



Control Number: 35665



Item Number: 745

Addendum StartPage: 0

**DOCKET NO. 35665**

<b>COMMISSION STAFF'S PETITION</b>	<b>§</b>	<b>PUBLIC UTILITY COMMISSION</b>
<b>FOR THE SELECTION OF ENTITIES</b>	<b>§</b>	
<b>RESPONSIBLE FOR TRANSMISSION</b>	<b>§</b>	<b>OF TEXAS</b>
<b>IMPROVEMENTS NECESSARY TO</b>	<b>§</b>	
<b>DELIVER RENEWABLE ENERGY</b>	<b>§</b>	
<b>FROM COMPETITIVE RENEWABLE</b>	<b>§</b>	
<b>ENERGY ZONES</b>	<b>§</b>	

**RESPONSIVE TESTIMONY**  
**OF**  
**DONALD L. MUNDY**  
**FOR**  
**SHARYLAND UTILITIES, L.P.**

2008 OCT 28 PM 1:31  
FILED CLERK

**OCTOBER 28, 2008**

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1

**RESPONSIVE TESTIMONY OF DONALD L. MUNDY**

2

**I. INTRODUCTION**

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**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

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A. My name is Donald L. Mundy. My business address is 6300 South Syracuse  
Way, Suite 300, Centennial, Colorado 80111.

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**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

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A. I am employed by Black & Veatch Corporation, an engineering and construction  
company, as a Senior Vice President in the Denver office of Black & Veatch's  
Enterprise Management Solutions Division.

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**Q. ARE YOU THE SAME DONALD L. MUNDY WHO FILED DIRECT  
TESTIMONY AND EXHIBITS IN THIS PROCEEDING ON  
SEPTEMBER 12, 2008 ON BEHALF OF SHARYLAND UTILITIES, L.P.?**

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A. Yes, I am.

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**Q. WHAT IS THE PURPOSE OF YOUR RESPONSIVE TESTIMONY?**

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A. CTP applicants Cross Texas Transmission, LLC ("Cross Texas"), Tejas  
Transmission LLC ("Tejas") and Isolux Corsan Concesiones S.A. ("Isolux")  
propose to be awarded some or all of the same CTP facilities that Sharyland  
Utilities, L.P. ("Sharyland") proposes to be awarded. My responsive testimony  
addresses a common deficiency in all three of these CTP proposals dealing with  
planning and scheduling for placing their respective CTP facilities in service and  
shows that the Joint CTP proposal submitted by the Joint Parties is superior in this  
regard. My responsive testimony should be read in conjunction with that of Mark  
E. Caskey on behalf of Sharyland, where he also addresses the shortcoming of the  
Cross Texas, Tejas and Isolux proposals on the issue of coordinated planning.

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1                                   **II.     OVERVIEW OF RESPONSIVE TESTIMONY**

2   **Q.     PLEASE PROVIDE AN OVERVIEW OF YOUR RESPONSIVE**  
3   **TESTIMONY.**

4   A.     The range of CTP facilities proposed to be placed into service by Cross Texas,  
5           Tejas and Isolux vary, as do the in-service proposals by each of them for their  
6           facilities, but there is one overarching issue that is common to all three proposals  
7           – their proposals do not clearly reflect (a) a plan and a schedule that demonstrates  
8           coordination with the energization schedules of CTP facilities built by other  
9           entities, (b) coordination of the interconnection, control, protection and general  
10          operation of their respective CREZ facilities with the facilities of transmission  
11          utilities who own and operate the existing transmission system and (c) adequately  
12          coordinating the reliable introduction of new wind generation into the existing  
13          ERCOT system expediently and methodically so as to mitigate the operational and  
14          financial risks associated with the ERCOT generation portfolio changes that will  
15          occur as the result of this project. In addition, there are specific features of their  
16          individual schedule proposals, and in some cases issues of a technical engineering  
17          nature, that raise legitimate questions about their capability to meet the schedules  
18          they propose.

