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

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

REBUTTAL TESTIMONY AND EXHIBITS

OF

JESSICA R. MELENDEZ, P.E. #104702

ON BEHALF OF

APPLICANT
LCRA TRANSMISSION SERVICES CORPORATION

OCTOBER 24, 2016

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jessica R. Melendez. My business address is: Lower Colorado River Authority (LCRA), 3505 Montopolis Drive, Bldg D, Austin, Texas 78744.

Q. ARE YOU THE SAME JESSICA MELENDEZ WHO PROVIDED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes, I am.

II. PURPOSE OF REBUTTAL TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to provide information in response to concerns raised and route alternatives suggested by various intervenors and the Staff of the Public Utility Commission of Texas (Commission or PUC).

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.

Q. HAVE YOU HAD THE OPPORTUNITY TO REVIEW THE TESTIMONY FILED BY THE INTERVENORS IN THIS DOCKET, AND IF SO, DO YOU HAVE ANY GENERAL REMARKS?

A. Yes, I have read the testimonies filed by all of the intervenors. In addition, I have reviewed

all discovery responses filed by all parties in this docket. While the intervenors express a variety of concerns, I remain confident that all segments and routes proposed in this proceeding are viable and can be designed, constructed, operated, and maintained in a safe and reliable manner.

III. GENERAL LAND USE CONCERNS

Q. SEVERAL PARTIES EXPRESS CONCERNS REGARDING THE COMPATIBILITY OF LOCATING A TRANSMISSION LINE WITHIN AREAS DEDICATED TO VARIOUS DIFFERENT LAND USES (I.E., RESIDENTIAL, COMMERCIAL, RECREATIONAL) AND IN THE VICINITY OF VARIOUS DIFFERENT TYPES OF DEVELOPMENT (I.E., IN THE VICINITY OF SCHOOLS AND DAYCARE FACILITIES). CAN THE PROPOSED PROJECT BE CONSTRUCTED AND OPERATED IN THESE AREAS?

A. Yes, it can. I understand that many landowners have concerns regarding how a transmission line might impact their property. LCRA TSC is experienced at constructing and operating transmission lines in many different areas, including along residential and commercial properties and along and within recreational parkland and trail systems. LCRA TSC safely operates transmission lines in the vicinity of schools and daycare facilities. All of the route segments proposed in this proceeding can be safely and reliably designed, constructed, operated, and maintained within the residential, commercial, and recreational areas in which they are located.

IV. ENVIRONMENTAL

Q. SEVERAL INTERVENORS EXPRESS CONCERNS ABOUT LOCATING A TRANSMISSION LINE IN ENVIRONMENTALLY SENSITIVE AREAS. HOW DOES LCRA TSC PROPOSE TO ADDRESS THE ENVIRONMENTALLY SENSITIVE AREAS THAT ARE IN THE VICINITY OF THE PROPOSED PROJECT?

A. LCRA TSC owns and has constructed transmission lines through sensitive environmental areas, including through areas of above ground and subsurface endangered species habitat in the Hill Country and throughout Central Texas. As a result, LCRA TSC is experienced

with using careful design and construction techniques to avoid or mitigate the impacts of transmission facilities on such areas. LCRA TSC has standard practices that will help to reduce or mitigate potential adverse effects on property and the environment resulting from construction of this transmission line. The segment locations and associated cost estimates have taken into consideration the design and mitigation activities that are anticipated to be necessary in environmentally sensitive areas.

Q. HOW DOES LCRA TSC'S TRANSMISSION LINE DESIGN TAKE INTO CONSIDERATION ENVIRONMENTALLY SENSITIVE AREAS?

A. Following the Commission's approval of the project and a routing for the project, LCRA TSC will begin a detailed engineering design of the transmission line, undertake a cultural and natural resources assessment of the entire route, and conduct a more detailed examination of boundary locations, the ground and soil conditions, and other potential constraints. LCRA TSC will also develop a Storm Water Pollution Prevention Plan (SWPPP) and prepare a Notice of Intent (NOI) to be submitted to the Texas Commission on Environmental Quality (TCEQ). LCRA TSC will work with Williamson County and/or the United States Fish & Wildlife Service (USFWS) concerning mitigation for potential endangered species habitat, if required.

