



Control Number: 38597



Item Number: 7

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FILED

DIRECT TESTIMONY OF KENNETH A. DONOHOO, WITNESS FOR ONCOR ELECTRIC DELIVERY COMPANY LLC

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Exhibit KAD-1 Letter from ERCOT dated September 2, 2010

7

1 and Operation Subcommittee ("ROS"), North American Electric Reliability
2 Corporation ("NERC") Planning Committee Transmission Issues Subcommittee,
3 and a member of the ERCOT Regional Planning Group.

4 Q. HAVE YOU EVER SUBMITTED TESTIMONY BEFORE THE PUBLIC UTILITY
5 COMMISSION OF TEXAS ("COMMISSION")?

6 A. Yes, I submitted testimony in Commission Docket Nos. 37119, 37407, 37408,
7 37409, 37463, 37464, 37529, 37530, 38140, 38324, and 38517. I have testified
8 live in Docket Nos. 37463, 37464, 37530, and 38140.

9 **II. PURPOSE OF TESTIMONY**

10 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

11 A. The purpose of my testimony is to address certain aspects of the Company's
12 proposed Krum West – Anna 345 kV Transmission Line Project ("Proposed
13 Transmission Line Project"), including:

- 14 • introduce witnesses testifying on behalf of Oncor, and
- 15 • the differences between the Proposed Transmission Line Project
16 and what was presented in the Competitive Renewable Energy
17 Zone ("CREZ") Transmission Optimization Study ("CTO") for the
18 Krum West to Anna project.

19 In addition, I sponsor the Company's response to Question No. 14, co-sponsor
20 the Company's response to Question No. 4, and I also sponsor Attachment No. 2
21 of the Application For A Certificate of Convenience and Necessity ("CCN") For A
22 Proposed Transmission Line, Pursuant to P.U.C. Subst. R. 25.174, PUC Docket
23 No. 38597 ("Application"), filed by Oncor. The Application, filed on September 8,
24 2010, will be offered into evidence by the Company at the hearing. The facts and
25 statements set forth in the portions of the Application that I sponsor are true and
26 correct.

27 Q. PLEASE IDENTIFY THE WITNESSES TESTIFYING ON BEHALF OF ONCOR
28 AND BRIEFLY SUMMARIZE THE PURPOSE OF THEIR RESPECTIVE DIRECT
29 TESTIMONY.

1 A. Including myself, there are four witnesses submitting direct testimony on behalf
2 of Oncor. The following is a brief summary of each witnesses' direct testimony:

3 • Kenneth A. Donohoo: My direct testimony addresses the topics I
4 mentioned above.

5 • Mr. Russell J. Marusak: Mr. Marusak is an Environmental Scientist
6 with Halff Associates, Inc. His direct testimony discusses and
7 sponsors the Environmental Assessment and Routing Study for the
8 Proposed Transmission Line Project.

9 • Ms. Jill L. Alvarez: Ms. Alvarez is employed by Oncor as a
10 Consulting Engineer. Her direct testimony addresses and sponsors
11 the cost estimates for the Proposed Transmission Line Project,
12 Oncor's compliance with the notice requirements of Commission
13 Procedural Rule 22.52(a), and engineering constraints that could
14 impact the Preferred Route or any of the alternative routes. Ms.
15 Alvarez sponsors Oncor's responses to Question Nos. 1 through 3,
16 5 through 13, and 23, and co-sponsors Oncor's response to
17 Question No. 4. Ms. Alvarez also sponsors Attachment Nos. 3A,
18 3B, 6, 7, 8, 9,10 and 13.

19 • Mr. Charles T. Jasper: Mr. Jasper is the co-founder of Jasper
20 Environmental Consulting, LLC. His direct testimony addresses the
21 public participation meeting process, additional project permitting
22 that could be necessary, selection of a preferred and alternate
23 routes of the Proposed Transmission Line Project, and the
24 adequacy of Oncor's geographically diverse routes included in the
25 Application. Mr. Jasper sponsors Oncor's responses to Question
26 Nos. 15 through 22 and 24 through 27, as well as Attachment Nos.
27 4, 5, 11 and 14 to the Application.

