ITC Mid-Atlantic Development LLC

PJM Project Submission

14RTEP1-2: Fremont to Avery 138-kV Double Circuit

Redacted Version

Contents

A – Executive Summary

A.1 – Name and Address

Question: Name and address of the proposing entity

ITC Mid-Atlantic Development LLC

27175 Energy Way

Novi, MI 48377

A.2 – General Description

Question: A general description of the proposed project

ITC identified the Fremont to Avery 138-kV line as a possible solution to relieve multiple identified overloads in northern Ohio as discussed in A.3 below. The project, referred to as 14RTEP1-2, consists of constructing approximately 32 miles of new 138-kV double-circuit transmission line from the existing Fremont substation to the existing Avery substation. The two circuits would be tied together and landed in a single line position at each substation.

A.3 – Problems Addressed

Question: The reliability problem(s) that the project is proposed resolve

Baseline N-1, Generator Deliverability, and N-1-1 analyses were performed using the posted data for the PJM 2014 RTEP Project Proposal Window 1. These analyses were performed on the posted base case and the modified base case with the inclusion of the 14RTEP1-2. Siemens PSS/E v32.2.1 and the PowerGEM TARA software package v765e AC Contingency and PJM Generator Deliverability analysis tools were used for simulation. The raw results are available upon request.

The 14RTEP1-2 project addresses two reliability problems as shown in table 1 below.

Table 1

				% Loading		% Loading		
FG #	Analysis Type	Facility	Outage Type	Without Project (ITC)	With Project (ITC)	Without Project (PJM)	With Project (PJM)	% Change
790	GD	239030 02OTTAWA - 238874 02LA-KVEW ckt 1 138/138	[redacted]					
802	GD	238874 02LA-KVEW – 238768 02GRNFLD ckt 138/138						

The 14RTEP1-2 project reduces the loading on the Ottawa – Lake View and Lake View – Greenfield 138-kV lines [redacted] in the generator deliverability analysis. The analysis performed showed a loading reduction on flowgates 790 and 802, but additional analysis details would be required to replicate the results from PJM's in-house Generator Deliverability program. The table above provides the loading reduction provided by 14RTEP1-2. It is assumed that the same loading reduction is applicable to the PJM provided results and resolves the posted violations.

The addition of the 14RTEP1-2 project provided further loading reduction on several transmission lines in the system. The table below provides the additional benefit in transmission line loading reduction as a result of the 14RTEP1-2 project.

Table 2

			% Loading		
Analysis Type	Facility	Outage Type	Without Project	With Project	% Change
GD	[redacted]				
GD					
N-1-1					

The analysis results for Generator Deliverability and N-1-1 indicate that the West Fremont – Fremont 138-kV line is overloaded as a result of the 14RTEP1-2 project addition. The West Fremont – Fremont 138-kV Line will need to be upgraded to achieve ratings of at least [redacted] MVA (Summer Normal/Summer Emergency).

A.4 – Project Cost

Question: Total proposed project cost

The capital cost of the proposed project is estimated to be $107 million in 2019 dollars. This is described in detail in section C.2. Also discussed in section C.2 are additional economic benefits that this reliability project may bring to bear.

A.5 – Schedule

Question: Overall schedule duration

The proposed project schedule is expected to span 3.75 years from kick-off to energization. This is described in detail in section C.3.

A.6 – Designated Entity Status

Question: Entities that will be requesting Designated Entity status are required to submit a statement affirming that the company pre-qualification information on record with PJM and as posted on PJM's website reflects the company's current qualifications to be eligible for Designated Entity status as defined in the PJM Amended and Restated Operating Agreement ("PJM OA") in Section 1.5.8(a). The entity's PJM pre-qualification ID must also be referenced.

ITC Mid-Atlantic Development LLC (14-02) affirms that the information included in our pre-qualification application dated March 2014 and posted on the PJM website reflects the company's present qualifications.

A.7 – Intent to be considered Designated Entity

Question: If the proposing entity seeks to be designated to construct, own, operate, maintain and finance the proposed project or some portion of the project, the proposing entity must provide a statement within the project proposal package stating the intent to be considered the Designated Entity for the proposed project.

ITC Mid-Atlantic Development LLC does intend to be the Designated Entity for the project described in this proposed project submittal, and for any and all project facilities awarded through the PJM competitive selection process.

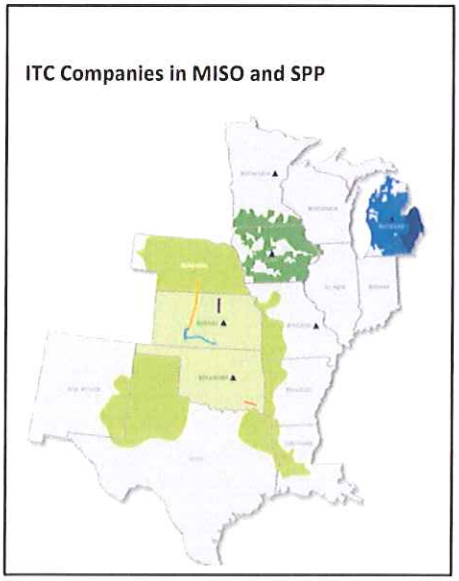
B – Company Evaluation

B.1 – Technical and Engineering Qualifications

Question: Description of proposing entity's (or its affiliate, partner or parent company) technical and engineering qualifications relevant to construction, operation and maintenance of the proposed project

ITC Mid-Atlantic Development LLC is a wholly-owned subsidiary of ITC Grid Development, LLC, which is itself a wholly-owned subsidiary of ITC Holdings Corp. ITC Mid-Atlantic Development LLC ("ITC Mid-Atlantic") was formed to develop, construct, own, operate, maintain and finance transmission facilities in PJM. As a wholly-owned subsidiary of ITC Grid Development, LLC, ITC Mid-Atlantic has full access to the resources, capabilities and expertise of ITC Holdings Corp. ("ITC"), a Michigan corporation and its affiliates.

ITC is the nation's first, largest and only publicly traded independent transmission company. Since its founding in 2003, ITC has invested over $4.2 billion in the electric transmission grid to improve reliability, expand non-discriminatory access to markets, lower the overall cost of delivered energy, and allow new generating resources to interconnect to its transmission systems regardless of ownership. In its first 10 years, ITC successfully acquired and integrated three transmission businesses. In addition, ITC established a new subsidiary company, ITC Great Plains LLC ("ITC Great Plains" or "ITCGP"), a new pioneering transmission-only utility that was created from the ground up . ITC Great Plains has identified and facilitated critical regional transmission infrastructure in the Southwest Power Pool (SPP) footprint, and has constructed a portfolio of actionable transmission development projects by partnering with local utilities and electric cooperatives.



Operating Companies

A brief summary of our existing operating companies will provide a high-level context of ITC and our capabilities to develop and own transmission projects (approvals, siting, engineering, construction, operations and maintenance).

ITC presently has four operating companies that own, operate and maintain transmission assets of multiple voltage levels in diverse geographies and conditions: International Transmission Company, d/b/a ITC*Transmission ("ITCT")*, Michigan Electric Transmission Company, LLC ("METC"), ITC Midwest LLC ("ITCMW" or "ITC Midwest"), and ITC Great Plains, LLC ("ITC Great Plains" or "ITCGP") (see Table 3).

ITC*Transmission* ("ITCT"), the operating company in Southeast Michigan, is comprised of approximately 2,800 circuit miles of transmission assets formerly owned by DTE Electric and its parent company DTE Energy. Over $1.4 billion has been invested to upgrade and expand this system. ITCT serves the densely populated Detroit metropolitan area and its concentration of automotive and other manufacturing and supplier facilities in the region. ITCT's transmission system is comprised predominantly of 120-kV and 345-kV facilities. ITCT also owns and operates some 230-kV facilities, as well as underground transmission facilities operated at 120-kV and 345-kV. ITCT has existing transmission interconnection with the Independent Electricity System Operations ("IESO") and PJM (ATSI).

The METC transmission system serves much of the remainder of Michigan's Lower Peninsula and is comprised of the transmission assets formerly owned by Consumers Energy and its parent company CMS Energy. METC's transmission system has approximately 5,600 circuit miles of 138-kV and 345-kV facilities. Over $950 million has been invested in the METC system to strengthen the transmission network. METC also has existing interconnections with PJM (AEP).

ITC Midwest (ITCMW) is the ITC operating company serving most of Iowa and parts of Minnesota, Illinois and Missouri with approximately 6,600 circuit miles of transmission assets formerly owned by Interstate Power and Light Company and its parent company Alliant Energy. ITC has invested over $1.4 billion into the ITCMW system since acquiring the assets in late 2007. The ITCMW footprint is predominantly rural and includes 34.5-kV, 69-kV, 115-kV, 161-kV, and 345-kV facilities. ITCMW has existing interconnections with PJM (ComEd) as well.

ITC Great Plains (ITCGP) operates approximately 200 miles of 345-kV transmission facilities in Kansas and Oklahoma and is presently constructing more than 120 additional miles of 345-kV transmission in Kansas. Route approval is also in process for another 30 miles of 345-kV transmission. Unlike ITC's other operating companies, ITCGP was not created from the acquisition of an existing transmission system; it was built from the ground up by establishing a presence in a new region, acquiring discrete transmission assets, and also acquiring the rights to construct, own and operate specific facilities through co-development agreements with utilities in Kansas and Oklahoma.

Table 3 ITC Line Miles by Voltage

Voltage	ITC Line miles
<100-kV	4,271
100-kV – 230-kV	7,338
345-kV	3,754
Total	15,363

In total, ITC's operating companies own, operate and maintain more than 15,300 miles of transmission line in seven states (Michigan, Iowa, Minnesota, Illinois, Missouri, Kansas and Oklahoma) serving a combined peak load of more than 26,000 megawatts. ITC is a transmission owning member of both the MISO and SPP Regional Transmission Organizations ("RTOs"), and has established itself as a premier operator of high voltage transmission systems – a testament to ITC's substantial transmission experience. As the largest independent Transmission Owner in the country, and having substantial transmission experience, ITC is ideally suited to develop, construct, own, operate, and maintain transmission projects in PJM.

ITC Engineering

ITC's in-house engineering staff totals nearly 260 engineering employees across the Design, Project Management, Operations, and Planning departments. These resources include: 37 engineers (567 total years of experience) in project development functions such as detailed designs for high voltage electrical infrastructure, and 15 project management engineers (334 total years of experience). ITC has also developed close working relationships with industry leading consulting firms that work hand-in-hand with ITC on detailed engineering and design packages. These consultants act as an extension of ITC and

often have teams solely dedicated to ITC projects. This arrangement enables ITC to scale up and down resources to match expertise with the present transmission development needs.

