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	)	File No. EO-2013-0396

EXHIBIT DCC-1

STATE OF THE SYSTEM REPORT

DCC-1

ITC MIDWEST LLC

STATE OF THE SYSTEM REPORT

DECEMBER 7, 2008

(As filed with the Iowa Utilities Board

in Docket No. SPU-07-11 on December 8, 2008)

Date: December 8, 2008

Company Name: ITC Midwest, LLC

Subject Matter: State of the System Report

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Judi Cooper, Executive Secretary
Iowa Utilities Board
350 Maple Street
Des Moines, IA 50319-0069

RE: State of the System Report
ITC Midwest, LLC
Docket No. SPU-07-11

Dear Secretary Cooper:

In compliance with the requirements of the "Order Terminating Docket and Recommending Delineation of Transmission and Local Distribution Facilities" (Final Order) issued in Docket No. SPU-07-11 on September 20, 2007, ITC Midwest, LLC (ITC Midwest) hereby submits for filing a report entitled "State of the System Report" (Transmission Report).

On December 20, 2007, ITC Midwest acquired the high-voltage electric transmission system formerly owned by Interstate Power and Light Company. The transaction was deemed approved by the Iowa Utilities Board by operation of law shortly after the issuance of the Final Order.

In seeking approval of the transaction in Minnesota, ITC Midwest committed to perform an analysis of the condition of the transmission system and identify any related plans for remedial measures, and to submit a report on the results thereof to the Minnesota Public Utilities Commission. In the Final Order, the Board essentially required that commitments for the benefit of customers made by ITC Midwest in other jurisdictions be extended to Iowa customers as well. The Transmission Report, which is also being filed with the Minnesota Public Utilities Commission this same day, is being filed in this docket to comply with that requirement.

Very truly yours,

Philip E. Stoffregen

ITC Midwest, LLC

State of the System Report

December 7, 2008

I. EXECUTIVE SUMMARY

On December 20, 2007, ITC Midwest, LLC ("ITC Midwest") acquired the high-voltage electric transmission system formerly owned by Alliant Energy's Interstate Power and Light Company ("IPL") operating company. In seeking approval of the transaction, ITC Midwest committed to perform an analysis of the condition of the transmission system and identify any related plans for remedial measures and to submit this analysis within twelve months of the transaction's closing. ITC Midwest is furnishing the following report to the Minnesota Public Utilities Commission, the Iowa Utilities Board and certain other parties in fulfillment of that commitment. The goal of this report is to provide ITC Midwest's assessment of the condition of its transmission system. ITC Midwest's assessment, in addition to fulfilling the commitments identified above, also provides a baseline from which ITC Midwest will base its future maintenance and capital plans. The matters discussed in the report below, including the discussion of past practices related to maintaining the system, are encompassed in this report as a necessary part of accurately assessing the current condition of the transmission system and related measures needed for going forwards, and for that purpose specifically.

A. Highlights of Report Findings

The following points sum up ITC Midwest's findings and conclusions made in the course of auditing and investigating the state of the transmission system in compliance with and furtherance of the reporting requirements outlined above:

- Aging Infrastructure: The transmission system is an aged system that requires immediate, thorough, and proper maintenance in order to fulfill ITC Midwest's commitment to improve reliability. The system requires infrastructure replacements due to assets being at or near end of their useful life.

- Renewable Energy: The existing system is not adequate to integrate new proposed renewable generation.

- Congestion: Portions of the ITC Midwest transmission system must be upgraded and new lines built to reduce the present constraints.

- Outages: Since acquiring the system and tracking its performance, ITC Midwest has experienced a high number of transmission outages on the system, which impact customers and must be addressed.

- Targeted Remedial Measures: Maintenance practices applied to the transmission system must be fully executed, enhanced, and accelerated in certain areas. The company also will need to address particular problem areas. Highlights of those problem areas are as follows:

    1. Backlogs in corrective maintenance;

    2. Backlogs in implementing appropriate vegetation management;

    3. Environmental management deficiencies;

    4. Implementation of an asset security and cyber security program that complies with best practices.

    5. Deficiencies in the 34.5 kV network. These system facilities have long been recognized as being in need of rebuilding (including new poles and wires) for improved reliability and overall enhanced system capability.

B. Methodology and Sources

In analyzing the condition of the transmission system, ITC Midwest has relied on various sources of information, including:

1. Observations and analysis of the actual performance of the transmission system.

2. Physical inspections of equipment.

3. Analytical reports provided by third-parties, including R.W. Beck and Black & Veatch, as discussed below;

4. Expert operational and technical knowledge and analysis conducted by ITC Midwest personnel who have long experience working with the system.

5. Available historical maintenance records kept by IPL, as well as IPL's Cascade maintenance data base

6. Reviews of historical maintenance practices, provided in available records and as reported by former IPL employees with knowledge of IPL maintenance practices.

7. Transmission system assessments reports and plans.

C. Assessment of System Baseline

Through its investigation and analysis, conducted in part to meet the requirements of this report, ITC Midwest has determined that past maintenance practices on the transmission system (including routine maintenance and inspection programs) were planned, but may not have always been completely executed or implemented. This supposition has been corroborated by the company thorough on-the-ground audit and inspection of the physical state of the system, as documented in this report.

Overall, when records are matched to the physical state of the system, it is clear that maintenance items were often identified, but often were repaired only to address immediate system performance exigencies or as required by a regulatory agency. It appears that system maintenance was often undertaken based on a prioritized list of identified exigent problems. Moreover, it also appears that this list was only attended to subject to budget and resource limitations.

D. Action Plan

Based on the assessments contained in this report, ITC Midwest intends to change the historic approach to maintenance of the system. ITC Midwest will concentrate its maintenance program on preventative maintenance while also systematically addressing the identified problem areas to improve system reliability and performance. These changes will result in a more efficient maintenance program over the long term and reduce requirements for and costs of unplanned, reactive and corrective maintenance activities.

The remainder of this report is organized as follows:

- Part II provides an overview of ITC Midwest and its maintenance and system planning principles;
- Part III sets out a description of analyses performed on the conditions of the transmission system, and the performance of the system;
- Part IV gives a description of historical maintenance practices applied to the transmission system and ITC Midwest's planned maintenance activities; and

- Part V discusses ITC Midwest's review of the need for the addition of new facilities to be added to the transmission system.

II. ITC MIDWEST OVERVIEW: MAINTENANCE AND SYSTEM PLANNNG PRINCIPLES

ITC Midwest was formed as a subsidiary of ITC Holdings Corp. to acquire the high-voltage electric transmission system formerly owned by IPL. Through the transaction, ITC Midwest acquired approximately 6,800 miles of transmission lines, at voltages of 34.5 kV and above, and approximately 208 transmission substations, as well as certain equipment installed at approximately 110 substations owned by neighboring utilities. As a result, ITC Midwest connects more than 700 communities in Iowa, southern Minnesota and northwest Illinois, an area of nearly 53,000 square miles.

ITC Midwest is currently working to complete the transition to take full responsibility for maintenance, construction and operational control of the former IPL transmission system, as well as initiating responsibility for planning and implementing improvements.