1 **III. NAME OF FACILITIES**

2 Q. WHAT ARE THE NAMES OF THE FACILITIES INCLUDED IN THE
3 APPLICATION?

4 A. The Proposed Transmission Line Project is called the Krum West to Anna 345 kV
5 Transmission Line Project. The endpoints of the Proposed Project are the new
6 Oncor Krum West Switching Station, located in Denton County, Texas, and
7 Oncor's existing Anna Switching Station, located in Collin County, Texas.

8 **IV. COMPARISON OF ONCOR PROJECT WITH CTO PROJECT**

9 Q. PLEASE DESCRIBE ONCOR'S PROPOSED TRANSMISSION LINE PROJECT.

10 A. The Proposed Transmission Line Project is a CREZ subsequent project that
11 consists of constructing a new 345 kV double circuit transmission line that
12 extends from Oncor's new Krum West Switching Station, located in Denton
13 County, Texas, to the existing Anna Switching Station, located in Collin County,
14 Texas. The preferred route of the new 345 kV double circuit line is
15 approximately 51 miles long and will be constructed using structures capable of
16 accommodating two 345 kV circuits. Oncor witness Ms. Jill Alvarez discusses in
17 her direct testimony the cost of the Proposed Transmission Line Project based
18 on the preferred route distance.

19 Q. IS ONCOR'S PROPOSED TRANSMISSION LINE PROJECT THE SAME AS
20 THE PROJECT PROPOSED IN THE CTO?

21 No.

22 Q. HOW DOES ONCOR'S PROPOSED TRANSMISSION LINE PROJECT DIFFER
23 FROM THE PROJECT PROPOSED IN THE CTO?

24 A. The CTO proposed constructing the line using two 1433.6 kcmil ACSS/TW
25 ("1433.6 conductor") for the circuits. As a modification, Oncor proposes to use
26 bundled kcmil ACSS/TW ("1926.9 conductor"), a standard conductor on Oncor's
27 345 kV transmission line system for both circuits.

28 Q. DOES THIS CONDUCTOR PROVIDE THE SAME OPERATING CAPACITY AS
29 THE CTO CONDUCTOR?

1 A. Yes, the 1926.9 conductor meets or exceeds the capability of the conductor
2 included in the CTO. Importantly, the peak operating current rating for this twin-
3 bundled conductor is 5,000 amperes which is equal to the CTO conductor.

4 Q. DOES ONCOR'S PROPOSED CONDUCTOR PROVIDE ANY ADDITIONAL
5 BENEFITS?

6 A. Yes. The 1433.6 conductor is not currently used on Oncor's system. Utilizing
7 the 1926.9 conductor, a standard conductor on Oncor's system, provides
8 numerous operational efficiencies or benefits. First, it is the diameter equivalent
9 of 1590 kcmil ACSR, another standard conductor frequently used throughout
10 Oncor's transmission system. Diameter equivalence permits hardware and
11 installation equipment to be used interchangeably which reduces material lead
12 time, simplifies material procurement, and allows for greater flexibility during
13 construction. Furthermore, minimizing the number of unique components allows
14 Oncor to maintain a reduced inventory of standardized hardware needed for
15 emergency events and expedites service restoration. In addition, the 1926.9
16 conductor is well-suited to match Oncor's standard 345 kV lattice steel tower or
17 monopole structure configurations, span lengths, and loading criteria. Another
18 benefit of the 1926.9 conductor is the fact that it has a lower impedance than the
19 CTO conductor. This lower impedance means that utilizing the 1926.9
20 conductor will reduce megawatt losses compared to the ERCOT proposed
21 conductor. Another benefit is lower structure heights can be used with Oncor's
22 proposed conductor. Utilizing the 1433.6 conductor would result in structures
23 that are typically five feet taller because the maximum operating temperature
24 required to achieve the same capacity is higher for the 1433.6 conductor than the
25 1926.9 conductor. The higher maximum operating temperature results in
26 greater conductor sag and therefore taller structures would be necessary to
27 maintain the required electrical clearances.

