BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

In the Matter of the Joint Application of Entergy Arkansas, Inc., Mid South TransCo LLC, Transmission Company Arkansas, LLC and ITC Midsouth LLC for Approval of Transfer of Assets and Certificate of Convenience and Necessity, and Merger and, in connection therewith, Certain Other Related Transactions		
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DIRECT TESTIMONY AND EXHIBITS

OF

DOUGLAS C. COLLINS

ON BEHALF OF ITC MIDSOUTH LLC

APRIL 2013

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("Eastern Iowa Study")

I. INTRODUCTION

2 Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Douglas C. Collins. My business address is 6750 Chavenelle Road,

4 Dubuque, Iowa 52002.

Α.

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

I am employed by ITC Holdings Corp. ("ITC") as President of ITC Midwest LLC ("ITCMW"), a wholly-owned subsidiary of ITC. I also hold the position of Vice President with ITC. In this position, I report directly to Linda Blair, Executive Vice President and Chief Business Officer. As President of ITCMW, I am ultimately responsible for the success of ITCMW in meeting the expectations of our utility customers and regulators. As such, I spend a great deal of time interacting with ITCMW's customers, regulators, and (to some extent) large industrial customers that interconnect at a transmission voltage. I also spend much of my time in Cedar Rapids, Iowa at ITCMW's headquarters, interacting with the ITCMW project management, design, real estate, and legal staff. I also travel to Des Moines, Iowa and St. Paul, Minnesota quite often to meet with our regulators and other state government officials, as well as coordinate with our regulatory staff in these locations.

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Q3. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I received a Bachelor of Science degree in Electrical Engineering from Iowa State
 University in 1983.

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6 O4. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.

7 Α. Prior to joining ITCMW, first as Executive Director and then as President, I was 8 employed by Alliant Energy Corporate Services, Inc. ("AECS"), a service company 9 subsidiary of Alliant Energy Corporation ("Alliant Energy"), as Director of System 10 Planning. In that position, most of my time was spent working for Alliant Energy's 11 wholly-owned utility subsidiaries, Interstate Power and Light Company ("IPL") and 12 Wisconsin Power and Light Company. In my role as Director of System Planning at 13 AECS, I represented Alliant Energy in connection with several regional industry groups, 14 including the Minnesota/Wisconsin Power Supplier Group, the Mid-Continent Area 15 Power Pool ("MAPP") Engineering Committee, the MAPP Transmission Studies 16 Working Group, the MAPP Regional Transmission Committee, and the North American Electric Reliability Corporation ("NERC") Planning Reliability Model Task Force. I am 17 18 also past Chairman of the MAPP Regional Transmission Committee. I have served as 19 Chairman of the Midwest Independent Transmission System Operator, Inc. ("MISO") 20 Transmission Owners Committee, Vice Chairman of the MISO Advisory Committee, and 21 Vice Chairman of the Mid-America Incorporated Network, Inc. Planning Committee.

O5. HAVE YOU TESTIFIED IN PRIOR PROCEEDINGS?

- 2 A. Yes. I have testified before the Iowa Utilities Board ("IUB"), the Public Service
- Commission of Wisconsin, the Minnesota Public Utilities Commission ("MPUC"), the
- 4 Illinois Commerce Commission, and the Federal Energy Regulatory Commission
- 5 ("FERC") on issues relating to transmission planning (both on a regional and state basis),
- 6 transmission reliability, transmission constraints, and federal policy regarding
- 7 transmission development and divestiture.
- 8 Additionally, I am testifying in Texas, Louisiana, New Orleans, Arkansas, and
- 9 Mississippi regarding the transaction that is the subject of this proceeding.

Q6. WERE YOU INVOLVED IN THE SALE OF IPL'S TRANSMISSION ASSETS TO

- ITC MIDWEST IN 2007 ("IPL TRANSACTION") AS PART OF YOUR WORK AT
- 13 **IPL?**

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- 14 A. Yes. I was significantly involved with the IPL Transaction. I worked on the Asset Sale
- Agreement, the Distribution Transmission Interconnection Agreement, and the Large
- Generator Interconnection Agreement. I also served as a witness in state regulatory
- proceedings in Iowa, Minnesota, and Illinois. After all regulatory approvals were
- received and the IPL Transaction closed in December 2007, I began employment with
- 19 ITC as Executive Director of ITCMW. In 2010, my title was changed to President of
- 20 ITCMW. Having worked with transmission system planning on both sides of the IPL
- Transaction, I can speak to changes brought about by ITCMW's approach to maintaining,

1		operating, and expanding the transmission system over the last four years and the benefit
2		ITC's "best in class" practices have brought to customers served on the ITCMW system.
3		
4	Q7.	ARE YOU SPONSORING ANY EXHIBITS IN THE FILING?
5	A.	Yes. I am sponsoring the following Exhibits:
6		Exhibit DCC-1: ITCMW State of the System Report, December 7, 2008 ("Report")
7 8		Exhibit DCC-2: Storm Damage and Restoration Pictures from July 2011 Straight-line Wind Storm
9 10 11 12		Exhibit DCC-3: Midwest ISO (2006-09) Eastern Iowa Transmission Reliability Study ("Eastern Iowa Study")
13		II. PURPOSE OF TESTIMONY
14	Q8.	WHAT IS THE PURPOSE OF YOUR TESTIMONY?
15	A.	On December 4, 2011, Entergy Corporation and ITC entered into agreements under
16		which Entergy will separate and then merge the electric transmission businesses of the
17		Entergy Operating Companies ¹ into ITC. I will generally refer to this separation and
18		merger collectively as the "ITC Transaction" or "Transaction." My direct testimony
19		supports the Joint Application by providing a real world example of what ITC, as an
20		independent transmission company with available resources and a singular focus, can
21		achieve in a relatively short period of time with regard to enhancing system performance
22		and making needed investment. While the other ITC witnesses in this proceeding