Q. NUMEROUS LANDOWNERS EXPRESS CONCERNS REGARDING VEGETATION REMOVAL, "CLEAR CUTTING OF THE ROW," AND REMOVAL OF SPECIFIC TREES. HOW DOES LCRA PROPOSE TO HANDLE VEGETATION REMOVAL FOR THE PROJECT?

A. First, it is important to understand that LCRA TSC must remove some trees and brush within the right-of-way (ROW) to ensure the safe and reliable operation of and access to the line.

LCRA TSC will make design decisions based on the cultural and natural resource assessments I described previously, set the alignment, complete the detailed design, and at that point in time, will determine where, how much, and in what manner vegetation must be removed. LCRA TSC will minimize the amount of flora and fauna disturbed.

In general, LCRA TSC avoids disturbing cropland, pastureland, and grassland, to

the extent possible. A flail mower may be used instead of bulldozers with dirt blades, where such use will preserve the cover crop of grass, low-growing brush, and similar vegetation. Also, LCRA TSC will minimize the clearing of riparian vegetation where possible. For example, natural vegetation may be left at creek, road, and distribution line crossings where LCRA TSC vehicles will not be traversing for access and/or LCRA TSC conductors will be at a high elevation, thus minimizing the amount of clearing necessary. In areas determined to be sensitive for environmental or cultural reasons, LCRA TSC can carefully remove and dispose of vegetation by hand.

Q. IF THE PUC APPROVES A ROUTE THAT CROSSES A PARK OR RECREATION AREA THAT HAS RECEIVED FEDERAL OR STATE FUNDS FROM TEXAS PARKS AND WILDLIFE DEPARTMENT'S PARK GRANTS PROGRAM, HOW WILL LCRA TSC ADDRESS SUCH AREAS?

A. Based on my review of the parks identified that are actually crossed by a segment proposed for the project, LCRA TSC can avoid at least one of these park areas and can minimize the potential impacts on the other areas through careful design and construction techniques. Once a route is approved by the Commission, LCRA TSC will work with TPWD and the owners of the facilities to minimize impacts to any parks and recreation areas that are crossed.

Q. MS. JESSICA SCHMERLER ON BEHALF OF TEXAS PARKS AND WILDLIFE DEPARTMENT DISCUSSES CAVE FEATURES IN THE AREA OF SEGMENT Y2. HAVE YOU CONSIDERED THE POTENTIAL CAVE FEATURES IN THE VICINITY OF SEGMENT Y2?

A. Yes, I have. Caves are another type of engineering constraint commonly encountered and designed around by LCRA TSC in constructing transmission facilities. LCRA TSC owns and has constructed transmission lines through prominant karst areas throughout Central Texas. As a result, LCRA TSC is experienced with using careful survey, design, and construction techniques to avoid caves and mitigate potential adverse effects on the environment resulting from construction of transmission line facilities.

V. ENGINEERING CONSIDERATIONS

Q. SEVERAL INTERVENORS EXPRESS CONCERN ABOUT EXISTING UTILITIES (I.E., WATER LINES, WASTEWATER LINES, AND SEPTIC SYSTEMS) BEING LOCATED IN THE VICINITY OF THE PROPOSED TRANSMISSION LINE. HOW WILL LCRA TSC ADDRESS THESE FEATURES WHEN CONSTRUCTING THE LINE?

A. All underground utilities, including septic systems, are located and mapped as a part of the survey and design activities that LCRA TSC conducts after the PUC approves a project and the associated routing. As with previous transmission line projects, LCRA TSC will design and construct an approved project in a manner that accommodates underground utilities. This is typically accomplished by spaning utility locations, avoiding placing poles where existing infrastructure is located, and using matting to pad and protect existing infrastructure when crossing with construction vehicles and equipment. In addition, LCRA TSC could also utilize alternative access to avoid crossing underground infrastructure with construction vehicles and equipment, if necessary. In some instances, LCRA TSC could work with the utility or landowner to compensate for the relocation of the existing utility infrastructure, if necessary, to avoid interference with the transmission facilities.