28 Q. IS UTILIZATION OF THE 1926.9 CONDUCTOR COST EFFECTIVE AND
29 CONSISTENT WITH THE INTENT OF THE CTO?

1 A. Yes. The numerous implementation advantages listed above will create
2 operational and functional efficiencies through the use of a standardized
3 conductor that will lead to reduced overall costs. Additionally, given that Oncor's
4 proposed conductor meets or exceeds the capability of the CTO conductor,
5 Oncor's proposed conductor is consistent with the intent of the CTO.

6 Q. WILL THE MILEAGE OF THE PROPOSED TRANSMISSION LINE PROJECT
7 BE DIFFERENT THAN THE STRAIGHT LINE ESTIMATE INCLUDED IN THE
8 CTO?

9 A. Yes. The CTO listed the Krum West to Anna project as being 43 miles long. As
10 noted by ERCOT in the CTO, "[t]he planning-level costs of new transmission
11 lines were estimated using straight-line lengths for the purposes of [the CTO]. It
12 is likely that, during the routing process for individual transmission lines, the
13 overall length of a line may increase from these straight-line estimates, due to
14 land use and similar considerations." The Preferred Route for the Proposed
15 Transmission Line Project is approximately 51 miles, as is discussed in the direct
16 testimony of Mr. Jasper.

17 **V. ERCOT'S REVIEW OF PROPOSED CHANGES**

18 Q. WERE THE DIFFERENCES BETWEEN THE CTO AND ONCOR'S PROPOSED
19 TRANSMISSION LINE PROJECT PRESENTED TO ERCOT FOR THEIR
20 CONSIDERATION?

21 A. Yes. Oncor presented the proposed changes regarding the conductor size to
22 ERCOT for review.

23 Q. DID ERCOT APPROVE THE PROPOSED CHANGE TO THE ENDPOINT?

24 A. Yes. In correspondence dated September 2, 2010, ERCOT concluded that the
25 conductor change was both cost-effective and consistent with the intent of the
26 CTO and that the change in the endpoint at Riley was reasonable and consistent
27 with the CTO. See Exhibit KAD-1.

VI. CONCLUSION

1
2 Q. PLEASE SUMMARIZE WHY THE CHANGES TO THE PROPOSED
3 TRANSMISSION LINE PROJECT WERE MADE.

4 A. Installing the 1926.9 conductor instead of the 1433.6 conductor will reduce the
5 losses on the system due to a lower conductor impedance and permit Oncor to
6 install a conductor that is standardized to its transmission system creating
7 operational efficiency. These efficiencies include (1) easing construction,
8 maintenance and service restoration because the conductor will be of a standard
9 diameter and (2) enabling Oncor to use standardized 345 kV lattice tower or
10 monopole structures and span lengths. Additionally, utilizing the 1926.9
11 conductor as opposed to the 1433.6 conductor for the Proposed Transmission
12 Line Project is cost effective because of the increased capacity and lower
13 impedance that can be provided with minimal additional costs. As stated by
14 ERCOT, the change in conductor is cost-effective and consistent with the CTO.

15 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

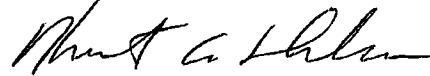
16 A. Yes.

