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OF

**ON BEHALF OF ITC MIDSOUTH LLC**

**APRIL 2013**

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**I. INTRODUCTION**

**Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

**A.** My name is Jon E. Jipping. My business address is 27175 Energy Way, Novi, Michigan 48377.

**Q2. BY WHOM ARE YOU PRESENTLY EMPLOYED AND IN WHAT CAPACITY?**

**A.** I am employed by ITC Holdings Corp. ("**ITC**") as its Executive Vice President and Chief Operating Officer ("**COO**").

**Q3. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS EXECUTIVE VICE PRESIDENT AND COO OF ITC.**

**A.** I oversee the operations of ITC's four subsidiary operating companies, which are International Transmission Company d/b/a *ITCTransmission* ("**ITCT**"), Michigan Electric Transmission Company, LLC ("**METC**"), ITC Midwest LLC ("**ITCMW**"), and ITC Great Plains, LLC ("**ITCGP**").

Reporting to me are the Vice President of Operations, Vice President of Planning, Vice President of Engineering, Vice President and Chief Information Officer ("**CIO**"), Director of Supply Chain, and the Director of Facilities and Security.

The Vice President of Operations is responsible for real time operations, which involves control room operations, operator training, system reliability monitoring, and shutdown coordination. The Vice President of Operations is also responsible for emergency preparedness and response, North American Electric Reliability Corporation

1 (“*NERC*”) Reliability Standards compliance, operations policy, and operational  
2 engineering. Approximately 95 employees report to the Vice President of Operations.

3 The Vice President of Planning is responsible for all aspects of transmission  
4 system planning, including reliability planning in each of our operating companies,  
5 regional planning, economic planning, load forecasting, and planning policy.  
6 Approximately 35 employees report to the Vice President of Planning, most of whom are  
7 engineers performing the necessary analytical work.

8 The Vice President of Engineering is responsible for the engineering,  
9 maintenance, and construction disciplines. This includes substation design, transmission  
10 line design, project engineering, asset management, and field maintenance.  
11 Approximately 126 employees report to the Vice President of Engineering.

12 The Vice President and CIO is responsible for application development and  
13 support, and also information technology services. Approximately 53 employees report  
14 to the CIO.

15 The Director of Supply Chain is responsible for our procurement, supply chain,  
16 warehouse, and logistics activities. Approximately nine employees report to the Director  
17 of Supply Chain.

18 The Director of Facilities and Security is responsible for physical security of all of  
19 our facilities, including our headquarters building in Novi, Michigan, general facility  
20 maintenance functions, and overall coordination of ITC’s safety program. Approximately  
21 16 employees report to the Director of Facilities and Security.

**Q4. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

A. I have a Bachelor of Science in Electrical Engineering from Calvin College in Grand Rapids, Michigan and a Master of Science in Electrical Engineering, concentrating in power systems, from Michigan Technological University in Houghton, Michigan.

**Q5. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.**

A. I joined the Detroit Edison Company (“Detroit Edison”) in Engineering Research in 1989. In 1991, I became an Operations Engineer in Transmission System Operations. Subsequently, I held a variety of positions in Transmission and Subtransmission Planning, including Manager of Transmission Planning. My last position at Detroit Edison was as Manager of Business Systems and Applications within the Service Center Organization. In March 2003, I joined ITC as Director of Engineering and thereafter was promoted to Vice President of Engineering. In 2007, I was promoted to my current position of COO.

**Q6. ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?**

A. I am a Registered Professional Engineer in the State of Michigan. I am a member of the Edison Electric Institute’s (“EEI”) CEO Policy Committee on Energy Delivery. I am also a member of the North American Transmission Forum. Additionally, I currently serve as chair of the Michigan Technological University’s Department of Electrical and Computer Engineering External Advisory Committee.

**Q7. HAVE YOU PROVIDED TESTIMONY IN PRIOR PROCEEDINGS BEFORE  
STATE COMMISSIONS?**

**A.** Yes. I have testified in the following dockets in Kansas, Iowa, Illinois,  
Minnesota and Arkansas:

Kansas Corporation Commission:

- *In the Matter of the Application of ITC Great Plains, LLC for a Limited Certificate of Public Convenience and Authority to Transact the Business of an Electric Public Utility in the State of Kansas (Ford, Kiowa, Clark, Comanche and Barber Counties) and 08-PWTE-1022-COC, In the Matter of the Application of Prairie Wind Transmission, LLC for a Certificate of Public Convenience to Transact the Business of an Electric Public Utility in Ford, Kiowa, Clark, Comanche, Barber, Pratt, Harper, Kingman, Sumner and Sedgwick Counties, Kansas, Docket Nos. 08-ITCE-936-COC, 08-ITCE-937-COC, and 08-ITCE-938-COC (consolidated dockets).*

Illinois Commerce Commission:

- *Joint Petition for Approval of Sale of Utility Assets Pursuant to Section 7-102; Transfer of Franchises, Licenses, Permits or Rights to Own Pursuant to Section 7-203; Transfer of Certificates of Convenience and Necessity Pursuant to Section 8-406; Approval of the Discontinuance of Service Pursuant to 8-508; and the Granting of All Other Necessary and Appropriate Relief, Docket No. 07-0246.*

Iowa Utilities Board:

- *Joint Petition for Approval of the Transfer of Transmission Assets of Interstate Power and Light Company and ITC Midwest LLC, Docket No. SPU-07-11.*

1        Minnesota Public Utilities Commission:

- 2        • *Joint Petition for Approval of the Transfer of Transmission Assets of Interstate Power*  
3            *and Light Company and ITC Midwest LLC*, Docket No. E001/PA-07-540.

4        Arkansas Public Service Commission:

5        *In The Matter Of An Application Of Entergy Arkansas, Inc., Mid South Transco LLC, ITC*  
6        *Midsouth LLC, Transmission Company Arkansas, LLC, And ITC Holdings Corp. To*  
7        *Enter Transactions Resulting In A Certificate Of Public Convenience And Necessity For*  
8        *A New Arkansas Utility To Own EAI's Electric Transmission Facilities*, Docket No. 12-  
9        069-U.

10       I have also testified in Texas, Mississippi, Louisiana and New Orleans regarding this  
11       transaction.

12    **Q8. HAVE YOU TESTIFIED BEFORE THE FEDERAL ENERGY REGULATORY**  
13       **COMMISSION?**

14    **A.**    Yes. I have testified about this transaction and also in the following Federal Energy  
15       Regulatory Commission ("FERC") Dockets:

- 16       • *Promoting Transmission Investment Through Pricing Reform*, Docket No. RM06-4-  
17            000, Reply Comments of International Transmission Company, Exhibit A, Affidavit  
18            of Jon E. Jipping, Feb. 14, 2005.
- 19       • *Interstate Power and Light Co. v. ITC Midwest LLC*, Docket No. EL09-11-000, ITC  
20            Midwest LLC's Answer to Complaint, Exhibit ITCM-1, Affidavit of Jon E. Jipping,  
21            Dec. 8, 2008.



- *Green Power Express LP*, Docket No. ER09-681-000, Exhibit GPE-800, Direct Testimony of Jon E. Jipping, Feb. 9, 2009.

**Q9. DOES YOUR TESTIMONY INCLUDE ANY SUPPORTING INFORMATION OR EXHIBITS?**

**A.** Yes. I am sponsoring the following exhibits:

- **Exhibit JEJ-1**: ITC Corporate Organization Structure
- **Exhibit JEJ-2**: Historical Capital Investments
- **Exhibit JEJ-3**: Spearville to Axtell Project Map
- **Exhibit JEJ-4**: 2011 EEI Safety Survey Results (ITC comparative results only)
- **Exhibit JEJ-5**: Reactive Versus Preventive Maintenance Trend
- **Exhibit JEJ-6HC**: SGS Transmission Reliability Benchmarking Study (2012)
- **Exhibit JEJ-7**: ITC Outage Reliability Metrics for 2011
- **Exhibit JEJ-8**: Outage Cause Analysis Report and Documentation
- **Exhibit JEJ-9**: Value of Reliability Improvements on the ITC System
- **Exhibit JEJ-10**: ITC Disaster Recovery Plan
- **Exhibit JEJ-11**: ITC Procurement Strategy
- **Exhibit JEJ-12**: Letters Received from ITC's Supply Chain Vendors
- **Exhibit JEJ-13**: High Level ITC Management Reporting Structure
- **Exhibit JEJ-14**: Transition Services Agreements

1 **II. PURPOSE OF TESTIMONY**

2 **Q10. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 **A.** On December 4, 2011, Entergy Corporation<sup>1</sup> and ITC entered into agreements under  
4 which Entergy Arkansas, Inc. (“EAI”) and the other Entergy Operating Companies will  
5 separate and then merge their transmission businesses into ITC. I will generally refer to  
6 this separation and merger collectively as the “*ITC Transaction*” or “*Transaction.*” The  
7 purpose of my testimony is to support the approval of the Transaction and to demonstrate  
8 from an operational perspective how the Transaction will enhance Entergy’s transmission  
9 system.

10 **Q11. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

11 **A.** I am testifying on behalf of ITC Midsouth LLC.  
12

13 **III. SUMMARY OF TESTIMONY**

14 **Q12. PLEASE SUMMARIZE YOUR TESTIMONY.**

15 **A.** I will first provide an overview of the current ITC transmission system. I will then  
16 discuss ITC’s singular focus on transmission, and how that provides a platform for ITC’s  
17 stewardship of the transmission networks it operates and maintains. This singular focus

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<sup>1</sup> Entergy Corporation is the holding company subject to the Public Utility Holding Company Act of 1935 that owns the Entergy Operating Companies – Entergy Arkansas, Inc.; Entergy Gulf States Louisiana, L.L.C.; Entergy Louisiana, LLC; Entergy Mississippi, Inc.; and Entergy New Orleans, Inc.; and Entergy Texas, Inc.; as well as System Energy Resources, Inc. (SERI), the owner of Grand Gulf; and numerous other corporate subsidiaries that are engaged in competitive enterprises.

1 has produced a proven track record of operational excellence, which includes a  
2 commitment to safety, a specific approach to transmission system maintenance, a culture  
3 of compliance, an effective storm response plan, efficient supply chain management, and  
4 stakeholder engagement, all of which are described in more detail in my testimony. I  
5 discuss the current management structure of ITC and describe with some specificity how  
6 we will integrate the ITC Midsouth LLC operating companies, including ITC Arkansas  
7 LLC, (“ITC Arkansas”) and the other new ITC Midsouth operating companies  
8 collectively the “ITC Midsouth Operating Companies”)<sup>2</sup> into our organizational  
9 structure. Finally, I describe the process ITC and Entergy Corporation are using to ensure  
10 business continuity of the critical functions necessary for the safe and reliable operation  
11 of the Entergy transmission system, including the facilities that serve wholesale  
12 customers in Missouri.

#### 13 IV. OVERVIEW OF THE ITC TRANSMISSION SYSTEM

#### 14 Q13. PLEASE PROVIDE AN OVERVIEW OF THE ITC TRANSMISSION SYSTEM.

15 A. ITC’s transmission system is comprised of assets in four operating companies: ITCT,  
16 METC, ITCMW, and ITCGP. I am sponsoring an exhibit which shows the organizational

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<sup>2</sup> ITC witness Mr. Joseph Welch explains that as part of the ITC Transaction, Entergy Corporation’s subsidiary, Mid South TransCo LLC, will merge with ITC’s subsidiary, ITC Midsouth LLC. Mid South TransCo LLC will be the surviving entity. After the merger, however, ITC will change Mid South TransCo’s name to “ITC Midsouth LLC”. Accordingly, after the merger and name change occurs, ITC Midsouth LLC will be the holding company for all of the new ITC operating companies that will hold the former Entergy transmission system assets, including the ITC Arkansas, LLC operating company that will operate in Missouri. The new ITC operating companies that will be subsidiaries of ITC Midsouth LLC are ITC Arkansas LLC, ITC Louisiana LLC, ITC Mississippi LLC and ITC Texas LLC.

1 structure of the operating companies as they exist today (**Exhibit JEJ-1**). I will discuss  
2 ITC's management structure in more detail later in my testimony.

3 ITC is the nation's first, largest, and only publicly traded independent  
4 transmission company. ITC owns and operates approximately 15,000 miles of  
5 transmission with voltages from 34.5 to 345 kilovolts (kV) in the states of Michigan,  
6 Iowa, Minnesota, Illinois, Missouri, Kansas and Oklahoma, and serves a peak load of  
7 over 26,000 megawatts (MW).

8 ITCT, our operating company in southeast Michigan, is comprised of the  
9 transmission assets formerly owned by Detroit Edison and its parent company DTE  
10 Energy. ITCT serves the densely populated Detroit metropolitan area and its  
11 concentration of automotive and other manufacturing and supplier facilities in the region.  
12 ITCT's transmission system is comprised predominantly of 120 kV and 345 kV facilities.  
13 ITCT also owns and operates some 230 kV facilities, as well as underground transmission  
14 facilities operated at 120 kV and 345 kV.

15 METC, our operating company that covers much of the remainder of the lower  
16 peninsula of Michigan, is comprised of the transmission assets formerly owned by  
17 Consumers Energy and its parent company CMS Energy. METC's transmission system  
18 is comprised of 138 kV and 345 kV facilities. The METC system also has several  
19 interconnections with electric cooperatives and municipal utilities.

20 ITCMW, our operating company in Iowa, Minnesota, Illinois, and Missouri, is  
21 comprised of the transmission assets formerly owned by Interstate Power and Light  
22 Company and its parent company Alliant Energy. The ITCMW footprint is

1       predominantly rural in nature. ITCMW owns and operates transmission at voltage levels  
2       of 34.5 kV<sup>3</sup>, 69 kV, 115 kV, 161 kV, and 345 kV. ITCMW also has numerous  
3       interconnections with electric cooperatives and municipal utilities.

4             ITCGP operates 107 miles of 345 kV transmission in Kansas and Oklahoma, and  
5       is currently constructing over 200 additional miles of 345 kV transmission in Kansas.  
6       Unlike our other operating companies, ITCGP was not created from the acquisition of a  
7       transmission system from another utility, but rather has acquired the rights to construct,  
8       own and operate specific facilities through partnerships with local utilities in Kansas and  
9       Oklahoma. ITCGP owns and operates two lines and a few substations within the  
10      footprints of three electric cooperatives. ITCGP's activities highlight our commitment to  
11      constructing regional projects where the Regional Transmission Organization ("**RTO**")  
12      has identified such needs through a robust, independent planning process.