All design packages are reviewed, finalized, and approved for construction by ITC internal engineering staff. ITC will continue to utilize its internal expertise in both substation design engineering and transmission line design engineering in coordination with its consulting firms to develop future projects.

Through the detailed design process, ITC strives to create efficiency and optimize the system performance and functionality. This effort has resulted in standardization of substation layouts, protective relay and control panels, control center design, substation equipment, and line structures. This standardization method streamlines design, creates efficiencies during maintenance practices, and optimizes required inventories due to the use of interchangeable parts.

To ensure ITC's expectations are achieved, certain policies, practices, processes and field manuals have been developed. These include but are not limited to:

- *Field Supervisor Checklists*: Task lists for various activities typically completed as part of a construction project.
- *ITC Safety Manual*: ITC safety rules are given to all ITC contractors. They adhere to whichever is the more stringent standard between ITC's and their own.
- *Daily Logs*: Listing of crew and other resources on the job site and activities that occurred.
- *Project Close out process*: Process for closing project and reporting documents such as red-lined as-built drawings.

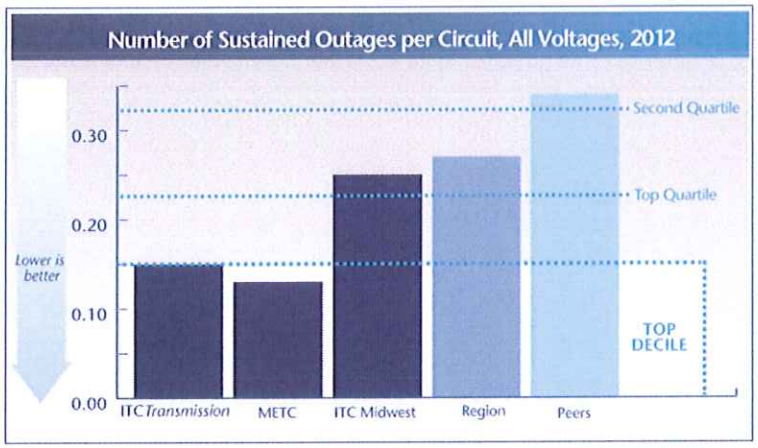
ITC's design and construction standards meet or exceed National Electric Safety Code ("NESC") requirements. ITC has committed to constructing transmission to a NESC Grade B standard or above. It is the objective of ITC to maintain best-in-class construction standards and techniques to provide a reliable and efficient transmission system.

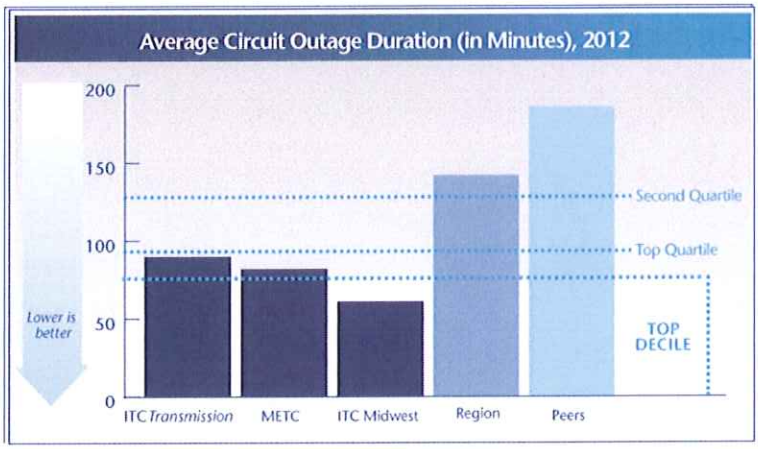
Operations & Maintenance

The importance of effective maintenance ensures ITC's transmission facilities remain in proper condition to perform their intended function, whether during routine operations, switching, or emergency conditions. ITC's maintenance practices are comprised of four building blocks:

1. They must be thorough, so that all individual components receive the appropriate level of preventive maintenance; and they must be comprehensive, so that all equipment is included.
2. Completion of 100% of the maintenance plan every year. If a component requires periodic maintenance, then it must receive the required maintenance within its scheduled interval.
3. The "immediate action" approach, where corrective actions are taken for any equipment deemed unfit for service.
4. Continuous improvement, by implementing outage root-cause analysis and feedback into both the maintenance and the capital improvement plans.

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

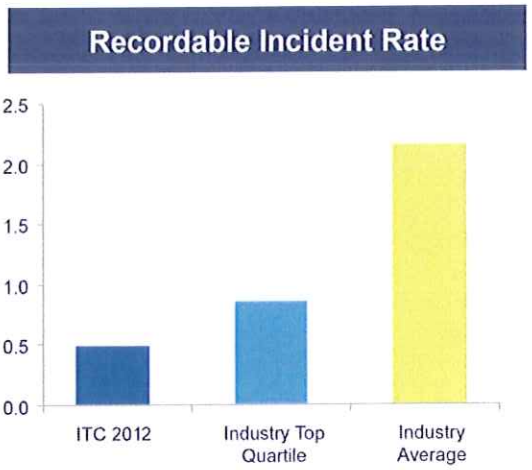


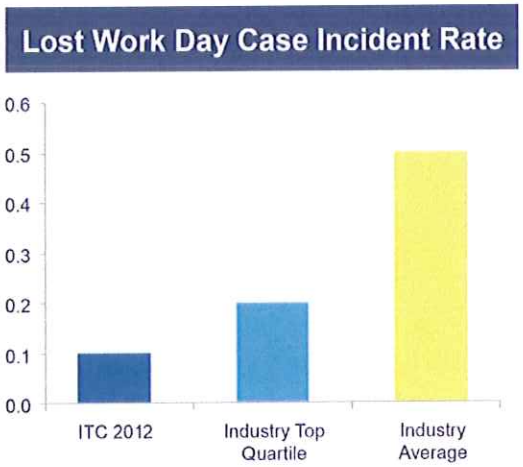


ITC strives for high performance in all aspects of operations and maintenance with a goal of top quartile performance in industry benchmark studies. ITC participates in an annual transmission owner benchmarking study. These two charts show the results of that study related to *Number of Sustained Outages per Circuit* and *Average Circuit Outage Duration*. ITC's two operating companies in Michigan perform in the top quartile for both the number of sustained outages per circuit and average circuit outage duration. ITC Midwest is our most recent system acquisition and therefore has been operating under ITC's organization for the least amount of time. They are, however, showing strong and steady improvement in these metrics since ITC's acquisition of the assets.

The comprehensive maintenance program described above has increased reliability by maximizing the availability of critical equipment during the times of greatest need. ITC is committed to completing all annual maintenance activities necessary to ensure NERC compliance in all areas (vegetation management, line, substation equipment, etc.). This is the link between the first and second building blocks of ITC's maintenance practices. We have a set of robust practices for performing maintenance on the transmission system, and we have consistently performed 100% of the annual maintenance plan.

ITC also has a reputable safety record, well inside the top quartile for both recordable incident rates and lost work day case incident rates.





B.2 - Experience

B.2.a – Developing, Constructing, Operating and Maintenance

Question: Detailed description of proposing entity's (or its affiliate, partner or parent company) experience in: developing, constructing, operating and maintaining the types of transmission facilities included in the project proposal.

ITC has significant experience developing, constructing, operating, and maintaining transmission facilities to help improve reliability, reduce congestion, improve system efficiency, and interconnect new generation to load all leading to lowering the overall costs of delivered energy to ITC's customers. ITC's history demonstrates that we do this with the intent of holding those assets over the long term (we do not 'flip' transmission investments). Several recent examples of transmission development and construction are provided below. METC has thousands of circuit miles of 138kV lines throughout lower Michigan with interconnections to neighboring systems. The close proximity of the proposed project to the well-established ITC resources for similar facilities makes ITC well prepared for the successful implementation of the proposed facilities.

Thumb Loop Project

The Michigan Thumb Loop project was the first of MISO's Multi-Value Projects (MVPs) to be approved and will serve as the backbone of a system designed to meet requirements set by Michigan's Wind Energy Resource Zone Board. The Thumb Loop project will also provide additional power delivery capacity for future economic development thereby helping existing businesses grow and also attract new businesses, jobs and investment to the region. Representing a $510 million investment in Michigan's grid, the project consists of approximately 140 miles of double-circuit, 345-kV lines and four new substations. ITC has led the planning, construction and development phases, working with skilled labor, engineering, and project management organizations to prudently manage project resources and deliver exceptional results. ITC continues to be on-time and on-budget with this project – a testament to the company's project management and construction team abilities.

Phase 1 of the project was placed in-service in September, 2013, while Phase 2 entered into service in May, 2014. The remainder of the project is expected to be completed and in-service in 2015. In total, the Thumb Loop project will include nearly 800 structures consisting of both tubular steel poles and lattice steel towers. Additional lines and facilities are being added as wind generators go into service

and connect to the system to fulfill the requirements of the state's Renewable Portfolio Standard. The Thumb Loop project is an example of ITC's efforts to improve the national electric transmission system, create access to competitive energy markets, and foster growth for local and regional economies – all for the benefit of customers.

KETA Project

The Kansas Electric Transmission Authority ("KETA") identified this particular project in 2007 through its initiatives to bring significant economic and reliability benefits to Kansas and the regional transmission grid. KETA is an organization created in 2005 by the Kansas Electric Transmission Authority Act (HB 2263), and is intended to promote and facilitate expansion of the Kansas transmission infrastructure for the betterment of the Kansas economy. This 227-mile project runs from Spearville, Kansas, in the southwestern part of Kansas; north to the Post Rock substation just outside of Hays, Kansas; and then north to Axtell, Nebraska. ITCGP worked with the incumbent electric cooperatives to acquire the rights to build the Kansas portion of this 345-kV project, from Spearville to the Kansas/Nebraska state line. This allowed the electric cooperatives to deploy their own limited capital for other projects in their footprints and to utilize ITC's expertise in building, operating and maintaining the transmission project. Our agreement with the electric cooperatives prevented them from having to choose between new generation resources for meeting their load obligations, and transmission investment to bring cheaper and renewable resources to the region. The electric cooperatives chose to allow ITC the opportunity to bring the transmission project to fruition. ITC placed its portion of the KETA (Spearville-Axtell) transmission project into service in 2012. The Nebraska portion was constructed and is operated by the Nebraska Public Power District. ITC completed its 174-mile portion in Kansas significantly under budget and ahead of schedule, which demonstrates ITC's focus and commitment on cost containment and operational excellence.

