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APPLICATION OF CITY OF SAN ANTONIO TO AMEND ITS CERTIFICATE OF CONVENIENCE AND NECESSITY FOR THE SCENIC LOOP 138-KV TRANSMISSION LINE PROJECT IN BEXAR COUNTY, TEXAS	§ § § § § §	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

INTERVENOR CROSS REBUTTAL TESTIMONY

OF

HAROLD L. HUGHES JR., P.E.

ON BEHALF OF

SAVE HUNTRESS LANE AREA ASSOCIATION ("SHLAA")

MARCH 22, 2021

TABLE OF CONTENTS

		Page
I.	INTRODUCTION	4
II.	HABITABLE STRUCTURES	4
III.	TOUTANT BEAUREGARD ROAD	7
IV.	SUBSTATION SITE 7	11
V.	OTHER ISSUES	12
VI.	CONCLUSIONS AND RECOMMENDATIONS	14

ACRONYMS AND ABBREVIATIONS

CCN	CERTIFICATE OF CONVENIENCE AND NECESSITY
CPSB	CITY PUBLIC SERVICE BOARD
EAA	ENVIRONMENTAL ASSESSMENT AND ALTERNATE ROUTE ANALYSIS
EMF	ELECTRO-MAGNETIC FIELD
KV	KILO-VOLT (1,000 VOLTS)
NRHP	NATIONAL REGISTER OF HISTORIC PLACES
NWI	NATIONAL WETLAND INVENTORY
POWER	POWER ENGINEERS INC.
PUC	PUBLIC UTILITY COMMISSION OF TEXAS
PURA	PUBLIC UTILITY REGULATORY ACT
TPWD	TEXAS PARKS AND WILDLIFE DEPARTMENT
RFI	REQUEST FOR INFORMATION
ROW	RIGHT-OF-WAY
SHLAA	SAVE HUNTRESS LANE AREA ASSOCIATION

I. INTRODUCTION

Q. ARE YOU THE SAME HAROLD L. HUGHES JR. WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS DOCKET ON BEHALF OF SAVE HUNTRESS LANE AREA ASSOCIATION ("SHLAA")

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my rebuttal testimony is to rebut certain topics addressed in the direct testimony of many witnesses which I will identify in the following sections of my testimony. This does not mean that I necessarily agree with all the other intervenor direct testimony. Rather, I believe that points made in other testimonies with which I disagree are already addressed in my direct testimony or the testimony of other witnesses.

II. HABITABLE STRUCTURES

Q. MANY INTERVENOR WITNESSES ADDRESSED THE IMPORTANCE OF SELECTING A ROUTE WITH THE LEAST NUMBER OF HABITABLE STRUCTURES. WHICH INTERVENOR WITNESSES DO YOU DISAGREE WITH?

A. I disagree with recommendations made in the individual witness testimonies of Laura Biemer, Stephen Rockwood, Robert Bersen, Betsy Omeis, Joan Arbuckle, Paul Rockwood, and Brittany Sykes. Each of them argue that the Commission should use prudent avoidance as the most important criterion for selecting a route, and recommend that since Routes F1, N1, P, Q1, R1, and U1 have the least number of habitable

structures, one of them should be selected. With the exception of the testimonies of Stephen and Paul Rockwood, they barely even acknowledge the other criteria the Commission must consider.

Q. DOESN'T THE COMMISSION GENERALLY CONSIDER THE FEWER THE NUMBER OF HABITABLE STRUCTURES IMPACTED THE BETTER?

A. The Commission considers all the statutory criteria it must consider when selecting a route and a route with a fewer number of habitable structures may not necessarily outweigh routes that perform better on other important criteria. For example, in a case in which I testified a couple of years ago, the Commission staff recommended a route that would affect 306 habitable structures, which was 122 fewer than the route the utility indicated best met the Commission's routing criteria.[1] The commission staff made this recommendation in case the Commission should decide to enhance the weight placed on habitable structures and community values while decreasing the weight placed on cost. Despite the significant difference in the number of habitable structures impacted, the Commission selected the route that impacted the higher number of habitable structures.[2]

Q. YOU PREVIOUSLY MENTIONED THAT YOU WOULD ADDRESS THE ROCKWOODS' TESTIMONY. WHAT WAS DIFFERENT ABOUT THEIR TESTIMONIES?

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[1] Docket 45866, Direct testimony of John Poole, page 37, lines 20-21.