¹ The Entergy Operating Companies are Entergy Arkansas ("EAI"), Inc., Entergy Louisiana, LLC ("ELL"), Entergy Gulf States Louisiana, L.L.C. ("EGSL"), Entergy Mississippi, Inc., Entergy New Orleans, Inc., and Entergy Texas, Inc..

describe how ITC operates and the benefits that will accrue if the ITC Transaction is approved, my testimony demonstrates how ITC's philosophy, resources, and singular focus on transmission have benefited ITCMW's customers since the company was formed and how ITCMW diligently works to meet the commitments made to the jurisdictions it serves. Specifically, my testimony describes the work that has been done to-date to improve, rebuild, and expand the IPL transmission system acquired by ITC in December 2007 and the benefits customers are beginning to see as a result of this work towards operational excellence. My testimony supports the public interest determination to be made in this proceeding by the Missouri Public Service Commission, because it demonstrates that ITC follows through on the commitments it makes to the jurisdictions, it serves, is responsive to the transmission wants and policy objectives of its jurisdictions, and is successful in meeting those objectives, including improving system reliability and efficiency through proactive maintenance and investment focused on lowering energy costs through removal of transmission constraints.

A.

III. SUMMARY OF TESTIMONY

Q9. PLEASE SUMMARIZE YOUR TESTIMONY.

For the last four years, ITC has worked to improve the former IPL transmission system through proactive maintenance and focused investment. ITC has been successful in improving the operations of the ITCMW system, as evidenced by decreasing sustained and momentary outages on the system. Although work remains to be done, the experience at ITCMW demonstrates that ITC has the skills, expertise, and capital to

- properly maintain and operate EAI's transmission facilities and to enhance them through cost-effective and focused investment for the benefit of customers. My testimony speaks to the many improvements ITC has made to the ITCMW transmission system in a very short period of time, and ITCMW's dedication to the capital investment commitments made to the jurisdictions during the hearings held on the IPL Transaction. Notably, since close of the IPL Transaction, ITCMW has:
 - 1) reduced sustained outages from those experienced in 2008 (the last year IPL operated and maintained the system²) by 50% in 2009, 24% in 2010, and 58% in 2011;
 - 2) implemented proactive maintenance and vegetation management programs which, over the last three years 2009, 2010, and 2011 corrected over 8,700 structural violations on its transmission system. In addition, ITCMW managed the vegetation (i.e., trimmed or removed trees and other vegetation that could potentially interfere with its transmission lines) on 37% of the system in 2009, 34% of the system in 2010, and 37% in 2011;
 - 3) achieved top decile performance in 2011 for momentary outages on its 115 kV and 161 kV systems according to the SGS Statistical Services Transmission Reliability Benchmarking Study ("SGS Study");
 - 4) experienced no momentary outages on its 345 kV facilities during 2011;

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² Under the Transition Services Agreement entered into between ITCMW and IPL at the time the Transaction closed, IPL agreed to continue to operate and maintain the system for one year following close, allowing ITCMW time to get crews in place.

1		5)	achieved the second quartile for average circuit outage duration, achieving an
2			average circuit outage duration of 116 minutes, compared to an average of 202
3			minutes for its peers;
4		6)	invested approximately \$891 million from December 2007 through March 2012,
5			to improve the ITCMW transmission system by upgrading and improving existing
6			lines and substations, constructing new lines to serve load growth, improve
7			reliability, lower energy costs, and provide interconnection for new load and
8			generation;
9		7)	completed 32 major substation upgrades and expansions, rebuilt approximately
10			400 miles of existing lines (most at a higher capacity), and replaced three major
11			transformers;
12		8)	completed construction of 26 new substations, 26 miles of new line, and added
13			four major transformers;
14		9)	started construction on a 345 kV transmission line that is expected to reduce
15			annual load and production costs by approximately \$108 million at a total
16			estimated cost for the line of \$123 million; and
17		10)	completed 16 new generator interconnects in four years, adding approximately
18			2,200 megawatts of renewable energy production capacity to the grid.
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20	Q10.	BASE	D ON YOUR EXPERIENCE WITH THE IPL TRANSACTION, DOES ITC
21		HAVE	E THE TECHNICAL ABILITY, FINANCIAL STRENGTH, AND

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SUFFICIENT RESOURCES TO OWN, OPERATE, AND RELIABLY MAINTAIN

EAI'S TRANSMISSION SYSTEM?

A. Yes. I have observed ITCMW implement operations and maintenance practices that have improved reliability and enhanced storm restoration efforts. ITCMW has also carried through with its commitments to invest capital to improve reliability and reduce congestion on the transmission system formerly owned by IPL. I believe that significant benefits will accrue to the customers of the current EAI region if the Transaction is approved. These benefits are detailed in the testimonies of ITC witnesses Messrs. Joseph Welch, Jon Jipping, Cameron Bready, and Thomas Vitez.

IV. OVERVIEW OF IPL TRANSACTION AND SYSTEM

12 O11. PLEASE PROVIDE A GENERAL OVERVIEW OF THE IPL TRANSACTION.

On January 18, 2007, IPL entered into an Asset Sale Agreement with ITCMW, a newly formed subsidiary of ITC, for the sale of IPL's transmission assets in Iowa, Minnesota, Illinois, and Missouri. The IPL Transaction included all transmission assets on the IPL system that were 34.5 kV and above. Regulatory approvals for the IPL Transaction were obtained from the state regulatory commissions in Iowa, Minnesota, Illinois, and Missouri, as well as FERC and the Department of Justice.

