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PUBLIC UTILITY COMMISSION OF TEXAS

COMMISSION STAFF'S PETITION

FOR THE SELECTION OF ENTITIES RESPONSIBLE

FOR TRANSMISSION IMPROVEMENTS NECESSARY TO DELIVER

RENEWABLE ENERGY FROM COMPETITIVE RENEWABLE ENERGY ZONES

CROSS-REBUTTAL TESTIMONY OF

PAUL HASSINK AND WILLIAM BOJORQUEZ

FOR

ELECTRIC TRANSMISSION TEXAS, LLC

AND SHARYLAND UTILITIES, LP

NOVEMBER 14, 2008

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1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAMES AND BUSINESS ADDRESSES.

3 A. Paul Hassink and William Bojorquez. Mr. Hassink works in Tulsa, Oklahoma, at 212
4 East Sixth Street. Mr. Bojorquez' business address is 701 Brazos Street, Suite 970,
5 Austin, Texas.

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

7 A. Paul Hassink is the Manager of Texas Transmission Planning for American Electric
8 Power Service Corporation (AEPSC), a wholly-owned subsidiary of American Electric
9 Power Company, Inc. (AEP). William Bojorquez is a consultant for Hunt Transmission
10 Services, L.L.C. (HTS). HTS provides consulting and other services to Sharyland
11 Utilities, L.P. (Sharyland) and seeks investment opportunities in connection with
12 regulated electric transmission and distribution facilities. Mr. Bojorquez has accepted a
13 position of Vice President of Planning for HTS effective January 1, 2009.

14 Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES, PARTICULARLY AS THEY
15 RELATE TO THIS PROJECT.

16 A. Paul Hassink oversees and assists in formulating transmission plans for Electric
17 Transmission Texas, LLC (ETT) and for AEP's Electric Reliability Council of Texas
18 (ERCOT) transmission, which consists of the transmission systems for AEP Texas
19 Central Company (TCC) and AEP Texas North Company (TNC). Through his
20 participation in the ERCOT Regional Planning Groups and other ERCOT committees
21 and working groups and through coordination with ERCOT system planning personnel,
22 Paul and personnel at AEPSC under his supervision are directly involved in the

1 alternative evaluations and ultimately the determination of the purpose and need for
2 transmission projects in ERCOT.

3 William Bojorquez joined HTS in September 2008. His responsibilities include
4 supervising and coordinating planning engineers in the evaluation of transmission
5 projects under development, directing transmission planning studies, preparing and
6 evaluating new techniques and implementation plans for projects through North
7 America, and representing HTS and Sharyland with regional ISOs/RTOs, including
8 ERCOT. With respect to Sharyland's CTP Proposal, Mr. Bojorquez has participated in
9 the planning of the proposed facilities and will oversee the planning and coordination of
10 the new transmission facilities for which Sharyland is designated to construct.

11 Q. PLEASE DESCRIBE YOUR EDUCATIONAL/PROFESSIONAL
12 QUALIFICATIONS AND BUSINESS EXPERIENCE.

13 A. Paul Hassink received a Bachelors degree in Electrical Engineering from the Georgia
14 Institute of Technology in 1979 and a Masters of Science degree in Electrical
15 Engineering from Purdue University in 1980. He is a Registered Professional Engineer
16 in the State of Texas, and a member of the Institute of Electrical and Electronics
17 Engineers. He has held engineering and management positions in the Central and South
18 West system (CSWS)¹ in both the power system protection and planning areas since
19 1981 and has held his current position with AEPSC since 2000. He has served as the
20 Chair of the ERCOT Transient Stability Task Force in 1996, the ERCOT Engineering
21 Subcommittee in 1997, and the ERCOT Ad Hoc Task Force on Unplanned

¹ In 2000, the CSWS was merged into AEP.

1 Transactions in 1998. He has provided written and oral comments before the Public
2 Utility Commission of Texas ("Commission") on transmission pricing methodologies
3 and generator interconnection issues.

