

**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 § OF
NECESSITY FOR THE §
PROPOSED LEANDER TO ROUND §
ROCK 138-KV TRANSMISSION LINE IN § ADMINISTRATIVE HEARINGS
WILLIAMSON COUNTY, TEXAS §**

REBUTTAL TESTIMONY

OF

CHRISTIAN POWELL

ON BEHALF OF

APPLICANT

LCRA TRANSMISSION SERVICES CORPORATION

October 24, 2016

**SOAH DOCKET NO. 473-16-4342
PUC DOCKET NO. 45866
REBUTTAL TESTIMONY OF CHRISTIAN POWELL**

TABLE OF CONTENTS

I.	INTRODUCTION	3
II.	ROUTING.....	5
III.	SUBSTATION SITING AND ALTERNATIVES.....	6
IV.	COMMUNITY VALUES.....	7
V.	PRUDENT AVOIDANCE	9
VI.	URBAN AND SUBURBAN ENVIRONMENTS.....	11
VII.	ENVIRONMENT AND ECOLOGY	13
VIII.	PIPELINES.....	16

**SOAH DOCKET NO. 473-16-4342
PUC DOCKET NO. 45866
REBUTTAL TESTIMONY OF CHRISTIAN POWELL**

I. INTRODUCTION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

- Q. PLEASE STATE YOUR NAME AND OCCUPATION.**
- A. My name is Christian Powell. I am employed by the Lower Colorado River Authority (LCRA) as a Senior Regulatory Case Manager.
- Q. ARE YOU THE SAME CHRISTIAN POWELL THAT PROVIDED DIRECT TESTIMONY IN THIS DOCKET?**
- A. Yes, I am.
- Q. WHAT TESTIMONY WILL YOU BE ADDRESSING IN YOUR REBUTTAL TESTIMONY?**
- A. I will be addressing testimony filed by or on behalf of several intervenors and Mr. John Poole, testifying on behalf of the Staff of the Public Utility Commission of Texas (PUC or Commission).
- Q. WAS YOUR REBUTTAL TESTIMONY AND THE INFORMATION YOU ARE IDENTIFIED AS SPONSORING PREPARED BY YOU OR BY KNOWLEDGEABLE PERSONS UPON WHOSE EXPERTISE, JUDGMENT AND OPINIONS YOU RELY IN PERFORMING YOUR DUTIES?**
- A. Yes, it was.
- Q. IS THE INFORMATION CONTAINED IN YOUR REBUTTAL TESTIMONY AND THE INFORMATION YOU ARE IDENTIFIED AS SPONSORING TRUE AND CORRECT TO THE BEST OF YOUR KNOWLEDGE AND BELIEF?**
- A. Yes, it is.

1 **Q. HAVE YOU HAD AN OPPORTUNITY TO REVIEW THE TESTIMONY FILED**
2 **BY THE INTERVENORS AND THE PUC STAFF IN THIS DOCKET, AND IF SO,**
3 **DO YOU HAVE ANY GENERAL REMARKS?**

4 A. Yes, I have read the testimonies filed by all of the intervenors and the PUC Staff. I
5 understand the concerns expressed by the intervenors. I understand that most intervenors
6 do not want a new transmission line on their property and prefer the PUC not approve a
7 route on or near their land or the places they frequent. In reviewing the testimony, I did not
8 identify an individual landowner intervenor in this docket who indicated that he or she is
9 willing to accept the proposed transmission line on or near his or her residence or
10 commercial property. To say it differently, all intervenors in this docket, other than
11 governmental entities, oppose any route on or near their land.

12 After having reviewed each piece of testimony filed by the intervenors and PUC
13 Staff, and after having reviewed discovery responses filed by parties in this docket, I still
14 maintain that all 31 routes and 16 substation sites filed by LCRA TSC in its application
15 remain viable alternatives. In addition, other alternative routes comprising segments
16 included in the LCRA TSC application, including the modifications to Route 3 as proposed
17 by PUC Staff (“Staff-3M”), “Route CoL-1” proposed by the City of Leander and Riverside
18 Resources, “Route RR-1” proposed by Riverside Resources, and “Routes LHO-1, LHO-2,
19 LHO-3, and LHO-4” proposed by the Land and Home Owners of CR 175, are also viable
20 and acceptable route alternatives. LCRA TSC does not have a preferred route, and all of
21 the routes that have been presented in this proceeding satisfy the need for the proposed
22 project and can be feasibly constructed, operated, and maintained by LCRA TSC.

