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SOAH DOCKET NO. 473-13-5207
PUC DOCKET NO. 41606

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JOINT APPLICATION OF § BEFORE THE STATE OFFICE
ELECTRIC TRANSMISSION TEXAS, §
LLC AND SHARYLAND UTILITIES, §
L.P. TO AMEND THEIR §
CERTIFICATES OF CONVENIENCE § OF
AND NECESSITY FOR THE §
PROPOSED NORTH EDINBURG TO §
LOMA ALTA DOUBLE-CIRCUIT 345 § ADMINISTRATIVE HEARINGS
KV TRANSMISSION LINE IN §
HIDALGO AND CAMERON §
COUNTIES, TEXAS §

ROUTE ADEQUACY TESTIMONY OF T. BRIAN ALMON

COMES NOW, Paramount Citrus II LLC; Paramount Citrus Packing Company LLC; Michael Rhodes; ML Rhodes, Ltd.; Rhodes Enterprises, Inc.; Jimmie and Barbara Steidinger; Anthony E. Gray; G and M Real Estates Co.; Durango Development, Inc.; Richard L. Gillett; Richard Gillett Family Trust; and Jean D. Strait Family LLC (collectively "Rhodes Alliance"); together with Fortco Properties, Ltd., Rio Fresh, Juan Lino Garza, and Garza Family Living Trust (together Joint Landowners), and file this Route Adequacy Testimony of T. Brian Almon, which is attached. The Joint Landowners and T. Brian Almon stipulate that this Route Adequacy Testimony can be treated by all parties as if the answers were filed under oath.

Respectfully submitted,



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Family Living Trust**

CERTIFICATE OF SERVICE

I certify that a copy of this document will be served in accordance with Order No.
4 on September 17, 2013.

Ver R5006

**SOAH DOCKET NO. 473-13-5207
PUC DOCKET NO. 41606**

JOINT APPLICATION OF ELECTRIC	§	BEFORE THE TEXAS
TRANSMISSION TEXAS, LLC AND	§	STATE OFFICE
SHARYLAND UTILITIES TO AMEND	§	
ITS CERTIFICATE OF CONVENIENCE	§	OF
AND NECESSITY FOR THE NORTH	§	
EDINBURG TO LOMA ALTA DOUBLE-	§	ADMINISTRATIVE HEARINGS
CIRCUIT 345-KV TRANSMISSION LINE	§	
IN HIDALGO AND CAMERON	§	
COUNTIES, TEXAS	§	

ROUTE ADEQUACY TESTIMONY OF

T. BRIAN ALMON, P. E. inactive

ON BEHALF OF

**THE RHODES ALLIANCE, FORTCO
PROPERTIES, LTD., RIO FRESH, JUAN LINO GARZA AND GARZA FAMILY
LIVING TRUST, (JOINT LANDOWNERS)**

September 17, 2013

DIRECT TESTIMONY OF T. BRIAN ALMON

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WORKPAPERS

1 **I. STATEMENT OF QUALIFICATIONS**

2 **Q. Please state your name, occupation and business address.**

3 A. My name is T. Brian Almon. I am a consultant testifying on behalf of the route
4 adequacy challenge being made by a number of affected landowners in this case. My
5 business address is 9502 Stonebridge Drive, Austin, Texas 78758.

6 **Q. Please briefly outline your educational and professional background.**

7 A. I have a Bachelor of Science degree in Mining Engineering and a Master of Business
8 Administration degree. My thirty-six years of professional experience include mine
9 operating, mine planning, coal marketing to the electric utility industry, and utility
10 regulation. I retired from the Public Utility Commission of Texas (PUCT) in
11 December, 2011 as the Director of Electric Transmission Analysis after 23 years of
12 employment. During sixteen years of my employment with the PUCT, I supervised a
13 staff whose primary duty was to review and file recommendations on applications for
14 amendments to certificate of convenience and necessity for transmission lines. A
15 more detailed resume is provided in Exhibit BA-1. Each year I personally reviewed
16 about eight to fifteen transmission CCN applications as they were filed with the
17 PUCT. I also filed testimony on four of the CREZ transmission line cases.

18 **Q. Are you a registered professional engineer?**

19 A. Yes, number 39335 in the State of Texas. At this time, I am on inactive status.

20 **Q. Have you previously testified as an expert before the Commission?**

21 A. Yes. A list of the dockets in which I have testified is provided in Exhibit BA-2.

22 **Q. Do you have any experience with ERCOT and the ERCOT stakeholder process?**

1 A. Yes. During my sixteen years of supervising the electric transmission analysis staff at
2 the PUCT, I participated in many of the Regional Planning Group meetings as a
3 representative of the PUCT. In fact, I participated with ERCOT and other
4 stakeholders in the development of the Regional Planning Group concept. In addition
5 to the regular RPG meetings, my staff and I would meet on a fairly regular basis with
6 the Planning and Operations staff of ERCOT to discuss developments that would
7 influence the planning and operation of the ERCOT transmission system.

8 **II. PURPOSE OF TESTIMONY**

9 **Q. What is the purpose of your testimony in this proceeding?**

10 A. The purpose of my testimony is to present a recommendation concerning the criteria
11 used by Electric Transmission Texas, LLC and Sharyland Utilities (Joint Applicants)
12 to develop alternative routes for the proposed 345 kV transmission line between
13 North Edinburg and Loma Alta. I will not be making a specific recommendation to
14 the Commission concerning a preferred route for the North Edinburg to Loma Alta
15 345 kV transmission line.

