

1 Monitoring winding temperatures of the motors can give  
2 advanced warning of potential loading or problems the  
3 motors are experiencing before metal temperature increases  
4 are seen.

5 Having an operator in close proximity of the motors  
6 when the bearing temperature excursions occur to  
7 communicate to the control room the condition of the  
8 equipment is an "after the fact" activity due to the damage  
9 already being done by the time the bearing temperatures are  
10 alarmed and the motor stops. On some of these motors, the  
11 breakers will not open until the discharge valve reaches 10%  
12 open even after a stop command is given. This feature  
13 causes the motor to run even longer after bearing  
14 temperature alarms are sounded.

15 Winding temperature indicators have been installed  
16 on the motors on Unit 3 during recent motor repairs that are  
17 identical to those currently in service on Unit 4, which have  
18 proven to be very effective. These indicators are being  
19 monitored by a wireless interface and transmitted to the  
20 control room for alarms. This indication gives operations an  
21 earlier warning of the system status and allows for actions to  
22 be taken to verify the conditions before excessive damage or  
23 failure of the motor can occur. With winding temperature  
24 indicators alarming in the control room, the cost of failures of  
25 these motors for these reasons can be prolonged and  
26 possibly prevented due to early detection.

27 ✓ Lewis Creek Generator CO2 Purge Process and Fire  
28 Protection: Purging the generator with carbon dioxide  
29 currently takes 192 person hours per year to complete due  
30 to the restricted amount of flow required to keep the  
31 regulator assembly from freezing. Freezing also prevented  
32 the use of approximately 50% of carbon dioxide in each  
33 cylinder. In addition, the restricted flow is inadequate to  
34 provide the volume needed for fire protection.

35 The generator purging process was improved by  
36 installing a heated evaporative Hi Flow CO2 regulator  
37 system to purge the generator. It now takes 16 person  
38 hours annually to accomplish purging operations resulting in  
39 a savings of 176 person hours. In addition, the annual plant  
40 planned outage duration has been decreased by 88 hours as  
41 a result of this improvement.

1       C.     Total Production Non-Fuel Operations and Maintenance Expenses

2     Q20. WHAT WERE ETI'S TOTAL ELECTRIC PRODUCTION O&M COSTS  
3       FOR THE TEST YEAR?

4     A.     ETI's total fossil electric production non-fuel O&M costs for the Test Year  
5       were \$50,485,636, which includes both non-affiliate expenses and affiliate  
6       charges. Schedules H-1.2, H-1.2a, H-1.2b and H-3 provide a summary by  
7       fossil plant of production O&M expenses by FERC Accounts for the Test  
8       Year and years 2008 through 2012.

9  
10    Q21. HAVE YOU REVIEWED THOSE EXPENSES TO DETERMINE THEIR  
11       REASONABLENESS AND NECESSITY FOR THE SAFE, RELIABLE  
12       OPERATION OF ETI'S FOSSIL UNITS?

13    A.     Yes. I routinely participate in the budgeting process where expenses for  
14       the upcoming year are detailed. These budgets are based on technical  
15       assessments of plant equipment condition as well as anticipated future  
16       operations at each plant. I also participate in the monthly cost  
17       management review meetings. During these processes, line management  
18       routinely determines that the planned and actual expenses are reasonable  
19       and necessary for the operation and maintenance of ETI's fossil fleet.

20    Q22. WHAT COMPARISONS HAVE YOU MADE?

21    A.     I have compared the Entergy System's and ETI's fossil plant non-fuel  
22       O&M \$/kW with other utilities. I found that, since 2010, the Entergy

1        System's entire fossil fleet ranked in the top 15% among utility holding  
2        companies reported in Ventyx's EnergyVelocity database on a non-fuel  
3        O&M \$/kW basis for the roughly 50 holding companies having a company  
4        fossil nameplate capacity equal to or greater than 800 MW. Further, in  
5        2012, ETI's fossil plant fleet ranked 20<sup>th</sup> among utility operating companies  
6        reported by EnergyVelocity on a non-fuel O&M \$/kW basis for the 79  
7        utilities having a company fossil nameplate capacity greater than 800 MW.  
8        In addition, ETI's fossil fleet ranked 4<sup>th</sup> out of 13 when compared to the  
9        2012 operating companies in the ERCOT and the SPP regions.

10        Exhibit GLF-3a provides the survey results by utility holding  
11        company, Exhibit GLF-3b by utility operating company, and Exhibit GLF-  
12        3c by ERCOT and SPP regions for the years 2010 through 2012. Year-to-  
13        year rankings can be expected to change due to the variable nature of  
14        expenditures associated with regulatory requirements, operational  
15        requirements, reporting utilities, and maintenance needs.

1 Q23. WHAT OPERATION & MAINTENANCE EXPENSES ARE INCLUDED IN  
2 THE RANKINGS?

3 A. The cost data included in the EnergyVelocity database rankings  
4 represents production non-fuel O&M expenses reported by all utilities in  
5 their annual FERC Form 1 filings.<sup>2</sup>  
6

7 Q24. WHAT CONCLUSION DO YOU DRAW FROM THE RANKINGS  
8 AGAINST OTHER HOLDING AND OPERATING COMPANIES  
9 DISCUSSED ABOVE?

10 A. The favorable cost performance and rankings discussed above  
11 demonstrate that Plant Operations' budgeting and cost control processes  
12 are effective and these processes result in reasonable non-fuel O&M  
13 expenditures for ETI's fossil plants.  
14

15 D. Capital Additions

16 Q25. WHAT IS THE TOTAL AMOUNT OF ETI FOSSIL PRODUCTION  
17 CAPITAL ADDITIONS REQUESTED FOR RECOVERY IN THIS RATE  
18 CASE?

19 A. The total ETI fossil production capital additions requested for recovery in  
20 this rate case is \$99,667,533. These capital costs were closed to plant in  
21 service by ETI's fossil plants from July 1, 2011 through March 31, 2013

---

<sup>2</sup> The ETI data was developed without taking into consideration the Louisiana coal plants or the System Agreement Schedule MSS-4 transactions.

1 and are reasonable and necessary costs incurred for projects that are  
2 used and useful in providing electric service. The individual projects and  
3 associated costs are identified in Exhibit GLF-4.

4 The following table summarizes the ETI capital cost rate base  
5 additions:

<b>Table 1</b>	
<b>ETI Capital Costs Rate Base Additions July 1, 2011 Through March 31, 2013</b>	
<b>Asset Class</b>	<b>Totals\$</b>
<b>Production Steam</b>	
Lewis Creek	45,945,754
Nelson Coal	10,023,660
Nelson Common	33,323
Sabine	42,718,074
Spindletop Gas Storage Facility	286,906
Big Cajun II, Unit 3	455,327
<b>Total</b>	<b>99,463,044</b>
<b>Total Intangible</b>	<b>81,896</b>
<b>Total Production Other</b>	<b>122,593</b>
<b>Grand Total</b>	<b>99,667,593</b>

6 Schedule H-5.2b details fossil capital cost projects to be included in the  
7 rate base with actual cost of \$100,000 or more.

8

9 Q26. PLEASE DESCRIBE THE INFORMATION IN EXHIBIT GLF-4, WHICH  
10 PROVIDES THE DETAILS ABOUT THE DOLLARS CLOSED TO PLANT  
11 IN SERVICE FOR FOSSIL CAPITAL COST PROJECTS AND THE  
12 ASSOCIATED AFFILIATE COMPONENT.

13 A. This exhibit includes the following information:

1	Column A	Project Code Number
2	Column B	Project Code Description
3	Column C	Asset class
4	Column D	In service date
5	Column E	Asset location description
6	Column F	State location
7	Column G	Business Unit ("BU")
8	Column H	Non-Affiliate Charges Excluding Capital Suspense
9		and Reimbursements
10	Column I	Reimbursements
11	Column J	Represents capital suspense overhead costs
12		associated with administrators, engineers and
13		supervisors to the capital projects for which they
14		provide services. Each function charges their capital
15		suspense to a "Capital Suspense" project, which is
16		then allocated out to the appropriate capital projects.
17		Capital Suspense costs and the subsequent allocation
18		is separated by BU and function combination to more
19		accurately match such costs on the actual projects
20		worked on for each function within a BU.
21	Column K	Represents the portion of capital suspense overhead
22		costs (in Column J) from an affiliate.
23	Column L	Represents the portion of capital suspense overhead
24		costs (in Column J) that are charged to the project by
25		ETI employees.
26	Column M	Represents charges incurred by the ESI service
27		company and allocated out to the appropriate BUs
28		based on the ESI billing method assigned to the
29		project plus loaned resource charges incurred at one
30		BU and charged to another BU for services rendered
31		on behalf of that BU.
32	Column N	Represents the total affiliate portion of the charges
33		included in Column O, and is the total of Columns K,
34		and M.

