## 1 Q18. PLEASE DESCRIBE ETI'S ELECTRIC TRANSMISSION SYSTEM.

ETI's transmission system primarily serves local area load from local and 2 Α. system generation, though certain emergency conditions or other unusual 3 events sometimes require providing or receiving mutual support to/from 4 non-Entergy neighboring systems. Other utilities generally have followed 5 practices with respect to their 6 the same system design 7 transmission systems.

8 ETI's transmission system generally is planned, designed, and 9 operated to withstand the unplanned outage of any single component of 10 the system. ETI's transmission system includes transmission lines and 11 substations operating at voltages of 500 kilovolts ("kV"), 345 kV, 230 kV, 12 138 kV, and 69 kV. It represents a significant portion of the EOCs' total 13 transmission systems, as shown below in Table 1.

Table 1: Compariso	n of ETI's System to	Total Entergy System
--------------------	----------------------	----------------------

	All EOCs	ETI	ETI's % of total
Transmission Lines (miles) <sup>1</sup>	15,439	2,466	16.0%
Transmission Assets (book value) <sup>2</sup>	\$5,473,759,123	\$907,660,161	16.5%
Service Area (square miles)	114,669	15,320	13.4%
Avg. No. of Customers <sup>3</sup>	2,778,098	416,343	15.0%

<sup>1</sup> Source: FERC Form 1 (2012), p. 422, line 36, columns f and g and p. 424, line 4, column c.

<sup>2</sup> Source: FERC Form 1 (2012), p. 207, line 58, column g.

<sup>3</sup> Source: FERC Form 1 (2012), pp. 300-01, line 10, column f.

- 1 Q19. WHY IS TRANSMISSION SERVICE NECESSARY?
- A. Transmission service is necessary to transport electric energy from
   generation sources and interconnections to load centers.
- 4

5 Q20. WHY IS ETI'S TRANSMISSION SYSTEM INTERCONNECTED WITH
6 OTHER TRANSMISSION SYSTEMS?

7 A. ETI's transmission system is interconnected with other transmission
8 systems primarily to promote system reliability. The interconnection of
9 transmission systems also provides access to other power suppliers,
10 some of which may provide more economic sources of power than is
11 available on-system.

12 The interconnected ETI transmission system is planned, designed, 13 and operated as a provider of transmission service in accordance with 14 NERC and SERC Reliability Corporation ("SERC") standards and 15 guidelines. ETI's transmission system is interconnected with EGSL, ELL, 16 Cleco Corporation, and American Electric Power-West.

17

18 Q21. WHAT REGULATORY AGENCIES IMPOSE REQUIREMENTS ON ETI
 19 RELATING TO THE PLANNING, CONSTRUCTION, OPERATION, AND
 20 MAINTENANCE OF ITS INTERCONNECTED TRANSMISSION
 21 NETWORK?

A. FERC and the Public Utility Commission of Texas both impose, to one
 degree or another, regulatory requirements on ETI relating to the planning,

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1	construction, operation, and maintenance of its transmission network.
2	Additionally, the Entergy Regional State Committee ("E-RSC") - which
3	includes a representative from the state utility commissions in Texas,
4	Louisiana, Mississippi and Arkansas, as well as the City Council of
5	New Orleans - provides collective state regulatory agency input on the
6	operations of, and upgrades to, the Entergy Transmission System. This
7	includes issues relating to the operations and functions of the ICT and its
8	committees, working groups, and task forces.

9

## 10 Q22. WHAT REQUIREMENTS ARE IMPOSED BY FERC?

A. In order to promote competition in wholesale power and energy markets,
 FERC requires that unbundled transmission systems be operated in a
 manner that allows non-discriminatory open access by all eligible
 customers under a uniform set of rules. FERC Order Nos. 717, 888, 889,
 890, 2000, 2003, 2004, and related orders control transmission system
 open access requirements.

17

### 18 Q23. WHAT IS NERC?

A. NERC is a not-for-profit corporation originally formed by the electric utility
 industry in 1968 to promote the reliability of the electricity supply in North
 America. On July 20, 2006, FERC certified NERC as the ERO for the
 United States. In March 2007, FERC approved eighty-three NERC
 Reliability Standards that became effective June 18, 2007. This was the

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1 first set of legally enforceable standards for the U.S. bulk power system. 2 To achieve its mission of improving reliability and security of the bulk 3 power system in North America, NERC continually develops and enforces reliability standards; monitors the system; assesses future adequacy of 4 5 the system; audits owners, operators, and users of the system for 6 preparedness; and educates and trains industry personnel. As the ERO, 7 NERC is subject to audit by FERC and governmental authorities in 8 Canada. NERC consists of eight Regional Reliability Organizations 9 whose members account for virtually all electricity supplied in the United 10 States, Canada, and a portion of Baja California Norte, Mexico.

11

## 12 Q24. WHAT IS A REGIONAL RELIABILITY ORGANIZATION?

A Regional Reliability Organization (previously Council) is an entity 13 Α. 14 comprised of participants from all segments of the electricity supply 15 industry within a region, including: investor-owned utilities; federal power 16 agencies; rural electric cooperatives; state, municipal and provincial 17 utilities; independent power producers; and power marketers. The 18 purpose of a Regional Reliability Organization is to ensure that a defined 19 area of the bulk power system is reliable, adequate, and secure.

20

## 21 Q25. WHAT IS SERC?

A. SERC is a Regional Reliability Organization with delegated authority from
 NERC for the purpose of proposing and enforcing reliability standards

1		within its region. It sets power coordination and planning criteria for its			
2		66 member utilities operating within portions of the states of Alabama,			
3		Arkansas, Florida, Georgia, Illinois, Iowa, Kentucky, Louisiana,			
4		Mississippi, Missouri, North Carolina, Oklahoma, South Carolina,			
5		Tennessee, Texas, and Virginia. SERC members also include			
6		cooperatives, power marketers, merchant electricity generators, and			
7		municipals. The EOCs have been members of SERC since January 1,			
8		1998.			
9					
10	Q26.	PLEASE DESCRIBE HOW THE TRANSMISSION FUNCTION FITS			
11		WITHIN THE OPERATIONS FAMILY.			
12	A.	As shown in Exhibit MFM-1, the Energy Delivery Function, which is			
13		responsible for the planning, operation, maintenance management, and			
14		construction management of the electric transmission systems of the			
15		EOCs, is part of the Operations family. It is responsible for planning,			
16		constructing, operating, and maintaining Entergy's transmission system,			
17		including ETI's transmission system.			
18					
19	Q27.	PLEASE DESCRIBE THE ORGANIZATION OF THE TRANSMISSION			
~ ~					

20 FUNCTION.

A. The Transmission Function is composed of both ETI personnel and ESI
 personnel within ESI's Energy Delivery Organization. Exhibit MFM-3
 shows the organizational structure and services provided by each of the

1 six departments within ESI's Energy Delivery Organization: (1) Asset 2 Management; (2) Regulatory Compliance; (3) Planning; (4) Operations; 3 (5) Engineering; and (6) Project Management and Construction. 4 The Asset Management Department is responsible for: 5 (1) transmission maintenance management; (2) transmission maintenance 6 support; (3) right-of-way management; and (4) transmission configuration

7 management. It coordinates transmission maintenance activities for the
8 EOCs. In addition, operating personnel assigned to the Asset
9 Management department work on construction projects in order to more
10 effectively utilize the EOCs' resources.