23 **Q. DO YOU AGREE WITH THE MANNER IN WHICH MR. JOHN POOLE**
24 **TESTIFYING ON BEHALF OF PUC STAFF DESCRIBES LCRA TSC’S**
25 **APPLICATION IN THIS PROCEEDING?**

26 A. Yes, with a point of clarification. On pages 5 and 12, Mr. Poole describes LCRA TSC’s
27 Application as seeking a Certificate of Convenience and Necessity (CCN) amendment in
28 order to construct a new single-circuit 138-kV transmission line and two new substations
29 within Williamson County, Texas. To clarify, LCRA TSC’s Application in this docket
30 seeks certification of two new 138-kV transmission line circuits between the existing
31 Leander and Round Rock Substations (that connect to viable substation sites in both

1 substation siting areas 1 and 2) with one circuit to be installed initially and the second
2 circuit to be installed at a later date.

3 **II. ROUTING**

4 **Q. HAS LCRA TSC CHANGED ITS IDENTIFICATION OF THE ROUTE THAT IT**
5 **BELIEVES BEST ADDRESSES THE REQUIREMENTS OF PURA AND PUC**
6 **SUBSTANTIVE RULES?**

7 A. No, nor is that necessary. As I stated in my direct testimony, the identification of a route
8 that best addresses the statutory and regulatory requirements is not intended to be an
9 indication of LCRA TSC's "preferred" routing. It is simply intended to be a notification to
10 parties to the proceeding, PUC Staff, the Administrative Law Judges (ALJs), and the PUC
11 of a route in the application that LCRA TSC believed, at the time of the filing of the
12 application, is the route that best addressed the applicable criteria. It is not uncommon in
13 transmission line cases for other parties to have a different opinion and present testimony
14 to the PUC regarding which route, in their opinion, best addresses the statutory and
15 regulatory routing criteria. In addition, it is not uncommon for new combinations of
16 segments to be presented that compare favorably to other routes presented in the
17 application or even the route identified by the utility that best addresses the routing criteria.

18 Stated again, LCRA TSC's response to Question 17 in the CCN Application should
19 not be construed as LCRA TSC's preference or desire that Route 31 be constructed over
20 any other proposed route. Rather, LCRA TSC's identification of Route 31 simply provided
21 a route for other routing alternatives to be compared against. For example, as the City of
22 Leander filed testimony supporting alternative routing (Route CoL-1) as its preferred
23 routing for the northern portion of Route 31 within the City of Leander, LCRA TSC does
24 not take issue with the city's modification of its preferred routing from what was previously
25 stated in the City of Leander's earlier resolution.

1 **III. SUBSTATION SITING AND ALTERNATIVES**

2 **Q. MR. HUGHES, ON BEHALF OF INTERVENOR RIVERSIDE RESOURCES,**
3 **STATED THAT MANY SUBSTATION ALTERNATIVES ARE SIMILAR AND**
4 **PROVIDE LITTLE GEOGRAPHIC DIVERSITY. WHY DID LCRA TSC**
5 **BELIEVE IT WAS IMPORTANT TO PRESENT THE PUC WITH NUMEROUS**
6 **SUBSTATION ALTERNATIVES?**

7 A. The substation alternatives presented in LCRA TSC’s application in this proceeding
8 represent sites that LCRA TSC was able to study and identify as viable substation sites
9 within each substation siting area. In addition, some of the sites were added as a result of
10 public input or the identification of willing sellers, while others were added as a result of
11 ongoing development constraints. While some of the sites are located relatively closer
12 together than others, all substation alternatives presented by LCRA TSC are viable,
13 constructible alternatives available for consideration by the PUC. LCRA TSC believes that
14 by providing a robust number of geographically diverse alternate substation sites (eight in
15 each siting area for a total of 16 alternate sites), the PUC has been presented with a variety
16 of substation site options that connect to a network of segments which provides an adequate
17 number of reasonably differentiated routes to conduct a proper evaluation.