V-Plan

In cooperation with Sunflower Electric Power Corporation and Mid-Kansas Electric Company, ITC has designed and is constructing two segments of the V-Plan project totaling approximately 122 miles double-circuit, 345-kV line. The high-voltage transmission line is designed to connect eastern and western Kansas to improve electric reliability and enable energy developers to tap into the transmission grid. The project is expected to be in-service in December, 2014.

Au Sable Circuit

This 110-mile line from Zilwaukee to Mio, Michigan, is important to electric reliability in northeastern Michigan. In June 2014, ITC completed rebuilding and upgrading this line from single-circuit, 138-kV to future double-circuit 230-kV design and construction standards. This will increase its capacity and reliability, provide increased lightning protection, and facilitate possible future 230-kV expansion in northern Michigan. The project is the result of ITC's rigorous planning process that is designed to anticipate future customer needs and provide the grid flexibility to meet those needs in an efficient and cost-effective manner.

Multi-Value Projects (MVPs)

ITC is advancing its portions of four Multi-Value Projects (MVPs) in Iowa, Minnesota and Wisconsin. Following approval of these projects by MISO in late 2011, ITC has been focused on siting preparations and working with other utilities to finalize ownership levels of the projects in support of

our targeted in-service dates. In 2014, two 345-kV line sections have received the State of Iowa regulatory approval and easements have been secured. Also in 2014, regulatory hearings have been completed towards receiving the Certificate of Need and Route Permit in the State of Minnesota. These projects are part of the broader MVP portfolio and are anticipated to provide broad regional benefits while also supporting approved state and federal energy policy mandates in the MISO region. Anticipated in-service dates of the projects range from 2015 to the 2020 timeframe.

ITC will build portions of the following projects:

- MVP 3 – a joint project with MidAmerican Energy Company of ~70 miles in Minnesota and ~145 miles in Iowa.
- MVP 4 –a joint project with MidAmerican Energy Company of ~190 miles in Iowa.
- MVP 5 – a joint project with ATC of ~160 miles in Wisconsin and Iowa.
- MVP 7 – a joint project with MidAmerican; ~90 miles in Iowa and Missouri.

B.2.b – Standardized Construction Practices

Question: Detailed description of proposing entity's (or its affiliate, partner or parent company) experience in: adhering to standardized construction, maintenance, and operating practices, including the capability for emergency response and restoration of damaged equipment

Adherence to Standardized Construction, Maintenance & Operating Practices

ITC has an exceptionally strong record of adhering to standardized construction, maintenance and operating procedures. ITC's construction capabilities are demonstrated in numerous transmission projects that have been completed on time and, as noted above, within its original budget. ITC's operations and maintenance practices are equally strong with similar records of achievement. We have standard construction specification documents to which our construction teams are expected to adhere.

Operations and Maintenance

ITC's operations and maintenance activities deliver exceptional reliability benefits to our customers and help accommodate evolving demands on the systems such as increased use of the transmission system, integration into energy markets and facilitation of public policy initiatives. ITC has a fundamental responsibility to comply with all applicable NERC Reliability Standards and Requirements and to operate and maintain its systems in accordance with good utility practice. In addition to these, and perhaps most visible to our customers, is ITC's goal of striving for top quartile reliability performance. Reliability depends on four key system factors:

1. Design
2. Capital Improvements
3. Operations
4. Maintenance

Efficient system design and cost-effective capital improvements help ensure the system expands and is improved, promoting consistently fewer and shorter outages. The ITC Capital Maintenance Program involves the systematic upgrading of aging and/or obsolete equipment such as circuit breakers, switches, relays, surge arrestors, transmission line structures, security infrastructure, and other equipment on a recurring basis. As an example, the average age of circuit breakers in the ITC*Transmission* and METC systems has decreased more than 11 years as a result of this program.

Additionally, unreliable or maintenance-intensive equipment is upgraded or replaced with state-of-the-art equipment that is more dependable, more environmentally friendly and easier to maintain.

Our focus on operations involves using existing assets in the most efficient and reliable manner possible. For example, advanced protection schemes and systems monitor the transmission grid and maintain reliability during outages. These systems have the ability to collect data, localize a fault, and help determine the cause of an outage.

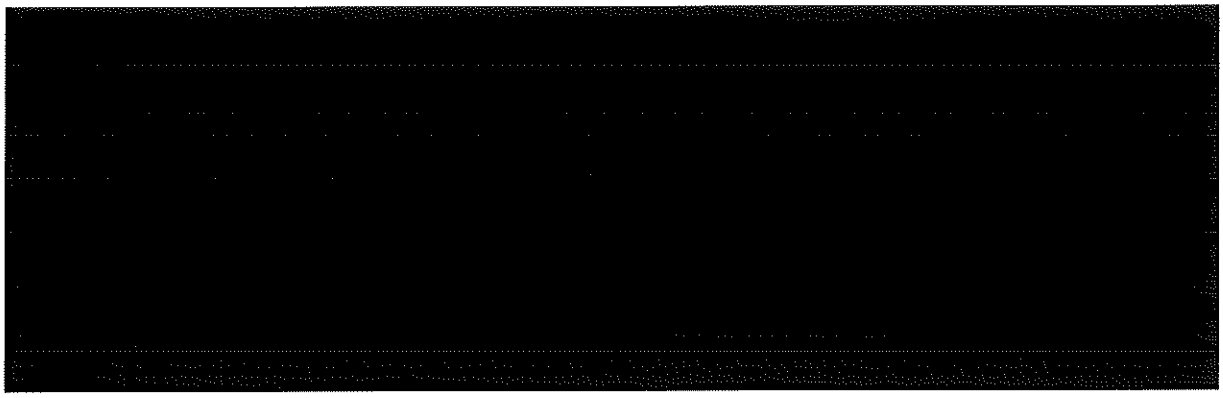
The importance of effective maintenance ensures ITC's transmission facilities remain in proper condition to perform their intended function, whether during routine operations, switching, or emergency conditions. ITC's maintenance practices are comprised of four building blocks:

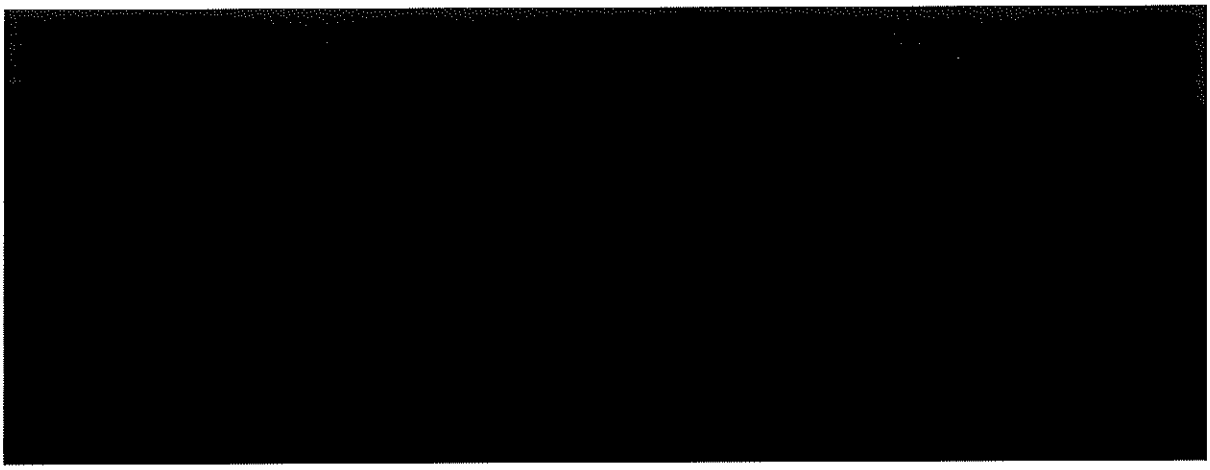
1. They must be thorough, so that all individual components receive the appropriate level of preventive maintenance; and they must be comprehensive, so that all equipment is included.
2. Completion of 100% of the maintenance plan every year. If a component requires periodic maintenance, then it must receive the required maintenance within its scheduled interval.
3. The "immediate action" approach, where corrective actions are taken for any equipment deemed unfit for service.
4. Continuous improvement, by implementing outage root-cause analysis and feedback into both the maintenance and the capital improvement plans.

These maintenance practices, when applied to ITC's multiple maintenance categories (preventative, reactive, facilities, vegetation and vehicular) and comprises our comprehensive maintenance program, which has increased reliability by maximizing the availability of critical equipment during times of greatest need. ITC's focus, commitment, and execution in these areas has not only markedly improved system reliability, it has reduced the annual cost for reactive maintenance and enabled ITC to shift approximately three quarters of the total operations and maintenance budget to preventive maintenance and operations/training. Trend data reveals a consistent reduction in reactive or unplanned maintenance (which indicates fewer outages) and an emphasis on proactive preventive maintenance.

Emergency Response & Restoration Capability

Quickly restoring power is critical, and this is a core competency of ITC. ITC maintains an Emergency Operations Plan, which provides the framework for responding to and recovering from all types of transmission system emergencies, in accordance with FEMA's Incident Command System (ICS) principles.





As necessary, ITC also supports and relies on other utilities for mutual assistance. We are members of, and participate in, the Midwest Mutual Assistance Group and the Great Lakes Mutual Assistance Group. We anticipate joining the North Atlantic Mutual Assistance Group as we broaden our operating footprint. We also have experience cross-supporting our own operating companies with warehouses in Michigan supporting Iowa or Minnesota, or vice versa, for example.

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

One example of ITC's capability for emergency response and restoration of damaged equipment is our storm restoration record. In the early morning hours of July 11, 2011, a storm, with winds of more than 100 miles per hour, swept through central Iowa. At its peak, Interstate Power and Light, the electric utility providing retail service to many customers in the area, estimated that more than 45,000 of its retail customers across four counties lost power. Thousands more customers who were served by electric cooperatives and municipal utilities were also impacted. The storm knocked out nine 161-kV lines, two 69-kV lines, and twenty 34.5-kV lines across the ITCMW system, and affected approximately 60 substations. More than 300 poles required replacement. The National Oceanic and Atmospheric Administration said the storm was the most widespread and damaging wind event to affect central and east central Iowa since 1998.

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

Many other examples of ITC's timely remedying of facility failures due to weather or other events are available upon request.