The Regulatory Compliance Department is responsible for 11 12 implementing and monitoring programs, procedures, and controls to 13 ensure Entergy's transmission business is in compliance with FERC 14 regulations governing the Entergy OATT, OASIS posting requirements. 15 standards of conduct, SOX regulations, records retention, ERO 16 requirements and standards, and other transmission regulatory 17 compliance programs. This department is also responsible for: 18 (1) development and management of transmission policy; (2) wholesale 19 customer coordination and transmission project development; 20 (3) management of Entergy's contract with the ICT; (4) development of 21 quality control and transmission ECI initiatives; and (5) administration of 22 the WPP.

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1 The Planning Department is responsible for ensuring that the 2 EOCs' transmission systems are designed to meet reliability and firm 3 transmission service commitments in accordance with all applicable 4 regulations and standards. The Planning Department identifies system 5 upgrades to ensure that existing load and future load growth can be 6 served reliably.

7 The Operations Department is responsible for: (1) monitoring the 8 transmission grid to ensure voltage and system flows within limits; 9 (2) performing real-time and day-ahead contingency analyses to predict 10 and prepare for altered system states; (3) switching operations to support 11 planned maintenance outages and respond to unplanned system 12 conditions; and (4) short-range planning, including system modeling, 13 outage coordination, and day-ahead security analysis.

14 The Engineering Department is responsible for providing 15 transmission line and substation design engineering and related services 16 for the EOCs.

17 The Project Management and Construction Department manages 18 the transmission maintenance activities and capital additions for the 19 EOCs.

1		III. <u>TEST YEAR O&amp;M COSTS</u>
2		A. ETI Total Transmission O&M Costs
3	Q28.	DO YOU SPONSOR ETI'S TOTAL (AFFILIATE AND NON-AFFILIATE)
4		TRANSMISSION COSTS?
5	A.	Yes. I sponsor ETI's total transmission O&M costs for the test year ending
6		March 31, 2013. The Transmission Function is composed of both ESI and
7		ETI personnel; consequently, both non-affiliate and affiliate costs are
8		incurred as transmission O&M expenses. Non-affiliate transmission costs,
9		which include the costs associated with ETI (as contrasted to ESI) field
10		personnel responsible for the maintenance of ETI's transmission facilities,
11		are contained in the cost-of-service for the test year. As will be discussed
12		below, the affiliate transmission O&M costs, which include the costs
13		associated with support services provided by ESI personnel, are
14		\$6,384,377 for the test year.
15		
16	Q29.	ARE THE TOTAL O&M COSTS FOR THE TRANSMISSION FUNCTION
17		NECESSARY?
18	Α.	Yes. The O&M expenses for the ETI transmission system incurred during

the test year represent the costs necessary to operate and maintain ETI's transmission system in a safe, economical, and reliable manner. Effective management and control of these costs are the main objectives of the transmission management team and the organizations that support these

- activities. I provide further evidence of the necessity of ETI's transmission
   costs in my discussion of affiliate O&M costs.
- 3
- 4 Q30. ARE THE TOTAL O&M COSTS FOR THE TRANSMISSION FUNCTION
- 5 REASONABLE?
- 6 A. Yes.
- 7
- 8 Q31. WHAT EVIDENCE DEMONSTRATES THAT THE TOTAL O&M COSTS
  9 FOR THE TRANSMISSION FUNCTION ARE REASONABLE?
- 10 A. I demonstrate the reasonableness of these costs through the following
- discussion of: (1) budget controls; (2) process improvements employed by
  both ESI and ETI; and (3) benchmarking ETI's costs against those of other
  comparable utilities.
- 14

15

1. <u>Budget Controls</u>

16 Q32. PLEASE EXPLAIN THE BUDGETING PROCESSES THAT SUPPORT

17 THE REASONABLENESS OF THE TOTAL ETI TRANSMISSION O&M
18 COSTS FOR THE TEST YEAR.

A. As explained in the testimony of Company witness Donna S. Doucet, ESI
employs a budgeting process that builds from budgets prepared by each
legal entity, such as ETI, and more specifically, from budgets prepared by
functional organizations whose costs are reflected on a legal entity-basis.
A functional organization such as the Transmission Functional

1	Organization ("Transmission Organization") <sup>4</sup> will prepare a budget
2	reflecting ETI transmission O&M costs – both ETI costs and ESI costs.
3	Once the budget is approved, that budget is periodically compared to
4	actual spending levels for the same organization and the same entity. The
5	Transmission Organization monitors actual spending compared to budget
6	through the following reports and measures, at the time intervals
7	indicated, to assist in controlling costs:
8 9	<ul> <li>Monthly – O&amp;M budget to actual report by legal entity with explanations of the variances. This decument reports</li> </ul>

explanations Э ot the variances. This document reports 10 current-month spending versus current-month budget. 11 current-month spending versus prior-year same-month spending, 12 year-to-date spending versus year-to-date budget and year-to-date 13 spending versus year-to-date spending prior-year.

- Monthly/Quarterly O&M current year-end projections (present estimate) by legal entity are reported monthly, updated for any major variances. On a quarterly basis, O&M projections are updated in detail by the Transmission Organization.
- Monthly Metrics including O&M, headcount, and reliability actual versus budget results at the total Transmission Function level are reviewed by the Vice President of Energy Delivery and the Chief Operating Officer. Variances compared to the budget are discussed and decisions are made on what actions are needed to address any significant variances.
- 24 Similar reports and measures are employed to control capital spending,
- and will be described in the discussion of capital projects.

<sup>&</sup>lt;sup>4</sup> As I explained earlier in my testimony, the Transmission Function is composed of both ETI personnel and ESI personnel within ESI's Energy Delivery Organization. Collectively, I will refer to all personnel carrying out the Transmission Function as the Transmission Organization.

Q33. PLEASE DISCUSS HOW BUDGET REPORTS ARE USED TO MONITOR
 SPENDING.

On a monthly basis, budget versus actual reports are monitored by each 3 Α. department within the Transmission Organization. Costs are analyzed by 4 5 resources (e.g., labor, material, contract labor, and employee expenses), 6 which are tracked through the accounting systems. Any significant variances are reviewed, and updated spending plans are implemented. 7 8 The Transmission Organization's updated plan is submitted to Utility 9 Operations with any changes to the original plan.

- 10
- 11
- 2. <u>Process Improvements Controls</u>

Q34. SEPARATE FROM THE BUDGETING PROCESS, DOES THE
 TRANSMISSION ORGANIZATION UNDERTAKE OTHER MEASURES
 OR INITIATIVES TO CONTROL COSTS OR IMPROVE ITS SERVICES?

A. Yes. ESI has implemented several innovative work processes within the
 Transmission Function that are further designed to improve efficiencies,
 reduce costs, and improve reliability. These programs include:

Transmission Consolidated Outage System ("TCOS") — TCOS allows
 for the tracking of transmission line outages within the Entergy
 Transmission System, and it enables ESI to perform root-cause
 analyses on transmission outages in order to establish outage trends
 and identify potential problems and solutions on a system-wide basis.

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1 Global Information System ("GIS")/Mapping: With the GIS/Mapping 2 system, all transmission line structures in the Entergy Transmission 3 System have been mapped and photographed using aerial mapping. 4 Global Positioning Satellite ("GPS") coordinates have been established 5 for all structures and substations within the service area. Using 6 information provided by the relaying group, ESI employees map the 7 location of outages to identify recurring problems and dispatch crews 8 directly to problem areas.

Fault Analysis and Lightning Location System ("FALLS"): FALLS is a
lightning application that makes use of the GPS coordinates
established through the mapping project to determine the location and
magnitude of each lightning strike. By combining this lightning data
with the results of the mapping project and the data from TCOS, ETI is
capable of identifying transmission lines that perform poorly with
respect to outages caused by lightning.