18 **Q. MR. HUGHES ALSO STATED THAT CERTAIN SUBSTATION**
19 **ALTERNATIVES SHOULD NO LONGER BE CONSIDERED FOR THIS**
20 **PROJECT. DO YOU AGREE?**

21 A. No, I do not. None of the testimony that I have reviewed provides sufficient grounds for
22 elimination of any of the alternate substation sites or alternate transmission line segments
23 from consideration. As I stated above, it is important for the PUC to have an adequate
24 number of reasonably differentiated alternatives so it may conduct a proper evaluation.
25 LCRA TSC’s application accomplishes this. While LCRA TSC has been able to acquire
26 two of the substation sites identified, all 16 alternative sites identified remain available for
27 consideration by the PUC. LCRA TSC’s intent in acquiring potential substation properties
28 was not to limit the number of possible substation alternatives, but instead to ensure that at
29 least one substation location in each substation siting area could be controlled in light of

1 the rapid development in the area and the potential for less compatible land use constraints
2 to be located on all of the alternative sites.

3 IV. COMMUNITY VALUES

4 **Q. MANY OF THE INTERVENORS HAVE EXPRESSED CONCERNS REGARDING**
5 **PERCEIVED IMPACTS TO THEIR INDIVIDUAL PROPERTIES AS AN**
6 **INDICATION OF COMMUNITY VALUES. HOW DID LCRA TSC CONSIDER**
7 **COMMUNITY VALUES IN EVALUATING THE ROUTES PROPOSED FOR**
8 **THIS PROJECT?**

9 A. Assertions of impacts on individual properties as a statement of “community values” are
10 commonly raised in contested transmission line proceedings. Such claims regarding
11 individual properties are, quite frankly, difficult to reconcile in a case with intervenors
12 making such claims on virtually every route. In general, most property owners, particularly
13 those who are willing to intervene and participate in a contested proceeding, do not want a
14 transmission line crossing or near their properties and they would prefer that the PUC
15 approve a route that is not on, near, or visible from their land. In considering the potential
16 impacts of the project on the community of the study area, LCRA TSC has made reasonable
17 choices when identifying alternative routes, segments, and modifications of such by
18 considering the interests of the community along with the other statutory and regulatory
19 criteria.

20 For example, in attempting to discern the community values of this study area,
21 LCRA TSC gathered information in a variety of ways. Early in the project development,
22 LCRA TSC and POWER solicited input from a wide range of federal, state, and local
23 government agencies and officials. The input received was evaluated and discussed in the
24 EA. LCRA TSC also held two public open house meetings in the study area to provide
25 interested persons an opportunity to both formally (via a provided questionnaire) and
26 informally comment and express concerns and views on the project. The results of the input
27 provided by the public are presented and discussed in the EA. LCRA TSC also participated
28 in numerous additional meetings with homeowners associations and other groups of
29 interested landowners regarding the project. A list of these meetings is included as exhibits
30 to my direct testimony. During these meetings, LCRA TSC received input from the

1 community on important issues. LCRA TSC also received thousands of emails, letters, and
2 phone calls throughout the route development process from interested members of the
3 study area community. Many other thousands of emails and letters were also reviewed that
4 were filed in Commission Docket No. 45364. LCRA TSC reviewed and evaluated all of
5 this input. Also, throughout the entire development of this project, LCRA TSC has
6 communicated with the cities and Williamson County regarding the need and routing
7 alternatives for the project. Numerous meetings were held with elected officials and
8 professional staffs of each of the cities and Williamson County. During those meetings,
9 city and county officials expressed their views regarding the project and potential routing
10 alternatives in their capacity as elected representatives of the communities impacted by the
11 proposed project. Earlier this year, the cities of Leander, Cedar Park, and Round Rock all
12 presented LCRA TSC with coordinated resolutions adopting a similar preferred corridor
13 for the routing of the project. Subsequent to the filing of the Application, LCRA TSC has
14 reviewed and considered the motions to intervene, filed testimony, and statements of
15 positions filed by intervenors in this docket. LCRA TSC has also received informal input
16 from intervenors following the pre-hearing conference and at the technical conference held
17 in this proceeding.

18 The input received prior to beginning the route delineation process guided LCRA
19 TSC's initial identification of preliminary alternative route segments. Based on the
20 significant community input received after identification of the preliminary alternative
21 route segments, LCRA TSC added and modified route segments and potential substation
22 sites in direct response to community input. During that stage of the process, LCRA TSC
23 also acquired two substation sites from willing sellers in the community. The EA and
24 LCRA TSC's direct testimony in this proceeding discuss and summarize the overall input
25 LCRA TSC has received regarding the project. For example, significant negative concern
26 was expressed regarding certain areas of the study area (e.g., Brushy Creek Trail) and route
27 segments. Ultimately, while certain community value factors may have weighed against
28 certain route segments (e.g., Segment N3), other routing considerations, such as prudent
29 avoidance and the need to offer a robust set of routing alternatives, may have resulted in
30 such segments remaining in the Application. The routes presented in the Application
31 carefully consider and take into account the significant community values presented by the

1 public and government officials in this case and provide the Commission with a
2 geographically diverse set of routes in accordance with the statutory and regulatory routing
3 criteria established by the PUC and all address the need for the project.