B.2.c – Regional Experience

Question: Detailed description of proposing entity's (or its affiliate, partner or parent company) experience in: working in the geographical region in which the project has been proposed

ITC has experience working with PJM through its multiple existing system interconnections and is familiar with its functions and history. As noted in our response to question B.1, three of our four operating companies have interconnections with PJM transmission owners. In particular ITC has well established interconnections with ATSI (via ITCT) and AEP (via METC) which are near the geographic region of the Project.

ITC maintains a strong track record of providing crews to support PJM during extreme weather and other emergency events. We believe our extensive experience with other RTOs combined with our experience in PJM offers tangible benefits in the form of our independence and history as an owner, operator, and developer of transmission throughout the country.

ITC resources have supported utilities in PJM in emergency situations, including deployment of 167 personnel to New Jersey and eastern Pennsylvania in response to Hurricane Sandy. These resources came from Michigan, Iowa, and Minnesota. ITC resources have also supported PJM member Commonwealth Edison during emergency situations.

Outside of PJM, ITC has extensive experience in a wide range of activities with multiple Regional Transmission Organizations ("RTOs") including transmission project development, advocacy, and participation in FERC Order 890 Compliant stakeholder planning processes. ITC presently has transmission assets in MISO residing in Michigan, Iowa, Minnesota, Illinois, and Missouri. ITC also has operational transmission assets within SPP that reside in Oklahoma and Kansas.

ITC has been a member of MISO since the Company's inception in 2003. ITC is one of the largest transmission owners in MISO, and we are actively involved in a wide range of activities, committees, and working groups. We have a valuable working relationship with MISO management and staff and we enjoy a solid reputation as a contributing and collaborative member.

ITC played a key leadership role in advocating regional transmission projects which resulted in MISO's Multi-Valued Projects ("MVPs") – a set of 17 regional projects valued at $5.2 billion.

ITC's operating company in Kansas and Oklahoma, ITCGP, has been a member of the SPP since 2007. As an SPP transmission owner, we have strong working relationships with SPP management and staff. Since 2007, through its leadership positions on various task forces and working groups, ITCGP has been a consistent participant in the SPP planning process, including advocating for specific large-scale regional projects. Participation and advocacy in these groups resulted in SPP's approval of approximately $500 million of transmission expansion projects that are presently in varying stages of development or operation by ITCGP.

B.2.d – Acquiring Rights of Way and Permitting

Question: Detailed description of proposing entity's (or its affiliate, partner or parent company) experience in: acquiring rights of way with specific emphasis on the geographical region in which the project has been proposed.

ITC has extensive experience acquiring rights of way ("ROW") in the eastern interconnection. ITC will acquire ROW in PJM in the same manner that has generated success by obtaining broad stakeholder support in routing, siting, and permitting. The siting process begins with a routing study that considers multiple stakeholders broadly and carefully. As a project advances, ITC begins ROW acquisition, working extensively and collaboratively with landowners to secure land rights on a voluntary basis, and makes every effort to avoid condemnation proceedings. ROW is generally secured voluntarily; however, the company will invoke its eminent domain rights when necessary. Even when ITC has filed condemnation actions, the company continues to work with the landowners and is often able to reach mutually acceptable resolutions outside of the judicial forum.

Transmission development requires a wide variety of permits ranging from road crossing permits to Department of Natural Resources and U. S. Army Corps of Engineer permits (since 2009, ITC has obtained more than 1,500 permits). ITC has a well-established permitting process involving a cross-functional team led by Design Engineering and including Project Engineering, Environmental, Legal, and Local Governmental and Community Affairs groups. This team works closely with consulting firms to identify required permits for the project and provide the information needed for filing permit applications (ITC has effectively leveraged a variety of local, regional and national firms to successfully acquire the required permits, including Black & Veatch, Burns & McDonnell, Lewis Berger Group, Environmental Consulting Technology, Ulteig, Terracon and Atwell Group). A few examples of our siting and permitting experience are cited below.

As part of our environmental management system and in line with our best-in-class approach to conducting business, ITC is committed to considering environmental impacts in its decision making process when planning infrastructure improvement projects. Transmission line projects can span many miles and occasionally cross environmentally sensitive areas. ITC's project teams understand this and include environmental assessments for wetlands, threatened and endangered species and other sensitive habitats as part of the planning process.

Examples

KETA project: A 174-mile, single-circuit, 345-kV line on new ROW in Kansas. ITC performed a routing study and worked with the state siting authority to secure route approval. ITC secured ten Department of Transportation (DOT) permits and fifteen Department of Environmental Quality (DEQ) permits for the project. ITC also worked with the U.S. Fish and Wildlife Service and the Kansas Department of Wildlife, Parks and Tourism on Whooping Crane protection and Lesser Prairie Chicken habitat protection and remediation.

Salem-Hazleton project: An 81-mile, single-circuit, 345-kV line on mostly new ROW in Iowa. ITC was able to successfully negotiate co-locating approximately 20 miles of the new line jointly with another transmission company's facility. ITC worked through the Iowa Utilities Board siting process. ITC secured six Iowa DOT permits, one DEQ permit, 124 road crossing permits, two Department of Natural Resources permits or letters of no effect, three Federal Aviation Administration permits, three county floodplain permits and two Army Corp of Engineers permits or letters of no effect.

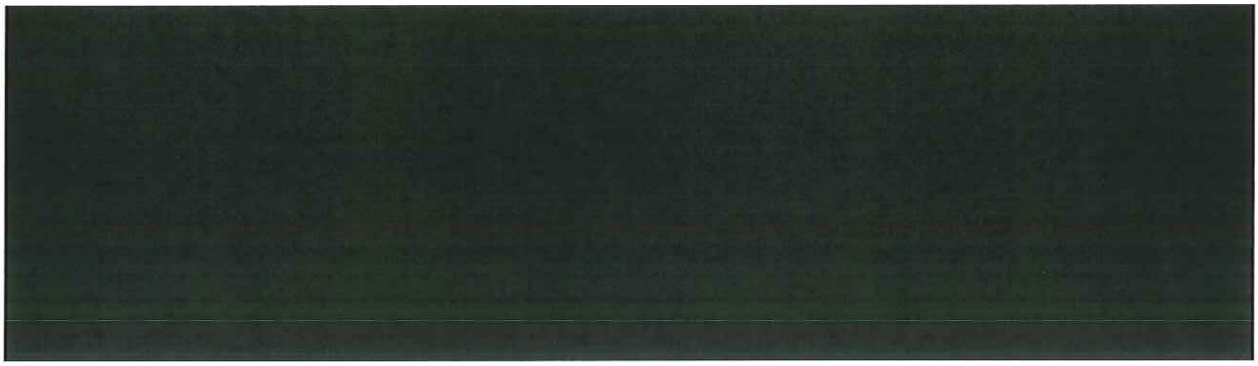
Thumb Loop project: A 140-mile, double-circuit, 345-kV line in Michigan. ITC actively participated in the Michigan Public Service Commission (MPSC) who approved the preferred route. Construction on Phase 1 of the project was completed and energized in September 2013. Phase 2 was placed in-service in May, 2014. Easement acquisition continues on the remaining portion of the project, which has an in-service date of 2015. To date, ITC has obtained sixteen Michigan DOT permits, twenty DEQ permits, six soil erosion permits, 175 county road crossing permits and 60 drain commission permits.

V-Plan project: A 122-mile, double-circuit, 345-kV line presently under construction in Kansas with a projected in-service date of late 2014. ITC obtained siting approval from the Kansas Corporation Commission and to date has obtained nine Kansas DOT and five DEQ permits. ITC worked with environmental stakeholders to find alternative routes to minimize impact to landowners and to Lesser Prairie Chicken habitat and to also help facilitate further wind farm development.

B. 3 – Financing Plan

Question: Proposed financing plan for the project including discussion of any cost advantages available to the proposing entity as a result of their financing plan and structure. Such submittal may include a letter of intent from a financial institution approved by the Office of the Interconnection or such other evidence of financial resources available to finance the construction, operation and maintenance of the proposed project.

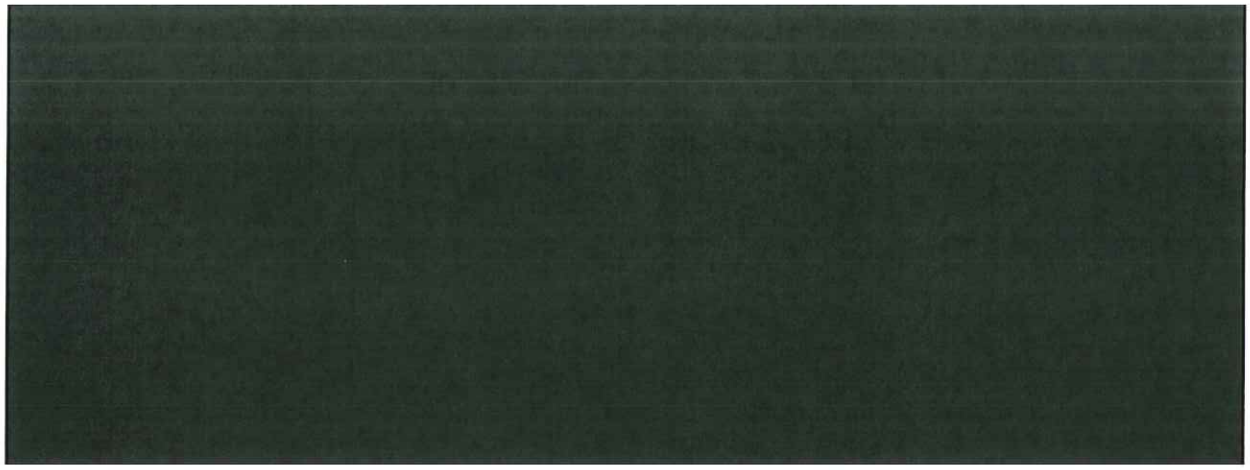
ITC Mid-Atlantic Development LLC is a wholly-owned subsidiary of ITC Holdings Corp. ("ITC"). ITC is the nation's largest independent electricity transmission company, operating in seven states and serving a combined peak load in excess of 26,000 megawatts through its regulated operating subsidiaries. ITC is a highly rated entity with senior unsecured ratings of BBB+/Stable from Standard and Poor's and Baa2/stable at Moody's.



B.4 – Cost Containment

Question: Description of proposing entity's (or its affiliate, partner or parent company) managerial ability to contain costs and adhere to construction schedules for the proposed project, including a description of verifiable past achievement of these goals

ITC's management approach to major capital projects utilizes a project team concept. Each contributing department assigns team members to represent their respective functional area. This project team collaborates on the specific issues surrounding the project and how those issues need to be resolved. Once the major issues have been identified, key milestone dates are established from which the critical path of the overall project schedule is derived. From that point forward, those key milestone dates are managed to ensure success in meeting the scope, schedule and budget for the project.