20 Q12. PLEASE DESCRIBE THE ITCMW SYSTEM.

21 **A.** The ITCMW transmission system is located in parts of Iowa, Minnesota, Illinois, and 22 Missouri and covers approximately 53,400 square miles of service territory. As of year-

1		end 2011, the ITCMW transmission system consisted of approximately 6,600 miles of
2		transmission lines including approximately:
3		• 376 miles of 345 kV lines;
4		• 1,540 miles of 161 kV lines;
5		• 323 miles of 115 kV lines;
6		• 2,695 miles of 69 kV lines; and
7		• 1,670 miles of 34.5 kV lines.
8		In addition to its line miles of transmission, ITCMW also owns 261 substations.
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10	Q13.	WHAT WAS THE CONDITION OF THE IPL TRANSMISSION SYSTEM AT
11		THE TIME OF THE IPL TRANSACTION?
12	A.	The IPL transmission system at the time of the IPL Transaction was in significant need of
13		additional maintenance and investment. The poor condition of the IPL transmission
14		system at the time of the IPL Transaction is evidenced by the State of the System Report
15		included as Exhibit DCC-1 . This report was completed by ITC within the first year of
16		close of the IPL Transaction.
17		
18	Q14.	WHAT ARE THE HIGHLIGHTS OF THE REPORT?
19	A.	The following summarizes the Report's findings and conclusions made in the course of
20		auditing and investigating the IPL transmission system shortly after the IPL Transaction
21		closed:

1	•	Aging Infrastructure: The Report found that the IPL transmission system was an
2		aged system that was in need of immediate, thorough, and proper maintenance in
3		order to fulfill ITCMW's commitment to improve reliability. The system
4		required infrastructure replacements due to assets being at, or near, the end of
5		their useful life.
6	•	Renewable Energy: The Report found that the IPL transmission system was not
7		adequate to integrate proposed new renewable generation.
8	•	Congestion: The Report found that portions of the transmission system required
9		upgrade and that new lines needed to be built to reduce the present constraints.
10	•	Outages: The Report concluded that, since acquiring the system and tracking its
11		performance, ITCMW had experienced a high number of transmission outages on
12		the system, which impacted customers and must be addressed.
13	•	<u>Targeted Remedial Measures</u> : The Report also concluded that maintenance
14		practices applied to the transmission system needed to be fully executed,
15		enhanced, and accelerated in certain areas. Further, the Report found that
16		ITCMW would need to address particular problem areas in the previous
17		stewardship of the transmission system including:
18		1) backlogs in corrective maintenance;
19		2) backlogs in implementing appropriate vegetation management;
20		3) environmental management deficiencies;
21		4) implementation of an asset security and cyber security program that complies
22		with best practices; and

1		5) deficiencies in the 34.5 kV network, which were recognized as being in need
2		of rebuilding (including new poles and wires) for improved reliability and
3		overall enhanced system capability.
4		ITCMW also found that, although maintenance was planned by IPL, it was often not fully
5		implemented and executed.
6		
7	Q15.	AT THE TIME OF THE TRANSACTION, DID IPL BELONG TO MISO?
8	A.	Yes. As a fully integrated utility, IPL has belonged to MISO since MISO's inception and
9		continues to belong to MISO in its changed structure as a generation and distribution
10		company.
11		
12	Q16.	DID THE IPL TRANSACTION PROVIDE ADDITIONAL BENEFITS TO THE
13		SYSTEM BEYOND THOSE REALIZED THROUGH MISO MEMBERSHIP?
14	A.	Yes, as my testimony demonstrates, ITCMW's proactive and preventive maintenance
15		practices, outage cause analysis (which focuses on maintenance and replacement of aging
16		infrastructure on problem circuits), and investment in additional transmission capacity,
17		have improved the reliability performance of the acquired system. As evidenced by the
18		condition of the IPL transmission system at the time of IPL Transaction (see Exhibit
19		<u>DCC-1</u>), IPL's membership in MISO did little to ensure that IPL's transmission system

was adequately maintained and that needed investment was being made.³ By focusing solely on transmission and engaging in best practices, ITCMW is working towards the same performance excellence currently enjoyed by ITC's world-class transmission operating subsidiaries in Michigan, namely International Transmission Company ("ITCT") and Michigan Electric Transmission Company LLC ("METC"). Please refer to the direct testimonies of ITC witnesses Messrs. Joseph Welch and Jon Jipping for more information regarding ITCT and METC.

Α.

V. WORKING TOWARDS OPERATIONAL EXCELLENCE

O17. HAS ITCMW BEEN WORKING TOWARDS OPERATIONAL EXCELLENCE?

Yes. ITCMW has implemented proactive maintenance and vegetation management programs which identify and correct problems on the system before they result in a sustained outage. For example, over the last three years – 2009, 2010, and 2011 – ITCMW corrected over 8,700 probable violations on its transmission system as defined in the Iowa Electric Safety Code (Iowa Administrative Code 199 – Chapter 25). In addition, ITCMW, based upon its three year vegetation management cycle, managed the vegetation on 37% of the system in 2009, 34% of the system in 2010, and 37% in 2011. Further, ITCMW has aggressively labored to complete the work detailed in its annual Operations and Maintenance Plan filed with the IUB each December preceding the year

MISO has no ability or charge to invest in transmission facilities or ensure existing facilities are adequately maintained.

the plan is in effect. Although completion of the plan is not an IUB requirement, ITCMW has (on average) been successful in completing 98% of the planned inspection and maintenance work envisioned by its plans filed with the IUB for the years 2009, 2010, and 2011. The inspection and maintenance plans filed with the IUB are distinct from the maintenance plans described by ITC witness Mr. Jon Jipping in that the plans filed by ITCMW include the goal of correcting any probable violations within 90 days of detection. As stated previously, 98% of the time ITCMW has achieved this self-imposed deadline. This is the case regardless of the number of damaging storms experienced and restoration costs incurred by ITCMW in a particular year. In contrast, IPL consistently completed only 30% of the planned maintenance and repair work envisioned by its filed plans when it owned the transmission system. Due to ITCMW's singular focus on transmission, it has the resources available to insure the proper maintenance and inspection of its transmission facilities even during years with significant storm activity.