16 **Q. What regulations have you referred to in making your evaluation and arriving**
17 **at your conclusions and recommendations?**

18 A. For my evaluation, I have referred to PURA § 37.056 and P.U.C. SUBST. R.
19 25.101(b)(3).

20 **Q. How is your testimony organized?**

21 A. My testimony begins in Section I with a statement of my qualifications. In Section II,
22 I discuss the purpose of my testimony. Section III presents a summary of my
23 conclusions and recommendations for this proceeding. In Section IV, I discuss the

1 transmission project submitted by the Joint Applicants. In Section V, I discuss the
2 routing of the North Edinburg to Loma Alta transmission line to the vicinity of the
3 South McAllen Substation. In Section VI, I discuss the need for a connection to the
4 South McAllen Substation.

5 **Q. Have you prepared any exhibits related to your testimony?**

6 A. Yes. They are attached to my testimony.

7 **Q. Were these exhibits prepared by you or under your supervision?**

8 A. Yes.

9 **Q. What did you rely upon to reach your conclusions?**

10 A. I have relied upon Mr. Caskey's testimony, the ERCOT Independent Review of the
11 Sharyland and BPUB Cross Valley Project, the deposition of Jeff Billo, and the
12 routing study performed by Power Engineers.

13 **III. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS**

14 **Q. Please summarize the conclusions that you have reached as a result of your**
15 **analysis.**

16 A. I conclude the following:

17 1. I conclude that the relationship between the location of the existing South
18 McAllen Substation and any of the alternative routes proposed by the Joint
19 Applicants for the new North Edinburg-Loma Alta 345 kV line is not relevant
20 for this application.

21 2. I conclude that the critical designation by ERCOT Board for this Project did
22 not include the connection of the South McAllen Substation to the proposed
23 transmission line from North Edinburg to Loma Alta.

1 3. I conclude that the need for a connection from the South McAllen Substation
2 to the North Edinburg to Loma Alta transmission line should be reviewed by
3 ERCOT staff and the ERCOT stakeholders.
4

5 **Q. What are your recommendations?**

6 A. 1. I recommend that the Administrative Law Judge (ALJ) and the Commission
7 not consider the relative distance between the South McAllen Substation and
8 any alternative route as criteria for approving the route to be constructed by
9 the Joint Applicants.

10 2. I recommend that the ALJ and the Commission determine that there are not an
11 adequate selection of geographically diverse routes presented in the
12 application and require the Joint Applicants to propose additional routes that
13 proceed in a forward progressing manner from North Edinburg to Loma Alta
14 using corridors that are not constrained by being routed through the South
15 McAllen area.

16 3. If the ALJ and the Commission decide to approve a route using only links
17 described in the application as filed, I recommend that the approved route
18 utilize links to the greatest extent possible that are forward progressing from
19 North Edinburg to Loma Alta.

20 **IV. PROJECT DESCRIPTION**

21 **Q. What is your understanding of the project in the Joint Applicants application?**

22 A. The Joint Applicants propose to construct three elements in the Lower Rio Grande
23 Valley to address the need in 2016.

- 1 1. Construct a new La Palma-Palo Alto 138 kV line on new ROW with a rating of at
2 least 215 MVA
- 3 2. Construct a new North Edinburg-Loma Alta 345 kV line (double circuit
4 capable with one circuit in place) routed in proximity to the existing South Mc
5 Allen Substation on new ROW
- 6 3. Construct a new 345 kV bus at the Loma Alta station with one 345/138 kV
7 autotransformer

8 **Q. Did the ERCOT review of the Project include all of the elements submitted by**
9 **the Joint Applicants in this proceeding?**

10 A. Yes. The ERCOT Independent Review of the Sharyland and BPUB Cross Valley
11 Project (Report) considers two scenarios, one without the hypothetical 250 MW load
12 additions in Brownsville and one with the 250 MW load. The seven options in the
13 scenarios either had a 345 kV line originating from South McAllen Substation or
14 routed in proximity to the existing South McAllen Substation. The elements in
15 Option 5 of the Report, which was recommended by ERCOT, are the elements
16 proposed in the Application.

17 **Q. Did the Regional Planning Group (RPG) and the Technical Advisory Committee**
18 **(TAC) review the project as evaluated by ERCOT?**

19 A. Yes. Both the RPG and the TAC reviewed the project before it was presented to the
20 ERCOT Board which recommended the project.

21 **Q. Did the Joint Applicants address in their application all of the routing criteria as**
22 **defined in PURA and the Substantive Rules?**

1 A. Yes. The application, the Joint Applicants testimony, and the routing study
2 performed by Power Engineers, Inc. addressed the routing criteria as defined by
3 PURA and the Substantive Rules.

4 **V. ROUTING TO SOUTH MCALLEN SUBSTATION**

5 **Q. Why did ERCOT suggest that any new 345 kV source from the west side of the**
6 **Lower Rio Grande Valley be routed in proximity to the existing South McAllen**
7 **138 kV station?**

8 A. ERCOT staff recommended the inclusion of the South McAllen Substation in any
9 transmission solution in order to support the long-term needs of the west side of the
10 Lower Rio Grande Valley.¹ These needs were based on analysis of N-1 + G-1
11 conditions which model the effects on the electric grid of losing a transmission
12 element and a source of generation. ERCOT staff concluded that a future 345 kV
13 connection between North Edinburg and South McAllen would likely defer multiple
14 line upgrades that would otherwise be needed between 2016 and 2020. This analysis
15 required load to be projected up to ten years into the future and also assumed that the
16 hypothetical 250 MW load in Brownsville materialized.²

17 **Q. Did the option presented to the Technical Advisory Committee and to the**
18 **ERCOT Board include a recommendation to route the proposed line near the**
19 **South McAllen substation?**

20 A. The only option that ERCOT staff took to the Technical Advisory Committee and to
21 the ERCOT Board in January 2011 had the North Edinburg to Loma Alta 345 kV line

¹ ERCOT Report, page 12.

² ERCOT Report, page 20.