ITC Achievements

The KETA project is a 174-mile, 345-kV transmission line project in western Kansas from the city of Spearville in the south to the Kansas/Nebraska border in the north. The scope included a significant expansion of the existing Spearville substation, and the building of a new substation at the line's midpoint in Hays, KS. The project was completed six months prior to SPPs *Notice To Construct* required in-service date, and was $40 million under budget for a total cost of $148 million.

The Thumb Loop project is a 140-mile, double-circuit, 345-kV line looping through the "thumb" area of Michigan. Aside from the line, the scope includes four new transmission substations and a major substation expansion. Major milestones were identified and an overall project schedule was established in the summer of 2010. Since that time, due to the success of the team approach, ITC has been able to stay on track to meet the schedule requirements for each segment of the line and is approximately six months ahead of the December, 2015 required in-service date for the entire loop. Although budgeted for $510 million, the project is tracking on-schedule and on-budget with little financial risk in the remainder of the schedule.

B.5 – Cost Caps or Commitments

Question: Details of any construction cost caps or commitment the proposing entity wishes PJM to consider in its analysis, including the conditions and exceptions to such construction cost caps or commitments (Note: As per the Tariff, submittal of such proffered cost caps are at the discretion of the proposing entity but will be considered by PJM in its analysis of the costs of various proposals).

ITC would be willing to discuss some form of containment for certain cost components as the design, siting and other factors are clarified. Due to the directional nature of these proposals and the uncertainty of project characteristics which drive cost, we are not willing to commit to cost caps at this stage in the process.

B.6 – Unique Qualifications

Question: Description of any other unique qualifications the entity may have to construct, operate, and maintain the proposed project, including any cost commitment the entity may wish to submit.

ITC's success story is the proven integration of established systems, organic expansions, and non-incumbent developments into a unified independent transmission company. ITC resources and

experience with non-incumbent development would be applied to integrate this green-field project into an ITC facility.

Originating in Southeast Michigan, ITC has successfully expanded to include planning, construction as well as the operation and maintenance of over 15,000 miles of transmission facilities in seven states covering three NERC regions and two RTO footprints. [redacted]

Since ITC was formed in 2003, contract maintenance services have been utilized over its entire multi-state footprint. These services have been typically performed via a specialized utility maintenance contractor but in some cases have been in partnership with local utilities.

ITC is a utility in eight states (which includes Wisconsin where we are in pre-construction on an MVP, our first project in that State) and recognizes states have varying requirements. ITC has gone through many state regulatory processes to become a public utility in the states in which it operates and expects to do the same in any PJM states where ITC is successful in securing projects through the PJM competitive process. ITC will dedicate the necessary resources to pursue that state's requirements to secure such status.

Independent Business Model

ITC's independent transmission business model is unique and a vital part of our corporate identity. ITC does not own generation or distribution assets; ITC employees and directors on the board are prohibited from owning the stock of market participants (generation owners, load serving entities, marketers, etc.); and there are strict restrictions on market participants owning ITC stock. Unlike some utilities that have created stand-alone transmission subsidiaries, ITC is not owned by utility companies, holding companies of utilities, or entities that buy or sell energy.

Because ITC is fully independent, we do not have, and are not distracted by, conflicting interests with generators, markets, electricity retailers, and other market participants; therefore we are able to focus our attention solely on lowering the overall cost of delivered energy.

The independent transmission model provides numerous, substantial benefits:

- **Transparency:** throughout transmission development and operations, ITC is transparent in our planning processes, design and routing, construction, operations and maintenance
- **Operational Excellence:** Since high-voltage transmission is ITC's sole focus and the core of our business we are highly attentive to transmission operations and bring tremendous experience, creative and flexible solutions, and a exceptional focus on how an excellent transmission system can benefit our customers.
- **Reliability:** Without other activities or lines of business that can become distractions, ITC is completely focused on the reliability of our transmission systems.
- **Infrastructure Investment:** Since ITC does not have other capital-intensive businesses such as generation or distribution, there are no internal conflicts for capital that can lead to deferring needed transmission investments.
- **High Quality Credit:** ITC's unique business model and long-term record of achievements in financial management, project development, construction, and operations have resulted in

investment grade credit ratings which ITC is strongly committed to retaining. Higher credit quality enables consistent and predictable access to capital, even during challenging economic times, and results in lower borrowing costs.

- **Public Policy Alignment:** ITC's independence does not favor any specific type of generation, but ITC's focus on transmission efficiency and flexibility results in a more robust transmission system can be a strong facilitator of various public policies.
- **Facilitate Generator Interconnections:** Since ITC does not own generation that may be impacted by new generation or transmission facilities, generators can be assured that they will be treated fairly throughout the interconnection process.
- **Customer Focus:** ITC's independence from all electricity generators, buyers, and sellers allows us to plan improvements to the electric transmission grid for the broadest public benefit including seams and regional projects.

FERC has also recognized the benefits of an independent transmission company. ITC's superior record of investment in reliability and economic infrastructure to facilitate energy markets has been recognized in federal policies aimed at perpetuating and replicating ITC's independent model. Benefits cited by FERC include:

1. Improved asset management, including increased investment;
2. Improved access to capital markets, given a more focused business model than that of vertically-integrated utilities;
3. Development of innovative services; and
4. Additional independence from market participants

B.7 – Assumptions

Question: List of assumptions used in developing the project proposal package such as work to be executed by incumbent Transmission Owner(s).

Facilities constructed by others are outlined in section C.1.c. The demarcation point between proposed transmission line and existing substations will be determined at a later date.

C – Constructability Information

C.1 – Component Scope

C.1.a – Greenfield Transmission Line Element Details

ITC identified the Fremont to Avery 138-kV line as a possible solution to relieve multiple identified overloads in northern Ohio. The project consists of constructing approximately 32 miles of new 138-kV double-circuit transmission line from the existing Fremont substation to the existing Avery substation. The two circuits would be electrically tied together and landed in one substation line position at each substation. Therefore, operationally the line would be treated as a single-circuit line.

Question: The proposing entity shall include:

- *Terminal points*

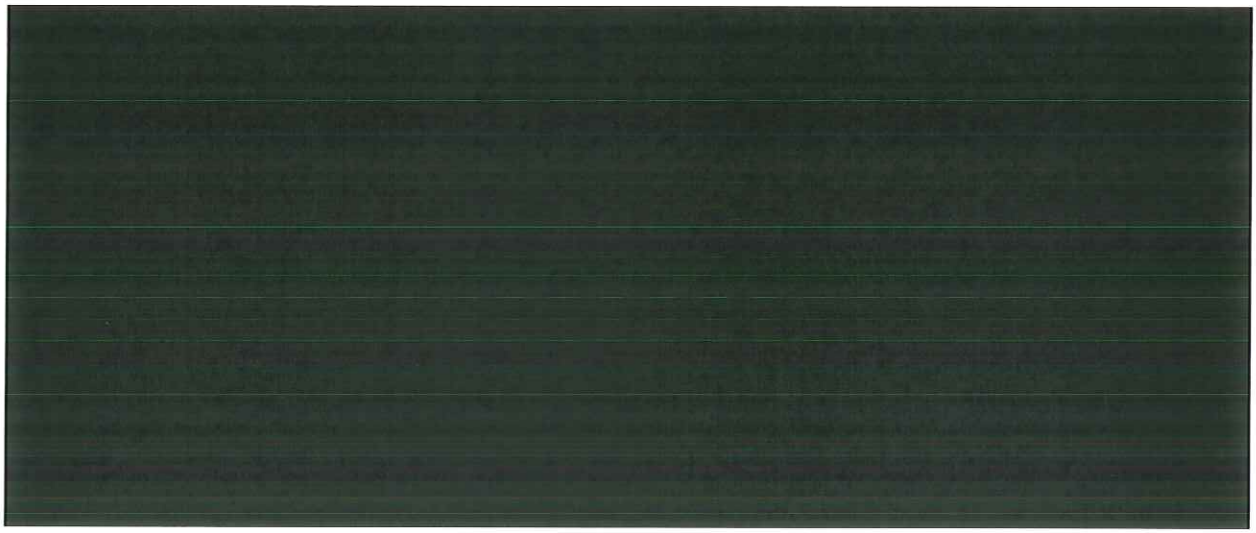
The line would begin at the existing Fremont substation (owned by AEP) and proceed east to terminate at the existing Avery substation (owned by ATSI).

