore, contractors should avoid contact with snakes if encountered and allow all native snakes to safely leave the premises.

Woodhouse’s toad (*Anaxyrus woodhousii*)

Table 2-10 in the EA lists the Woodhouse’s toad as an “Amphibian Species Potentially Occurring within the Study Area”. Woodhouse’s toad has a wide geographic range, occurring from the eastern coast of North America to Nevada and northern Mexico. This species is a year-round resident where found, although its

presence can most easily be detected during the breeding season, when males may be heard calling. Woodhouse's toad is associated with sandy substrates in lowlands such as river bottoms and desert streams, as well as irrigated fields and lawns.

Recommendation: The TPWD recommends the project proponent inform employees and contractors of the potential for the Woodhouse's toad to occur in the project area. The TPWD recommends avoiding disturbance to wetlands and temporary and permanent open water features, including depressions.

American badger (*Taxidea taxus*)

Table 2-15 in the EA lists the American badger as a "Mammalian Species Potentially Occurring within the Study Area." Badgers live in a variety of habitats, but they are most commonly found in open country such as prairies and plains. Badgers usually have several different dens and burrows, using them for sleeping, hunting, storing food, and giving birth.

Western spotted skunk (*Spilogale gracilis*)

Table 2-15 in the EA lists the western spotted skunk as a "Mammalian Species Potentially Occurring within the Study Area." The western spotted skunk can be found in open fields, prairies, croplands, fence rows, forest edges, and woodlands.

Kit fox (*Vulpes macrotis*)

Table 2-15 in the EA lists the kit fox as a "Mammalian Species Potentially Occurring within the Study Area." There is also a TXNDD record for this species located within the study area. This species primarily inhabits open desert, shrubby or shrub-grass habitat.

Long-tailed weasel (*Mustela frenata*)

Table 2-15 in the EA lists the long-tailed weasel as a "Mammalian Species Potentially Occurring within the Study Area." Suitable habitat for this species includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges, and rocky desert scrub. The long-tailed weasel usually lives close to water.

Pecos River muskrat (*Ondatra zibethicus ripensis*)

Table 2-15 in the EA lists the Pecos River muskrat as a "Mammalian Species Potentially Occurring within the Study Area." There is also a TXNDD record for this species located within the study area. The Pecos River muskrat is found near creeks, rivers, lakes, drainage ditches, and canals and prefers shallow, fresh water with

clumps of marshy vegetation, such as cattails, bulrushes, and sedges. They live in dome-shaped lodges constructed of vegetation and their diet is mainly vegetation.

Desert pocket gopher (*Geomys arenarius*)

Table 2-15 in the EA lists the desert pocket gopher as a “Mammalian Species Potentially Occurring within the Study Area.” This species is found in the cottonwood-willow vegetation association along the Rio Grande in El Paso and Hudspeth counties. The Desert pocket gopher lives underground but builds large and conspicuous mounds.

Recommendation: If any of the mammal SGCN listed above are encountered during construction, the TPWD recommends that precautions be taken to avoid direct or indirect impacts to these species and their dens, mounds, or lodges.

Evaluation of SGCN in the Environmental Assessment

The TPWD notes that it is the responsibility of the project proponent to evaluate all of the species listed on the TPWD county list, not just state- and federally-listed species, and to determine if those species have habitat within the project area and if those species have the potential to be impacted by the construction of the proposed project.

Recommendation: Please review the most recent TPWD county list for El Paso County because species in addition to those discussed in this letter could be present within the project area depending upon habitat availability. The TPWD recommends including a discussion and evaluation of potential impacts to SGCN (in addition to state-listed and federally-listed species) for all projects coordinated with this office. The USFWS should be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally-listed species.

Determining the actual presence of a species in an area depends on many variables including daily and seasonal activity cycles, environmental activity cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, considering all the variable factors contributing to the lack of detectable presence. If encountered during construction, measures should be taken to avoid impacting all wildlife, regardless of listing status.

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 the 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.

Recommendation: The TXNDD is updated continuously based on new, updated and undigitized records; therefore, the TPWD recommends requesting the most recent TXNDD data on a regular basis. Please email the TXNDD at TexasNatural.DiversityDatabase@tpwd.texas.gov for questions regarding a record or to request the most recent data.

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

The TPWD appreciates the opportunity to review and comment on this EA. Please contact Habitat Assessment Biologist Ms. Jessica Schmerler by email at jessica.schmerler@tpwd.texas.gov or by phone at (512) 389-8054 if you have any questions. Thank you for your favorable consideration.

Sincerely,


John Silovsky
Wildlife Division Director

JS:JES:bdk

cc: Mr. Edward Madrid, EPE
Mr. John Davis
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Mr. Todd George