1           Column O           Represents the total amount of capital additions  
2                                   closed to plant in service.

3

4   Q27. WHY WERE THE CAPITAL PROJECTS IDENTIFIED IN EXHIBIT GLF-4  
5       UNDERTAKEN?

6   A.   These projects were undertaken to improve reliability, enhance unit  
7       efficiency, improve staff productivity, or satisfy regulatory requirements. In  
8       my testimony, I will elaborate upon the five largest projects.

9

10   Q28. WHAT ARE THE FIVE LARGEST FOSSIL CAPITAL PROJECTS?

11   A.   The five largest fossil plant capital projects are:

- 12       • Sabine Unit 4 generator stator rewind (Reliability)
- 13       • Lewis Creek Unit 2 air preheater shaft/rotor replacement (Reliability)
- 14       • Sabine Unit 5 generator rewind (Reliability)
- 15       • Lewis Creek Unit 1 APH shaft replacement (Reliability)
- 16       • Sabine Unit 5 LP turbine bucket replacement (Reliability)

17

18   Q29. DESCRIBE THE SABINE UNIT 4 GENERATOR STATOR REWIND  
19       PROJECT.

20   A.   Sabine Unit 4 was placed in service August 1, 1974. During the Sabine  
21       Unit 4 spring 2010 outage, generator testing was performed on the  
22       generator stator indicating a stator cooling water leak. Additional testing  
23       was performed to identify where this leak occurred and determine the

1 stator damage. Capacitance mapping and helium tracer gas testing of the  
2 generator stator was performed by GE. Nine leaks were identified  
3 between the stator strand and the bar clip brazed locations (clip-to-strand)  
4 and were attributed to age-related degradation. Analysis of the data  
5 indicated at a minimum one bar has water soaked insulation requiring  
6 future replacement. Temporary local repairs to the rotor damage were  
7 performed to allow short-term operation.

8 GE's design requires a clip-to-strand braze connection to be made  
9 between the stator strands and the bar clip. This braze connection is  
10 made and leak-tested during stator bar manufacturing. A number of  
11 leaking clips analyzed from different generators showed the cross-  
12 sectional size of the leak path stayed relatively constant over its entire  
13 length. This indicates the depth of the penetration into the copper and the  
14 corrosion mechanism was able to continue by driving down the length of  
15 the copper strand. This, coupled with the selective attack of the  
16 phosphorous-rich braze alloy, indicates that the corrosion reaction needs  
17 phosphorous to "fuel" the process. The evidence discovered here  
18 revealed a leak process that initiates in the braze alloy at the inner surface  
19 (a crevice corrosion mechanism). Under the right conditions the leak can  
20 change to corrosive penetration of adjacent copper (phosphoric acid  
21 attack).

22 As the Sabine Unit 4 water-cooled generator approaches 38 years  
23 of service, winding failures associated with water leaks will increase. Due



1 to the severity of an on-line failed stator bar, a full generator rewind with  
2 new copper was required. The rewind was planned and scheduled for the  
3 spring of 2012 and included Stator Rewind, Field Rewind, New Retaining  
4 Rings, and TIL 1292 Dove Tail Inspection. The total project cost  
5 was \$10,153,734.

6  
7 Q30. DESCRIBE THE LEWIS CREEK UNIT 2 AIR PREHEATER  
8 SHAFT/ROTOR REPLACEMENT PROJECT.

9 A. In the fall of 2011, ETI replaced the Lewis Creek Unit 2 laminar flow air  
10 preheater ("APH") shaft and diaphragm support plates due to previous  
11 design failures. In 1978, the APH was weld repaired due to a crack, but  
12 the repair failed in 2006. The spring 2006 failure weld crack was  
13 approximately 270 degrees around the shaft and Thielsch Engineering  
14 was utilized to weld repair the shaft. The contractor's metallurgists and  
15 the ETI engineers agreed that the repairs made were considered  
16 temporary, and the component was strongly recommended for  
17 replacement before the summer of 2011. Thielsch Engineering stated that  
18 the spring 2006 repairs are suitable for continued service for only two to  
19 three years. This APH replacement project improved the reliability of the  
20 APH shaft because the risk time required to make a major crack repair is  
21 six to eight weeks. The total project cost was \$10,066,669.

1 Q31. DESCRIBE THE SABINE UNIT 5 GENERATOR REWIND PROJECT.

2 A. Sabine Unit 5 was placed in service December 21, 1979. During a 2007  
3 Generator Inspection, severe damage was found on the stator bars due to  
4 a rotor stacking bolt that had broken off inside the generator. Testing  
5 revealed one top stator bar failure and three other bars were questionable.  
6 Due to long lead time to acquire new bars, GE performed a national  
7 search to locate and recondition four used bars. These included one  
8 bottom bar and three top bars. To install the reconditioned bars, 19 bars  
9 had to be removed; the new bars were installed followed by the  
10 reinstallation of the 19 bars. These repairs allowed the unit to come back  
11 on line while rewinding plans were put in place due to the damaged stator  
12 and field rotor. The generator stator and rotor rewind parts were ordered  
13 and a full stator and field rotor rewind with new copper was scheduled for  
14 the fall of 2011. GE installed Fiber Optic temperature sensors and a  
15 Stator Leak Monitoring System as added protection monitoring for Sabine  
16 Unit 5 Generator. The total project cost was \$9,381,107.

17

18 Q32. DESCRIBE THE LEWIS CREEK UNIT 1 APH SHAFT REPLACEMENT  
19 PROJECT.

20 A. In the fall of 2012, Lewis Creek replaced its Unit 1 laminar flow APH shaft  
21 and diaphragm support plates due to previous design failures. Unit 1 APH  
22 rotor was last weld repaired in 1999. Even though continued inspections  
23 were being performed during regular maintenance outages, there was risk

1 of future failures because similar repairs were made on Unit 2 and failed.  
2 As with the Lewis Creek Unit 2 project described above, this APH  
3 replacement project improved the reliability of the APH shaft because the  
4 risk time required to make a major crack repair was six to eight weeks.  
5 The total project cost was \$9,931,757.  
6

7 Q33. DESCRIBE THE SABINE UNIT 5 LP TURBINE BUCKET  
8 REPLACEMENT PROJECT.

9 A. During the 2001 Sabine Unit 5 Low Pressure Turbine Outage, the  
10 assessment team identified stress corrosion cracking in the last two rows  
11 of turbine buckets, labeled L-0 and L-1. Stress corrosion cracking ("SCC")  
12 of buckets occurs primarily in the last stages of the low pressure turbine  
13 from the phase transition zone to the exhaust and originate as pitting or  
14 other localized corrosion processes. SCC occurs in buckets, particularly  
15 at the root, erosion shields, brazed tie wire holes and welded or brazed  
16 bucket covers/shrouds. The assessment team continued to monitor the L-  
17 0 buckets through Non-Destructive Evaluations ("NDE") performing repairs  
18 as needed. During the spring of 2010 the NDE examination identified  
19 multiple repeated SCC cracks propagating from the tie wire hole locations.  
20 The recommendation from the outage team was to replace eight bucket  
21 rows – two rows of L-0 and two rows of L-1 on the Low Pressure A Double  
22 Flow Turbine and two rows of L-0 and two rows of L-1 on the Low  
23 Pressure B Double Flow Turbine during the 2011 outage. Since the 2001

1 SCC discovery, Sabine Unit 5 turbine had experienced 61 unit start ups  
2 and accumulated over 75,000 service hours. Sabine Unit 5 was placed in  
3 service December 21, 1979 and had the turbine had been in service for  
4 32 years when the buckets were replaced. The total project cost was  
5 \$5,740,522.