As noted throughout this report, ITC Midwest's maintenance program, on a going-forward basis, will seek to reduce and eliminate as much reactive and unplanned maintenance activity as possible. This approach not only results in the least number of system outages on the transmission system, but also delivers high reliability. This approach, which is consistent with all applicable industry standards, facilitates operation of the transmission system in a "least vulnerable" state. Under this approach, when system elements must be taken out of service, outages can be planned for those times when the system can reliably handle such system conditions. This also reduces the impact on customers because unplanned outages and associated costs are reduced. In addition, a fully and properly maintained system has a resiliency to abnormal system and environmental conditions, such as typical or even occasionally extreme weather events. Finally, ITC Midwest will concentrate on fulfilling its environmental, security, public safety and community presence responsibilities. The company will strive to take care of its property and buildings with the same level of care as it takes toward stewardship of the transmission system.

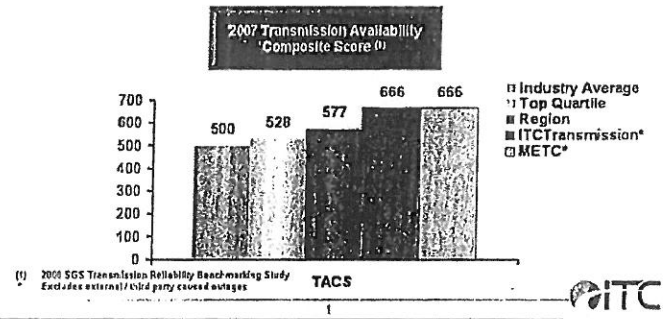
From a system planning perspective, ITC Midwest annually performs transmission planning assessments that meet or exceed all North American Electric Reliability Corporation ("NERC") Planning Standard Requirements. These assessments identify transmission upgrades required to maintain transmission security and adequacy over a minimum 1 to 10 year time frame. In compliance with FERC Order No. 890 and

Attachment FF of the Midwest Independent System Operator, Inc. ("MISO") Transmission and Energy Markets Tariff ("TEMP"), ITC Midwest submits all proposed capital improvement projects to the MISO for stakeholder review and for approval by the MISO board of directors through the MISO Transmission Expansion Plan (MTEP) process. Changing loading patterns on the transmission system, infrastructure improvement and replacements, new generation, firm transmission usage, and market flows are all contributors to the on-going need to evaluate transmission system performance. This on-going evaluation results in properly identifying the transmission facility upgrades required to maintain and improve the transmission service ITC Midwest provides.

International Transmission Company ("ITC*Transmission*") and Michigan Electric Transmission Company LLC ("METC"), ITC Midwest's affiliate companies in Michigan, have a track record of employing similar maintenance programs, with positive results. In addition, as shown in the following slides, the latest SGS Statistical Services Transmission Reliability Benchmarking Study shows the Michigan ITC operating companies, ITC*Transmission* and METC, are top performers for reliability in three important measures: Average Circuit Outages – both Sustained and Momentary – and the Transmission Availability Composite Score. ITC Midwest will implement programs to ensure that the same best practices achieved at its Michigan affiliates are also adhered to and performed by ITC Midwest.

Operational Excellence

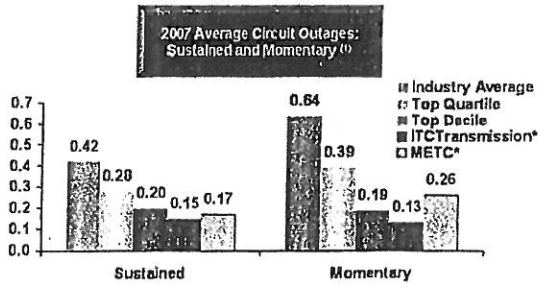
- ITC's goal is best-in-class system performance for all operating subsidiaries
  - Michigan systems are in the Top Quartile and better than regional performance when looking at the composite score for all voltages in the SGS Transmission Reliability Benchmarking Study



(1) 2008 SGS Transmission Reliability Benchmarking Study
* Excludes external / third party caused outages

Operational Excellence

- ITC's goal is best-in-class system performance for all ITC operating subsidiaries
  - Our Michigan systems achieved Top Decile performance for sustained outages.
  - ITC*Transmission* is also Top Decile in momentary outages while METC is Top Quartile.



(1) 2008 SGS Transmission Reliability Benchmarking Study
* Excludes external cause outages

III. TRANSMISSION SYSTEM CONDITION EVALUATION CRITERIA AND SYSTEM PERFORMANCE ASSESSMENT

A. Evaluation Criteria

In analyzing the state and condition of the transmission system, ITC Midwest utilized several industry standard assessment criteria.

First, the performance of the system is a key indicator of the system's condition; as the condition of the system deteriorates so will its performance. System performance can be analyzed through a review of outages, as well as the instances in which reactive or corrective maintenance (i.e., repairing broken equipment) was required.

Second, physical inspections of equipment provide data on the physical condition of the assets. To help complete a review of the condition of the system, ITC Midwest also has been able to access the accumulated knowledge of employees with prior extensive experience working on its transmission system.

Third, a review of historical maintenance practices employed with respect to the system, and available records of maintenance completed, is important to determine to what extent the existing equipment has been maintained. ITC Midwest considered these various sources of information in its description of the overall condition of the transmission system.

B. System Performance Assessment

A fundamental measure of system performance is outages. Reducing the incidence of outages is especially important on the ITC Midwest system because all distribution load substations are directly connected to the transmission system. The vast majority of the load is connected to 34.5 kV and 69 kV transmission lines, many of which are operated in such a manner that this results in the loss of service to an entire community when a line outage occurs.

ITC Midwest has been recording momentary and sustained outages on the transmission system during calendar year 2008. The table below summarizes the outages experienced through November 1, 2008, along with comparisons to outages experienced on transmission systems of ITC Midwest's affiliate transmission companies.

Company	Sustained Outages	Momentary Outages
ITC*Transmission*	6	36
METC	36	73
ITC Midwest	295	1141

More specifically, the ITC Midwest 34.5 kV system recorded 837 outages, of which 156 were sustained and 681 were momentary type outages. Additionally there were 599 outages on the 69 kV and higher system, of which 139 were sustained and 460 were momentary. While 60 to 70 percent of these momentary and sustained outages are reported as related to weather, such categorization is not reliable as there has been no formal investigation process for momentary outages. Available details on the cause of the sustained outages show a substantial number are related to vegetation contact. A large percentage of the momentary outages are suspected to be due to vegetation contact as well, but as stated earlier, these outages have not been formally investigated. While weather may have been the initiating event for many of these outages, we believe that many of those may have been prevented through better vegetation management practices.

According to records transferred to ITC Midwest, IPL recorded and investigated causes for sustained outages on the 34.5 kV and 69 kV+ systems. However, while that data provides some descriptions of outage causes, it does not identify specific lines or pieces of equipment involved in the failure. More specific information would help in the assessment of equipment condition trends. While the data has limited value in identifying issues with particular equipment, it does indicate numerous outages on the low-voltage transmission system historically. Sustained outage data on the higher voltages does appear to have been better documented.

Unfortunately, IPL did not record or keep any records of momentary outages. Without such baseline data, it is not possible to look at historic outage trends over time to determine if degrading system maintenance contributed to increasing levels of momentary outages. However, as noted above, the sheer level of ITC Midwest momentary outages in 2008 (1141), as compared to ITC*Transmission* (36) and METC (73) suggests that, at least, further study and analysis regarding momentary outages is required.

ITC Midwest will be using the momentary and sustained outage information data that ITC Midwest collected during 2008 as its performance measure baseline. These data will support and dictate the initiation and prioritization of certain maintenance and capital system improvements going forward.

