

1 Q. WAS THIS EXHIBIT PREPARED BY YOU OR UNDER YOUR DIRECT  
2 SUPERVISION?

3 A. Yes.  
4

5 Q. DO YOU SPONSOR OR CO-SPONSOR ANY SCHEDULES?

6 A. Yes. I co-sponsor the cost of service schedules listed in the table of contents.  
7

8 **III. OVERVIEW OF SPONSORED COST ESTIMATES**  
9 **AND CONSTRUCTION STATUS**

10 Q. WHAT COSTS DO YOU SPONSOR?

11 A. I sponsor capital investment in three switching substations, two series  
12 compensation stations and the transmission lines that together comprise the CREZ  
13 project (referred to hereafter as the "Project"). Specifically, I sponsor capital  
14 investment of \$45,935,140 for purposes of the requested interim rates, and  
15 \$534,109,273 for purposes of the requested final rates, for a total of  
16 \$580,044,413. I would note that this total amount does not include the costs  
17 associated with overall project development and AFUDC.  
18

19 Q. HOW WERE THE COSTS ASSOCIATED WITH ENGINEERING,  
20 DESIGN, PROCUREMENT AND CONSTRUCTION OF THE  
21 SUBSTATIONS, SERIES COMPENSATION STATIONS AND  
22 TRANSMISSION LINES DEVELOPED?

23 A. Lone Star hired Electrical Consultants Incorporated ("ECI") to perform the  
24 preliminary engineering work associated with the Project. Based on the preferred

1 and alternate routes selected during the CCN application, ECI identified pole  
2 locations and prepared cost estimates for the routes. ECI's cost estimates also  
3 included the three substations and two series compensation stations and the  
4 additional reactive equipment requirements. ECI developed bills of materials,  
5 determined equipment and labor requirements and obtained market cost estimates  
6 for the substations and transmission lines. ECI then provided these estimates to  
7 Lone Star, which vetted the cost data, updated and escalated market cost estimates  
8 for materials, equipment and labor and added related administrative and general  
9 ("A&G") costs and sales taxes.

10  
11 After the Commission approved the transmission line route and granted Lone Star  
12 its CCN, and subsequent to the Company's preliminary engineering, Lone Star  
13 awarded, following a competitive bid process, the detailed design transmission  
14 engineering to Peak Power ("Peak"), a division of Universal Pegasus  
15 International. Peak began pole spotting along the approved route, deviating  
16 where required by Commission requirements or landowner-requested route  
17 modifications. Peak worked on detailed pole designs and specifications. These  
18 pole designs and specifications were standardized where applicable to ensure  
19 consistency throughout the project design. A detailed scope of work and  
20 drawings were incorporated into a construction bid package. After a competitive  
21 bid process, Lone Star entered into two major, fixed-price date-certain  
22 Procurement and Construction ("PC") contracts. These are turn-key contracts  
23 that, together, obligate the PC contractors to procure materials and construct the

1 transmission lines. The PC contractors are obligated to satisfy all testing and  
2 commissioning requirements before acceptance. The purchase order amounts for  
3 these major contracts were used as a basis to revise the overall cost estimate. As  
4 changes to the scope of the project occurred, costs were adjusted based upon the  
5 unit rates in the awarded labor contracts or through the contract change order  
6 process. The owner supplied equipment purchase order amounts were then  
7 incorporated into the cost estimate. Finally, the estimate included all other  
8 applicable internal costs such as A&G and sales taxes.

9  
10 In addition, after additional competitive bids, Lone Star entered into two major,  
11 fixed-price date-certain Engineering, Procurement and Construction ("EPC")  
12 contracts. These are turn-key contracts that, together, obligate the EPC  
13 contractors to engineer, procure equipment and materials; construct the three  
14 switching substations, two series compensation stations; and, procure and  
15 construct the additional reactive equipment necessary to operate the line. The  
16 EPC contractors are obligated to satisfy all testing and commissioning  
17 requirements before acceptance. The turn-key purchase order amounts for these  
18 major contracts were used as a basis to revise the overall cost estimate.

19  
20 The owner supplied equipment purchase order amounts were then incorporated  
21 into the cost estimate. Finally, the estimate included all other applicable internal  
22 costs, such as sales taxes.

1   **Q.   PLEASE DESCRIBE THE ENGINEERING ANALYSIS THAT WAS**  
 2   **PERFORMED TO DESIGN LONE STAR'S CREZ PROJECT.**

3   A.   Initially, Electric Reliability Council of Texas ("ERCOT") System Planning  
 4       performed studies in conjunction with a task force designated the Regional  
 5       Planning Group ("RPG-CREZ"). This CREZ Transmission Optimization Study  
 6       ("CTOS") became the basis for the new CREZ transmission improvements.  
 7       ERCOT working with Asea Brown Boveri ("ABB") and the transmission service  
 8       providers completed a comprehensive reactive compensation plan for the CREZ  
 9       Project in order to make certain changes if required to develop a secure and  
 10      reliable system. In addition, Lone Star contracted with PTI Siemens for the  
 11      development and completion of various electrical system studies as it related to  
 12      the Lone Star transmission system. These studies include voltage profile, short  
 13      circuit, transient recovery voltage and dynamic energization and switching  
 14      studies.

15  
 16      These study results formed the basis for the Lone Star equipment specifications,  
 17      which established the minimum requirements for the voltage, current and fault  
 18      duty under various load cases and fault conditions. The study was also used to  
 19      establish the transmission line structure framing design and overhead ground wire  
 20      size. Each component of Lone Star's CREZ Project was designed to perform  
 21      under various weather conditions as recommended by accepted industry  
 22      guidelines and codes such as those found in the American Society of Civil  
 23      Engineers ("ASCE"), the Institute of Electrical and Electronic Engineers

(“IEEE”) and the National Electric Safety Code (“NESC”). Substation grounding and rigid bus design studies were also undertaken in order to ensure the substation components were adequately designed for safe, reliable operation.

**Q. HAS LONE STAR IDENTIFIED CRITICAL DATES FOR EACH MAJOR TASK REQUIRED TO MEET THE PLANNED IN-SERVICE DATES FOR LONE STAR’S FACILITIES?**

A. Yes. Lone Star, in conjunction with its contractors, has created fully integrated transmission and substation project schedules that incorporate all major milestone activities and the detailed planned logical progression of activities in order to achieve those major milestone dates. The EPC and PC contracts require delivery by the contractors by a date certain. Lone Star is also working with Oncor Electric Delivery, LLC (“Oncor”) and CenterPoint Energy to schedule milestone activities and specific construction dates to facilitate the interconnection of the existing and new transmission lines into the Scurry South, Sam Switch and Navarro substations. In addition, Lone Star is working with Electric Transmission Texas to schedule milestone activities and specific construction dates to interconnect its new Clear Crossing 345 kV lines into the West Shackelford substation.

**Q. HAVE CONSTRUCTION ACTIVITIES BEGUN?**

A. Yes. The three switching and two series compensation substations are currently under construction. With respect to the Navarro, Sam Switch and West

1        Shackelford substations, site preparation activities, such as surveying, clearing,  
2        grading, filling, foundations, control building and access road installation are  
3        complete. Steel erection and equipment installation is well underway at these  
4        sites. At the Romney and Kopperl series compensation stations, site preparation  
5        including surveying, clearing, grading, filling, foundations and access road  
6        installation is well underway. Steel erection and equipment installation will  
7        commence once site work is complete.

8  
9        Transmission line construction began in August 2011 between Scurry South  
10        (Oncor) and West Shackelford (Segments A-C). Transmission line construction  
11        in Segment A (west end) is complete. Transmission line construction (right of  
12        way clearing, pole spotting, framing and pole setting) is underway in Segments B,  
13        C and J. Segment J is between Sam Switch and Navarro substations on the  
14        eastern end of the project. Wire stringing work is underway in Segment B.  
15        Please see Exhibit DM-1 Lone Star CREZ Route Review – Overall View.

16  
17    **Q.    DOES LONE STAR HAVE PROCESSES IN PLACE TO ESTABLISH,**  
18    **MONITOR AND CONTROL CAPITAL EXPENDITURES?**

19    **A.**    Yes. Capital expenditures are monitored and controlled by tracking actual and  
20        projected project costs on a monthly basis utilizing the SAP software program, by  
21        following a project budget and cost spreadsheet, by analyzing internal labor spend  
22        rates, by verifying contractor monthly progress curves versus projected cash flows  
23        and invoices submitted, and through general communication within the Lone Star

project team. All expenditures are tracked monthly upon receipt. Project reports are compiled and monitored on a regular basis to ensure the project remains on schedule and on budget.