6

7 Q34. WHAT TYPES OF COSTS ARE INCURRED FOR CAPITAL PROJECTS  
8 THAT ARE CHARGED TO ETI?

9 A. Expenditures incurred as part of a capital project include plant equipment,  
10 component parts, materials, supplies, and any ESI, ETI, and contracted  
11 labor required to complete the project. All costs are subject to the budget  
12 and cost control processes I describe above, and the ESI labor costs are  
13 billed to ETI pursuant to the same principles and practices that I discuss in  
14 Section IV of my testimony. The ESI labor costs are generally similar to  
15 those incurred as O&M expense except that the labor is directly related to  
16 the capital project, and the cost is capitalized as part of the total project  
17 cost. For example, an ESI engineer may provide technical or project  
18 management services as part of installation of emissions control  
19 equipment at Lewis Creek and also provide support to a planned turbine  
20 outage at Sabine. The ESI employee's labor costs charged to ETI may be  
21 capitalized for the former project and expensed to O&M account for the  
22 latter project.

1                    ESI and ETI utilize competitive solicitations, preferred vendors, and  
2                    Alliance Agreements to achieve competitive costs for contract labor,  
3                    equipment, component parts, and other necessary materials and supplies  
4                    for capital projects.

5

6    Q35. WHAT IS THE TOTAL AFFILIATE COST INCLUDED IN THE  
7                    REQUESTED CAPITAL ADDITIONS TO RATE BASE?

8    A.    The affiliate costs totaled approximately \$2,324,839 and are detailed by  
9                    project in Exhibit GLF-4.

10

11   Q36. WHY IS IT REASONABLE TO INCLUDE THE COSTS IDENTIFIED IN  
12                    EXHIBIT GLF-4 IN RATE BASE IN THIS PROCEEDING?

13   A.    I have reviewed the projects identified in Exhibit GLF-4 and determined  
14                    that they were necessary for safe, reliable, or efficient operation of ETI's  
15                    fossil units. Furthermore, the budgeting and cost control processes that  
16                    Fossil Generation undertakes ensures that capital costs were reasonably  
17                    incurred. It is proper to include these capital expenditures in rate base  
18                    because the equipment is installed and is being utilized in the efficient and  
19                    reliable operation of ETI power plants in serving its customers.

IV. AFFILIATE EXPENSES

A. Fossil Plant Operations and Nelson 6 Co-Owner Service Classes

Q37. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY WITH RESPECT TO THE AFFILIATE CHARGES FROM ESI FOSSIL OPERATIONS AND FROM EGSL IN ITS CAPACITY AS THE NELSON 6 OPERATOR AND CO-OWNER TO ETI.

A. My testimony demonstrates that ETI's costs for the products and services provided by ESI's Fossil Generation employee groups and for the products and services direct billed by EGSL are reasonable and necessary. I address affiliate charges from EGSL to ETI because EGSL operates the Nelson 6 plant and thus bills ETI for that service. My testimony also shows that ESI and EGSL charge only the actual costs for the products and services provided. When a product or service benefits only ETI, ESI or EGSL direct-bills ETI for the actual cost of that product or service. When a product or service benefits two or more of the Entergy Operating Companies, the actual costs for those products and services are allocated according to a billing method based on the appropriate cost driver. Each Company bears its proportional share of the actual costs of the services provided, and the costs paid by ETI for its share of the products and services are no higher than the costs paid by other Entergy affiliates for their share of the same or similar services provided by ESI and EGSL. In other words, services benefiting multiple Operating Companies are charged to each Company according to their portion of the

1 cost driver identified in the billing method. That is, the unit cost allocated  
2 to each Operating Company is identical. In addition, my testimony shows  
3 that the services provided by ESI are not duplicated elsewhere in ESI,  
4 EGSL or ETI.

5

6 Q38. TO WHAT FUNCTION AND FAMILY DO ESI FOSSIL OPERATIONS  
7 AND NELSON 6 CO-OWNER CLASSES BELONG?

8 A. As shown in Exhibit GLF-5, the Fossil Plant Operations Class ("FPO") and  
9 the Nelson 6 Co-Owner Class fall under the Generation Function.<sup>3</sup>

10

11 Q39. WHAT ARE THE AFFILIATE CHARGES FOR THE FPO AND NELSON 6  
12 CO-OWNER CLASSES DURING THE TEST YEAR AND HOW MUCH OF  
13 THOSE COSTS WERE BILLED TO ETI?

14 A. The affiliate charges for the class that I sponsor are shown in the table  
15 below. The table shows the following information:

<b>Total Billings</b>	Dollar amount of total test year billings from ESI to all Entergy companies, plus the dollar amount of all other affiliate charges that originated from any Entergy company. This is the amount from Column (C) of the cost exhibits GLF-A, GLF-B, and GLF-C.
<b>Total ETI Adjusted Amount</b>	ETI's adjusted amount for electric cost of service after pro forma adjustments and exclusions.
<b>% Direct Billed</b>	The percentage of the ETI adjusted test year amount that was billed 100% to ETI.
<b>% Allocated</b>	The percentage of the ETI adjusted test year amount that was allocated to ETI.

---

<sup>3</sup> The Generation Function is in the Operations Family of services.

<b>Table 2</b>				
<b>Class</b>	<b>Total Billings</b>	<b>Total ETI Adjusted Amount</b>		
		<b>Amount</b>	<b>%</b>	<b>%</b>
	<b>\$</b>	<b>\$</b>	<b>Direct Billed</b>	<b>Allocated</b>
Fossil Plant Operations – ESI	45,873,170	5,288,031	55	45
Fossil Plant Operations – Nelson 6 Co-Owner	10,736,673	10,802,588	100	0
<b>Total</b>	<b>56,609,843</b>	<b>16,090,619</b>	<b>85</b>	<b>15</b>

1           The table above shows the breakdown of the percentage of  
2           amounts billed directly to ETI and the percentage of amounts allocated to  
3           ETI.

4           Of the Fossil Plant Operations-ESI Total ETI Adjusted amount, 55%  
5           or approximately \$2.9 million was direct billed to ETI. The remaining 45%,  
6           or approximately \$2.4 million, represents ETI's allocated share of the  
7           costs for services provided by Fossil Plant Operations.

8           Of the Total ETI Adjusted amount for both classes, including costs  
9           incurred by ETI in its capacity as a Nelson 6 Co-Owner, 85%, or  
10          approximately \$16.1 million, were direct billed to ETI. The remaining 15%,  
11          or approximately \$2.4 million, represents ETI's allocated share of the  
12          costs for services provided by Fossil Plant Operations.

13

14   Q40. PLEASE DESCRIBE THE EXHIBITS THAT SUPPORT THE  
15   INFORMATION INCLUDED IN TABLE 2.

16   A.   Attached to my testimony are exhibits showing the calculation of the net  
17   requested amount for the Fossil Operations and Nelson 6 Co-Owner  
18   affiliate classes. In my Exhibit GLF-A, the information is shown broken



1 down by the departments comprising the class. My Exhibit GLF-B shows  
2 the same information broken down by project code and the billing method  
3 assigned to each project code. My Exhibit GLF-C shows the information  
4 by class, department and project code. For each exhibit, the amounts in  
5 the columns represent the following information:

<b>Column (A) – Support</b>	Dollar amount of total Test Year billings and charges from ESI to all Entergy Business Units, plus the dollar amount of all other affiliate charges to ETI that originated from any Entergy Business Unit.
---------------------------------	--

<b>Column (B) – Service Company Recipient</b>	Dollar amount that was included in the service company recipient allocation. Service company recipient charges are the cost of services that ESI provides to itself, which in turn are charged to affiliates that receive those services. The service company recipient allocation process is described in the testimony of Company witness Stephanie B. Tumminello
---	---

<b>Column (C) – Total</b>	Represents the sum of Columns (A) and (B).
-------------------------------	--

<b>Column (D) – All Other Business Units</b>	That portion of Column (C) that was billed and charged to Business Units other than ETI.
--	--

<b>Column (E) – ETI Per Books</b>	Represents the difference between Columns (C) and (D).
---------------------------------------	--

**Column (F) –  
Exclusions**

Represents amounts that are excluded from ETI electric cost of service. The exclusions are described in the testimony of Company witness Tumminello.

