SOAH DOCKET NO. 473-16-4342 PUC DOCKET NO. 45866

APPLICATION OF LCRA	§	BEFORE THE STATE OFFICE
TRANSMISSION SERVICES	§	
CORPORATION TO AMEND ITS	§	
CERTIFICATE OF CONVENIENCE	§	
AND NECESSITY FOR THE ROUND	§	OF
ROCK – LEANDER 138-KV	§	
TRANSMISSION LINE IN	§	
WILLIAMSON COUNTY, TEXAS	8	ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY AND EXHIBITS

OF

LISA B. MEAUX

ON BEHALF OF

APPLICANT LCRA TRANSMISSION SERVICES CORPORATION

October 24, 2016

SOAH DOCKET NO. 473-16-4342 PUC DOCKET NO. 45866 REBUTTAL TESTIMONY AND EXHIBITS OF LISA B. MEAUX

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SOAH DOCKET NO. 473-16-4342 PUC DOCKET NO. 45866 REBUTTAL TESTIMONY OF LISA B. MEAUX

1		I. <u>INTRODUCTION</u>
2	Q.	PLEASE STATE YOUR NAME AND OCCUPATION.
3	A.	My name is Lisa B. Meaux. I am a Project Manager and Department Manager in the
4		Environmental Division with POWER Engineers, Inc. (POWER).
5	Q.	ARE YOU THE SAME LISA B. MEAUX THAT PROVIDED DIRECT TESTIMONY
6		IN THIS DOCKET?
7	A.	Yes, I am.
8 9		II. REBUTTAL TO GENERAL POSITIONS COMMON TO INTERVENORS' TESTIMONY
10	Q.	AFTER REVIEWING THE DIRECT TESTIMONIES OF THE INTERVENORS
11		PRE-FILED IN THIS PROCEEDING, DO YOU HAVE ANY GENERAL
12		OBSERVATIONS ABOUT THE NATURE OF THE POSITIONS TAKEN?
13	A.	Yes, I do. It has been my observation in working on transmission line cases for many years
14		that many landowners oppose the routing of transmission lines across or near their
15		properties. This proceeding is no exception.
16		While I understand the views presented in the intervenor testimony, I did not review
17		any testimony that demonstrated any of the segments proposed for the project were not
18		constructible based on the factors the Public Utility Commission of Texas (Commission or
19		PUC) considers in evaluating routes for proposed transmission line projects, including
20		community values, recreational and park areas, historical and aesthetic values,
21		environmental integrity, and paralleling of rights-of-way (ROW).
22	Q.	A NUMBER OF INTERVENOR WITNESSES MENTION THEIR CONCERNS
23		ABOUT PROXIMITY OF THE TRANSMISSION LINE TO HABITABLE
24		STRUCTURES. DID POWER CONSIDER HABITABLE STRUCTURES DURING
25		ITS ROUTE IDENTIFICATION PROCESS?
26	A.	Yes. As discussed in Section 2.8.1 of the Environmental Assessment (EA), attached to the
27		LCRA TSC application in this proceeding, the project area is composed of high-density

residential and commercial development. Wherever possible, POWER avoided identifying possible route segments near habitable structures. For example, in some areas possible route segments were located to the interior of adjacent properties to increase the distance from habitable structures (see Segments U1a, V1a, W2a, A3a, B4a, F4a, and D3a). In other areas, road ROW was utilized to maximize the distance from habitable structures (see Segments A4, B2, D1, E, F5, H3, J3, L, M1, N3, O, O3, and Y2). In another area, an existing transmission line corridor was utilized to minimize impacting new habitable structures (see segments I3, G3, E3, C3, X2, and K5).

Due to the nature of the extensive development within the project area, no routing was possible that did not come within 300 feet of hundreds of habitable structures. In my experience, the number of habitable structures within 300 feet of the proposed routes in this proceeding is consistent with what I have seen in other projects located within similarly situated developing urban areas. For additional information related to habitable structures and prudent avoidance, please refer to Mr. Powell's rebuttal testimony.

- 15 Q. SOME OF THE INTERVENORS DISCUSS THEIR CONCERNS WITH
 16 POTENTIAL IMPACTS OF THE TRANSMISSION LINE ON WILDLIFE
 17 HABITAT, HABITAT FRAGMENTATION, AND THREATENED/ENDANGERED
 18 SPECIES. DID POWER CONSIDER AND EVALUATE THE WILDLIFE IMPACTS
 19 OF THE PROPOSED PROJECT?
 - A. Yes, we did. Wherever reasonable and practical, POWER identified alternative segments/routes to parallel existing cleared ROWs/corridors, cleared fence lines/property lines, wildlife management/brush control clearings, roads, etc., which limits the amount of new habitat fragmentation.

The EA identifies and discusses the potential of the project to impact the state and federal listed threatened/endangered species that are known to occur, or which potentially occur, within the study area. At the environmental planning stage of the project, before the Commission selects a route, it is simply not possible to conduct on-the-ground observations or surveys on private property throughout the study area and along all alternative routes, as neither LCRA TSC nor POWER has access to private property. Thus, impacts to wildlife cannot be identified with specificity until the Commission selects and approves a route and on-the-ground investigations can be conducted.

In his rebuttal testimony, Mr. Powell discusses the steps LCRA TSC will take following approval of the application and identification of a specific route for the project to avoid or mitigate any impacts on protected species during construction and operation of the project.