STATE OF TEXAS §
 §
COUNTY OF DALLAS §

AFFIDAVIT

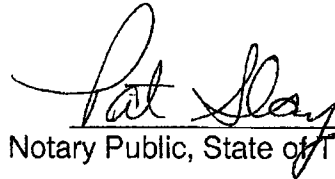
BEFORE ME, the undersigned authority, on this day personally appeared Kenneth A. Donohoo, who, having been placed under oath by me, did depose as follows:

My name is Kenneth A. Donohoo. I am of legal age and a resident of the State of Texas. The foregoing direct testimony and the attached exhibits offered by me are true and correct, and the opinions stated therein are accurate, true and correct.



Kenneth A. Donohoo

SUBSCRIBED AND SWORN TO BEFORE ME by the said Kenneth A. Donohoo this 7th day of September, 2010.



Notary Public, State of Texas

My Commission Expires

11-25-2013



PUC Docket No. 38597

**Donohoo - Direct
Oncor Electric Delivery Company LLC
Krum West-Anna CCN**



September 2, 2010

Oncor Electric Delivery
2233-B Mountain Creek Parkway
Dallas, Texas 75211-6711

Attn.: Ken Donohoo
Director, System Planning

Mr. Donohoo:

ERCOT has reviewed and analyzed the engineering specifications for Oncor's proposed change to the West Krum to Anna circuits described in the CREZ Transmission Optimization (CTO) Study filed by ERCOT in Public Utility Commission of Texas (PUCT) Docket No. 33672. Oncor proposes to complete the circuits from West Krum to Anna using 2-1926.9 kcmil ACSS/TW conductor instead of the 2-1433 ACSS/TW conductor specified in the CTO Study. ERCOT recommends this change and offers the following considerations in support of Oncor's proposal:

1. The CTO Study was conducted with a planning level of detail. To streamline the planning analysis, only two potential conductors were evaluated for new 345-kV transmission circuits. The conductors used in the CTO Study were representative of the capabilities of existing conductor types. ERCOT's use of these conductor types was not intended to be prescriptive, nor was it intended to restrict an individual transmission service provider's (TSP) ability to select alternative conductors of equal or greater capability and equal or lower impedance.
2. The use of 2-1926.9 kcmil ACSS/TW conductor will allow Oncor to achieve the maximum current rating of these circuits as modeled in the CTO Study (5,000 Amps). Depending on prevailing weather conditions, 2-1433 ACSS/TW conductor may not provide the maximum current rating assumed in the CTO Study, and thus, 2-1926.9 kcmil ACSS/TW conductor is a superior choice for these circuits.
3. In addition, Oncor informed ERCOT of the following reasons for using 2-1926.9 kcmil ACSS/TW conductor for the new circuits from West Krum to Anna:
 - 2-1926.9 kcmil ACSS/TW conductor will result in reduced losses due to lower conductor resistance;

Austin
7620 Metro Center Drive
Austin, Texas 78744
Tel. 512. 225. 7000 | Fax 512. 225. 7020

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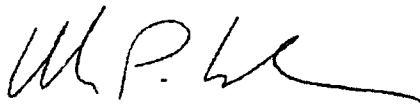
Taylor
2705 West Lake Drive
Taylor, Texas 76574
Tel. 512. 248. 3000 | Fax 512. 248. 3095

- 2-1926.9 kcmil ACSS/TW conductor has the same diameter as other conductors used by Oncor, whereas 2-1433 ACSS/TW conductor does not have the same diameter. Therefore, using 2-1926.9 kcmil ACSS/TW conductor will result in reduced construction, maintenance, and service restoration costs for Oncor; and
- 2-1926.9 kcmil ACSS/TW conductor will allow the use of standardized 345-kV lattice tower span lengths and ice loading criteria.

Based on the considerations described above, ERCOT recommends the use of 2-1926.9 kcmil ACSS/TW conductor for the West Krum to Anna circuits as proposed by Oncor, finding that the use of this conductor is cost-effective and consistent with the intent of the CTO Study.

Please contact me if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. P. L.', with a long horizontal flourish extending to the right.

Warren Lasher
Manager, Long-Term Planning and Policy