C. Physical Inspections

ITC Midwest undertook and/or commissioned three separate inspection programs to evaluate and detail the condition of the ITC Midwest transmission system. As noted below, the reviews were undertaken by: (1) ITC Midwest; (2) RW Beck; and (3) Black & Veatch. The company initiated or commissioned each inspection program to assess slightly different (yet, somewhat overlapping) aspects of the system. ITC Midwest undertook an overall facilities inspection in keeping with its practices in Michigan, RW Beck performed a diligence report for the company's use prior to its purchase of the system based on an asset sampling, and Black & Veatch conducted a system security assessment.

Although each of the three assessments was different in its focus, each one identified similar trends regarding the state of system maintenance and equipment conditions. The inspection programs and resultant reports are described below. Importantly, the engineers hired by ITC Midwest who have direct previous experience in maintenance activities on the ITC Midwest system provided invaluable input on the condition of the system to each of these three efforts. Finally, field personnel, including linemen, electricians, technicians and foremen with extensive experience on the ITC Midwest transmission system also provided very important input and guidance to these assessments.

1. ITC Midwest System Review

The most comprehensive inspection program was initiated by ITC Midwest in the early spring of 2008. The goal of this effort was to thoroughly inspect the facilities (both lines and substations) to determine the condition of the equipment and to assess the equipment's actual condition as compared to IPL's historical maintenance records. IPL provided ITC Midwest with an extract of their substation equipment maintenance management data base called Cascade as part of the asset sale. The Cascade system contains the maintenance plan and frequencies for substation assets, as well as historical records of past maintenance activities.

In this inspection effort, ITC Midwest employed a similar program to the one successfully used by METC following its acquisition by ITC Holdings Corp.

ITC Midwest assembled and directed a team of qualified and highly experienced personnel from the company and several consultants to review the facilities and equipment, plus the environmental and physical security conditions, of each site where

ITC Midwest owns equipment. In particular, these inspections encompassed every substation containing equipment owned by ITC Midwest, including substations owned by third parties that contain ITC Midwest-owned equipment. In addition, ITC Midwest performed a comprehensive line inspection pursuant to the existing IPL scheduled inspection process.

a. Substation Analysis

The ITC Midwest substation inspection program in particular identified equipment deficiencies that, if left uncorrected, would likely or potentially lead to more severe equipment fault and/or degraded system conditions. These deficiencies have been catalogued, and are now included within an omnibus list of corrective maintenance items to be performed by ITC Midwest (discussed later in this report). Substation maintenance is of particular concern to the company and, in December 2008 when it takes over system maintenance and operations, ITC Midwest will be conducting its own ongoing substation inspection and maintenance program, which will be a follow-on to the effort reported here, and will be used to uncover any additional issues to be remedied. The present IPL substation maintenance plan, as well as the results of the ITC Midwest inspection, will be used in determining substation maintenance activities going forward, such as adjusting inspection frequencies and preventative and predictive maintenance activities.

Substation power equipment deficiencies included:

- minor leaks (i.e., non-reportable spill to the Iowa Department of Natural Resources and Environmental Protection Agency);
- equipment missing some non-critical parts;
- equipment which had only partial repairs completed,
- a lack of general upkeep; and
- signs of age degradation (especially on circuit breakers at the 34.5 kV and 69 kV level).

With respect to leaks, 27 percent of the station transformers and 8 percent of the oil circuit breakers were found to have at least one notable oil leak. ITC Midwest's experience is that this frequency of leakage is too high and should be addressed.

In addition, several substations were found to contain spare power equipment materials (e.g., breaker or transformer oil-filled bushings, insulators, etc.). This extra equipment appears to have been salvaged from decommissioned equipment. This

salvaged equipment was assessed to be in questionable condition (due to age, method of storage, and exposure to the elements). The spare equipment located in the substations identified as transmission equipment will be disposed of or moved to central warehouse facilities for proper storage, if deemed useful.

b. Line and Pole Analysis

Line inspections found deficiencies consistent with reports from IPL's inspection program; however some of the deficiencies appear to have been present for some time, i.e. greater than the inspection cycles reported by IPL which means they were not corrected once found and would have still existed when the line segment was again inspected according to the schedule. The line inspections also determined that many areas were in immediate need of vegetation management. Notably, this finding was not revealed in the R.W. Beck initial diligence report sampling described below. The lines inspected during ITC Midwest's review were selected by ITC Midwest and its contractors, using both the IPL-scheduled inspection plan and by targeting areas of known system performance problems. These issues are discussed later in the report.

c. Miscellaneous Property and Environmental Analysis

The company also found physical substation site deficiencies with the buildings and grounds including:

- broken windows and doors,
- damaged or poor lighting,
- non-working air conditioning units and heaters,
- broken locks, fence tensioning and barbed wires broken or missing,
- fence ground wires missing,
- gravel washouts and/or major depressions requiring yard stone,
- roof leaks,
- major vegetation encroachment,
- absent or poorly visible station or line equipment identification; and
- missing operator or station drawings.

These deficiencies pose a threat to general integrity of equipment that is part of the transmission system, a threat to the safely and security of the transmission system, and increase in the potential impact on public safety from high voltage electrical equipment.

Environmental deficiencies within substations included past spills needing follow-up remediation, oil containment deficiencies, residual rain water in catch basins needing to be pumped out, and minor equipment leaks. ITC Midwest's assessment is also that past compliance with Spill Prevention Control and Countermeasure ("SPCC") regulations was not to industry standard.

Overall, the condition of the transmission substations is characterized as primarily fair, with some locations in poor condition and a small group in good condition. Some equipment degradation based on age and performance is likely at end of useful life and there is a need for some facilities to be replaced. The majority of the rest of the electrical equipment and sites need proper and thorough maintenance to restore the equipment to a condition consistent with industry standards.

All of the 345 kV, 161 kV and 115 kV lines were aerial inspected. Portions of these lines identified from the aerial inspection were then inspected on foot. The remaining inspections focused on the 69 kV and 34.5 kV portions of the system. The lines inspected during this review were selected in part based on areas of known system performance problems. As discussed above, the vast majority of outages are at these lower voltage levels. Approximately 70% of the 34.5 kV and 69 kV portions of the system were inspected.

In general, the 345 kV, 161 kV and 115 kV lines are in good condition, with some portions of the 161 kV and 115 kV systems showing significant signs of age. The 34.5 kV and 69 kV lines were found to have many deficiencies, as expected, since some circuits have poor performance. Some of the deficiencies appear to have been present for some time, before they were reported-on for the first time by the prior owner's personnel.

The line inspections also determined that many areas of the system were in immediate need of vegetation management. Taken together, the condition of the lines themselves and the vegetation management issues identified lead ITC Midwest to make the assessment that the 34.5 kV and 69 kV system lines are in generally poor condition. With a proper vegetation management program, and maintenance of the lines, the condition is expected to greatly improve. In contrast to the substation equipment, however, significant portions of these lines will need to be replaced as they are at end of their useful life.

2. R.W. Beck Study

As part of a financial, due diligence process prior to ITC Midwest's acquisition of the transmission system, R.W. Beck, Inc. performed a limited sampling review of certain system facilities. The review included site reviews of certain of the electric transmission lines and substation assets of IPL prior to the acquisition. The field review was not intended to be a detailed inspection of all equipment, but rather a general observation of the condition of the system based on limited samples.

R. W. Beck personnel reviewed a sample of the transmission lines and substations. IPL's staff selected substations and lines across the entire system for the review. The sample size was approximately 35% of the substations and less than 6% of the transmission lines.