**Q. DOES THE PROCUREMENT PROCESS ALSO ASSIST IN CONTROLLING CAPITAL COSTS?**

A. Yes. The procurement process plays an important role in controlling Lone Star's capital costs through specific Scope of Work ("SOW") documents, which include specifications and contracted terms and conditions ("T&Cs") made between Lone Star, its equipment suppliers and engineering and construction contractors. The SOW spells out the technical and performance requirements that the contractor will address in the contract. The legally binding T&Cs ensure that Lone Star, its suppliers and contractors understand the division of responsibility, contracted price, invoicing terms, payment date requirements, contract scope change process and scheduled due dates.

In addition, the procurement process relied on by Lone Star is applicable to all NextEra Energy companies.

This process outlines various T&Cs for different types of procurements and the requirements for source and price analysis on purchase orders and change orders which again contribute to cost control. These guidelines combined with managerial oversight provide cost control of procured activities across the

NextEra Energy enterprise, including capital procurements made by Lone Star, and ensures that Lone Star's capital costs are well controlled by established and proven effective procurement processes.

**Q. PLEASE ELABORATE ON THE COMPETITIVE BID SELECTION PROCESS THAT LONE STAR USED FOR ITS CREZ PROJECT.**

A. As previously mentioned, Lone Star sought competitive bids for four major aspects of the Project: (1) the West Shackelford to Sam Switch and Sam Switch to Navarro Transmission Lines; (2) the Scurry County South to West Shackelford Transmission Line; (3) the West Shackelford, Romney, Kopperl, Sam Switch and Navarro switching and series compensation stations; and (4) a turnkey supply of fixed series capacitor banks and associated equipment at Romney and Kopperl series compensation stations.

Lone Star also sought competitive bids for major equipment and materials such as the high voltage circuit breakers, station service voltage transformers ("SSVT"), shunt reactors, disconnect switches, conductor, optical ground wire ("OPGW"), steel and concrete poles.

In each case, the Company sought and received multiple bids in response to its requests to ensure competitive bidding. Lone Star evaluated the individual bids and awarded the contracts based on the lowest evaluated cost, production



capabilities, supplier performance, safety, prior experience, delivery schedule, quality control and financial capabilities.

**Q. HOW DOES LONE STAR HANDLE REQUESTS FOR CONTRACT SCOPE CHANGES?**

A. Lone Star negotiated two major, fixed-price date-certain PC contracts and two major, fixed-price date certain EPC contracts. For the PC and EPC contracts awarded, Lone Star's PC or EPC contract agreements provide a mechanism whereby any approved scope changes can be priced and included in the contract through the scope change process. Most of Lone Star's owner-supplied equipment and material contracts are fixed price and are subject to change only through Lone Star approval and are limited to the addition and deletion of quantities required. Lone Star's contracts include the original project scope-of-work document. This SOW document includes all items necessary for the proper execution and completion of the work. Work not described in the SOW does not require a scope change order if such work is consistent with and reasonably inferable from the SOW.

**Q. DOES LONE STAR'S PROCESS FOR HANDLING CONTRACT SCOPE CHANGES ASSIST IN CONTROLLING COSTS?**

A. Yes. By negotiating contracts that only permit scope changes that are signed and approved by Lone Star and limiting most scope changes to adjustments in

1 quantity, Lone Star is able to eliminate charges for overruns that should have been  
2 foreseen by the contractor.

3

4 **Q. WHAT CONTRACTORS WERE SELECTED BY LONE STAR AS A**  
5 **RESULT OF THE COMPETITIVE BID PROCESS?**

6 A. As I mentioned previously in my testimony, Lone Star bid out four PC and EPC  
7 contracts for the major aspects of the CREZ Project. The winning contractors are  
8 shown below.

CONTRACTOR NAME	CONTRACT TYPE	SCOPE SERVICES
Blattner Energy, Inc.	Procurement and Construction	West Shackelford to Sam Switch and Sam Switch to Navarro Transmission Lines
Irby Construction Company	Procurement and Construction	Scurry County South to West Shackelford Transmission Lines
Dashiell Corporation	Engineering, Procurement, Construction	West Shackelford, Romney, Kopperl, Sam Switch and Navarro Substations
General Electric Company	Engineering, Procurement, Construction	Turnkey supply of fixed series capacitor banks and associated equipment at Romney and Kopperl

9 Each of the selected contractors has experience to execute projects of similar size  
10 and scope as the Project.

- 11 • Blattner Energy has worked on over 15,000 MW of wind projects,  
12 more than 25 of which included transmission line construction. The  
13 proposed key personnel working on the Project have over 100 years of  
14 combined experience with high voltage transmission line projects.
- 15 • Irby Construction Company ("Irby") provides services related to  
16 power line construction, extra high voltage transmission and  
17 distribution systems, maintenance and emergency reconstruction. Irby  
18 has built approximately 963 miles of transmission line since 2006.

- 1 • Dashiell Corporation (“Dashiell”) is a national provider of technical  
2 services to the electric utility, power generation, industrial, renewable  
3 and energy industries. These services include planning and system  
4 studies, design and engineering, maintenance and testing, project  
5 management, construction and turnkey EPC contracts. Dashiell has  
6 completed 30 transmission substation projects since 2007.
- 7 • General Electric Company is a worldwide advanced technology,  
8 services and finance company and GE Energy provides integrated  
9 product and service solutions in all areas of the energy industry. GE  
10 Energy has installed 130 series compensation capacitor banks globally  
11 over the last 20 years, including installations in Texas.

12

13 **Q. WHAT OBLIGATIONS DO THE PC AND EPC CONTRACTORS**  
14 **ASSUME UNDER THESE CONTRACTS?**

15 A. In addition to these contracts calling for delivery at a fixed price on a date certain,  
16 the PC and EPC contractors are obligated to satisfy testing and commissioning  
17 requirements for each Project component. The requirements include: (1) the  
18 component has achieved “ready” for energization; (2) the transmission system test  
19 and the specified acceptance test have been successfully completed; (3) the  
20 component is ready for safe and normal operation; (4) the O&M manuals have  
21 been delivered; and (5) spare parts and special tools, if required have been  
22 delivered. For both the transmission lines and the substations, each contractor  
23 must achieve provisional acceptance prior to the applicable guaranteed  
24 provisional acceptance date. If the contractor fails to achieve provisional  
25 acceptance before the applicable guaranteed provisional acceptance date, the  
26 contractor must pay liquidated damages.

1 Q. DO THE PROCEDURES LONE STAR HAS FOLLOWED AND THE  
2 CONTRACTS THAT LONE STAR HAS ENTERED INTO PROVIDE A  
3 REASONABLE AND RELIABLE BASIS FOR THE CAPITAL COST  
4 ESTIMATE USED IN THIS FILING?

5 A. Yes.

6

7 **IV. DESIGN SPECIFICATIONS FOR LONE STAR'S PROJECT**

8 Q. HOW WERE DESIGN SPECIFICATIONS DEVELOPED FOR THE CREZ  
9 PROJECT?

10 A. In order to engineer and construct Lone Star's transmission system, it was  
11 necessary to develop design specifications for all of the transmission facilities that  
12 comprise the project. The major transmission components required for the project  
13 are three switching substations, two series compensation stations, transmission  
14 lines and series capacitors.

15

16 In designing these facilities, research and studies were conducted to determine the  
17 environment in which equipment must remain operational. This would include  
18 weather conditions, as well as electrical conditions. Once these parameters were  
19 known, then structural and electrical requirements were incorporated into  
20 specifications.