4 Mr. Bojorquez received a Bachelor of Science degree in Electrical Engineering
5 (with an emphasis in Power Systems Engineering) from California Polytechnic State
6 (CalPoly) University in 1990 and a Master of Business Administration degree from
7 CalPoly University in 1996. He is a Registered Professional Engineer in the State of
8 California and a member of the Institute of Electrical and Electronics Engineers. He is
9 currently the Chairman of the North American Energy Reliability Corporation (NERC)
10 Reliability Assessment Subcommittee and has previously served as the Chairman of the
11 NERC Standards Evaluation Subcommittee.

12 Mr. Bojorquez was employed by ERCOT from 2000 to 2008 and most recently
13 held the position of Vice President, System Planning. During his eight years with
14 ERCOT, Mr. Bojorquez was responsible for transmission and generation adequacy and
15 planning in the ERCOT region and oversaw transmission system additions, new
16 generation interconnection studies, and the development of transmission service
17 policies. He also represented ERCOT in transmission system planning-related activities
18 at NERC, FERC, the Commission, and the Texas Legislature. Prior to his employment
19 at ERCOT, Mr. Bojorquez worked at the California ISO as Director of Market
20 Operations for three years and for Southern California Edison Company for eight years,
21 in both system operations and system planning roles.

1 Q. HAVE YOU PREVIOUSLY PERFORMED WORK RELATED TO THE PURPOSE
2 AND NEED OF TRANSMISSION LINES?

3 A. Yes. We have analyzed or participated in the analysis of the purpose and need for
4 numerous transmission projects that have been filed at this Commission.

5 Q. HAVE YOU TESTIFIED PREVIOUSLY?

6 A. Paul Hassink has testified before this Commission in Docket No. 21741, *Application of*
7 *Central Power and Light for a CCN for a Proposed Transmission Line in Goliad and*
8 *Karnes Counties, Texas*, Docket No. 22798, *Application of West Texas Utilities to*
9 *Amend a Certificate of Convenience and Necessity for a Proposed Transmission Line*
10 *Within Sterling, Coke, Tom Green, Concho, Coleman, and McCulloch Counties*, Docket
11 *No. 27180, Joint Application of LCRA Transmission Services Corporation and West*
12 *Texas Utilities Company for a Certificate of Convenience and Necessity (CCN) for a*
13 *138-kV Double-Circuit Transmission Line and a 345-kV Double-Circuit Transmission*
14 *Line in Tom Green County*, Docket No. 33033, *Joint Application of AEP Texas Central*
15 *Company and South Texas Electric Cooperative, Inc. for a Certificate of Convenience*
16 *and Necessity (CCN) for a Double Circuit 345 kV Transmission Line in Atascosa,*
17 *McMullen, LaSalle, and Webb Counties, Texas*, Docket No. 33672, *Commission Staff's*
18 *Petition for Designation of Competitive Renewable Energy Zones* and Docket No.
19 *35994, Application of Electric Transmission Texas, LLC for Regulatory Approvals*
20 *Related to Installation of a Sodium Sulfur Battery at Presidio, Texas.*

1 William Bojorquez has filed testimony in Docket No. 35785, *Application of the*
2 *Electric Reliability Council of Texas for Approval of the ERCOT System Administration*
3 *Fee.*

4
5 II. PURPOSE AND SUMMARY OF TESTIMONY

6 Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

7 A. This testimony addresses the Responsive Testimony of ERCOT witness Dan
8 Woodfin, Staff's position as set out in two emails from Staff attorney Andres
9 Medrano, and the assertion by WETT witness Frederick W. Buckman that the Joint
10 Parties have not offered a coordinated proposal.

11 Q. PLEASE SUMMARIZE YOUR RESPONSE TO MR. WOODFIN.

12 A. Mr. Woodfin makes important points concerning the need for flexibility to address
13 significant engineering design issues related to CREZ transmission facilities going
14 forward. These issues include coordinating generator interconnection requests and
15 designing the series compensation included in the CTP. He notes that a variety of
16 modifications may be advisable as specific projects are developed, but that any
17 proposed changes will need to be evaluated by the designated TSPs and ERCOT. He
18 concludes that "when designating TSPs in this docket, it is important for the
19 Commission to consider the potential need for additional studies."