13            ITC has experience operating and maintaining transmission systems of various  
14      voltage levels across diverse geographies and conditions. Table 1 depicts the total  
15      mileage by voltage class for the ITC system and each ITC operating company.

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<sup>3</sup> ITCMW's 34.5 kV facilities are transmission facilities. ITCMW is in the process of upgrading the 34.5 kV network to 69 kV.

**Table 1. Line Mileage by Voltage Class for ITC Operating Companies**

	ITCT	METC	ITCMW	ITCGP	Total
345 kV	985	1,953	376	107	3,421
230 kV	106	0	0	0	106
161 kV	0	0	1,540	0	1,540
138 kV	31	3,527	0	0	3,558
120 kV	1,696	19	0	0	1,715
115 kV	0	0	323	0	323
69 kV	0	0	2,695	0	2,695
34.5 kV	0	0	1,670	0	1,670
Total	2,818	5,499	6,604	107	15,028

**Q14. IN WHICH RTO AND REGIONAL RELIABILITY ENTITY IS EACH OPERATING COMPANY A MEMBER?**

**A.** ITCT, METC, and ITCMW are members of the Midwest Independent Transmission System Operator, Inc. (“*MISO*”) RTO. For the purpose of NERC Regional Entity participation, ITCT and METC are members of the ReliabilityFirst Corporation Regional Entity; ITCMW is a member of the Midwest Reliability Organization (“*MRO*”) Regional Entity. ITCGP is a member of the Southwest Power Pool, Inc. (“*SPP*”) RTO and the SPP Regional Entity. All four ITC operating companies are registered Transmission Owners and Transmission Operators in their respective Regional Entities. The ITC operating

1 companies physically operate and maintain the transmission facilities that they own, and  
2 have transferred functional control of the transmission system to their RTO for reliability  
3 coordination and other functions for which the RTOs exercise operational authority.  
4 ITCT, METC, and ITCMW are registered Transmission Planners.

5  
6 **V. SINGULAR FOCUS ON TRANSMISSION**

7 **A. Differentiation of the ITC Business Model**

8 **Q15. WHAT MAKES ITC DISTINCT FROM OTHER TRANSMISSION OWNERS?**

9 **A.** ITC is an independent transmission company. Our business is owning, operating,  
10 maintaining, and developing electric transmission infrastructure. We have a singular  
11 focus on being an excellent owner and operator of electric transmission systems. ITC  
12 witness Mr. Joseph Welch discusses the attributes of ITC's independence in more detail  
13 in his testimony.

14 As an independent transmission company with a singular focus on transmission,  
15 the ITC business model is fundamentally different from the Entergy transmission system  
16 business model and the business models of other transmission owners in the industry.  
17 Our singular focus allows our management team and employees to concentrate  
18 exclusively on the transmission business, without having to divide their attention between  
19 transmission and non-transmission related functions like generation and distribution.  
20 This translates into stronger system performance, as evidenced through industry surveys  
21 and benchmarking studies. The singular focus on transmission also eliminates any  
22 capital pressure experienced by traditional integrated utilities that must provide capital to

1 transmission and non-transmission lines of business, since ITC does not own, operate, or  
2 maintain generation or distribution assets. Capital spending is covered in more detail in  
3 ITC witness Mr. Cameron Bready's testimony.

4 Independence ensures there is no bias and eliminates the perception of bias in  
5 planning or operating the transmission system. ITC has no incentive to favor one  
6 generation source or owner over another. We are in the business of enabling transmission  
7 for the purposes of interstate, wholesale commerce, and, as such, we look for ways to  
8 improve grid resiliency and system reliability while relieving transmission constraints in  
9 an economically justified manner and maintaining a safe workplace. Ensuring there is no  
10 perception of bias leads to more robust participation of stakeholders in the transmission  
11 planning processes, which in turn leads to robust market competition and the  
12 participation required to build a robust national transmission infrastructure. Mr. Welch  
13 discusses national electric policy in more detail as it relates to transmission development.

14  
15 **Q16. HOW DOES ITC'S SINGULAR FOCUS TRANSLATE INTO BENEFITS FOR**  
16 **THE REGION FROM AN OPERATIONAL PERSPECTIVE?**

17 **A.** ITC's singular focus on transmission allows ITC to dedicate its efforts exclusively to the  
18 betterment of the transmission system. This translates directly into improved reliability,  
19 including a reduction in transmission outages. ITC's excellent reliability is evident in the  
20 performance metrics that I will discuss. I will also discuss the monetary value of  
21 reliability.



1           Our singular focus is a key factor in achieving best-in-class transmission  
2           performance through specialization, expertise and operational excellence where our  
3           people and processes are dedicated, devoted and constantly thinking about effective and  
4           efficient transmission operations. An independent transmission company has only one  
5           business to be judged by, with a clear set of standards. This incentivizes the company to  
6           look for ways to improve transmission performance, striving for operational excellence in  
7           its one business line. ITC takes this to heart, constantly looking for ways to improve  
8           system reliability for the benefit of transmission customers.

9  
10   **Q17. WHAT ARE THE STRENGTHS OF ITC'S PRACTICES ACROSS ITS FOUR**  
11   **EXISTING OPERATING COMPANIES?**

12   **A.**   Our operations and maintenance approach delivers reliability benefits to our customers.  
13           We have performance metrics for measuring the reliability of our transmission system,  
14           and our focus on performance improvement has driven our two Michigan operating  
15           companies into the top decile among our peers in the industry. One important factor in  
16           achieving this level of performance is our focus on proactive, preventive maintenance to  
17           ensure that system components are repaired or replaced before they fail or misoperate,  
18           potentially causing catastrophic equipment damage and jeopardizing the ability of the  
19           transmission system to reliably serve customers.

20           Another strength is our bottom-up planning process to identify and build new  
21           projects. As detailed in the testimonies of ITC witnesses Messrs. Joseph Welch and  
22           Thomas Vitez, our sole focus on transmission and complete independence from market

1 participants allows us to objectively identify projects that reduce congestion across a  
2 broad region, strengthen reliability, and facilitate wholesale electric competition through  
3 greater market access and transparency for customers. As our record indicates, we also  
4 build the projects we plan. Gross investments in property, plant and equipment increased  
5 from \$41 million in 2003 to \$632.9 million in 2011. Planned gross investment in  
6 property, plant and equipment for 2012 is \$730 to \$830 million. I am including an  
7 exhibit which graphically depicts the historical levels of investment ITC has made  
8 since 2003.<sup>4</sup>

9  
10 **Q18. PLEASE PROVIDE EXAMPLES OF ITC'S DEVELOPMENT OF NEW**  
11 **PROJECTS THAT REDUCE CONGESTION, STRENGTHEN RELIABILITY**  
12 **AND FACILITATE WHOLESALE ELECTRIC COMPETITION.**

13 **A.** ITC's operating companies have made and continue to make significant investments in  
14 the grid to improve reliability, reduce congestion, improve system efficiency, and  
15 interconnect new generation and load.

16 One particular project that I want to highlight is the ITCGP Spearville to Axtell  
17 Project in Kansas and southern Nebraska.<sup>5</sup> This project runs from Spearville, Kansas, in  
18 the southwestern part of Kansas; north to the Post Rock substation just outside of Hays,  
19 Kansas; and then north to Axtell, Nebraska. The Kansas Electric Transmission Authority  
20 ("**KETA**") identified this particular project in 2007 through its initiatives to bring

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<sup>4</sup> See Exhibit JEJ-2.

<sup>5</sup> See Exhibit JEJ-3.

1 significant economic and reliability benefits to Kansas and the regional transmission grid.  
2 KETA is an organization created in 2005 by the Kansas Electric Transmission Authority  
3 Act (HB 2263), and is intended to promote and facilitate expansion of the Kansas  
4 transmission infrastructure for the betterment of the Kansas economy.

5 ITCGP worked with the incumbent electric cooperatives to acquire the rights to  
6 build the Kansas portion of this 345 kV project, from Spearville to the Kansas/Nebraska  
7 state line. This allowed the electric cooperatives to deploy their own limited capital for  
8 other projects in their footprints and to utilize ITC's expertise in building, operating and  
9 maintaining the transmission project. Our agreement with the electric cooperatives  
10 prevented them from having to choose between new generation resources for meeting  
11 their load obligations, and transmission investment to bring cheaper and renewable  
12 resources to the region. The electric cooperatives chose to allow ITC the opportunity to  
13 bring the transmission project to fruition.

14 The first segment of the line – from Spearville to Post Rock – was energized in  
15 June 2012. The second segment – from Post Rock to Axtell, Nebraska – will be  
16 energized by the end of 2012, ahead of the SPP schedule and in line with the desires of  
17 the utility in Nebraska, to accelerate the benefits to western Kansas and southern  
18 Nebraska. Current estimates show the final cost of the total project will be roughly  
19 \$148 million, less than the previously estimated \$203 million prior to siting approval. In  
20 addition to improving reliability and efficiency of the regional grid, the project also will  
21 reduce congestion across the transmission network and address the lack of high-voltage  
22 transmission lines in central and western Kansas.

1           Another recent project to highlight is the Hugo to Valliant Project, placed into  
2           service by ITCGP in June 2012. This project is a new 18-mile, 345 kV transmission line  
3           in Oklahoma that facilitates new transmission service requests in southwest Oklahoma.  
4           By again working with a local electric cooperative, ITCGP was able to (1) construct a  
5           transmission project that facilitated additional flexibility in network resource designation  
6           for the utility and (2) reduce overall transmission constraints in delivering power from  
7           southwestern Arkansas into southeastern Oklahoma.

8           Other project examples are presented in the testimonies of ITC witnesses  
9           Messrs. Joseph Welch, Thomas Vitez, and Douglas Collins.

10  
11   **Q19. DOES ITC USE ADVANCED TECHNOLOGY TO STRENGTHEN**  
12   **TRANSMISSION SYSTEM RELIABILITY?**

13   **A.**   Yes. ITC is focused on maintaining and improving the reliability of the transmission  
14           system through the most cost-effective means that will deliver the results we demand.  
15           We have deployed innovative and advanced technology to deliver efficiencies and  
16           reliability improvements into the operation of the system. ITC pursues these types of  
17           opportunities to capture incremental reliability enhancements that provide customer value  
18           where the advanced technologies have proven their viability in previous applications.  
19           Our effort to evaluate and deploy advanced technologies helps ITC in its pursuit of best-  
20           in-class performance while providing customers with a more robust and reliable  
21           transmission system.

**Q20. PLEASE PROVIDE EXAMPLES OF ITC'S DEPLOYMENT OF ADVANCED TECHNOLOGY AT ITS EXISTING OPERATING COMPANIES.**

**A.** One example of our use of advanced technology is the use of transformer monitoring software. Recognizing that transmission transformers represent one of the most expensive pieces of equipment and the most significant system impact attributable to any catastrophic failure, ITC implemented a computerized system to monitor aspects and characteristics of our over 80 system transformers throughout the state of Michigan (covering ITCT and METC footprints). Using our data networks, the web-based monitoring system alerts the Engineering Department when it detects abnormalities with a transformer's function or components. By properly utilizing data provided by this advanced transformer monitoring equipment, ITC engineers are able to perform targeted diagnostics on the transformer to determine the nature of the abnormality. In one particular instance, our engineers were able to successfully avert a catastrophic transformer failure by identifying an imminent failure before it occurred. This example demonstrates an area where ITC deploys advanced technology and where it is expected to provide an incremental improvement in reliability. The new technology deployments allow ITC's staff to direct and perform maintenance before catastrophic failure renders a transformer inoperable, reduces system performance and then requires costly replacement.

Another example of our use of advanced technology is the deployment of Phase Measurement Units ("*PMU*"s), or synchrophasors, across our system. ITC is participating with MISO on its synchrophasors Project. MISO received grant money

1 from the U.S. Department of Energy (“**DOE**”) to offset the cost of synchrophasor  
2 deployment, and ITC received some of these funds to install the devices on our  
3 transmission system. The advanced technology aspect of synchrophasor deployment  
4 stems from utilizing highly accurate microprocessor-based data collection and broadband  
5 telecommunication. The intent is to obtain the magnitude and phase angle of system  
6 current and voltage at a relatively high frequency, typically measured at 30 samples per  
7 second, synchronize them via GPS time, and stream the data for its use. This data  
8 acquisition occurs at a much higher rate than traditional real-time data is acquired from  
9 the system (typically one sample every four to eight seconds). ITC has committed to  
10 installing PMUs at 15 selected stations – five on the ITCT system, five on the METC  
11 system, and five on the ITCMW system. Each PMU will stream data to ITC’s Phase  
12 Data Concentrator, which then passes the data on to MISO. Synchrophasor data has  
13 already been used to support after-the-fact investigations that traditional data acquisition  
14 systems are not able to detect or determine. The installation of synchrophasors seeks to  
15 improve real-time wide area visualization. With synchrophasor data, system operators  
16 can be trained to determine potential system conditions that would adversely impact  
17 system reliability. In the future, synchrophasor data will be able to improve the reliable  
18 operation of the grid by detecting system anomalies, preventing power outages and  
19 improving real-time operations.

1 **Q21. DOES ITC HAVE PLANS FOR ADVANCED TECHNOLOGIES TO BE**  
2 **DEPLOYED BY ITC ARKANSAS AND THE OTHER NEW ITC MIDSOUTH**  
3 **OPERATING COMPANIES?**

4 **A.** ITC will maintain an approach to advanced technologies that is consistent with the  
5 existing approach for its current operating companies. Advanced technologies will be  
6 deployed in response to system needs where the advanced technology is a cost effective  
7 solution and the new technology is proven to improve the reliability or efficiency of  
8 transmission system operation.