1    **Q.    DID LONE STAR MAKE USE OF ANY ADVANCED TECHNOLOGY IN**  
2    **THE DESIGN OF THE CREZ TRANSMISSION FACILITIES?**

3    A.    Yes. The 345 kV, 5000 A, 63 kA circuit breakers and 100 kVA SSVTs are new  
4    designs from ABB. Prior to the Lone Star project there were no or very limited  
5    suppliers of 5000 A, 63 kA circuit breakers at 345 kV. The SSVTs were also  
6    sized to accommodate the station power requirements in the Lone Star  
7    substations. By using these advanced technologies, Lone Star was able to avoid  
8    paying higher costs for more equipment at a lower rating or purchasing oversized  
9    equipment at a higher rating. New SSVTs were designed and manufactured in  
10   order to optimize Lone Star's specific requirements at a lower cost. Additional  
11   advanced technology used in Lone Star's CREZ project includes the 345 kV  
12   braced post polymer insulators that were unique for the application. Lone Star  
13   individually tested the insulator manufacturers' products to ensure they met the  
14   required static and dynamic loading requirements. Further, the 140' high capacity  
15   single piece concrete poles were the first of their kind. These poles were designed  
16   and fabricated in a newly re-tooled plant in Texas. The plant modifications were  
17   required to accomplish this advancement of the spun concrete pole technology.

18

19    **A.    Substation and Transmission Line Design Specifications**

20   **Q.    WHAT SPECIFICATIONS DID LONE STAR USE TO DESIGN ITS**  
21   **SUBSTATIONS AND SERIES COMPENSATION STATIONS?**

22   A.    The component and EPC specifications utilized preliminary engineering work,  
23   internal and external technical expertise and extensive external vendor experience.

1 Lone Star prepared major 345 kV substation component specifications for the  
2 345/500 kV circuit breakers, switches, SSVTs, shunt reactors and series  
3 capacitors. In addition, detailed SOWs were developed for the EPC contract for  
4 the three switching substations, two series compensation stations and the  
5 transmission lines. The component specifications and SOW referenced and  
6 incorporated many applicable IEEE, American National Standards Institute  
7 ("ANSI") and other industry standards and guidelines. Lone Star's substation  
8 EPC contractor, Dashiell, created a set of standard designs such as bus support  
9 structures and pull-off tower designs that will be utilized in all of Lone Star's  
10 substations. This standard design reduces the engineering and material  
11 procurement time, provides consistency and increases labor productivity.  
12

13 **Q. WHAT TRANSMISSION LINE SPECIFICATIONS DID LONE STAR USE**  
14 **FOR THIS PROJECT?**

15 A. Lone Star prepared transmission component specifications for the concrete and  
16 steel monopole structures, braced post polymer insulators and OPGW. In  
17 addition, a detailed SOW was developed for the PC contract for the transmission  
18 lines. The component specifications and SOW referenced and incorporated many  
19 applicable IEEE, ANSI and other industry standards and guidelines. Lone Star's  
20 transmission line engineering consultant, Peak Power, created a set of standard  
21 structure framing details that will incorporate the major equipment procured and  
22 be utilized in all of Lone Star's new transmission lines. The use of a consistent

1 set of standards across the Project reduces future engineering time, helps expedite  
2 material procurement and increases construction labor productivity.

3

4 **Q. WAS IT NECESSARY TO PREPARE THESE DESIGN**  
5 **SPECIFICATIONS?**

6 A. Yes. The specifications were prepared to procure components that are major cost  
7 items with long lead times, have a diversity of vendors, and are considered critical  
8 to the project schedule and delivery system performance. The specifications were  
9 prepared in order to ensure the components procured met the Lone Star technical  
10 requirements as well as local, state and federal codes, regulations and national  
11 standards. These specifications describe site specific criteria such as wind load,  
12 geotechnical and seismic requirements, physical characteristics, equipment rating,  
13 materials, testing, fabrication, quality and delivery performance and any unique  
14 site conditions that must be incorporated in the design of the product. The  
15 component and EPC specifications leveraged preliminary engineering work as  
16 well as internal and external technical expertise.

17

18 **Q. PLEASE DESCRIBE AND COMPARE THE PHYSICAL COMPONENTS**  
19 **OF THE SUBSTATIONS AND SERIES COMPENSATION STATIONS.**

20 A. Sam Switch substation is located on 60 acres of property purchased by Lone Star.  
21 The fenced-in area for the substation infrastructure is approximately 790 feet by  
22 475 feet. Initially, five 345 kV bays will be constructed that will include twenty

345 kV disconnect switches, eight 345 kV breakers, two 550 kV breakers (operated at 345 kV) and four SSVTs.

Navarro substation is located on 225 acres of property purchased by Lone Star. The fenced-in area for the substation infrastructure is approximately 1,514 feet by 455 feet. Initially, six 345 kV bays will be constructed that will include forty-one 345 kV disconnect switches, thirteen 345 kV breakers, two 550 kV breakers, (operated at 345 kV) and four SSVTs.

West Shackelford series compensation station is located on 100 acres of property purchased by Lone Star. The fenced-in area for the substation infrastructure is approximately 990 feet by 780 feet. Initially, five 345 kV bays will be constructed that will include thirty-six 345 kV disconnect switches, nine 345 kV breakers, four 550 kV breakers (operated at 345 kV), two 345 kV 100 MVAR shunt reactors and four SSVTs.

Lone Star procured 550 kV breakers that will be operated at 345 kV at all line terminals protecting the series compensated lines. These breakers were required due to switching over voltage conditions that are not presently supported by existing 345 kV circuit breaker technology.

Romney series compensation station is located on 25.7 acres of property purchased by Lone Star. The fenced-in area for the substation infrastructure is



approximately 640 feet by 925 feet. Initial construction will include ten 345 kV disconnect switches, two fixed series capacitor banks including one 345 kV bypass breaker for each bank, four 345 kV 50 MVAR shunt reactors, four 345 kV breakers and two SSVTs. Kopperl substation will be located on 20.5 acres of property purchased by Lone Star. The fenced-in area for the substation infrastructure is approximately 600 feet by 520 feet. Initial construction will include six 345 kV disconnect switches, two fixed series capacitor banks including one 345 kV bypass breaker for each bank and two SSVTs. In addition, transmission pull-off structures, foundations, bus work, one control house, surge arresters, voltage transformers, protection and control equipment and lightning shielding will be installed at each substation.

**Q. WHAT CAPITAL SPARES WERE INCLUDED IN THE CAPITAL INVESTMENT INCLUDED ABOVE?**

A. Included in these capital estimates are long lead capital spare equipment and miscellaneous spare parts for the Lone Star substation facilities. Lone Star procured one 345 kV SSVT, two 345 kV circuit breakers, one 500 kV circuit breaker and three 345 kV disconnect switches. In addition various spare parts were ordered for the 345 kV shunt reactors and the series compensation banks. These spares are long lead items that would not be readily available should Lone Star have equipment failures. These spare parts are necessary for Lone Star to be able to quickly respond to equipment failures and promptly restore the

1 transmission facilities to operation. Mr. Turner's direct testimony further  
2 discusses the need for capital spares.

3  
4 **Q. PLEASE DESCRIBE THE PHYSICAL COMPONENTS OF THE**  
5 **TRANSMISSION LINES.**

6 A. Lone Star's transmission line structures are primarily spun concrete monopoles  
7 with braced line post polymer insulators supporting the bundled (2X) 1590  
8 Aluminum Conductor Steel Supported ("ACSS") ("Falcon") conductor in a side-  
9 by-side vertical phase configuration. There are two shield wires per pole, one of  
10 which contains optical fibers for relay protection and communication.

11  
12 Wherever possible on corner or angle structures, multiple guy wires and anchors  
13 are utilized in order to reduce the cost of the structures. Fiber optic splice boxes  
14 will be mounted on certain structures approximately every 3-4 miles to allow for  
15 the optic fibers to be spliced.

16  
17 **Q. WHAT SAFETY-RELATED REQUIREMENTS DID LONE STAR**  
18 **INCLUDE IN THE DESIGN OF THE PROJECT?**

19 A. Safety is a very important consideration in the design, construction and operation  
20 of substations for electric utilities. Safety was a major focus in the preparation of  
21 all specifications and designs especially those involving on-site construction with  
22 necessary Occupational Safety and Health Administration and NESC  
23 compliance.

1 All or some of Lone Star's substation and series compensation facilities have  
2 incorporated security requirements for its cyber assets, perimeter, switchyards and  
3 control house security protection in the design of these facilities. Lone Star's  
4 transmission line shield wires are sized to ensure that the current and future  
5 available fault current can be safely transmitted to ground under short circuit  
6 conditions. This ensures worker safety.