20 With significant experience in the ERCOT planning process, we want to
21 emphasize that additional studies are required to successfully expedite and implement
22 the CREZ transmission plan and that these studies are driven by the designated TSPs,

1 as opposed to ERCOT. Those TSPs must have the technical expertise and
2 commercial relationships with vendors necessary to perform such complex and
3 project specific analysis.

4 As a case in point, the CREZ transmission plan relies heavily on series
5 compensation to function properly. Series compensation is not widely used and
6 relatively few entities have the knowledge and experience to manage the interaction
7 with vendors that will be required to design and customize those devices for the
8 CREZ plan. A similar base of experience and knowledge will be necessary to design
9 interconnection facilities that most efficiently utilize and upgrade existing
10 infrastructure for the benefit of both generators and native load.

11 We believe these ongoing planning issues, crucial to implementation of the
12 CREZ transmission plan going forward, are why it is important for the Commission to
13 consider the need for additional studies when designating TSPs in this docket, as Mr.
14 Woodfin testifies.

15 Q. PLEASE SUMMARIZE YOUR RESPONSE TO STAFF.

16 A. Mr. Medrano's November 7, 2008 email indicates that Staff has substantially changed
17 its methodology and recommendations from its Responsive Testimony filed on
18 October 28th, so we are addressing the recommended assignment of CTP facilities
19 contained in his email rather than the recommendation in Staff's Responsive
20 Testimony. We will focus on the results of Staff's proposed recommendation rather
21 than the rationale for the proposal.

1 Our initial reaction to Staff's most recent proposal is that it suggests an
2 extraordinarily fragmented ERCOT electric grid, where CREZ lines belonging to
3 numerous different entities would overlay and interconnect with the underlying grid
4 belonging to other entities. This would significantly complicate and frustrate efforts
5 to complete upgrades in a timely manner and achieve coordinated grid planning and
6 operation. In addition, Staff's proposal does not appear to differentiate between
7 applicants based on qualifications, but instead splits the CREZ projects evenly among
8 almost all of them. As discussed above with respect to Mr. Woodfin's testimony, we
9 believe that the qualifications, experience and knowledge of the TSPs that will plan
10 and run the ERCOT transmission grid are extremely important. As a result, we view
11 Staff's proposal as a bad idea and, frankly, a dangerous recommendation for a vital
12 piece of Texas infrastructure.

13
14 III. RESPONSE TO MR. WOODFIN

15 Q. WHAT POINTS RAISED BY MR. WOODFIN'S RESPONSIVE TESTIMONY
16 FOR ERCOT ARE YOU ADDRESSING?

17 A. Mr. Woodfin's testimony states that it is important for the Commission to consider
18 the need for additional studies when designating TSPs in this docket. He points out
19 that a substantial amount of detailed engineering analysis of the CREZ transmission
20 facilities remains to be done by the TSPs designated to build those facilities and by
21 ERCOT. That additional analysis will include optimizing the interconnection
22 facilities that will connect wind generators to the grid, performing facility studies on

1 the CREZ switching stations, and analyzing and providing the series compensation
2 that will be needed for the CREZ transmission. According to Mr. Woodfin, a number
3 of modifications may be advisable as project specifics are developed, but any such
4 changes will need to be fully evaluated by the designated TSPs and ERCOT.

5 Q. WHAT IS YOUR RESPONSE TO MR. WOODFIN'S OBSERVATIONS?

6 A. Detailed planning of the CREZ transmission facilities has not yet occurred, and there
7 is need for flexibility to study and adjust the facilities as more information becomes
8 available. The Commission should consider this need for additional analysis when
9 designating TSPs in this docket, because there is a significant difference in the
10 capabilities of the applicants to perform these tasks. We believe the Joint Parties have
11 superior knowledge and expertise in ERCOT transmission planning and in the
12 specification and evaluation of technology that impacts implementation of the CREZ
13 plan.