Q18. HAVE OUTAGE RATES IMPROVED SINCE ITCMW ACQUIRED THE

SYSTEM?

A. Yes, through ITCMW's proactive maintenance approach, as described in the direct testimony of ITC witness Mr. Jon Jipping, ITCMW has reduced sustained outages from 2008 levels (the last year IPL operated and maintained the system under the Transition Services Agreement with ITCMW) by 53% in 2009, 24% in 2010, and 58% in 2011. Sustained outages increased in 2010 over 2009 levels due to severe weather in 2010 including:

ITC Midsouth LLC Direct Testimony of Douglas C. Collins PSC File No. EO-2013-0396

1	1)	the highest number of thunderstorms observed since 1993;
2	2)	a major ice storm in January resulting in seven sustained outages;
3	3)	six tornadoes on June 22 contributing to 30 outages for the month; and
4	4)	six tornadoes on July 25 contributing to 22 outages for the month.
5		

A.

Q19. WHAT OTHER ITC PRACTICES HAVE LED TO IMPROVED OUTAGE

PERFORMANCE ON THE ITCMW SYSTEM?

As described in the testimony of ITC witness Mr. Jon Jipping, ITC focuses its work plan on the worst performing circuits and directs its resources to either maintaining or rebuilding these circuits depending on the need. ITC tracks outages by circuit and performs a monthly outage cause analysis of each sustained and momentary outage on the system to prioritize rebuilds and identify problem circuits for inspection and possible maintenance. These monthly outage cause analyses have been instrumental in identifying the poorest performing circuits on the ITCMW system such that they can be more thoroughly maintained or replaced, as needed.

A.

O20. HOW DOES ITCMW COMPARE TO ITCT AND METC IN OUTAGE

PERFORMANCE?

As discussed by ITC witness Mr. Jon Jipping, ITCMW is in the third quartile of outage performance, compared to ITCT and METC, which have achieved the first quartile outage performance in the SGS Study. The SGS Study defines outage performance as the frequency of sustained outages per circuit in voltage classes 69 kV and above. For higher voltage facilities, ITCMW's outage performance compares favorably with ITCT, METC, and its peers. ITCMW's 115 kV and 161 kV systems achieved top decile performance in 2011 for momentary outages (moving up from top quartile in 2010). Further, ITCMW is within the second quartile for average circuit outage duration, achieving an average

circuit outage duration of 116 minutes compared to an average of 202 minutes for its peers. Finally, ITCMW's 345 kV facilities had no momentary outages during 2011 according to internal data collected. While there is room for further improvement of the system's reliability, ITCMW's outage performance improved in 2011 and is on track for further improvement in 2012 with only 16 sustained outages occurring in the first four months of the year. I am confident as we continue to implement our proactive maintenance plan, focus on vegetation management and rebuild the parts of our system that are at end of life, outages will continue to decline as they have in systems owned and operated by ITC for longer periods of time.

Q21. HAS ITCMW HAD MAJOR STORMS SINCE ACQUIRING THE SYSTEM?

A. Yes, several major storms have occurred since ITCMW acquired the system, beginning with the storms that resulted in the summer flood of 2008 in Cedar Rapids and Iowa City and continuing with ITCMW's most recent significant storm, the straight-line wind storm occurring during the summer of 2011. **Exhibit DCC-2** provides pictures of the damage caused by that wind storm in the summer of 2011, three days before ITCMW experienced a historic peak on its system.

Q22. WHAT IS A STRAIGHT-LINE WIND STORM, AND WHAT DAMAGE DID THE 2011 STORM CAUSE?

A. A straight-line wind storm is similar to a tornado except that it pushes debris in the same direction the wind is blowing. In contrast, tornado damage will scatter the debris in a

variety of different directions because the winds of a tornado are rotating violently. In July of 2011, ITCMW's system in east-central Iowa experienced damage from winds reported to be up to 130 miles per hour. According to the National Oceanic and Atmospheric Association, this storm was the most widespread and damaging in eastcentral Iowa since 1998. On ITCMW's transmission system, the storm damaged or destroyed over 300 structures on nine 161 kV lines, two 69 kV lines, and twenty 34.5 kV lines.

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WHEN WAS SERVICE RESTORED TO ITCMW'S CUSTOMERS? **O23.**

By redirecting approximately 200 contractors from maintenance and new construction Α. work in Iowa, ITCMW restored service within 72 hours to all transmission customers able to take power. ITCMW focused on transmission restoration, while IPL and the rural electric cooperatives ("RECs") in the area focused on distribution and end-use customer issues. IPL, the RECs, and ITCMW collaborated on field operations, supply chain and management support to return customers to service as quickly as possible.

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WILL THIS PRACTICE OF COLLABORATION BE MODELED IF THE

TRANSACTION IS APPROVED?

Yes. ITCMW's collaboration with IPL and its REC and municipal utility customers Α. 20 during storm response and restoration illustrates ITC's commitment to work with its customers to ensure that service is restored safely and in a timely manner. For the ITC Transaction, it is my understanding that certain Entergy Transmission Business⁴ employees, facilities, and world-class practices in storm response will be transferred to ITC. ITC's successful practice of customer collaboration, along with the transfer and adoption of the Entergy Operating Companies' best in class restoration practices performed by the same expert employees familiar with the facilities, will ensure that the highest standards of storm response excellence are maintained.

Α.

Q25. IS ITCMW EFFECTIVE IN RESTORING THE SYSTEM AFTER A DAMAGING STORM, AND WHAT FACTORS ACCOUNT FOR THIS EFFECTIVENESS?