**Column (G) –  
Pro Forma Amount**

Pro Forma Amounts include adjustments for known and measurable changes, and corrections.

**Column (H) –  
Total ETI Adjusted**

ETI adjusted amount requested for recovery in this case for this class (Column (E) plus Columns (F) and (G)).

1 In her testimony, Company witness Tumminello describes the calculations  
2 that take the dollars of support services in Column A to the total ETI  
3 adjusted number shown on Column H.

4

5 Q41. WHAT ARE THE MAJOR COST COMPONENTS OF THE ESI CHARGES  
6 FOR THE FOSSIL PLANT OPERATIONS AND NELSON 6 CO-OWNER  
7 CLASSES?

8 A. As shown on Exhibit GLF-A, the Total ETI Adjusted amount for ESI and  
9 ETI charges during the Test Year was \$16,090,619. The major cost  
10 components of those costs are as follows:

Table 3

	<u>Fossil Plant Operations</u>		<u>Nelson 6 Co-Owner</u>		<u>Total</u>	
<u>Cost Component</u>	<u>\$</u>	<u>% of Total</u>	<u>\$</u>	<u>% of Total</u>	<u>\$</u>	<u>% of Total</u>
<b>Payroll and Employee Costs</b>	3,702,026	70	2,257,488	21	5,959,514	37
<b>Outside Services</b>	420,014	8	4,011,741	37	4,431,756	28
<b>Office and Employee Expenses</b>	448,527	9	375,810	4	824,337	5
<b>Other</b>	308,029	6	4,146,051	38	4,454,080	28
<b>Service Company Recipient</b>	409,436	8	11,497	0	420,932	3
<b>Total *</b>	5,288,031	100	10,802,588	100	16,090,619	100

\*%’s may not add up to 100 due to rounding.

1 Q42. WHAT IS THE IMPORTANCE OF THESE COST CATEGORIES?

2 A. As Table 3 shows, 37% of the costs are for compensation, benefits, and  
3 labor-related expenses. ETI witness Jennifer A. Raeder addresses the  
4 reasonableness and necessity of ESI's compensation and benefits  
5 programs. In addition, 3% of the costs are for Service Company  
6 Recipient, which costs are common throughout ESI. Service Company  
7 Recipient includes information technology services, rents, human  
8 resources services, etc. These costs are allocated to all affiliate classes  
9 as explained by ETI witness Tumminello. The Outside Services category  
10 of costs is mostly outage and O&M projects contract work services costs.

1 Office and Employee Expenses are the rental costs of equipment and  
2 other activities associated with outage and O&M projects, building facilities  
3 rentals allocation, business related travel, etc. Other includes ETI's Fossil  
4 overhead and administrative and general cost associated with ownership  
5 of Nelson 6, outage and O&M projects materials costs, Electric Power  
6 Research Institute ("EPRI") dues, etc.

7

8 Q43. DO YOUR EXHIBITS REFLECT ANY PRO FORMA ADJUSTMENTS?

9 A. Yes. The pro forma adjustments to the Fossil Operations class of services  
10 are identified on Exhibit GLF-D along with the sponsoring witness.

11

12 B. Necessity

13 Q44. WHAT FOSSIL GENERATION GROUPS PROVIDE THE FPO CLASS OF  
14 SERVICES?

15 A. There are five groups under the FPO Class that provide the products and  
16 services provided to ETI by Fossil Generation. These are:

- 17 • Fossil Generation Management ("FGM");
- 18 • Fossil Generation Plant Support ("FGPS");
- 19 • Fossil Generation Fleet Maintenance ("FGFM");
- 20 • Fossil Generation Compliance & Operations Support ("FGCOS"); and
- 21 • Fossil Generation Environmental, Health & Safety ("FGEHS").

1. Fossil Generation Management

Q45. PLEASE DESCRIBE THE SERVICES PROVIDED TO ETI BY FGM.

A. FGM provides management oversight services to all Operating Company fossil plants including those owned and operated by ETI. In addition, this group furnishes the executive leadership to all of Fossil Generation, as shown on Exhibit GLF-1. Key management services include review and approval of plant and department staffing, budgets and spending, establishing plans and setting performance targets, establishing work related policies, monitoring operational performance, and adjusting the organization's efforts as necessary. Management services also include union agreement negotiation and labor management issue resolution.

Q46. HOW ARE THESE SERVICES DELIVERED?

A. Plant Generation executive leadership is provided through the office of the Vice President of Fossil Generation located in The Woodlands, Texas. The Vice President of Fossil Generation has direct management responsibility for the Entergy System's fossil fleet and for plant support, fleet maintenance, compliance & operation support, environmental support & safety, and asset management. The Director of the Northwest Region Plants provides direct management oversight of that region's fossil and hydro-electric plants, including those owned and operated by ETI. The Director's office is located in The Woodlands, Texas.

1 Q47. HAVE ANY STEPS BEEN TAKEN TO IMPROVE THE DELIVERY OF  
2 THESE SERVICES?

3 A. Yes. In March of 2013, the Generation Development & Support group  
4 was split up. Employees managing new generation projects and/or major  
5 engineering projects were moved under a new corporate group called the  
6 Capital Project Management & Technology group to take advantage of  
7 efficiencies of scale across all major corporate-wide capital projects. The  
8 support employees were combined with Fossil compliance employees to  
9 form a new group called Compliance & Operations Support to recognize  
10 the increasing importance of NERC and other regulatory compliance.  
11 These reorganizations were done to better align departments and  
12 reporting structures with the business needs of that organization and the  
13 Operating Companies. These changes have improved communications  
14 between departments and work groups and improved overall  
15 organizational efficiency.

16

17 Q48. WHY IS THE SERVICE OF FGM NECESSARY TO ETI'S FOSSIL  
18 OPERATIONS?

19 A. This service is necessary to ensure that consistent, cost-effective, and  
20 operationally effective processes, systems, and practices are utilized  
21 throughout Fossil Generation. It is management's ultimate responsibility  
22 to ensure that performance levels are maintained, that costs are  
23 contained, and that customers receive the benefits of scale and scope

1 available under the utility operations organizations. FGM also provides a  
2 consistent governance structure for compliance activities, including but not  
3 limited to state and federal environmental regulations and  
4 DOE/FERC/NERC regulations and OSHA requirements. This function is a  
5 necessary and normal part of utility power plant operations nationwide.  
6 FGM also oversees the creation and execution of any training activities  
7 that are needed across the organization to ensure safe, reliable power  
8 plant operations that are in compliance with all federal, state and local  
9 rules and regulations.

10

11 Q49. PLEASE DESCRIBE HOW ETI'S RATEPAYERS BENEFIT FROM THE  
12 SERVICES PROVIDED BY FGM.

13 A. The management and support services provided through FGM are a  
14 substantial part of the reason why ETI's fossil power plants operate in a  
15 safe and environmentally responsible manner and provide reliable electric  
16 service at a very reasonable cost. This effective operation accrues to the  
17 benefit of ETI's ratepayers.

18

19 Q50. ARE THE SERVICES PROVIDED BY FGM DUPLICATED AT ETI OR  
20 ANY OTHER ENTERGY AFFILIATE?

21 A. No, the services provided under FGM are not duplicated within ETI, other  
22 parts of ESI, or any other Operating Company. There is no overlap  
23 between the management functions performed by ESI personnel and

6

8 Q51. PLEASE DESCRIBE THE SERVICES PROVIDED TO ETI BY FGPS.

20

22 A. FGPS delivers services to plants through outage superintendents,  
23 engineers, analysts, and technical specialists who have detailed



1 knowledge of the design, operations and maintenance of fossil plants.  
2 The employees are geographically located in five area offices and a  
3 central office. These central office employees work with all the plants in  
4 the Entergy System's four-state service area in order to efficiently support  
5 plant testing programs, drafting services, and equipment monitoring and  
6 diagnostics. The area office employees are normally dedicated to the  
7 plants within their area, but may possess unique skills that are sometimes  
8 needed in other area plants. As they perform these services, employees  
9 charge their time and expenses to the appropriate ESI project code so that  
10 ETI and other affiliated companies are fairly charged for services  
11 rendered. ETI plants are served primarily by the area office located in  
12 Beaumont, Texas, as well as by employees in the central office located in  
13 The Woodlands, Texas. The employee groups in these offices are part of  
14 the Plant Support group shown on Exhibit GLF-1 which is managed by the  
15 Director of Plant Support. From time to time, employees in area offices  
16 located in Redfield, Arkansas, Vicksburg, Mississippi, Baton Rouge, and  
17 New Orleans, Louisiana, work on System-wide projects that benefit ETI  
18 fossil plants.