9  
10 **B. Operational Excellence**

11 **Q22. HOW DOES ITC'S SINGULAR FOCUS ON TRANSMISSION TRANSLATE**  
12 **INTO OPERATIONAL EXCELLENCE?**

13 **A.** ITC strives for excellence in all aspects of its operations and system performance. We  
14 see the results of this commitment in our system reliability performance metrics. Central  
15 to operational excellence is a culture of continuous improvement, whether it be in regard  
16 to control room operations, system outages, compliance with NERC Reliability  
17 Standards, proactive preventive maintenance on the system, safety, preparation for and  
18 execution of emergency response, or other functions ITC performs. Our singular focus  
19 on transmission allows us to make sure each and every task we perform is done in a  
20 manner that is best for the performance of a transmission system and the customers that it  
21 serves. We invest in projects for the betterment of the transmission system; we repair and  
22 replace equipment for the betterment of the transmission system; we interface with all

1 transmission customers for the betterment of the transmission system; and there is  
2 nothing we do that is not related to our main objective of being an outstanding  
3 transmission owner and operator. That is the benefit of having a singular focus on  
4 transmission. These are some of the dimensions of operational excellence that I will  
5 discuss in more depth, starting with our commitment to safety.

6  
7 **i. Commitment to Safety**

8 **Q23. DESCRIBE ITC'S SAFETY PROGRAM.**

9 **A.** Operational excellence is the essential goal of a top performing transmission owner and  
10 operator. That goal is immaterial, though, if employees are not provided with every  
11 opportunity to work in a safe environment. Few industries pose greater inherent hazards  
12 than ours. At ITC, we take a proactive approach to safety. We are committed to  
13 providing a safe work-place for all of our employees and contractors. We will under no  
14 circumstances compromise the safety of our employees, contractors or the public in the  
15 course of providing the most reliable electric transmission service.

16 ITC requires, and will provide, all industry-related personal protective equipment  
17 and proper tools. ITC management is committed to making safety training an ongoing  
18 priority, and we maintain a zero tolerance drug and alcohol policy for employees. ITC  
19 management has also implemented unique safety incentive programs for employees and  
20 contractors.

21 Onsite safety inspections are conducted frequently by our Safety Department as  
22 well as by an independent third-party safety contractor. Meetings are held regularly with



1 ITC Field Supervisors, safety coordinators, and management personnel from the  
2 construction contract firms to discuss safety performance and areas in which  
3 improvement is necessary.

4 An ITC Safety Handbook is made available online to all ITC employees who will  
5 be working on or near energized equipment. The ITC Safety Handbook serves as a guide  
6 to ITC's safe work practices and policies, and explains ITC's policies regarding the  
7 wearing of personal protective equipment, use of safety rope barriers, and other such  
8 safety related topics. The posting of this handbook online is in addition to the specific  
9 training given to our field personnel about safe work practices for the equipment  
10 we operate.

11 In addition, our contractors are given a copy of our "Safety Handbook for  
12 Contractors," which serves as their guide to ITC's safe work practices and further  
13 explains our safety practices and procedures.

14 ITC requires that all accidents, injuries and near miss events be reported promptly  
15 to our Operations Control Room. Investigations are conducted to determine the factors  
16 causing and contributing to an accident or event. Results of investigations are  
17 communicated to appropriate groups in a timely manner, and corrective actions are  
18 implemented.

19 Customer and public safety is also important. Safety in this context is a  
20 consideration in the design, construction and overall operation and maintenance of the  
21 system, and includes being compliant with all applicable safety codes.

1           Maintaining and improving the safety program is important. A few examples of  
2           how ITC works to maintain and improve its safety program include: (1) ensuring that  
3           employees and contractors receive appropriate training for their jobs; (2) equipping  
4           employees and contractors with appropriate personal protective equipment and the proper  
5           tools for the job; (3) holding regular safety meetings with employees and contractors,  
6           including “safety summit” meetings on a routine basis; (4) requiring morning and  
7           afternoon job briefings to address potential safety hazards prior to beginning any  
8           maintenance or construction work; and (5) conducting regular safety audits of field work.  
9           Further, ITC management maintains an interest in understanding and reviewing safety-  
10          related performance of our employees and contractors. Not only does the management  
11          team receive regular reports at its meetings, but the ITC Board of Directors’ Security,  
12          Safety, Environmental, Health, and Reliability Committee reviews safety performance as  
13          part of its charter.

14  
15   **Q24. WHAT IS ITC’S TRACK RECORD FOR SAFETY?**

16   **A.**   ITC’s safety track record is excellent, and maintaining that excellent safety record is a top  
17          priority for ITC. ITC’s safety performance regularly ranks near the top in the industry  
18          when reviewed with peers that participate in the EEI Safety Survey. The EEI Safety  
19          Survey is an annual assessment that provides the largest source of data on safety in the  
20          electric industry. The survey provides data on safety incident rates, including an analysis  
21          of data from transmission and distribution systems. The goal of the survey is to assist  
22          safety programs through cross-company comparison of safety data. In 2011, ITC

1 maintained a company-wide recordable incident rate of 0.5 incidents per 100 full-time  
2 employees (“*FTE*”). The threshold for the top ten percent of the survey was  
3 0.62 incidents, while the EEI industry group posted an average recordable incident rate<sup>6</sup>  
4 of 1.94 incidents per 100 FTE.

5 In addition, ITC performed well with respect to its lost work day incident rate<sup>7</sup>.  
6 Here, too, ITC maintained a company-wide top ten percent performance of 0.1 incidents  
7 per 100 FTE. The EEI survey average was 0.5 incidents per 100 FTE. **Exhibit JEJ-4**  
8 depicts recordable incident rate and lost work day incident rate performance for ITC in  
9 comparison to the EEI industry group.

10 It is important to note that ITC includes the safety performance of its single-  
11 sourced field operations and maintenance contractor and its supply chain and  
12 warehousing contractor when reporting our safety data to EEI. ITC includes this data, in  
13 addition to that for its employees, to ensure a valid and relevant comparison with other  
14 participants in the survey who perform all of these functions in-house.

15 ITC will ensure that safety remains a top priority for ITC Arkansas and the other  
16 new ITC Midsouth Operating Companies through the implementation of a safety  
17 program that is consistent with ITC’s safety objectives.

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<sup>6</sup> The recordable incident rate is the number of work-related injuries per 100 employees that resulted in medical treatment beyond first aid.

<sup>7</sup> The lost work day incident rate is the number of work-related injuries per 100 employees that resulted in an employee having to miss work.

1 **ii. Maintenance Philosophy**

2 **Q25. WHAT ARE THE DRIVERS OF ITC'S MAINTENANCE PHILOSOPHY?**

3 **A.** First, ITC has a fundamental responsibility to operate and maintain the system in  
4 accordance with good utility practice. This goes hand-in-hand with our second  
5 responsibility and requirement – to be compliant with all applicable NERC Reliability  
6 Standards and Requirements. Third, and perhaps most visible to our customers, is our  
7 goal of striving for top decile system performance.  
8

9 **Q26. WHAT IS NECESSARY TO ACHIEVE TOP DECILE SYSTEM**  
10 **PERFORMANCE?**

11 **A.** To achieve excellent performance and transmission system availability, the system needs  
12 to be reliable. Reliability is dependent on four key factors: 1) the design of the system; 2)  
13 capital improvements to the system; 3) the operation of the system; and 4) the  
14 maintenance of the system. System design and capital improvements ensure the system  
15 is built to accommodate evolving system requirements such as increased use of the  
16 transmission system, integrating into energy markets, and facilitating public policy  
17 initiatives. The third factor, operations, deals with using existing assets in the most  
18 efficient and reliable manner possible. An example is the use of advanced protection  
19 schemes and systems to monitor the transmission grid and maintain reliability during  
20 outages. Advanced protection schemes have the ability to collect data, localize a fault,  
21 and help to determine the cause of a particular outage. The fourth factor of reliability,  
22 maintenance, ensures ITC's transmission facilities remain in proper condition to perform

1           their intended function, whether during routine operations, switching, or  
2           emergency conditions.

3  
4   **Q27. HOW HAS ITC DEVELOPED ITS MAINTENANCE PRACTICES TO**  
5   **COMPORT WITH THIS OVERALL VIEW OF THE SYSTEM?**

6   **A.**   ITC's maintenance practices are comprised of four building blocks. First, ITC believes  
7           that maintenance practices must be: (1) robust, so that any and all individual components  
8           receive the appropriate level of preventive maintenance, and (2) comprehensive, so that  
9           all equipment is included. The second building block of our maintenance practices is the  
10          required completion of 100% of the maintenance plan every year. If a component  
11          requires periodic maintenance, then it must receive the required maintenance within its  
12          scheduled interval. The third building block of ITC's maintenance practices is our "find-  
13          it, fix-it" approach, where corrective actions are taken for any equipment deemed to be  
14          unfit for service. The fourth building block is one of continuous improvement, through  
15          the use of outage cause analysis and feedback into both the maintenance and the capital  
16          improvement plans.

17                These maintenance practices, when taken together and applied to the various  
18                categories of maintenance we perform (preventative, reactive, facilities, vegetation,  
19                vehicular, etc.), form our comprehensive maintenance program.

**Q28. DESCRIBE HOW YOUR COMPREHENSIVE MAINTENANCE PROGRAM  
TRANSLATES INTO A RELIABLE TRANSMISSION SYSTEM.**

**A.** The comprehensive maintenance program described above has increased reliability by maximizing the availability of critical equipment during the times of greatest need. ITC is committed to completing all annual maintenance activities necessary to ensure NERC compliance in all areas (vegetation management, line, station equipment, etc.). This is the link between the first and second building blocks of ITC's maintenance practices. We have a set of robust practices for performing maintenance on the transmission system, and we perform 100 percent of the maintenance plan every year. ITCT, METC, and ITCMW budgeted approximately three quarters of their total operations and maintenance budget for preventive maintenance and operations/training in 2010 and 2011. Trend data has shown a reduction in reactive or unplanned maintenance due to our approach to proactive preventive maintenance. I am including an exhibit that depicts this trend.<sup>8</sup>

**Q29. ARE YOUR MAINTENANCE PRACTICES THE SAME FOR ALL TYPES OF  
EQUIPMENT ON THE TRANSMISSION SYSTEM?**

**A.** No. Our maintenance practices are tailored by specific equipment type, vintage, usage, and location. For example, ITC's circuit breaker preventive maintenance plan calls for a complete inspection, including linkages, interrupters, internal components and other

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<sup>8</sup> See Exhibit JEJ-5.

1 components, every three to ten years depending on the breaker's specific characteristics  
2 and manufacturer's recommendations.  
3

4 **Q30. DESCRIBE ITC'S PREVENTIVE MAINTENANCE PRACTICES IN MORE**  
5 **DETAIL.**

6 **A.** Preventive maintenance is at the core of ITC's commitment to operational excellence.  
7 ITC's "find-it-fix-it" maintenance approach ensures that equipment degradation issues  
8 found in the field are fixed properly the first time. Our preventive maintenance plan  
9 reduces the need for reactive maintenance repairs, thereby improving system reliability  
10 and providing a cost benefit to customers that would have otherwise been impacted by  
11 momentary and sustained outages. At ITC, if a condition is found that is detrimental to a  
12 component's ability to continue to perform its function, ITC takes necessary corrective  
13 actions to provide a remedy. This eliminates more costly unplanned reactive maintenance  
14 repairs in the future, when the catastrophic failure of the component causes damage to  
15 adjacent components, or shuts down portions of the transmission network itself. This  
16 proactive approach also improves the morale of our field force because they know that if  
17 they identify a problem on the transmission system, a resolution will be pursued and the  
18 problem solved. Our field force has a natural incentive to have a direct and meaningful  
19 impact on the reliability of the transmission system.

**Q31. WHAT OTHER ELEMENTS COMPRISE YOUR PREVENTIVE MAINTENANCE PRACTICES?**

**A.** Our preventive maintenance program is composed of inspections and scheduled maintenance to detect problems before system performance is affected. Substation, line, and infrared inspections are the first line of defense in maintaining a reliable system. Substation inspection frequencies vary depending on the type of substation: larger 345 kV substations are inspected more frequently than smaller 69 kV substations. This is due in large part to the criticality the larger 345 kV substations play in the overall reliability of the transmission system. All 115 kV and above lines are aerially inspected twice per year with field supervisors and vegetation management personnel to detect any imminent threats. Infrared inspections are performed annually for all substations and include an infrared scan of all ITC equipment. Specific maintenance plans have also been developed for each type of asset, including circuit breakers, circuit switchers, transformers, buses, disconnect switches, protective relaying, capacitor banks, battery systems, overhead circuits, and underground circuits.

**Q32. DESCRIBE HOW ITC'S VEGETATION MANAGEMENT PROGRAM CONTRIBUTES TO OVERALL SYSTEM RELIABILITY.**

**A.** ITC has established an integrated Vegetation Management Program in which the corridor vegetation is inspected and various control options are considered and implemented to develop and maintain vegetation that is compatible with a safe and reliable transmission system. In conducting this program, ITC cooperates with property owners to meet



1 secondary considerations of improved aesthetics, and management of wildlife and  
2 ecosystems. The preferred strategy is to remove tall growing, incompatible tree species  
3 and retain low growing, compatible plant species.

4 The main objective of ITC's Transmission Vegetation Management Program is to  
5 avoid vegetation-caused outages to the transmission system by maintaining the rights-of-  
6 way so as to achieve at all times and under all expected conditions an acceptable  
7 clearance between the conductors and the vegetation on or off the right-of-way. In  
8 addition, effective right-of-way management includes inspection for and mitigation of  
9 other right-of-way-based causes of outages such as encroachment, vandalism, and  
10 incompatible use.

11 ITC utilizes a Vegetation Management contractor working under the direction of  
12 ITC's Vegetation Manager to implement a best in class Vegetation Management Program  
13 to ensure the integrity of ITC's transmission facilities and compliance with all regulatory  
14 requirements. Successful implementation will be measured by a goal of zero outages on  
15 the 345 kV and 230 kV bulk system from trees on the right-of-way and by a continued  
16 long-term reduction in outages from trees growing into 34.5 -161 kV lines, or by trees  
17 falling onto all electric transmission lines from outside the right-or-way.

18  
19 **Q33. DOES ITC HAVE A SPECIFIC PHILOSOPHY PERTAINING TO**  
20 **REPLACEMENT OF AGING EQUIPMENT?**

21 **A.** ITC's philosophy for asset replacements is generally performance based. As equipment  
22 ages, it tends to begin to fail more regularly. Availability of spare parts for older

1 components can also drive decisions to replace equipment on a proactive basis. Some  
2 equipment, like relays, is often replaced after a specific time in use. This is because it is  
3 more difficult to perform preventive maintenance on the electronics and solid state relay  
4 equipment than it is to perform routine preventive maintenance on mechanical  
5 components like breakers and switches. Even in the case of relay replacements, though,  
6 component performance is a driver of replacement time.