14 Q. WHY IS THE NEED TO PERFORM ADDITIONAL DETAILED ANALYSIS OF
15 THE CREZ FACILITIES IMPORTANT?

16 A. For several reasons. First, there is an opportunity to optimize the CREZ transmission
17 system during the detailed engineering of that system. Mr. Woodfin alludes to this
18 when he discusses the "need for adequate flexibility so any such issues may be
19 considered by ERCOT and the designated TSPs in developing the most cost-effective
20 designs for the designated CREZ transmission upgrades." Both the transfer capability
21 and the total cost of the CREZ transmission will be impacted by the detailed design of
22 the facilities. And second, some of the detailed analysis is performed in coordination

1 with the vendors that supply the equipment to be installed. It is up to the responsible
2 TSPs to promptly take the lead in such analyses and then to present the results to
3 ERCOT and other stakeholders for evaluation. The skills and knowledge of the TSPs
4 selected by the Commission will bear directly on level of success and speed with
5 which these additional planning studies, and ultimately the CREZ transmission
6 facilities, are executed.

7 Q. PLEASE EXPLAIN THE CHALLENGES POSED BY THESE ADDITIONAL
8 PLANNING STUDIES IN MORE DETAIL.

9 A. One of the examples cited by Mr. Woodfin, the series compensation analysis,
10 highlights the challenges posed by these additional studies. The CREZ transmission
11 plan calls for a significant amount of series compensation to help direct and balance
12 flows across the main west-to-east lines to achieve the targeted transfer capability. As
13 Mr. Woodfin points out, the amount of series compensation in the plan has not yet
14 been optimized, nor has a related analysis of sub-synchronous resonance been
15 conducted. Sub-synchronous resonance can result from interactions between series
16 compensated lines and the control systems of the wind generators, and can pose a
17 serious threat to generation equipment and the stability of the transmission grid. As a
18 result, installing the right level and technology of series compensation in the right
19 location to achieve maximum transfer capability and to mitigate the risk of sub-
20 synchronous resonance is fundamental to the success of the CREZ transmission plan.

21 However, relatively few entities have the knowledge and experience necessary
22 to manage the design, installation, and operation of the series compensation identified

1 in the CREZ plan. In fact, the only existing series compensation in ERCOT is owned
2 and operated by AEP. Series compensation is a very specialized product that involves
3 an iterative process of establishing performance specifications, seeking bids, and
4 negotiating the design specification for the applications being considered. The
5 responsible TSP must take a lead role in this process, coordinating with neighboring
6 TSPs with and without series compensation projects, designing performance
7 specifications for vendors, analyzing their responses and developing a short list,
8 engaging ERCOT when the selection has been narrowed to a few alternatives, and
9 then making the final selection with ERCOT's oversight.

10 The risk of sub-synchronous resonance is addressed during the vendor
11 selection process described above. After the vendor is selected, the sub-synchronous
12 resonance analysis provided by the vendor and supervised by the designated TSP is
13 used to tailor the design specifications of the series compensation for each
14 installation. This is a challenging process requiring an assertive, knowledgeable and
15 experienced TSP. The Commission should carefully consider which TSPs will be
16 responsible for the series compensation on the CREZ transmission system. The Joint
17 Parties' proposal is tailored to address these concerns by assigning facilities with
18 series compensation to ETT and Oncor.

19 Q. HOW ELSE WILL PLANNING IMPACT THE EFFICIENCY OF THE CREZ
20 TRANSMISSION SYSTEM?

21 A. Mr. Woodfin also cites the need for additional planning relating to generator
22 interconnections. As he notes, when TSPs study interconnection requests, they

1 should consider the proximity to CREZ facilities, existing infrastructure, and non-
2 CREZ reliability upgrades. These studies could impact both the design of CREZ
3 facilities and the use and upgrade of non-CREZ facilities to achieve the most efficient
4 and cost-effective configuration. TSPs with existing knowledge of underlying
5 facilities are presently reviewing thousands of MWs of generation interconnection
6 requests in West Texas and will be better situated to plan system upgrades that
7 efficiently address interconnection needs. In many instances, these upgrades will also
8 provide service enhancement to native load in the same area. A new entity would
9 lack knowledge of the area as well as any interest in or obligation to serve load.