- SOME OF THE LANDOWNER INTERVENORS (e.g., WILSON RUSSELL, AND Q. BURLESON RANCH) DISCUSSED ARCHAEOLOGY AND HISTORICAL FACTORS ASSOCIATED WITH THEIR PROPERTIES. WHAT IS YOUR **OPINION** REGARDING THE **POTENTIAL ARCHAEOLOGICAL AND** HISTORICAL ISSUES RAISED BY INTERVENORS IN THIS CASE?
 - In preparing the EA, POWER obtained all known archaeological/historical records for the study area from the Texas Historical Commission (THC) and the Texas Archeological Research Laboratory (TARL), and utilized that information in delineating and evaluating possible route locations for this project. None of POWER's investigation revealed potential historical or archaeological concerns that cannot be addressed with any of the routes proposed for the project.

The Burleson intervenors and Mr. Russell discuss the historic nature of their properties in advocating against approving a route for the proposed project in those areas. I do not quarrel with these witnesses' characterization of their properties, but the historic nature of some aspects of the properties is not, by itself, sufficient grounds for disqualifying any of the proposed routes in this case. While these properties may have some historic aspects and features, none of the properties in the study area within proximity to the proposed route segments have been granted official designation or protection on a federal or state level. In general, landscape and development modifications in the project area have altered the historical nature of the properties and there is no evidence that a transmission line would alter any of the historic aspects of properties in the study area.

Typically, when the PUC approves a project, the final order includes an ordering paragraph concerning coordination with the THC. If a formal survey is required and/or previously unknown sites are located or discovered during construction, the utility would coordinate with the THC. Sometimes the transmission structure locations are adjusted or a minor route deviation is implemented to span or avoid significant cultural resource sites.

A.

1	This is how I recommend any issues pertaining to potential archaeological or historical sites
2.	be handled in this case.

- Q. A NUMBER OF INTERVENORS (e.g., BURLESON, WILLIAMSON COUNTY, CITY
 OF LEANDER, RUSSELL, AND MAYFIELD RANCH HOA) RAISE A NUMBER OF
 SIMILAR POSITIONS RELATED TO SURFACE WATER IMPACTS. HOW WILL
 SURFACE WATER IMPACTS BE AVOIDED DURING CONSTRUCTION OF THE
 PROJECT?
- A. As described more fully in the EA, during construction of the project LCRA TSC will properly implement erosion control measures using Best Management Practices, as required by the Texas Commission on Environmental Quality (TCEQ) under a Storm Water Pollution Prevention Plan (SWPPP), and thus will effectively control erosion and the potential for significant adverse impacts to creeks and streams.
- Q. MANY OF THE INTERVENING PARTIES DISCUSS THE PARALLELING OF
 PROPERTY LINES IN THEIR TESTIMONY, PARTICULARLY IN THE
 LOCATIONS WHERE THE ROUTING IS IDENTIFIED AWAY FROM
 PROPERTY LINES. PLEASE DESCRIBE HOW POWER CONSIDERED THE
 PARALLELING OF PROPERTY LINES IN ITS DELINEATION AND
 EVALUATION OF ROUTES IN THIS PROCEEDING.
- 19 A. Paralleling property lines does not outweigh all other factors the Commission must consider 20 in evaluating potential routes. This factor is considered in balance with many other factors, 21 including cost and engineering constraints. Commission Substantive Rule 25.101(b)(3)(B) 22 states, among other things, that a new transmission line "shall be routed to the extent 23 reasonable to moderate the impact on the affected community and landowners," and 24 "whether the routes parallel property lines **or** other natural or cultural features" (emphasis 25 added). Where reasonable, POWER delineated routes that paralleled existing compatible 26 ROW, and/or paralleled parcel lines, fence lines, water utility pipelines, or other natural or 27 cultural features.

1 III. REBUTTAL TO HAROLD L. HUGHES JR./RIVERSIDE RESOURCES

- 2 Q. MR. HUGHES' DIRECT TESTIMONY ON BEHALF OF RIVERSIDE
- 3 RESOURCES INCLUDED INFORMATION IN SEVEN DIFFERENT TABLES. DO
- 4 YOU AGREE WITH ALL OF HIS MEASUREMENTS AND TABULATIONS?
- 5 A. No, some of my measurements differ slightly from Mr. Hughes' measurements.
- In Table 1, the line length of his North Route (D-E-K-L4) is listed as 2.6 miles. My measurement
- is 2.61 miles. The line length of his Central Route A (D-F-X5-Z5-A6-S4-L4) is listed as 3.11
- 8 miles. My measurements indicate the distance is 3.13 miles.
- 9 In Table 2, the line length of his Route 31M (D-E-K-L4-2-6-N4-R) is listed as 2.85 miles. My
- measurement is 2.86 miles.
- In Table 7, the Line Length Paralleling Existing ROWs for Route 31 M (CoL-1) is listed as 11.8
- miles. My measurement is 11.7 miles.
- 13 Q. DESPITE THE SMALL VARIATIONS IN MEASUREMENTS, DO YOU
- 14 CONSIDER THE ROUTES PROPOSED BY RIVERSIDE RESOURCES TO BE
- 15 CONSISTENT WITH THE CRITERIA THAT POWER CONSIDERED IN THE EA?
- 16 A. Yes. All of the routes proposed by Riverside Resources are composed of segments and
- 17 substation sites proposed in the Application for this project and meet the criteria that
- POWER considered in the EA. Environmental and Land Use calculations for these routes
- are provided as Exhibit LBM-1R.
- 20 IV. REBUTTAL TO BRIAN C. ANDREWS/LAND AND HOME OWNERS OF CR 175,
- 21 MERITAGE HOMES OF TEXAS, LLC, STEWART CROSSING HOMEOWNER
- 22 ASSOCIATION, AND TRAILS OF SHADY OAK RESIDENTIAL COMMUNITY,
- 23 **INC.**
- Q. MR. ANDREWS ASSERTS (PG. 16) THAT SEGMENTS J4, I3, G3, E3, AND C3
- 25 WILL PARALLEL AN EXISTING TRANSMISSION LINE. IS THAT CORRECT?
- A. No. Segments I3, G3, E3, and C3 are proposed to be constructed on new structures in an
- existing LCRA TSC ROW, with both the existing and new circuits proposed for this project.