1 passing near the South McAllen Substation.³ The original proposal for the project by
2 Sharyland and the Brownsville Public Utility Board, which did not pass near the
3 South McAllen Substation, was not presented to TAC or the ERCOT Board.⁴

4 **Q. Did the ERCOT Board designate a connection to the South McAllen Substation**
5 **as critical?**

6 A. No. The project presented by ERCOT staff to the ERCOT Board did not include a
7 connection at the South McAllen Substation and the ERCOT Board did not designate
8 any such connection as a critical need project. This was confirmed by Jeff Billo,
9 Manager of Transmission Planning for ERCOT, at his deposition.⁵

10 **Q. Does the Application propose to connect the North Edinburg-Loma Alta 345 kV**
11 **line to the South McAllen Substation or contemplate a future connection**
12 **between those substations?**

13 A. No. The Joint Applicants routed all of the proposed routes within several miles of the
14 South McAllen Substation, but the Application does not propose to connect directly
15 with the South McAllen Substation or contemplate such a connection. Instead, the
16 Application contemplates the future construction of a new 138/345 substation
17 somewhere in the south McAllen area. To accommodate this future connection, the
18 Joint Applicants have presented 32 alternative routes that pass through the circular
19 area near the South McAllen Substation where a new substation would be located.

³ Billo deposition, pages 96-97.

⁴ ERCOT Report, page 4.

⁵ Billo deposition, page 79.

1 **Q. Did ERCOT suggest in its Report an appropriate distance between the South**
2 **McAllen Substation and the proposed transmission line from North Edinburg to**
3 **Loma Alta?**

4 A. No. ERCOT assumed in its report that the connection would be made at the South
5 McAllen Substation.

6 **Q. Have the terms “near” or “in close proximity” been defined by ERCOT or the**
7 **Joint Applicants in this proceeding?**

8 A. The specific terms have not been defined by either party. However, Mr. Caskey in
9 his testimony attempts to define an area near the South McAllen Substation that any
10 route approved by the Commission should pass through.⁶

11 **Q. What were some of the factors that the Joint Applicants considered in locating**
12 **an area for a new substation near the South McAllen Substation?**

13 A. Mr. Caskey states that the Joint Applicants considered several factors:

- 14 1) Where land could be acquired for a new substation;
- 15 2) How the North Edinburg to Loma Alta could be connected to the new
16 substation;
- 17 3) How the new substation could be connected to the existing South McAllen
18 Substation considering the location of existing lines to the South McAllen Substation
19 and whether these lines could use or be upgraded to use the high-capacity conductor
20 that would be necessary for such an interconnection. Also, the Joint Applicants
21 considered other routing constraints in the area.

22 **Q. Did the Joint Applicants identify a site for a new substation that would be**
23 **connected to the North Edinburg to Loma Alta line?**

⁶ Mr. Caskey testimony pages 23-24 and Exhibit MEC-2.

1 A. No. The Joint Applicants did not identify a site.

2 **Q. Did Mr. Caskey provide any detailed evaluation that was used to develop the**
3 **circular area through which the Project's alternative routes would cross?**

4 A. No.

5 **Q. Do all of the proposed routes of the Joint Applicants cross the circular area**
6 **defined by Mr. Caskey?**

7 A. Yes. Even the alternative routes that initially have links that are directed to the
8 southeast of the North Edinburg substation turn back to the west to cross the circular
9 area that Mr. Caskey has depicted in Exhibit MEC-2.

10 **Q. Do the Joint Applicants in their application state that all of the alternative routes**
11 **in the application comply with the PUC's routing criteria and are acceptable**
12 **from a design and constructability perspective?**

13 A. Yes, the Joint Applicants state that all of the alternative routes comply with the
14 PUC's routing criteria and are acceptable from a design and constructability
15 perspective.⁷

16 **Q. What does the Substantive Rules of the Commission say about the routing of a**
17 **transmission line?**

18 A. Substantive Rule 25.101(b)(3)(B) states in part: "the line shall be routed to the extent
19 reasonable to moderate the impact on the affected community and landowners unless
20 grid reliability and security dictate otherwise."

21 **Q. In your opinion is it reasonable to route all of the alternative routes so they cross**
22 **the circular area defined by Mr. Caskey?**

⁷ Attachment 8 of Application, page 1.

1 A. No. Grid reliability and security is not jeopardized if the alternative lines do not cross
2 the circular area. Since the alternative lines serve the sole purpose of resolving the
3 post contingency overloads in the Brownsville area there is no electrical need for the
4 approved route to cross the circular area since it is not connecting with any other
5 transmission element as outlined in the Application. If in the future a connection to
6 the South McAllen Substation is required, there is no electrical constraint that would
7 prevent the new substation from being located outside the circular area. Furthermore,
8 the impact to the affected community and landowners is not improved by having all
9 of the alternative routes cross the circular area because that requirement increases the
10 length of the line and thus the number of communities and landowners that are
11 affected.

12 Q. **Please explain.**

13 A. In an effort to present alternative routes that cross the circular area, the cost of these
14 routes increases because the length increases. For example, alternative route 25 using
15 Link 169 starts from the North Edinburg substation and progresses in an east and
16 southeasterly direction towards Loma Alta. After Link 169, Alternative route 25 will
17 turn to the west to progress to the circular area defined by Mr. Caskey and then
18 change direction and continue to progress towards Loma Alta. The additional miles
19 for this detour are estimated to be 21.76 miles.⁸ With an estimated cost of \$3.35
20 million per mile for the proposed transmission line, the extra cost for the detour is
21 about \$72.9 million. Alternative route 20 which uses Link 166 has 8.88 miles of
22 additional length in order to cross the circular area. The additional cost for this detour
23 is about \$29.6 million with an estimated cost of \$3.33 million per mile. Similar

⁸ Attachment 10b of the Application, Page 2 of 4.

1 calculations can be made for the other alternative routes (21-24, 26-30) that exit from
2 North Edinburg in a southeasterly direction.