Q. SEVERAL LANDOWNERS EXPRESS CONCERN THAT A TRANSMISSION LINE IS NOT COMPATIBLE WITH COMMERCIAL PROPERTY AND SPECIFICALLY THAT A TRANSMISSION LINE WILL LIMIT OR PROHIBIT ACCESS TO THEIR COMMERCIAL PROPERTY. WILL THE TRANSMISSION FACILITIES PROPOSED IN THIS PROJECT LIMIT COMMERCIAL DEVELOPMENT OR PHYSICALLY RESTRICT A LANDOWNER'S ACCESS TO THEIR PROPERTY?

A. No. Other than a very narrow strip of ROW associated with the transmission line, commercial development can exist in close proximity to the proposed transmission facilities. Property access across the transmission line easement and the ability to drive and park underneath the proposed transmission line will not be restricted by the rights necessary for LCRA TSC to construct and operate the proposed transmission facilities. The landowners will be able to freely drive or walk across the easement to access their property.

Business owners, homeowners, employees, guests, and patrons cross under these types of transmission lines daily in thousands of locations across Texas.

During the design phase of the project, LCRA TSC will take into consideration existing critical access paths located on the property in determining the locations where a transmission line structure will to be placed. If necessary, LCRA TSC will make adjustments and locate its structures so that critical access paths are not blocked. Such minor adjustments are routinely made to the alignment of the transmission line due to information learned during the detailed design phase of the project and through working with the landowners to mitigate the impact of the project on their property and land uses.

Q. MR. HAROLD L. HUGHES ON BEHALF OF RIVERSIDE RESOURCES DESCRIBES THE AREA EXITING THE EXISTING ROUND ROCK SUBSTATION TO THE WEST AS "VERY CONSTRAINED." ADDITIONALLY, MR. JOHN POOLE OF PUC STAFF TESTIFIES THAT HE ATTEMPTED TO AVOID USING SEGMENT O3 BECAUSE OF THE NARROWNESS OF THE ROAD IN THAT AREA. DO YOU HAVE ANY CONCERNS RELATED TO THE NEW TRANSMISSION LINE EXITING THE ROUND ROCK SUBSTATION TO THE WEST, INCLUDING THOSE ROUTES UTILIZING SEGMENT O3?

A. No, I do not. There are many locations in the study area that I would consider constrained and congested. I have examined all of the segments proposed for the project, including Segment O3 and the other segments exiting the west side of the Round Rock Substation. I am confident that all segments are viable and can be designed, constructed, operated, and maintained in a safe and reliable manner.

Q. MR. POOLE SUGGESTS THAT WHEN OVERBUILDING AN EXISTING DISTRIBUTION LINE, LCRA TSC COULD UTILIZE THE ASSOCIATED DISTRIBUTION LINE EASEMENT. DOES LCRA TSC PLAN TO UTILIZE ANY DISTRIBUTION LINE EASEMENTS AT LOCATIONS WHERE LCRA TSC ANTICIPATES THE NEED TO OVERBUILD?

A. No. At overbuild locations, while LCRA TSC will be able to utilize the area encompassed by the distribution line easement (either wholly within the existing road right of way or up

to an additional 20 feet in width), LCRA TSC will need to acquire its own transmission line easement that will overlap and extend beyond the boundary of the existing distribution line easement.

VI. HABITABLE STRUCTURES, GARAGES, AND OTHER BUILDINGS

Q. MR. MIKE PETTER ON BEHALF OF BRUSHY CREEK MUNICIPAL UTILITY DISTRICT EXPRESSES CONCERN THAT A GARAGE BUILDING ON SEGMENT O3 WOULD NEED TO BE REMOVED. WILL LCRA TSC NEED TO REMOVE ANY HABITABLE STRUCTURES OR GARAGES IN ASSOCIATION WITH THE PROPOSED PROJECT?