1	Q.	ARE THE ROUTES PROPOSED BY MR. ANDREWS/LAND AND HOME
2		OWNERS (LHO) OF CR 175, MERITAGE HOMES OF TEXAS, LLC, STEWART
3		CROSSING HOMEOWNER ASSOCIATION, AND TRAILS OF SHADY OAK
4		RESIDENTIAL COMMUNITY, INC. CONSISTENT WITH THE CRITERIA THAT

- 5 **POWER CONSIDERED IN THE EA?**
- A. Yes, all of the four LHO proposed routes, LHO-1, LHO-2, LHO-3 or LHO-4, are composed of segments and substation sites proposed in the Application for this project and meet the criteria that POWER considered in the EA. Environmental and Land Use calculations for these routes are provided as Exhibit LBM-1R.
- V. REBUTTAL TO LAND AND HOME OWNERS OF CR 175, MERITAGE HOMES
 OF TEXAS, LLC, STEWART CROSSING HOMEOWNER ASSOCIATION, AND
 TRAILS OF SHADY OAK RESIDENTIAL COMMUNITY, INC.
- 13 Q. TESTIMONY FOR THE LAND AND HOME OWNERS OF CR 175, MERITAGE 14 HOMES **OF** TEXAS, LLC, **STEWART CROSSING HOMEOWNER** 15 ASSOCIATION, AND TRAILS OF SHADY OAK RESIDENTIAL COMMUNITY, INC. STATES CONCERNS ABOUT CONSTRUCTING A TRANSMISSION LINE 16 17 IN OR NEAR A PARK OR RECREATION AREA. HOW DO YOU RESPOND?
- 18 A. Numerous transmission lines are located in and near park and recreational areas throughout
 19 the state of Texas. In many instances trails and recreation areas, i.e., ballparks are designed
 20 to take advantage of and maximize the use of the undeveloped land in the ROW of
 21 transmission lines. One example of such colocation exists in the study area for this project,
 22 just north of Somerset Drive. Somerset Park trail, a basketball court, playground, picnic area,
 23 and a pavilion are all located beneath and adjacent to the existing transmission line. Refer to
 24 Exhibits LBM-2R 1 through 4.

VI. TOM YANTIS/CITY OF LEANDER

- Q. IS THE ROUTE PROPOSED BY MR. YANTIS/CITY OF LEANDER CONSISTENT
 WITH THE CRITERIA THAT POWER CONSIDERED IN THE EA?
- A. Yes, the route proposed by the City of Leander (CoL-1) is composed of segments and substation sites proposed in the Application for this project and meets the criteria that POWER considered in the EA. Environmental and Land Use calculations for this route are

provided as Exhibit LBM-1R.

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2 VII. REBUTTAL TO DR. STEVEN CAROTHERS/WILLIAMSON COUNTY

- Q. DR. CAROTHERS ASSERTS HIS CONCERNS ABOUT CONSTRUCTING A
 TRANSMISSION LINE IN AN ENVIRONMENTALLY SENSITIVE AREA. HOW
 DO YOU RESPOND?
- 6 A. It is not uncommon to encounter environmentally sensitive areas when routing transmission 7 lines in Texas or elsewhere. These areas are typically identified early on in the project during 8 the data collection phase of the project and considered when identifying segments and 9 developing routes. After a route is approved by the PUC, LCRA TSC will conduct a Natural 10 Resources Assessment along the approved route to identify environmentally sensitive areas 11 including habitat for protected species. These areas are typically avoided if possible and 12 potential impacts are then minimized through the routing of the line and also during the 13 design and construction phases of the project. If environmentally sensitive areas cannot be 14 avoided altogether, LCRA TSC will provide compensatory mitigation if required.
- DR. CAROTHERS RAISES SPECIFIC CONCERNS ABOUT THE PRESENCE OF
 THE BONE CAVE HARVESTMAN ON SEGMENT E6 AND ON ROUTES 5, 21
 AND 33 ON PAGE 10-11 OF HIS TESTIMONY. DO YOU AGREE WITH HIS
 CONCERNS?
- 19 A. I acknowledge that Segment E6 crosses a recovery preserve area for the Bone Cave
 20 harvestman; it is called out in Table 5-2 in the EA, and described and addressed in the EA.
 21 This is an environmentally sensitive area that POWER identified and considered during the
 22 routing process. Ms. Melendez and Mr. Powell describe in their rebuttal testimonies the
 23 design and construction techniques LCRA TSC can utilize to avoid and mitigate this and
 24 other environmentally sensitive areas.
- Q. WHY WAS SEGMENT E6 INCLUDED AS A POSSIBLE ROUTE ALTERNATIVE
 IF IT HAS THE POTENTIAL TO IMPACT THIS PRESERVE AREA?
- A. Segment E6 was specifically considered and identified in response to public comment as described in my direct testimony on page 19, lines 19-26. In the event the Commission ultimately concludes that the environmental impacts of this segment are too great, there are

1	other route segments identified in a west to east direction in this area, th	rough the Southwest

- Williamson County Regional Park on Segment T2 or around the park on Segments Y and Z
- 3 to the north or Segments Y2 or O3 to the south.