10 Q. ARE ADDITIONAL ISSUES POSED BY THE PURPOSE OF THE CREZ
11 TRANSMISSION SYSTEM TO SERVE WIND GENERATION?

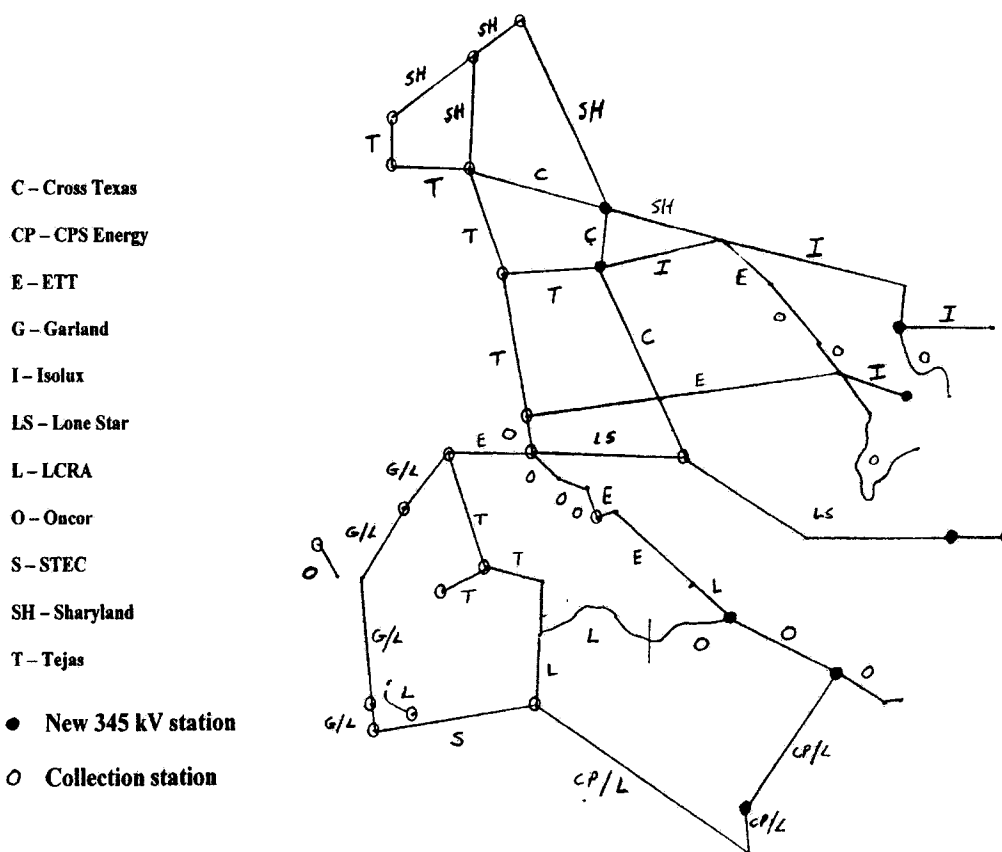
12 A. Yes. The ability to model wind turbine operations is not yet mature. There may be
13 complications and significant ramifications for the ERCOT grid if the controls for
14 areas with significant wind generation and other transmission customers are not
15 adequately planned and engineered. It is important for the Commission to select
16 TSPs that have the capability to analyze the interaction of wind generation with the
17 transmission system and can work closely with wind generators to implement
18 effective controls to prevent disturbances. Experience shows that wind generator
19 performance does not always match the behavior predicted by models. With as much
20 at stake as contemplated in the CREZ plan, direct measurement of existing wind
21 generator performance and commitments to validate future wind generator
22 performance is needed to avoid potential collapse of wind generation regions and the

1 resulting load shed that could be necessary to rebalance the ERCOT load and
 2 generation. We have been actively participating in these ongoing efforts and will seek
 3 to address this issue in advance of CREZ implementation.