4 **Q. DO THE RESOLUTIONS FROM THE CITIES OF LEANDER, CEDAR PARK,**
5 **AND ROUND ROCK REPRESENT COMMUNITY VALUES?**

6 A. As I described in my direct testimony, I believe not only the resolutions from those cities,
7 but the significant input provided by those cities are a strong indication of the community
8 values of the study area as expressed by the officials elected to represent the citizens of
9 significant portions of the project area. First, throughout the course of this project,
10 beginning with the initial project development and continuing through their participation
11 in this docket, city representatives of Leander, Cedar Park, and Round Rock have been
12 highly informed and involved with the project. They have been focused on and engaged in
13 LCRA TSC's routing process and alternative route placement. Second, I agree that any one
14 resolution passed by one of many cities within a project study area may not conclusively
15 encapsulate or explain "community values" for any given project or study area. However,
16 in this case, when the three cities most impacted by the project collectively worked together
17 and collaborated in such a way as to agree on a common routing preference, it carries
18 significant weight and should be given strong consideration.

19 **V. PRUDENT AVOIDANCE**

20 **Q. SEVERAL INTERVENORS RAISED CONCERNS ABOUT THE EFFECT OF**
21 **ELECTRIC AND MAGNETIC FIELDS (EMF) AND/OR EXTREME LOW**
22 **FREQUENCY WAVES ON HUMAN HEALTH. HOW DO YOU RESPOND?**

23 A. EMF is found everywhere, especially where electricity is used, and emanates from many
24 sources including household appliances, electrical equipment, communications equipment,
25 and power lines. Although I appreciate the concerns reflected by these intervenors, the
26 wealth of expert testimony in transmission line routing cases demonstrates that there is no
27 scientific basis to conclude that EMF causes or contributes to adverse health effects.

28 Additionally, the PUC, in Substantive Rule 25.101, requires transmission service
29 providers to consider prudent avoidance in its routing for new transmission lines. Prudent
30 avoidance is defined as "[t]he limiting of exposures to electric and magnetic fields that can

1 be avoided with reasonable investments of money and effort.” This requirement by the
2 PUC is a reflection of the PUC’s recognition of landowner concerns related to EMF. All
3 of LCRA TSC’s alternative routes comply with the PUC’s policy of prudent avoidance.

4 **Q. PLEASE EXPLAIN HOW YOU BELIEVE THE ROUTES PROPOSED IN THIS**
5 **PROCEEDING COMPLY WITH PRUDENT AVOIDANCE.**

6 A. Prudent avoidance has been demonstrated by LCRA TSC in many ways in this proceeding.
7 In the initial stages of the routing process, LCRA TSC worked with POWER to identify
8 areas of significant residential and commercial development, and opportunity areas to
9 avoid or to maximize distances from those areas to the extent reasonable, while providing
10 a sufficient network of routing alternatives that address the need for the Project. For
11 example, during that process, LCRA TSC and POWER examined routing corridors along
12 existing compatible rights-of-way like roads and highways to avoid bisecting
13 neighborhoods and communities where practical, reasonable, and appropriate. In some
14 areas, segments were delineated that cross from one side of a roadway to another to
15 maximize distance from habitable structures. Segments Y2, O3, S, and Q2 are examples of
16 segments that LCRA TSC identified on specific locations of the roadway in order to
17 maximize distance to habitable structures. LCRA TSC also utilized roadway clearances
18 along segments A4, B2, D1, E, E4, H3, H4, J3, I4, L, L5, M1, N3, O, O3, and Y2 in order
19 to maximize the distance to nearby neighborhoods and habitable structures.