4 Q. ARE SEGMENTS T2 AND SUBSTATION SITE 1-8 SIMILARLY LOCATED

5 WITHIN THE ENVIRONMENTALLY SENSITIVE AREAS YOU DISCUSSED

- 6 **REGARDING SEGMENT E6?**
- 7 A. No. From an environmental perspective, Segment T2 is located outside of the Karst Feature
- 8 Area. Segment T2 was partially located in known Golden-cheeked warbler habitat; however,
- 9 the southwest portion of Segment T2 is currently undergoing alteration (specifically,
- 10 clearing) due to road, residential, and commercial development.
- Similarly, Substation Site 1-8 is adjacent to the existing CR 175 Roadway, is located
- outside of the Karst Feature Area, and is not located within known or designated Golden-
- cheeked warbler habitat.

14 VIII. REBUTTAL TO MIKE PETTER/BRUSHY CREEK MUNICIPAL UTILITY 15 DISTRICT

16 Q. MR. PETTER'S TESTIMONY STATES THAT SEGMENT Y2 IS INCONSISTENT

- 17 WITH THE DEVELOPMENT ALONG FM 1431. DO YOU AGREE?
- 18 A. No, I do not. There is both commercial and residential development along FM 1431. In the
- immediate vicinity of where Segment Y2 is proposed, FM 1431 has existing distribution
- 20 poles along portions of the roadway. In addition, the Brushy Creek water tower, the Round
- Rock water tower, a communication tower, and traffic lights where Sam Bass Road, Sendero
- Springs Drive, and Stone Oak Drive intersect with FM 1431 are all visible along FM 1431
- where Segment Y2 is proposed. Further, Segment Y2 parallels existing roadways in
- 24 accordance with the PUC Substantive Rules.

Q. DOES FM 1431 HAVE A SCENIC DESIGNATION?

- 26 A. According to the Federal Highway Administration, Texas does not have any designated
- National Scenic Byways or All-American Roads. In addition, this part of FM 1431 is not
- listed on any Texas scenic drives websites. FM 1431 is an existing compatible ROW that
- 29 provides paralleling opportunities consistent with PUC routing criteria.

- Q. DO YOU AGREE WITH MR. PETTER'S ASSERTION THAT SEGMENT Y2
 WOULD MAKE LARGE AREAS OF ROADSIDE PROPERTY ALONG FM 1431
 UNUSABLE?
- A. No, I do not. This is a common claim in transmission line cases. Development has successfully continued and flourished along roadside properties within Williamson County (and throughout Texas) where a 138-kV transmission line was there first. Examples include Steiner Ranch in Austin, The Woodlands north of Houston, and Avery Ranch, located just outside of and southwest of the study area for this project.
- 9 Q. DO YOU AGREE WITH MR. PETTER'S ASSERTION (P. 27) THAT SEGMENT Y2
 10 SHOULD NOT BE INCLUDED IN AN APPROVED ROUTE?
- 11 A. No. Mr. Petter provides no substantive basis, taking into account the criteria required by the
 12 PUC, to exclude this segment from consideration. POWER fully evaluated 53 separate
 13 criteria addressing the Commission's required considerations related to Segment Y2. It
 14 remains a reasonable route segment for the Commission's consideration in this proceeding.
- 15 Q. MR. PETTER'S TESTIMONY STATES CONCERNS ABOUT CONSTRUCTING A
 16 TRANSMISSION LINE IN OR NEAR A PARK OR RECREATION AREA. HE
 17 OPINES THAT "IN SOME INSTANCES THE LINE COULD POTENTIALLY END
 18 THE RECREATIONAL USE OF THE PROPERTIES." HOW DO YOU RESPOND?
- A. While I understand Mr. Petter's concern regarding the park and recreation facilities in his District, in most instances a new transmission line does not change the land use in a park or recreation area. Therefore, I disagree with Mr. Petter that this transmission line project will end the recreational use of properties within the Brushy Creek Community.
- 23 IX. REBUTTAL TO BRUCKER STENSRUD/CEDAR PARK LAND, L.P.
- Q. MR. STENSRUD'S TESTIMONY (P. 5) STATES THAT SEGMENT L3 IS BISECTING THE CEDAR PARK LAND PROPERTY. DO YOU AGREE?
- A. No. Although the proposed transmission line does not parallel Cedar Park Land's property boundaries for its entirety, Segment L3 is following a tree line (a natural feature) along the northeast corner of the Cedar Park Land property. No active development was identified on the Cedar Park Land's property during the route development phase of the project; as a

result, the centerline of the route segment on Cedar Park Land's property was located to increase the distance away from an existing habitable structure located further to the northeast. If Segment L3 were to completely parallel the Cedar Park Land's property boundaries it would add three 90-degree transmission structures, additional length, and an additional expense.