A. No, LCRA TSC does not plan to remove any habitable structures or garages along any segment proposed for the project. In the area Mr. Petter's testimony addresses, LCRA TSC plans to use narrower than typical ROW and utilize roadway clearances to maximize the distance of the transmission line from habitable structures and to avoid having to remove any structures.

Q. MR. ROBERT MULLINS STATES THAT THE WASHING BUILDING LOCATED ON THE ROMCO PROPERTY WOULD BE WITHIN THE TRANSMISSION LINE ROW OF SEGMENT H3. WHAT IS YOUR UNDERSTANDING OF THE LOCATION OF THE BUILDINGS ON THE ROMCO PROPERTY LOCATED ALONG SEGMENT H3?

A. As segment H3 has been identified, there are no buildings located on the Romco property that will be within the transmission line ROW.

VII. TRANSMISSION LINE COST ESTIMATES

Q. MR. HAROLD L. HUGHES ON BEHALF OF RIVERSIDE RESOURCES PROVIDES COST ESTIMATES FOR FOUR DIFFERENT SEGMENT COMBINATIONS BETWEEN THE EXISTING LEANDER SUBSTATION AND ALTERNATIVE SUBSTATION SITE 2-6. HAVE YOU REVIEWED HIS NUMBERS?

A. Yes I have. My calculations differ slightly from those of Mr. Hughes. While I don't

typically consider estimated costs for partial routes, in order to present the best information in the record, Table 1 presents my calculations of the cost information for the different segment combinations that he evaluated.

Table 1

Evaluation Criteria	North D-E-K-L4	Central (A) D-F-X5-Z5-A6-S4-L4	Central (B) D-F-X5-Z5-A6-C6-M-P-Q-R-N4	South A-B-G-L-M-P-Q-R-N4
Cost ($000)	$9,373	$11,904	$11,447	$14,511

Q. MR. BRIAN C. ANDREWS PROVIDES COST COMPARISONS OF ROUTE 31 AND THE FOUR LHO ALTERNATIVE ROUTES. HAVE YOU REVIEWED HIS NUMBERS?

A. Yes, I have. The only suggested correction that I have to Mr. Andrew's cost calculations are in his Table 3. He calculates the delta of Route 31 ($71.2 million) and Route LHO-1 ($74.5 million) as $3.2 million. The delta of $71.2 million and $74.5 million should be $3.3 million.

Q. MR. JOHN POOLE OF PUC STAFF INCLUDES COST ESTIMATES AND ASSOCIATED ROUTE RANKINGS IN HIS TESTIMONY. HAVE YOU REVIEWED HIS NUMBERS?

A. Yes, I have. The cost estimates Mr. Poole presents on page 29 of his testimony and the route rankings associated with those cost estimates are not consistent with the data in Exhibit JP-3 (which are the cost estimates LCRA TSC filed in Errata 4 on September 21, 2016). The cost estimates presented in Exhibit JP-3 are the correct cost estimates in this case. Based on those cost estimates, Route LHO-1 would be the tenth least costly route of the proposed alternative routes.

VIII. PIPELINES

Q. MR. BRAD JOHNSON ON BEHALF OF ATMOS ENERGY CORPORATION (ATMOS) EXPRESSES CONCERNS REGARDING CONSTRUCTION OF THE TRANSMISSION LINE IN PROXIMITY TO EXISTING PIPELINE FACILITIES AND POTENTIAL MITIGATION THAT ATMOS BELIEVES MAY BE NECESSARY. DO YOU HAVE CONCERNS WITH CONSTRUCTION AND OPERATION OF THE PROPOSED TRANSMISSION LINE PROJECT IN THE VICINITY OF ATMOS PIPELINE FACILITIES?

A. No, I do not. As I discussed previously, gas pipelines are a type of underground (and sometime above-ground) utility facility commonly encountered during the design and construction of transmission facilities. Underground (and associated above-ground) utilities are located and mapped as a part of the survey and design activities conducted after the PUC approves a project and the associated routing. In most instances, LCRA TSC spans underground utility locations, avoiding placing poles where underground infrastructure exists, and can use matting to pad and protect existing underground infrastructure when crossing it with construction vehicles and equipment. In addition, and as I discussed previously, LCRA TSC can also use alternative access to avoid crossing the underground infrastructure with construction vehicles and equipment, if necessary.