7  
8 In all instances, Lone Star assembled and utilized very experienced design,  
9 procurement and construction personnel that assembled the design specifications  
10 and SOW. This experience has allowed Lone Star to ensure that safety-related  
11 concerns are met without adding unnecessary cost.

12  
13 **Q. WHAT RELIABILITY CONSIDERATIONS DID LONE STAR**  
14 **EVALUATE WITH RESPECT TO ITS CREZ PROJECT?**

15 A. Lone Star personnel participated in the ERCOT/CREZ CTOS system planning  
16 studies and committee meetings. Based on the planning work and studies, Lone  
17 Star evaluated reliability considerations such as station post insulator and  
18 component bushing leakage distance for contamination performance, surge  
19 arrester maximum continuous operating voltage rating, ground grid and bus  
20 design available short circuit withstand ratings and substation lightning shielding  
21 performance. In addition, Lone Star evaluated the substation electrical and  
22 physical configurations and redundancy of transmission protection systems and

substation low-voltage station service systems. Lone Star further complied with all ERCOT voltage and system reactive requirements.

Lone Star contracted with PTI Siemens for the development and completion of various electrical system studies related to the Lone Star transmission system. These studies include voltage profile, short circuit, transient recovery voltage and dynamic energization and switching studies. The results of both the ERCOT and Lone Star studies were incorporated into the major component specifications and PC and EPC SOW.

With respect to the transmission line facilities, Lone Star designed the line according to ASCE guidelines and NESC requirements. Based upon the results of the engineering studies completed, Lone Star designed the transmission line facilities with sufficient overhead, phase-to-phase and phase-to-ground clearance in order to ensure safe and reliable operation. In addition, due to the higher voltage and 5000 A current requirements of these transmission lines and their proximity to major oil and gas pipelines adjacent to the ROW, Lone Star will, as necessary, incorporate various mitigation techniques to ensure both worker safety and pipeline integrity. Finally, Lone Star is incorporating measures to ensure the line can operate reliably while protecting local and migrating birds.

**V. FACILITY CAPITAL INVESTMENT**

**Q. HOW DID LONE STAR PREPARE THE CAPITAL INVESTMENT AMOUNT THAT YOU SPONSOR IN THIS RATE FILING?**

A. Lone Star relied on actual and projected capital costs utilizing a combination of factors, including contract prices for services, materials and equipment. Construction activities and material deliveries were compared with the project schedule and costs were spread by month across the rate period.

With respect to its interim rate request, the substation capital investment is limited to the capital investment associated with the Sam Switch and Navarro substations. The total amount of substation capital investment included in interim rates is \$45,935,140.

For purposes of establishing rates reflective of total project capital investment, Lone Star has included capital investment in the amounts shown below:

Type of Facility	Actual Capital Investment as of 9/30/2011	Incremental Projected Capital Investment	Total Capital Investment
Navarro Switchyard	\$16,969,993	\$11,267,860	\$28,237,853
Sam Switch Switchyard	\$5,735,911	\$11,961,376	\$17,697,287
W. Shackelford Switchyard	\$3,177,248	\$27,725,296	\$30,902,544
Romney Switchyard	\$3,777,630	\$25,832,814	\$29,610,444
Kopperl Switchyard	\$3,185,173	\$19,753,316	\$22,938,489
Capital Spares <sup>1</sup>	\$0	\$1,027,605	\$1,027,605
Transmission Line	\$59,413,758	\$390,216,433	\$449,630,191
Total	\$92,259,714	\$487,784,699	\$580,044,413

<sup>1</sup> This amount represents a portion of Lone Star's cost of capital spares. The remainder is sponsored by Mr. Turner.

1   **Q.    WHAT ARE THE MAJOR COST COMPONENTS OF THE SUBSTATION**  
2   **COST ESTIMATE?**

3   A.    The major capital cost components of the substation estimate include: the  
4        substation EPC contract labor and materials, owner-supplied 345/550 kV  
5        breakers, switches, SSVTs, shunt reactors, series capacitor banks, home office  
6        support, construction site labor, capital spares and expenses. In addition, Mr.  
7        Turner sponsors the land acquisition costs.

8

9   **Q.    WHAT ARE THE MAJOR COST COMPONENTS OF THE**  
10   **TRANSMISSION LINE COST ESTIMATE?**

11   A.    The major cost components include the 345 kV transmission line engineering,  
12        material procurement, home office support and construction labor contracts. In  
13        addition, ROW acquisition costs represent a major cost component. This amount  
14        is sponsored by Mr. Turner.

15

16   **Q.    WERE THE MAJOR COST COMPONENTS COMPETITIVELY BID?**

17   A.    Yes, as I mentioned previously, Lone Star engaged in a competitive bidding  
18        process for all the owner-supplied equipment as well as all contracts for EPC and  
19        PC activities. In addition, Lone Star competitively bid the transmission  
20        engineering and procurement of equipment and materials to ensure the lowest  
21        overall cost.

1   **Q.   WHAT TYPES OF CONSTRUCTION COSTS ARE INCLUDED IN THE**  
2   **CAPITAL INVESTMENT OUTLINED ABOVE?**

3   A.   The capital investment amounts in the table include engineering and construction  
4       labor, the procurement of equipment and material, sales tax and A&G costs. In  
5       addition, the construction cost estimate for the transmission lines includes site  
6       surveying and geotech costs.

7  
8   **Q.   WHAT TYPES OF EQUIPMENT AND MATERIAL COSTS ARE**  
9   **INCLUDED IN THE CAPITAL INVESTMENT OUTLINED ABOVE?**

10  A.   The capital investment contained in the table above includes both owner-supplied  
11       and contractor-provided materials and equipment costs. In general, the owner-  
12       provided material and equipment at the five substation sites includes the circuit  
13       breakers, disconnect switches, shunt reactors, series capacitors and the SSVTs.  
14       The contractor-provided material and equipment at each of the sites includes  
15       transmission pull-off structures, foundations, bus supports and electrical bus  
16       work, a control house, surge arresters, voltage transformers, protection and  
17       control equipment, batteries, wave traps, tuning units and lightning shielding.  
18       Connectors, grounding, conduit and control cable are also provided by the EPC  
19       contractor.

20  
21       Transmission line equipment and material in the cost estimate include: conductor,  
22       overhead ground wire, OPGW, insulators, conductor hardware, guying

1 equipment, anchors, grounding equipment, vibration dampers, bird flight  
2 diverters, fiber optic splice cabinets, compression fittings and hardware.

3

4 **Q. DOES THE CAPITAL INVESTMENT INCLUDE CONTINGENCY**  
5 **COSTS?**

6 A. Yes.

7

8 **Q. WHAT ARE CONTINGENCY COSTS?**

9 A. Contingency costs include escalation on materials and labor as well as costs that  
10 are not susceptible to being predicted with precision.

11

12 **Q. CAN YOU PROVIDE SOME EXAMPLES OF THE TYPES OF COSTS**  
13 **THAT CANNOT BE PREDICTED WITH PRECISION AND MUST**  
14 **NECESSARILY BE CAPTURED IN CONTINGENCY COSTS?**

15 A. Yes. Because Lone Star was not able to obtain access to all the landowner  
16 properties to assess the projected location of the structures, assumptions were  
17 made on projected route location and length, property access, subsurface soil  
18 conditions and crossings requirements. These assumptions were based upon  
19 aerial mapping, transmission line computer aided design models and surface and  
20 subsurface geotechnical information that was available at the time. Until Lone  
21 Star completes the required easement negotiations and makes the necessary minor  
22 route modifications requested by the landowners and are granted unobstructed  
23 access rights to all the properties, a reasonable amount of engineering and



1 construction funds must also be captured in contingency costs. Lone Star  
2 estimated a percentage of the total cost estimate in order to ensure that future  
3 capital would be available once the risks were understood and mitigation  
4 measures implemented. Engineering and construction contingency is included in  
5 the estimate so the project can proceed with minimal interruption for scope  
6 changes or unknown risks.

7  
8 **Q. WILL LONE STAR'S PROPOSED TRUE-UP FILING ENSURE THAT**  
9 **ONLY ACTUAL CAPITAL INVESTMENT AND NOT CONTINGENCY**  
10 **COSTS ARE RECOVERED IN RATES?**

11 **A.** Yes. As discussed in more detail in the testimony of Lone Star witness Michael  
12 Grable and Mr. Turner, the Company proposes to true-up its capital costs to  
13 assure that Lone Star only recovers its actual capital investment.

