APPLICANT OF LCRA TRANSMISSION SERVICES CORPORATION TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE PROPOSED 138-KV TRANSMISSION LINE PROJECT IN WILLIAMSON COUNTY, TEXAS BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REBUTTAL TESTIMONY

OF

SERGIO GARZA, P.E.

ON BEHALF OF

APPLICANT

LCRA TRANSMISSION SERVICES CORPORATION

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND OCCUPATION.
A. My name is Sergio Garza. I am an electrical engineer employed by the Lower Colorado River Authority (LCRA) as Vice President of Transmission Design and Protection.

Q. ARE YOU THE SAME SERGIO GARZA WHO PROVIDED DIRECT TESTIMONY IN THIS DOCKET (NO. 45866) ON BEHALF OF LCRA TSC?
A. Yes, I am.

Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY FILED BY AND ON BEHALF OF INTERVENORS AND THE DIRECT TESTIMONY FILED BY PUBLIC UTILITY COMMISSION OF TEXAS STAFF?
A. Yes, I have.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
A. The purpose of my rebuttal testimony is to address:

1. General concerns, questions, and issues raised on the planning process, the Project’s need, the substation siting areas, the transmission line and associated end points, and substation details; and

2. Statements made by Mr. Harold Hughes in his Direct Testimony with respect to substation siting.

To the extent that other Intervenors raised other general concerns, questions, or issues about the substations or the purpose and need for the LCRA TSC Project, they are addressed by the following discussion as well.
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.

III. GENERAL SUMMARY OF INTERVENOR CONCERNS, QUESTIONS OR ISSUES RELATED TO THE PURPOSE AND NEED FOR THE PROJECT

Q. PLEASE SUMMARIZE YOUR UNDERSTANDING OF THE INTERVENORS’ CONCERNS, QUESTIONS, OR ISSUES RELATED TO THE PURPOSE AND NEED FOR THE PROJECT AS EXPRESSED IN THEIR TESTIMONY.

A. Based on my review of the Intervenors’ direct testimony, I believe that the basic factors driving the need for this project were well understood – that the existing electric system infrastructure is not adequate to meet the demand for electric power in the area. In general, in their filed direct testimony the Intervenors did not raise concerns, questions, or issues directly related to the overall purpose and need as described in my Direct Testimony, or in the CCN Application for the LCRA TSC Project that is the subject of this proceeding. In fact, several of the Intervenors filed direct testimony with information supporting the area electric load growth statements that LCRA TSC describes in the CCN Application and in my Direct Testimony. This is consistent with associated activity during the discovery phase, as there were no requests for information asking for additional data to justify the Project’s purpose and need.
Q. WAS THERE ANY ASPECT OF THE ELECTRIC SYSTEM PLANNING PROCESS THAT WAS NOT UNDERSTOOD OR FOR WHICH CONCERNS WERE EXPRESSED IN THE INTERVENORS’ TESTIMONY OR STATEMENT OF POSITION?

A. Yes, there appear to be some. Based on my review of the Intervenors’ testimonies and statements of positions, I understand that several of the Intervenors inquired about whether an independent third party evaluated the need for the LCRA TSC Project in this proceeding. There were also some concerns raised by Intervenors regarding constructing a substation in an urban area that includes schools and parks. Other interveners raised concerns about utilizing open areas for siting the transmission line and associated substations.

Q. HAVE ANY THIRD PARTIES EXAMINED THE PURPOSE AND NEED FOR THE PROJECT?

A. Yes, they have. The Project was reviewed and considered by two different third parties, including at multiple levels by the Electric Reliability Council of Texas (ERCOT).

First, the need to construct the two substations associated with the Project was identified in 2012 by an external utility engineering consultant through a study commissioned by Pedernales Electric Cooperative (PEC). The consultant’s study was reviewed by PEC engineers and later validated using a different approach by LCRA TSC engineers. Both the consultant and LCRA TSC arrived at the same conclusion that there is a critical need for electric system improvements and that the Project addresses the problems found.

Second, after LCRA TSC developed the transmission portion of the study, ERCOT reviewed LCRA TSC’s approach, alternatives considered, findings, and conclusions. ERCOT is the independent organization that is entrusted, through Section 39.151 of the Public Utility Regulatory Act, with ensuring:

1. access to the transmission and distribution systems for all buyers and sellers of electricity on nondiscriminatory terms; and
2. the reliability and adequacy of the regional electrical network.

As I discussed at length in my Direct Testimony, the Project underwent significant review by stakeholders participating in the ERCOT Regional Planning Group as well as a
thorough independent assessment by the ERCOT staff. The Project was subsequently reviewed and endorsed by the ERCOT Technical Advisory Committee and the ERCOT Board of Directors.

Q. **DO YOU HAVE ANY CONCERNS WITH LCRA TSC CONSTRUCTING AND OPERATING SUBSTATION FACILITIES WITHIN THE AREAS IDENTIFIED FOR THIS PROJECT?**

A. No, I do not. LCRA TSC has safely operated electrical substations for decades in both rural and urban environments. There are numerous locations throughout the LCRA TSC system where substations are located next to parks, churches, schools, roads, and other residential and commercial developments. Ms. Meaux addresses this Intervenor concern further in her rebuttal testimony.