[2] Docket 45866, Order on Rehearing.

A. The other individual witnesses I have addressed did not include any analysis showing the other criteria the commission must consider besides the number of habitable structures. The Rockwoods' testimony at least included a table showing how their recommended routes compared on the basis of length, number of habitable structures, cost, and percent combined right-of-way. However, what was missing from their tables was any comparison to Route Z1.

Q. HOW DO THESE OTHER ROUTES COMPARE TO Z1?

A. The table below compares these other routes to Route Z1 based on the key criteria that I have addressed in my direct testimony:

Table I – Key Criteria Comparison

Route	Cost $	Habitable Structures	Length (miles)	Paralleling Percent
F1	$49,658,757	12	5.66	70%
N1	$46,803,781	11	5.33	68%
P	$43,408,742	12	4.89	71%
Q1	$45,890,914	6	5.56	69%
R1	$43,522,858	7	4.76	64%
U1	$50,562,536	6	6.36	59%
Z1	**$38,474,771**	**30**	**4.53**	**68%**

As can be seen on the table above, those other routes with the lowest number of habitable structures are all more expensive, longer, and do not perform significantly better or worse than Route Z1 on the basis of paralleling.

Q. DO YOU HAVE ANY OTHER COMMENTS ABOUT HOW THESE OTHER ROUTES COMPARE TO Z1?

A. Yes. I do not think enough emphasis has been placed on the cost differential among those other routes. Many of the intervenors suggest that it "only" costs a few million dollars more to avoid more habitable structures. To put this in perspective, Route P of the set of routes which those other intervenors advocate, is the best performing one on the basis of cost and has twelve habitable structures. Compared to Route Z1, Route P is $4,933,971 more expensive, but avoids eighteen additional habitable structures within 300 feet of a line segment. This equates to $274,110 per avoided structure. In my opinion, in the context of this particular case, I do not think that spending over a quarter of a million dollars per avoided structure meets the Commission's definition of prudent avoidance; i.e., limiting of exposures to electric and magnetic fields that can be avoided with *reasonable investments of money* and effort.

III. TOUTANT BEAUREGARD ROAD

Q. ROUTE Z1 PARALLELS MUCH OF TOUTANT BEAUREGARD ROAD. HOWEVER, SOME WITNESSES HAVE ASSERTED THAT TOUTANT BEAUREGARD ROAD IS NOT A SUITABLE CORRIDOR FOR ROUTING A TRANSMISSION LINE. DO YOU AGREE WITH THEIR ASSERTIONS?

A. No. Mr. Mark Anderson on behalf of one of the intervenors, Anaqua Spring HOA, asserts that Toutant Beauregard Road is an unacceptable transmission corridor since it impacts a high number of habitable structures; impacts an elementary school; and is a narrow, constrained transportation and utility corridor with relatively sharp curves. Mr. Buntz, on the other hand, asserts on behalf of the San Antonio Rose Palace and its nearby affiliated ranch that the historic value and the rural nature of Toutant Beauregard Road would be impacted by a line routed along Toutant Beauregard Road.

Therefore, their descriptions of the nature or state of the Toutant Beauregard Road area are directly conflicting. Each undermines the other's ability to opine on the suitability of a transmission line paralleling Toutant Beauregard Road.

Q. WHY DO YOU NOT AGREE WITH THEIR ASSERTIONS?

A. For several reasons. First, the Commission's rules (§25.101) require that CCN applicants consider whether the routes parallel or utilize other existing compatible rights-of-way, including roads, highways, railroads, or telephone utility rights-of-way. Toutant Beauregard Road is a paved, main corridor into the area. It does not have low water crossings, like some roads in SHLAA's area. It should certainly be considered since the Commission's rules require it and in every case I can remember paralleling an existing highway is considered desirable.

Second, as noted in TPWD's letter;

> *TPWD believes the State's long-term interests are best served when new utility lines and pipelines are sited where possible in or adjacent to existing utility corridors, roads, or rail lines instead of fragmenting intact lands.*[3]

Third, as noted in CPSB's routing manual:

> *Alternative routes will utilize or parallel existing transmission line, distribution line, highway, roadway, or railroad right-of-way, etc., whenever feasible.*[4]

Q. MR. ANDERSON ALSO EXPRESSES A CONCERN THAT BECAUSE OF THE SHARP CURVES ALONG TOUTANT BEAUREGARD ROAD IT WILL

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[3] Texas Parks and Wildlife Letter to Commission of February 18, 2021, pages 2 and 3.