Q. MR. STENSRUD'S TESTIMONY (P. 7) STATES THAT SEGMENTS K3 AND L3 DO NOT PARALLEL EXISTING COMPATIBLE ROW LIKE ROADS. DO YOU AGREE?

9 A. No. Segment K3 was developed to parallel the south side of FM 1431, an existing compatible ROW. Segment L3 was also developed to parallel Thousand Oaks Drive (an existing compatible ROW), property lines, and cultural and natural features (a fence line and a tree line).

13 X. RESPONSE TO TEXAS PARKS AND WILDLIFE DEPARTMENT'S (TPWD) 14 JULY 13, 2016, LETTER TO THE PUC AND REBUTTAL TO THE DIRECT 15 TESTIMONY OF TPWD WITNESS JESSICA SCHMERLER

16 Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?

A. This section of my testimony responds to recommendations and comments contained in a July 13, 2016, letter from the Texas Parks and Wildlife Department (TPWD) to the PUC's Ms. Karen Hubbard, in accordance with the Order of Referral in this case and Tex. Parks & Wild. Code § 12.0011, and the direct testimony of TPWD witness Ms. Jessica Schmerler filed on September 12, 2016. The recommendations and comments in these two filings are consistent and will be addressed together below.

Q. WHAT GENERAL IMPRESSIONS DO YOU HAVE OF THE LETTER AND TESTIMONY?

A. TPWD includes comments and recommendations regarding the project and potential impacts on sensitive fish/wildlife resources, habitats or other sensitive natural resources. This information provides some sound and reasonable advice. Overall, the letter and testimony includes typical concerns, comments and recommendations that are often provided by TPWD with regard to proposed transmission line projects. POWER and LCRA TSC have already taken into consideration several of the recommendations offered by TPWD.

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1	It is important to note that the TPWD letter and testimony do not take into
2	consideration PURA §37.056 or Commission Substantive Rule §25.101, two critical
3	regulatory guidelines that POWER and LCRA TSC employed throughout the process of
4	developing the alternative routes and while preparing the EA in support of LCRA TSC's
5	CCN Application. The TPWD letter only considers limited issues.

- ON PAGE 7 OF TPWD'S LETTER AND PAGE 17 OF MS. SCHMERLER'S
 DIRECT TESTIMONY, TPWD STATES THE EA DID NOT PROVIDE
 SUFFICIENT INFORMATION BASED ON SURVEYS, REMOTE SENSING, OR
 MODELING TO DETERMINE WHICH ROUTE WOULD BEST MINIMIZE
 IMPACTS TO IMPORTANT, RARE, AND PROTECTED SPECIES. HOW DO YOU
 RESPOND?
- 12 A. Currently there are no requirements to survey for rare species, state-listed species or species of concern. However, after a transmission line route has been approved by the Commission, LCRA TSC will perform a natural resources assessment, which will consider threatened and endangered wildlife and plant species along the approved route. Appropriate consultation with TPWD and USFWS are standard elements of the PUC final orders that LCRA TSC will comply with after the final order is received.
- Q. ON PAGE 8 OF TPWD'S LETTER AND ON PAGES 19-21 OF MS. SCHMERLER'S
 DIRECT TESTIMONY, TPWD LISTS SEVEN PARKS AND RECREATION
 AREAS THAT COULD POTENTIALLY BE CROSSED BY THE PROPOSED
 TRANSMISSION LINE AND STATES THAT THESE FACILITIES HAVE
 RECEIVED EITHER FEDERAL OR STATE FUNDS FROM TPWD'S PARK
 GRANTS PROGRAM. HOW DO YOU RESPOND?
- A. POWER and LCRA TSC reviewed the parks and recreation areas identified in the TPWD letter and in Ms. Schmerler's direct testimony and determined that two of the facilities are

1 not crossed by any of the proposed segments or routes. Please refer to the summary table below.

Figure	TPWD letter to PUC, page 8, and Ms. Schmerler's direct testimony, page 20,			
5-1	identify that these facilities received either		Routes	Segments
Map	federal/state funds from TPWD's park		that	that
ID	grants program:	Owner	Cross	Cross
		City of		
1716	Brushy Creek Lake park	Cedar park	None	None
		Williamson		
1717	Brushy Creek Greenbelt	County	15	N3
	Creekside Park and Pool and Shirley	Brushy		
1720	MacDonald Park	Creek MUD	15	N3
		Fern Bluff		
1721	Brightwater Greenbelt	MUD	15	N3
		City of		
1743	Behrens Ranch Greenbelt	Round Rock	16, 23, 24	F3
	The Woods HOA Park (The Woods Amenity	City of		
1753	Center Park)	Round Rock	None	None
		City of	8, 9, 10,	
1754	Brushy Creek Greenbelt-Creekbend	Round Rock	15, 17	A4

- Q. ON PAGE 11 OF MS. SCHMERLER'S DIRECT TESTIMONY, SHE STATES THAT
 TPWD DOES NOT SUPPORT THE SELECTION OF ALTERNATIVE ROUTE 31
 BECAUSE SEGMENT Y2 CROSSES A TEXAS NATURAL DIVERSITY
 DATABASE (TXNDD) RECORD FOR A KNOWN CAVE (STEP-DOWN CAVE)
 CONTAINING BONE CAVE HARVESTMAN, A FEDERALLY ENDANGERED
 CAVE INVERTEBRATE. HOW DO YOU RESPOND?
- A. POWER initially reviewed the TXNDD data available in the vicinity of Segment Y2.