19  
20 Q53. WHY IS THIS GROUP NECESSARY TO ETI'S POWER PLANT  
21 OPERATIONS?

22 A. Power plants are complex, high-energy facilities containing complicated  
23 engineered components. These plants are designed to operate to certain

1 technical specifications. Many circumstances develop during power plant  
2 operations which affect performance and require the availability of  
3 specialized and focused technical expertise to the plant staff to assist with  
4 corrective actions. For example, equipment malfunctions and failures can  
5 impact unit efficiency and availability. FGPS includes a variety of  
6 equipment testing and diagnostic services to help plant staff pinpoint  
7 potential plant trouble spots, and details of test results are supplied to the  
8 plant along with recommendations on how to best mitigate the situation.

9 In addition, periodic planned outages and other repair and upgrade  
10 projects are necessary to maintain unit efficiency and reliability. Project  
11 management service is necessary to ensure timely project completion at  
12 reasonable costs. Typical services include scope, cost and schedule  
13 planning, project management, contractor coordination, progress  
14 monitoring and reporting, and project close-out, including the preparation  
15 of technical documentation.

16 FGPS also includes the Performance, Monitoring and Diagnostic  
17 Center ("PM&DC"), which is used to assist in early identification of  
18 changes in fossil plant physical, thermal, operational, and environmental  
19 performance before they result in reliability issues. A good example of the  
20 service provided by the PM&DC occurred on Lewis Creek Unit 1 in June  
21 2009, when the PM&DC Advanced Pattern Recognition software detected  
22 a change from normal in the turbine steam chest pressure. The plant was  
23 notified and subsequently found a turbine throttle valve stuck closed. The

1           problem was corrected and possible unit control problems and damage to  
2           the turbine was avoided.

3           FGPS also makes available to ETI and ESI employees the  
4           technical expertise and research results of the EPRI. EPRI is the utility  
5           industry's research and development arm and is supported by a large  
6           number of domestic investor owned and public utilities, and, to some  
7           extent, by utilities around the world. FGPS services support EPRI's work  
8           in selected areas of power plant operations and maintenance. Fossil  
9           Generation employees routinely utilize EPRI's technical results and  
10          expertise as part of the continuing effort to improve power plant  
11          performance.

12          In addition, federal and state laws require that fossil plants adhere  
13          to certain industry standards recommending sound engineering practices  
14          intended to protect life, health, and property. These laws and standards  
15          include rules regarding pressure vessels, above-ground storage tanks,  
16          and high-energy piping. Technical consultation on the proper  
17          interpretation and utilization of these standards are provided by this group.  
18          Also, programs and guidelines are developed and shared System-wide so  
19          that fossil plants are operated and maintained in a safe, reliable, and cost-  
20          effective manner.

1 Q54. WHAT ADDITIONAL EVIDENCE SUPPORTS YOUR CONCLUSION  
2 THAT THE SERVICES PROVIDED BY THE FGPS GROUP ARE  
3 NECESSARY?

4 A. Other utilities in Texas, Louisiana, and throughout the U.S. provide similar  
5 services for their fossil plants. Engineering support, project management,  
6 equipment diagnostics, unit performance testing, and documentation  
7 management and information systems are a normal part of operating and  
8 maintaining complex, engineered systems like power plants and are  
9 necessary to ensure reliable, safe, and economic operations.

10

11 Q55. PLEASE DESCRIBE HOW ETI RATEPAYERS BENEFIT FROM THE  
12 SERVICES PROVIDED BY FGPS.

13 A. ESI gains economies of scale through the use of both centralized and  
14 regional services, which are staffed and located to most efficiently serve  
15 the needs of ETI and other Operating Company plants. The services  
16 provided through these groups help ETI fossil plants operate safely  
17 efficiently, reliably, and at a reasonable cost. ETI fossil plants are thus  
18 able to serve their ratepayers more effectively than would otherwise be  
19 possible.

1 Q56. ARE THE SERVICES PROVIDED BY FGPS DUPLICATED AT ETI OR  
2 ANY OTHER ENTERGY AFFILIATE?

3 A. No. There are no other departments within ESI or ETI designed to deliver  
4 the services that this group provides to ETI's plants. The services  
5 provided by this group are carefully coordinated with the plants to ensure  
6 that there is no overlap of responsibility and no duplication of effort.

7

8 3. Fossil Generation Fleet Maintenance

9 Q57. PLEASE DESCRIBE THE SERVICES PROVIDED TO ETI BY FGFM.

10 A. FGFM is responsible for developing strategies and plans designed to  
11 optimize fleet reliability through prudent operations and maintenance  
12 practices and decisions while looking for opportunities to achieve  
13 economies of scale and minimize costs. They also perform unit, plant,  
14 and fleet-level risk analyses and oversee key contracts with original  
15 equipment manufacturers and critical service providers.

16

17 Q58. HOW ARE THESE SERVICES DELIVERED?

18 A. FGFM delivers services to plants through management of alliances with  
19 major contractors, over-sight of process management for plants,  
20 conducting risk analysis of major plant components, as well as technical  
21 support. Through the Technical Support group, FGFM provides subject  
22 matter expertise for operating and maintaining major plant components,  
23 assisting with root cause analyses when issues arise to help prevent

1 reoccurrence, and ensuring quality repair work by OEMs and other service  
2 providers. They also oversee and perform unit capability and other testing  
3 that is used for unit dispatch decisions.

4 As they perform these services, employees charge their time and  
5 expenses to the appropriate ESI project code so that ETI and other  
6 affiliated companies are properly charged for services received. The  
7 employees are geographically located in the Entergy Operating  
8 Companies' service areas. As they perform these services, employees  
9 charge their time and expenses to the appropriate ESI project code so that  
10 ETI and other affiliated companies are fairly charged for services  
11 rendered. The employee groups in these offices are part of the Fleet  
12 Maintenance group shown on Exhibit GLF-1, which is managed by the  
13 Director of Fleet Maintenance.

14  
15 Q59. WHY IS THIS GROUP NECESSARY TO ETI'S POWER PLANT  
16 OPERATIONS?

17 A. Power plants are complex, high-energy facilities containing complicated  
18 engineered components. These plants are designed to operate to certain  
19 technical specifications. Many circumstances develop during power plant  
20 operations which affect performance and require the availability of  
21 specialized and focused technical expertise to the plant staff to assist with  
22 understanding root causes and develop corrective actions. For example,  
23 equipment malfunctions and failures can affect unit efficiency and

1           availability. FGFM includes in-house risk assessment tools, experts with  
2           the knowledge of key plant processes, and a centralized group to manage  
3           the large original equipment contractor alliances.

4

5   Q60. WHAT ADDITIONAL EVIDENCE SUPPORTS YOUR CONCLUSION  
6       THAT THE SERVICES PROVIDED BY THE FGFM GROUP ARE  
7       NECESSARY?

8   A.   Other utilities in Texas, Louisiana, and throughout the U.S. provide similar  
9       services for their fossil plants. Component risk assessment, process  
10      management, and contractor alliance management are a normal part of  
11      operating and maintaining complex, engineered systems like power plants  
12      and are necessary to assure reliable, safe, and economic operations.

13

14   Q61. PLEASE DESCRIBE HOW ETI RATEPAYERS BENEFIT FROM THE  
15      SERVICES PROVIDED BY FGFM.

16   A.   ESI gains economies of scale through the use of both centralized  
17      services, which are staffed and located to most efficiently serve the needs  
18      of ETI and other Operating Company plants. The services provided  
19      through these groups help ETI fossil plants operate safely efficiently,  
20      reliably, and at a reasonable cost. ETI fossil plants are thus able to serve  
21      their ratepayers more effectively than would otherwise be possible.