20 Other examples of prudent avoidance during the route delineation process include
21 portions of Segments N3, F3, and E6 that were located in existing open space corridors
22 away from residential and commercial development. Likewise, portions of Segments V4,
23 X4, Z4, D6, C5, E5, E2, F2, G2, and H2 were identified parallel to existing water utility
24 pipelines to avoid areas of residential and commercial development along Ronald Reagan
25 Blvd., Sam Bass Road, and FM 1431. Thus, LCRA TSC identified possible route segments
26 in compliance with the policy of prudent avoidance by paralleling existing compatible
27 ROW like roads, non-gas pipelines, and open space corridors to maximize the distance to
28 habitable structures.

29 Further examples of prudent avoidance are the six segments (A3a, B4a, D3a, F4a,
30 U1a, V1a, and W2a) that are “offset” from a companion segment located adjacent to the
31 property line and closer to neighborhoods and habitable structures. The “offset” route

1 segments increase the distance from the alternate route to nearby habitable structures when
2 compared to their companion segments located adjacent to the property lines but closer to
3 neighborhoods and habitable structures.

4 **VI. URBAN AND SUBURBAN ENVIRONMENTS**

5 **Q. SEVERAL INTERVENORS RAISED CONCERNS ABOUT WHETHER THIS**
6 **PROJECT CAN BE SAFELY CONSTRUCTED AND OPERATED IN**
7 **RESIDENTIAL AREAS. HOW DO YOU RESPOND?**

8 A. Although I appreciate the concerns reflected by these intervenors, the location of
9 transmission lines in residential and developing areas is not uncommon. As development
10 continues and demand for power in the study area grows, the need for electricity and
11 electrical infrastructure also grows. LCRA TSC owns and operates hundreds of miles of
12 electric transmission line in residential areas, including residential areas in Williamson
13 County.

14 **Q. SEVERAL INTERVENORS ALSO RAISED CONCERNS ABOUT IMPACTS ON**
15 **FUTURE DEVELOPMENT. HOW DO YOU RESPOND?**

16 A. Future development is not a criterion the Commission has historically considered in
17 approving a route for a proposed transmission line project. My experience is that
18 development happens around transmission lines and substations frequently, and has even
19 occurred around and along existing transmission lines and substations located within or
20 near the study area, including the existing line that is proposed to be rebuilt as a component
21 of Segments I3, G3, E3, and C3. I have yet to see a development fail or be abandoned
22 because of the existence of a transmission line or substation. As with construction of any
23 infrastructure, development plans may need to be altered or modified, but rarely if ever is
24 this infrastructure a reason for development to stop. On the contrary, as Mr. Garza points
25 out in his testimony, most developments need a reliable source of electricity to realize their
26 full potential.

1 **Q. SEVERAL INTERVENORS ALSO RAISED CONCERNS ABOUT LOCATING**
2 **TRANSMISSION LINES OR SUBSTATIONS ON SCHOOL PROPERTIES. HOW**
3 **DO YOU RESPOND?**

4 A. LCRA TSC owns and safely operates a number of transmission facilities that are on or in
5 close proximity to school properties. From a routing perspective, many school buildings
6 are situated on properties in such a way that large buffer areas are created around the
7 perimeter of the properties. So, while it is fairly common for transmission lines and
8 substations to be located on school properties, rarely are they located directly over or on
9 constant use areas or areas that are usually occupied by students or school staff. In many
10 cases, the areas along the perimeter of a school property, in which transmission facilities
11 are located, are reserved by the school for uses such as parking, drainage, utilities, and
12 driveways, which are land uses highly compatible with transmission lines.

13 **Q. SEVERAL INTERVENORS ALSO RAISED CONCERNS ABOUT LAND THAT**
14 **LCRA TSC WILL USE FOR FACILITIES AND THE IMPACT THAT MAY HAVE**
15 **ON TAX VALUES AND TAX REVENUE. HOW DO YOU RESPOND?**

16 A. LCRA TSC pays local property taxes in conjunction with its substation and transmission
17 line facilities, land, and land rights it owns and will pay property taxes to jurisdictions in
18 Williamson County in which the proposed new transmission line and substations for this
19 project are located. LCRA TSC has paid about \$3.5 million in property taxes to school
20 districts and other local jurisdictions in Williamson County since its creation in 2002.
21 LCRA TSC also pays state and local sales and use taxes for goods and services defined as
22 taxable by state law.