Typically, a series of three or four structures were evaluated at two separate locations along each sample line section. Sixty two (62) representative substations were entered and evaluated.

R. W. Beck defined their condition ratings as: Obsolete (Recommend immediate replacement), Poor (Remaining life; replace soon), Fair (Remaining life; maintenance required soon), Good (Remaining life; recommend routine maintenance), Very Good (Remaining life; recommend routine inspection) and Excellent (Remaining life; new or recent construction).

R. W. Beck noted on the sampled transmission lines that generally good structure, grounding and maintenance practices were observed; however they recommended that the pole inspection program be accelerated to a minimum of a 10-year cycle as parts of the system are over 40 years old. R. W. Beck noted that some of the oldest structures are in the northern part of the system and show a lot of deterioration. On the samples of the 69 kV system that were evaluated, nearly 50% of lines were deemed to be in Fair (maintenance required soon) or Poor (replace soon) condition. For both the 34.5 kV and 69 kV systems, R. W. Beck recommended a systematic replacement program due to the age of these portions of the system. This is consistent with ITC Midwest's planned conversion of the 34.5 kV system and reliability improvements to the 69 kV system. Nearly 60% of the 115 kV system was rated Fair (maintenance required soon), with a high priority recommendation for replacement based on the fact that most poles were at or near 50 years old. The rights-of-way sampled for the R.W. Beck report did identify areas that were well maintained, with some examples of poorly maintained rights-of-way. A few minor encroachments of rights-of-way by the public were observed.

R. W. Beck noted that the 62 substations reviewed appeared to be in generally good condition (recommend routine maintenance). Minor oil leaks were observed and a larger than expected amount of equipment was identified as needing general physical maintenance. A number of substation yards were soft and had considerable puddling and washing. Most of the major equipment in the sampled substations was observed to be in fair (maintenance required soon) to Good condition (recommend routine maintenance). Minor substation equipment condition was consistent with the condition of major equipment. R. W. Beck noted the lack of oil containment at most locations, recommending a review of the requirements in 40 CFR Part 112 (Oil Pollution Prevention Regulation). ITC Midwest noted this concern as well during inspections and is evaluating oil containments and remediation of this issue. Overall, R. W. Beck rated 44% of substation equipment as being in "Good" condition, but still recommending that routine maintenance was required, and 29% as "Fair" condition, with maintenance required "soon."

This financial due diligence review provided a decent snapshot of the system, and is generally in line with what has been observed by ITC Midwest and Black & Veatch. Overall, the R.W. Beck report highlighted the need for thorough and proper maintenance programs on the system, but noted that some portions of the system required immediate maintenance or replacement.

3. Black & Veatch Study

A third inspection program was a vulnerability assessment, completed by Black & Veatch for the purposes of complying with the NERC Critical Infrastructure Protection Program. The assessment was conducted from June to August of 2008. The inspection included 83 key ITC Midwest substations. This vulnerability assessment applied the Sandia National Laboratories' "Risk Assessment Methodology" (RAMSM). The vulnerability assessment considered critical assets and features of ITC Midwest's electrical substation facilities with respect to the mission objectives and facility prioritization. The risk assessment methodology was used to evaluate the overall system effectiveness versus the design basis threat ("DBT"), identify vulnerabilities, and recommend countermeasures that ITC Midwest should consider regarding security of their facilities. Teams consisting of security specialists from Black & Veatch conducted the assessment.

Substation and control building condition assessment was included as part of the survey, with an emphasis on physical security conditions. This is important not only for the physical security of the transmission assets, but also for public safety. The assessment identified many actionable facilities maintenance items. Consistent with the

two previously discussed assessment activities, a notable number of the substations were identified with similar maintenance issues associated with fences (broken portions, gaps under the fence, holes, etc.), poor window and door conditions (broken or latch problems), control building water leakage, rodent problems and system grounding maintenance issues. Vegetation encroachment on the exterior of substation fences was identified as a security threat and source for vandalism.

Like the previous assessment, this vulnerability assessment had a specific purpose, focusing only on physical security and potential vulnerabilities. It confirms ITC Midwest's own assessment on the need for a thorough and proper maintenance program for all aspects of the company's transmission system facilities, not just transmission electrical equipment.

IV. Review of Transmission System Maintenance Practices and Planned Going-Forward Routine and Remedial Maintenance

As stated earlier in this report, ITC Midwest's maintenance program will seek to reduce and eliminate as much reactive and unplanned maintenance activity as possible. This approach will result in the most efficient method of achieving the highest level of reliability that can be provided in an economic manner. A fully and properly maintained transmission system has a resiliency to abnormal system and environmental conditions, such as typical and occasionally extreme weather events.

What follows is a description, for each category of maintenance activities, of:

- past maintenance plans and practices by IPL;
- the status of each category of maintenance, and
- ITC Midwest's future maintenance plans.

The categories of equipment for which maintenance practices were examined are as follows:

- Lines
- Vegetation Management
- Substations
- Power Transformers
- Breakers (oil, gas)
- Batteries
- Relays

- Circuit Switchers, Disconnects and Pole Top Switches
- Potential Devices and Arresters
- Capacitor Banks

A review of the status of maintenance performed on the transmission system, as well as the planned maintenance needed going forward, is another important indicator of the condition of the system, as noted above. As part of each maintenance category, ITC Midwest anticipates some equipment replacement and/or upgrades. These activities may not be strictly considered "maintenance," but may ultimately be classified as "capital expenditures" from an accounting perspective. However, the accounting for that activity does not affect what the system objectively requires from a performance perspective. In some cases, work can be performed without the need for full equipment replacement and capital expenditures; other times, this is not the case. Thus, what will be assessed is the need for replacing equipment at the end of its useful life. These assessments will be done as part of the ITC Midwest maintenance program.

By way of background, ITC Midwest employs Utility Line Construction Services ("ULC") to perform the outage response/repair, and the scheduled maintenance of the ITC Midwest transmission system. ULC works for ITC Midwest and is a dedicated maintenance and emergency response organization. ULC's priority is to respond to and repair outages and perform regularly scheduled maintenance of the ITC Midwest system. ULC, in order to support its work for ITC Midwest, has hired a significant number of former IPL employees who are very familiar with the operational characteristics and location of the ITC Midwest transmission system. ULC has the necessary specialty equipment and tools to maintain and repair the system regardless of weather, ground conditions, terrain, or system configuration.

1. Lines

a. Lines: Historic Maintenance

As reported by IPL, IPL performed its line inspections in accordance with the Iowa Utilities Board Iowa Administrative Code and NERC Reliability Standards. IPL reports that all lines operated at 34.5 kV or above were visually inspected at least annually for damage and to determine the condition of the overhead line insulators. A combination of driving, walking and aerial inspection methods were typically utilized for these inspections. Ground inspections were substituted for aerial inspections in highly populated areas, where low altitude flight is restricted by Federal Aviation Regulations. IPL reported that it visually inspected some electric transmission lines and facilities more frequently based on operating experience.

IPL reported that transmission (34.5 kV and higher) poles had the butt end of the poles inspected and tested on a ten year plan beginning after the line has been in service twenty years. These additional tests may have included sounding, boring, ground line exposure, and, if applicable, pole treatment. In addition, transmission lines were required to be foot patrolled (pole-to-pole) and poles visually inspected every five years, 20% of the transmission system (34.5 kV or greater) per year.