Yes, ITCMW is very effective in restoring the system after damaging storms. Consistent with ITC's overarching philosophy on storm restoration as discussed in the testimony of ITC witness Mr. Jon Jipping, ITCMW's number one priority is getting customers back on line safely after a damaging storm. ITC's supply chain is critical to ensuring all materials, including steel structures and conductors, are on site whenever a storm results in the need to restore the system. Several warehouses and pull-out sites across ITCMW's footprint provide replacement conductors and structures closer to the outage. ITCMW also has specially designed, temporary emergency structures available, as well as the valuable assistance of our alliance suppliers.

⁴ The total transmission business of the Entergy Operating Companies including their transmission assets, business practices, and employees that will become part of ITC.

Q26. WHAT COMPANIES SERVE AS ALLIANCE SUPPLIERS TO ITCMW?

A. Alliance suppliers include Hydaker-Wheatlake Powerline Supply ("Hydaker"), MJ Electric and MYR Group. Use of alliance suppliers allows ITCMW to respond efficiently to a storm event, lessening downtime. The alliance suppliers are able to quickly participate in recovery efforts because they are familiar with ITCMW's safety practices, operating requirements and procedures. For example, Hydaker manages a pole yard serving the ITCMW system which has the ability to deliver poles to 90% of the ITCMW region within four hours or less. ITC's alliances effectively expand ITCMW's available capital and equipment pool by reducing inventory needed to address major storm events and thus mitigating storage costs. For more information on alliance partnerships, please refer to the direct testimony of ITC witness Mr. Jon Jipping.

VI. COMMITMENT TO INVEST TO IMPROVE RELIABILITY AND REMOVE TRANSMISSION CONGESTION

16 Q27. WAS ADDITIONAL TRANSMISSION INVESTMENT NECESSARY ON THE

ITCMW SYSTEM AT THE TIME OF THE IPL TRANSACTION?

A. Yes, it was, because no significant investment had been made in the IPL transmission system for many years. While IPL had been able to maintain a minimally acceptable level of reliability in the provision of its transmission service, its focus was not on its transmission system. In fact, one of the primary benefits cited for the sale of the system

1		to ITCMW was ITCMW's singular focus and commitment to the transmission system.
2		The Order in the IUB Docket approving the IPL Transaction states as follows:
3 4 5 6 7 8 9 10 11		One of the main driving forces in this docket is the need to build and upgrade transmission in IPL's service territory. No party to the proceeding disputes the need for at least some additional transmission, and IPL indicated it will only build for reliability reasons, not to relieve constraints that are not related to reliably serving IPL's customers. (Order in IUB Docket No. SPU-07-11, September 20, 2007, p. 38, "Order Terminating Docket and Recommending Delineation of Transmission and Local Distribution Facilities" ("IUB Order")).
12 13	Q28.	HOW MUCH CAPITAL HAS ITC INVESTED IN ITS ITCMW TRANSMISSION
14		SYSTEM SINCE THE SYSTEM WAS ACQUIRED FROM IPL?
15	A.	From December 2007 through March of 2012, ITC has invested approximately \$891
16		million to improve the ITCMW transmission system. This investment has primarily
17		been needed to upgrade and improve existing lines and substations, construct new lines to
18		serve load growth and improve reliability, and provide interconnection for new load and
19		generation.
20		
21	Q29.	PLEASE DESCRIBE SOME OF THE WORK COMPLETED ON THE ITCMW
22		SYSTEM SINCE THE CLOSE OF THE IPL TRANSACTION?
23	A.	In its first four years of operation, ITCMW focused its work on rebuilding and increasing
24		the capacity on its transmission system to improve reliability, remove transmission
25		constraints, and facilitate access for new generation. To this end, ITCMW completed 32
26		major substation upgrades and expansions, rebuilt approximately 400 miles of existing
27		lines (most at a higher capacity), and replaced three major transformers. With regards to

1		new transmission facilities, ITCMW completed construction of 26 new substations, 26
2		miles of new line, and added four major transformers.
3		
4	Q30.	WHAT INVESTMENTS ARE CURRENTLY BEING MADE BY ITCMW TO
5		IMPROVE RELIABILITY AND REMOVE TRANSMISSION CONSTRAINTS?
6	A.	Major projects under construction in the ITCMW territory include:
7		1) upgrading 80 miles of 115 kV line to 161 kV from Cedar Rapids, Iowa to Boone,
8		Iowa due to age and condition of the line and to satisfy the need for new transmission
9		capacity in the area (expected completion by year-end 2012);
10		2) constructing a new 11 mile 161 kV line loop in the core of Cedar Rapids, Iowa to
11		improve system reliability (expected completion by year-end 2012);
12		3) building 10 miles of new 161 kV transmission line north of Cedar Rapids, Iowa, to
13		support new load in the area (expected completion in 2013);
14		4) constructing a new 80 mile 345 kV line from Salem Substation to Hazleton
15		Substation to improve reliability in eastern Iowa and improve market efficiency by
16		reducing transmission constraints (expected completion in mid-year 2013);
17		5) rebuilding 28 miles of 161 kV line in Minnesota (at the same voltage) due to age and
18		condition of the existing line (expected completion by year-end 2012); and
19		6) rebuilding 50 miles of 115 kV line to 161 kV from Marshalltown, Iowa to Iowa Falls,
20		Iowa due to age and condition of the line and to provide needed capacity for new
21		generation in the area (expected completion by year-end 2012).
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1	Q31.	WHAT SPECIFIC INVESTMENT COMMITMENTS DID ITCMW MAKE TO
2		ITS MINNESOTA REGULATORS AS PART OF THE IPL TRANSACTION?
3	A.	As part of a Minnesota-jurisdictional Settlement approved by the MPUC in Docket No.
4		E001-PA-07-540, ITCMW committed to construct specific projects intended to improve
5		the reliability and efficiency of the transmission system, relieve transmission constraints,
6		and lower the overall cost of delivered energy for end-use consumers. The first of these
7		projects was the rebuild of the Arnold-Vinton-Dysart-Washburn 161 kV line ("Arnold-
8		Vinton Rebuild"). ITCMW committed to re-conductor and rebuild this 47-mile line
9		within two years of closing the IPL Transaction (approximately December 31, 2009).
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11	Q32.	DID ITCMW MEET THIS COMMITMENT?
12	A.	Yes. The Arnold-Vinton Rebuild was completed prior to the end of December 2009 and
13		is currently in service.
14		
15	Q33.	WHAT OTHER SPECIFIC INVESTMENT COMMITMENTS WERE MADE AS
16		PART OF THE SETTLEMENT?
17	A.	ITCMW committed to use all commercially reasonable best efforts to construct the
18		Salem-Lore-Hazleton 345 kV line ("S-H" Line") by the later of December 31, 2011, or
19		three years following the approval of the MISO Board of Directors, which occurred in
20		December 2008.
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2	Q34.	DID ITCMW MEET THIS COMMITMENT?
3	A.	Yes, ITCMW used all commercially reasonable best efforts to complete the S-H Line,
4		which is currently under construction and anticipated to be in service by mid-2013. The
5		project completion has changed from the original schedule due to delays in receiving
6		required siting approvals from the state jurisdiction and court challenges related to
7		condemnation of a few select land parcels to acquire needed easement rights.
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9	Q35.	WHY IS THE COMMITMENT TO BUILD THE S-H LINE RELEVANT TO THIS
10		PROCEEDING?
11	A.	The commitment to proceed with the construction of the S-H Line is significant, because
12		it demonstrates ITC's willingness to invest the capital to build projects that have an
13		economic benefit for customers and to improve the reliability of the transmission systems
14		it owns.
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16	Q36.	PLEASE DESCRIBE THE S-H LINE.
17	A.	The proposed S-H Line is an approximately 80 mile 345 kV electric transmission line
18		designed to upgrade ITCMW's transmission system in eastern Iowa. When completed,
19		the S-H Line will connect ITCMW's Hazleton Transmission Substation in Buchanan