23 **Q. DO YOU AGREE WITH THE DECISION OF MR. JOHN POOLE TESTIFYING**
24 **ON BEHALF OF PUC STAFF TO REMOVE ALTERNATIVE SEGMENTS FROM**
25 **CONSIDERATION BASED ON THE LOCATION OF SEGMENTS ON**
26 **RESIDENTIAL PROPERTIES?**

27 A. No. On page 22, Mr. Poole describes removing Segment O3 from consideration because
28 parts of the segment would be “built directly in their yards.” Segment O3, and many other
29 alternative segments in this project, are located wholly or partially on private property
30 along roadways that are compatible corridors when routing transmission lines. In fact, most

1 of the ROW proposed for this project would be located on private property and not within
2 or utilizing road ROW. While these corridors (including Segment O3) have some
3 residential properties located within and adjacent to their ROW, I am not aware of any
4 statute or Commission rule that would eliminate the corridors from being compatible due
5 to the residential nature of the underlying properties. As a result, Segment O3 and the many
6 other similarly situated route segments should not be eliminated from consideration as
7 viable, constructible alternatives for consideration in this docket.

8 **Q. DO YOU AGREE WITH MR. POOLE'S DECISION TO ELIMINATE**
9 **ALTERNATIVE SEGMENTS FROM CONSIDERATION BASED ON**
10 **INTERVENOR OPPOSITION?**

11 A. No. On page 23, Mr. Poole describes avoiding the use of Segments V5, D2, and Y2 because
12 of opposition to those segments by intervenors. LCRA TSC received comments or
13 concerns from landowners along most, if not all, segments included in this Application.
14 Subsequent to the filing of the Application, intervening parties have challenged or protested
15 most, if not all, segments filed in the Application. Notably, many of the intervening parties
16 Mr. Poole references regarding Segments V5, D2, and Y2 are located significant distances
17 (over 300 feet) from those segments. I am not aware of any statute, Commission rule, or
18 previous Commission decision that would call for the removal of a segment or segments
19 from consideration because some intervenors voiced their opposition to particular
20 alternative route segments. All of the routes and route segments proposed in the LCRA
21 TSC Application and by intervening parties and PUC Staff are viable, constructible options
22 for consideration in this docket.

23 **VII. ENVIRONMENT AND ECOLOGY**

24 **Q. SOME INTERVENORS DISCUSS FEDERALLY PROTECTED SPECIES IN**
25 **THEIR TESTIMONIES. HOW DOES LCRA TSC PROPOSE TO ADDRESS SUCH**
26 **CONCERNS WITH THE CONSTRUCTION AND OPERATION OF THE**
27 **PROPOSED PROJECT?**

28 A. LCRA TSC will handle protected species issues for this project in the same manner it
29 handled these issues on past projects. First, after a route is approved by the PUC, LCRA

1 TSC will conduct a habitat assessment along the route. If potential habitat is present, LCRA
2 TSC may:

- 3 1. adjust the route to go around the habitat (avoidance),
- 4 2. span over the habitat (avoidance),
- 5 3. minimize the clearing corridor through the habitat (minimization).

6 If LCRA TSC cannot avoid impacts to potential protected species habitat, it will obtain
7 approval from US Fish and Wildlife Service (USFWS), consistent with the Endangered
8 Species Act (ESA), associated with impacts to potential habitat. Approval from USFWS
9 could be in the form of a Section 10(a)(1)(B) permit, through Section 7 consultation in
10 conjunction with other required federal permitting activities (e.g., Clean Water Act Section
11 404), or, as I discuss in my direct testimony, through the use of the Williamson County
12 Regional Habitat Conservation Plan. Compensatory mitigation for unavoidable impacts to
13 habitat is typically required during the ESA permitting process, and, as Ms. Melendez
14 explained in her direct testimony, LCRA TSC has included costs for such mitigation in the
15 cost estimates included in the Application.

16 In summary, LCRA TSC has experience dealing with protected species habitat on
17 transmission line projects. LCRA TSC has successfully avoided impacts to endangered
18 species in many instances and obtained permits/approvals to directly impact habitat on
19 other projects where impacts were unavoidable. I have no reason to believe LCRA TSC
20 cannot do the same for this project if the PUC-approved route crosses such habitat and
21 impacts cannot be avoided.