 POWER's subcontractor, Cambrian Environmental, was specifically engaged to review and evaluate karst features within the study area. Following POWER and Cambrian's review, and in coordination with LCRA TSC, we determined that Segment Y2 is located in an area where the proposed transmission facilities can be constructed and operated in a manner that will not negatively impact the Step-Down Cave. Mr. Powell and Ms. Melendez additionally address Segment Y2 in this area in their rebuttal testimonies.

1 Q. DID POWER AND LCRA TSC DO ANYTHING UNIQUE OR DIFFERENT OF
--

- 2 THIS PROJECT TO SPECIFICALLY ADDRESS THE ENDANGERED
- 3 SALAMANDERS AND KARST FEATURES AND SPECIES KNOWN IN THE
- 4 STUDY AREA?
- 5 A. Yes, from the start of the project, POWER and LCRA TSC contracted with and worked
- 6 closely with Cambrian Environmental, a firm that specializes in Edwards Aquifer
- 7 Compliance, including threatened and endangered salamander investigations and
- 8 endangered karst invertebrate investigations, karst terrain feature surveys, presence/absence
- 9 investigations of all of the 16 species of endangered cave invertebrates in Williamson,
- Travis, and Bexar counties.
- There are also unique evaluation criteria in the data tables (Tables 5-1 and 5-2) that
- address these unique features, specifically criteria numbers 39 through 43.

13 Q. WHAT SERVICES DID CAMBRIAN ENVIRONMENTAL PROVIDE IN SUPPORT

- 14 **OF THIS PROJECT?**
- 15 A. For this project, Cambrian Environmental performed a threatened salamander impact
- analysis and an endangered karst invertebrate analysis; refer to Attachment G of the EA.
- 17 Q. WERE POWER AND LCRA TSC AWARE OF THE RECORD FOR A KNOWN
- 18 CAVE (STEP-DOWN CAVE) CONTAINING BONE CAVE HARVESTMAN, A
- 19 FEDERALLY ENDANGERED CAVE INVERTEBRATE REFERENCED IN THE
- 20 TPWD LETTER AND IN MS. SCHMERLER'S TESTIMONY?
- 21 A. Yes. LCRA TSC and POWER are aware of the TXNDD record of the Bone Cave
- harvestman and habitat in the known Step-Down Cave, also known as the Round Rock
- Breathing Cave, referenced in Ms. Schmerler's testimony. This TXNDD record was mapped
- and considered during the routing process and is tabulated in the data table under criteria
- 25 number 37.

26 Q. DID CAMBRIAN ENVIRONMENTAL IDENTIFY AND ADDRESS THIS KNOWN

- 27 CAVE AND HABITAT IN THEIR ANALYSIS?
- 28 A. Yes, this cave is listed as a potential cave and karst constraint in Table 1 of the Karst and
- Salamander Impact Analysis (Appendix G in the EA).

1 Q. WHAT ARE THE DIMENSIONS OF THIS CAVE?

- A. I do not know the exact dimensions of the cave; however, the information that I personally reviewed from the Texas Speleological Association about this cave (included with my work
- 4 papers) indicates that it is roughly 60 feet wide or long and approximately 10-15 feet deep
- 5 with several holes that are too small to enter, leading from the deepest room.

6 Q. IN YOUR OPINION, CAN LCRA TSC SPAN THIS CAVE AND HABITAT 7 WITHOUT CREATING IMPACTS TO THE CAVE AND HABITAT?

- 8 A. Yes, in my opinion, LCRA TSC can safely span this cave and habitat since typical spans for 9 the project will range from approximately 500 feet to 1,000 feet. As stated in the EA on page 10 5-25, "Spanning caves and karst features and implementing the SWPPP to the extent 11 practicable, will avoid and minimize significant adverse impacts to karst invertebrates. 12 LCRA TSC may elect to enroll in the Williamson County RHCP or additional consultation 13 with USFWS might be required if known habitat is crossed or potential suitable habitat is 14 observed during the field survey of a PUC approved route." Further, the EA also states that 15 any route selected should have site specific karst surveys conducted in order to better 16 understand the potential for impacts to karst features (Page 5-2)." Based on previous 17 experience working with the LCRA TSC on projects in karst areas (Manchaca-Friendship 18 138 kV Transmission line), I fully believe that LCRA TSC will take the necessary 19 precautions to avoid and minimize potential impacts to this documented feature.
- 20 Q. ON PAGE 5 OF TPWD'S LETTER AND PAGE 12 OF MS. SCHMERLER'S
 21 DIRECT TESTIMONY, TPWD RECOMMENDS ROUTE 29 WITH SUBSTATIONS
 22 1-6 AND 2-5. HOW DO YOU RESPOND?
- As mentioned previously, it is important to note that TPWD admittedly only used 25 of the 53 evaluation criteria to arrive at their recommendation (Pages 4-5 of the TPWD letter). With that noted, in my opinion, Route 29 with Substations 1-6 and 2-5 is a feasible route that would fulfill the needs of this project.