7 Equipment replacement preventive maintenance programs lead to detection and  
8 replacement of defective equipment before it fails. Therefore, proactively replacing  
9 components near their end of life can save significant money down the road by avoiding  
10 costly system repairs, customer interruptions and transmission system unavailability.  
11

12 **Q34. WHAT TYPES OF CAPITAL MAINTENANCE PROJECTS HAS ITC INITIATED**  
13 **THAT REFLECT ITC'S PHILOSOPHY?**

14 **A.** ITC pursues a number of capital maintenance initiatives with regard to replacing aging  
15 equipment. I would like to highlight three of them: 1.) our Breaker Replacement  
16 Program; 2.) a Gas Insulated Switchgear ("**GIS**") Replacement Project; and 3.) our Relay  
17 Betterment Program. These infrastructure improvements are in addition to system  
18 capacity projects which improve load serving capability, customer interconnections and  
19 generation interconnections, and general plant additions.

**Q35. PLEASE DESCRIBE YOUR BREAKER REPLACEMENT PROGRAM.**

A. This is a yearly program to replace infrastructure due to age, past performance, and availability of spare parts. Some breakers need to be replaced due to projected increases in needed interrupting capability, so portions of the program are reliability-driven because replacing the equipment improves the operating capabilities of the system. Aging breakers can have negative environmental and system reliability impacts. From 2003 to 2011, ITC replaced 354, or roughly 17.5%, of the 2,025 breakers acquired through the previous ITC transactions. This does not account for breaker additions that we have made to the system beyond the number of breakers that originally came with the transmission system. For 2013, the ITC operating companies have budgeted in excess of \$18 million to replace breakers at various substations across the ITC footprint.

**Q36. PLEASE DESCRIBE YOUR GIS REPLACEMENT PROJECT.**

A. ITCT is undergoing a project to replace a 38-year old GIS installation in a customer-owned substation where ITC owns the transmission equipment. This is the fourth and final GIS replacement project ITCT has undertaken in recent years. This particular device has known Sulfur Hexafluoride (“*SF6*”) gas leaks. ITC field contractors have recently needed to add SF6 gas three times per month because the seals in the breaker have reached the end of their useful life. The leaks cause the gas inside of the GIS to accumulate moisture, which must be periodically dried, requiring numerous consecutive outages. The leaks cannot be repaired permanently, and the frequent ongoing maintenance is impractical due to the difficulty of scheduling a planned outage every

1 time the breaker needs to be dried, so a replacement is prudent and necessary. In order to  
2 reduce ongoing maintenance costs and prevent catastrophic failure, ITCT will replace the  
3 breaker through its capital maintenance program.

4  
5 **Q37. PLEASE DESCRIBE YOUR RELAY BETTERMENT PROGRAM.**

6 **A.** For background, protective relays are devices that measure current and/or voltage on the  
7 transmission system and compare those quantities to an internal setting designed to  
8 prevent any harm to transmission system equipment. The relay will trip a transmission  
9 system line or other component if the set point(s) is exceeded. For example, if something  
10 were to contact a transmission line, it would create an immediate surge in current on the  
11 transmission line as the power flowed to the ground. The relay would sense the  
12 overcurrent, and would “trip” or disconnect the line from the system. These relays  
13 protect transmission equipment from being overloaded, and also protect the transmission  
14 system by isolating the problem to a smaller defined set of components and not  
15 compromising the integrity of the transmission system network.

16 Protective relays have evolved in technology over the past several decades. Our  
17 Relay Betterment Program is designed to update many of our transmission protection  
18 system relays to more current microprocessor based devices. Previous generations of  
19 relays have employed different types of electromechanical or transistor-based  
20 components to perform their function. The newest relay designs are digital computer-  
21 based systems that sense current and voltage through analog means, but use software to  
22 perform the logic and settings comparisons in order to decide what action to take.

1           Each type of relay has a specific recommended useful life. Electromechanical  
2           relays are typically replaced after 40 years; solid state relays are replaced after 25 years.  
3           Both are typically replaced when their inner components can start to break down. Digital  
4           relays are newer, but we estimate they, too, have a useful life of around 25 years. Over  
5           time, as ITC's relays approach the end of their useful lives, they must be replaced.

6           Relay schemes nearing their end of life are prone to misoperation. A misoperation  
7           occurs when a breaker fails to operate when it is supposed to as instructed by the relay, or  
8           when a breaker operates when it is not supposed to. Misoperations can lead to cascading  
9           outages – multiple, sequential outages of transmission lines from a single event – or can  
10          cause equipment damage. Relay schemes nearing end of life also become costly to  
11          maintain, as parts may no longer be available to repair them. Moving from older  
12          technologies to newer digital relays provides the opportunity to collect data about the  
13          system for system condition monitoring and root cause analyses. Digital relays can also  
14          speed outage recovery times by being able to pinpoint fault locations, telling operators  
15          where to dispatch crews to correct the problem.

16          This particular capital maintenance program is an example where equipment  
17          replacement not only improves system reliability by avoiding component failures, but  
18          also improves system reliability by improving access to data for our operations  
19          department, and reduces overall maintenance costs of the aged equipment.

**Q38. HOW DO ITC'S O&M COSTS FOR PREVENTIVE MAINTENANCE COMPARE TO ITS PEERS?**

**A.** We are able to maintain O&M cost per line mile across our operating companies in line with our peers while achieving exceptional operational performance.

Later in my testimony, I will describe performance metrics as they relate to a specific peer group in an industry benchmarking study.<sup>9</sup> Within that peer group, there are two transmission-only companies who report O&M data to the FERC on an annual basis: 1.) American Transmission Company, LLC ("ATC"), and 2.) American Transmission Systems, Inc. ("ATSI"), the transmission-only subsidiary of FirstEnergy Corp. Table 2 depicts a comparison of O&M spending per line mile of transmission between ITC's operating companies (in aggregate) and these two transmission-only utilities. The data is extracted from FERC Form 1 reports for the years listed.

**Table 2. Transmission O&M Spending per Line Mile for Transmission-Only Peers**

	2008	2009	2010	2011
ITC Holdings Corp.	7.766	6.825	8.805	9.135
American Transmission Company, LLC	7.662	8.342	8.868	10.091
American Transmission Systems, Incorporated	8.000	6.899	6.908	6.823

Dollars, in Thousands, per Transmission Line Mile

When compared against the larger peer group of the industry benchmarking study, ITC and each of its operating companies report O&M spending below the peer group average. Table 3 depicts a comparison of O&M spending per line mile of transmission between ITC (and its individual operating companies) and the companies listed as our

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<sup>9</sup> For the purposes of the industry benchmarking study, ITC's peer group includes American Transmission Company, LLC; Duke Energy-Indiana; Duke-Energy-Ohio/Kentucky; Exelon Corp.; FirstEnergy; Hydro One Networks; and Xcel-Northern States Power.

peer group in the industry benchmarking study. For this analysis, the eastern subsidiaries of Exelon (PECO) and FirstEnergy (Jersey Central, Metropolitan Edison, and Pennsylvania Electric Power Company) have been excluded, to focus on the subsidiaries in the north central region of the US.

The data is extracted from FERC Form 1 reports for the years listed. Hydro One Networks is also not included in the data, since they do not report their data to the FERC.

**Table 3. Transmission O&M Spending per Line Mile for Industry Peer Group**

	2008	2009	2010	2011
<b>ITC Holdings Corp.</b>	7.766	6.825	8.805	9.135
International Transmission Company	12.966	10.828	13.553	13.453
Michigan Electric Transmission Company, LLC	9.811	8.223	10.322	10.620
ITC Midwest LLC	3.915	3.985	5.545	6.098
Average of peers (Excluding ITC Companies)	27.273	25.590	25.041	27.886
<b>ITC Peers:</b>				
American Transmission Company, LLC	7.662	8.342	8.868	10.091
Duke Energy - IN	6.705	5.356	7.651	6.672
Duke Energy - OH/KY	14.849	19.336	16.854	31.048
Exelon West (ComEd)	70.144	79.134	79.619	69.802
FirstEnergy West (Legacy FE Companies)	44.537	14.761	5.726	16.023
Northern States Power Company - MN	30.931	34.091	36.407	40.431
Northern States Power Company - WI	16.086	18.113	20.159	21.132

Dollars, in Thousands, per Transmission Line Mile

**Q39. DOES ITC PLAN TO ADOPT ENTERGY'S MAINTENANCE PLANS?**

**A.** Upon closing, the ITC Midsouth Operating Companies will initially adopt Entergy's maintenance plan. However, after we have fully assessed the condition of the system from our independent perspective, ITC will over time modify the plan by imparting its own maintenance approach as I have described above. I will discuss more about ITC's corporate culture and business practices that will be deployed to the Entergy transmission system later in my testimony.

**Q40. PLEASE DESCRIBE HOW ITC'S MAINTENANCE PRACTICES HAVE LED TO THE IMPROVED PERFORMANCE OF THE SYSTEMS IT HAS ACQUIRED.**

**A.** In the past, upon assuming ownership of a transmission system, ITC conducted an evaluation of the system by studying historical records, performing planning assessments, conducting equipment inspections, and talking to knowledgeable individuals about the systems. The outcome of the evaluation included the identification of capital projects that could improve system reliability and economics, development of annual maintenance plans, and application of ITC's operational excellence philosophy.

My affidavit submitted in FERC Docket No. RM06-4 documented the state of the transmission facilities that ITCT acquired from Detroit Edison. ITCT acquired a transmission system with a maintenance backlog that risked system integrity and reliability.

Because of our sole focus on transmission, ITCT could immediately address the backlog of projects needed to bring its transmission system up to the standard of good utility practice. Since 2003, ITCT has replaced or newly installed nearly 50 percent of the breakers in its transmission system and has eliminated the lengthy maintenance backlog that ITC inherited when it acquired these transmission assets from Detroit Edison. This major effort has increased reliability and reduced constraints by maximizing the availability of critical equipment during the times of greatest need. These results will be described later in my testimony.



1 Similarly, ITCMW acquired an aged transmission system from Interstate Power  
2 and Light Company in 2007 that faced backlogs in corrective maintenance and in  
3 implementing an appropriate vegetation management plan. The maintenance backlogs  
4 were documented in an assessment plan – the State of the System Report – developed at  
5 the request of the Minnesota Public Utilities Commission in December 2008, and  
6 discussed in the testimony of ITC witness Mr. Douglas Collins. ITC has applied its  
7 maintenance philosophy to these assets, developed and implemented a robust and  
8 proactive O&M program, and improved the performance of these systems. These results  
9 are also described later in my testimony.

10  
11 **iii. Performance Metrics from Industry Benchmarking**

12 **Q41. WHAT IS THE SGS TRANSMISSION RELIABILITY BENCHMARKING**  
13 **STUDY?**

14 **A.** The SGS Statistical Services' Transmission Reliability Benchmarking Study ("**SGS**  
15 **Study**"), in existence since 1995, is the largest independent benchmarking forum for  
16 electric transmission reliability, and provides a comprehensive reliability assessment at an  
17 operating company level. The ITC operating companies participate in the SGS Study.<sup>10</sup>  
18

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<sup>10</sup> See **Exhibit JEJ-6HC**.

**Q42. WHAT ARE THE PARAMETERS AND SCOPE OF THE SGS STUDY?**

A. 2012 was the eighteenth year for the SGS Study. A total of 24 systems participated, which comprised, by mileage, 47.8% of the US grid, 44.4% of the US/Canada grid and 51.1% of all US/Canada circuits. The combined peak system load for the US systems in the SGS Study was 462,368 MW or 58.6% of highest annual non-coincident total US peak load. The ITC systems made up approximately 5% of the total circuit miles in the SGS Study and approximately 5.3% of the SGS Study peak load.

The SGS Study utilizes five plus years of raw transmission circuit outage data, which includes both sustained and momentary outages. The SGS Study applies common rules to all systems to ensure the highest integrity of analysis and comparisons. Further, the SGS Study generates commonly used IEEE performance measures related to outage frequency, outage duration, outage rate, and transmission system availability.

**Q43. PLEASE EXPLAIN THE RESULTS OF THE 2012 SGS STUDY RELATED TO ITC'S OPERATIONS.**

A. Companies are analyzed in comparison to other participants in the SGS Study, including comparison based on their region<sup>11</sup> and their peer group.<sup>12</sup> Overall, the ITCT and METC transmission systems are among the best-performing systems of those detailed in the SGS

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<sup>11</sup> Regions for purposes of the SGS Study are North Central, Northeast, Southeast, and West. ITC's systems are within the North Central region.

<sup>12</sup> Peers are defined as a group of three or more transmission systems selected by ITC. ITC's peer group includes American Transmission Company, LLC; Duke Energy-Indiana; Duke-Energy-Ohio/Kentucky; Exelon Corp.; FirstEnergy; Hydro One Networks; and Xcel-Northern States Power.

1 Study. For example, in the “All Voltages” category, the report indicates that ITCT and  
2 METC are within the top ten percent of best rated companies for sustained outages  
3 performance per circuit (Number of Sustained Outages per Circuit) as well as for the  
4 average duration of circuit outages (in minutes). ITCT and METC outperform both their  
5 region and their peer group in both categories. **Exhibit JEJ-7** depicts these two metrics  
6 for the ITC operating companies’ performance in 2011, and juxtaposes ITC’s  
7 performance against that of the region and ITC’s peer group.

8 ITCT and METC are the two systems that ITC has owned and operated the  
9 longest. ITCT has been an ITC company since 2003; ITC acquired METC in 2006. ITC  
10 has had more time to implement its corporate philosophies for these two systems, and this  
11 has resulted in these two companies being among the best-performing systems of those  
12 detailed in the SGS Study.