Transmission Line/Substation/Vegetation Work Management Systems
("LWMS," "SWMS" and "VWMS"):

LWMS includes a mapping system that, in combination with GPS
 hardware, provides directions to work sites, and which, in
 combination with component outage data, allows for the setting of
 correct maintenance and inspection intervals. Handheld computers
 are used to log damage found during routine and emergency

1	inspections and, during emergencies, allow a crew that may be
2	unfamiliar with the area to quickly locate problems in the field.
3	$\circ$ SWMS is a database of all substation equipment, maintenance
4	schedules, inspection data, and substation switching diagrams. It
5	is used to schedule and track maintenance activities across the
6	EOCs' transmission systems, including the ETI transmission
7	system.

8 • VWMS includes a mapping system that, in combination with GPS 9 hardware, provides directions to work sites, and which, in 10 combination with aerial-patrol and ground-patrol data, allows for the 11 setting of correct maintenance and inspection intervals. Handheld 12 computers are used to log vegetation issues found during routine 13 and emergency inspections and, during emergencies, allow a crew 14 that may be unfamiliar with the area to guickly locate the problems 15 in the field.

16 Through the combined use of these applications, the Transmission 17 Organization has been able to pinpoint and identify maintenance issues 18 faster, restore the transmission system to its normal state more 19 expeditiously, and optimize costs associated with preventive and 20 corrective maintenance.

In addition to the process improvements noted above, the Energy
 Delivery Organization participates in the Entergy Continuous Improvement
 ("ECI") program, which encourages employees to seek out areas where

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1		practices, processes and procedures related to their organizations can be
2		improved to enhance the organization's effectiveness and efficiency, and
3		to reduce costs. ECI uses the Six Sigma methodology to improve
4		processes and identify cost-saving initiatives, and it encourages all
5		employees to participate on natural-work teams. A natural-work team is
6		composed of employees who work together on a normal basis and focus
7		on improving the work that its members perform in order to reduce costs,
8		improve efficiencies, and streamline or even eliminate steps in day-to-day
9		activities of the business.
10		
11		3. <u>Benchmarking</u>
12	Q35.	YOU MENTIONED THAT THE REASONABLENESS OF ETI'S O&M
13		COSTS CAN BE SHOWN BY BENCHMARKING THESE COSTS
14		AGAINST THE O&M COSTS OF OTHER COMPARABLE UTILITIES.
15		PLEASE EXPLAIN.
16	A.	Benchmarking analysis is a standard type of analysis performed by utility
17		managers to gauge a utility's performance against that of other utilities.
18		Benchmarking analyses are performed internally through the use of
19		publically available data. The results from Entergy's benchmarking
20		analysis shows that ETI's transmission O&M expenses compare favorably
21		to those of other electric utilities.

7

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Q36. PLEASE EXPLAIN THE BENCHMARKING ANALYSIS PERFORMED BY
 ESI.

3 Α. Using data reported in FERC Form No. 1 ("Form 1")<sup>5</sup> filings, ESI has 4 performed a benchmarking analysis comparing the O&M expenses of 5 each of its six EOCs to that of 42 other companies. A complete list of the 6 48 companies included in this analysis can be found in Exhibit MFM-4. In 7 an effort to better compare O&M expenses by accounting for fluctuations 8 from year to year, ESI calculated the average O&M spending for each of 9 these companies over the three-year period of 2010 to 2012. For that 10 time period, ETI incurred an average of \$9,135 in O&M expenses per 11 transmission line-mile. As shown in Exhibit MFM-5, this ranked ETI as the 12 thirteenth most cost-efficient company out of the 48 companies 13 considered. From 2010 to 2012, ETI's average O&M expenditures were equivalent to 2.7% of its total assets. As shown in Exhibit MFM-6, this 14 15 ranked ETI as the twelfth most cost-efficient company of the 16 48 companies considered in this analysis. Again, these benchmarking 17 comparisons show that ETI's O&M spending compares favorably to that of 18 other electric utilities.

<sup>&</sup>lt;sup>5</sup> FERC Form 1 is an annual regulatory reporting requirement for major electric utilities, licensees and others. The report is designed to collect financial and operational information from these entities that are subject to FERC jurisdiction. It is a mandatory filing under the Federal Power Act, and the information contained in Form 1 is public information.

1	Q37.	YOU HAVE EXPLAINED THAT ETI COMPARES FAVORABLY IN
2		TERMS OF O&M SPENDING. HAS THIS COMPROMISED
3		TRANSMISSION RELIABILITY?
4	Α.	No. The Entergy Transmission System remains reliable. Entergy has
5		participated in a Transmission Reliability Benchmarking Study
6		administered by SGS Statistical Services ("SGS"). As part of this study,
7		SGS analyzed the Average Service Availability Index ("ASAI") of
8		20 transmission systems, including the Entergy Transmission System.
9		The ASAI for these 20 transmission systems as compared to ETI's
10		transmission system is shown in Table 2.

Table 2: ASAI Comparison

Year	All Participants	ETI	
2010	99.97%	99.97%	
2011	99.97	99.96%	
2012	99.97	99.95%	

As seen in Table 2, the ASAI of ETI's transmission system is consistent 11 12 with the average ASAI of the 20 transmission systems analyzed by SGS.<sup>6</sup>

<sup>6</sup> The participants of the SGS Transmission Reliability Benchmarking Study signed confidentiality agreements as part of their inclusion in the study. Therefore, the names of the other transmission systems analyzed have not been disclosed.

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# Q38. WHAT IS THE OVERALL CONCLUSION THAT YOU DRAW FROM THE BENCHMARKING ANALYSES DISCUSSED ABOVE?

A. Entergy's internal analysis supports the conclusion that ETI's O&M costs
compare favorably to the O&M costs of other similarly-situated utilities. I
conclude that this analysis is a reliable indicator that ETI's transmission
O&M costs are reasonable.

7

8

## B. <u>Transmission Operations Class of Affiliate O&M Costs</u>

9 Q39. WHAT IS THE TOTAL AMOUNT OF AFFILIATE O&M COSTS THAT 10 YOU SUPPORT FOR ETI TRANSMISSION SERVICES FOR THE TEST

## 11 YEAR?

A. The total amount of transmission O&M affiliate charges that I support is
\$6,384,377. This amount, referred to as the "Total ETI Adjusted" amount
in corresponding exhibits, consists of the total affiliate charges to ETI
associated with the Transmission Operations Class during the test year
subject to certain exclusions explained below or explained in the testimony
of other witnesses identified below.

18 The direct and allocated portions of the Total ETI Adjusted amount 19 for the transmission class that I sponsor are shown in Table 3 below. The 20 table reflects the following information:

1 2 3 4 5 6	Total Billings	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 MFM-A, MFM-B, and MFM-C.
7 8 9	Total ETI Adjusted Amount	ETI's adjusted amount for electric cost of service after pro forma adjustments and exclusions.
10 11	% Direct Billed	The percentage of the ETI adjusted test year amount that was billed 100% to ETI.
12 13	% Allocated	The percentage of the ETI adjusted test year amount that was allocated to ETI.

Table 3

		Total ETI Adjusted		
Class	Total Billings	Amount	% Direct Billed	% Allocated
Transmission Operations	\$124,684,181	\$6,384,377	17%	83%

14 I provide a further explanation of the concept of direct versus allocated

15 affiliate charges in my discussion below.

## 1 Q40. WHAT ARE THE MAJOR COST COMPONENTS OF THE CHARGES

## 2 FOR THE TRANSMISSION OPERATIONS CLASS?

3 A. The major cost components are reflected in Table 4.

Transmission Affiliate O&M Cost Component	Cost	% of Total
Office and Employee		
Expenses	\$ 350,064	5%
Other	\$ 154,524	2%
Outside Services	\$ 659,887	10%
Payroll & Employee Costs	\$4,763,563	75%
Service Company Recipient	\$ 456,340	7%
Total*	\$6,384,377	100%

#### Table 4

\*Totals may not sum due to rounding.