**IV. REBUTTAL TO THE DIRECT TESTIMONY OF MR. HAROLD HUGHES**

Q. **PLEASE SUMMARIZE YOUR UNDERSTANDING OF MR. HUGHES’ TESTIMONY AS IT RELATES TO SUBSTATION SITING AND INTERCONNECTION TO THE ROUND ROCK SUBSTATION.**

A. Based on my review and understanding of Mr. Hughes’ Direct Testimony, he makes three primary conclusions regarding substation matters that I will address in this rebuttal testimony. Mr. Powell addresses some of Mr. Hughes’ conclusions in his rebuttal testimony as well.

First, Mr. Hughes states that there are limited opportunities for utilizing the alternative substation sites LCRA TSC presented in association with its Project. Mr. Hughes believes that 14 of the 16 alternative substation sites offer no observable locational benefits and that simply because LCRA TSC has already purchased substation sites 1-7 and 2-6, a route using those substations should be approved rather than routes using any of the other proposed substation sites that LCRA TSC identified. Mr. Hughes states that – “Many of the sites are very close together and offer no significant geographic difference from adjacent substation sites.”

Second, Mr. Hughes also states that the two substation sites impacting his clients’ properties “suffer from several deficiencies.” Mr. Hughes states that there are reliability
concerns related to Substation Site 2-8 as well as topographic issues related to Substation Site 2-4. Mr. Hughes claims that those routes that connect Substation Site 2-8 would utilize common structures to go into and then out of the substation on Segment F6 crossing a pipeline as well as the road increasing reliability risk. In the case of Substation Site 2-4, Mr. Hughes states, “building a retention pond on a steep site will require a considerable amount of cutting and filling which increase cost.”

Third, Mr. Hughes concludes that exiting the existing Round Rock Substation to the west presents a significant routing challenge. He claims that the area around the Round Rock Substation is not only constrained by the habitable structures, but also by Oncor’s plans for the substation. And, therefore, the routes that include Segments J4-I3-G3, utilizing existing transmission line ROW, north out of the Round Rock Substation, to be a much more desirable way to exit the Round Rock Substation.

Q. PLEASE EXPLAIN YOUR CONCERNS WITH MR. HUGHES’ CONCLUSIONS.

A. First, each of the 16 substation sites that LCRA TSC has identified in conjunction with this Project are suitable locations for LCRA TSC to design, construct, and operate an electric load-serving substation that effectively and efficiently meets the objective of the Project. Some sites may come at a slightly higher cost and other sites will possibly have slight complexities that can be mitigated through proven engineering practices. As I stated in my direct testimony, all of the substation sites identified for this project will meet the objective of the LCRA TSC Project and all are viable. The only exception is when several of these sites are combined in such a way that one site is less than 1.5 miles apart from the other. LCRA TSC understands that with an infrastructure project of this magnitude, many landowners will be impacted, some directly and others indirectly. And, as such, LCRA TSC has fulfilled its obligation to provide the Commission with an ample number of feasible options from which to make an informed decision. Mr. Powell further addresses this specific conclusion made by Mr. Hughes in his rebuttal testimony.

Second, regarding Mr. Hughes’ reliability concerns associated with Substation Site 2-8, it is a common practice for substations to be designed with a single set of structures connecting the incoming and outgoing circuits of a double circuit line as the line enters and leaves the substation within close proximity to the substation. Because the length of the line that will utilize a common set of structures for the incoming and
outgoing circuits as it connects Substation Site 2-8 is less than a half-mile, it is not a reliability concern to LCRA TSC, the operator of the substation. Presently, LCRA TSC reliably operates transmission lines with over 2,400 pipeline crossings without problems. Furthermore, as described in my direct testimony, the two substation siting areas were delineated such that the new substations may provide back up support to adjacent substations and vice versa. Mr. Hughes’ concerns regarding the loss of service to the substation due to the risk associated with the pipeline and road crossings on single structures is not a significant concern to LCRA TSC. Regarding Mr. Hughes’ topography concerns associated with Substation Site 2-4, I disagree that those concerns should result in the removal of Substation Site 2-4 from consideration in this proceeding. In fact, as Mr. Hughes clarifies in his own testimony, LCRA TSC addressed the issue in identifying the need for performing additional work on the property, as reflected in LCRA TSC’s cost estimate for that substation site. I agree with Mr. Hughes that LCRA TSC has presented the Commission with the costs associated with utilization of Substation Site 2-4 in its application.

Third, regarding Mr. Hughes’ concerns associated with exiting the Round Rock Substation, Oncor has expressed its willingness to work with LCRA TSC in accommodating the new line by relocating circuits within the existing substation property. I do not have any concerns on behalf of LCRA TSC regarding exits out of the existing Round Rock Substation for any proposed route that the Commission might approve for this Project. Ms. Melendez addresses the routing issues associated with exits from the Round Rock Substation in her rebuttal testimony.

V. SUMMARY AND CONCLUSION

Q. PLEASE SUMMARIZE YOUR RESPONSE TO THE ISSUES, CONCERNS, QUESTIONS, AND CONCLUSIONS OFFERED BY INTERVENORS REGARDING THE PURPOSE AND NEED FOR THE LCRA TSC PROJECT.

A. Based on my review of the Intervenors’ direct testimony, the key factors driving the need for this project were well understood, and the LCRA TSC Project supports the area residents’ present, ongoing, and planned development plans and vision for sustainable economic growth of the broader local area.
Q. AFTER REVIEWING THE DIRECT TESTIMONY PROVIDED BY THE INTERVENORS IN THIS DOCKET, DO YOU STILL BELIEVE THAT LCRA TSC’S PROPOSED PROJECT IS THE MOST COST-EFFECTIVE SOLUTION TO ADDRESS THE STATED OBJECTIVES?

A. Yes, I do.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.