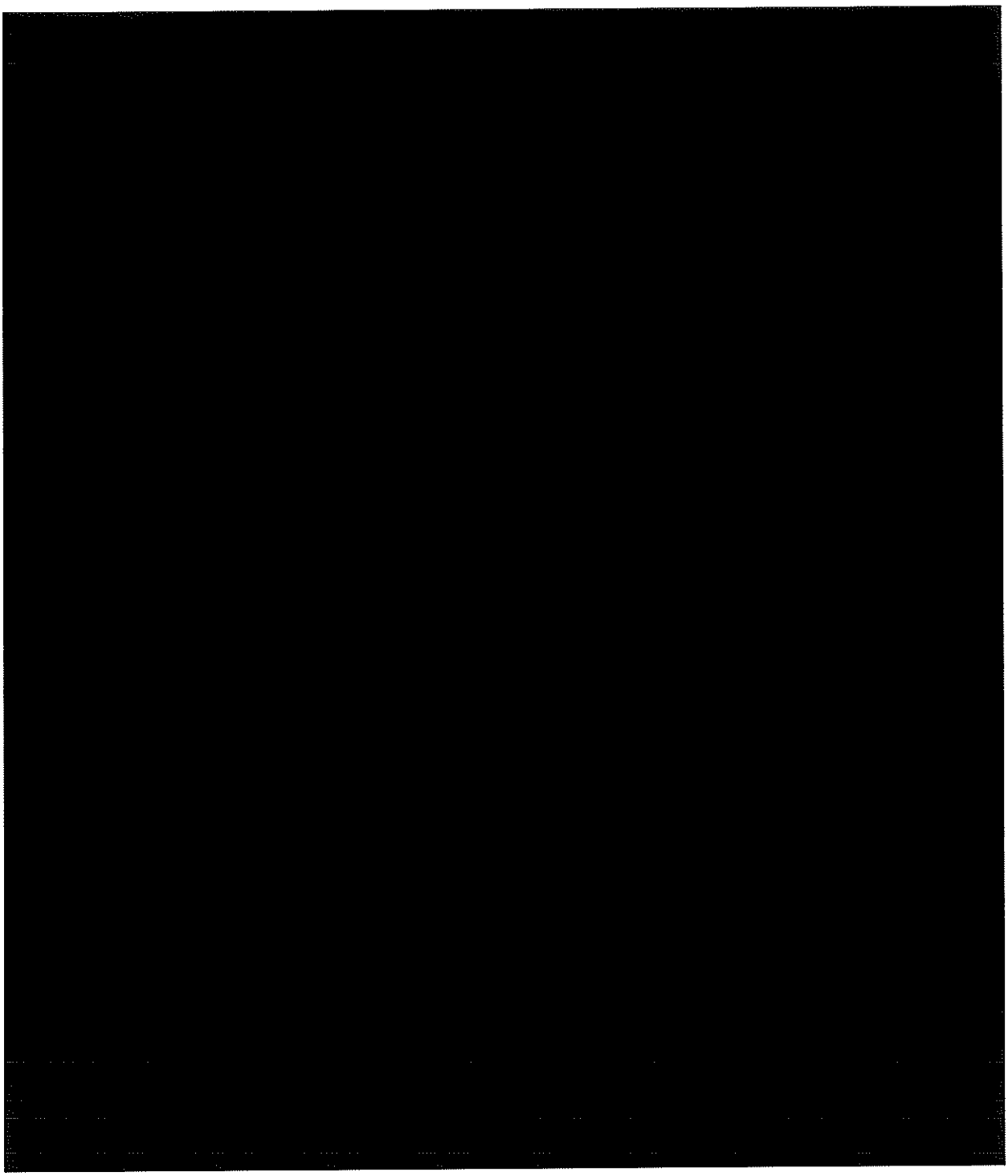
C.1.a.2

Question: The proposing entity shall include a general description of alternative routes or routing study area.

The conceptual route selection process for the 14RTEP1-2 Transmission Line began with the development of a study area, the collection of environmental and social constraints data, and the identification of possible route alternatives based on a desktop evaluation of constraints data between the existing Avery Substation and the existing Fremont Substation.

The study area is located in Erie, Huron, and Sandusky counties in Ohio. The cities of Bellevue, Casatalia, Clyde, Fremont, Norwalk, Stony Prairie, and Vickery are located within the study area (Figure 1, Appendix A). The area is a mix of developed spaces ranging from open space to high intensity development, barren land, forested areas, scrub/shrub, grassland, pasture/hay, cultivated crops, open water, woody wetlands, and emergent herbaceous wetlands (NLCD 2006).





The study contains several existing transmission lines and existing substations. The David Besse to Beaver 345-kV extends through the study area as well as several 138-kV transmission lines. There are 11 existing substations within the study area. The existing Avery Substation is located [redacted] northwest of Milan, Ohio, and the existing Fremont Substation is located in the City of Fremont, Ohio, near the City of Stony Prairie, Ohio. An approximately 193 square mile area was developed to

investigate possible route alternatives between the existing Avery Substation and the existing Fremont Substation.

C.1.a.3

Question: The proposing entity shall include a geographic description of any terrain traversed by the proposed new line or the study area

The study area is located in Erie, Huron, and Sandusky counties in Ohio. The cities of Bellevue, Casatalia, Clyde, Fremont, Norwalk, Stony Prairie, and Vickery are located within the study area. The area is a mix of developed spaces ranging from open space to high intensity development, barren land, forested areas, scrub/shrub, grassland, pasture/hay, cultivated crops, open water, woody wetlands, and emergent herbaceous wetlands (NLCD 2006).

Residences, farming structures, and other outbuildings are located throughout the study area, though the overall density of homes and other structures is low outside of municipal areas. Within the municipal areas there are a number of schools, hospitals, business/commercial buildings, homes, multi-unit residences, and other structures. [redacted]

C.1.a.4

Question: The proposing entity shall include:

- *Route description by segment that includes lengths and widths and that classifies by:*
  - *New right of way to be acquired*
  - *Expansion of existing right of way*
  - *Proposed use of existing right of way*

Macro-corridors were initially identified between the existing Avery Substation and the existing Fremont Substation within which routes could be developed (Figure 2, Appendix A). These macro-corridors were approximately one mile wide and were centered on areas that provided opportunities for routing. The majority of the area within the macro-corridors was generally not significantly developed, such as open fields or pastures and forested locations. [redacted]

A cost estimate route was developed within the macro-corridors in order to determine the costs associated with a proposed transmission line between the existing Avery Substation and the existing Fremont Substation (Figure 3, Appendix A). Section C.2 discusses the costs associated with this route. [redacted]

It was assumed that the proposed route would require approximately [redacted] acres of right of way easements that will be acquired by ITC.

C.1.a.5

Question: The proposing entity shall include:

- *Electrical characteristics*
  - *Nominal voltage rating*
  - *AC or DC*
  - *Line MVA normal and emergency rating*
  - *Grounding design for underground or submarine circuits*

The Nominal voltage rating for this line is 138-kV AC. The normal and emergency rating is [redacted] MVA.

- *Physical characteristics*
  - *Line and shield conductor type and size*
  - *Overhead or underground/submarine*
  - *Single or double circuit towers*

[redacted]

- *Geographic map with proposed transmission line study area superimposed*
  - *Details around any proposed transmission facility crossings*

The proposed study area for the new line can be found in Figure 1 of Appendix A.

- *Optional supporting information:*
  - *Drawings for typical structure types*
  - *Material specifications and a materials list*

An example for a typical structure type that will be used for the new line is shown in Figure 8 of Appendix A.

C.1.b – Greenfield Substation Details

Question: The proposing entity shall include:

This section is not applicable to this project.

General description of the proposed location(s)
  - *Land ownership in vicinity of proposed location(s)*
- *One-line diagram and general arrangement drawing*
- *Electrical design including specifications and ratings for transformers or reactive device*
- *Relay communications plan*
- *Geographic map with proposed substation location superimposed*
- *Optional supporting information:*
  - *Relay, instrumentation, and control one-line diagram*
  - *Material specifications and a materials list*

C.1.c – Facilities to be constructed by others

Question: The proposing entity shall include a general description of the work scope.

c.1. Transmission line relocation

The analysis results for Generator Deliverability and N-1-1 indicate that the West Fremont – Fremont 138-kV line is overloaded as a result of the 14RTEP1-2 project addition. The West Fremont – Fremont 138-kV Line will need to be upgraded to achieve ratings of at least [redacted] MVA (Summer Normal/Summer Emergency). The existing 138-kV Fremont (AEP) to West Fremont (ATSI) line is assumed to be an approximately 2 mile 795 ACSR double circuit line. It is assumed that the existing monopole structures for the line will be sufficient to upgrade the existing conductor to 954 ACSR.

The proposing entity shall include as applicable:

- *Route description by segment that classifies by:*
  - *New right of way to be acquired*
  - *Expansion of existing right of way*
  - *Proposed use of existing right of way*

The existing Fremont to West Fremont 138-kV line would likely need to be reconductored to increase the rating. Existing right of way would likely be used for the reconductor. It is assumed that no new structures will be required to reconductor this line.

- *Geographic map with proposed transmission line study area superimposed*
  - *Details around any transmission facility crossings*

A geographic map was not provided for the Fremont-West Fremont re-conductor project since existing right of way and structures will be reused.

c.2. Substation Expansion or Modification

The proposed project requires the expansion of the existing Avery Substation and the existing Fremont Substation to accommodate the termination of the proposed transmission line. The Avery substation would be expanded as a ring-bus with the addition of two additional 138-kV SF6 gas circuit breakers and associated substation and line termination equipment. It is assumed that the additional equipment and bus will fit within the existing substation fence. However, parcel data was pulled for the land around the Avery substation and expansion to the north is possible within the property line of the existing transmission owner.

The Fremont substation would be expanded as a ring-bus with the addition of four 138-kV SF6 gas circuit breakers and associated substation and line terminal equipment. The layout of Fremont would be designed to minimize outage times related to construction activities.

The proposing entity shall include as applicable:

- *One-line diagram and general arrangement drawing*

A conceptual one-line diagram of the expansion required at Avery substation is included as Figure 4 of Appendix A. A conceptual one-line diagram of the expansion required at Fremont substation is included as Figure 5 of Appendix A.

- *Protection and controls plan*

The proposed substation expansion relaying would consist of primary and secondary line protection relays, breaker control relays, breaker failure relays and modification to the existing bus relaying schemes. It is assumed that the existing control buildings would have enough space for the new relay control panels and associated equipment.

- *Geographic map with proposed substation location superimposed*

A map showing the proposed expansion at Avery substation is shown in Figure 6 of Appendix A. It is assumed that the additional equipment and bus will fit within the existing substation fence. A map showing the proposed expansion at Fremont substation is shown in Figure 7 of Appendix A.

- *General description of the proposed expansion*
  - *Land ownership in vicinity of proposed expansion*

The scope of the proposed substation expansions should not require any additional land. It is assumed that the work can be performed within the boundaries of the existing substation properties. However, parcel data was pulled for the land around the Avery substation and expansion to the north is possible within the property line of the existing transmission owner as shown in Figure 9 of Appendix A.

- *Electrical design including specifications and ratings for transformers or reactive devices*

No transformers or reactive devices are required for the proposed project.

C.1.d – Environmental, Permitting & Land Acquisition

Question: The proposing entity shall include:

- *Assessment of environmental impacts related to all facilities (i.e. environmental impact study requirements, environmental permitting, sediment, and erosion control issues)*

ITC evaluated the Project to assess the feasibility of constructing an approximately 32 mile transmission line within the study area at a high level using available public-sector data. Specifically, the evaluation included an initial assessment of siting, real estate acquisition, engineering, construction, and potential environmental impacts related to the proposed Project.