### 4 Q41. WHAT IS THE SIGNIFICANCE OF THESE COST CATEGORIES?

5 Α. Other Company witnesses, including Jennifer A. Raeder, Stephanie B. 6 Tumminello, and Thomas C. Plauché, provide additional support for the reasonableness of the costs included in many of these categories on 7 behalf of all the affiliate witnesses. For instance, as Table 4 shows, 8 9 approximately 75% of the affiliate transmission costs are for 10 compensation, benefits, and labor-related expenses. Company witness 11 Raeder discusses the reasonableness and necessity of the Company's 12 compensation and benefits programs. The "Service Company Recipient" 13 row of the table pertains to costs common throughout ESI, such as 14 general information technology, rents, and human resources. These costs 15 are spread to all affiliate classes, as is explained by Company witness 16 "Office and Employee Expenses" covers the costs of Tumminello.

- maintaining work spaces and office supplies. Company witness Plauché
   supports, in part, these expenses.
- 3

## 4 Q42. HOW HAVE YOU ORGANIZED THIS SECTION FOR THE DISCUSSION 5 OF ETI AFFILIATE TRANSMISSION O&M CHARGES?

6 Α. I first describe the exhibits attached to my testimony that present the total 7 affiliate costs and the underlying costs that sum to the Total ETI Adjusted 8 amount. I next describe the types of services provided by ESI in the 9 Transmission Operations Class. For the purpose of this discussion, I divide the services into four groups of services: (1) Transmission System 10 11 Operations and Security; (2) Transmission Maintenance; (3) Transmission 12 Construction; and (4) Transmission Services and Management. The description of these groups of services will also explain the necessity of 13 14 the services.

15 I then explain how costs are billed from ESI's Energy Delivery
16 Organization to ETI and other entities to ensure that (1) ETI is billed the
17 amount representing the actual cost of the services performed; and
18 (2) ETI is billed at a rate no higher than any other Entergy affiliate for the
19 same or similar services.

Finally, I demonstrate the reasonableness of the level of transmission affiliate costs. I describe evidence relevant to the Total ETI Adjusted amount, which evidence includes budgeting, cost controls and cost trends.

1		1. <u>Explanation of Exhibits</u>
2	Q43.	PLEASE DESCRIBE THE EXHIBITS THAT SUPPORT THE AFFILIATE
3		COSTS THAT YOU SPONSOR.
4	A.	Attached to my testimony are three exhibits showing the groups of affiliate
5		costs I sponsor and the calculation of the total adjusted amount for which
6		recovery is sought by ETI on account of the provision of services by an
7		affiliate to ETI. In Exhibit MFM-A, the information shows the Transmission
8		Operations Class broken down by the departments comprising that class.
9		Exhibit MFM-B shows the class costs broken down by project code and
10		shows the billing method assigned to each project code. Exhibit MFM-C
11		shows the class costs broken down by department and by project code.

- 12 For each exhibit, the amounts in the columns represent the following
- 13 information:

Column (A) -

Support

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.

Column (B) -Dollar amount that was included in the Service Company recipient service company allocation. Recipient 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 Tumminello.

Column (C) – Represents the sum of Columns (A) and (B). Total

Column (D) – All Other Business Units	That portion of Column (C) that was billed and charged to Business Units other than ETI.
Column (E) – ETI Per Books	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)).
Company witness Tummine	ello describes the calculations that take the
dollars of support services i	n Column A to the adjusted number shown in

- 3 Column H.
- 4

1

2

5 Q44. PLEASE DESCRIBE THE EXCLUSIONS COLUMN SHOWN IN YOUR
6 EXHIBITS MFM-A, MFM-B, AND MFM-C.

7 A. The exclusions column shows items such as capital expenditures,
8 below-the-line amounts, and amounts charged to other balance sheet
9 accounts. Exclusions are discussed in Company witness Tumminello's
10 Direct Testimony.

1	Q45.	ARE THERE ANY PRO FORMA ADJUSTMENTS FOR THE
2		TRANSMISSION OPERATIONS CLASS OF SERVICES?
3	A.	Yes. These pro forma adjustments are sponsored by the witnesses
4		identified in Exhibit MFM-D.
5		
6		2. Description of Services and Necessity
7	Q46.	YOU MENTIONED THAT THE TRANSMISSION CLASS OF SERVICES
8		COULD BE DIVIDED INTO FOUR GROUPS OF SERVICES. PLEASE
9		EXPLAIN FURTHER.
10	A.	The transmission services provided by ESI can be classified into
11		four groups: (1) Transmission System Operations and Security;
12		(2) Transmission Maintenance; (3) Transmission Construction; and
13		(4) Transmission Services and Management. Exhibits MFM-7 through
14		MFM-10 show the relationship between ESI's Energy Delivery
15		Organization and the four groups of services included within the
16		organization. The services associated with each of the four groups are
17		highlighted on the appropriate exhibit. In addition, the exhibits delineate
18		the transmission-related services performed by ETI personnel.

Exhibit MFM-7 shows the relationship between the Energy Delivery
 Organization and the Transmission System Operations and Security group
 of affiliate services. The services provided by ESI that comprise this
 group are (1) transmission system security and (2) regional reliability
 coordination.

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Exhibit MFM-8 shows the relationship between the Energy Delivery
 Organization and the Transmission Maintenance group of affiliate
 services. The services provided by ESI that comprise this group are:
 (1) maintenance management; (2) maintenance support; (3) right-of-way
 management; (4) configuration management; and (5) outage response.

Exhibit MFM-9 shows the relationship between the Energy Delivery
Organization and the Transmission Construction group of affiliate
services. The services provided by ESI that comprise this group are:
(1) design; (2) design engineering services; (3) project management;
(4) construction management; and (5) right-of-way procurement.

Exhibit MFM-10 shows the relationship between the Energy Delivery Organization and the Transmission Services and Management group of affiliate services. The services provided by ESI that comprise this group are: (1) transmission regulatory compliance; (2) customer coordination and contracts; (3) weekly operations; and (4) transmission system planning.

17 The following subsections provide further explanation of these18 groups of services.

1	Q47.	ARE THE SERVICES OFFERED BY THE TRANSMISSION
2		OPERATIONS CLASS OF AFFILIATE SERVICES DUPLICATED BY
3		SERVICES PROVIDED BY ESI OR BY ANY OTHER ENTITY,
4		WHETHER OR NOT AFFILIATED WITH ENTERGY?
5	A.	No. There is no overlap of services from other business units within ESI
6		or from other Entergy affiliates, nor are these services duplicated by any
7		outside entity.
8		
9		a. <u>Transmission System Operations and Security</u>
10	Q48.	PLEASE EXPLAIN IN GREATER DETAIL THE TRANSMISSION
11		SYSTEM OPERATIONS AND SECURITY GROUP OF SERVICES.
12	A.	As discussed above, Exhibit MFM-7 shows the relationship between the
13		Energy Delivery Organization and the Transmission System Operations
14		and Security group of affiliate services. This group of services includes
15		the transmission system security services necessary for real-time
16		operational control of the interconnected transmission systems of the
17		EOCs, including ETI. This group is responsible for the reliable and secure
18		transmission of power from the point of receipt to the point of delivery.
19		Transmission system security services provided to ETI and its customers
20		include: (1) transmission system scheduling and monitoring of the bulk
21		transmission system of the EOCs; (2) dynamic monitoring of transmission
22		system operations, including voltage, frequency, line loading,
23		interconnection line flows, generation unit output, and scheduled

transactions; and (3) advising ETI's transmission customers
 (e.g., generation owners) to increase or decrease power flows to maintain
 system reliability and security.