Corrective maintenance was scheduled to cure deficiencies noted during the inspection process.

IPL did not have a formal program to climb structures and perform a detailed inspection and repair as part of a preventative maintenance program. Examples of the types of defects identified during a line patrol inspection are: rotten arms, damaged insulator, buried anchor eye, loose ground wire, broken static/ neutral bonding, down guy insulator needed, down guy bonding, blown arrestor, bad or leaning poles, etc.

b. Lines: ITC Midwest Maintenance Plan

ITC Midwest will augment the IPL line maintenance plan, in addition to following the guidelines set forth by the Iowa Utilities Board Iowa Administrative Code and NERC Reliability Standards. ITC Midwest will add preventative maintenance practices that will improve the safety and reliability of its system based on the previous inspection plans. For example, in addition to past IPL practices, ITC Midwest will visually inspect the 100 kV and higher transmission system twice a year in order to find immediate issues with the bulk power portion of the system.

In addition, ITC Midwest will perform "climbing inspections" as part of its routine maintenance, and perform a detailed inspection and repair of all structure items. Climbing inspections provide a closer inspection of the condition of the conductor and mounting hardware than a ground visual inspection provides. In addition if loose hardware is identified it can be tightened at the time of the inspection, rather than having to schedule a return at a later date. Line outages will also be used as an indicator that a circuit needs an inspection.

As an example, if a circuit is experiencing momentary or sustained outages, the line will be subject to a climbing inspection. Along with the repair and pole top inspection, insulators will be inspected for failure, all expended arresters will be replaced and additional arresters added if deemed necessary for improvement of the circuit's performance. This inspection will take place as soon as the line can be taken out of service. This type of program can improve system performance and reduce the

need for later corrective maintenance activity. For example, based on findings from a line failure on the OGS-Montezuma 345 kV line in 2007, it is probable that the failure and resultant conductor damage that occurred would have been prevented with such a detailed climbing inspection.

Lastly, ITC Midwest is implementing a centralized maintenance management data base. This data base will be used to track maintenance of the entire ITC Midwest system, both lines and substations. This data base is being populated with historical substation data provided by IPL and a significant amount of new data being collected through ongoing field inspections. The centralized maintenance management data base will provide an efficient platform for monitoring line maintenance and corrected deficiencies that would impact system reliability. The data base will also be a tool for identifying future maintenance or replacement programs.

2. Vegetation Management

a. Vegetation Management: Historic Maintenance

IPL conducted an annual inspection program for transmission lines greater than 100 kV. The annual inspection program was discussed with ITC Midwest personnel. Deficiencies were documented and assigned to work crews for remediation. Prioritization was based on threat to the system. After completing a trim on the transmission lines greater than 100 kV, the line rights-of-way were herbicide sprayed every two years to minimize re-growth.

IPL had a vegetation management program for the system below 100 kV that was designed to achieve a three (3) year trim cycle. ITC Midwest understands that the 3 year trim cycle was expanded to more of a 4 to 5 year program at the 34.5 kV and 69 kV level based on available budget and resources. Several years of minimal trimming have resulted in areas of the system having only partial trims and often only 1 to -2 feet of clearance on untrimmed circuits. The number of weather-related momentary and lock-out outages reported in system performance metrics appear to affirm that there are significant vegetation clearance problems on the 34.5 kV and 69 kV system.

IPL represented that all reported vegetation management deficiencies were completed for 2007 across the territory. ITC Midwest has observed that adequate trimming appears to have been completed in some areas, while ITC Midwest site inspections show a number of line locations with line-to-vegetation clearance problems. The recent ITC Midwest vegetation inspection shows that a three-year cycle for

trimming is inadequate based on past practices and due to the growth rates of the vegetation in this area.

b. ITC Midwest Vegetation Management and Maintenance Plan

ITC Midwest has performed a detailed system inspection during 2008 and has recognized the need to increase the system trim cycle from three years to two years. Additionally, these accelerated trim cycles will include trimming of entire circuits rather than limited trim of portions of a circuit. The objective of ITC Midwest's Vegetation Management Plan is to eliminate vegetation-caused outages to the transmission system, consistent with the expectations of the NERC Reliability Standards. ITC Midwest will meet these objectives by maintaining acceptable clearances between conductors and adjacent vegetation. In addition, effective right-of-way management includes inspection for, and mitigation of, other rights-of-way based causes of outages, such as encroachment, vandalism, and incompatible use. Many 34.5 kV and 69 kV circuits have immediate needs and are currently being "hot-spot trimmed" to deal with only the most urgent clearance needs. Although this is not the most cost efficient way to manage a program, as opposed to a program more focused on preventative maintenance, hot-spot trimming is currently required to avoid vegetation contact with lines, and related outages.

ITC Midwest has developed an Annual Plan which indicates planned vegetation management work, by circuit, for the year. The Annual Plan is flexible enough to accommodate a schedule change due to capital projects, community involvement, additional right-of-way, and other system issues These variations from the plan are documented and the Annual Plan is updated accordingly.

The Annual Plan is initially developed prior to the start of each year by the ULC Foresters under the direction of the ITC Midwest Maintenance Specialist. Each ULC Forester submits a draft proposal for their region to the ITC Midwest Maintenance Specialist. When it is necessary to make an adjustment to the Annual Plan, the ULC Foresters will submit the change to the ITC Midwest Maintenance Specialist. The ITC Midwest Maintenance Specialist will review the change, and if the change is acceptable, update the Annual Plan by either adding the new work requested or removing work from the plan. Work is scheduled from the Annual Plan when and where necessary to continually improve vegetative conditions compatible with electric reliability and safety.

ITC Midwest employs an integrated vegetation management program directed by ULC Foresters with assistance from Planners. Vegetative conditions are assessed and

the most appropriate control method is scheduled as needed to meet objectives. Control methods may include manual, mechanical, biological, chemical, and cultural techniques. Choice of control option(s) is typically based on established rights, thresholds, effectiveness, environmental impact, site characteristics, worker and public health and safety concerns and economics.

ULC Foresters or Planners personally contact affected property owners to explain the intended vegetation management work. If personal contact cannot be made with the affected property owner a door hanger is left to provide them with contact information. Planners evaluate the sites and assess the current vegetative situation and schedule the most appropriate management tool in a prescriptive fashion. All tree removals on private property not covered by an easement require the landowner's permission. Planners secure signed permission from property owners for tree removal on easements as required.

3. Substations (General)

a. Substations (General): Historic Maintenance

IPL used a maintenance management data base, called Cascade, to identify substation equipment maintenance status, inspection frequencies, inspection plans and historical records of maintenance activities. IPL reported to the Iowa Utilities Board that they would inspect the transmission substations at least quarterly. As part of the quarterly inspection process, the following activities were performed:

- Physical inspection of the site proper, including fence, warning signs and grounds;
- Physical inspection of the control building, including station power, DC power, building facilities;
- Physical inspection of the equipment, including bus and manual switches, bus supports and lightning arrestors;
- Major equipment as listed below have specific inspection requirements that go beyond the quarterly inspection process; and
- Battery water levels.

In addition to the quarterly site inspections, IPL had set up a maintenance schedule for major equipment based on several factors, such as industry recommendations, past equipment experience and resource availability. The details supporting the major substation equipment are contained in the following sections of this report.

IPL performed an annual infrared inspection of all transmission substations. The infrared inspection included major equipment, disconnects, switches, substation arresters and electrical power connections in order to identify overheated equipment, which is a very reliable indicator of impending failure. In substations, failures of equipment and connections due to overheating will not only cause outages, but will result in significant equipment damage. While the infrared inspection is an important tool, it is more critical that items found during inspection are repaired.