Several factors were considered when evaluating potential routes in the study area, including:

- Existing transmission infrastructure
- Land use/land cover impacts
- Wetlands, streams, floodplains
- Conservation easements, parks, and wildlife management areas
- Scenic Byway impacts
- Elevation challenges
- Impacts to existing structures
- National Register of Historic Places (NRHP) sites within the project vicinity
- Proximity to existing transmission lines and feasibility of constructing cut-in lines
- Accessibility for construction/maintenance

Data was collected for the study area and a conceptual analysis was done using ArcGIS software. The data was also used to identify potential route alternatives within the study area. GIS data included, but was not limited to:

- Existing transmission infrastructure
- National Land Cover Data (NLCD)
- National Wetland Inventory (NWI)
- National Hydrography Dataset (NHD)
- Federal Emergency Management Agency (FEMA) floodplain data
- Conservation easements, parks, and wildlife management areas
- Scenic Byway data
- National Elevation Dataset (NED)
- Existing structures
- Aerial photography

[redacted]

A number of environmental permits have been identified that will be required by the project based on the macro-corridors (Table 5, page 28). [redacted]

- *Right of way and land acquisition plan and approach for both public and private lands*

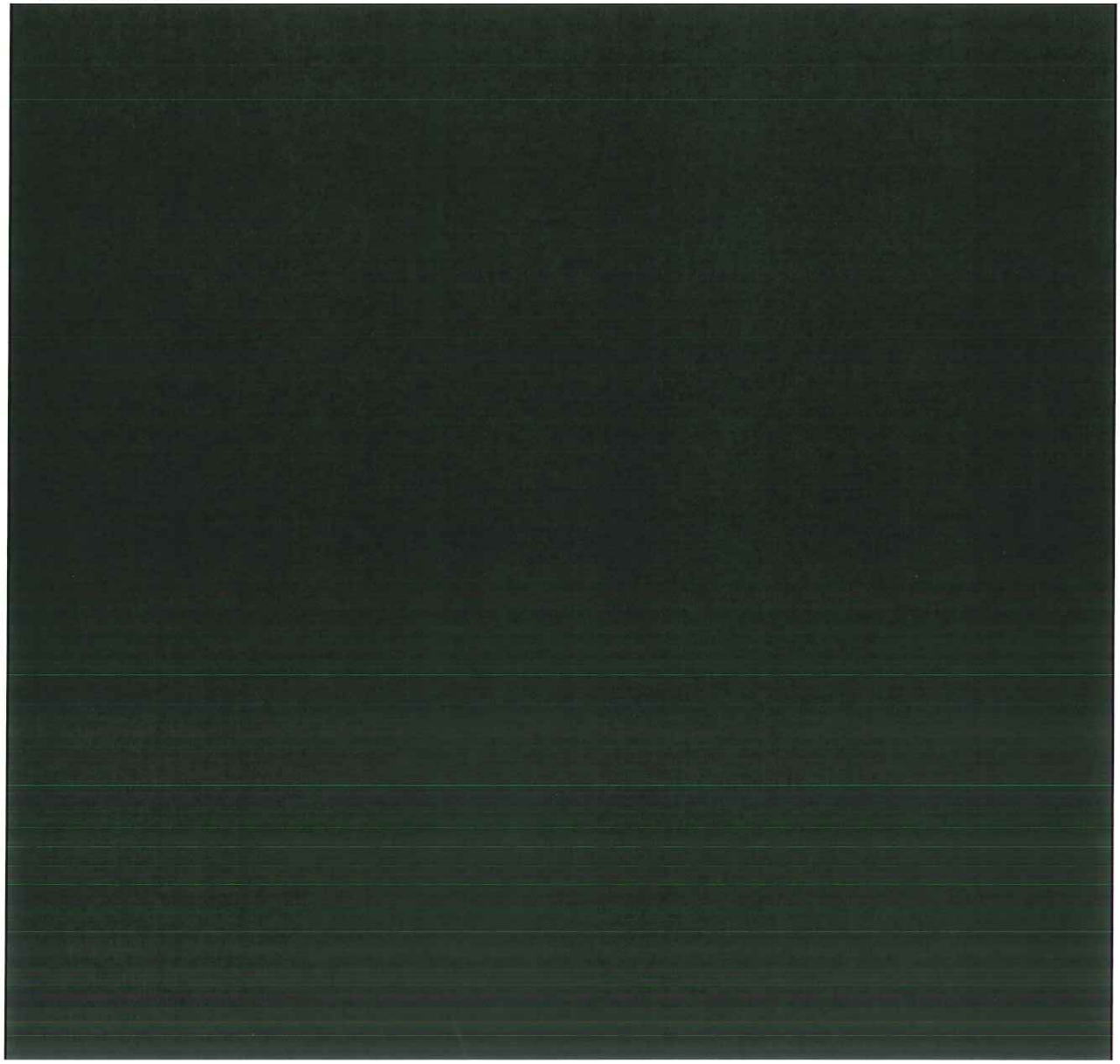
Right of way and land acquisition activities generally include the following:

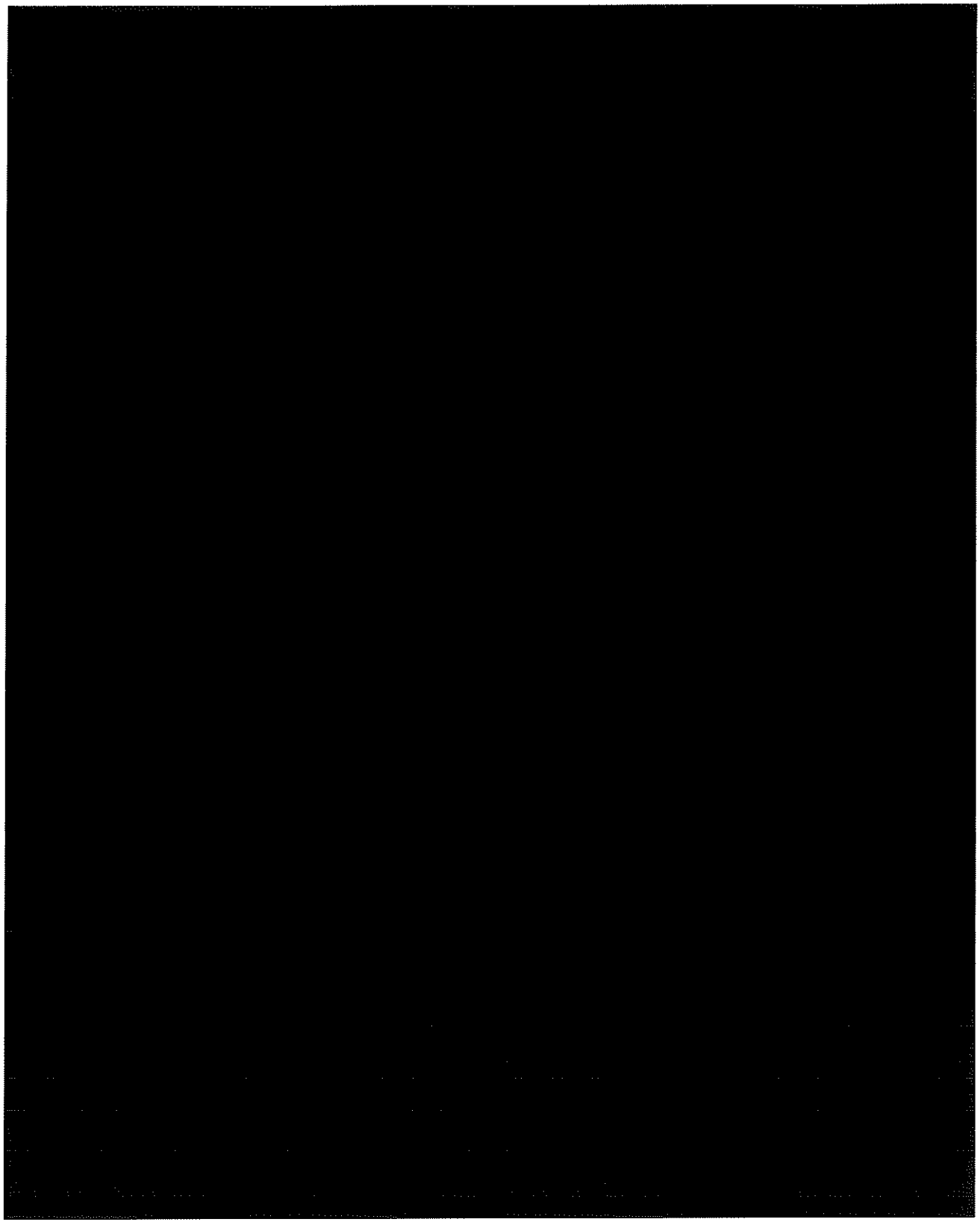
- Project Initiation
- Create Land Acquisition Plan
- Records Management/Communications
- Right of Entry Permissions
- Title Reports
- Surveying and Easement Exhibit Preparation
- Obtain Appraisals
- Prepare Documents
- Easement Negotiations
- Record Agreements
- Status Reporting
- Secure Access Roads and Storage Yards
- Secure Crossing Permits
- Damage Settlements
- Property Owner Notifications
- Condemnation Support
- Support Engineering and Construction
- Quality Control
- Construction Coordination

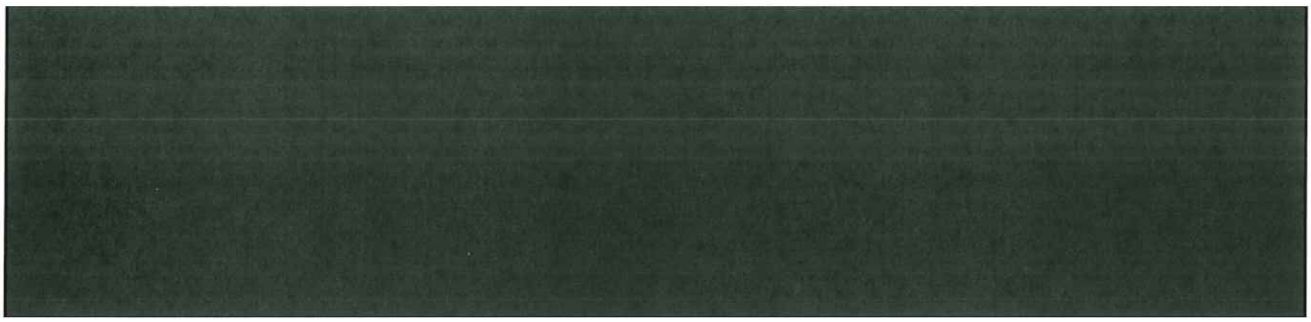
Land acquisition presents inherent difficulties for all transmission projects. Costs are highly variable due to the characteristics and use of land, the amount of opposition to obtaining land, the judicial process for obtaining land, the regulatory process for obtaining approvals, the level of opposition in the regulatory process, and other factors. Prior project costs are not good indicators of future project costs due to the unique characteristics and land owners. These potential difficulties with land acquisition could also have significant impacts on schedule and project in-service dates. ITC has extensive experience in mitigating these issues to keep projects on budget and on schedule.

- *Permitting plan and approach*

ITC has identified several potential permits that may be required for the Project. Actual permits could vary and would be identified in the project development stage. Table 5 below summarizes the anticipated permits.