4 In conjunction with the ICT, the Transmission System Operations and Security group of services also includes the following Regional 5 Reliability Coordination<sup>7</sup> services: (1) monitoring the operational reliability 6 of each sub-region; (2) coordinating sub-region outages, including outages 7 8 within other transmission systems; (3) implementing NERC operating 9 guidelines for operation of interconnected transmission networks; and 10 (4) participating in the development of NERC and SERC operating policies, processes, and procedures that seek to maintain and enhance 11 12 bulk power supply reliability.

13

## 14 Q49. HOW IS THE ENTERGY TRANSMISSION SYSTEM OPERATED?

15 The generation and transmission functions performed on behalf of ETI Α. 16 were functionally unbundled in compliance with FERC Order Nos. 888 and 17 889. Entergy's transmission system, including the ETI transmission 18 system, is operated by a staff of system operators located in Pine Bluff, Arkansas in conjunction with the ICT staff in Carmel, Indiana. 19 The Entergy System's generation fleet, which includes ETI's generation fleet, 20 is dispatched by a staff of generation dispatchers within ESI's Energy 21

<sup>&</sup>lt;sup>7</sup> Certain functions within this category are performed by the ICT, as described earlier in my testimony.

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1 Management Organization ("EMO") located in The Woodlands, Texas.8 2 The Energy Management System ("EMS") is used by Entergy transmission personnel in Pine Bluff, Arkansas as well as the ICT for 3 4 transmission functions. The EMO uses a Generation Management 5 System ("GMS") to control generation. These two systems are separate and distinct and are separated between the Transmission Function and 6 the EMO such that the EMO does not have access to transmission 7 information in conformance with FERC Order Nos. 888, 889, 2004, 717, 8 9 and related orders.

10 On any given day, energy flows on the transmission system will 11 include energy generated and consumed within the Entergy Balancing Authority Area ("EBAA"), energy imported into the EBAA, energy exported 12 13 from the EBAA, and energy that is transmitted across the EBAA. All energy flows that cross Entergy's transmission system are scheduled 14 hourly with the transmission dispatchers in Pine Bluff by other utilities 15 16 connected to the transmission system and by other wholesale market 17 participants. Energy flows are scheduled in accordance with FERC-approved pro forma tariffs that define the service provided and the 18 19 curtailment priority in the event that curtailment is required for system 20 reliability and security. The transmission system is operated to be consistent with the policies and guidelines of appropriate regulatory 21

<sup>&</sup>lt;sup>8</sup> The EMO is a department within the System Planning Organization.

- agencies and reliability organizations (such as NERC and SERC) to meet
   customer needs.
- 3
- 4 Q50. ARE THE SERVICES INCLUDED IN THE TRANSMISSION SYSTEM
  5 OPERATIONS AND SECURITY GROUP OF AFFILIATE SERVICES
  6 NECESSARY?
- Yes. Transmission service is necessary to efficiently transport electric 7 Α. 8 power and energy from generation resources and transmission system interconnections to load centers. In addition, the transmission system 9 10 must be operated in compliance with the policies and procedures of 11 FERC, NERC, and SERC. Personnel performing services within the 12 Transmission System Operations and Security group of affiliate services 13 provide the needed skills and resources to ensure compliance with those 14 policies and procedures.
- 15 '
- 16

- b. <u>Transmission Maintenance</u>
- 17 Q51. PLEASE EXPLAIN IN GREATER DETAIL THE TRANSMISSION
   18 MAINTENANCE GROUP OF AFFILIATE SERVICES.
- A. As discussed above, Exhibit MFM-8 shows the relationship between the
   Energy Delivery Organization and the Transmission Maintenance group of
   affiliate services. This group includes the technical and administrative
   support necessary to maintain ETI's interconnected transmission system
   and to protect ETI's investment in equipment and property.

# Q52. WHAT CATEGORIES OF SERVICES ARE INCLUDED WITHIN THIS GROUP OF AFFILIATE SERVICES?

A. ESI's Transmission Maintenance services consist of five categories:
(1) maintenance management; (2) maintenance support; (3) right-of-way
management; (4) configuration management; and (5) outage response.

6 Maintenance management services provided to ETI and its 7 customers include: (1) maintenance prioritization; (2) transmission 8 problem tracking and reporting; (3) performance monitoring and 9 assessment; (4) power quality monitoring; (5) root-cause analysis; and 10 (6) maintenance standards development.

11 Maintenance support services provided to ETI and its customers 12 include: (1) preventive maintenance diagnostics; (2) transformer 13 inspections; (3) transformer oil analysis; (4) infrared testing; (5) corona, 14 ultrasonic and other diagnostic testing; (6) transformer life extension projects; (7) equipment acceptance testing support; (8) relay analysis and 15 failure analysis; (9) supervisory control and data acquisition ("SCADA") 16 17 system support; (10) maintenance of equipment information databases; 18 (11) maintenance of a centralized spare parts inventory database; and 19 (12) training and safety development and coordination.

Right-of-way management services provided to ETI and its
customers include: (1) permitting; (2) lease management; (3) addressing
right-of-way encroachments; (4) timber management; and (5) vegetation
management.

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1 Configuration management services include: (1) defining and 2 documenting transmission asset design requirements; (2) identifying, documenting, and evaluating any field changes, including construction, 3 4 operation, and maintenance changes; (3) approving or disapproving field 5 changes; (4) recording and reporting approved field changes and implementing those changes into the physical configuration of the asset; 6 and (5) updating design-state documentation to reflect the actual state of 7 8 the asset after approved field changes.

9 Outage response services include the management and 10 coordination of the EOCs' response to major outages caused by weather 11 conditions or other unexpected occurrences. The EOCs maintain a thorough and comprehensive storm plan, the Emergency Operations Plan 12 13 ("EOP"), and conduct refresher training primarily in conjunction with an 14 annual system-level drill to test the EOCs' processes and abilities. The 15 overall storm plan is comprised of smaller, well-coordinated emergency 16 response plans at the department, business unit, state, and overall system levels. These plans, including the EOP, are updated on an ongoing basis. 17 The EOP is accessible by all transmission employees via an internal 18 19 company web site.

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Q53. ARE THE SERVICES INCLUDED IN THE TRANSMISSION
 MAINTENANCE GROUP OF SERVICES NECESSARY?

3 Α. Yes. Providing maintenance on the transmission system is necessary to 4 ensure that customers are served with a high level of reliability. Over time and with normal use, individual components of the transmission system 5 6 deteriorate. Preventive maintenance is directed at correcting problems 7 before they arise. Corrective maintenance is required to repair a problem 8 after it occurs. ESI personnel use diagnostic and statistical techniques to 9 establish preventive maintenance schedules SO that corrective 10 maintenance can be reasonably minimized. ESI provides the technical 11 and administrative support necessary to maintain ETI's transmission 12 system. Without a disciplined and systematic approach to maintenance, 13 customers would experience unnecessary outages and significant 14 deterioration of service.