3 Furthermore, the Commission has ruled in the *Wood County* case that a proposed
4 substation location should not constrain the analysis of the adequacy of alternative
5 routes to only those routes with a single proposed endpoint. I conclude that this same
6 principle applies to this case because the Application only presents routes that cross a
7 defined circular area near the South McAllen substation.⁹

8 **Q. Is the consideration of where land may be acquired in the future a relevant**
9 **routing factor in transmission line CCN cases?**

10 A. No. Hypothetical future land acquisition is not a factor in PURA or the
11 Commission's rules for the routing of a transmission line. Further, the Commission
12 has specifically determined in the past that the desire to obtain right-of-way before
13 anticipated development occurs does not establish need to construct a transmission
14 project.¹⁰

15 **Q. Have you made a similar evaluation of the alternative routes that progress in a**
16 **westerly direction from the North Edinburg Substation before crossing the**
17 **circular area?**

18 A. Before I answer this question, I would like to discuss the preliminary review that was
19 used by the PUCT staff under my supervision as the Director of Electric
20 Transmission Analysis. The transmission service providers (TSP) were requested to
21 present to the PUCT staff the preliminary alternative routes for proposed transmission

⁹ *Application of Wood County Electric Cooperative, Inc for a Certificate of Convenience and Necessity for a Proposed Transmission Line in Wood County, Texas*, P.U.C. Docket No. 32070, Order on Appeal of Order No. 8.(November 1, 2006)

¹⁰ *Application of Lower Colorado River Authority to Amend a Certificate of Convenience and Necessity for a Proposed Transmission Line Within Kendall County*, P.U.C. Docket No. 20827, Order (May_, 2000).

1 projects before an Application was filed at the Commission. At that time of the
2 review, the PUC staff would make comments to the TSPs concerning the layout of
3 the routes and the links that make up each route. Generally, the PUCT staff would
4 encourage the TSPs to present forward progressing links for each of the routes. If all
5 of the links were forward progressing then the overall length of each route was
6 minimized thereby lowering the cost of the respective route. Since I was not at the
7 Commission when ETT and Sharyland reviewed the project with the PUCT staff, I do
8 not know if this same review was conducted for this project. From a review of the
9 routing maps provided in the Application¹¹ it appears that the alternative routes (1-19,
10 31, and 32) heading west from the North Edinburg Substation are not forward
11 progressing towards the final destination at Loma Alta. The deviation towards the
12 west will definitely increase the length of the routes thereby increasing the cost. If
13 the ALJ and the Commission determine that it is reasonable to route the North
14 Edinburg to Loma Alta line in proximity to the South McAllen Substation, I have not
15 reached a conclusion about the viability of these routes since I have not evaluated the
16 constraints identified by the Joint Applicants and their consultant, Power Engineers.
17 However, if the ALJ and the Commission determine that routing in the proximity to
18 the South McAllen Substation is not required, then I conclude that there is not an
19 adequate selection of geographically diverse routes in the Application.

20 **Q. Why do conclude that there is not an adequate selection of geographically**
21 **diverse routes in the Application?**

22 **A.** Because the Joint Applicants attempt to route in proximity of the South McAllen
23 Substation, the alternative routes going east from North Edinburg circle around the

¹¹ Attachment 10b.

1 City of Edinburg and head south towards the circular area. By only considering
2 routes in that direction a number of obvious eastern corridors are eschewed.

3 **VI. NEED FOR CONNECTION TO SOUTH MCALLEN SUBSTATION**

4 **Q. Is a connection to the South McAllen Substation by the North Edinburg to Loma**
5 **Alta needed to resolve the post contingency overloads in the Brownsville area in**
6 **the ERCOT model?**

7 A. No. The North Edinburg to Loma Alta transmission line will resolve the post
8 contingency overloads in the study model for Brownsville, but a connection to South
9 McAllen is not needed to resolve any of the identified overloads.¹²

10 **Q. Did the option presented to the ERCOT Board include the future unidentified**
11 **load of 250 MW in the Brownsville area?**

12 A. Yes.

13 **Q. Was there any discussion about the 250 MW load during the ERCOT review**
14 **process before the project was presented to the ERCOT Board?**

15 A. Yes. There was a lack of consensus at the Regional Planning Group about whether
16 the 250 MW should be included in the ERCOT study for the Cross Valley Project.
17 The study did include scenarios with and without the 250 MW load to analysis the
18 need through 2016. However, all of the proposals presented to TAC and the ERCOT
19 Board included the 250 MW load and the Long-Term Assessment 2020 summer peak
20 base case for the 138-kV lines connecting to the South McAllen Substation included
21 the hypothetical 250 MW load.

¹² Billo deposition, page 32.

1 **Q. Have you concluded that there would be a need to perform further studies of**
2 **potential overloads in the Lower Rio Grande Valley after 2016?**

3 A. Yes. ERCOT would need to perform a model that used long-term load projections
4 that did not include an addition of a hypothetical 250 MW load in the Brownsville
5 area. Also, ERCOT had assumed the connection with the North Edinburg-Loma Alta
6 line would be at the South McAllen Substation, so a new study would need to
7 incorporate the fact that the Joint Applicants are proposing a new 138/345 substation
8 for the connection in the South McAllen area. Finally, ERCOT cannot admit with
9 any certainty that a connection of the South McAllen substation to east Lower Rio
10 Grande Valley 345 kV line portion would be needed sometime in the 2020s for N-1
11 contingency conditions.¹³

12 **Q. Has the Commission ever reconsidered the need for a 345 kV transmission line**
13 **and directed ERCOT to re-evaluate its recommendation to determine an**
14 **alternative solution?**

15 A. Yes. In PUC Docket 38577, the Commission directed ERCOT to determine the most
16 cost-effective alternative to the Gillespie to Newton 345 kV circuit. The ERCOT re-
17 evaluation updated a two year old study and determined that it was possible to
18 reconduct existing 138 kV circuits with a cost savings of almost \$100 million.