[4] CPSB Routing Manual included in Mr. Anderson's Exhibit MDA 3 page 4.

REQUIRE A HIGHER NUMBER OF STRUCTURES AND INCREASE THE POTENTIAL FOR COLLISIONS. DO YOU AGREE?

A. There is always the potential for collisions with transmission structures along any road. However; there is nothing so unique about Toutant Beauregard Road that placing transmission poles adjacent to the road would create more danger than placing it along any other road. In addition, by using monopoles, CPSB is utilizing transmission structures which present a smaller area for potential collisions.

Q. MR. ANDERSON IMPLIES THAT SINCE ROUTE ZI PASSES "CLOSE" TO A SCHOOL IT POSES A DANGER. DO YOU AGREE?

A. No. Route Z1 utilizes Segment 42a which places the line well over 300 feet from the closest point of the McAndrew Elementary School building and would be located in an area in the back of the school that would not be suitable for school construction.

Q. MR. ANDERSON ALSO ASSERTS THAT DUE TO THE EXTREMELY CLOSE PROXIMITY OF THE TRANSMISSION LINE TO THE HOMES ALONG TOUTANT BEAUREGARD ROAD, GROUNDING TO PROTECT THE HOMES MAY BE REQUIRED. DO YOU AGREE?

A. Any home, if it is close to a line and whether or not it is located along Toutant Beauregard Road, may potentially require grounding. However, in my experience a need for grounding is very unlikely and is not a potential problem unique to any given route.

Q. MR. BUNTZ ASSERTS THAT BECAUSE OF THE HISTORICAL SIGNIFICANCE OF TOUTANT BEAUREGARD ROAD AND THE RURAL

NATURE OF THE AREA, TOUTANT BEAUREGARD ROAD SHOULD NOT BE UTILIZED AS A TRANSMISSION CORRIDOR. DO YOU AGREE?

A. As noted in his testimony at p. 6, the Scenic Loop-Boerne Stage Corridor was first designated as an historic corridor in 2009, and it was only in 2011 that Toutant Beauregard Road was added to that historic corridor designation. Therefore, Scenic Loop Road has as much or more historical significance than does Toutant Beauregard Road, and any of Mr. Buntz's concerns regarding the impact of a transmission line on the historic value or nature of the area along Toutant Beauregard Road would also apply to any routes that would be built along Scenic Loop Road.

Also, as part of my visit to the CPSB study area, I have driven along the portion of Toutant Beauregard Road within that study area. Parts of the road are developed. Other parts remain undeveloped. Therefore, I would not characterize the portion of Toutant Beauregard Road within the CPSB study area as "rural."

Q. DID MR. BUNTZ EXPLICITLY DESCRIBE ANY DIRECT OR INDIRECT IMPACTS TO CULTURAL RESOURCES THAT COULD RESULT FROM THE CONSTRUCTION OF A LINE ALONG TOUTANT BEAUREGARD BOULEVARD?

A. No. Instead, he only makes sweeping, general conclusions regarding the extent of CPSB's environmental assessment of cultural resources, apparently desiring that CPSB have provided greater discussion of the cultural matters identified in the CPSB application.[5]

[5] E.g., Direct Testimony of Mr. Buntz, page 14, lines 25-29.

IV. SUBSTATION SITE 7

Q. MR. ANDERSON EXPRESSES CONCERNS THAT SUBSTATION SITE 7 MAY NOT FIT IN THIS LOCATION. DO YOU SHARE HIS CONCERNS?

A. No. CPSB has made it clear that they have not designed the line or substation and will not do so until a route is selected and certificated. Some sites may cost more and other sites may possibly have other issues that can be mitigated through proven engineering practices. CPSB has decades of experience building substations in a variety of areas and has identified Substation site 7 as viable. The dimensions of the substation provided by CPSB to Mr. Anderson were for a standard layout and does not mean that CPSB could not, in accordance with normal engineering practices, use an alternative layout to better fit the character of the property.