4 5 IV. RESPONSE TO STAFF

6 Q. WHAT IS YOUR RESPONSE TO STAFF'S RECOMMENDED ASSIGNMENT OF
 7 CREZ TRANSMISSION FACILITIES, AS SET OUT IN MR. MEDRANO'S
 8 NOVEMBER 7, 2008 EMAIL?

9 A. The following map of Staff's proposed assignments was provided with Mr.
 10 Medrano's email:



1 From reviewing the proposed assignments on this map, it seems clear that
2 system planning and operational considerations were not motivating factors behind
3 Staff's position.

4 Q. WHY DO YOU SAY THAT?

5 A. Staff's proposed assignments would greatly increase the fragmentation of the western
6 ERCOT grid, leading to significantly larger coordination challenges and costs among
7 multiple overlapping and adjacent TSPs.

8 Q. DOESN'T ERCOT ALREADY HAVE OVERLAPPING LINES AMONG
9 TRANSMISSION PROVIDERS?

10 A. Yes, to some extent, although Staff's proposal would greatly increase the situation.
11 However, most of the existing lines in ERCOT that overlap other service areas were
12 built to connect remote generation to the load served by the owner of the generation.
13 This situation does not commonly occur with new lines in ERCOT today, since most
14 generation is built to serve the competitive market rather than specific load. Instead,
15 the ERCOT planning process tends to rationalize new transmission construction by
16 assigning it to the owner or owners of the endpoints of the new facility. As a result,
17 contiguous transmission, along with the underlying network, tends to be owned and
18 operated by the same entity.

19 One area of overlap is the region around McCamey that receives transmission
20 service from AEP and LCRA. AEP and LCRA work closely together to manage this
21 area. Nonetheless, the efforts to do so have been challenging at times and have
22 required more effort than would otherwise be required. Jointly managing a

1 transmission system in an area requires many hand-offs across organizations, rather
2 than across groups within a company, on issues ranging from daily operations, to
3 planning, to construction and maintenance, to budget alignment. AEP and LCRA
4 have developed joint processes to address these issues, but it has been a challenging
5 effort that would be vastly more difficult if several more entities were involved.

6 Q. WHAT LEVEL OF OVERLAP AMONG TRANSMISSION PROVIDERS DOES
7 STAFF PROPOSE?

8 A. A look at Staff's proposed map in the area south and east of the Panhandle is
9 instructive. In that area, AEP Texas North Company and Oncor already provide
10 transmission and distribution service. On top of their networks, Staff proposes to add
11 five additional utilities, Cross Texas, WETT/Isolux, Tejas, Lone Star and Sharyland.
12 Numerous substations will have lines belonging to three or even four utilities
13 terminating into them, counting the owner of the underlying grid. Wind and possibly
14 other generators will be seeking to interconnect in the area, and Staff proposes to
15 award series compensation to Cross Texas, an entity with little transmission
16 experience. The level of complexity and coordination challenge presented by Staff's
17 proposal is extraordinary, and far exceeds anything currently existing on the ERCOT
18 grid. Other areas of Staff's map reflect similar situations.

19 Q. PLEASE GIVE SOME EXAMPLES OF THE TYPES OF ACTIVITIES THAT
20 WOULD NEED TO BE COORDINATED AMONG MULTIPLE ENTITIES
21 UNDER STAFF'S PROPOSAL.