19 **Q. Is it your opinion that in the future, ERCOT should re-evaluate the results of the**
20 **Long-Term Assessment 2020 summer peak base case and thereby may arrive at**
21 **a different conclusion that what was presented in the Application?**

22 A. Yes. I conclude that a re-evaluation should occur and this re-evaluation may change
23 the results as we know them today similar to what happen in PUC Docket 38577.

¹³ Billo deposition, page 49

1 **Q. Without additional analysis is there any basis for determining that the North**
2 **Edinburg to Loma Alta transmission line needs to be routed in the “proximity”**
3 **of the South McAllen Substation?**

4 A. No. Nothing in ERCOT’s analysis or the Application justifies increasing the length
5 and cost of the project or impacting additional communities and landowners simply to
6 route the line in some proximity of the South McAllen Substation. Specifically, the
7 line overload issues in the Brownsville area identified by ERCOT as the need and
8 critical need for this project are resolved with a line connecting North Edinburg to
9 Loma Alta. This has no relation whatsoever to a future connection at South McAllen
10 Substation or, as the Joint Applicants propose, a new substation somewhere in the
11 vicinity of the South McAllen Substation.

12 **Q. Does routing the North Edinburg to Loma Alta transmission line in a forward**
13 **progressing manner without routing it in the “proximity” of the South McAllen**
14 **Substation prevent a connection between North Edinburg and South McAllen in**
15 **the future if need is determined?**

16 A. Absolutely not. If, in the future, ERCOT determines that there is a need for that
17 connection that cannot be resolved by upgrading existing transmission infrastructure,
18 then a new line can be constructed either directly between North Edinburg and South
19 McAllen or from South McAllen to a new substation that connects with the North
20 Edinburg to Loma Alta line.

21 **Q. Is there a critical reliability need for a connection between North Edinburg and**
22 **South McAllen or any other transmission upgrade related to South McAllen at**
23 **this time?**

1 A. No. ERCOT has not identified any such critical need and none is apparent to me in
2 my review of the application and its relevant associated documents.

3 **Q. Does this conclude your testimony?**

4 A. Yes, it does.

EXHIBIT BA-1

Qualifications of T. Brian Almon

EXHIBIT BA-1
QUALIFICATIONS
OF
T. BRIAN ALMON

I received a Bachelor of Science in Mining Engineering from the University of Arizona in 1967 and a Master of Business Administration degree from the same university in 1973. I also attended Virginia Polytechnic Institute and State University for postgraduate studies in mining engineering during 1968 and 1969. I have attended seminars on coal supply agreements, economic evaluation of mining projects, and regulation of electric utilities.

After receiving my BS degree, I was employed with New Jersey Zinc Company as a Mine Engineer (Austinville, Virginia). In 1970, I joined the Anaconda Company as an Assistant Shift Foreman at the Twin Buttes copper mine (Sahuarita, Arizona). After completion of my MBA degree, I was employed by El Paso Coal Company (El Paso, Texas), a subsidiary of El Paso Natural Gas Company, in several positions: Development Engineer, Senior Development Engineer, Administrator of Technical Staff, Administrator of Technical Staff & Coal Marketing, and Manager of Coal Marketing and Technical Services.

As an engineer, my responsibilities included planning and cost estimating for surface coal mines. As administrator and manager, I was responsible for economic evaluation of coal projects, coal analyses, computer program development, forecasting the fuel needs of electric utilities, and marketing El Paso Coal Company's coal properties located in four western states.

In 1980 I joined Tenneco Coal Company (Houston, Texas) as Manager of Coal Marketing with responsibility for marketing Texas and Mississippi lignite to electric utilities. My duties included the determination of future fuel needs for the electric utilities in Texas. I followed very closely the activities of utilities and competing coal companies. I also tracked prices of competing fuels and coal transportation.

In May 1988, I began my employment with the Commission as a Fuel Engineer. My duties included evaluating utility fuel procurement management practices, forecasting short and long-term fuel prices, recommending depreciation rates and fuel inventory levels, and supporting Commission projects in the fuel area. In December 1993, I became Manager of Engineering with responsibility over fuel, power plant engineering, and transmission line siting. On October 1, 1995, as part of an agency-wide reorganization, I assumed the responsibility for fuel as Assistant Director of Fuel Analysis. On January 9, 1998, I assumed the responsibility for fuel and engineering as an Assistant Director in the Electric Industry Analysis Division. When I retired from the PUCT in December, 2011, my title was Director of the Electric Transmission Analysis Section in the Infrastructure and Reliability Division with essentially the same duties.

I am an inactive registered Professional Engineer in the State of Texas (Serial Number 39335).

EXHIBIT BA-2

List of Dockets Containing Testimony Of T. Brian Almon

EXHIBIT BA-2
LIST OF DOCKETS CONTAINING TESTIMONY OF
T. BRIAN ALMON

PUC DOCKET NUMBER	DESCRIPTION
38743	Application of Electric Transmission Texas, LLC to Amend its Certificate of Convenience and necessity for the Tesla to Edith Clarke to Clear Crossing to West Shackelford 345-kV CREZ Transmission Line in Childress, Cottle, Hardeman, Foard, Knox, Hasdell, Jones, and Shackelford Counties [Direct Testimony – Route selection] (January 7, 2011)
38480	Application of Texas-New Mexico Power Company for Authority to Change Rates [Direct Testimony – Self-insurance & storm hardening] (November 15, 2010)
38354	Application of LCRA Transmission Services Corporation to Amend its Certificate of Convenience and Necessity for the McCamey D to Kendall to Gillespie 345-kV CREZ Transmission Line in Schleicher, Mason, Gillespie, Kerr and Kendall Counties [Direct Testimony – Route Selection] (October 11, 2010)
38339	Application of CenterPoint Energy Houston, LLC for Authority to Change Rates [Direct Testimony – Self-insurance] (September 17, 2010)
38230	Application of Lone Star Transmission, LLC for a Certificate of Convenience and Necessity for the Central A to Central C to Sam Swith/Navarro Proposed CREZ Transmission Line [Direct Testimony – Route Selection] (August 26, 2010)
38361	Application of El Paso Electric Company to Reconcile Fuel Costs (Severed from PUC Docket 37690) [Direct Testimony – Recovery of Mine Closing Costs] (July 16, 2010)
37744	Application of Entergy Texas, Inc. For Authority to Change Rates and Reconcile Fuel Costs [Direct Testimony – Coal supply for Nelson 6 power plant and third-party power contract] (June 16, 2010)
37162	Application of Southwestern Electric Power Company for Authority to Reconcile Fuel Costs [Direct Testimony – Performance of Pirkey and Dolet Hills power plants] (May 13, 2010)