1	Q.	ON PAGE 11	OF TPWD'S	LETTER	AND	PAGE 2	26 OF	MS.	SCHMERLER'S
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- 2 DIRECT TESTIMONY, TPWD RECOMMENDS THAT PHASE SEPARATION BE
- 3 USED TO AVOID AVIAN ELECTROCUTIONS. WHAT IS YOUR RESPONSE TO
- 4 THIS RECOMMENDATION?
- 5 A. Avian electrocutions caused by less than adequate phase separation are typically associated
- 6 with distribution lines and not transmission lines. The structures shown in Figures 1-2
- through 1-6 in the EA have line phase separations that are wider than nearly all birds'
- 8 wingspans that are native to the area.
- 9 Q. DO YOU AGREE WITH THE RECOMMENDATIONS MADE BY TPWD WITH
- 10 REGARDS TO KARST INVERTEBRATES, SALAMANDERS, AND BIRDS ON
- 11 PAGES 22-26 IN MS. SCHMERLER'S DIRECT TESTIMONY?
- 12 A. Yes. LCRA TSC will comply with applicable and required regulations related to karst
- invertebrates, salamanders, and birds as they have on previous projects with these features.
- For more specifics related to LCRA TSC's permitting processes, refer to Mr. Powell's direct
- and rebuttal testimony.
- 16 Q. ON PAGE 12 OF TPWD'S LETTER AND PAGE 27 OF MS. SCHMERLER'S
- 17 DIRECT TESTIMONY, TPWD RECOMMENDS THAT ROW CLEARING BE
- 18 AVOIDED FROM MARCH THROUGH AUGUST. WHAT IS YOUR RESPONSE
- 19 TO THIS RECOMMENDATION?
- 20 A. LCRA TSC will take the necessary steps to be in compliance with the Migratory Bird Treaty
- Act, the Endangered Species Act, and to the extent reasonable, will avoid construction from
- March through August if appropriate given the route selected in this proceeding.
- 23 Q. ON PAGES 19 AND 29 OF MS. SCHMERLER'S DIRECT TESTIMONY, TPWD
- 24 RECOMMENDS INSTALLING STORM WATER BEST MANAGEMENT
- 25 PRACTICES (BMPS) AT STREAM CROSSINGS. WHAT IS YOUR RESPONSE TO
- 26 THIS RECOMMENDATION?
- A. LCRA TSC will prepare a Storm Water Pollution Prevention Plan for the project and will
- 28 implement best management practices to reduce the potential impacts of erosion and
- 29 sedimentation.

1	Q.	ON PAGE	21	OF	TPWD'S	LETTER	AND	PAGE	33	OF	MS.	SCHMERLER'S
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- 2 DIRECT TESTIMONY, TPWD RECOMMENDS A MITIGATION PLAN. WHAT IS
- 3 YOUR RESPONSE TO THIS RECOMMENDATION?
- 4 A. LCRA TSC will not own any land within the ROWs required for this project. The land
- 5 beneath the line will remain in private ownership. I understand this is a frequent request by
- TPWD and is not required by any law, statute, or regulation, and to my knowledge has never
- been required by the Commission or provided by a utility for construction of a transmission
- 8 line authorized by a CCN in Texas.
- 9 Q. ON PAGES 26-27 OF MS. SCHMERLER'S DIRECT TESTIMONY TPWD
- 10 RECOMMENDS THAT LINE MARKERS AT WATER CROSSINGS BE
- 11 INSTALLED. WHAT IS YOUR RESPONSE?
- 12 A. LCRA TSC will comply with the Migratory Bird Treaty Act, the Endangered Species Act,
- and the Commission's ordering language in connection with this project.
- 14 XI. <u>ADDITIONAL PROPOSED ROUTES</u>
- 15 Q. HAVE ANY OTHER ADDITIONAL ROUTES BEEN PROPOSED THAT WERE
- 16 NOT INCLUDED IN LCRA TSC'S APPLICATION?
- 17 A. Yes, seven additional routes have been proposed using the segments in Table 5-2 in the EA
- contained in LCRA TSC's application.
- 19 Q. PLEASE PROVIDE THE SEGMENT COMBINATIONS OF THE SEVEN
- 20 ADDITIONAL ROUTES THAT WERE PROPOSED AND IDENTIFY WHICH
- 21 PARTY PROPOSED THE ADDITIONAL ROUTES.
- 22 A. Land and Home Owners of CR 175 ("LHO of CR 175") proposed an alternative route,
- 23 named LHO-1, from the Leander Substation to Round Rock Substation consisting of the
- following combination of segments D-E-K-S4-C6-F6-(2-8)-G6-H6-U4-O-D1-G1-R1-L5-
- 25 B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-S2-Y2-Z2-P5-B3-C3-E3-G3-I3-J4. This proposed route
- would utilize Substations 1-4 and 2-8.
- 27 LHO of CR 175 proposed an alternative route, named LHO-2, from the Leander
- Substation to Round Rock Substation consisting of the following combination of segments
- 29 D-F-Y5-I-H-(C1*-E1*-2-2)-D1-G1-R1-L5-B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-S2-Y2-Z2-