1 A. In the planning process, many grid alternatives could impact as many as five or six
2 transmission entities rather than one or two. All of these entities would need to be
3 involved in system studies and other analyses that could impact them. In
4 construction, the location of the terminating substation and the associated line routes,
5 the timing of CCN applications, and budget allocations would need to be coordinated.
6 Design standards, downstream effects, ratings, protection and control arrangements,
7 substation configuration, and line terminations would all have to be coordinated
8 among multiple entities. In operations, line clearances, voltage regulation and series
9 compensation operational levels would have to be coordinated on an ongoing basis.
10 Outage restoration and routine maintenance would need to be coordinated. For CREZ
11 lines, it is likely that some lines will need to be opened during some low-load levels,
12 which would require coordination among adjacent and overlapping TSPs.

13 Q. WHY ARE SUCH COMPLEXITY AND COORDINATION CHALLENGES A
14 PROBLEM?

15 A. For many reasons, which can be summed up as delay, cost, and reliability concerns.

16 Q. WHAT TYPES OF DELAY COULD BE CAUSED BY ADOPTION OF STAFF'S
17 PROPOSAL?

18 A. Imagine a generator interconnection request in an area or into a substation connected
19 to three or four or even five TSPs. The system impact study would need to be
20 coordinated with all of those entities, as opposed to the one or sometimes two TSPs
21 that must be involved today. As a result, the study process would be much more
22 complicated, and probably more lengthy, than it is now.

1 The impact study could determine that upgrades are required on several of the
2 adjacent utility systems. System upgrades are frequently required to accommodate a
3 significant new generator. In that instance, there would be a need for coordination
4 among multiple TSPs with respect to planning, budget alignment and construction in
5 order to bring the upgrades on line in the same time frame. Again, this process is
6 likely to be slower than having one or in some instances two entities perform these
7 functions.

8 This generator interconnect scenario would be repeated in all other types of
9 system planning exercises undertaken in an area with multiple overlapping and
10 adjacent transmission utilities.

11 Q. HOW WOULD STAFF'S PROPOSAL LEAD TO INCREASED COSTS?

12 A. In several ways. First, multiple overlapping and adjacent transmission utilities would
13 lead to redundant organizations, since a single transmission organization in an area
14 can do the same job as three or four or five transmission organizations in the area.
15 Once a base transmission organization is in place, relatively little incremental
16 organization is required to cover an expanded area. However, with multiple utilities
17 in place in an area, each would require sufficient staff to operate its own facilities,
18 resulting in duplicative organizations. Moreover, there is little incentive for one
19 organization to take the lead and operate facilities for others, since Texas law allows a
20 utility to recover its costs for providing services but not to make a profit on such
21 services.

1 Additional costs would also be incurred due to the additional study and
2 coordination that would be required among multiple utilities, as we discuss above.
3 Studies that must be coordinated across several entities would not only take longer,
4 but would also generally cost more than a single transmission study of the same issues
5 conducted within a single entity, possibly by a single individual or group.

6 Q. HOW WOULD STAFF'S PROPOSAL CAUSE INCREASED RELIABILITY
7 CONCERNS?

8 A. Just as multiple utilities operating in a relatively small area of the transmission grid
9 would increase costs and slow response time, it would also complicate operations,
10 resulting in increased reliability concerns. For example, system operations would
11 need to be coordinated among multiple control centers or, even in the best case,
12 between multiple companies operating combined control centers if such consolidation
13 can be achieved. Switching of lines for operational or maintenance purposes would
14 similarly need to be coordinated among multiple entities. Each company has its own
15 protocol for switching, leading to safety concerns if switching must be accomplished
16 with personnel who are not from the organization dispatching the switch orders. At
17 each decision or action point, the potential for coordination errors would be
18 multiplied, increasing the likelihood of negative impacts on safety and reliability.

19 Q. IN RESPONDING TO MR. WOODFIN ABOVE, YOU DISCUSSED THE
20 SIGNIFICANT ROLE THAT TRANSMISSION PROVIDERS CURRENTLY PLAY
21 IN SYSTEM PLANNING AND ANALYSIS. WOULD STAFF'S PROPOSAL
22 HAVE AN IMPACT ON THAT ROLE?