13 ITC acquired ITCMW in December 2007 and began operating and maintaining  
14 the system in 2009. Since this acquisition is quite recent, the benefits of ITC’s operations  
15 and maintenance practices have not fully been realized in the ITCMW system, and the  
16 system does not yet perform as well as our longer-held Michigan companies.  
17 Nevertheless, ITCMW performance has shown significant improvement, and continues to  
18 trend in a positive direction. Overall, ITCMW is in the third quartile for sustained outage  
19 performance and in the second quartile for average duration of circuit outages. In  
20 contrast, ITCMW’s performance in 2010 was in the fourth quartile for sustained outages  
21 and the third quartile for outage duration. ITCMW’s performance in the SGS Study also  
22 is discussed in the testimony of ITC witness Mr. Douglas Collins.

1 **Q44. PLEASE EXPLAIN WHY THE BENEFITS OF ITC'S OPERATIONS AND**  
2 **MAINTENANCE PRACTICES HAVE NOT FULLY BEEN REALIZED IN**  
3 **ITCMW SYSTEM PERFORMANCE.**

4 **A.** ITCMW is a different system than our other operating companies, with nearly all lines  
5 operating below 230 kV, and a significant portion below 100 kV. Many utilities that  
6 participate in the SGS Study own little or no 34.5 kV or 69 kV facilities. When  
7 comparing individual voltage levels, the ITCMW 100 kV+ system ranks among the top  
8 quartile for overall outages and outage duration. The previous owner's use of lower  
9 construction standards, different maintenance standards, and a lack of capital replacement  
10 actions all contribute to the lower performance. Lower voltage systems are inherently  
11 less robust than higher voltage systems because the higher voltage systems require higher  
12 construction standards, stronger structures (often steel) and larger and heavier wire sizes.  
13 ITC is improving performance of the lower voltage system through our preventive  
14 maintenance and infrastructure improvements.

15  
16 **Q45. HAS THE PERFORMANCE OF ITC'S OPERATING COMPANIES IMPROVED**  
17 **OVER TIME?**

18 **A.** Yes. ITCT has achieved a 55% improvement between 2005 and 2011 in sustained  
19 outages caused by transmission system equipment. ITC's more recently-acquired MISO  
20 operating companies, METC and ITCMW, have achieved sustained outage improvements

1 of 13% and 58%, respectively, between 2008 and 2011. This is a meaningful advance in  
2 service availability.

3 **Q46. HOW DOES ITC DRIVE TOWARD CONTINUOUS IMPROVEMENT IN EACH**  
4 **OF ITS OPERATING COMPANIES?**

5 **A.** Continuous improvement is a process of continuous learning. We continuously think  
6 about more efficient and creative ways of executing transmission projects, operating the  
7 transmission system, and recovering from system disturbances and outages that impact  
8 reliability of the grid. In order to provide the organization with the information necessary  
9 to prevent recurrence of system outages, ITC performs an outage cause analysis of all  
10 sustained outages on its systems. The outage cause analysis is typically performed by an  
11 ITC engineer, and all outages are reviewed monthly by an internal cross-functional group  
12 at ITC comprised of representatives from operational and technical areas of the company.  
13 The goal of this team is to analyze all system events and minimize their recurrence,  
14 through means ranging from simple actions like a change in maintenance schedule to  
15 more complex actions like the development of an infrastructure improvement project.

16  
17 **Q47. PLEASE PROVIDE AN EXAMPLE OF AN OUTAGE CAUSE ANALYSIS THAT**  
18 **ITC PERFORMED, AND THE RESULTING ACTIONS.**

19 **A.** The ITCT Hunters Creek-Robin-Wabash 120 kV line was experiencing lightning-induced  
20 outages at an abnormally high rate. Over the five year period from 2004-2009, the line  
21 opened seven times due to confirmed lighting events, with three of the lightning events  
22 occurring in 2008 alone. An inspection and engineering review of the line was initiated.

1 Through the outage cause analysis process, it was determined that the shielding angle on  
2 this line was 41°. The shielding angle is defined as the angular difference between a  
3 vertical line and the line created by the position of the shield wire and the conductor. By  
4 reducing this angle, the lightning protection on the line is increased. A project was  
5 initiated and approved in 2009 to improve the lightning protection on the line. With the  
6 addition of a second shield wire, along with double ground wire peaks, the shielding  
7 angle was reduced down to 7.85°. Since the completion of the shield wire project in  
8 December 2010, the line has not experienced a confirmed lightning-induced outage. A  
9 copy of the outage cause report is attached to my testimony as **Exhibit JEJ-8**.

10  
11 **Q48. CAN YOU DETERMINE A VALUE FOR THE IMPROVED RELIABILITY ITC**  
12 **BRINGS TO THE TRANSMISSION SYSTEM?**

13 **A.** There are many ways to define the reliability of a transmission system. One very visible  
14 measure of electric system reliability is quite simply whether the system is available. A  
15 system that experiences routine or frequent outages, whether momentary or sustained, is  
16 not a reliable system. When service is not available, *i.e.*, the lights are out, end users  
17 experience both inconvenience and loss. The discomfort and disruption of day-to-day  
18 activities when heating or cooling is not available cannot be underestimated, although it  
19 may be difficult to quantify the disruption in monetary terms. Residential and  
20 commercial users are also both subject to losses for items and processes that rely on  
21 continuous electric service. For residential users, it is often food spoilage from lack of  
22 refrigeration; for commercial and industrial users, it can be loss of product and

1 opportunity for sales. Improved reliability means less time during the year when service  
2 is interrupted. Placing a value on the losses associated with the loss of electrical service  
3 is one way to value the better reliability that ITC delivers. Some costs of service  
4 interruptions, such as the hazard and delay caused by non-functional traffic lights, can be  
5 significant but difficult to quantify. Interruption of life support systems or other critical  
6 medical systems that lack back-up power can also be a significant factor.

7 The DOE's Office of Electricity Delivery and Energy Reliability developed a tool  
8 to estimate interruption costs and the benefits associated with reliability improvements,  
9 located at <http://icecalculator.com/>. This tool takes into account the type of customer,  
10 region of the country and the estimated mix of customer types to place a value on the  
11 reduction in such load loss events. The tool uses industry standard reliability metrics in  
12 the calculations of the value of improved reliability.

13 Using data from our SGS Study benchmarking, we can determine that ITC's  
14 Michigan companies have a lower transmission System Average Interruption Duration  
15 Index ("**SAIDI**") than our peers or the average. This difference is about a 20 minute  
16 improvement from the median, or second quartile transmission SAIDI performance.  
17 Using the DOE Interruption Cost Estimator, a one minute improvement in SAIDI for  
18 ITCT and METC results in one year savings of \$7.7M. For the difference in performance  
19 with the median utility in the SGS Study, this amounts to a value of about \$153 million  
20 per year. **Exhibit JEJ-9** shows this calculation in more detail.

21 The calculation is based on data for the two largest load serving entities in  
22 Michigan from 2010 and 2011, with major storms excluded. The ITCT and METC data

1 reflect a three year average SAIDI from the SGS Study, given that performance changes  
2 year over year. The calculation was made with ITC's Michigan companies in order to  
3 allow for a meaningful comparison in this proceeding.  
4

5 **iv. Compliance with NERC Reliability Standards**

6 **Q49. PLEASE DESCRIBE ITC'S PHILOSOPHY WITH RESPECT TO COMPLIANCE**  
7 **WITH RELIABILITY STANDARDS.**

8 **A.** ITC's goal with regard to NERC Reliability Standards is "100% compliant - 100% of the  
9 time."

10 ITC believes that the best way to achieve this goal is to create and maintain a  
11 culture of compliance. This culture of compliance embraces a top to bottom  
12 organizational focus. To this end, ITC has established a Reliability Compliance Steering  
13 Committee ("**RCSC**"). The RCSC includes executive representation from all  
14 Departments that have responsibility for complying with the Reliability Standards. The  
15 executives on this committee are accountable for ensuring the compliance of the  
16 Departments under their direction and providing the necessary support and resources to  
17 ensure compliance. Executives are also responsible for ensuring that their groups work  
18 cooperatively with the Compliance Director and Manager in implementing the overall  
19 compliance program. The RCSC is chaired by the appointed Reliability Standards  
20 Compliance Officer.

21 To support the direction established by the Steering Committee, a compliance  
22 structure is in place which is comprised of a matrix organization led by the Reliability



1 Compliance Director. All of the applicable Standards have been assigned to members of  
2 ITC's staff based on each staff member's expertise and role within the organization.  
3 If incidents of non-compliance are discovered, it is ITC's policy that they will be reported  
4 promptly to the NERC Regional Entities and that ITC will work cooperatively with these  
5 NERC Regional Entities to implement mitigation plans that contain corrective actions  
6 that both eliminate the cause of the violation and prevent future occurrences in the  
7 subject area.

8 The compliance program is an active program that continues to evolve in response  
9 to new requirements in an ever changing industry.  
10

11 **Q50. HOW IS THE RELIABILITY STANDARDS PROGRAM STRUCTURED?**

12 **A.** The core attributes of ITC's Reliability Standard compliance program are as follows:

- 13 • **Auditability:** This program allows demonstration to management, auditors  
14 (internal & external), and regulators that ITC is in compliance with applicable  
15 Reliability Standards.
- 16 • **Accountability:** Any person determined to have engaged in conduct that violates  
17 FERC or NERC rules, regulations, standards or ITC written policy and procedure,  
18 will be required to undergo additional training, and may also be subject to  
19 disciplinary action and, where applicable, legal action.
- 20 • **Manageability:** The program is appropriate to the size and complexity of ITC.  
21 This encourages employees to follow the compliance program process and

1           procedures (ensuring compliance) and to maintain records required for audits  
2           without being unnecessarily burdensome.

- 3           • Sustainability: The program is designed to be reviewed at least once each  
4           calendar year and modified if necessary.
- 5           • Traceability: The program includes record requirements so that program and  
6           Compliance Records are traceable; and time based records are linked to the  
7           applicable Reliability Standard in effect at that point in time.

8           ITC has established a program to ensure compliance with the Reliability  
9           Standards that includes:

- 10          • analyzing and defining impacts of newly announced Reliability Standards, in  
11          order to prepare for future implementation if that becomes necessary;
- 12          • developing Reliability Standards implementation and compliance procedures,  
13          resource requirements, and sustaining programs and methodologies;
- 14          • working with responsible Departments to adopt and maintain reliability program  
15          work processes and administrative reporting responsibilities;
- 16          • gathering required information in its most current form and storing for easy  
17          retrieval;
- 18          • making the information available for use, including for an on-site audit by the  
19          Regional Entity;
- 20          • communicating Reliability Standards information to management, staff, and  
21          contracted vendors; and

- maintaining and managing departmental stakeholder responsibilities to ensure sustainable adherence to compliance requirements.

**Q51. WHAT ARE THE RESULTS OF YOUR MOST RECENT AUDITS PERTAINING TO NERC RELIABILITY STANDARDS?**

**A.** ITC has been very successful in complying with what are called the “Order 693 Reliability Standards.” In short, the Order 693 Standards encompass operations, planning, and maintenance - everything except the Critical Infrastructure Protection (“*CIP*”) Standards. During our full on-site NERC 693 audit from August 15, 2011 through August 31, 2011, ITCT and ITCMW were both found fully compliant with each of the 28 standards and 80 requirements for transmission owners and operators that were included in the audit. Among those same standards and requirements, one minor violation was identified for METC, which involved an incorrect equipment rating that was in place for approximately two months in 2010. The violation was self-identified by METC and corrected. ITCGP was audited in June 2012 and found fully compliant with each of the 11 standards and 18 requirements that were included in the audit.

CIP standards were also audited during the same period. At the conclusion of the audit, the audit team identified 15 potential violations of the CIP requirements among the ITC registered entities in the Reliability *First* and MRO Regional Entities. The registered entities are ITC, METC, ITCMW, and the Michigan Electric Coordinated System

1 (“*MECS*”).<sup>13</sup> This formally resulted in a notice of violation of nine NERC Reliability  
2 Standards requirements.

3 The major theme that came through in the exit presentation of the CIP  
4 Compliance audit was a need to revise our documentation and devote more time to  
5 educating our Subject Matter Experts (“*SME*”) on compliance documentation  
6 requirements. In particular, the documentation needs to be more detailed, specific and  
7 comprehensive; it needs to be more simple and self-explanatory; and the documentation  
8 needs to more clearly tie back to the requirements in order to establish satisfactory  
9 compliance with the reliability standard. Auditors also suggested that more resources are  
10 required to reliably maintain compliance for the CIP standards.

11 In keeping with our views on full compliance with applicable NERC Reliability  
12 Standards, we developed and implemented a number of targeted corrective actions.  
13 Lessons-learned meetings were held with all participants immediately following the  
14 audits. We also elected to bring in outside CIP expertise to work with our SMEs to  
15 rework all of our documentation so that we can effectively ensure and demonstrate  
16 compliance. An important part of this effort will be to identify any resource gaps and  
17 define the work that needs to be done so that we can add the right type and number  
18 of resources.

19 Non-compliance is not tolerable in our organization, and we address each and  
20 every instance that occurs. We learn from our failures, and we strive to achieve full

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<sup>13</sup> MECS performs certain local balancing functions for ITC’s Michigan entities.

1 compliance through proper corrective actions. This does not diminish our commitment to  
2 compliance with reliability standards; it ensures that we are not complacent with the  
3 status quo.

4 **v. Storm Restoration**

5 **Q52. DOES ITC'S OPERATIONAL EXCELLENCE EXTEND TO RESTORATION OF**  
6 **TRANSMISSION FACILITIES AFTER TORNADOES, FLOODS, ICE STORMS,**  
7 **OR OTHER NATURAL DISASTERS?**

8 **A.** Yes. Restoring power quickly is a core competency and area of focus for ITC. ITC  
9 maintains a Disaster Recovery Plan<sup>14</sup>, which provides the framework for responding to  
10 and recovering from transmission system and facility emergencies, and for ensuring  
11 business continuity before, during, and after the crisis. ITC is working with EAI and the  
12 other Entergy Operating Companies to formulate a new ITC emergency operations plan  
13 which will complement the Entergy Emergency Operations Plan and will take into  
14 account the interactions necessary between ITC and our new customers and  
15 interconnections in the South. ITC follows a straightforward approach, similar to most  
16 utilities, in organizing emergency response activities. The approach includes the  
17 following features:

- 18 • establishment of an Emergency Operations Center with leads from key functional  
19 areas;

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<sup>14</sup> See **Exhibit JEJ-10**.