22 **Q. SOME INTERVENORS AND EXPERTS ASSERT THAT SEGMENT T2**
23 **CROSSES OR IS LOCATED NEAR ENVIRONMENTALLY SENSITIVE AREAS.**
24 **DO YOU AGREE?**

25 A. No, I do not. Although the area traversed by Segment T2 may have once been more
26 environmentally pristine, that is not true today because of ongoing development. I agree
27 that a portion of Segment T2 located east of Sam Bass Road (CR 175) and west of Mayfield
28 Ranch crosses portions of the Southwest Williamson County Regional Park property.
29 However, Segment T2 is also located adjacent to a planned roadway (Arterial H) and
30 housing development within and adjacent to the park property. Thus, the potential impacts

1 to the ecology or environmentally sensitive features of the park posed by Segment T2 have
2 been diminished by paralleling Arterial H (compatible ROW) due to the extent of the
3 impact from the existing development, as well as the new roadway and ongoing new
4 development (Gardens at Mayfield), which are currently under construction.

5 **Q. SOME INTERVENORS AND EXPERTS ASSERT THAT SUBSTATION 1-8 IS**
6 **LOCATED NEAR ENVIRONMENTALLY SENSITIVE AREAS. DO YOU**
7 **AGREE?**

8 A. No, I do not. Substation Site 1-8 is located on the westernmost road frontage of the
9 Southwest Williamson County Regional Park property. While the location of the substation
10 is proposed within a portion of the park property, the proposed site does not pose any
11 significant environmental impact. Mr. Carothers, witness for Williamson County,
12 references the important karst feature areas of the park, and Substation 1-8 is not located
13 within those areas. The cities impacted by the proposed project and several landowners
14 who own land containing other proposed substation alternatives have expressed a concern
15 for the impact of a five to seven acre substation on private property, and have expressed a
16 desire for the substation to be located on public land. Substation 1-8 is an alternative site
17 that was added as a result of such public comment, and offers for the Commission's
18 consideration a substation location that is not located on private property.

19 **Q. THE TEXAS PARKS AND WILDLIFE DEPARTMENT DISCUSSES CONCERNS**
20 **ABOUT SEGMENT Y2 IN RELATION TO CAVE FEATURES. DO YOU HAVE**
21 **CONCERNS WITH THE CAVE FEATURES IN THE VICINITY OF SEGMENT**
22 **Y2?**

23 A. No, I do not. While Segment Y2 appears to cross a Texas Natural Diversity Database
24 (TXNDD) record for a known cave (Step-Down Cave a.k.a. Round Rock Breathing Cave),
25 LCRA TSC has spent considerable time discerning the exact location of the cave. LCRA
26 TSC's investigations have determined that the Step-Down cave is not located within the
27 proposed ROW for this project and is therefore not anticipated to be impacted by the
28 construction and operation of the project on Segment Y2. The other caves (Elm Cave and
29 Brown's Cave) are located significantly farther from Segment Y2 than the Step-Down
30 Cave. Segment Y2 remains a viable, constructible alternative segment.

1 **Q. ON PAGE 18 OF TPWD’S LETTER AND PAGE 29 OF MS. SCHMERLER’S**
2 **DIRECT TESTIMONY, TPWD RECOMMENDS THAT A BIOLOGICAL**
3 **MONITOR BE PRESENT DURING CONSTRUCTION TO RELOCATE THE**
4 **TEXAS HORNED LIZARD, A STATE-LISTED THREATENED SPECIES IF**
5 **FOUND. DO YOU AGREE?**

6 A. I do not believe the Commission should require LCRA TSC and the ratepayers of ERCOT
7 to undertake the costs of a biological monitor for non-listed federally threatened or
8 endangered species.

9 **Q. MANY INTERVENORS DISCUSS TRANSMISSION LINES LOCATED NEAR**
10 **PARKS AND RECREATION AREAS. CAN THE PROPOSED PROJECT BE**
11 **SAFELY AND RELIABLY OPERATED IN OR NEAR PARKS OR OTHER**
12 **RECREATIONAL AREAS?**

13 A. Yes, it can. In my experience, it is common for transmission lines and recreation areas,
14 particularly trails, to be colocated within the same corridor. Transmission lines and trails
15 are highly compatible linear features. In more urban areas, a transmission line can not only
16 be colocated with recreational areas, but in many cases the transmission line easement
17 reserves land for usable, undeveloped space for gathering and recreating that would
18 otherwise be developed into buildings or other impervious ground cover. There are
19 numerous locations throughout the state where parks, playing fields, and trail systems are
20 colocated within transmission line corridors.