15 Storm plans and drills are necessary to prepare for quick, safe and 16 reliable restoration following major storms. In April 2013, for example, a 17 four-day, intensive, system-wide hurricane drill was conducted that 18 involved employees from groups across the EOCs' utility service territory. 19 The drill scenario involved a Category 3 hurricane that made landfall near 20 New Iberia, Louisiana. The System Command Center and all state 21 command centers were activated. All major functions were simulated 22 during the drill, involving more than 400 personnel who participated in the 23 four-day event. The storm drill focused on crew management and the

1		ability to provide timely, complete and accurate information to customers,
2		incorporating the lessons learned from Hurricane Isaac. A second storm
3		drill will be conducted in September 2013.
4		Storm drills such as these have proven particularly helpful in
5		preparing the Entergy Transmission System for the impacts of hurricanes.
6		I believe previous drills were beneficial in preparing ETI to restore service
7		efficiently in the aftermath of past natural disasters, such as Hurricane Ike,
8		and the Entergy System continues to implement similar drills to prepare
9		for any future events.
10		
11	Q54.	WHAT ORGANIZATIONS ESTABLISH REQUIREMENTS FOR
12		PREVENTIVE AND CORRECTIVE MAINTENANCE?
13	Α.	The following industry organizations set requirements for preventive and
14		corrective maintenance on transmission-related equipment: the
15		Occupational Safety and Health Administration ("OSHA"), the American
16		National Standards Institute ("ANSI"), IEEE, and NERC. The standards
17		set forth by these organizations relate to requirements such as equipment
18		loading, component interconnections, safe electrical clearances, electrical
19		bonding and grounding, fencing, barriers, and other personnel protective
20		activities. Recommendations provided by the manufacturers of equipment
21		used on the system also influence preventive maintenance activities. In
22		many cases, specific maintenance is required to preserve warranty

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1		coverage. In order to meet or exceed the life expectancies of
2		transmission equipment, preventive maintenance must be performed.
3		
4	Q55.	WHY DO ESI AND THE EOCS FOLLOW THESE INDUSTRY
5		STANDARDS AND RECOMMENDATIONS?
6	A.	These industry standards and recommendations have evolved over many
7		years of application and have been refined to maximize their effectiveness
8		in reducing costs, improving reliability, and prolonging equipment life.
9		These standards and recommendations are intended to preserve the
10		safety of both the public and employees, ensure the reliable operation of
11		the transmission system, and maintain warranty coverage on installed
12		equipment. In addition, the NERC standards are now mandated by
13		FERC.
14		
15		c. <u>Transmission Construction</u>
16	Q56.	PLEASE EXPLAIN IN GREATER DETAIL THE TRANSMISSION
17		CONSTRUCTION GROUP OF AFFILIATE SERVICES.
18	A.	As discussed above, Exhibit MFM-9 shows the relationship between the
19		Energy Delivery Organization and the Transmission Construction group of
20		affiliate services. The Transmission Construction services include the
21		design and construction management services of all transmission,
22		substation, and system protection facilities for the EOCs, including ETI.

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## Q57. WHAT CATEGORIES OF SERVICES ARE PROVIDED BY ESI TO ETI UNDER THIS GROUP OF SERVICES?

A. The services provided by ESI to ETI that are part of this group include five
categories: (1) design; (2) design engineering services; (3) project
management; (4) construction management; and (5) right-of-way
procurement.

The design services provided to ETI and its customers include:
(1) transmission line design; (2) substation design; (3) system protection
and control design; (4) purchasing specifications; (5) drafting; and
(6) engineering support for construction projects.

11 Design engineering services provided to ETI and its customers 12 include: (1) development of material procurement standards; and 13 (2) development of design and construction standards.

Project management services provided to ETI and its customers include: (1) project management; (2) project scoping; and (3) budget tracking.

17 Construction management services provided to ETI and its 18 customers include: (1) construction planning; (2) material coordination; 19 (3) outage coordination; (4) quality control; (5) safety audits; and 20 (6) contract management.

21 The Transmission Construction group of affiliate services also 22 includes the services required to determine the rights-of-way necessary for construction and to acquire those rights-of-way for project
 implementation.

3

4 Q58. ARE THE SERVICES INCLUDED IN THE TRANSMISSION 5 CONSTRUCTION GROUP OF SERVICES NECESSARY?

A. Yes. The Transmission Construction group of services is necessary to
provide the design and construction services required for the expansion,
renewal, and maintenance of the Entergy Transmission System, and to
maintain reliable service to the customers of the EOCs, including ETI's
customers.

11 Due to load growth, aging of facilities, new loads, generation 12 additions and other system changes, it is necessary to continually plan, 13 design, and construct new facilities to comply with applicable standards 14 and maintain reliable service to customers. Industry organizations, such 15 as IEEE and ANSI, set rules and guidelines that dictate the requirements 16 of design and construction of both transmission and substation facilities. 17 Due to those requirements, each system addition must be carefully 18 designed and constructed such that the rules and guidelines are followed. 19 ESI and the EOCs comply with these rules and guidelines.

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1		d. <u>Transmission Services and Management</u>
2	Q59.	WHAT CATEGORIES OF SERVICES ARE PROVIDED BY ESI TO ETI IN
3		THIS GROUP OF SERVICES?
4	A.	As discussed above, Exhibit MFM-10 shows the relationship between the
5		Energy Delivery Organization and the Transmission Services and
6		Management group of affiliate services. The services provided by ESI to
7		ETI that are part of this class include four categories: (1) transmission
8		regulatory compliance; (2) customer coordination and contracts;
9		(3) weekly operations; and (4) transmission system planning.
10		
11	Q60.	PLEASE DESCRIBE THE TRANSMISSION REGULATORY
12		COMPLIANCE SERVICES THAT BENEFIT THE EOCS, INCLUDING ETI.
13	A.	The transmission regulatory compliance services include administration of
14		the transmission compliance program, which ensures that Entergy's
15		transmission business is in compliance with FERC regulations governing
16		the Entergy OATT, OASIS posting requirements, standards of conduct,
17		SOX regulations, records retention requirements, ERO requirements and
18		standards, and other regulatory compliance programs within the
19		transmission business. These services also include: (1) development and
20		administration of transmission policy; (2) regulatory support, including
21		monitoring of policy trends, support for regulatory filings, and managing
22		implementation of new and revised regulatory requirements;
23		(3) administration of the transmission-related aspects of the Entergy

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- System Agreement; and (4) development and execution of transmission
   business policies.
- 3

4 Q61. PLEASE DESCRIBE THE TRANSMISSION CUSTOMER
5 COORDINATION AND CONTRACT SERVICES THAT BENEFIT THE
6 EOCS, INCLUDING ETI.

- 7 Α. Through the services provided in the transmission customer coordination 8 and contracts category, ESI: (1) acts as Transmission's technical 9 requiring representative for ETI in meetings with customers 10 transmission-related services; (2) prepares and presents alternative 11 solutions for new and/or expanded services; (3) coordinates the startup 12 phase of certain transmission capital projects; (4) administers wholesale 13 contracts; and (5) monitors and bills wholesale transmission services.
- 14

15 Q62. PLEASE DESCRIBE THE WEEKLY OPERATIONS SERVICES THAT
 16 BENEFIT THE EOCS, INCLUDING ETI.

17 Α. The weekly operations services are necessary to administer the WPP, a 18 process that relies on a unique set of computer software that lets 19 generators competitively bid to provide power to meet the requirements of 20 the EOCs. The WPP is an optimized procurement process, not a 21 centralized market for energy and is performed each week for the 22 upcoming operating week. The process is intended to provide the EOCs 23 and their network customers optimized, short-term (weekly) purchases of

1 wholesale energy. It receives information from bidding generators and 2 calculates whether accepting some or all of these bids, taking into account 3 the expected configuration and limits on the transmission system, will produce a more economic mix of resources than the EOCs' owned 4 5 resources. 6 7 Q63. PLEASE DESCRIBE THE TRANSMISSION SYSTEM PLANNING 8 SERVICES THAT BENEFIT THE EOCS, INCLUDING ETI. 9 Α. The services in this category include: (1) providing long-term planning for 10 transmission line and substation capacity additions; (2) defining criteria (e.g., reliability and equipment) for transmission line and substation 11

additions; (3) participating in the development of NERC and SERC

engineering reliability policies, processes, and procedures that seek to

maintain and enhance bulk power supply reliability; (4) participating in

Regional Reliability Organization activities and utility study groups; and

(5) performing special reliability studies (e.g., transmission voltage and

17 transient analysis, and generator stability analysis).