LCRA TSC's existing transmission system currently parallels (within 100 feet) petroleum/gas pipelines for over 400 miles and has over 2,400 petroleum/gas pipeline crossings. I am not aware of any circumstance where LCRA TSC has compensated a pipeline owner for mitigation measures installed on the pipeline system because of AC induced issues alleged to be caused by LCRA TSC's transmission line facilities.

Q. MR. JOHNSON ADDITIONALLY EXPRESSES CONCERNS REGARDING THE TRANSMISSION LINE BEING LOCATED IN PROXIMITY TO CERTAIN OF ATMOS' ABOVE-GROUND FACILITIES. DO YOU HAVE CONCERNS WITH SAFELY DESIGNING, CONSTRUCTING, AND OPERATING THE PROPOSED TRANSMISSION LINE FACILITIES IN THESE AREAS?

A. Mr. Johnson's testimony lists three specific locations along two of LCRA TSC's proposed segments (Segments H3 and X2) where he states Atmos operates above-ground facilities.

He further asserts that in these locations the proposed project should be constructed and operated at least 200 feet away from the Atmos above-ground facilities.

The first location Mr. Johnson identifies is an above-ground valve located along Segment H3. Please see Exhibit JRM-1R, which is a photo I took on October 18, 2016 of the existing infrastructure (which includes a 138-kV Oncor transmission line, a railroad, an Oncor distribution line, and LCRA TSC's existing 138-kV T-378 transmission line) all currently within 200 feet of Atmos' above-ground valve site. LCRA TSC's proposed project, which would be located on the other side of the Oncor transmission line, the railroad, and the existing distribution line from the Atmos facilities, will not create any additional operational concerns for Atmos' facilities in this area.

The next two locations that Mr. Johnson identifies are a regulator station and above-ground valve located along Segment X2. Please see Exhibit JRM-2R, which is a photo I took on October 18, 2016 of the existing infrastructure (which includes a 138-kV Oncor transmission line, a railroad, an Oncor distribution line, LCRA TSC's existing 138-kV T-378 transmission line and another distribution line) all of which are currently located within 200 feet of the Atmos regulator station and above-ground valve site. In addition, Oncor's existing Westinghouse Substation can be seen in the background of the photo and in the vicinity of the Atmos regulator station and above-ground valve site. LCRA TSC's proposal to rebuild the existing 138 kV transmission line along Segment X2 will not create any additional operational concerns for Atmos' facilities in this area.

Q. MR. JOHNSON EXPRESSES ADDITIONAL CONCERN REGARDING BLASTING WITHIN 300 FEET OF EXISTING PIPELINE FACILITIES. WILL LCRA TSC BE PERFORMING ANY BLASTING IN ASSOCIATION WITH THE CONSTRUCTION OR OPERATION OF THE PROPOSED PROJECT?

A. No. LCRA TSC will not be performing any blasting for construction operation of the transmission line proposed in this proceeding.

IX. ADDITIONAL ROUTE ALTERNATIVES

Q. HAVE YOU EVALUATED COMMISSION STAFF'S PROPOSED ROUTE STAFF-3M, LAND AND HOMEOWNERS OF CR 175'S PROPOSED ROUTES LHO-1, LHO-2, LHO-3, AND LHO-4, THE CITY OF LEANDER'S PROPOSED ROUTE COL-1, AND RIVERSIDE RESOURCES' PROPOSED ROUTE RR-1?

A. Yes, I have. Please refer to Exhibit JRM-3R for a table summarizing the segments that compose each alternative route and their costs.

Q. ARE ALL OF THESE ROUTES FEASIBLE AND CONSTRUCTIBLE?

A. Yes. From an engineering and construction perspective, all the routes proposed by parties to this proceeding are feasible and constructible.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.