1 Q62. ARE THE SERVICES PROVIDED BY FGFM DUPLICATED AT ETI OR  
2 ANY OTHER ENTERGY AFFILIATE?

3 A. No. There are no other departments within ESI or ETI designed to deliver  
4 the services that this group provides to ETI's plants. The services  
5 provided by this group are carefully coordinated with the plants to ensure  
6 that there is no overlap of responsibility and no duplication of effort.

7

8 4. Fossil Generation Compliance & Operations Support

9 Q63. PLEASE DESCRIBE THE SERVICES PROVIDED TO ETI BY FGCOS.

10 A. FGCOS provides a variety of asset planning & support, compliance, and  
11 resource management & training services to Fossil Generation and ETI  
12 power plant management.

13 Through the Asset Management & Planning group, FGCOS  
14 produces integrated viewpoints regarding future disposition of ETI's fossil  
15 generating assets, including projected unit operating roles, deactivation  
16 assumptions, and various other unit planning activities.

17 The Asset Management Support group provides management and  
18 oversight for the following programs and processes: operational analysis  
19 and performance reporting, regulatory support, benchmarking, strategic  
20 business planning, continuous improvement, emergency response plan  
21 maintenance, ERM/SOX and FERC (non-NERC) compliance  
22 requirements, and fossil plant acquisition integration.



1           The FGCOS Compliance group establishes Fossil's strategy and  
2           requirements for complying with NERC reliability standards, develops and  
3           communicates compliance policies and procedures, and monitors  
4           compliance activities and effectiveness.

5           Through the Resource Management & Training group, FGCOS is  
6           also responsible for workforce planning and for all Fossil-specific training  
7           activities.

8

9   Q64. HOW ARE THESE SERVICES DELIVERED?

10   A.   These services are provided to ETI by the Fossil Compliance &  
11       Operations Group as shown on Exhibit GLF-1. The compliance services  
12       are performed by engineers and technical support specialists who have  
13       detailed knowledge of the operations of fossil plants and an understanding  
14       of technical principles and practices. These employees are geographically  
15       located across Entergy System's four-state service area as well as  
16       Fossil's headquarters in The Woodlands, Texas in order to efficiently  
17       support the fossil plants and to maintain appropriate relationships with  
18       federal regulatory agencies. For ETI plants, services are regularly  
19       provided by employees in The Woodlands, Texas and Beaumont, Texas.  
20       From time to time, employees in the other offices work on System-wide  
21       projects that benefit ETI fossil plants.

22           In the area of resource management and training, this group  
23       provides the Fossil fleet with a strong talent pipeline and training program.

1 Focus areas include: ensuring high quality training is provided to meet the  
2 schedule and fleet needs through computerized training modules as well  
3 as plant simulators; managing the workforce needs of Fossil plants by  
4 bringing on qualified new employees, and providing for short term staff  
5 coverage through retirees and/or sharing resources amongst the plants on  
6 an as needed basis. The majority of these employees are based in  
7 The Woodlands, Texas and travel around the system as they conduct  
8 training.

9 The services provided by the Planning as well as the Support  
10 groups contribute to the overall objectives of fleet transformation,  
11 integrated strategic planning initiatives, operational excellence, and  
12 delivering high quality support. Most of these employees are based in  
13 The Woodlands, Texas.

14 As they perform these services, all of these employees charge their  
15 time and expenses to the appropriate ESI project code so that ETI and  
16 other affiliated companies are properly charged for services received.

17

18 Q65. WHY IS THIS GROUP NECESSARY TO ETI'S POWER PLANT  
19 OPERATIONS?

20 A. Some of the products and services provided by FGCOS are required to  
21 assist ETI's plant management and other Fossil Generation management  
22 with NERC compliance. This is a normal and necessary function of  
23 management. Other services are designed to assist management in

1 monitoring unit operational performance. Such information is critical to  
2 making informed decisions about which areas of Fossil Generation require  
3 more focused attention. Still other services are designed to assist Fossil  
4 Generation management with decisions on whether unit roles should  
5 change, or units should be de-activated/retired. Further services such as  
6 workforce planning and training are important so that ETI power plants  
7 and other Entergy Operating Company plants systemwide are properly  
8 staffed and maintained by well trained and qualified personnel.

9

10 Q66. WHAT ADDITIONAL EVIDENCE SUPPORTS YOUR CONCLUSION  
11 THAT THE SERVICES PROVIDED BY THE FGCOS GROUP ARE  
12 NECESSARY?

13 A. Other utilities in Texas, Louisiana, and throughout the U.S. provide similar  
14 services for their power plants and their management organization. Asset  
15 planning & support, compliance, and resource management & training are  
16 a normal part of operating and maintaining a power plant fleet as well as  
17 ensuring that federal regulations (FERC, NERC and SERC) are adhered  
18 to. All these are necessary to ensure economical, safe, and reliable plant  
19 operations.

1 Q67. PLEASE DESCRIBE HOW ETI'S RATEPAYERS BENEFIT FROM THE  
2 SERVICES PROVIDED BY THIS GROUP.

3 A. As a result of the services provided by FGCOS, ETI's plants operate  
4 efficiently and in full compliance. ETI fossil plants obtain required NERC  
5 compliance and adhere to business continuity plans. Plant employees  
6 receive required training and are able to efficiently operate their plants.  
7 The plants are thus able to operate in compliance with all regulations and  
8 able to generate electricity for ETI ratepayers at a reasonable cost.

9

10 Q68. ARE THE SERVICES PROVIDED BY FGCOS DUPLICATED AT ETI OR  
11 ANY OTHER ENTERGY AFFILIATE?

12 A. No. Neither employees at ETI nor those at other ESI departments provide  
13 these same services. ESI employees delivering services under this group  
14 are the only source and sole provider of these services. This employee  
15 group was established to support Fossil Generation management and the  
16 plants in a way that would capture efficiencies and economies of scale by  
17 sharing the cost among all six Entergy Operating Companies.  
18 Management reviews ensure that the services to ETI are not duplicated  
19 internally nor from any outside suppliers.

5. Fossil Generation Environmental, Health & Safety

Q69. PLEASE DESCRIBE THE SERVICES PROVIDED TO ETI BY FGEHS.

A. FGEHS is designed to assist ETI fossil plants with day-to-day compliance with state and federal environmental regulations. The environmental services provided to ETI and other affiliate companies include preparing and submitting plant permit applications, interpreting and analyzing environmental laws and regulations, preparing and implementing plans for complying with these regulations at power plants, and conducting emission testing. Other routine services include preparing technical studies necessitated by environmental regulations, preparing routine reports to federal and state agencies, and developing training, environmental procedures and other guidance for the System's fossil plants.

The group also includes environmental regulatory management services – that is, participating in the state and, to some extent, federal rulemaking processes to produce fair and equitable environmental regulations. In general, corporate environmental staff participate in federal legislative rulemaking processes and business unit staff participate in federal regulatory processes, evaluating and commenting on proposed regulations affecting the respective business unit. Those activities are well coordinated so that services are not duplicated.

The group also provides safety services to plant employees and contractors.

1 Q70. HOW ARE THE SERVICES DELIVERED?

2 A. These services are provided to ETI by the Fossil Environmental, Health &  
3 Safety Group as shown on Exhibit GLF-1. The services are performed by  
4 environmental analysts and chemists who have detailed knowledge of the  
5 operations of fossil plants and an understanding of technical and  
6 regulatory environmental principles and practices. These employees are  
7 geographically located at four locations in Entergy System's four-state  
8 service area in order to efficiently support the fossil plants and to maintain  
9 appropriate relationships with state environmental regulatory agencies and  
10 knowledge of specific state environmental regulations. For ETI plants,  
11 services are regularly provided by employees in The Woodlands, Texas  
12 and New Orleans, Louisiana. From time to time, employees in other  
13 offices in Little Rock, Arkansas and Jackson, Mississippi work on System-  
14 wide projects that benefit ETI fossil plants. As they perform these  
15 services, employees charge their time and expenses to the appropriate  
16 ESI project code so that ETI and other affiliated companies are properly  
17 charged for services received.