1 A. We believe it would. Currently, one TSP generally has the responsibility for system
2 studies and improvements in a defined area, so that TSP plays the lead role in
3 analyzing and proposing solutions to the needs of the grid in that area. With a more
4 fragmented grid as Staff proposes, with three or four or five TSPs having
5 responsibility in an area, no single TSP would be responsible for the grid in that area,
6 nor would any single TSP own all of the improvements required to implement grid
7 solutions. As a result, it is likely that increasing responsibility for analyzing and
8 solving issues on the grid would be shifted away from the TSPs to ERCOT. These
9 increased responsibilities would probably need to be outsourced by ERCOT, absent a
10 significant increase in internal resources. More transmission analysis would be
11 conducted at the committee level at ERCOT rather than by a single TSP taking the
12 lead to propose grid improvements and solutions. Such sharing of responsibility can
13 only extend the time required to execute studies and purchase equipment.

14 Q. YOU ALSO DISCUSSED ABOVE THE IMPORTANT ROLE THAT
15 TRANSMISSION PROVIDERS PLAY IN INTERACTING WITH VENDORS ON
16 CHALLENGING APPLICATIONS LIKE SERIES COMPENSATION. WOULD
17 THAT ROLE CHANGE UNDER STAFF'S PROPOSED ASSIGNMENT OF CREZ
18 FACILITIES?

19 A. Yes. Instead of one or two TSPs being impacted by complex devices like series
20 compensation, many more entities would be impacted. As a result, the vendors of
21 such devices would need to engage with multiple TSPs in the challenging design
22 specification process we discussed above, rather than a single TSP leading the

1 process. Such a committee approach would greatly complicate and slow resolution of
2 reactive compensation design and other complex issues.

3 Q. DO YOU HAVE ANY CONCERNS ABOUT STAFF'S PROPOSED
4 ASSIGNMENT OF SERIES COMPENSATION?

5 A. Yes. As discussed above, design and management of the series compensation on the
6 CREZ transmission facilities is essential to the proper and reliable operation of those
7 facilities. Staff proposes to assign a significant amount of series compensation to
8 Cross Texas, a company with little transmission experience and no demonstrated
9 capability to handle the challenges associated with those facilities. The Joint Parties'
10 proposal, by contrast, assigns series compensation responsibility to ETT and Oncor.

11
12 V. RESPONSE TO MR. BUCKMAN

13 Q. DO YOU AGREE WITH WETT WITNESS MR. BUCKMAN'S ASSERTION
14 THAT THE JOINT PARTIES HAVE NOT PRESENTED A COORDINATED
15 PROPOSAL?

16 A. No. The Joint Parties proposal is coordinated in important respects. For example, the
17 proposal presents a plan addressing both the entities that will assume responsibility
18 for each CREZ transmission facility and the schedule for build-out of those facilities
19 in a coordinated manner among the parties. The Joint Development Plan presented in
20 the direct testimony of Oncor witness Charles Jenkins is the result of significant effort
21 by the Joint Parties to design a coordinated build-out of the CREZ transmission

1 facilities for completion in 2012. No other applicant offers anything like this level of
2 planning provided by the Joint Parties.

3 Equally as important, interconnections between the Joint Parties have existed
4 for several decades. As a result, routine interactions have been necessary to plan,
5 construct, operate and maintain transmission facilities that interconnect the Joint
6 Parties, and those interactions have been captured in bilateral interconnection
7 agreements and protocols that have evolved and been tested by time. The resulting
8 understanding of the working organizations enabled the Joint Parties to form a
9 cohesive and effective plan for the CREZ facilities, demonstrating what can be
10 accomplished by TSPs that have a standing relationship.

11 While the Commission has not yet released any major CREZ facilities for
12 construction, the same understanding developed between the Joint Parties over
13 decades will allow them to make any adjustments to the proposed development plan
14 necessary to address concerns regarding feasibility, cost and availability of wind
15 resources. No other applicant or group of applicants can offer such a history or
16 evidence of effectiveness.

17 Q. DOES THIS CONCLUDE YOUR CROSS REBUTTAL TESTIMONY?

18 A. Yes.