14  
15 **VI. AFFILIATE CHARGES FOR E&C SERVICES PROVIDED TO LONE STAR**

16 **Q. WHAT SERVICES DOES THE ENGINEERING AND CONSTRUCTION**  
17 **BUSINESS UNIT PROVIDE TO LONE STAR?**

18 **A.** Pursuant to the Code of Conduct waiver granted by the Commission in Docket  
19 No. 36890, Lone Star may use shared services. NextEra Energy provides the  
20 E&C services, which include engineering oversight and design philosophy,  
21 project management, project scheduling and project controls. These services are  
22 provided by a combination of NEER and FPL employees.

1   **Q.    WHAT IS THE LEVEL OF EXPERIENCE THAT NEXTERA ENERGY'S**  
2   **E&C DEPARTMENT PROVIDES?**

3   A.   NextEra Energy's E&C personnel are among the best in the business at  
4       completing projects on schedule and within budget. E&C's personnel possess  
5       significant expertise in the design and construction of transmission facilities. This  
6       small, specialized group has extensive knowledge built over years of how to  
7       manage projects and control costs. In fact, the E&C business unit personnel  
8       assigned to the Project have over 150 years of collective experience in the  
9       industry. The Commission recognized this expertise when it selected Lone Star  
10      as a new entrant Transmission Service Provider.

11

12   **Q.    WHAT ARE THE PROJECTED COSTS THAT HAVE BEEN INCLUDED**  
13   **IN THE RATE FILING FOR THE PROVISION OF E&C SERVICES TO**  
14   **LONE STAR?**

15   A.   As shown on Cost of Service Schedules V-K-1A-interim and V-K-1B-interim and  
16       as explained in the direct testimony of Ms. Dietrich, Lone Star's interim rate  
17       request includes capitalized costs for E&C services provided to Lone Star in the  
18       amount of \$6,716,870. This amount is reflective of the services that NextEra  
19       Energy's E&C organization will continue to provide to Lone Star during the time  
20       the interim rates are in effect.

1   **Q.    ARE THE SERVICES NEXTERA ENERGY'S E&C DEPARTMENT HAS**  
 2       **PROVIDED AND WILL CONTINUE TO PROVIDE DURING THE**  
 3       **INTERIM RATE PERIOD REASONABLE AND NECESSARY?**

4    A.   Yes. Utilizing NextEra Energy's E&C Department affords Lone Star access to  
 5       seasoned professionals with extensive experience in building transmission  
 6       facilities. This, in turn, has allowed Lone Star to take advantage of long-standing  
 7       vendor relationships and maximize its negotiation powers. Further, by utilizing  
 8       the E&C department's experience, Lone Star is well positioned to complete its  
 9       CREZ Project within the time frame established by the Commission. Moreover,  
 10      Lone Star's proposal to true-up its capital investment to reflect actual costs  
 11      ensures that customers will pay only for the actual cost incurred. Finally, had  
 12      Lone Star not been able to access the experienced professionals in the E&C  
 13      department, it would have needed to hire additional staff or obtain the similar  
 14      services from a third party at an additional cost.

15

16                                   **VII. CONCLUSION**

17   **Q.    ARE THE COSTS LONE STAR SEEKS TO RECOVER IN THIS FILING**  
 18       **REASONABLE, CUSTOMARY AND SIMILAR TO OTHER PROJECTS**  
 19       **OF SIMILAR SCOPE GIVEN THE SERVICE REQUIREMENTS OF THE**  
 20       **PROPOSED PROJECT?**

21   A.   Yes.

1   **Q.   PLEASE SUMMARIZE YOUR TESTIMONY.**

2   A.   As demonstrated throughout my testimony, the actual projected capital costs  
3       included in Lone Star's filing are reasonable and necessary. The Commission can  
4       rely on Lone Star's projections because Lone Star has prudently performed its  
5       engineering work, engaged in sound internal cost estimate preparation and  
6       utilized a competitive bidding process and controls to manage costs. Lone Star  
7       has also followed reasonable construction management processes to ensure  
8       prudent project development. In sum, Lone Star has ensured that the transmission  
9       facilities designed and constructed will satisfy the Commission and ERCOT  
10      requirements and will meet the requested in-service dates and ensure that the costs  
11      paid for the scope of work are reasonable and necessary.

12

13   **Q.   IS CAPITAL INVESTMENT REQUESTED IN THIS FILING**  
14       **REASONABLE AND NECESSARY TO THE PROVISION OF UTILITY**  
15       **SERVICE?**

16   A.   Yes

17

18   **Q.   DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

19   A.   Yes, it does.

STATE OF FLORIDA     §  
COUNTY OF Palm Beach     §

**AFFIDAVIT OF DANIEL MAYERS**

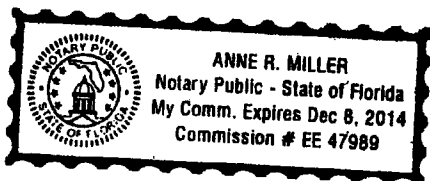
BEFORE ME, the undersigned authority, on this day personally appeared Daniel Mayers,  
who, having been placed under oath by me, did depose as follows:

1.     “My name is Daniel Mayers. I am of sound mind and capable of making this affidavit. The facts stated herein are true and correct based upon my personal knowledge. My current position is Director of Engineering and Construction for NEER.
2.     I have prepared the foregoing direct testimony and the attached exhibit offered by me is true and correct to the best of my knowledge.”

Further affiant sayeth not.

*Daniel Mayers*  
Daniel Mayers

SUBSCRIBED AND SWORN TO BEFORE ME by the said Daniel Mayers this 20<sup>th</sup>  
day of December \_\_, 2011.



*Anne R. Miller*  
Notary Public, State of Florida



**PUC DOCKET NO. 40020**

**APPLICATION OF LONE STAR  
TRANSMISSION, LLC FOR  
AUTHORITY TO ESTABLISH  
INTERIM AND FINAL RATES  
AND TARIFFS**

§  
§  
§  
§  
§

**BEFORE THE  
PUBLIC UTILITY COMMISSION  
OF TEXAS**

**DIRECT TESTIMONY**

**OF**

**CHERYL L. DIETRICH**

**ON BEHALF OF**

**LONE STAR TRANSMISSION, LLC**

**January 9, 2012**

**INDEX TO THE DIRECT TESTIMONY OF**  
**CHERYL L. DIETRICH, WITNESS FOR**  
**LONE STAR TRANSMISSION, LLC**

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## **LIST OF EXHIBITS**

EXHIBIT CLD-1	List of Services/functions and witnesses for the various Corporate Support Services
EXHIBIT CLD-2	NextEra Energy Resources, LLC Transactions with Subsidiaries and Affiliates Policy and Procedure
EXHIBIT CLD-3A	Calculation of NextEra Energy Transmission, LLC labor loader rate
EXHIBIT CLD-3B	Calculation of NextEra Energy Resources, LLC labor loader rate
EXHIBIT CLD-3C	Calculation of Florida Power & Light labor loader rate
EXHIBIT CLD-3D	Calculation of Lone Star Transmission, LLC labor loader rate
EXHIBIT CLD-4A	NextEra Energy Transmission, LLC Corporate Support Services Agreement
EXHIBIT CLD-4B	NextEra Energy Resources, LLC Corporate Support Services Agreement
EXHIBIT CLD-4C	Florida Power & Light Corporate Support Services Agreement
EXHIBIT CLD-5	Florida Power & Light Cost Allocation Manual
EXHIBIT CLD-6	NextEra Energy Resources, LLC Affiliate Management Fee Policy & Procedure
EXHIBIT CLD-7	Florida Power & Light Investment Recovery Procedure

## **LIST OF SPONSORED/CO-SPONSORED SCHEDULES (INTERIM AND FINAL)**

SCHEDULE V-K-1	Affiliate Expenses by FERC Account
SCHEDULE V-K-3	Organization Chart
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SCHEDULE V-K-7	Statutory Requirements
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SCHEDULE V-K-9	Allocation of Affiliate Costs
SCHEDULE V-K-10	Controls
SCHEDULE V-K-11	Affiliate Billing Methods
SCHEDULE V-K-12	Amounts Billed to Each Affiliate

**EXECUTIVE SUMMARY OF CHERYL L. DIETRICH**

As a transmission utility operating in Texas, Lone Star Transmission, LLC ("Lone Star" or the "Company") needs basic corporate support services to function on a daily basis. To this end, Lone Star must either hire its own employees or contractors to provide the needed support services or share employees that are already providing the same services to other affiliates. As a member of the NextEra Energy, Inc. ("NextEra Energy") family of companies, Lone Star has access to highly qualified and experienced corporate support service personnel at NextEra Energy Transmission, LLC ("NEET"), NextEra Energy Resources, LLC ("NEER") and Florida Power & Light Company ("FPL"). As detailed below, these personnel provide Lone Star with vital services, benefits and value.