ITC Midwest understands that corrective maintenance was given precedence over preventative maintenance, with the exception of scheduled maintenance for regulatory requirements. Field personnel report that because of resource limitations, only minimal work was accomplished when any maintenance was performed. Essentially, if field personnel identified additional issues with a particular piece of equipment, they were instructed that unless the issue had an immediate effect on performance, they were to not proceed with the extra work.

Another example of this constrained situation is illustrated in the substation maintenance report issued by IPL. As one would expect, IPL tracked the scheduled maintenance plan, but also had another tracked item call "*Work Plan*", with the definition that this is the work committed to by IPL Maintenance Managers. 2008 year to date data for substation maintenance shows 70% of the maintenance plan completed, with 85% of the Work Plan completed. Such reporting by IPL to ITC Midwest reveals a known and systemic limitation in completing the defined maintenance plan.

Any deficiencies identified during the inspection process that could not be corrected at the time of the inspection were listed for corrective maintenance. The corrective maintenance may have required specialty tools or resources, an equipment outage or other action.

IPL reported 1,670 substation corrective maintenance items not being completed at the end of 2007. The information provided did not easily allow for separation between the Minnesota and Iowa territories. This corrective maintenance work was carried over into 2008. As mentioned before, while planned inspections are a key aspect of any maintenance program, it is more important that deficiencies found during these inspections are addressed and corrected.

ITC Midwest has been made aware of additional needs for corrective maintenance of its equipment in other substations, which have so far not been addressed by the owners of the substation that have both ITC Midwest's and another

owner's equipment located there (also known as "shared substations"). ITC Midwest has taken these communications seriously and will schedule the corrective actions for 2009.

b. Substations (General): ITC Midwest Maintenance Plan

ITC Midwest is implementing a centralized maintenance management data base that will be used across the ITC Midwest system. The centralized maintenance management data base will provide an efficient platform for monitoring substation maintenance and corrected deficiencies that would impact system reliability and will provide a tool to identify future maintenance or replacement programs.

ITC Midwest has decided to initially use substation maintenance frequencies formerly employed by IPL. While the maintenance frequencies are in line with industry standards, it is not clear from the performance data if the program is able to drive good system performance. As such, it is expected that maintenance frequencies will be adjusted based on ITC Midwest's ongoing working experience with the system, continued review of past maintenance histories, and the objective of improving system reliability.

Equally important, ITC Midwest intends to address the numerous corrective maintenance items identified in the inspections. ITC Midwest has arranged for the proper amount of field resources so that these issues can be addressed. Given the sheer number of corrective maintenance items, the potential complexity to conduct the repairs, and the constraints of the system that limit scheduling of equipment outages, it likely will take two to three years to eliminate the back-log of existing corrective maintenance problems.

In addition to the information gathered in the discussed assessments, ITC Midwest will use the results of quarterly inspections to identify facilities maintenance needs. Such items would include fence repair, building, roof, plumbing and HVAC repairs, locks and keys, site grading and stone replacement. Routine Facilities items include snow plowing, dust control, mowing, and general site and building cleanup. Prompt and thorough attention to these non-electrical system items are important for transmission system security, as well as being a good neighbor by taking care of buildings and grounds appearance.

The environmental plan will include all aspects of environmental matters for ITC Midwest assets. For compliance, ITC Midwest will conduct environmental audits and develop and revise Spill Prevention Control and Countermeasure ("SPCC") plans at all

ITC Midwest owned sites and shared sites. In addition, ITC Midwest will make all necessary Tier II Reports (reports submitted to the Local Emergency Planning Committees ("LEPC") and Iowa Department of Natural Resources), hazard notifications and plans, and develop company environmental procedures if needed specific to ITC Midwest. Finally, threatened and endangered species related activities permitting will be conducted (usually in conjunction with vegetation management).

In the event of an environmental incident (reportable or non-reportable), such as an oil spill, ITC Midwest will have the resources to conduct spill response and clean up. We will conduct as necessary PCB sampling, and waste management for all maintenance and construction activities.

4. Power Transformers

a. Power Transformers: Historic Maintenance

IPL scheduled annual power transformers inspections using their Cascade equipment management data base. This annual inspection included a visual inspection, infrared scan, oil samples, acoustic and vibration monitoring. After the initial inspection and review of the inspection information, further testing may have been performed and an outage scheduled to investigate any abnormal readings. The additional testing may have included: Doble power factor and excitation testing, transformer turns ratio, DC insulation testing, and DC winding resistance testing. These additional tests were not conducted on a defined interval plan, and were done when crews and transformer shutdown opportunities were available. All these tests are standard industry practice and identify potential equipment problems.

b. Power Transformers: ITC Midwest Maintenance Plan

ITC Midwest will utilize a similar initial predictive maintenance inspection. In addition, ITC Midwest will attempt to schedule 10% of the power transformers to be taken off-line each year in order to complete a full series of tests, which would include: Doble power factor and excitation testing, transformer turns ratio, DC insulation testing, and DC winding resistance testing. As a good preventative maintenance practice, the tests will provide a base line health of the transformer assets.

5. Breakers (Oil, Gas)

a. Breakers: Historic Maintenance

For breaker maintenance, IPL planned to perform annual minor maintenance and inspection on every circuit breaker using their Cascade equipment maintenance management data base. IPL also had a major non-intrusive maintenance program. If IPL did not have available resources to accomplish the major non-intrusive work in the scheduled year it was delayed to the subsequent year. This practice has created a back-log on some maintenance of breakers during the last few years.

IPL performed oil circuit breaker annual inspections which included oil dielectric and level checks and bushing inspections. IPL also scheduled oil circuit breaker major non-intrusive maintenance every six years. This major non-intrusive maintenance included a dissolved gas lab analysis of the oil, timing and travel testing of the mechanism movement, contact resistance, mechanism maintenance and trip testing.

There are 481 oil breakers on the system. IPL has reported 100% of all scheduled annual circuit breaker maintenance has been completed.

The table below identifies number of major circuit breakers scheduled for non-intrusive maintenance in 2007. The information provided did not differentiate between oil and gas circuit breakers.

	Majors Scheduled	Majors Complete	Majors Carried Over	%Carried Over
Minnesota	78	71	7	10%
Iowa	159	113	46	29%

For gas breakers, IPL performed annual inspections on SF6 circuit breakers which included pressure checks and bushing inspections. IPL also scheduled SF6 breakers for major non-intrusive maintenance every eight years. This major non-intrusive inspection included a timing and travel testing of the mechanism movement, contact resistance, mechanism maintenance and trip testing.

There are 535 gas breakers on the system. IPL reported that all circuit breakers annual visual inspections were completed. Any maintenance activities that were generated from the annual inspection that could not be corrected at the time of the annual inspection, were identified as a corrective maintenance task that was scheduled to be performed at a later date.

The table below identifies the number of major circuit breakers scheduled for non-intrusive maintenance in 2007. The information provided did not differentiate

between oil and gas circuit breakers. The normal schedule for this non-intrusive maintenance is an eight year cycle.