Q. MR. ANDERSON ALSO NOTES THAT SUBSTATIONS HAVE SECURITY LIGHTS FROM DAWN TO DUSK AND THAT SUBSTATIONS ARE GENERALLY NOT GOOD NEIGHBORS. DO YOU AGREE WITH THAT ASSESSMENT?

A. Because an electrical substation is by its nature not the most desirable neighbor, that further emphasizes why it is desirable to site a substation on as big a lot as practicable to give a wider buffer around the station. The inescapable fact is that Substation Site 7 is substantially larger than the other sites and allows for more of a buffer. And it also has vegetation that would provide visual screening of the substation facility itself, as I have previously described in my direct testimony.

CPSB will further lessen the impact of the security lighting by adhering to the International Dark Sky recommendations for outdoor lighting.

V. OTHER ISSUES

Q. WHAT OTHER ISSUES DO YOU BELIEVE SHOULD BE ADDRESSED?

A. Although the bulk of the intervenor testimony supporting routes with the lowest number of habitable structures focus on this one issue, there were a few other issues I believe should be addressed. These include problems with the F1, N1, P, Q1, R1, and U1 routes and the attractive nuisance issue.

Q. WHAT PROBLEMS DO YOU THINK ROUTES F1, N1, P, Q1 R1, AND U1 SHARE?

A. First, Routes F1, N1, P, Q1, R1, and U1 all begin at either Segment 43, 44, or 45. All of these segments, as can be seen on the intervenor map, cross the Bexar Ranch. As described in the testimonies of Michael and Sarah Bitter on behalf of the Bexar Ranch, what makes this property unique is that it is approximately 3,200 acres located less than thirty minutes from downtown San Antonio. Bexar Ranch is not developed, nor is development desired by Bexar Ranch. This large, contiguous tract represents a large habitat area and any transmission line across it would fragment the habitat. Habitat fragmentation has always been a concern for TPWD and has also been a concern for the Commission in cases where the proposed line would fragment habitat. For example, in a CCN case where the proposed line would cross large areas of the hill country the Commission concluded that:

Major highway ROW comprises the largest corridors of habitat fragmentation in the project area, particularly the 1-10 corridor. Avoiding additional fragmentation of wildlife habitat is one of the most important environmental considerations for the project. Land fragmentation, and its consequence, is one of the greatest statewide challenges to wildlife management and conservation in Texas.(emphasis added)[6]

Q. WHAT OTHER ISSUE DO YOU HAVE WITH ROUTES F1, N1, P, Q1, R1, AND U1?

A. I believe there is an equity issue that should be considered.

Q. PLEASE EXPLAIN WHAT YOU MEAN BY AN EQUITY ISSUE.

A. As described on the previous page, all of the routes utilize either Segment 43, 44, or 45 and cross the Bexar Ranch. As the ranch owners described in their testimony, they want to preserve the property as a working ranch. Clearly, the need for a transmission line into the CPSB study area is not driven by an increased demand for load from the ranch. The need for the transmission line is in order to reliably serve the demand for existing and new development in the study area. Therefore, from an equity standpoint, it is ironic that some intervenors in existing or newly developing areas are recommending use of a route which would cross (and thus fragment the habitat of) the Bexar Ranch. Route Z1 provides the greater service reliability for the study area while minimizing environmental, land use, and cost impacts.

Q. SOME WITNESSES ASSERT THAT:

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[6] Docket 38354 Final Order Finding of Fact 77.

Construction sites can seem like attractive playscapes for children, and a transmission tower can seem like something fun to try to climb.[7]

DO YOU AGREE?

A. No. Although lattice steel transmission structures have presented a climbing challenge to some young people and climb guards have had to be installed on some of them, CPSB is not proposing to use these type of structures. The steel poles they propose to use are smooth and too large a diameter for a young person to get their arms around. The idea that they in theory might present an attractive nuisance is simply not a basis for making the routing decision in this case.

VI. CONCLUSIONS AND RECOMMENDATIONS

Q. AFTER REVIEWING THE OTHER INTERVENORS' TESTIMONY, DID YOU FIND ANY FACTS THAT LEAD YOU TO ALTER THE CONCLUSIONS YOU MADE IN YOUR DIRECT TESTIMONY?

A. No.

Q. DOES THIS COMPLETE YOUR INTERVENOR CROSS REBUTTAL TESTIMONY?

A. Yes.

[7] Direct Testimony of Sunil Dwivedi, page 3.