18

12

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14

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16

Q64. ARE THE SERVICES INCLUDED IN THE TRANSMISSION SERVICES
 AND MANAGEMENT GROUP OF SERVICES NECESSARY?

A. Yes. These services are necessary to achieve a coordinated and
 efficiently planned, constructed, maintained, and operated transmission
 system.

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1		Transmission regulatory compliance services are necessary due to
2		the stringent requirements imposed on the EOCs by the various regulatory
3		agencies and industry organizations discussed previously. Transmission
4		customer coordination and contract services are necessary because they
5		coordinate planning for transmission customer needs and manage the
6		numerous contracts that affect every area of service. ESI personnel who
7		provide these services interface with customers to determine transmission
8		and substation requirements.
9		Weekly operations services result in significant production cost
10		savings for all EOC customers, including ETI's customers, by providing a
11		more economic mix of resources than the EOCs' owned resources.
12		Transmission system planning services are necessary to meet
13		existing and future customer needs and to be compliant with NERC
14		planning standards, National Electrical Safety Code rules, and other
15		regulatory and industry standards.
16		
17		3. Billing of ESI Transmission Costs
18	Q65.	HOW ARE THE \$6,384,377 IN COSTS OF THE TRANSMISSION
19		OPERATIONS CLASS OF SERVICES BILLED TO ETI?
20	A.	As with all classes of ESI charges, Transmission Operations costs are
21		both direct-billed and allocated to affiliates. Of the \$6,384,377 Total ETI
22		Adjusted amount for this class, \$1,096,133 was directly billed to ETI, and
23		\$5,288,244 of the Total ETI Adjusted amount was allocated to ETI.

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1 Direct-billed costs are fully assigned to a single affiliate, such as 2 ETI. Allocated costs are billed to two or more affiliates based on the cost-3 causative driver of the services provided by ESI. As Company witness 4 Tumminello explains, project codes are utilized to capture ESI costs. All 5 ESI costs are billed to one or more project codes. Each project code is 6 assigned a billing method, which is the mechanism for ensuring that the 7 costs captured are billed to the correct entity and that the amount billed --8 either directly or by way of an allocation - is accurate. Exhibit MFM-C 9 shows all of the costs included in this Transmission Operations Class of 10 affiliate services, broken down by project code and the billing method 11 associated with each project code.

12 Only one billing method is assigned to each project code. All 13 organizations performing work directly associated with a project bill to a 14 single project code. The billing method is selected based on the 15 cost-causative driver. Because only one billing method is assigned to a project code, the process ensures that the amount billed to ETI is at a rate 16 17 no higher than the rate charged to other affiliates for the same or similar 18 services and represents the actual cost of the services.

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Q66. DO THE TRANSMISSION DEPARTMENTS ASSOCIATED WITH THIS
 CLASS HAVE ANY INVOLVEMENT IN THE PROCESS OF SETTING UP
 PROJECT CODES AND DETERMINING BILLING METHODS?

Yes. As discussed by Company witness Tumminello, employees within 4 Α. each functional area, including the Transmission Function, set up the 5 project codes for their area of responsibility and determine which billing 6 methods are appropriate to assign expenses to those project codes. In 7 the Transmission Function, the Transmission Operations departments 8 determine which entity should be billed based on which affiliate(s) 9 10 cause(s) costs to be incurred and which affiliate(s) receive(s) services. If 11 the project provides service to more than one affiliate, the billing method assigned to the project code will allocate costs among the benefited 12 affiliates in proportion to the cost driver for such services. 13

14

15 Q67. WHAT CONTROLS EXIST TO ENSURE THAT THE APPROPRIATE16 PROJECT CODE IS BEING USED?

A. A project code for affiliate billing purposes, including the billing method
assigned to that code, must be approved by several levels of authority
before it is implemented. In addition, all projects are subject to internal
auditing.

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### Q68. WHAT WERE THE PREDOMINANT BILLING METHODS USED FOR 1 2 THE TRANSMISSION OPERATIONS CLASS OF SERVICES? 3 Α. The predominant billing methods were "LOADOPCO," "TRSBLNOP," 4 "DIRECTTX," and "TRASUBOP." For the Test year, these four billing methods were used for 94% of the Total ETI Adjusted costs associated 5 6 with the Transmission Operations Class. 7 8 Q69. WHY IS BILLING METHOD "LOADOPCO" APPROPRIATE TO USE FOR

9 THE PROJECTS TO WHICH IT IS ASSIGNED?

10 Α. Billing method "LOADOPCO" allocates costs based on the load 11 responsibility ratio of each of the EOCs in proportion to the total load of 12 the System. The type of work associated with billing method 13 "LOADOPCO" consists of transmission system activities that benefit all 14 EOCs. Examples include transmission system operations and 15 administration, software and hardware. For example, within this cost class 16 are Project Code F3PCW29608, which encompasses services used for 17 transmission system operations, and Project Code F3PPICTTRA, which 18 encompasses services used to support the ICT. Load responsibility ratio 19 is an appropriate allocation method for the type of work billed to these 20 project codes because that work is driven by operating the entire 21 transmission grid.

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# Q70. WHY IS BILLING METHOD "TRSBLNOP" APPROPRIATE TO USE FOR THE PROJECTS TO WHICH IT IS ASSIGNED?

3 Α. Billing Method "TRSBLNOP" allocates costs based on a combination of 4 the number of miles of transmission lines and the number of transmission 5 substations within each of the EOCs in proportion to the total System miles of transmission lines. The type of work associated with billing 6 7 method TRSBLNOP consists of transmission line- and substation-related 8 activities that benefit all EOCs. Examples include transmission line and 9 transmission substation database management, and the creation of 10 transmission line and transmission substation standards. For example, 11 Project Code F3PCTTDS38 (Transmission O&M Management/Support) 12 involves management support of the various transmission line and 13 substation databases, transmission line and substation standards, and 14 overall management of transmission line and substation O&M activities for 15 all EOCs. The miles of transmission lines combined with the number of 16 transmission substations in each EOC's area drive the costs of 17 transmission management and support services, and billing method 18 TRSBLNOP therefore is an appropriate billing method for these services.

19

Q71. WHY IS BILLING METHOD "DIRECTTX" APPROPRIATE TO USE FOR
THE PROJECTS TO WHICH IT IS ASSIGNED?

A. Billing method "DIRECTTX" represents costs for the projects that are
directly applicable to ETI only. The billing method directly bills ETI 100%

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of the charges. For example, Project Code F3PCTTDS56 applies to
 transmission operations-related activities only in Texas, and billing method
 DIRECTTX is therefore appropriate for this type of project.

4

5 Q72. WHY IS BILLING METHOD "TRASUBOP" APPROPRIATE TO USE FOR
6 THE PROJECTS TO WHICH IT IS ASSIGNED?

7 Α. Billing method "TRASUBOP" allocates costs based on the number of 8 transmission substations within each of the EOCs in proportion to the total 9 number of System transmission substations. The type of work associated 10 with billing method "TRASUBOP" consists primarily of engineering and 11 technical support for transmission substation operations and maintenance 12 as well as engineering and project management associated with 13 substation construction. For example, within this cost class are Project 14 Code F3PCTTDS20, which encompasses services used to maintain major 15 substation equipment, conduct on-site training, and perform problem root 16 cause analysis, and Project Code F5PPSPOF01, which encompasses 17 services used to perform studies and investigations of transmission 18 substation protection and control schemes. The number of transmission 19 substations in each EOC's area drives the costs of transmission 20 substation management and support services, and billing method 21 "TRASUBOP" therefore is an appropriate billing method for these 22 services.