	Majors Scheduled	Majors Complete	Majors Carried Over	% Carried Over
Minnesota	78	71	7	10%
Iowa	159	113	46	29%

b. Breakers: ITC Midwest Maintenance Plan

ITC Midwest will initially start the annual and major non-intrusive scheduled circuit breaker maintenance program in 2009 following the IPL inspection practices listed in the circuit breaker type specific sections below. In addition, ITC Midwest will perform power factor testing as a routine test when performing the circuit breaker major maintenance as a recognized good industry preventative maintenance practice.

ITC Midwest is starting with more circuit breaker major maintenance than it would normally have to do in 2009 because of the scheduled maintenance work not completed by IPL in the past couple of years. Typically, ITC Midwest could plan to have an average of 70 oil breakers and 40 gas breakers to perform major maintenance on in a given year. For 2009, the number of scheduled major maintenance tasks will be closer to 110 oil breakers and 40 gas breakers. System constraints and other scheduled capital construction activities will result in working off this backlog over the next few years.

ITC Midwest plans to initially follow the IPL annual maintenance program for oil circuit breakers. In addition to the IPL major non-intrusive maintenance program steps on oil circuit breakers, ITC Midwest will perform Doble power factor testing and structured operating mechanism lubrication. For oil circuit breakers rated over 100 kV, the tanks will be dropped and an internal interrupting assembly inspection and maintenance will be performed. These steps were not performed on a consistent basis by IPL, and are considered a good industry practice for portions of the system greater than 100 kV.

For gas circuit breakers, ITC Midwest plans to initially follow the IPL annual maintenance program. ITC Midwest will maintain the major non-intrusive major inspection program at eight years. In addition to the IPL major non-intrusive maintenance program steps on gas circuit breakers, ITC Midwest will perform Doble power factor testing and structured operating mechanism lubrication. These steps were

not performed on a consistent basis by IPL, and are considered a good practice to assess the condition of this important equipment.

6. Battery Systems

a. Battery Systems: Historic Maintenance

IPL scheduled quarterly visual inspections on substation batteries and chargers through their Cascade equipment maintenance management data base.. This visual inspection included looking at the battery set, interconnecting battery straps and charger. In addition, batteries and chargers were annually tested using a battery resistance test on the battery set. This annual test included a visual inspection of the battery set and charger physical condition, cell resistance testing, and interconnecting battery strap testing. If an anomaly on the battery resistance test was identified either an additional load test was performed to determine battery condition or the battery set was scheduled for replacement.

b. Battery Systems: ITC Midwest Maintenance Plan

ITC Midwest will implement the same annual testing and quarterly inspections of batteries. Batteries and charger are annually tested using a battery resistance test on the battery set. This annual test includes a visual inspection of the battery set and charger physical condition, cell resistance testing, and interconnecting battery strap testing. If an anomaly on the battery resistance test is identified either an additional load test is performed to determine battery condition or the battery set is scheduled for replacement.

7. Relays

a. Relays: Historic Maintenance

The IPL relay testing plan was to test and recalibrate, if needed, every relay in their database every five years as part of the NERC Reliability Standards program as identified in their Cascade equipment maintenance management data base. IPL's position on scheme testing, (that is testing the relay, power source, communications path (if applicable) and device to be operated as a complete integrated unit), was that if the control center did not allow the circuit breaker to be taken out of service, only the relay would be tested. The electromechanical relay test included taking the relay out of the case and giving it a thorough test by inputting voltages and currents and making sure relays were in good mechanical order and operated according to the specified

relay setting. Microprocessor based relays were tested by using commands via the front serial port to ensure that the relay has not lost its integrity and that outputs are still fully functional. Solid state relays were tested by testing their commands and settings to ensure the relay had not lost its integrity and that the outputs were still functional.

There are approximately 5,224 electromechanical, 1,024 microprocessor and 878 solid state relays on the system. IPL reported the scheduled relay testing was 50% complete in Minnesota and 80% complete in Iowa. IPL has reported that the relays that were carried over from 2007 were successfully tested by the end of the first quarter 2008.

b. ITC Midwest Relay Maintenance Plan

ITC Midwest will continue to test and recalibrate, if needed, every relay in their database every five years. Additionally, as part of the NERC Reliability Standards requirement for equipment 100 kV and greater, ITC Midwest will implement a complete scheme test every ten years which includes insulation and conductor strength ("Megger") testing cables, tripping devices from all relays, and insuring that the scheme works as designed and installed. Potential devices will also be power factor tested during this ten year cycle test to determine the device health. This additional testing will begin in 2010, after test plans are written and approved in 2009.

8. Circuit Switchers, Disconnects and Pole Top Switches

a. Circuit Switchers, Disconnects and Pole Top Switches: Historic Maintenance

IPL verbally stated that they did not have a circuit switcher, disconnect or pole top switch defined maintenance program and repairs were handled on a reactive maintenance basis only. It is ITC Midwest's understanding that the IPL philosophy was to operate these devices to failure, then repair or replace them as deemed necessary.

There are 61 circuit switchers and approximately 2000 pole top switches on the system. There are an undetermined number of disconnects on the system. ITC Midwest is currently conducting an inventory of these devices.

IPL did not report any maintenance results for circuit switchers, disconnects or pole top switches.

b. Circuit Switchers, Disconnects and Pole Top Switches: ITC Midwest Maintenance Plan

ITC Midwest plans to implement a major inspection program on circuit switchers for substation capacitor banks on a three year cycle and for circuit switchers for transformers on a six year cycle. Circuit switchers will be tested similarly to circuit breakers. The plan assumes outages can be scheduled on the circuit switchers to remove them from service to test them. ITC Midwest is investigating a program to perform routine maintenance on disconnects and pole top switches.

This new program is important given the outage performance of the system. Some of these devices are automatic, and intended to operate in the event of a problem on a transmission line it is protecting; thereby removing from service the transmission line it is connected to. Non-automatic, manual devices are used not only for routine maintenance in order to safely shutdown sections of line, but also during emergency restoration to get customers back in service. If these devices are not properly maintained, momentary outages can turn into sustained outages, which take longer to restore.

9. Potential Devices and Arresters

a. Potential Devices and Arresters: Historic Maintenance

IPL verbally stated they did not have a defined maintenance program for substation arresters or line and bus potential devices. Maintenance on these items was performed on a reactive basis and deficiencies were usually found with the annual infrared scans done at each substation. It is ITC Midwest's understanding that the IPL philosophy was to operate these devices to failure, then repair or replace them as deemed necessary.

These devices on the system are not recorded in the IPL equipment maintenance database. It is the intent of ITC Midwest to inventory and add these devices to the ITC Midwest centralized maintenance management data base going forward.

b. Potential Devices and Arrestors: ITC Midwest Maintenance Plan

ITC Midwest will test potential devices on relay protection schemes over 100 kV once every ten years in conjunction with the mandatory NERC Reliability Standards program

10. Capacitor Banks

a. Capacitor Banks: Historic Maintenance

IPL verbally stated that they had no formal planned visual inspections of their substation capacitor banks. It is ITC Midwest's understanding that some field service areas would conduct visual inspections. If a visual inspection was done, it was limited to looking for blown fuses and leaking oil.

b. Capacitor Banks: ITC Midwest Maintenance Plan

ITC Midwest will initially implement an annual visual inspection for all capacitor banks including those out on the lines. ITC Midwest also plans on taking each capacitor bank off line and testing it every three years based on the experience of the other ITC subsidiaries. A visual only inspection cannot determine the electrical integrity of the capacitor bank; an electrical test is required.