21 **VIII. PIPELINES**

22 **Q. SOME OF THE INTERVENORS SUGGEST THAT TRANSMISSION LINES**
23 **BEING LOCATED ADJACENT TO GAS PIPELINES IS INCONSISTENT WITH**
24 **THE PUC ROUTING CRITERIA. HOW DO YOU RESPOND?**

25 A. In April of 2015, the PUC issued an Order in Project No. 42740 adopting amendments to
26 Substantive Rule 25.101, relating to Certification Criteria. The amendments removed any
27 presumption that the Commission has a preference for transmission line routes to parallel
28 natural gas or other pipelines by identifying types of rights-of-way that generally may be
29 compatible with transmission lines. The Order itself states, “This intentional omission of
30 pipelines from the list of compatible rights-of-way is intended to remove any preference for

1 paralleling or utilizing pipeline rights-of-way while not prohibiting such consideration.” As
2 noted in the order, paralleling or utilizing pipeline rights-of-way is not prohibited from
3 consideration. Historically, pipelines and transmission lines have co-existed on adjacent
4 rights-of-way, particularly along roadways, with little issue. The nature of road rights-of-
5 way as linear features has generally created compatible routing opportunities for both
6 transmission lines and gas pipelines. For this project, LCRA TSC sought to parallel existing
7 road ROW. In many cases, existing gas pipelines are also located parallel and adjacent to
8 these same road ROWs LCRA TSC sought to parallel with alternate transmission line
9 segments.

10 **Q. MR. JOHNSON, ON BEHALF OF ATMOS, SUGGESTS THAT LCRA TSC HAS A**
11 **RESPONSIBILITY TO PAY FOR MITIGATION MEASURES RELATED TO**
12 **POTENTIAL ALTERNATING CURRENT (AC) INTERFERENCE ON GAS**
13 **PIPELINES, AND THAT A FINDING OF FACT STATING AS MUCH BE ADDED**
14 **TO THE FINAL ORDER FROM THE PUC IN THIS CASE. DO YOU AGREE?**

15 A. No, I do not. LCRA TSC operates hundreds of miles of electric transmission line that
16 crosses and parallels existing natural gas pipelines, some owned by Atmos. To date, I am
17 unaware of any instance where LCRA TSC has paid a pipeline owner to install and operate
18 mitigation measures related to potential AC interference that may be caused by its electric
19 transmission line system. I am also unaware of any change in law or regulation that would
20 now require LCRA TSC to begin making such payments to Atmos in connection with the
21 project proposed in this proceeding. While I agree that it may be appropriate for LCRA
22 TSC to coordinate with Atmos regarding Atmos’ obligations to investigate the need to
23 install AC mitigation measures on its facilities, Atmos has not demonstrated why LCRA
24 TSC’s rate payers should pay for Atmos’ compliance with pipeline safety regulations. In
25 agreeing to coordinate with Atmos, LCRA TSC is not committing to pay for mitigation
26 unless the Commission specifically orders such payments in this proceeding or determines
27 in a rulemaking that the costs are appropriate to be recovered in LCRA TSC’s rates. In the
28 absence of such an order or rulemaking, it is LCRA TSC’s position that obligations to pay
29 for mitigation measures that will be installed on gas pipelines is the responsibility of the
30 pipeline owner, who in this case is a regulated Texas gas utility. As such, the costs for

1 pipeline mitigation presented by Mr. Johnson in his testimony are Atmos' responsibility
2 and not relevant to LCRA TSC's costs associated with the proposed project.

3 **Q. MR. HUGHES SUGGESTS THAT LCRA TSC ERRED IN ITS REVIEW OF**
4 **SUBSTATION SITE 2-8 WITH REGARD TO A GAS PIPELINE. HOW DO YOU**
5 **RESPOND?**

6 A. Mr. Hughes' characterization of the gas pipeline being located on the property identified
7 for Substation 2-8 is incorrect. LCRA TSC is well aware of the gas pipeline in the area, but
8 my research and site reviews revealed that the pipeline is located within the Ronald Reagan
9 Blvd. road right-of-way and not within the proposed property or the general footprint for
10 the substation. In addition, LCRA TSC does not believe the gas pipeline will be affected
11 by Substation 2-8, nor will the gas pipeline affect LCRA TSC's ability to construct and
12 operate Substation 2-8. Further, in LCRA TSC's response to Riverside Resources' RFI
13 Question 4-4, the reference to a pipeline along Brushy Creek is that of an existing water
14 utility pipeline, which also will not be affected by Substation 2-8, nor will the utility
15 pipeline affect LCRA TSC's ability to construct and operate Substation 2-8.

16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 A. Yes, it does.