18 In the area of safety-related products and services, this group  
19 provides: interpretations of OSHA and other safety agency regulations for  
20 proper power plant application; system-wide safety procedures, materials  
21 and information for employee safety meetings; a computerized material  
22 safety data sheet system accessible by power plant employees; contractor  
23 safety qualification services; power plant employee health screenings and

1           job safety audits; accident investigation assistance; and other safety-  
2           related field support. This group also maintains and reports accident and  
3           injury statistics associated with power plant operations.

4

5   Q71. WHY IS THIS GROUP NECESSARY TO ETI'S POWER PLANT  
6       OPERATIONS?

7   A.   Federal and state laws require that fossil plants adhere to prescribed  
8       environmental standards. FGEHS ensures the compliance of ETI fossil  
9       plants with the environmental laws and regulations of Texas, Louisiana  
10      and the federal government. These requirements include mandates for air  
11      emission permits and water discharge permits, pollution control plans,  
12      emergency response plans, employee training, monitoring, sampling and  
13      testing, and reporting environmental performance for fossil plants.

14

15   Q72. WHAT ADDITIONAL EVIDENCE SUPPORTS YOUR CONCLUSION  
16      THAT THE SERVICES PROVIDED BY THE FGEHS ARE NECESSARY?

17   A.   Other utilities in Texas, Louisiana, and throughout the U.S. provide similar  
18      services for their fossil plants. This includes environmental compliance  
19      support, chemistry testing services, and environmental regulatory  
20      management support. These services are a normal and routine part of the  
21      electric utility business and are needed to properly comply with  
22      environmental regulations in the United States.

1 Q73. PLEASE DESCRIBE HOW ETI'S RATEPAYERS BENEFIT FROM THE  
2 SERVICES PROVIDED BY THIS GROUP.

3 A. As a result of the environmental services provided by FGEHS, ETI's plants  
4 operate in an environmentally responsible manner. ETI fossil plants  
5 obtain required environmental permits and adhere to emergency response  
6 plans. Plant employees receive required environmental training and are  
7 able to efficiently perform required environmental monitoring and reporting  
8 to state and federal environmental agencies. The plants are thus able to  
9 operate in compliance with all environmental regulations and able to  
10 generate electricity for ETI ratepayers at a reasonable cost.

11

12 Q74. ARE THE SERVICES PROVIDED BY FGEHS DUPLICATED AT ETI OR  
13 ANY OTHER ENTERGY AFFILIATE?

14 A. No. FGEHS is the only provider of these services to ETI's fossil plants.  
15 FGEHS is established and chartered to provide environmental services to  
16 the fossil plants of all affiliated companies, including ETI. Likewise, the  
17 T&D Environmental Management organization is responsible for providing  
18 day-to-day environmental support to the Transmission and Distribution  
19 operations of all Entergy affiliate companies, including ETI. Further, the  
20 various environmental groups coordinate activities to ensure that  
21 environmental support services to ETI are not duplicated and that  
22 resources are shared where possible. For example, individuals are  
23 designated to have System-wide responsibility for certain regulatory



1 issues that affect Fossil, Nuclear, Transmission, and Distribution. These  
2 individuals monitor developments on their assigned issues, represent all of  
3 the Entergy Operating Companies on industry committees and task  
4 forces, and relay valuable information to relevant functional areas.  
5 Utilizing this approach precludes the potential for having duplicative  
6 representatives or issue responsibility. ETI itself does not have a separate  
7 environmental support group. Therefore, there is no duplication of  
8 environmental services to ETI.

9

10 Q75. CAN YOU NOW ADDRESS THE NATURE OF THE SERVICES  
11 PROVIDED BY THE NELSON 6 CO-OWNER CLASS AND THEIR  
12 NECESSITY?

13 A. The costs incurred by the Nelson 6 Co-Owner class consist of the labor  
14 and other non-fuel costs incurred by EGSL as the operator of the Nelson 6  
15 coal plant. While ETI has an ownership interest share of Nelson 6, EGSL  
16 is the sole operator of the plant and thus bills ETI its share of the actual  
17 operating costs in proportion to ETI's ownership interest in the plant.  
18 These services are necessary for the operation of the Nelson 6 coal plant.

C. Reasonableness

Q76. ARE THE COSTS OF THE FPO AND NELSON 6 CO-OWNER CLASSES REASONABLE?

A. Yes. I have reviewed the expenses associated with the FPO and Nelson 6 Co-Owner classes of service and determined that they are reasonable and necessary. Further, the costs are allocated based on principles of cost causation and reflect the actual cost of services received by ETI.

Q77. WHAT EVIDENCE SUPPORTS YOUR CONCLUSION THAT THE COSTS FROM THE FPO AND NELSON 6 CO-OWNER CLASSES ARE REASONABLE?

A. As described in Section III. C., the overall production non-fuel O&M cost performance in \$/kW for Entergy System and ETI compares very favorably with the overall non-fuel O&M costs of other operating and holding companies. The Entergy System's non-fuel costs have been in the top 13% of the industry from 2010 through 2012. ETI's non-fuel O&M costs were in the top 18% of operating companies in the industry from 2010 through 2012. See Exhibits GLF-3a and GLF-3b. The reported O&M cost includes the costs of the FPO and Nelson 6 Co-Owner service classes. The classes of services are instrumental in attaining this level of performance.

1 Q78. WHAT IS THE PRIMARY COST CONTROL AND MONITORING  
2 PROCEDURE IN PLACE FOR THE FOSSIL PLANT OPERATIONS  
3 CLASS?

4 A. That is the budget process, which includes several phases. The following  
5 cost controls and monitoring procedures are in place:

- 6 • Annual Budgets are prepared, reviewed and approved by plant  
7 management, departmental management, executive fossil  
8 management, corporate management, and the board of directors of the  
9 corporation.
- 10 • Periodic budget performance monitoring and reporting is performed at  
11 the departmental and functional level with results remitted to executive  
12 and corporate management.

13

14 Q79. WHAT WERE THE ACTUAL TOTAL AFFILIATE COST TRENDS FOR  
15 THE FOSSIL PLANT OPERATIONS AND NELSON 6 CO-OWNER  
16 CLASS FOR THE LAST THREE YEARS AND THE TEST YEAR?

17 A. The following table shows the total affiliate cost trends for the FPO and  
18 Nelson 6 Co-Owner class for the last three years and the Test Year.  
19 These charges have been adjusted to remove the MISO and ITC-related  
20 affiliate costs that the Company is removing from the requested cost of  
21 service (as explained by Company witness Michael P. Considine), as well  
22 as the nuclear and gas department codes (as explained by Company  
23 witness Tumminello).

**Table 4**  
**FPO & Nelson 6 Co-Owner Class \***

	2010	2011	2012	Test Year
<b>Total Affiliate Charges</b>	\$14,538,196	\$14,493,691	\$15,344,716	\$16,089,354

\* The amounts exclude pro-forma adjustments except as described above.

1 Even though there has been an average growth rate of 3.5% in total  
2 affiliate cost since 2010 through the test year, there has actually been only  
3 a 0.5% average growth rate in the costs of the FPO class (accompanied  
4 by a 5.4% growth rate in the costs of the Nelson 6 Co-Owner class). This  
5 trend in the FPO affiliate charges demonstrates that costs have been  
6 reasonably controlled.

7

8 Q80. IS THE STAFFING LEVEL FOR FOSSIL PLANT OPERATIONS CLASS  
9 REASONABLE?

10 A. Yes. The following table shows the actual staffing levels for the FPO  
11 service class annually from 2010 through 2012 and the Test Year.

**Table 5**  
**FPO Class**

	2010	2011	2012	Test Year
<b>Number of Employees <sup>4</sup></b>	202	193	200	170

12 The majority of ESI's FPO service class costs result from employee  
13 salaries, and the above table indicates that ESI employee staffing has  
14 essentially been flat during the historical years of 2010 through 2012. The  
15 headcount for the Test Year decreased primarily as the result of the March

<sup>4</sup> The 2010 through 2012 figures are year-end (December 31) headcounts. The Test Year figure is the headcount as of March 31, 2013.