- 1           • Vice President of Operations or COO serves as the Emergency Response  
2           Coordinator. This responsibility often is delegated to a Regional Field Director  
3           for smaller incidents;
- 4           • appointment of leaders for specific areas such as damage assessment, restoration,  
5           operations, communications, and logistics. Personnel are assigned dependent  
6           upon the type of incident and operating company/region(s) involved;
- 7           • emergency response coordinator schedules and conducts periodic conference calls  
8           to obtain updates and facilitate information sharing between all functional areas;  
9           and
- 10          • depending upon the size of the area impacted and what distribution entities are  
11          affected (municipal utility, electric cooperative or IOU), a liaison from ITC will  
12          be assigned to work at the local distribution company operations center. The  
13          liaison's primary purpose is to ensure information flow necessary to prioritize  
14          restoration efforts of areas affected.

15           In terms of resources for storm restoration, all ITC operating companies use  
16          dedicated field O&M contractor resources that are under contract to only do work for  
17          ITC. ITC supplements its dedicated O&M contractor crews with capital construction  
18          crews. Both our dedicated field O&M contractor and project specific construction crews  
19          are large, national companies that ITC can call on for resources and logistics above and  
20          beyond what is required by our existing Michigan and Midwest operating areas. ITC will  
21          have the ability to leverage these existing national contractors to deploy crews to the ITC  
22          Midsouth region in support of both storm restoration efforts and post-storm work.

1           As necessary, ITC also relies on other utilities' mutual assistance. We are  
2           members of, and participate in, the Midwest Mutual Assistance Group and the Great  
3           Lakes Mutual Assistance Group. We anticipate joining mutual assistance groups in the  
4           ITC Midsouth region.

5           One of ITC's strengths is our ability to mobilize quickly and effectively. The  
6           types of weather events that impact our systems often strike with little or no warning,  
7           necessitating the ability to respond at any moment. ITC employees and contractors excel  
8           at prioritizing and focusing organized efforts on safely and quickly restoring the  
9           transmission system to ensure grid reliability and prompt restoration of service  
10          to customers.

11  
12   **Q53. PLEASE GIVE A SPECIFIC EXAMPLE OF A RECENT SUCCESSFUL STORM**  
13   **RESTORATION BY AN ITC OPERATING COMPANY.**

14   **A.**   Central Iowa was hit by a storm in the early morning hours of July 11, 2011. The storm  
15          carried winds of more than 100 miles per hour. At its peak, Interstate Power and Light,  
16          the electric utility providing service to retail customers in this central part of Iowa,  
17          estimated that more than 45,000 of its retail customers lost power across a four-county  
18          area in east central Iowa. Thousands more customers served by electric cooperatives and  
19          municipal utilities were also impacted. The storm knocked out nine 161 kV lines, two  
20          69 kV lines, and twenty 34.5 kV lines across the ITCMW system, and affected  
21          approximately 60 substations. More than 300 poles needed to be replaced. The National

1 Oceanic and Atmospheric Administration said the storm was the most widespread and  
2 damaging wind event to affect central and east central Iowa since 1998.

3 Within 72 hours, ITCMW restored transmission service to all customers and  
4 customer substations that could take service, pending the repairs of their distribution  
5 systems. Once all customer connections were re-established, crews began working to  
6 provide back-up feeds to those substations. The secondary feeds were critical to serve the  
7 returning load as distribution customers were returned to service.

8  
9 **Q54. HOW WILL ITC UTILIZE ENTERGY'S EXPERTISE AND EXPERIENCE IN**  
10 **RESPONDING TO NATURAL DISASTERS?**

11 **A.** The new ITC Midsouth Operating Companies will leverage EAI's and the other Entergy  
12 Operating Companies' expertise in storm restoration, including, in particular, ice storms  
13 and tornado restoration efforts.

14 ITC has experience with many of the concepts that make Entergy successful at  
15 storm restoration: incident command, emergency operations center, triage and  
16 prioritization. Accordingly, ITC has the knowledge and capability to integrate the  
17 Entergy storm restoration procedures into ITC procedures, and to execute the  
18 transmission system storm restoration procedures with the transmission personnel we will  
19 gain through the Transaction. Detailed, integrated storm restoration plans will be  
20 completed prior to the closing of the Transaction and will address interactions between



1 ITC and other utilities in the Entergy Region.<sup>15</sup> Key areas of the new ITC Incident  
2 Command System (“*ICS*”) structure will be integrated with the Entergy ICS structure to  
3 ensure continued excellence in storm restoration. This integration of restoration plans  
4 will ensure there is an Incident Command Structure in place for storm response upon  
5 close. When a storm occurs, ITC and EAI employees, both management and non-  
6 management, will collectively assess the storm’s effect on their respective systems and  
7 develop a plan to return the transmission system and the customers connected to it to  
8 service. ITC will rely on the experience it has gained through its existing operating  
9 companies in working with local distribution companies in storm restoration efforts. We  
10 understand how to staff an emergency operation, and we will be able to work with EAI  
11 distribution personnel, adjacent transmission control centers, electric cooperatives and  
12 municipal utilities, and independent generators to restore the system as quickly, safely,  
13 and reliably as all stakeholders and regulators have become accustomed to.

14 Most importantly, the Entergy transmission business’s expertise and experience in  
15 responding to natural disasters will be maintained. A number of the Entergy transmission  
16 business’s experienced transmission storm response employees will move to ITC with the  
17 Transaction, utilizing substantially the same processes for dealing with catastrophic  
18 events. This best practice will be a great asset, allowing the world-class storm restoration  
19 efforts to continue after the Transaction is closed.

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<sup>15</sup> The Entergy Region generally covers the footprint of the Entergy Operating Companies, which ranges from the Gulf of Mexico to the Missouri-Arkansas border, and from the western half of Mississippi to southeastern Texas. The Entergy Region includes not only the Operating Companies, but also a number of rural electric cooperatives, municipal power agencies, independent power producers, and other market participants.

**Q55. AFTER THE TRANSACTION CLOSES, HOW WILL ITC AND ENTERGY  
COORDINATE RESPONSE TO A MAJOR STORM THAT AFFECTS THE EAI  
REGION?**

**A.** ITC and EAI will interact before, during, and after a major storm. Notably, during such a storm, ITC and EAI each will have a Liaison Coordinator at the other organization's command center, which facilities will be located physically next to each other in Jackson, Mississippi. Each Liaison Coordinator will be assigned to work in conjunction with the other organization to relay information, and to serve as a central point of coordination between the respective command centers.

Part of each Liaison Coordinator's responsibilities will be to ensure that ITC and the Entergy Operating Companies are aligned with respect to coordination of the restoration priority of transmission lines and both transmission and distribution substations.

**Q56. HOW WILL TRANSMISSION RESTORATION PRIORITIES BE DETERMINED  
AFTER A MAJOR STORM?**

**A.** After major events, ITC's priority has been to restore the transmission system to service as quickly and safely as possible, including restoring transmission lines that serve critical facilities. ITC will continue this practice and will seek input from EAI and other distribution and wholesale entities served by ITC's transmission system, the MISO Reliability Coordinator, and government and/or regulatory bodies as needed. .

**Q57. PLEASE EXPLAIN HOW ITC WILL COORDINATE RESTORATION OF  
DAMAGE TO TRANSMISSION FACILITIES.**

**A.** The ITC Midsouth Incident Commander will have primary decision-making responsibility for restoration of damaged transmission facilities, with input from ITC's Planning Section. As part of the restoration process, ITC also will seek information and input from Entergy and other entities including embedded electric cooperatives, municipal utilities, and adjacent utilities. Coordination of this type is key to restoring damaged facilities safely and efficiently, particularly since ITC will follow the same process of adding load back to the system that Entergy currently follows.

**vi. Procurement**

**Q58. PLEASE PROVIDE AN OVERVIEW OF THE ITC SUPPLY CHAIN AND  
PROCUREMENT MANAGEMENT PHILOSOPHY.**

**A.** ITC's supply chain organization's primary objectives are improving safety, reliability and transmission system accessibility, and achieving the lowest total cost of transmission. ITC then identifies those practices that help achieve these objectives more effectively and efficiently than any other methodology. To that end, ITC has been able to leverage numerous supply chain relationships and develop strategic alliances with vendors to obtain competitively priced goods and services in a timely manner.

ITC is interested in total life cycle costs. This is evident in our maintenance practices I previously discussed, and it is evident in our supply chain strategy, as well.

1 ITC uses a competitive bid process in which total life cycle costs are compared when  
2 establishing its alliances. ITC considers strategic manufacturing capability, proximity to  
3 delivery area, ability to meet schedule requirements, best overall cost structure, and  
4 supplier reliability/quality in awarding alliances. ITC's alliance pricing typically takes  
5 the form of firm unit prices with an index-based escalation clause. But ITC also may  
6 employ firm estimated prices that are trued up after the work is completed and "open  
7 book," cost-plus pricing based on actual direct costs of materials and labor with fixed  
8 overhead and profit.

9 Alliances generally have a three to five year term. During this time, ITC Supply  
10 Chain and technical experts monitor the supplier or contractor's performance and meet  
11 approximately once per quarter to work on common goals, solve any quality or service  
12 problems, and forecast needs. ITC also audits its alliances periodically. Audit results are  
13 addressed with the supplier or contractor to improve contract compliance and  
14 supplier management.

15 **Q59. PLEASE DESCRIBE ITC'S SUPPLY CHAIN AND PROCUREMENT STRATEGY**  
16 **IN MORE DETAIL.**

17 **A.** ITC's supply chain strategy for major equipment and services relies on a tactical  
18 procurement approach for various types of products and services. This is shown in  
19 **Exhibit JEJ-11** which categorizes the "value" of the product or service to ITC and also  
20 the "market complexity" in obtaining the product or service. The "value" axis is  
21 reflective of the product's importance to ITC's business and to system reliability. The

1 “market complexity” axis is reflective of the number of suppliers that provide the product  
2 or service, and the relative difficulty in obtaining it. Low “market complexity” is  
3 reflective of lower risk, and means there are many suppliers, few barriers to entry, little  
4 competitor rivalry, or multiple substitute products or services. High “market complexity”  
5 is reflective of higher risk, and means there are few suppliers, significant barriers for new  
6 suppliers to enter the market, no substitutes, strong competitor rivalry, or a highly  
7 technical product. The more important the service or product is to making or keeping  
8 ITC’s transmission service reliable, the higher it ranks along the value axis continuum.

9 Using the four quadrants of market complexity and value, ITC tailors its  
10 procurement activities based on the characteristics of the particular quadrant.

- 11 • High Value / High Complexity Quadrant 4 (“Strategic”): These services and  
12 items are strategically important to ITC’s core business. Therefore, ITC uses  
13 long-term partnering type agreements to ensure high quality supply, emergency  
14 responsiveness, etc. Since these services and commodities are strategically so  
15 significant, they are standardized as much as possible. The standards are used for  
16 inventory, design, construction and maintenance. The strategy transcends  
17 multiple departments across the organization. Even at the planning level, for  
18 generator interconnection work, due to long-term agreements and standardization,  
19 lead-times for the entire process is more predictable than otherwise would be  
20 possible. The format of ITC’s “Strategic” commodities and services relies on  
21 primarily “open book” (actual costs plus negotiated profit) agreements for  
22 maintenance and construction services, transformers, steel poles and conductor.

- 1           • Low Value / High Complexity Quadrant 3 (“Critical”): These services and  
2           materials may be acquired through a traditional open book agreement or a hybrid  
3           of the open book agreement, such as one with a price list that is trued  
4           up/reconciled annually to actual costs plus a negotiated fee. These services and  
5           items are critically important to the company’s core business, but may not cost as  
6           much as those in Quadrant 4.
- 7           • High Value / Low Complexity Quadrant 2 (“Leverage”): ITC pools its  
8           commodities or services into categories of similar products and services to  
9           leverage its spend volume with key suppliers and drive a lower total cost, improve  
10          warranties and obtain value adds from its suppliers. To optimize this strategy,  
11          stakeholder teams work hard to standardize product descriptions and set them up  
12          as inventory items. This permits ITC’s inventory planning system to assist in  
13          replenishment orders so that products are readily available for capital projects or  
14          emergency maintenance.
- 15          • Low Value / Low Complexity Quadrant 1 (“Transactional”): These items may be  
16          handled on a one-off basis or through blanket orders to reduce transaction costs  
17          and increase efficiency and consistency.

18           Services and commodities that fall into Quadrants 3 and 4 are overseen by the  
19          Director of Supply Chain, and managed by a dedicated Supply Chain Manager, a lead  
20          buyer, and SMEs or internal stakeholders. The supplier or contractor also provides an  
21          executive sponsor and a key account lead, and will involve its key stakeholders such as  
22          design engineers or logistics personnel. Meetings are typically held quarterly; however,

1 for the key individuals from each company, communication is frequent and often daily.  
2 The parties work together to develop service level plans with long to medium term goals;  
3 work and materials are forecasted; suppliers are involved earlier in projects under  
4 development; and process improvements and efficiencies are promoted, shared and  
5 documented.

6 Approximately 70-75% of ITC's Supply Chain spend in 2011 was in Quadrants 3  
7 and 4 – the two quadrants with high market complexity. Many ITC/supplier relationships  
8 have been in place for five or more years. This has permitted ITC's Supply Chain to  
9 aggressively manage its Quadrant 2 services and commodities with an ongoing cross-  
10 functional team. These are typically handled with a Supply Chain manager and buyer  
11 lead as well as internal stakeholders in a similar fashion to the Quadrant 3 and 4 alliances.  
12 Since the overall spend is not as great and the risk is lower, these supplier relationships  
13 are often given to supply chain buyers to develop their leadership skills. Managing our  
14 supply chain relationship in this fashion has allowed us to focus our efforts with the right  
15 personnel for the right procurement activities.

16  
17 **Q60. HOW DOES ITC ENSURE IT IS GETTING THE BEST OVERALL VALUE?**

18 **A.** ITC looks at total life cycle costs when evaluating its suppliers. Because of ITC's  
19 familiarity with our suppliers' manufacturing processes, we can be confident in their  
20 quality and delivery performance. Our construction contractor relationships bring  
21 efficiency and economies of scale to our projects.

1 Periodically, we also go to market to bid large capital equipment and construction  
2 projects. When considering suppliers and overall value, ITC's primary objectives are  
3 best in class safety, reliability, accessibility, competency in delivering a quality product,  
4 and achieving the lowest total cost of transmission.