- 37448 Application of LCRA Transmission Services Corporation to Amend its Certificate of Convenience and Necessity for the Gillespie to Newton 345-kV CRES Transmission Line in Gillespie, Llano, San Saba, Burnet, and Lampasas Counties, Texas
[Direct Testimony – Route Selection]
(January 20, 2010)
- 36025 Application of Texas-New Mexico Power Company for Authority to Change Rates
[Direct Testimony – Self-insurance]
(June 3, 2009)
- 35665 Commission Staff's Petition for Selection of Entities Responsible for Transmission Improvements Necessary to Deliver Renewable Energy from Competitive Renewable Energy Zones
[Direct Testimony – Assignment of TSP for CREZ Projects]
(October 28, 2008)
[Rebuttal Testimony – Priority & default projects and proposed joint venture]
(November 14, 2008)
- 35763 Application of Southwestern Public Service Company for Authority to Change Rates, to Reconcile Fuel and Purchased Power Costs for 2006 and 2007, and to Provide a Credit for Fuel Cost Savings
[Direct Testimony – Storm restoration and reserve amount]
(October 21, 2008)
- 34800 Application of Entergy Gulf States, Inc. for Authority to Change Rates and to Reconcile Fuel Costs
[Direct Testimony – Revenue Requirement and Fuel Phases]
(April 18, 2008)
- 34077 Joint Report and Application of Oncor Electric Delivery Company and Texas Energy Future Holdings Limited Partnership Pursuant to PURA §14.101
[Direct Testimony – Reliability Standard]
(September 21, 2007)
[Direct Testimony – Support of Stipulation]
(October 24, 2007)
- 33672 Commission Staff's Petition for Designation of Competitive Renewable Energy Zones
[Direct Testimony – Designation of CREZ in Texas]
(April 24, 2007)
[Rebuttal Testimony – Designation of CREZ in Texas]
(May 21, 2007)
[Corrected Direct and Rebuttal Testimony]
(June 4, 2007)
- 33309 Application of AEP Texas Central Company for Authority to Change Rates
[Direct Testimony – Self Insurance Plan and Catastrophe Reserve]
(March 23, 2007)

- 32766 Application of Southwestern Public Service Company for: (1) Authority to Change Rates; (2) Reconciliation of its Fuel Costs for 2004 and 2005; (3) Authority to Revise the Semi-Annual Formulae Originally Approved in Docket No. 27751 Used to Adjust its Fuel Factors; and (4) Related Relief [Direct Testimony – Coal Issues] (January 12, 2007)
- 32018 Notice of Violation by TXU Electric Delivery of PURA §38.005, Relating to Electric Service Reliability Measures and P.U.C. Subst. R. 25.52, Relating to Reliability and Continuity of Service [Direct Testimony – Appropriate Penalty] (July 13, 2006)
- 31824 Application of the Electric Reliability Council of Texas for Approval of the ERCOT System Administrative Fee [Direct Testimony – Review of Technical Expenditures] (January 23, 2006)
- 31064 Application of AEP Texas North Company and Taylor Electric Cooperative, Inc. for Clarification of Service Area Boundary in Taylor County [Direct Testimony – Boundary Determination] (November 8, 2005)
- 30143 Petition of El Paso Electric Company to Reconcile Fuel Costs [Direct Testimony – Purchased Power and Off-system Sales] (March 2, 2005)
- 29801 Application of Southwestern Public Service Company for Reconciliation of its Fuel Costs for 2002 and 2003, A Finding of Special Circumstances and Related Relief [Direct Testimony – Coal Inventory and Wheeling Expenses] (November 2, 2004)
- 28813 Petition to Inquire into the Reasonableness of the Rates and Services of Cap Rock Energy Corporation [Direct Testimony – Funding Catastrophe Reserve] (September 13, 2004)
- 29526 Application of Centerpoint Energy Houston Electric LLC, Reliant Energy Retail Services, LLC and Texas Genco LP to Determine Stranded Costs and Other True-Up Balances Pursuant to PURA §39.262 [Direct Testimony – Environmental Cleanup Costs] (June 7, 2004)
- 28906 Application of LCRA Transmission Services Corporation to Change Rates [Direct Testimony – Allowable expenses and post test-year adjustments] (May 11, 2004)
- 29206 Application of Texas-New Mexico Power Company, First Choice Power, Inc. and Texas Generating Company, LP., To Finalize Stranded Costs Under PURA §39.262 [Direct Testimony – Price re-determination of lignite price] (April 2, 2004)