1           3, 2013 transfer of 25 employees out of the Fossil Operations Group and  
2           into Capital Project Management & Technology, a newly-created  
3           corporate group. The Capital Project Management & Technology Group's  
4           primary focus is to centrally manage and execute major projects, including  
5           new generation and environmental upgrades, that benefit all of the  
6           Entergy Operating Companies, including ETI. This transfer of personnel  
7           was reported as of March 31, 2013. Thus, while the employee headcount  
8           for Fossil Operations reflects a reduction, the costs associated with these  
9           25 employees were incurred for all but 28 days of the test year and this  
10          employee transfer therefore did not have a notable effect on FPO class  
11          costs. Importantly, costs associated with these 25 employees will  
12          continue to be allocated to the Company by the new Capital Project  
13          Management & Technology group.

14

15   Q81. DOES ETI PAY ANY MORE FOR THE SAME OR SIMILAR SERVICES  
16          PROVIDED BY THE FPO CLASS THAN ANY OTHER ENTERGY  
17          AFFILIATE?

18   A.   No. ESI charges the Operating Companies the actual cost for the  
19          services provided. There is no profit or markup on the costs for these  
20          services. Services are billed using project codes. Only one billing method  
21          is used for each project code, and the billing method is selected to  
22          properly reflect the cost driver for the project. For example, when the  
23          plant Northwest Region Director evaluates budgets or spending

1 alternatives, his time and expense that would accrue solely for the benefit  
2 of ETI and would be billed 100% to ETI. If the service is provided for the  
3 benefit of multiple Operating Companies, the cost for that service would  
4 be billed to those companies using a billing method that properly reflects  
5 the cost driver. For example, support to EPRI's research and  
6 development program benefits all the Operating Companies in proportion  
7 to the amount of capacity owned by each Operating Company and  
8 therefore would be billed proportionately to each Operating Company.  
9 There is no duplicate billing for the same service, and no Operating  
10 Company pays more than its proportionate share for the same or similar  
11 service.

12 Each line item in Exhibit GLF-C shows a total amount, identifies a  
13 single billing method, and indicates what amount ETI and the other  
14 Entergy legal entities were charged by using the prescribed billing method.  
15 As shown on the exhibit and discussed earlier, ETI is charged its  
16 appropriate share for FPO services and no more than any other affiliate on  
17 a unit cost basis. For these reasons, the prices charged to ETI through  
18 this class are no higher than the prices charged by ESI to other affiliates  
19 for the same service, and represent the actual cost of the service  
20 provided.

1 Q82. DOES ETI PAY ANY MORE FOR THE SAME OR SIMILAR SERVICES  
2 PROVIDED BY THE NELSON 6 CO-OWNER CLASS THAN ANY OTHER  
3 ENTERGY AFFILIATE?

4 A. No. ETI is directly billed for the costs associated with its ownership share  
5 of the Nelson 6 plant as a result of the operating agreement between ETI  
6 and the other Nelson 6 co-owners. As with ESI billings to ETI, EGSL  
7 charges ETI the actual cost for the services provided commensurate with  
8 its ownership share. There is no profit or markup on the costs for these  
9 services. Services are billed using a project code.

10

11 Q83. PLEASE EXPLAIN FURTHER WHY THE COSTS INCURRED BY EGSL  
12 AND BILLED TO ETI IN THE NELSON 6 CO-OWNER CLASS ARE  
13 REASONABLE?

14 A. The identical cost control and monitoring processes and budgeting  
15 measures that are in place for the plants wholly-owned by ETI and  
16 described above are utilized in the operation and management of  
17 Nelson 6. Moreover, the non-fuel O&M benchmarking that I discussed  
18 above include the Nelson Plant.

19

20 Q84. PLEASE EXPLAIN THE CIRCUMSTANCES UNDER WHICH DIRECT  
21 VERSUS ALLOCATED BILLING METHODS ARE USED.

22 A. The services provided by Fossil Generation to ETI are accomplished  
23 through a combination of ETI and ESI employees. Fossil Generation

1           personnel include ETI employees who work exclusively for ETI, such as  
2           power plant employees, and ESI employees who routinely perform work  
3           for more than one of the Entergy Operating Companies, such as  
4           engineering employees.

5           The costs of services provided by ETI employees associated with  
6           onsite power plant operations and maintenance are incurred directly by  
7           ETI and are not part of the affiliate costs. These activities are dedicated  
8           solely to the operations of each ETI fossil plant. Due to the type and  
9           geographic nature of this work, the activities cannot be reasonably  
10          combined with similar functions at other Operating Companies to achieve  
11          scale or scope efficiencies. Similarly, the costs of services provided by  
12          EGSL employees pursuant to the operating agreement for Nelson 6 are  
13          incurred directly by EGSL employees and billed directly to the Company.  
14          The services of these employees cannot be combined with other  
15          Operating Company functions in a manner that results in greater  
16          efficiencies.

17          The affiliate costs of services provided by ESI employees are  
18          charged to ETI through one of two methods. The costs are either direct-  
19          billed 100% to ETI or the costs are allocated to ETI based on the primary  
20          cost driver of the activity or project. ESI employees are instructed to bill  
21          ETI directly for those services that directly benefit only ETI. The costs of  
22          services provided by EGSL employees for the operation of Nelson 6 are  
23          likewise direct billed to ETI.



1 Fossil Operations has functionally consolidated System-wide those  
2 activities that are common to all Operating Companies and for which scale  
3 efficiencies can be realized. Consolidating these common functions on a  
4 System-wide basis, as Fossil Operations has done, allows costs to be  
5 shared by the Operating Companies, reducing the overall costs to each  
6 Operating Company. Consolidation also allows for a more efficient  
7 utilization of staff. ETI directly benefits from this consolidation through  
8 sharing the costs required for plant support functions with the other  
9 Entergy Operating Companies, and realizing scale efficiencies derived  
10 from combining support functions with the other Entergy Operating  
11 Companies, while paying the full costs for only those activities or projects  
12 that are specific to ETI.

13  
14 Q85. ARE ALL OF THE PRODUCTS AND SERVICES DIRECTLY BILLED OR  
15 ALLOCATED TO ETI BY AFFILIATES AS IDENTIFIED IN EXHIBIT GLF-  
16 A DELIVERED BY FOSSIL OPERATIONS?

17 A. No. On a very limited basis, there are costs for products and services  
18 delivered by organizations other than Fossil Operations. For example, a  
19 plant located in the New Orleans area could host a safety training class  
20 attended by participants from across the Entergy System, including ETI.  
21 Expenses for the meeting would be fairly allocated to all the Operating  
22 Companies including ETI. Other examples include certain expenses for  
23 System-wide initiatives, planning meetings, and training classes.

1 Q86. WHAT WERE THE PREDOMINANT BILLING METHODS USED FOR  
2 THE FPO AND NELSON 6 CO-OWNER CLASSES?

3 A. The predominant billing methods used for the FPO class were  
4 CAPAOPCO and DIRECTTX. For the Test Year, these two billing  
5 methods were used for 95% of the Total ETI Adjusted costs associated  
6 with the FPO class. The Nelson 6 Co-Owner Class utilizes only the  
7 DIRECT method, which directly bills these costs from EGSL to ETI.

8

9 Q87. WHY WERE THESE BILLING METHODS SELECTED?

10 A. These billing methods were selected because they reasonably reflect the  
11 cost drivers for this service.

12 The CAPAOPCO billing method allocates costs to each Operating  
13 Company based on the ratio of each Operating Company's non-nuclear  
14 capacity in MW to the total Entergy System capacity in MW. As an  
15 example of this billing method, see Project Code F3PCWE0288; Vice  
16 President Power Plant Operations. The overall purpose of this project  
17 code is to capture and manage costs associated with management  
18 oversight of the Entergy System fossil power plants and headquarters  
19 department operations. Capacity is an excellent indicator of the relative  
20 size, complexity, and staffing levels of each power plant, as well as the  
21 need for management oversight and other services provided in this class.

22 The DIRECTTX billing method bills 100% to ETI for projects where  
23 ETI was the sole beneficiary of the services supplied.