5  
6 **Q61. HAVE YOU IDENTIFIED A DOLLAR AMOUNT OF SAVINGS THAT WILL BE**  
7 **ATTAINED THROUGH THE TRANSACTION?**

8 **A.** To date, we have focused more on how we will go about achieving the savings after the  
9 Transaction closes, rather than trying to identify specific cost savings that we can bring to  
10 the region. Much of the work involves more detailed reviews of the existing procurement  
11 contracts that Entergy maintains, and then meeting with vendors and suppliers to work on  
12 new agreements going forward.

13 Nevertheless, ITC does expect that our supply chain philosophy and alliance  
14 pricing will be able to lower costs in the Entergy Region. ITC expects that by  
15 categorizing procurement costs for the new ITC Midsouth Operating Companies in the  
16 same fashion as we have done for our existing operating companies, we will be able to  
17 enter long-term arrangements for our new strategic and critical sourcing needs.  
18 Standardization going forward may help us leverage savings for additional spending with  
19 existing suppliers to the extent they are able to meet our needs in the new operating  
20 footprint. We believe our efficiencies and successes in supply chain management will  
21 provide meaningful opportunities for cost savings as we negotiate alliances with  
22 Entergy's current suppliers and with our own existing suppliers.



**Q62. WILL ITC'S SUPPLIERS SUPPORT YOUR EFFORTS TO EXPAND?**

**A.** We expect so. Historically, ITC's suppliers have been supportive and understanding of the fact that as ITC grows, they will grow as well. Two of ITC's criteria for selecting an alliance partner are the supplier's capacity and long-range growth plan. This past spring, we reached out to many of our suppliers to seek their feedback on our alliances and how they might view the Transaction. Their responses were quite favorable; I have included several response letters we received as Exhibit JEJ-12.

**Q63. WHAT WILL BE ITC'S APPROACH TO ENTERGY TRANSMISSION'S EXISTING SUPPLIERS?**

**A.** We will review the terms of supplier agreements in place at Entergy. ITC hopes to utilize or expand those relationships, especially for suppliers that are local to the ITC Midsouth transmission system.

**vii. Stakeholder Relations**

**Q64. HOW DOES ITC'S ENGAGEMENT WITH STAKEHOLDERS HELP IT ACHIEVE OPERATIONAL EXCELLENCE?**

**A.** Since our only line of business is the ownership, operation and maintenance of transmission systems, it is imperative that we develop business practices that demonstrate our commitment to improving the operating performance of those systems. We have a Stakeholder Relations Department that reports up through the Vice President of Regulatory and External Affairs. The Stakeholder Relations Department is committed to

1 the continuous improvement of ITC's customer service and communications experience,  
2 focusing on providing solutions on matters including electric reliability, power quality  
3 improvements, system capacity and transmission infrastructure improvements. One  
4 example of this has been the establishment of regularly scheduled meetings with several  
5 stakeholders to review outage cause analyses for unplanned transmission outages, the  
6 effects of those outages on power quality, relevant policy issues, and the consideration of  
7 any needed improvements to provide better quality service. The frequency of these  
8 meetings depends on the customer's desires. Future planned outages that may impact  
9 stakeholders are discussed to coordinate the scheduling to minimize any potential impact  
10 to a stakeholder.

11 Our Stakeholder Relations Department also solicits economic development  
12 information to share with system planners and participates in facilitating construction  
13 meetings to monitor key activities and deliverables. All of these concepts pertaining to  
14 stakeholder relations are laid out in more detail in the testimony of ITC witness  
15 Mr. Thomas Wrenbeck.

16  
17 **Q65. HOW DOES ITC'S EXPERIENCE IN ITS CURRENT OPERATING**  
18 **COMPANIES PREPARE IT FOR STAKEHOLDER RELATIONS IN MISSOURI**  
19 **AND THE ENTERGY REGION?**

20 **A.** ITC's Michigan companies operate in a region dominated by a significant number of  
21 large industrial installations, such as automotive assembly plants, automotive parts  
22 suppliers, and steel and chemical plants. ITC is very aware that, for an industrial facility,

1 a single momentary outage can cause hours of delay and cost thousands of dollars. ITC's  
2 operating philosophy is to work closely with large industrial customers to optimally  
3 schedule maintenance or upgrade work on transmission facilities that may affect the  
4 customer. ITC balances restoration priorities and strives to minimize any power quality  
5 effect on industrial customers. We recognize there are a significant number of major  
6 industrial loads in the Entergy Region, from the petro-chemical refineries along the  
7 Mississippi River and the Gulf Coast, to the steel mills in northern Arkansas, to  
8 automotive manufacturing facilities in Mississippi. Our relationships and experiences in  
9 Michigan are comparable to the relationships we will develop and maintain in Missouri  
10 and in the broader Entergy Region.

11 As an example of ITC's approach to industrial customers, consider a request from  
12 an existing industrial facility operating in the METC service territory. This particular  
13 customer requested a new load interconnection of hundreds of megawatts. ITC made the  
14 request a top priority, and met monthly with the customer and its electric distribution  
15 utility, Consumers Energy, to address the customer's needs. ITC proposed a project to  
16 MISO, who then in turn approved the project as an Out-of-Cycle review project to ensure  
17 we would meet the customer's needs, including their need for expedited completion.<sup>16</sup>  
18 The project was completed on time, allowing the company to meet its growing electric  
19 demands, and was designed to meet the unique reliability needs of the facility, which is in

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<sup>16</sup> The MISO Out-of-Cycle review process provides for MISO approval of a transmission project to meet immediate needs, outside of the normal MTEP project review process, as discussed in the testimony of ITC witness Mr. Thomas Vitez. The process is generally reserved for new load growth (industrial or commercial) or newly-identified system needs.

1 nearly continuous operation during the entire year. Equally as important, the project  
2 strengthened the transmission grid in the vicinity of the customer's facility by converting  
3 the existing substation to a more robust and reliable substation topology suitable for  
4 future growth and expansion of the transmission system. Again, ITC witness Mr. Thomas  
5 Wrenbeck discusses the stakeholder relations function in more detail.

## 6 7 **VI. BUSINESS INTEGRATION EFFORTS**

### 8 **A. Project Management Organization**

9 **Q66. HOW WILL ITC ENSURE THE CONTINUED RELIABILITY OF THE**  
10 **TRANSMISSION SYSTEM FOLLOWING THE CLOSE OF THE**  
11 **TRANSACTION?**

12 **A.** We have put a schedule and process in place designed to ensure a seamless transition of  
13 ownership and operation of the transmission business from the Entergy Operating  
14 Companies to ITC. To facilitate the integration of the Entergy transmission business into  
15 ITC at close, a Project Management Office ("**PMO**") has been established. The PMO is  
16 led by senior executives from both companies. I represent ITC; Joe Domino (Entergy  
17 Corporation's Chief Integration Officer) represents Entergy Corporation. We are assisted  
18 by a PMO support team. To help steer us in the right direction and keep us focused on the  
19 activities that will facilitate timely and effective execution, we have developed a set of  
20 principles to guide us through the integration process. For example, one guiding  
21 principle is that ITC will lead the transmission business integration. Another is that  
22 Entergy Corporation will make decisions about the transmission business separation, the

1 remaining Entergy Operating Companies, and MISO integration. ITC will provide input  
2 and guidance regarding the separation and MISO integration, focusing on decisions that  
3 impact ITC's integration of the transmission business. Several other guiding principles  
4 deal with the integration efforts, separation efforts, and overall integration of the  
5 two companies.

6 As part of the integration structure, we have established teams that represent the  
7 various business areas that will be affected by the Transaction. Each team has an ITC and  
8 an Entergy lead. The integration activities have been structured in the following phases:

- 9 • Analysis,
- 10 • Pre-Design,
- 11 • Design,
- 12 • Implementation Planning, and
- 13 • Implementation.

14 The Analysis phase was designed so that each company would gain sufficient  
15 information from the other in order to make informed decisions about the design of the  
16 post-integration companies. The teams met regularly, visited each other's headquarters  
17 and field locations and assessed similarities and differences between the organizations.  
18 This work started at the end of February 2012 and lasted approximately two months.

19 The Pre-Design phase consisted of a series of workshops during which the PMO  
20 met with each team and identified key IT system and overall business integration  
21 challenges to be addressed on Day 1, which is the first day ITC would own and operate  
22 the Entergy transmission assets.

1           The Design phase was completed in the fourth quarter of 2012. This phase  
2           focused on developing Day 1 organizations, assessing and selecting key processes and IT  
3           systems. This naturally transitioned into the Implementation Planning phase, addressing  
4           both Day 1 implementation (closing) and in some cases, Day 2 (some time after closing).

5           Implementation will follow Implementation Planning, and will last through close  
6           and beyond in some cases. Day 2 work will be driven by what will be required to  
7           complete the services provided under the Transition Services Agreement (“TSA”), which  
8           is discussed later.

9           Several key milestones in the implementation have already been identified. The  
10          companies are working on the processes by which they will place Entergy employees into  
11          the ITC organization. ITC has committed to bring approximately 750 Entergy employees  
12          to ITC as part of the Transaction. Employee selection started in October 2012 and was  
13          recently completed.

14          Other important areas of focus include the decisions and work to separate IT  
15          systems, control centers, and establish ITC facilities in the South.

16  
17       **Q67. HOW WOULD ITC AND THE ENTERGY OPERATING COMPANIES**  
18       **INTEGRATE THEIR OPERATING FUNCTIONS?**

19       **A.**   Through the PMO process, various business integration teams, comprised of subject  
20          matter experts from both companies, are reviewing every function we perform and  
21          determining how the function should be performed when the Entergy transmission  
22          system has been merged into ITC. Take, for example, non-storm related outage

1 procedures. ITC will be responsible for responding to non-storm equipment outages on  
2 the 69 kV and above transmission system. To the extent such outages affect the lower  
3 voltage system or customers (EAI, electric cooperatives or municipal utilities) the  
4 response will be coordinated between the transmission operations control room and the  
5 control room(s) of other affected entities. We have assembled a business integration team  
6 that will be developing the specific communication and coordination protocols that will  
7 be deployed after the Transaction closes. It is anticipated that these coordination  
8 protocols will include coordination of field crews in a 'first responder' mode for damage  
9 assessment and/or equipment restoration. Under this arrangement, the closest qualified  
10 utility crew may perform damage assessment or equipment restoration on the other  
11 party's system, under the direction of the applicable operations control room.

12 Similarly, the processes for transmission system upgrades, transmission system  
13 maintenance, new interconnections for transmission voltage level retail customers,  
14 switching procedures related to emergency maintenance and a number of other topics are  
15 being studied by the business integration teams to determine how those activities will  
16 take place following the close of the Transaction. The specifics have not been determined  
17 at this time, but will be identified during the business integration process.

1 **Q68. WHAT ARE SOME EXAMPLES OF ITC'S BEST PRACTICES THAT HAVE**  
2 **BEEN IDENTIFIED THROUGH THE INTEGRATION PROCESS AND ARE**  
3 **BEING CONSIDERED FOR APPLICATION ON THE ENTERGY**  
4 **TRANSMISSION SYSTEM?**

5 A. One best practice ITC employs is centralized transmission line outage planning and  
6 scheduling for construction and maintenance activities. Outage planning and scheduling  
7 for construction and maintenance activities is centralized in the Operations Department at  
8 ITC. This streamlines the process and allows a central organization to set priorities in  
9 concert with other known system configuration issues. This practice optimizes our  
10 ability to leverage outage windows for multiple construction and maintenance project  
11 needs. It also minimizes inefficiency that might be caused by iterations of requests  
12 and denials.

13 Another best practice in Operations is our use of a single control room. Our  
14 control room performs both switching and tagging for maintenance activities as well as  
15 reliability monitoring. Entergy has separated these activities both functionally  
16 and physically.

17 A third best practice I want to highlight is our use of a centralized relay  
18 performance work group. ITC's relay performance group within our Asset Management  
19 Department is responsible for supporting operational functions by investigating system  
20 protection operations, recommending corrective actions, and reviewing results of field  
21 work. The centralized relay performance group enhances our ability to have a consistent  
22 system-wide approach to relay protection procedures, documentation and 24 hour



1 technical support, and provides an improved focus on capital projects by separating  
2 operational support activities from capital project workload and leveraging critical and  
3 unique relay engineering skills. The relay performance group also ensures system  
4 protection maintenance results are reviewed and that documentation is completed  
5 (including the field technician's signature), ensuring accountability through a formal  
6 review and forming a basis for further asset management program enhancements.

7  
8 **Q69. ARE THERE BEST PRACTICES THAT ITC WILL ADOPT FROM ENTERGY?**

9 **A.** Certainly. Our integration teams have been looking at practices in both companies, and  
10 our intention is to use the best practices from both companies, as appropriate. For  
11 example, Entergy has some very robust views about CIP compliance. Entergy has an  
12 executive focused exclusively on CIP compliance, whereas at ITC the highest level  
13 position focused exclusively on CIP compliance is at the manager level. Entergy has also  
14 taken advantage of the ability to delegate some of the CIP Senior Manager authority and  
15 functions whereas ITC has not. These are some of the things we will need to look at as  
16 we continue to refine our CIP program.

17 Many other best practices are being looked at between the two companies. Some  
18 practices are still being examined to see which company's way of performing a function  
19 is better. As the integration teams move further through the integration activity phases,  
20 more best practices will emerge.

**B. Organizational Structure and Management Oversight**

**Q70. PLEASE DESCRIBE ITC'S ORGANIZATIONAL STRUCTURE.**

**A.** ITC is governed by an independent Board of Directors. This Board is comprised of knowledgeable individuals with no affiliation to any market participant, and, with the exception of Mr. Joseph Welch, no affiliation with ITC other than the Board appointment itself.

Mr. Welch is the Chairman of the Board, President of ITC, and Chief Executive Officer. Reporting to Mr. Welch are Mr. Cameron Bready, Executive Vice President and Chief Financial Officer; Ms. Linda Blair, Executive Vice President and Chief Business Officer; Mr. Daniel Oginsky, Senior Vice President and General Counsel; and me, Executive Vice President and COO. Also reporting to Mr. Welch are a Director of Strategic Initiatives and a Director of Corporate Compliance.