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### III. IN-SERVICE PROPOSALS

**Q. PLEASE EXPLAIN WHY YOU BELIEVE IT IS IMPORTANT THAT THE CTP PROPOSAL(S) SELECTED BY THE COMMISSION REFLECT REALISTIC IN-SERVICE DATES THAT ACCOUNT FOR COORDINATION WITH OTHER CTP PROPOSALS AND WITH THE EXISTING TRANSMISSION GRID.**

**A.** The importance of a well developed plan and schedule for CTP facilities cannot be overstated. The plan must identify the sequence (the plan) in which the major building blocks of transmission lines and substations/collection stations come together in time (the schedule) to provide an integrated functioning system as early as practicable consistent with maintaining the reliability and integrity of the existing transmission grid. Without a well-conceived and coordinated plan, the network can be inadvertently constructed to capture new generation in such a manner as to have adverse intermediate reliability and operational impacts, present unwelcome financial impacts to stakeholders, and raise unintended environmental complications. Also, the absence of a properly integrated, cohesive schedule could delay the introduction of wind generated energy if the intermediate facilities between the wind farms and the existing grid are not yet energized or adequately reinforced.

**Q. PLEASE GIVE EXAMPLES OF THE TYPE OF PROBLEMS THAT MAY ARISE IF CTP FACILITIES ARE NOT WELL PLANNED.**

**A.** As an example, a poorly planned CTP schedule could result in interconnecting too much new generation at a time when there is not appropriate network redundancy or reserves in place and that circumstance could create a reliability issue resulting in loss of load. Adverse financial impacts also can occur without a properly

1 sequenced plan. Those impacts range from cash flow stress within the project  
2 itself, to generators having built facilities that cannot be connected due to delayed  
3 construction of the CTP facilities, to the need to operate less efficient existing  
4 power generation on the electric system. From an environmental perspective, a  
5 poorly planned schedule can cause facilities to be forced into construction  
6 windows that are not compatible with breeding periods, weather cycles and  
7 erosion issues, and to some extent the need to operate other less environmentally  
8 friendly generation resources longer, differently, and/or at times other than  
9 planned.

10 **Q. CAN THESE POTENTIAL ADVERSE IMPACTS BE AVOIDED OR**  
11 **MITIGATED?**

12 **A.** Yes. It is important that the selected TSP(s) have a good integrated plan and  
13 schedule for the CTP facilities that not only allows for the shortest realistic time  
14 for the CCN process, ROW acquisition, engineering, material and equipment  
15 procurement, and construction and commissioning of the facilities, but which also  
16 sequences the in-service dates for the CTP facilities in coordination with ERCOT,  
17 so as to avoid or mitigate reliability risks, adverse financial and unintended  
18 environmental or other consequences that result from overly compressed or forced  
19 construction cycles. The integrated CTP proposal of the Joint Parties, of which  
20 Sharyland is a part, has been designed from the outset to account for these  
21 challenges. The responsive testimony of Mark E. Caskey, of Sharyland, describes  
22 the process undertaken by the Joint Parties to anticipate and handle these  
23 challenges.

Cross Texas Proposal

**Q. PLEASE IDENTIFY PLAN AND SCHEDULE ISSUES YOU OBSERVE  
BASED ON THE CTP FILING OF CROSS TEXAS.**

**A.** The Cross Texas CTP proposal is not part of an integrated plan that accounts for properly sequencing all the CTP facilities and their interconnection not only to each other but to the existing transmission grid. This deficiency is not merely academic – it raises real problems that can have very material impacts on others building CTP facilities, on wind generators, and on ERCOT. In order to demonstrate the problems that arise from a proposal that is not fully coordinated, and solely for purposes of that demonstration, we can work from the premise that (a) Cross Texas is awarded all of the CTP facilities it has requested and (b) all the CTP facilities to which Cross Texas is connecting are awarded to the respective incumbents (the Joint Parties) seeking to build those facilities. The problem illustrated below will arise whenever the component pieces of the CTP plan are not coordinated, no matter who is building the component parts; I have used the Joint Parties' plan for purposes of comparison.