County, Iowa to ITCMW's Salem Transmission Substation in Dubuque County, Iowa.

The S-H Line was modeled in 2006 as a solution to transmission constraints in eastern

Iowa in MISO's Eastern Iowa Study, included as **Exhibit DCC-3**. As explained in

Exhibit DCC-3, the need for the line was recognized for several years prior to 2006.

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Q37. WHAT CAUSED THE CONSTRAINTS ON THE EASTERN IOWA SYSTEM

AND HOW DO THESE CONSTRAINTS AFFECT CUSTOMERS?

Signs of congestion on IPL's eastern Iowa transmission system (now owned by ITCMW) began around the year 2000 as more and more regional power sales became common across the Midwest. The power flows associated with these sales often resulted in congestion on IPL's transmission lines. Prior to the start of the MISO market, this congestion was addressed through NERC Transmission Loading Relief ("TLR") procedures. These procedures curtailed transmission service for both power sales and networked native load. From 2001 through the end of 2004, facilities within the IPL control area experienced NERC TLR non-firm curtailments for over 5,000 combined hours. Also, throughout this same period, firm curtailments occurred for over 200 hours. The result of these curtailments was higher cost generation being dispatched to serve load, ultimately resulting in higher costs to customers. Since the inception of the MISO market, the TLR procedures (within the market) have largely been replaced with classifying congested facilities as "binding." Binding constraints result in MISO uneconomically re-dispatching generation to avoid the constraint, ultimately resulting in higher costs to customers. As further evidence of the constraints on the eastern Iowa transmission system, MISO's Independent Market Monitor designated the area the S-H

1		Line is designed to serve as a Narrowly Constrained Area ("NCA") and FERC confirmed			
2		this designation in 2007.			
3					
4	Q38.	WHAT REDUCTIONS IN ANNUAL LOAD AND PRODUCTION COSTS WERE			
5		MODELED FOR THE S-H LINE AS PART OF THE EASTERN IOWA STUDY?			
6	A.	The Eastern Iowa Study found that the construction of the S-H Line would reduce annual			
7		load and production costs by approximately \$108 million (See page 59 of the Eastern			
8		Iowa Study, Exhibit DCC-3). This annual cost reduction compares to a total estimated			
9		cost of the line of \$123 million. In addition, the construction of the S-H Line, plus			
10		adding a second Salem 345/161 kV 448 transformer, addresses nearly all of the			
11		constraints causing the NCA designation.			
12					
13	Q39.	WAS THE S-H LINE ALSO APPROVED FOR CONSTRUCTION THROUGH			
14		MISO'S MIDWEST TRANSMISSION EXPANSION PLAN ("MTEP") PROCESS			
15		AS DESCRIBED IN THE DIRECT TESTIMONY OF ITC WITNESS MR.			
16		THOMAS VITEZ?			
17	A.	Yes. The S-H Line was included in Appendix A of the MTEP08 Report which, by			
18		definition, means that MISO has studied the project, evaluated alternatives to the project			
19		recommended the project to the MISO Board of Directors, and the project was approved			
20		by the MISO Board of Directors for construction.			
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040. GIVEN THE SIGNIFICANT ECONOMIC BENEFITS PROJECTED FROM

CONSTRUCTION OF THE S-H LINE AND THE RECOGNIZED RELIABILITY

NEED FOR THE LINE, WHY DID IPL NOT CONSTRUCT THE LINE?

Internal competition for investment capital within IPL prevented IPL from making the significant investment needed to support the demands being placed on the transmission system by market transactions, including the need for the S-H Line. IPL's focus was to build transmission facilities to reliably serve its firm load and to meet applicable planning standards, not to relieve constraints on the transmission system to lower energy costs through more economic dispatch. That being said, I believe IPL would have ultimately initiated the significant efforts needed to get the land use rights and siting approvals to build the S-H Line, given the need and projected customer benefits resulting from its construction.