- 28840 Application of AEP Texas Central Company for Authority to Change Rates
 [Direct Testimony – Plant in Service]
 (February 17, 2004)
- 28045 Application of Southwestern Electric Power Company for Authority to Reconcile
 Fuel Costs
 [Direct Testimony – Reasonable and Necessary Expenses and Prudent
 Management]
 (November 12, 2003)
- 27576 Application of Texas-New Mexico Power Company for Reconciliation of Fuel
 Costs
 [Direct Testimony – Price predetermination & alternate fuels]
 (July 25, 2003)
- 26194 Petition of El Paso Electric Company to Reconcile Fuel Costs
 [Direct Testimony – Necessary Expenses and Off-System Sales]
 (April 24, 2003)
- 26195 Joint Application of Texas Genco, LP and Centerpoint Energy Houston Electric,
 LLC to Reconcile Eligible Fuel Revenues and Expenses Pursuant to
 Subst. R. 25.236
 [Direct Testimony – Recovery of Post-Mine Reclamation Cost]
 (January 7, 2003)
- 25778 Emergency Complaint of Henry A. Miller, Et Al. Against American Electric
 Power Company and Request for an Emergency Cease and Desist Order
 [Direct Testimony – Issues related to Ordering Paragraphs in Docket No.
 21741]
 (August 20, 2002)
- 24835 Petition of Reliant Energy, Incorporated for Approval of Environmental Cleanup
 Costs Plan
 [Direct Testimony – Technical Issues of Application]
 (January 15, 2002)
- 20314 Application of Hino Electric Power Company for a Certificate of Convenience
 and Necessity in Cameron, Willacy, and Hidalgo Counties
 [Direct Testimony – Technical Issues of Application]
 (October 25, 2001)
- 20125 Application of Beaumont Power & Light Company for a Certificate of
 Convenience and Necessity in Jefferson County, Texas
 [Direct Testimony – Technical Issues of Application]
 (October 25, 2001)
- 19950 Application of Corpus Christi Power & Light Company for a Certificate of
 Convenience and Necessity in Nueces and San Patricio Counties
 [Direct Testimony – Technical Issues of Application]
 (October 25, 2001)
- 23550 Application of Entergy Gulf States, Inc. for the Authority to Reconcile Fuel Costs
 [Direct Testimony – Nuclear PBR and Outage]
 (July 13, 2001)

- 23477 Application of West Texas Utilities Company for the Authority to Reconcile Fuel Costs
 [Direct Testimony – Fuel Purchases]
 (August 20, 2001)
- 22356 Application of Entergy Gulf States, Inc. for Approval of Unbundled Cost of Service Rate Pursuant to PURA §39.201 and Public utility Commission Substantive Rule §25.344
 [Direct Testimony – Environmental Cleanup Cost Recovery]
 (January 16, 2001)
- 22355 Application of Reliant Energy Incorporated for Approval of Unbundled Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive Rule §25.344
 [Direct Testimony – Transmission and Distribution Capital Expenditures]
 (December 18, 2000)
- 22350 Application of TXU Electric Company for Approval of unbundled Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive Rule §25.344
 [Direct Testimony – Environmental Cleanup Cost Recovery]
 (October 13, 2000)
- 22352 Application of Central Power and Light Company for Approval of Unbundled Cost of Service Rate Pursuant to PURA §39.201 and Public Utility Commission Substantive Rule §25.344
 [Direct Testimony - Environmental Cleanup Cost Recovery]
 (October 6, 2000)
- 22344 Generic Issues Associated with Application for Approval of Unbundled Cost of Service Rate Pursuant to PURA §39.210 and Public Utility Commission Substantive Rule §25.344
 [Direct Testimony – O&M Escalators] (July 27, 2000)
 [Rebuttal Testimony](August 3, 2000)
 [Errata for Direct](August 3, 2000)
- 17525 Application of Southwestern Public Service Company for Certification of Qualifying Facility Purchased Power Contract under Section 2.209 of PURA 95
 [Direct Testimony – Fuel Price Risk]
 (August 19, 1997)
- 16628 Petition of the Lower Colorado River Authority to Reconcile its Fuel Revenues and Expenses and For Other Relief
 [Direct Testimony – Coal, Gas, Oil & Purchased Power Reconciliation]
 (May 8, 1997)
- 15195 Application of Texas Utilities Electric Company for a Reconciliation of Fuel Costs
 [Direct Testimony – Mine Productivity]
 (October 7, 1996)

- 14965 Application of Central Power and Light Company for Authority to Change Rates and Reconcile Fuel Costs
 [Direct Testimony – Fuel PBR in Competitive Issues Phase]
 (July 18, 1996)
- 15102 Application of Gulf States Utilities Company to Reconcile Its Fuel Costs, for Permission to Delay Requesting a Surcharge, or in the Alternative, for a Surcharge to Recover Under-recovered Fuel Expense
 [Direct Testimony – Reconciliation of Fossil Fuel]
 (July 8, 1996)
- 14893 Petition of Sam Rayburn G & T Electric Cooperative, Inc. for Authority to Change Rates
 [Direct Testimony – Coal Inventory, Non-reconcilable and Eligible Fuel Expense]
 (January 18, 1996)
- 14499 Petition of Southwestern Public Service Company for Findings of Special Circumstances and For Associated Waivers
 [Direct Testimony]
 (November 21, 1995)
- 12065 Complaint of Kenneth D. Williams against Houston Lighting & Power Company
 [Direct Testimony – Trinity Mine Investment]
 (November 29, 1994)
- 12820 Petition of the General Counsel for and Inquiry into the Reasonableness of the Rates and Services of Central Pore and Light Company
 [Direct Testimony – Plant Held for Future Use]
 (October 17, 1994)
- 12855 Application of Southwestern Electric Power Company to Reconcile Fuel Costs and Request for Accounting Order
 [Direct Testimony – Coal Issues]
 (August 10, 1994)
 [Supplemental Testimony]
 (August 29, 1994)
- 11520 Petition of the General Counsel for an Inquiry into the Reasonableness of Rates and Services of Southwestern Public Service Company
 [Direct Testimony – Revenue Requirement Phase]
 (July 29, 1993)
- 11735 Application of Texas Utilities Electric Company for Authority to Change Rates
 [Direct Testimony – Fuel Phase]
 (July 13, 1993)
 [Direct Testimony – Revenue Requirement Phase]
 (July 13, 1993)
- 11292 Application of Entergy Company and Gulf States Utilities Company for Sale, Transfer, or Merger
 [Direct Testimony – Fuel Price Forecast]
 (January 8, 1993)