Cross Texas' schedule suggests its line running from Panhandle BB to Oklaunion will be in service by October 2012. However, the substation at Oklaunion and all load serving lines east and southbound being built by the Joint Parties are scheduled to be in service by the fourth quarter 2011. As a result, facilities being constructed by persons other than Cross Texas (in this example, Joint Parties) will be sitting idle for nearly one year before any significant wind resources can be brought to the market. Additionally, Cross Texas' schedule

1 indicates its PanOakMid to Oklaunion segment will be in service approximately  
2 August 2013, causing a significant reduction in wind transmission capacity from  
3 the southern and central Panhandle area because the Cross Texas segment lags the  
4 Joint Parties' Oklaunion substation by nearly two years.

5 The Cross Texas schedule further indicates the in-service dates of its  
6 Central A – Central C, Central B – Willow Creek (through Throckmorton County)  
7 and PanOakMid – Central C line segments as (respectively): November 2011,  
8 May 2014 and November 2014. Working from the premise previously stated, the  
9 proposed in-service date of the Joint Parties' Central C collection station is for the  
10 fourth quarter of 2012. Thus, one of Cross Texas' facilities will be sitting idle for  
11 approximately one year before the Central C collection station is available and the  
12 other two will be unavailable until almost two years after the Central C collection  
13 station is available. Under this scenario, it would be reasonable to expect little to  
14 no wind generated resources will be effectively brought to major load centers  
15 through the Central C collection station until the middle of 2014. In contrast,  
16 Sharyland, as part of a coordinated and fully integrated construction plan, expects  
17 all wind generation from all designated CREZ Zones to have access to serve load  
18 by the end of 2012. This suggests that the coordinated plan of which Sharyland is  
19 a part will achieve a two year enhancement to Cross Texas' projections.



1 construction period for the approximately 440 miles of transmission line and eight  
2 substations/collection stations it proposes to build may be overly optimistic. The  
3 Tejas proposal is not part of an overall proposal that accounts for placing into  
4 service on a coordinated basis the entire set of CTP facilities called for by the  
5 Commission in this proceeding. So, even assuming that Tejas can meet the  
6 schedule it proposes, it is not clear whether other interconnecting facilities,  
7 whether they are transmission lines into or within the ERCOT system or  
8 substations/collection stations, will be in place to actually utilize the Tejas  
9 facilities. The Tejas facilities, in whole or in part, may in essence be stranded for  
10 a period, thereby raising used and useful issues.

11 **Q. PLEASE EXPLAIN WHY YOU BELIEVE THE 16 MONTH**  
12 **CONSTRUCTION PERIOD IS OPTIMISTIC AT BEST AND MAY NOT**  
13 **BE ACHIEVABLE.**

14 **A.** The Tejas schedule for transmission construction implies that on average, working  
15 six days per week for 16 months, the project can and will be sufficiently managed  
16 and staffed so as to build a mile of transmission nearly every day, except Sundays,  
17 for 440 working days without interruption irrespective of local conditions,  
18 material availability, equipment breakdowns and other disruptive conditions.  
19 Even with the use of multiple crews, construction vehicles, concrete facilities and  
20 hundreds of craft workers, this would be an extraordinary effort. The Tejas  
21 proposal does not reveal what resources are available in this timeframe to Tejas to  
22 deploy in order for it to have on site day by day the number and type of craft  
23 personnel needed to construct and complete for commercial operation 440 miles  
24 of high voltage transmission line and eight substations/collection stations, all

1 within 16 months. I believe it is unlikely that Tejas can achieve this rate of  
2 continuous productivity, especially in light of its lack of experience in  
3 constructing in the United States, and specifically ERCOT, transmission lines of  
4 the type called for in this proceeding. In the absence of a demonstration by Tejas  
5 of how it will do so, I doubt that it will achieve the productivity implied by its  
6 aggressive in-service schedule.