A.

Q41. WHAT INVESTMENT COMMITMENTS DID ITCMW MAKE TO THE IUB AS PART OF THE IPL TRANSACTION?

A. ITCMW committed to the IUB, as part of the IPL Transaction, that it would rebuild IPL's 34.5 kV system to 69 kV standards within five to seven years from close, in comparison to the sixty years projected under IPL's investment plan. After discussions with ITCMW's transmission service customers (comprised of municipal utilities, RECs, and IPL), ITCMW proposed extending the rebuild schedule to 12 years to moderate the cost impacts on those customers. This change was communicated to the IUB, which agreed the delay was in ITCMW's customers' best interest due to the significant investment

ITCMW's customers must also make to upgrade their distribution substations to interconnect to a 69 kV system and replace their distribution under-build, which resides on many of ITCMW's 34.5 kV facilities.

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Q42. WHY IS THE TIMELY REBUILD OF THE 34.5 KV SYSTEM IN IOWA

DEEMED NECESSARY BY THE IUB?

A. At the time the IPL Transaction closed, the 34.5 kV system in Iowa was in poor shape, outdated and subject to frequent outages. Outages on the 34.5 kV system often lead to end-use customer outages due to the radial nature of the facilities.⁵ In addition, lack of compatible equipment makes 34.5 kV facilities, including conductors and transformers, difficult to maintain. Further, most of the 34.5 kV facilities in Iowa do not have a static wire, making them vulnerable to lightning strikes.

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Q43. WHAT BENEFITS RESULT FROM CONVERTING A 34.5 KV TRANSMISSION

SYSTEM TO A 69 KV TRANSMISSION SYSTEM?

A. A 69 kV operated system can be designed and operated as a networked system limiting customer outages and providing timely backup service to communities during planned and unplanned outages. Further, an upgraded 69 kV line includes a static wire providing protection against lightning-related outages. In addition, a 69 kV system promotes

A radial line is one that is capable of carrying power in only one direction, similar to a one-way street.

Iowa's alternative fuels industry by enabling the interconnection of significant energy users (such as ethanol and biodiesel plants) which often over-burden the existing 34.5 kV system. From a public policy perspective, the 34.5 kV system serves rural areas that are economically disadvantaged and slow to recover from economic downturns. As such, the upgrade of the system has been deemed an economic development tool for rural Iowa.

A.

Q44. HOW DID ITCMW'S CUSTOMERS BENEFIT FROM EXTENDING THE

REBUILD SCHEDULE TO TWELVE YEARS?

ITCMW was ready, willing, and able to meet a five to seven-year rebuild schedule as committed to the IUB. Subsequent to the closing of the IPL Transaction, however, ITCMW discovered, through various planning studies and customer coordination, that an extension in the schedule would give customers an opportunity to budget for and convert their substations to accommodate a 69 kV system as the system was being rebuilt. Rebuilding with voltage conversions enables the 34.5 kV system in Iowa to be redesigned allowing the retirement of more 34.5 kV lines than is possible under the in-place upgrade envisioned during the IPL Transaction, ultimately saving customers an estimated \$93 million (in 2007 dollars) for capital investment that would have otherwise been included in ITCMW's rate base. The IUB agreed that the cost advantage of a twelve year upgrade schedule outweighed the benefits of the earlier committed schedule of five to seven years.

Q45. WHAT PROGRESS HAS ITCMW MADE IN MEETING THIS COMMITMENT?

1	A.	ITCMW is on course with its customers to get the system rebuilt in 12 years from the
2		time the IPL Transaction closed in December 2007.
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4		VII. SUCCESS IN INTERCONNECTING NEW GENERATION
5	Q46.	ITC WITNESS MR. THOMAS VITEZ'S TESTIMONY SPEAKS TO ITC'S
6		PLANNING APPROACH TO INTERCONNECTING NEW GENERATION. HAS
7		ITCMW BEEN SUCCESSFUL IN INTERCONNECTING NEW GENERATION
8		TO THE TRANSMISSION GRID?
9	A.	Yes. In its first four years of operation, ITCMW completed 16 new generator
10		interconnects, adding approximately 2,200 MW of renewable energy production capacity
11		to the grid. This additional capacity is more than the total installed renewable capacity
12		existing in Iowa in 2007 prior to closing the IPL Transaction.
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14	Q47.	IS RENEWABLE ENERGY IMPORTANT TO THE JURISDICTIONS WHICH
15		ITCMW SERVES?
16	A.	Yes. Renewable energy is important to economic development in the jurisdictions in the
17		ITCMW territory. Transmission capacity is the most significant limiting factor in
18		providing an outlet for additional renewable generation in Iowa and Minnesota.
19		According to the Iowa Wind Energy Association, the wind industry in Iowa currently
20		employs at least 3,000 full-time workers in the manufacture, operation and maintenance
21		of wind turbines, with an estimated annual payroll of \$70 million. Because transmission
22		plays a critical role in the advancement of renewable energy, ITCMW has been