My testimony:

- discusses the benefits of Lone Star's reliance on NextEra Energy affiliates for corporate support services, the need for the specific corporate support services and the reasonableness of specific affiliate corporate support service expenses;
- describes the Company's billing and cost allocation methodologies for affiliate corporate support services, which are consistent with the Corporate Support Services Agreements between Lone Star and its affiliates;
- details the controls, policies, and procedures which ensure that Lone Star's affiliate costs are monitored and billed properly and are reasonable and necessary;
- provides a summary of Lone Star's affiliate expense request for both interim and final rates; and
- confirms that all affiliate costs are reasonable and necessary, Lone Star is not charged a higher price than those charged to other affiliates or non-affiliates, such costs are billed at cost and services are not duplicative of any services provided by Lone Star or any other affiliates.

This testimony demonstrates that the affiliate costs for which Lone Star seeks recovery meet the Commission's affiliate cost recovery standard and should be recovered in full through rates.

**DIRECT TESTIMONY OF CHERYL L. DIETRICH**

**I. POSITION AND QUALIFICATIONS**

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

A. My name is Cheryl Dietrich. My business address is 700 Universe Blvd., Juno Beach, Florida 33408. I am employed by NextEra Energy Transmission, LLC, formerly known as U.S. Transmission Holdings. LLC, and hold the position of Director of Business Management.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

A. I am testifying on behalf of Lone Star.

**Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

A. I graduated from Florida Atlantic University in 1995 with a Bachelor of Science Degree in Business Administration majoring in Accounting. That same year, I obtained my Certified Public Accountant License in the state of Maryland while working for a public accounting firm in Newark, Delaware. In 2000, I became licensed in the state of Florida.

**Q. PLEASE DESCRIBE YOUR PREVIOUS EXPERIENCE AT NEXTERA ENERGY.**

A. I have been employed by NextEra Energy since May of 2000, when I was hired as a Project Controller for NEER. Since then, I have held numerous positions with progressing responsibility at both NEER and FPL. Most recently, prior to taking

1 my current position, I was the Business Services Regulatory and Accounting  
2 Manager for FPL's Nuclear Division.

3

4 **Q. AS DIRECTOR OF BUSINESS MANAGEMENT AT NEET, PLEASE**  
5 **DESCRIBE YOUR AREAS OF RESPONSIBILITY.**

6 A. As the Business Management Director for NEET, my responsibilities include, but  
7 are not limited to, the following for NEET and its subsidiaries including Lone  
8 Star:

- 9 • Affiliate transaction accounting, billing, reviews and controls;
- 10 • Planning, forecasting and variance reporting;
- 11 • Quarterly due diligence compliance and reporting;
- 12 • Corporate oversight and liaison support; and
- 13 • Regulatory reporting and support

14

15 **Q. WHAT DUTIES DO YOU PERFORM WITH RESPECT TO LONE**  
16 **STAR'S AFFILIATE TRANSACTIONS?**

17 A. My department is responsible for establishing appropriate account numbers  
18 (known as work breakdown structure ("WBS") Elements) for Lone Star; assisting  
19 Lone Star management in the monthly review of affiliate charges to ensure the  
20 propriety of costs being billed; working with Lone Star management to review  
21 and document variances or update expense projections; preparing regulatory  
22 reports, including the Public Utility Commission of Texas ("Commission")  
23 Annual Report of Affiliate Activities; reviewing and documenting policies and

1 procedures for receiving affiliate services and related charges; and monitoring the  
2 overall financial activity of Lone Star. On an annual basis, my department works  
3 with Lone Star to prepare the five year budget plan, which involves a review and  
4 negotiation of affiliate direct billed, direct assigned and allocated charges from  
5 NEET, NEER and FPL to ensure the plan reasonably represents the cost of  
6 necessary future services. Where corporate support services and related  
7 infrastructure costs are allocated to Lone Star, my department reviews the costs  
8 being allocated to ensure the costs being billed support activities that benefit Lone  
9 Star. My department prepares a report that presents the monthly financial  
10 performance results for Lone Star. This report is reviewed by NextEra Energy's  
11 senior leadership on a monthly basis and ensures compliance with the Sarbanes-  
12 Oxley Act of 2002.

13  
14 My affiliate transaction oversight responsibilities require that I have a thorough  
15 and detailed understanding of Lone Star's affiliate costs, which include affiliate  
16 charges, the services they represent and Lone Star's need for those services, and  
17 the mechanisms for billing those costs to Lone Star.

18  
19 **II. PURPOSE OF DIRECT TESTIMONY**

20 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**  
21 **PROCEEDING?**

22 **A.** The purpose of my direct testimony is to support the affiliate expenses included in  
23 Lone Star's rate filing package. Because support services represent the majority

1 of the affiliate expenses being requested by the Company in this case, I discuss  
 2 the benefits of Lone Star's reliance on NextEra Energy affiliates for corporate  
 3 support services, the need for the specific corporate support services and the  
 4 reasonableness of specific affiliate corporate support service expenses. I also  
 5 describe the billing and cost allocation methodologies for affiliate corporate  
 6 support services that are consistent with the Corporate Support Services  
 7 Agreements between Lone Star and its affiliates, as well as the controls, policies  
 8 and procedures employed by Lone Star and NEET that help ensure that Lone  
 9 Star's affiliate costs are monitored and billed properly and are reasonable and  
 10 necessary. Lastly, I provide a summary of Lone Star's affiliate expense request in  
 11 the rate filing package.

12

13 **Q. HAVE YOU PREPARED ANY EXHIBITS IN CONNECTION WITH**  
 14 **YOUR TESTIMONY?**

15 **A.** Yes. I have prepared and sponsor the exhibits listed in the table of contents.

16

17 **Q. WERE YOUR TESTIMONY AND THE EXHIBITS ATTACHED**  
 18 **THERETO PREPARED BY YOU OR UNDER YOUR DIRECT**  
 19 **SUPERVISION?**

20 **A.** Yes.

1   **Q.   DO YOU SPONSOR OR CO-SPONSOR ANY SCHEDULES IN LONE**  
2   **STAR'S RATE FILING PACKAGE?**

3   A.   Yes. Consistent with the context of my testimony, I sponsor or co-sponsor the  
4   schedules listed in the table of contents, including Schedules II-E-4.5, V-K-1, V-  
5   K-3, V-K-4, V-K-5, V-K-7, V-K-8, V-K-9, V-K-10, V-K-11 and V-K-12 of the  
6   rate filing package.

7  
8   **Q.   HOW DOES YOUR TESTIMONY RELATE TO THE DIRECT**  
9   **TESTIMONY OF OTHER COMPANY WITNESSES IN THIS CASE**  
10   **CONCERNING AFFILIATE COSTS?**

11   A.   I address the organizational structure, costs associated with corporate support  
12   services provided to Lone Star by its affiliate companies, related billing processes,  
13   cost allocation methodologies, controls and the necessity and reasonableness of  
14   certain support services. The following witnesses also provide testimony to  
15   support the necessity and reasonableness of the Company's affiliate costs:

- 16       • Tom J. Flaherty, Senior Vice President in the Energy, Chemicals and  
17       Utilities practice of Booz & Company, is the Company's outside  
18       expert witness on affiliate expense issues. He provides an independent  
19       analysis of Lone Star's affiliate costs.
- 20  
21       • Michael G. Grable, President of Lone Star, provides an overview of  
22       the Company's filing and Lone Star's need to rely on affiliate support.
- 23  
24       • David K. Turner, Project Director and Director of Operations for Lone  
25       Star, supports affiliate costs associated with transmission capital  
26       investment and operations and maintenance ("O&M") expenses, which  
27       include integrated supply chain/procurement ("ISC"). In addition, Mr.  
28       Turner's testimony supports Development and Regulatory Affairs  
29       costs, as they relate to support of the CCN filing.
- 30



- Daniel Mayers, Director – Construction for NEER, supports specific environmental, engineering and construction costs provided by NEER and FPL.
- Aldo E. Portales, Assistant Treasurer for NEER, supports corporate treasury and financing functions provided to Lone Star by NEER and FPL.
- Brian R. Murphy, Senior Tax Director for FPL, supports corporate tax services provided to Lone Star by FPL.
- Richard B. Cribbs, Controller for NEER, supports finance and accounting expenses provided to Lone Star by NEER.
- Julie S. Rice, Director Compensation and Planning for NEER, presents human resources (“HR”) affiliate costs provided to the Company by NEER and FPL.
- Lastly, H. Michael Warren, an outside consultant, has reviewed the reasonableness of rate case expenses and addresses certain affiliate based costs associated with this rate case.