7 **Q. DOES THE TEJAS PROPOSAL, INCLUDING ITS SCHEDULE FOR**  
8 **CONSTRUCTION, RAISE ANY CONCERNS ABOUT COST IMPACTS?**

9 A. Yes, it does. The basic cost of commodities, such as steel, aluminum and  
10 concrete, may be similar among those seeking designation as TSPs in this  
11 proceeding, as may also be construction craft costs, but differences in planning,  
12 productivity and overall management of the CTP project can make a difference in  
13 total costs. The accelerated and intense construction schedule proposed by Tejas  
14 could lead to excessive amounts of overtime and productivity loss.

15 Also, using a "new tower design" for its CTP project, which Tejas  
16 proposes to do, may manifest itself in special construction issues and future  
17 operation and maintenance or system performance impacts that are unknown at  
18 this time.

19 Isolux Proposal

20 **Q. DOES THE ISOLUX PROPOSAL PRESENT ANY SPECIAL**  
21 **CONSIDERATIONS REGARDING ITS PROPOSED IN-SERVICE**  
22 **SCHEDULE?**

23 A. Yes, it does. Isolux proposes that it build essentially the entire set of CTP  
24 facilities. It appears to contemplate doing so by approaching every transmission  
25 line segment and every substation/collection station as a stand alone, separate

1 construction project. It proposes to complete the bulk of the transmission line  
2 segments by the end of 2011.

3 The problem with the Isolux proposal regarding unrealistic construction  
4 schedule is the same problem as faces Tejas - but magnified. While the 16 month  
5 construction schedule for the 440 miles of transmission line Tejas wishes to  
6 construct is unrealistic, a similar construction schedule for the much greater length  
7 of transmission line Isolux proposes to build by the end of 2011 (an in-service  
8 date that implies a 15 month construction cycle from the earliest date Isolux could  
9 realistically expect to receive a CCN for each transmission line segment) is highly  
10 unrealistic.

11 Isolux also has the same problem with respect to the lack of coordinated  
12 planning that Cross Texas and Tejas have. There is no certainty at all that even if  
13 Isolux could meet its highly unrealistic in-service schedule for the bulk of the  
14 transmission lines it proposes to construct, the connection of those lines to the  
15 existing ERCOT transmission system could be reliably accommodated at the time  
16 (the end of 2011) that Isolux proposes to place those lines in service, thus raising a  
17 question of these facilities being used and useful. Given the scope of Isolux's  
18 CTP proposal, namely to build out the entire set of CTP facilities, the magnitude  
19 of potential stranded assets due to mismatched and uncoordinated interconnection  
20 dates is significant.

21 **Q. YOU HAVE NOTED THAT THE CROSS TEXAS, TEJAS AND ISOLUX**  
22 **CTP PROPOSALS ARE NOT COORDINATED PLANS. CAN THEY NOT**  
23 **SIMPLY SOLVE THAT SHORTCOMING AFTER THE FACT BY**  
24 **DEVELOPING A COORDINATED PLAN ONCE THEY HAVE BEEN**  
25 **DESIGNATED BY THE COMMISSION AS TSPS?**

1 A. They will have to undergo the same extensive coordinated planning after the fact  
2 that the Joint Parties undertook and completed as part of presenting a complete  
3 proposal to the Commission at the outset of this proceeding. If they do not, the  
4 Commission will be faced with the risk of mis-matched CTP facility deployment,  
5 adverse operational impacts on the existing transmission grid, and the other  
6 associated problems described by both Mr. Caskey and me in our responsive  
7 testimonies. If the Commission designates a set of CTP applicants whose plan(s)  
8 are not coordinated as of that time, it will not really know what it has selected as a  
9 final CTP plan outcome, including in-service dates, until the designees  
10 successfully coordinate a complete CTP plan. The CTP proposal presented by the  
11 Joint Parties is fully coordinated and, if it is selected, the Commission will know  
12 upon its selection the timing and reliability of deploying CTP facilities in order to  
13 maximize the amount of wind generation that can serve load at the earliest  
14 practicable time.

15 **IV. CONCLUSION**

16 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

17 A. Yes.