- *Discussion of potential public opposition*

Overhead electric transmission line projects can be some of the most controversial projects in the United States. They typically involve the crossing of private property, the clearing of vegetation and the construction of large tower structures that are very visible to the public. Often they cross multiple jurisdictions and political boundaries with competing interests. The risk for public opposition is always there, but the outcomes can be greatly mitigated by engaging the full range of project stakeholders early, often and throughout the life of the project. Due to the municipal areas, conservation areas, and close proximity to Lake Erie, the potential for public opposition is expected to be fairly significant.

C.2 – Project Component Cost Estimates

Question: A table listing construction cost estimates for each proposed component shall be provided. At a minimum, cost estimates shall be included with the following level of detail, along with the total.

- *Engineering and design costs*
- *Material and equipment costs*
- *Construction and commissioning costs*
- *Right of way and land procurement costs*
- *Permitting costs*
- *Construction management costs*
- *Contingency*
- *Other cost adders such as corporate overhead*

Capital cost estimates are shown in table 6 below. All costs were calculated using a 3% escalation rate per year and are shown assuming a 2019 in-service date

Table 6 - Project Costs
Proposed: ITC 14RTEP1-2

Transmission Line - 32 Miles	
Engineering & Design	
Material & Equipment	
Construction & Commissioning	
Land & Right of Way	
Permitting	
Construction Management	
Contingency (20%)	
Subtotal - Transmission Line	
Fremont Substation Modification	
Engineering & Design	
Material & Equipment	
Construction & Commissioning	
Construction Management	
Contingency (20%)	
Subtotal - Substation	
Avery Substation Modification	
Engineering & Design	
Material & Equipment	
Construction & Commissioning	
Construction Management	
Contingency (20%)	
Subtotal - Substation	
Fremont-West Fremont T-Line Reconductor	
Engineering & Design	
Material & Equipment	
Construction & Commissioning	
Permitting	
Construction Management	
Contingency (20%)	
Subtotal - Transmission Line	
Grand Total	**$ 107.0**

Cost Assumptions

Costs for right of way and site acquisition include the steps identified in section C.1.d, although every project is unique and there may be variances in processes within or between projects.

Cost for all applicable federal, state, and local permits are estimated based on previous projects located in the northeast with similar permitting requirements.

No new structures or new right of way will be required for the Fremont to West Fremont line reconductor.

Site expansion not included for Avery & Fremont line exit additions.

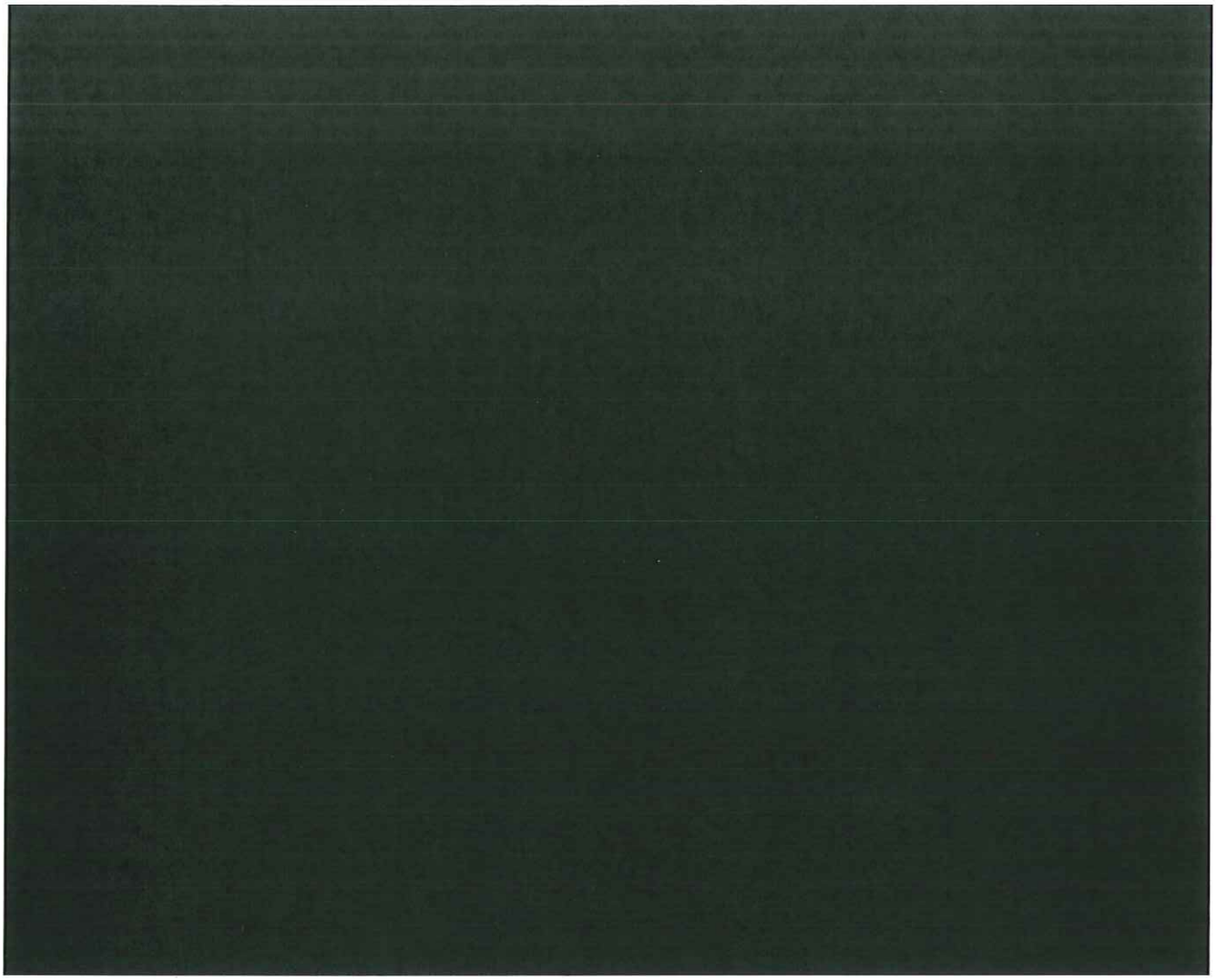
Additional Benefits

The economic benefits of the project were analyzed using Promod and the latest available PJM data. This analysis was conducted using the Future 1 models from the MISO-PJM IPSAC for years 2018, 2023 and 2028. Analysis showed that implementing this project would realize total economic benefits in excess of $120 million (based on a 15 year NPV calculated in 2014 dollars) that could substantially offset the cost of the project. These results should be verified once the updated PJM economic models are released to determine an accurate value for the economic benefit of this reliability based regional project.

C.3 – Schedule

Question: A milestone schedule, including the following major milestones, shall be provided for each proposed component:

- *Applicable state and local jurisdictional siting approvals, such as Certificate of Public Convenience and Necessity requirements*
- *Site acquisition and/or right of way acquisition*
- *Engineering and design*
- *Long lead time equipment*
- *Construction activities*
- *Outage plan to support construction and energization*
- *Testing and commissioning*



C.4 – Ongoing Transmission Facility Items

C.4.a – Operational Plan

Question: The package shall contain the proposing entity's plan for operating the new transmission facilities for the proposed project. At a minimum, the plan should discuss the proposing entity's plan for securing a control center facility and provide required telemetry to PJM.

ITC has incorporated new service territories into our existing operations and control center on prior occasions as our company has grown. This has occurred both as a result of acquiring other existing systems and through organic growth of our operations in ITC Great Plains and others.

ITC has navigated the interconnection process with various PJM Transmission Owners related to our multiple system interconnections. As noted in our response to question B.1, three of our four operating companies have interconnections with PJM transmission owners.

ITC will operate the new transmission facilities from its primary control center which is also used to operate 15,000 miles of transmission lines and associated facilities located in three NERC regions (MRO, RF, and SPP) as well as in two different ISO/RTO footprints (MISO and SPP). In anticipation of continued growth, our control center was designed with flexibility to allow additional capacity as ITC's system expands.

All ITC system operators and key management staff are NERC certified at the Reliability Coordinator level and maintain this certification through a comprehensive ongoing training program. ITC also has a completely redundant and independent back up control center capable of operating all of ITC's transmission facilities including all future assets. The ITC control center facilities provide all required telemetry on existing facilities to the MISO and SPP RTOs and we would develop similar links for any projects we secure in PJM. [redacted]

C.4.b – Maintenance Plan

Question: The package shall contain the proposing entity's plan for maintaining the new transmission facilities for the proposed project including equipment spares.

ITC has a comprehensive program and established procedures for substation maintenance on its existing systems that includes routine inspection of equipment in substations and control houses. Items that are identified for follow-up maintenance or repair are monitored and documented in a computerized maintenance management system. The program also includes cyclical and predictive maintenance intervals on major substation equipment including, but not limited to, circuit breakers, switches, transformers, relay and protective systems, DC systems, capacitor banks, etc.

A similar comprehensive program exists for transmission line maintenance that includes annual aerial inspections as well as cyclical ground line inspections and wood pole/steel tower maintenance. Items that are identified for follow-up maintenance or repair are monitored and documented in a computerized maintenance management system. ITC's vegetation management policy is to actively manage, through removing, pruning, mowing and/or applying herbicides, the vegetation that grows within, under and around our structures and wires in order to ensure safety, reliability and, in the case of 200-kV and above facilities, meet mandatory reliability requirements established by the North American Electric Reliability Corporation and approved by the Federal Energy Regulatory Commission on March 16, 2007. It is ITC's corporate goal to have zero outages as a result of vegetation interference.

ITC also utilizes modern high-speed networked Supervisory Control and Data Acquisition (SCADA) equipment health monitoring on key ITC assets such as transformers, circuit breakers and protective relaying. Alarming on these systems are monitored 24x7 by the ITC central operations control room. When under active alarm, corrective action is initiated, which includes dispatch of appropriate field maintenance resources.

ITC has a philosophy of maintaining minimum spare stock of substation and line equipment (including key assets such as circuit breakers and transformers). By analyzing past storm related damage and the

associated material needed to respond, ITC has proactively staged emergency spare material along with general maintenance material at ITC warehouses. These warehouses are strategically located throughout our footprint which can supply spare material 24 x 7 under emergency situations. These strategic materials are replenished as needed.

Based on our past experience, we have the flexibility to handle this important function in whichever way is optimal and most cost-effective for the situation.

C.5 – Assumptions

Question: A list of assumptions, uncertainties and / or qualifiers that may impact the estimated costs and schedules must be identified.

All assumptions related to cost and schedules detailed in the above sections.

D – Appendix A Redacted

Supporting figures are shown in Appendix A beginning on the following page.