Reporting to Mr. Bready are the Vice President of Finance and Treasury, the Vice President and Controller, the Vice President of Grid Development, the Director of Finance Projects and Investor Relations, and the Director of Internal Audit.

Reporting to Ms. Blair are the Vice President of Human Resources, the Vice President of Federal Affairs, and the Vice President of Regulatory and External Affairs. Also reporting to Ms. Blair are the President of ITC Michigan (responsible for our ITCT and METC subsidiaries) and the President of ITCMW.

Reporting to Mr. Oginsky are the Vice President and General Counsel of Utility Operations and the Vice President and General Counsel of Enterprise Operations.

1 I discussed the organization of the Executive Vice President and COO in detail at  
2 the beginning of my testimony. A high level Organization Chart depicting all of these  
3 reporting relationships is included as Exhibit JEJ-13.

4  
5 **Q71. WHEN THE TRANSACTION CLOSES, HOW WILL ENTERGY'S CURRENT**  
6 **TRANSMISSION EMPLOYEES BE INTEGRATED INTO ITC'S EXISTING**  
7 **ORGANIZATIONAL STRUCTURE?**

8 **A.** ITC will employ an organizational structure that augments the performance  
9 accountability of a traditional operating company line-reporting structure with corporate-  
10 level governance and oversight for operating functions: Planning, Engineering,  
11 Construction, Operations, and Asset Management. I will refer to this as the Governance  
12 and Oversight model, or G&O model.

13 In the case of traditional corporate services (*e.g.*, Finance and Accounting, Human  
14 Resources, Legal, and Supply Chain), ITC will expand its current practices and  
15 organizations to accommodate the ITC Midsouth Operating Companies, however the  
16 governance model in these areas will not fundamentally change. Corporate support staff  
17 located in the south will have traditional hard-line reporting into ITC's corporate  
18 organization.

19 This Transaction will significantly increase ITC's employee population. In order  
20 to effectively manage the new organization, we are going to take this opportunity to  
21 evolve to a new organizational structure that will support the larger regional footprint in  
22 which we will operate. To ensure business and operational continuity, we will leave

1 many of the existing reporting relationships in the operating functions named above in  
2 place for the ITC Midsouth Operating Companies. While the ITC Midsouth Operating  
3 Companies will have accountability for performing various functions in its footprint, ITC  
4 will ensure that the ITC Midsouth Operating Companies incorporate the corporate  
5 management and operational philosophies that have made ITC successful through its  
6 independent business model. This approach ensures that ITC standards are implemented  
7 throughout the new ITC Midsouth Operating Companies.

8  
9 **Q72. PLEASE DESCRIBE THE ORGANIZATIONAL STRUCTURE YOU WILL**  
10 **EMPLOY FOR THE ITC MIDSOUTH OPERATING COMPANIES.**

11 **A.** There are four components to the G&O model ITC will employ for the operating  
12 functions of the ITC Midsouth Operating Companies. First, there is a Governance aspect,  
13 in which the ITC corporate organization maintains the accountability to set policies and  
14 rules for a function and guides the development of methods, procedures, and practices at  
15 the ITC Midsouth Operating Companies. Think of this as setting corporate standards for  
16 the organization. The second aspect is Oversight. This, too, is a corporate level function,  
17 and ensures that the Governance objectives are properly implemented at the ITC  
18 Midsouth Operating Companies by monitoring performance and outcomes. ITC has  
19 performance goals that are monitored for all of its existing operating companies.  
20 Similarly, the ITC Midsouth Operating Companies will have performance goals that are  
21 reflective of ITC's expectations. These performance goals focus on the core elements of

1 operational excellence, *e.g.*, safety, preventative maintenance, NERC compliance, capital  
2 and O&M expenditures, and reliability.

3 The final two aspects of the model – Support and Perform – will occur at the ITC  
4 Midsouth Operating Companies, which will be responsible for developing and  
5 implementing the plans to achieve the results defined by corporate and ensuring they  
6 have the appropriate resources to do this. The ITC Midsouth Operating Companies will  
7 have the accountability to manage their organization and resources to meet the  
8 performance objectives for the organization; however, ITC will set the goals through  
9 Governance and Oversight so that the ITC Midsouth Operating Companies are held  
10 accountable to ITC's performance standards.

11 For example, ITC corporate will set the reliability goals for the ITC Midsouth  
12 Operating Companies; the ITC Midsouth Operating Companies will be held responsible  
13 for meeting them.

14 **Q73. HOW WILL THIS ORGANIZATIONAL STRUCTURE BE IMPLEMENTED FOR**  
15 **THE FORMER ENTERGY EMPLOYEES?**

16 **A.** The ITC Midsouth Operating Companies will be directly responsible for ensuring the  
17 safe and reliable operation of the former Entergy transmission grid. ITC corporate  
18 management will provide additional oversight as described above.

19 ITC employees working on the ITC Midsouth transmission system will remain  
20 responsible for operating the transmission system in a safe and reliable manner and  
21 maintaining the assets in a condition to ensure their availability when called upon. The

1 ITC Midsouth Operating Companies will be responsible for coordination with local  
2 governments and utilities for emergency restoration efforts. This governance model  
3 ensures that ITC's corporate philosophy is being carried out at the operating level by  
4 setting standards and performance objectives for the ITC Midsouth Operating  
5 Companies' management to implement. Other functions, such as Regulatory Strategy  
6 and Stakeholder Relations, will report up to the Chief Business Officer, even though they  
7 will be located in the local ITC Midsouth Operating Company offices. Organizational  
8 design is underway right now to finalize some of these decisions.

9  
10 **Q74. CAN YOU GIVE EXAMPLES OF HOW THIS WILL WORK?**

11 **A.** Yes. One of ITC's operational objectives is that our system operators, called  
12 Transmission System Coordinators, be certified to the highest level of NERC certification  
13 – the Reliability Coordinator. This is voluntary on our part, but it is important for our  
14 operators to have the in-depth operational knowledge that the Reliability Coordinator  
15 certification level demonstrates. This is an example of a governance objective that would  
16 be set from the corporate level. The line organizations would be required to implement  
17 the objective. It will be the responsibility of ITC corporate, in this case the Vice  
18 President of Operations, to confirm that the ITC Midsouth Operating Companies have  
19 met this objective. Our Vice President of Operations might conduct an audit of all  
20 control room operators to determine how many have achieved the requisite certification  
21 level, and may require the operating company management to implement a plan by which  
22 any operators not at the required level become certified within a certain amount of time.

1           In another example, ITC employees dedicated to the ITC Midsouth Operating  
2           Companies' activities will perform the Planning function for the ITC Midsouth Operating  
3           Companies. However, the standards and planning criteria to which they perform this  
4           work will be set by ITC's corporate Planning organization. ITC will monitor the studies  
5           conducted and satisfaction of the customers requesting interconnection or other types of  
6           service. Through its robust stakeholder management process, any questions or concerns  
7           raised by customers will immediately be addressed, as appropriate. ITC conducts regular  
8           customer satisfaction surveys for its operating companies to identify ongoing customer  
9           concerns and monitor how ITC is meeting customers' expectations. In addition, ITC  
10          proactively monitors the status of all capital projects being constructed.

11   **Q75. WHAT ARE THE ADVANTAGES OF LEAVING OPERATING**  
12   **RESPONSIBILITIES WITH THE ITC MIDSOUTH OPERATING COMPANIES?**

13   **A.**   One key reason for continuing to maintain responsibility for operations with the ITC  
14           Midsouth Operating Companies is to ensure continuity of reliable service from the  
15           moment we close the Transaction. Local stakeholders have become accustomed to  
16           working directly with local transmission employees. We want to ensure that these  
17           relationships continue after the Transaction is consummated. We also want to ensure that  
18           local and regional management is empowered to make decisions about circumstances and  
19           situations that are occurring at the local and regional level.

1   **Q76. WHERE WILL ITC'S REGIONAL HEADQUARTERS BE LOCATED?**

2   **A.**   Pursuant to Section 1.18 of the Merger Agreement, ITC will establish and maintain a  
3           regional headquarters in Jackson, Mississippi, where the headquarters of the Entergy  
4           transmission business currently is located, for a period of not less than three years. This  
5           is where many of the engineering, planning, information technology, and other centrally  
6           located departments will be located. ITC will also have offices throughout the service  
7           territory, including Arkansas, to house regulatory, state governmental affairs, local  
8           governmental and community affairs, and customer relations functions. This will ensure  
9           that retail regulators and local government officials will have local regulatory and  
10          governmental affairs contacts. ITC also will establish warehouse facilities and other field  
11          crew offices throughout the service territory to facilitate the timely restoration of the  
12          transmission system and respond to extraordinary system needs.

14   **Q77. HOW WILL ITC ASSURE THAT IT IS STAFFED SUFFICIENTLY FOR DAY-**  
15   **TO-DAY OPERATIONS UPON CLOSING?**

16   **A.**   As provided for in the Employee Matters Agreement ("**EMA**"), approximately 750  
17          Entergy employees will become ITC employees. The EMA established an integration  
18          team for the purposes of employee selection, consisting of eight members, four from each  
19          company. A goal of the integration team is to assure that ITC will have sufficient  
20          operational and management employees to operate and manage the new ITC Midsouth  
21          Operating Companies.



Approximately half of the 750 employees who will move to ITC are employees working in the Entergy transmission business today. After the closing of the Transaction, certain Entergy transmission business management will serve in an executive capacity at ITC, and will help to ensure a successful transition and continuity of operations. Very few, if any, employees will be asked to relocate outside the Entergy Operating Companies' footprint.

### C. Transition Services Agreements

## Q78. WHY ARE THE TRANSITION SERVICES AGREEMENTS NEEDED?

A. ITC and Entergy Corporation have determined that Transition Services Agreements (“*TSA*”) are necessary for a period not to exceed two years, subject to FERC approval, to assure the continuity of reliable operation of the transmission systems and to support the smooth, efficient transfer of these systems from the Entergy Operating Companies to ITC. ITC, Entergy Services, Inc. (“ESI”)<sup>17</sup>, and the Entergy Operating Companies will enter into two TSAs: one for services from ESI and the Entergy Operating Companies to ITC and one for services from ITC to ESI and the Entergy Operating Companies. Copies of the Transition Services Agreements are attached hereto as Exhibit JEJ-14. These TSAs will be structured to retain and ensure ITC’s independence and its independent operation of these new systems. Compliance with FERC’s Standards of Conduct for Transmission

<sup>17</sup> ESI is a subsidiary of Entergy Corporation that provides technical and administrative services to all the Operating Companies. ESI frequently acts as agent on behalf of all the Operating Companies in proceedings before the FERC.

1 Providers will be required. Services will be performed under the direction, supervision  
2 and control of the service recipient, *e.g.*, ITC will supervise the provision of services to it  
3 by ESI and the Entergy Operating Companies. These TSAs also will enable ESI and the  
4 EOCs to develop new capability to replace the services provided by the employees and  
5 systems that will move to ITC. All services will be provided at cost, with no profit  
6 margin.

7  
8 **Q79. PLEASE DESCRIBE GENERALLY THE TSA UNDER WHICH ESI AND THE**  
9 **ENTERGY OPERATING COMPANIES WILL PROVIDE SERVICES TO ITC.**

10 **A.** ESI and the Entergy Operating Companies will provide services to ITC in the following  
11 areas:

- 12 • field support services (including services related to maintenance activities and  
13 maintenance support; restoration activities; project construction and management;  
14 safety and skills training for field employees; warehousing; and materials  
15 management);
- 16 • engineering support services (including services related to right of way and  
17 easement acquisition; permit acquisition; engineering design; system protection  
18 engineering and consulting; IT and telecom support; engineering and technical  
19 support; and access to drawings, records and other technical information until  
20 separation can be completed);
- 21 • site access services (including services related to substation site access; facilities  
22 access; physical security monitoring and access control); and

- corporate support services (including access to business systems).

ESI and the Entergy Operating Companies will provide these services at cost, and in accordance with good utility practice. ESI and the Entergy Operating Companies will be paid all verifiable direct and indirect costs allocated in accordance with the methodology employed historically by ESI and the Entergy Operating Companies for the provision of services to affiliated entities and business units

**Q80. PLEASE DESCRIBE GENERALLY THE TSA UNDER WHICH ITC WILL PROVIDE SERVICES TO THE EOCs.**

**A.** ITC will provide services to ESI and the EOCs in the following areas:

- field support services (including planned maintenance and unplanned service restoration for the distribution system where Entergy distribution resources are not geographically available; project construction and management activities on the distribution system for projects that cross over the Transaction closing period; continued use of vehicles, tools and equipment until suitable replacements can be deployed; warehousing; and maintenance support);
- engineering support services (including storage of and access to drawings, records and other technical information until separation can be completed; technical support services for the acquisition of rights of way and easements for the Distribution substation projects that cross over the transaction close period; acquisition and maintenance of various required permits; system protection and SCADA support; and automated loadshed program support);

- 1           • site access services (including physical security monitoring and access control);
- 2           and
- 3           • corporate support services (including access to business systems; access to stored
- 4           information necessary for continuity of operations across the transaction closing
- 5           period; and reliability compliance documentation).

6           ITC will provide these services at cost, and in accordance with good utility practice, and  
7           will be paid all verifiable direct and indirect costs.

8

9   **Q81. WHAT IS THE PROPOSED TERM OF THE TSAS?**

10   **A.**    The term of the TSAs would be one year, with up to two, six-month extensions of the  
11           agreements if reasonably necessary to continue the transition of particular services from  
12           the company providing the service to the service recipient company. ITC and Entergy  
13           expect that the majority of services under the TSAs will not be required for more than  
14           one year. FERC must approve these TSAs. FERC has approved comparable transition  
15           services agreements in connection with previous ITC transactions.

16   **Q82. WILL ITC HAVE THE ABILITY TO OBTAIN ALL NECESSARY HEALTH,**  
17           **SAFETY AND OTHER PERMITS?**

18   **A.**    ITC has the resources necessary to obtain any health, safety and other permits required to  
19           do business in all jurisdictions. This includes obtaining all necessary franchises. ITC's  
20           operating companies currently operate in seven states, and ITC is experienced in health,  
21           safety, environmental, and other required permitting.

1    **Q83. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

2    **A.**     Yes.