1 responsive to the policies of its jurisdictions by entering into several interconnection 2 agreements with wind developers, most of which have resulted in ITCMW constructing 3 needed upgrades to the transmission system. 4 DOES ITC FAVOR RENEWABLE ENERGY OVER OTHER FORMS OF 5 O48. 6 **ELECTRICITY GENERATION?** 7 Α. No. ITC is neutral towards electricity generation sources and will work diligently to 8 satisfy any interconnection requests. To date, only renewable generators have requested 9 interconnection on ITCMW's system. However, the policies of the jurisdictions in the 10 ITCMW footprint are very focused on advancing renewable energy for economic 11 development purposes. 12 13 VIII. INTERACTING WITH CUSTOMERS AND COMMUNITIES 14 Q49. ITC WITNESSES MESSRS. JOSEPH WELCH, JON JIPPING, AND THOMAS 15 VITEZ SPEAK TO ITC'S COMMITMENT TO TRANSPARENCY AND 16 WORKING WITH CUSTOMERS TO ENSURE THE BEST TRANSMISSION 17 PROJECTS ARE PLANNED, DESIGNED, AND CONSTRUCTED. HAS THIS 18 COMMITMENT BEEN REALIZED AT ITCMW? 19 Yes. ITCMW personnel have long-standing, close working relationships with the REC A. 20 and municipal utility customers we serve, in addition to IPL. A dedicated "Stakeholder 21 Relations" group serves as a single point of contact for RECs, municipal utilities, and 22 IPL. This group performs a number of functions including:

- providing timely communications for planned outages such that coordinated maintenance can be accomplished;
 - 2) providing ongoing and proactive communications on unplanned outages;
 - arranging for conference calls and meetings to address service issues or other concerns that may arise;
 - 4) tracking and bringing to resolution service issues or other concerns;
 - 5) holding semi-annual "Partners in Business" ("PIB") meetings to provide updates on capital and maintenance plans, energy policy, rates, preparedness, capital investment plans, and legislative and regulatory updates. At the autumn PIB meetings, regulatory and accounting staff provides detail on the projected rate for the following year including projected elements of rate base, O&M and A&G expenses, taxes, load, and revenue credits. Please see the testimony of ITC witness Mr. Thomas Wrenbeck for more information on how ITC projects revenue requirements and sets rates on a forward-looking basis.

In addition, ITCMW's Planning and Operations Departments hold frequent meetings with the corresponding departments of their REC and investor-owned utility customers to ensure strong communications and coordination in these areas. ITCMW personnel, including myself, also meet on a quarterly basis with personnel at the Duane Arnold Nuclear Center which is the only nuclear power plant connected to ITCMW's transmission facilities.

Q50. DO YOU PERSONALLY HAVE INVOLVEMENT WITH ITCMW'S

2 **STAKEHOLDERS?**

3 A. Yes. ITC's Chief Operating Officer Jon Jipping, ITC's Vice President of Operations Beth 4 Howell and I all meet quarterly with the Vice President of Operations for IPL. I also 5 meet more frequently with the IPL liaison to ITCMW, and have continual involvement 6 with Central Iowa Power Cooperative, for which ITCMW provides maintenance and 7 operational services. I personally attend the PIB meetings to talk to other ITCMW 8 stakeholders, and also speak to IPL's largest industrial customers at IPL's biannual 9 transmission stakeholder meetings. Additionally, I make myself available for meetings 10 with representatives of all the RECs and municipal customers we serve. These same 11 customers are always invited to participate in our biannual PIB meetings and often take 12 advantage of this opportunity.

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O51. WHAT ONGOING INTERACTION DOES ITCMW HAVE WITH STATE

REGULATORS?

- 16 **A.** While ITCMW is rate regulated by FERC, we maintain close working relationships with
 17 the regulators in the states that we serve. ITCMW has dedicated regulatory personnel in
 18 each jurisdiction responsible for ensuring:
 - 1) ongoing communications on ITCMW activities and projects;
 - 2) ongoing and proactive communications on industry issues;
- 21 3) an open communications path to address issues and concerns that may arise; and

1 100 percent compliance with the requirements of the jurisdictions, including 2 timely and accurate filings as required or requested. 3 4 DOES ITCMW SEEK TO ENHANCE THE ECONOMIC CONDITIONS IN THE 5 STATES AND COMMUNITIES IT SERVES? Yes. ITCMW, like ITC's other operating subsidiaries, works to promote the economy of 6 A. 7 the states and communities in which it operates by recruiting qualified employees within 8 the state, contracting with local vendors when competitive, and actively participating in 9 community activities (both through employee time and donations). Key highlights of 10 ITCMW's economic impact and community involvement follow. 11 1) ITCMW currently employs more than 80 people in the ITCMW service area in 12 good paying jobs such as engineering. ITCMW's primary field operations and 13 maintenance contractor employs approximately 180 field personnel across the 14 region. 15 2) ITCMW paid \$6.8 million in property taxes in Iowa and Minnesota in 2011, and 16 is projected to pay approximately \$7.4 million in 2012. 17 3) Due to its construction and maintenance programs, ITCMW purchases more than 18 \$30 million in supplies and materials annually from more than 100 vendors in 19 Iowa and Minnesota. To date, eight vendors have set up operations in the 20 ITCMW service area – employing 258 people to serve ITCMW.

1		4)	ITCMW actively participates in community activities and has donated more than
2			\$1 million to community organizations, contributing to the quality of life in those
3			communities.
4		5)	ITCMW works with state regulatory, administrative and legislative leaders to help
5			implement regulatory outcomes and legislation that promote improved energy
6			reliability and efficiency.
7		6)	ITCMW works with its utility-customers to build positive relationships with large
8			industrial customers interconnected to the transmission system through its
9			stakeholder relations group.
10		7)	ITCMW works closely with state and local police, municipal officials, fire and
11			emergency preparedness personnel to establish training and communications in
12			the event of emergencies.
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15	Q53.	WITH	I REGARD TO THE PROPOSED ITC TRANSACTION, WHAT DOES
16		YOU	R EXPERIENCE WITH ITCMW INDICATE TO YOU?
17	A.	Based	on my experience, upon completion of the Transaction, ITC's Arkansas operating
18		compa	my will adopt the same type of proactive, robust maintenance and investment
19		philoso	ophy in the EAI footprint as was done with ITCMW to enhance reliability and
20		improv	ve the economics of energy supply.
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Q54. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

ITC Midsouth LLC Direct Testimony of Douglas C. Collins PSC File No. EO-2013-0396

1 **A.** Yes it does.