P5-B3-C3-E3-G3-I3- J4. This proposed route would utilize Substations 1-4 and 2-2, with 1 2 segments C1 and E1 used to reach Substation 2-2. 3 LHO of CR 175 proposed an alternative route, named LHO-3, from the Leander 4 Substation to Round Rock Substation consisting of the following combination of segments 5 D-E-K-S4-C6-F6-(2-8)-G6-H6-U4-O-D1-G1-R1-L5-B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-6 S2-M3-O3-U3-B4a-F4a-T5- I4. This proposed route would utilize Substations 1-4 and 2-8. 7 LHO of CR 175 proposed an alternative route, named LHO-4, from the Leander 8 Substation to Round Rock Substation consisting of the following combination of segments 9 D-F-Y5-I-H-(C1*-E1*-2-2)-D1-G1-R1-L5-B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-S2-M3-10 O3-U3-B4a-F4a-T5- I4. This proposed route would utilize Substations 1-4 and 2-2, with 11 segments C1 and E1 used to reach Substation 2-2. 12 City of Leander proposed an alternative route, named CoL-1, from the Leander 13 Substation to Round Rock Substation consisting of the following combination of segments 14 D-E-K-L4-(2-6)-N4-R-Q4-V-W-T4-X-J1-A5-L1-P1-T1-V5-D2-(1-7)-K4-J2-Q2-S2-Y2-Z2-P5-B3-C3-E3-G3-I3-J4. This proposed route would utilize Substations 2-6 and 1-7. 15 16 Riverside Resources proposed an alternative route, named RR-1, from the Leander 17 Substation to Round Rock Substation consisting of the following combination of segments 18 D-E-K-L4-(2-6)-N4-R-Q4-V-W-T4-X-J1-A5-L1-P1-T1-W5-(1-8)-E6-U5-U2-W2a-Q5-19 B3-C3-E3-G3-I3-J4. This proposed route would utilize Substations 2-6 and 1-8. PUC Staff proposed an alternative route, named Staff-3M, from the Leander 20 Substation to Round Rock Substation consisting of the following combination of segments 21 22 D-E-K-S4-C6-F6-(2-8)-G6-H6-U4-O-D1-G1-F5-D5-M1-O1*-(1-6)-N1-L1-A5-J1-X-T4-23 Y-Z-A1-J5-K5-X2-C3-E3-G3-I3-J4. This proposed route would utilize Substations 2-8 and

1-6.

1 Additional Routes Summary:

Origin/ Pleading	Party	LCRA TSC Route Name	Segment Combination
1095	LHO-CR 175	LHO-1	D-E-K-S4-C6-F6-(2-8)-G6-H6-U4-O-D1-G1-R1-L5-B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-S2-Y2-Z2-P5-B3-C3-E3-G3-I3-J4
1095	LHO-CR 175	LHO-2	D-F-Y5-I-H-(C1*-E1*-2-2)-D1-G1-R1- L5-B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-S2- Y2-Z2-P5-B3-C3-E3-G3-I3-J4
1095	LHO-CR 175	LHO-3	D-E-K-S4-C6-F6-(2-8)-G6-H6-U4-O-D1- G1-R1-L5-B2-E2-(1-4)-F2-G2-H2-N2- O2-R2-S2-M3-O3-U3-B4a-F4a-T5-I4
1095	LHO-CR 175	LHO-4	D-F-Y5-I-H-(C1*-E1*-2-2)-D1-G1-R1- L5-B2-E2-(1-4)-F2-G2-H2-N2-O2-R2-S2- M3-O3-U3-B4a-F4a-T5-I4
1107	City of Leander	CoL-1	D-E-K-L4-(2-6)-N4-R-Q4-V-W-T4-X-J1- A5-L1-P1-T1-V5-D2-(1-7)-K4-J2-Q2-S2- Y2-Z2-P5-B3-C3-E3-G3-I3-J4
1106	Riverside Resources	RR-1	D-E-K-L4-(2-6)-N4-R-Q4-V-W-T4-X-J1- A5-L1-P1-T1-W5-(1-8)-E6-U5-U2-W2a- Q5-B3-C3-E3-G3-I3-J4
1322	PUC Staff	Staff-3M	D-E-K-S4-C6-F6-(2-8)-G6-H6-U4-O-D1- G1-F5-D5-M1-O1*-(1-6)-N1-L1-A5-J1- X-T4-Y-Z-A1-J5-K5-X2-C3-E3-G3-I3-J4

^{*}These segments will be used entering and exiting the substation sites.

3 Q. HAVE LCRA TSC AND POWER COMPILED THE DATA FOR THESE SEVEN 4 ADDITIONAL PROPOSED ROUTES?

- Yes, for comparison purposes, Exhibit LBM-1R includes the land use and environmental data tabulation for these seven additional proposed routes along with the land use and environmental data provided in Table 5-1 in the EA.
- Q. IN YOUR OPINION ARE THESE ADDITIONAL ROUTES REASONABLE AND
 FEASIBLE FROM A LAND USE AND ENVIRONMENTAL PERSPECTIVE?
- 10 A. Yes, in my opinion these seven additional routes along with the 31 routes included in LCRA
 11 TSC's application are reasonable and feasible.

XII. <u>CONCLUSION</u>

2	Q.	AFTER HAVING REVIEWED THE INTERVENORS' TESTIMONY IN THIS
3		DOCKET, WHAT IS YOUR CONCLUSION?

- 4 A. I have found nothing in any of the intervenors' testimony that would preclude construction
- of this proposed transmission line along any of the 31 filed alternative routes/segments,
- 6 LHO-1, LHO-2, LHO-3, LHO-4, CoL-1, RR-1, or Staff-3M.

7 Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

8 A. Yes, it does.