Q73. YOU HAVE ADDRESSED 94% OF THE TOTAL ETI ADJUSTED COSTS
 ASSOCIATED WITH THIS CLASS. PLEASE ADDRESS THE
 REMAINING 6%.
 A. A number of other project codes and different billing methods were used
 for the remaining 6% of such costs. The remaining billing methods are set

- 6 forth in my Exhibit MFM-B.
- 7

8 Q74. HAVE YOU DETERMINED THAT THE APPROPRIATE PROJECT 9 CODES AND BILLING METHODS HAVE BEEN USED FOR THE 10 REMAINING 6% OF TOTAL ETI ADJUSTED COSTS ASSOCIATED 11 WITH THIS CLASS?

12 Α. Yes. I have reviewed each of the project codes and the associated billing 13 methods used for the remaining 6% of Total ETI Adjusted costs 14 associated with this class and they are reasonable. The costs associated 15 with the remaining billing methods are consistent with and reflect the 16 services captured in each respective project code. The unit cost to ETI as 17 a result of the application of these billing methods is no higher than the 18 unit cost to other affiliates for the same or similar service and represents 19 the actual cost of the services.

1 4. **Reasonableness of Costs** Q75. ARE THE AFFILIATE COSTS OF THE ENERGY DELIVERY 2 3 **OPERATIONS CLASS OF SERVICE REASONABLE?** 4 Α. Yes. 5 6 Q76. DOES ESI HAVE ANY MECHANISMS OR PROCEDURES IN PLACE TO 7 MANAGE COSTS AND ENSURE THAT THEY ARE REASONABLE? 8 Α. Yes. ESI and, in particular, the Energy Delivery Organization, employ the 9 same budget, monitoring and cost control processes explained earlier in 10 my testimony with respect to ETI's total transmission costs. 11 Q77. WHAT OBJECTIVE EVIDENCE SUPPORTS YOUR OPINION THAT 12 13 THESE AFFILIATE COSTS ARE REASONABLE? 14 Α. First, I rely on the evidence discussed previously in my testimony with 15 respect to total transmission costs. That evidence includes the cost 16 control processes employed by both ESI and ETI, and the benchmarking 17 of ETI's costs with comparable utilities. In addition to those indicators, I 18 discuss below the following additional evidence of the reasonableness of 19 the affiliate costs: 20 cost trends for the services provided by the Transmission 21 Operations Class of affiliate services over the years 2010, 22 2011, 2012, and the test year; and trends in employee staffing for the Transmission Operations 23 Class of affiliate services over the years 2010, 2011, 2012, 24

24Class of affiliate services over the years 2010, 2011, 2025and the test year.

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- 1 The following sections discuss this additional evidence.
- 2

3

- a. <u>Cost Trends</u>
- 4 Q78. HOW HAVE THE AFFILIATE TRANSMISSION COSTS ASSIGNED TO
- 5 ETI TRENDED OVER THE PERIOD OF 2010 TO THE PRESENT?
- A. Affiliate O&M charges to ETI for the Transmission Operations Class of
  affiliate services over the period of 2010, 2011, and 2012, as well as the
  test year, are shown in Table 5. These charges have been adjusted to
  remove the MISO and ITC-related affiliate costs that the Company is
  removing from the requested cost of service (as explained by Company
  witness Considine), as well as the nuclear and gas department codes (as
  explained by Company witness Tumminello).

Table 5(Excludes pro forma adjustments except as described above.)

	2010	2011	2012	Test Year
Total O&M	\$8,708,290	\$9,553,371	\$9,633,423	\$9,341,519

Q79. CAN YOU IDENTIFY THE MAJOR COST DRIVERS THAT HAVE
IMPACTED ESI AFFILIATE TRANSMISSION CHARGES OVER THIS
PERIOD?

A. Yes. The increase in costs from 2010 to 2012 is partly attributable to
increases in the cost of labor, including payroll, benefits and taxes. In
addition, one of the major reasons for the increase in O&M costs
associated with the Transmission Operations Class of affiliate services

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1 from 2010 to 2012 were the fees associated with the services provided by 2 the ICT. Also, O&M costs have increased because of the increased 3 services required to comply with the mandatory NERC Critical 4 Infrastructure Protection ("CIP") Standards and SOX requirements. 5 However, the affiliate costs for the test year were lower than 2012, 6 primarily due to a reduction in fees associated with services provided by 7 the ICT following MISO's assumption of the ICT role. Considering the foregoing discussion, I conclude that the cost 8 9 levels reflected in the test year are reasonable and expected to continue

- 10 through the rate year.
- 11

# 12 Q80. DO YOU ANTICIPATE THAT THE COMPANY'S MOVE TO AN RTO 13 WILL AFFECT O&M COSTS IN THE FUTURE?

14 Α. Yes. One of the obvious ways in which the transition to an RTO will affect 15 O&M costs is the elimination of fees associated with the ICT-related 16 services. For the test year, ESI incurred \$12,035,122 in fees from SPP as 17 the ICT, and \$2,041,733 of this amount was allocated to ETI. Also for the 18 test year, ESI incurred an additional \$4,426,771 in fees from MISO as the 19 ICT, and \$725,805 of this amount was allocated to ETI. Company witness 20 Considine presents a pro forma adjustment related to, among other MISO-21 related costs, these expenses.

In addition, as explained above, the Energy Delivery Organization
 has incurred significant costs associated with analyzing, planning, and

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1		implementing a transition to an RTO. For the test year, \$1,695,628 of
2		ESI's O&M costs associated with these efforts was allocated to ETI.
3		Company witness Considine presents a pro forma adjustment related to,
4		among others, those transition expenses. Of course, as explained above,
5		following integration into an RTO, the Company will then incur the O&M
6		costs associated with its continued participation in the RTO.
7		
8		b. <u>Staffing Levels</u>
9	Q81.	PLEASE ADDRESS THE STAFFING LEVELS FOR 2010-2012 AND THE
10		TEST YEAR.
11	A.	ESI staffing levels for those performing services within the Transmission
12		Operations Class of affiliate services are shown in Table 6 below. Staffing
13		has remained relatively consistent since 2010, with some decrease in
14		staffing due to attrition over time. These staffing levels are necessary to
15		allow the Energy Delivery Organization to maintain compliance and
16		continue operation of the Entergy Transmission System, including ETI's
17		transmission system, in an increasingly regulated environment.

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Table 6

	12/31/10	12/31/11	12/31/12	TEST YEAR
ESI Employees Performing Services Within the Transmission Operations Class of Affiliate Services		416	411	408

- Q82. PLEASE SUMMARIZE THE EVIDENCE THAT THE COSTS OF
   SERVICES SUPPLIED BY THE TRANSMISSION OPERATIONS CLASS
   OF AFFILIATE SERVICES ARE REASONABLE.
- 4 Α. As demonstrated by the benchmarking analyses discussed in Section III.A.3, the expenses incurred for the Transmission Operations 5 6 Class are reasonable. I also note that Company witnesses Tumminello 7 and Michelle P. Bourg present benchmark analyses that support overall 8 affiliate-related and non-production O&M expenses, respectively. As 9 discussed in the cost trends section, the changes in costs between 2010 10 and the test year are due primarily to increased regulations and increasing 11 costs associated with the ICT. ESI actively manages its costs and has a 12 number of cost control measures in place. Finally, ESI employs a budget 13 process in which the budget performance is actively reviewed, and 14 corrective actions are taken when necessary.