[Surrebuttal Testimony]
(February 12, 1993)

- 10894 Application of Gulf States Utilities Company to Reconcile Fuel Costs, Establish
 New Fixed Fuel Factors, and Recover its Under-recovered Fuel Expenses
 [Direct Testimony – Fuel Price Forecast, Fuel Reconciliation]
 (August 28, 1992)
- 11011 Petition of Southwestern Public Services Company for a Fuel Reconciliation
 [Direct Testimony – Fuel Reconciliation]
 (August 4, 1992)
- 10982 Application of Sam Rayburn G&T Electric Cooperative, Inc. for Authority to
 Change Rates
 [Direct Testimony – Purchase Power, Non-reconcilable Fuel Expenses,
 Fuel Price Forecast, Fuel Inventory, Fuel Reconciliation]
 (June 3, 1992)
- 10092 Petition of Houston Lighting & Power Company for Reconciliation of Fuel Costs
 [Direct Testimony – Fuel Reconciliation]
 (March, 1991)
 [Supplemental Testimony]
 (June 21, 1992)
- 10200 Application of Texas-New Mexico Power Company for Authority to Change
 Rates, Prudence Phase
 [Direct Testimony – Fuel Inventory, Fuel Price Forecast]
 Prudence (November 8, 1991)
 Revenue Requirement (December 13, 1991)
 Fuel (December 13, 1991)
- 9850 Petition of Houston Lighting & Power Company for Authority to Change Rates
 [Direct Testimony – Fuel Inventory, Depreciation, Non-reconcilable Fuel
 Expenses]
 (February 19, 1991)
- 9300 Application of Texas Utilities Electric Company for Authority to Change Rates
 [Direct Testimony – Fuel Reconciliation]
 (June, 1990)
- 9030 Petition of the General Counsel for a Fuel Reconciliation for Southwestern Public
 Service Company
 [Direct Testimony – Fuel Reconciliation]
 (May, 1990)
- 9561 Application of Central Power and Light Company for Authority to Change Rates
 [Direct Testimony – Fuel Reconciliation, Fuel Price Forecast, Fuel
 Inventory]
 (August, 1990)
- 9491 Application of Texas-New Mexico Power Company for Authority to Change
 Rates
 [Direct Testimony – Fuel Price Forecast, Fuel Inventory]

(July, 1990)

- 9427 Application of Lower Colorado River Authority for Authority to Change Rates
 [Direct Testimony – Prudence of Cummins Creek]
 (July, 1990)
- 8900 Petition of the General Counsel for a Fuel Reconciliation for Southwestern
 Electric Power Company
 [Direct Testimony – Coal and Lignite Reconciliation]
 (January, 1990)
 [Supplemental Testimony]
 (January, 1990)
- 8646 Petition and Statement of Intent of Central Power and Light Company to Change
 Rates
 [Direct Testimony – Fuel Reconciliation, Fuel Management, Coal
 Inventory, Coal Price Forecast, Non-reconcilable Fuel Expenses, Plant
 Held for Future Use]
 (May – December, 1989)
- 8595 Application of Sam Rayburn G & T Electric Cooperative, Inc for Authority to
 Change Rates
 [Direct Testimony – Fuel Reconciliation, Non-reconcilable Fuel
 Expenses, Fuel Price Forecast]
 (April, 1989)
- 8588 Application of El Paso Electric Company for Reconciliation of Fuel
 [Direct Testimony – Fuel Reconciliation] (August, 1989)
- 8425 Petition of Houston Lighting & Power Company for Authority to Change Rates,
 Phases I & II
 [Direct Testimony – Fuel Reconciliation. Non-reconcilable Fuel
 Expenses] (March, 1989)
- 8400 Application of Lower Colorado River Authority to Change Rates [Direct
 Testimony – Fuel Reconciliation, Non-reconcilable Fuel Expenses, Fuel
 Price Forecast, Prudence Review] (March, 1989)
- 6692 Application of Texas-New Mexico Power Company for Certification of a Lignite-
 Fired Generation Station in Robertson County, Texas (Remand) [Direct
 Testimony – Fuel Price Forecast] (June, 1990)
- 8095 Application of Texas-New Mexico Power Company for Authority to Change
 Rates
 [Direct Testimony - Purchased Power Expenses] (July, 1988)
- 8280 Application of Southwestern Electric Power Company for Authority to Increase
 Interim Fixed Fuel Factors
 [Direct Testimony - Fuel Price Forecast] (November, 1988)

8328 Petition of West Texas Utilities Company for Order to Increase Fixed Fuel
 Factors
 [Direct Testimony - Fuel Price Forecast] (November, 1988)

WORKPAPERS

Route 20 using Link 166

Extra Links
To circular area

352 – 2.38 mile
118c – 1.75
118a – 1.63
116, 117 – 2.0
119 – 1.25
121 – 0.75
130 – 2.13
11.89

New Links
avoiding circular area

170b – 0.5 mile
172 – 0.38
173b
174
176 – 2.13
3.01

$$11.89 - 3.01 = 8.88 \text{ miles} * \$3.33 \text{ million / mile} = \$29.6 \text{ million}$$

Cost per mile calculated from data on Attachments 2 and 5 of the Application

Route 25 using Link 169

Extra Links
To circular area

184 – 1.88
178 – 2.75
173b
172
170b – 1.25
352 – 2.38
118c – 1.75
118a – 1.63
116, 117 – 2.0
119 – 1.25
121 – 0.75
129 – 2.63
179 – 2.75
185 – 2.25

New Links
avoiding circular area

193a – 0.38
349a – 1.13

$$23.27 - 1.51 = 21.76 * \$3.35 \text{ million / mile} = \$72.9 \text{ million}$$