V. TRANSMISSION SYSTEM: NEW FACILITIES NEEDS ASSESSMENT

As mentioned in Part II above, ITC Midwest annually performs transmission planning assessments that meet or exceed all NERC Planning Standard Requirements. These assessments identify transmission upgrades required to maintain transmission security and adequacy over a minimum one to ten year time frame. Examples of system conditions that drive the need for new facilities are: changing loading patterns on the transmission system, new load interconnections, infrastructure improvement and replacement, new generation, increased firm transmission usage, and changing market flows. Provided below are the significant drivers of the ITC Midwest transmission facility improvements that are currently identified.

A. Generator Interconnections

The ITC Midwest system is being heavily impacted by the number and cumulative capacity of requests for generator interconnections. Approximately 800 to 1000 MW of new generation will be connected to the ITC Midwest transmission system in 2008. Associated with this new generation are changing flow patterns which are impacting the performance of the transmission system.

A summary of generation interconnection projects on the ITC Midwest system in the MISO interconnection queue is as follows:

80 projects in construction or under study

- Iowa 46 projects
- Minnesota 31 projects
- Illinois 3 projects

11,000 MW of new generation

- Iowa 8,000 MW
- Minnesota 2,500 MW
- Illinois 500 MW

Renewable Projects

- Iowa 83%
- Minnesota 99%
- Illinois 78%

Requests for interconnection on the ITC Midwest transmission system are functionally processed by MISO. Requests for interconnection generally proceed through a series of significant milestones. The first phase begins with the planning studies to determine the impact of the proposed generation to the existing transmission system along with identifying upgrades to mitigate any resulting congestion. Second, detailed engineering and construction estimates of the upgrades, along with an Interconnection Agreement, are provided to the customer. The final phase is the execution of the Interconnection Agreement along with payments by the Interconnection Customer to begin the construction of facilities. The amount of time to progress through the MISO queue can be several years. At the end of the process, customers have the ability to "suspend" their project for up to three years.

ITC Midwest has been increasingly impacted by Interconnection Customers requesting interconnection before the identified transmission upgrades can be completed. In some cases, an Interconnection Customer serves notice that they are coming out of suspension but request a commercial operating date that is sooner than the time required to complete the necessary transmission upgrades to enable the new generation to have firm service for delivery to all loads within the MISO. In other cases, the Interconnection Customer desires commercial operation dates that are sooner than

the time it takes to complete the MISO interconnection process. In addition, ITC Midwest has begun to see several areas of the system, most notably in southwest Minnesota and in central Iowa, where the amount of time needed to construct network upgrades is extended due to the need to upgrade several lines in a geographic region and the complexity of scheduling multiple transmission system outages simultaneously.

Due to the flows coming out of the number of new generator interconnections in southwest Minnesota, ITC Midwest has proposed to rebuild the Lakefield-Heron Lake 161 kV line in 2010 as part of the MISO Transmission Expansion Plan (MTEP). Based upon knowledge of congestion in southwest Minnesota, ITC Midwest has also proposed to MISO that the 161 kV line between Lakefield and Adams substations be rebuilt to a higher capacity of 345 kV. Because further generation interconnections are likely, ITC Midwest proposes that this construction allow for the addition of a second 345 kV circuit on this transmission path. Recent MISO generator interconnection studies indicate a lack of transmission capacity in southwest Minnesota. More recently, MISO studies have indicated that in spite of the addition of a 345 kV line from Lakefield to Adams, the resulting transmission system will be insufficient to accommodate the amount of future generation requesting interconnection in southwest Minnesota. ITC Midwest will continue to work with MISO to identify appropriate upgrades to mitigate the existing congestion in southwest Minnesota and to properly plan for the volume of generation requesting interconnection in southwest Minnesota and Northwest Iowa.

B. Narrow Constrained Area

ITC Midwest owns a majority of the transmission facilities that comprise the Southeastern Minnesota/Northern Iowa/Southwestern Wisconsin Narrow Constrained Area ("NCA"). ITC Midwest additionally owns a few of the transmission facilities that comprise the WUMS NCA. An NCA is an electric area within which one or more suppliers are expected to be pivotal (i.e. have potential for market control) for at least five hundred (500) hours per year due to transmission system constraints ("Binding Transmission Constraints"). NCA's are identified by the MISO Independent Market Monitor (IMM) to ensure that these suppliers with market power within the NCA cannot raise prices substantially above competitive levels and therefore distort the normal market process within the MISO system.

C. NCA Monitored Facilities

To address the transmission constraints that define these NCAs and as part of ITC Midwest's acquisition of transmission assets from IPL, ITC Midwest agreed on two projects which will significantly reduce congestion in eastern Iowa. The first project is a rebuild of Arnold-Vinton-Dysart-Washburn 161 kV line to higher capacity by the end of 2009. The second project is construction of the Salem-Hazleton 345 kV line to be completed by the end of 2011.

D. 34.5 to 69 kV "Rebuild Initiative"

There are approximately 2,270 miles of lines operated at 34.5 kV on the ITC Midwest system. Approximately 943 miles of the 34.5 kV system is currently built to 69 kV specifications, leaving approximately 1327 miles of line that is both operated at and constructed to 34.5 kV specifications. The lines that are both constructed and operated at 34.5 kV are typically characterized as older lines constructed in the mid 1950's, without a shield wire protection for lightning. Increased loading on the aged 34.5 kV system has resulted in operating difficulty during efforts to meet voltage and loading requirements while the system is experiencing abnormal events known as "contingencies" and at times during system normal conditions. Rebuilding of the 34.5 kV system to 69 kV standards will remove the aged infrastructure condition issues, add shield wire for improved lightning performance, replace conductor with anti-galloping conductor, and allow for conversion to 69 kV operation. Operation at 69 kV will decrease voltage drop, providing better voltage during both contingency and normal operation and reduce system losses.

The new 69 kV system will allow network operation of these lines to further enhance system reliability while also increasing ITC Midwest's ability to provide timely system restoration to communities during outages. ITC Midwest will lay out plans and begin conversion of this 34.5 kV system to a networked 69 kV system and it expects that an overall rebuild and conversion plan can be developed within two years. ITC Midwest additionally expects that such a plan will result in the elimination of several hundred miles of existing 34.5 kV. Conversion plans will be closely coordinated with interconnected transmission and load serving entities. The 34.5 kV rebuild initiative was a commitment to the Iowa Utilities Board during the regulatory proceeding that approved this transaction and was projected to be completed in five to seven years.

VI. Conclusion

ITC Midwest is committed to being a responsible transmission system owner and operator, and dutifully maintaining a reliable and capable transmission system. In this report, ITC Midwest provides a current assessment of its transmission system, following its first 12 months of owning those assets, and a report on practices ITC Midwest intends to employ to remedy apparent weaknesses in the system. As explained above, ITC Midwest's assessment is that its transmission system is an aged system that requires acute attention to proper maintenance, and completion of other system upgrades and capital investments. As an independent transmission company solely focused on transmission, ITC Midwest is dedicating to employing the measures outlines in this report to improve reliability and system performance, reduce outages, relieve congestion, interconnect additional generation resources, and generally improve the transmission system for the good of customers.

CERTIFICATE OF SERVICE

I hereby certify that, in accordance with the rules of the Iowa Utilities Board, I have this day served the foregoing document on the persons and parties identified in the attached service list.

Dated in Des Moines, Iowa, on December 8, 2008.

Philip E. Stoffregen

INTERSTATE POWER AND LIGHT COMPANY AND
ITC MIDWEST LLC

Docket No. SPU-07-11

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