I support the following specific affiliate expense categories not included in other witness testimony:

- NEET: Business Management and Business Services;
- NEER and FPL: Corporate Governance, Information Management (“IM”) and Law Department; and
- FPL: Corporate Communications, Corporate Real Estate, Internal Audit, and Strategy, Policy and Process Improvement,

as well as allocated corporate support services and related infrastructure costs for both NEER and FPL.

Exhibit CLD-1 illustrates in more detail the witnesses who discuss specific functions and support their related costs.

1 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

2 A. My testimony: (1) provides an overview of Lone Star's support service needs and  
3 the benefits derived by Lone Star's reliance on affiliates for corporate support  
4 services; (2) describes Lone Star's affiliate billing and cost allocation  
5 methodologies; (3) details the controls that Lone Star has in place to ensure that  
6 affiliate costs are reasonable and necessary; and (4) summarizes the total affiliate  
7 expense request for the Company.

8

9 Affiliate charges are reflected in three separate rate filing schedules. Expenses  
10 are shown on Schedule V-K-1, capital on Schedule V-K-5 and rate case related  
11 costs are on Schedule II-E-4.5.

12

13 **III. LONE STAR'S SUPPORT SERVICE NEEDS**

14 **A. Overview**

15 **Q. WHAT ARE "CORPORATE SUPPORT SERVICES"?**

16 A. Generally speaking, the phrase "corporate support services" refers to the sharing  
17 of certain administrative and general support services across several business  
18 units. In Lone Star's case, Commission Rule 25.272(c)(4) more specifically  
19 defines the phrase to mean: "Services shared by a utility, its parent holding  
20 company, or a separate affiliate created to perform corporate support services,  
21 with its affiliates of joint corporate oversight, governance, support systems, and  
22 personnel." Examples of "corporate support services" provided in Commission  
23 Rule 25.272(c)(4) include: human resources, procurement, information

technology, regulatory services, administrative services, real estate services, legal services, accounting, environmental services, internal audit, community relations, corporate communications, financial services, financial planning and management support, corporate services, corporate secretary and corporate planning.

**Q. DOES LONE STAR HAVE A NEED FOR THE TYPES OF SERVICES THAT ARE BEING PROVIDED TO IT AS CORPORATE SUPPORT SERVICES?**

A. Yes. Virtually every business needs some level of such services. Lone Star is no exception. Such an organization needs, among other things, human resources, procurement, information technology, regulatory services, administrative services, real estate services, legal services, accounting, environmental services and internal audit services to function on a daily basis. To this end, Lone Star must either hire its own employees or contractors to provide the needed support services or share employees that are already providing the same services to other affiliates.

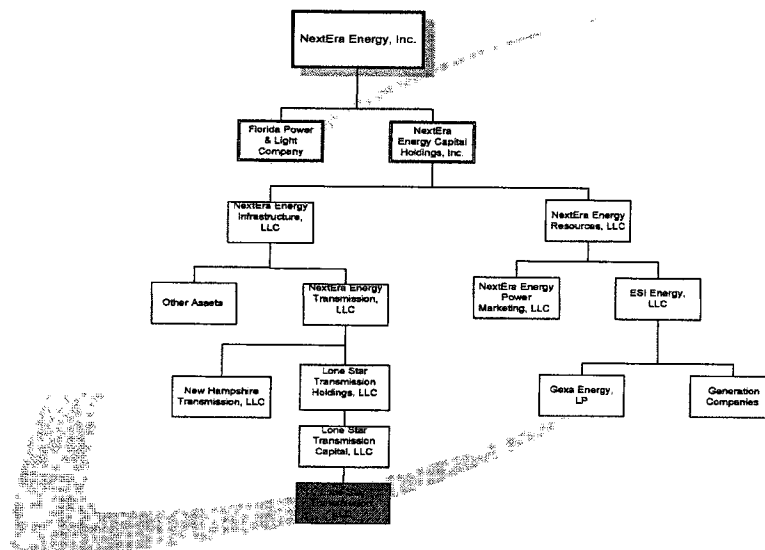
As detailed below and in the direct testimony of Lone Star witness Thomas J. Flaherty, by nature of the fact that Lone Star is a member of the NextEra Energy corporate family, the most beneficial and cost-effective option for the Company is to obtain those services from its parent or affiliates. As described in the direct testimonies of Lone Star witnesses Michael Grable and David Turner, Lone Star

relies on the expertise of its indirect parent, NEET, and its affiliates, NEER and FPL, to provide key support services to the Company.

**Q. WHERE IS LONE STAR LOCATED IN THE NEXTERA ENERGY ORGANIZATIONAL CHART?**

A. NextEra Energy has two direct wholly owned subsidiaries – FPL and NextEra Energy Capital Holdings, LLC (“Capital Holdings”). FPL is a regulated utility that only operates in the state of Florida. Capital Holdings is the parent company of two subsidiaries, NEER and NextEra Energy Infrastructure, LLC (“Infrastructure”), which both do business outside the state of Florida. NEER is a non-regulated company that owns generation and retail sales operations. Infrastructure is a holding company that owns primarily regulated transmission assets. Lone Star is an indirect wholly-owned subsidiary of Infrastructure. A summarized organizational chart of NextEra Energy is provided below.

**Figure 1 – NextEra Organizational Chart**

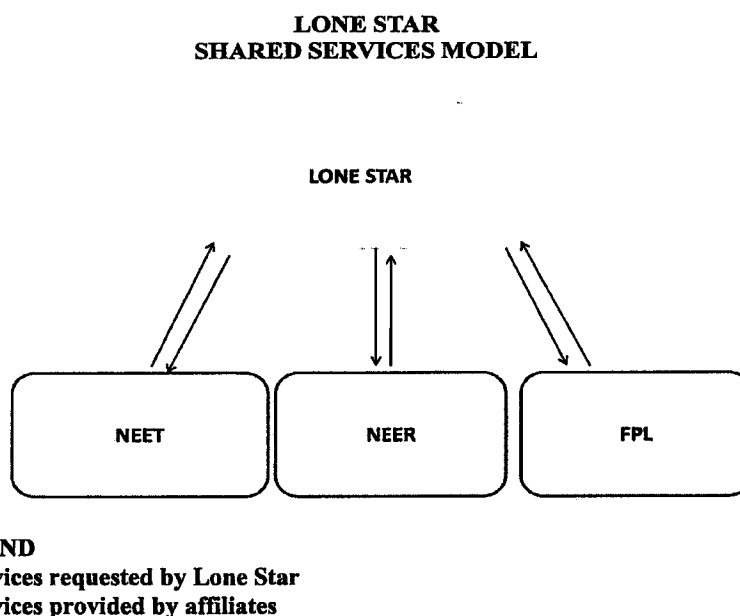


Schedule V-K-3 provides the NextEra Energy organizational chart in more detail.

**Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE NEXTERA ENERGY SUPPORT SERVICES MODEL.**

A. NextEra Energy as a whole operates all of its assets under a support services model, which allows the organization to apply a best practices philosophy, a highly skilled workforce and economies of scale across all of its companies. Under this model, several NextEra Energy companies provide operation and support services of the type that are often provided by a service company. This model allows Lone Star to receive support services from affiliates of NextEra Energy where it benefits Lone Star to do so. The benefits of such a support services model are discussed in the testimony of Mr. Flaherty. An overview of the support services model is shown below:

**Figure 2 – Lone Star Shared Service Model**



1    **Q.    PLEASE PROVIDE A BRIEF DESCRIPTION OF THE AFFILIATES**  
 2    **THAT PROVIDE SUPPORT SERVICES TO LONE STAR.**

3    **A.    As discussed above, Lone Star receives support services primarily from three**  
 4    **affiliates – NEET, NEER and FPL. A brief description of these companies and**  
 5    **the services they provide to Lone Star is provided below:**

- 6            • **NEET** – NEET, a subsidiary company of NextEra Energy  
 7            Infrastructure, LLC, is a corporate holding company that controls  
 8            regulated transmission utility companies located in the states of Texas  
 9            and New Hampshire, including Lone Star. Between NEET and Lone  
 10          Star on the organizational chart are two affiliate companies – Lone  
 11          Star Transmission Capital, LLC and Lone Star Transmission Holdings,  
 12          LLC. NEET was formed to provide governance and management  
 13          oversight to the regulated transmission companies of NextEra Energy  
 14          that are not owned by FPL. NEET has executed a Corporate Support  
 15          Services Agreement with Lone Star. Under the terms of this  
 16          agreement, NEET performs certain corporate support services for the  
 17          Company, including NEET business management, business services  
 18          and transmission operations. Refer to Schedule V-K-4 for a detailed  
 19          explanation of these services.
- 20          • **NEER** – NEER is an indirect wholly-owned subsidiary of NextEra  
 21          Energy. NEER (formerly FPL Energy, LLC) was formed in 1998 to  
 22          aggregate NextEra Energy's existing non-rate regulated energy-related  
 23          operations. NEER owns, develops, constructs, manages and operates  
 24          electric-generating facilities that sell power in wholesale energy  
 25          markets. NEER has executed a Corporate Support Services  
 26          Agreement with Lone Star. Under the terms of this agreement, NEER  
 27          performs certain corporate support services for the Company,  
 28          including: accounting and finances, corporate governance,  
 29          development, engineering, construction and corporate services  
 30          ("ECCS") (only to the extent and in accordance with the special  
 31          exception to the Code of Conduct granted to Lone Star by the  
 32          Commission) and ISC vendor sourcing. In addition, NEER provides  
 33          environmental services, HR, IM SAP and data management systems,  
 34          transaction, commercial and real estate law and treasury. Refer to  
 35          Schedule V-K-4 for a detailed explanation of other support services.
- 36          • **FPL** – FPL is a rate-regulated vertically integrated electric utility in  
 37          the state of Florida with approximately 4.5 million customer accounts,  
 38          approximately 66,743 miles of distribution lines, and over 6,600  
 39          circuit miles of 69 kilovolt or above transmission lines. FPL has

1                   executed a Corporate Support Services Agreement with Lone Star.  
 2                   Under the terms of this agreement, FPL performs certain corporate  
 3                   support services for the Company, including: accounting and finance,  
 4                   corporate communications, corporate governance, ECCS, which  
 5                   includes: ISC, corporate real estate, and engineering and construction.  
 6                   In addition, FPL provides services to support HR, IM, internal audit,  
 7                   regulatory and compliance law, regulatory affairs, strategy, policy and  
 8                   process improvement, environmental services (which is part of  
 9                   strategy, policy and process improvement) and transmission and  
 10                  substation services. Refer to Schedule V-K-4 for a detailed  
 11                  explanation of other support services.

12               Lone Star is able to call upon substantial and highly qualified expertise from these  
 13               three affiliates within the NextEra Energy corporate family in all operational and  
 14               administrative dimensions to serve Lone Star effectively and efficiently as a  
 15               regulated utility in Texas. Schedule V-K-3 provides a full organizational chart for  
 16               NextEra Energy and all affiliate companies. Schedule V-K-4 provides a detailed  
 17               description of services provided by each affiliate.

18

19   **Q.   HOW DOES LONE STAR OBTAIN CORPORATE SUPPORT SERVICES**  
 20   **FROM ITS AFFILIATES?**

21   A.   Once a necessary service is identified, Lone Star contacts the affiliate business  
 22           unit to discuss Lone Star's needs and which employee possesses the specialized  
 23           expertise to support the need. That employee is then assigned to support Lone  
 24           Star. In the rare situation where an affiliate employee is not able to meet Lone  
 25           Star's needs, Lone Star will go out to the market and procure such services from a  
 26           third party.

1   **Q.    ARE THE PRICES CHARGED FOR ANY OF THE FPL, NEET AND**  
2       **NEER CORPORATE SUPPORT SERVICES PROVIDED TO LONE STAR**  
3       **ANY HIGHER FOR LONE STAR THAN THE PRICES CHARGED FOR**  
4       **THE SAME ITEM OR CLASS OF ITEMS TO ANY OF FPL'S, NEET'S**  
5       **OR NEER'S OTHER AFFILIATES OR DIVISIONS OR A NON-**  
6       **AFFILIATED PERSON WITHIN THE SAME MARKET AREA OR**  
7       **HAVING THE SAME MARKET CONDITIONS?**

8    A.   No. As detailed below and confirmed by Mr. Flaherty, all direct billed, direct  
9       assigned and allocated costs are charged in a consistent manner and result in the  
10      same pricing for Lone Star as is charged to any affiliates or non-affiliates.

11

12   **Q.    WHAT BENEFITS DO LONE STAR AND ITS CUSTOMERS RECEIVE**  
13       **BY OBTAINING CORPORATE SUPPORT SERVICES FROM THE**  
14       **NEXTERA CORPORATE FAMILY?**

15   A.   NEET, NEER and FPL have established organizations that provide Lone Star  
16       with access to staff with a diversity of expertise suited to support Lone Star's  
17       regulated utility construction and operation activities. This allows Lone Star  
18       access to specialized resources that share business philosophies, practices,  
19       infrastructure and systems. Having access to personnel with this wide range of  
20       experience and skills allows Lone Star to use a portion of an employee's time,  
21       when needed, while avoiding the cost of hiring a full-time equivalent. Lone Star  
22       could hire its own personnel with these skills and implement these same systems,  
23       but at a higher cost in both time and money. For instance, NEER and FPL have



1 staff skilled in SAP, work management, desktop support, telecommunications and  
2 other utility specific technologies which Lone Star is able to utilize without hiring  
3 and training additional employees.

4  
5 Having these services in place provides efficiencies for Lone Star and has further  
6 enabled the Lone Star management team to focus on and execute the Competitive  
7 Renewable Energy Zones ("CREZ") project. Lone Star receives services from  
8 employees who understand its business and are a part of the NextEra Energy  
9 enterprises. In addition, it eliminates the need to separately hire, train and incur  
10 costs associated with doing so and improves the quality of the services  
11 experienced by Lone Star. Ultimately, Texas customers benefit from Lone Star's  
12 ability to utilize affiliate resources rather than having to fully staff its operations.

13  
14 In addition to the corporate shared services support benefits, Lone Star is able to  
15 rely on existing relationships that its affiliates have with third-party vendors.

16  
17 **B. Support Services Necessary for Lone Star's Operations**

18 **Q. CAN YOU PLEASE SUMMARIZE, BY CLASS, THE SUPPORT**  
19 **SERVICES THAT ARE NECESSARY FOR LONE STAR'S ONGOING**  
20 **OPERATIONS?**

21 **A.** As demonstrated in my testimony and the testimony of other Company witnesses,  
22 Lone Star needs, and is requesting recovery for, the following classes of support  
23 services:

- 1                   • Business Management
- 2                   • Business Services
- 3                   • Corporate Communications
- 4                   • Corporate Governance
- 5                   • Development
- 6                   • Engineering, Construction and Corporate Services, which includes
- 7                   Corporate Real Estate and Integrated Supply Chain
- 8                   • Environmental Services
- 9                   • Finance and Accounting
- 10                  • Human Resources
- 11                  • Information Management
- 12                  • Internal Audit
- 13                  • Law Department
- 14                  • Regulatory Affairs
- 15                  • Strategy, Policy and Process Improvement
- 16                  • Transmission Operations
- 17                  • Transmission and Substation Services
- 18                  • Treasurer

19           Please refer to Schedule V-K-4 for a detailed description of these support  
20           services.