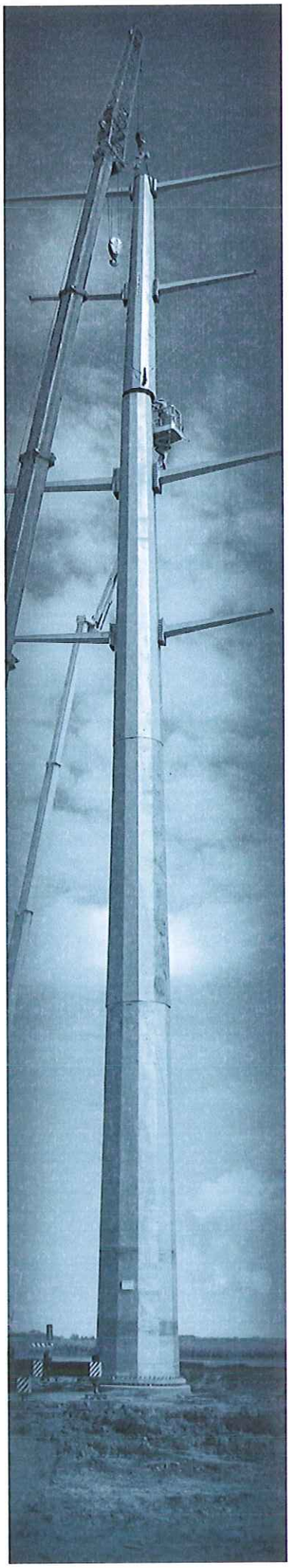


14RTEP3-9

Black Oak to Meadow Brook

February 27, 2015

Redacted Version

SUBMITTED BY

ITC MID-ATLANTIC DEVELOPMENT LLC

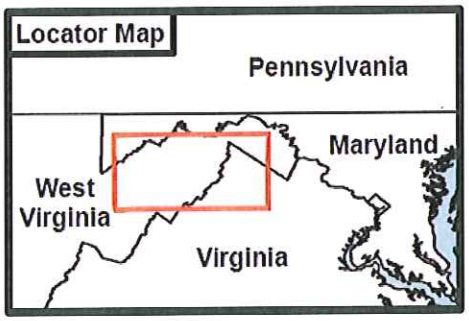
A. EXECUTIVE SUMMARY

1. Name & Address

ITC Mid-Atlantic Development LLC
27175 Energy Way
Novi, MI 48377

2. Project Description

ITC identified the Black Oak to Meadow Brook 500kV line as a potential solution to provide market efficiency benefits to the PJM region. This project, referred to as 14RTEP3-9, consists of constructing approximately 50 miles of new 500kV single-circuit overhead line from the existing Black Oak substation (First Energy) to the existing Meadow Brook substation (First Energy). ITC is proposing all-overhead construction with steel structures and conductor. This configuration balances constructability, cost, and schedule while still benefitting from ITC's standard processes, vendor alliances.



ITC also identified supplemental project components to further increase the reactive interface transfer limit for the AP South Interface. One supplemental project, referred to as 14RTEP3-14, consists of adding a MVAR capacitor bank at the existing Dooms 500kV substation. Another supplemental project, referred to as 14RTEP3-17, consists of adding a new 500kV greenfield substation at the intersection of the Project and the Mt. Storm to Doubs 500kV line. The combination of these two supplemental projects is referred to as 14RTEP3-18. All of these supplemental projects are to be considered as potential additions to 14RTEP3-9.

3. Problems Addressed

The Project is proposed as a system enhancement to improve market efficiency. Security constrained economic dispatch simulations were performed using the PJM economic models and simulation files posted as of January 27th, 2015. The proposed Project was added to the database and simulations were performed using PROMOD version 11.1.4. The results of the simulation with the Project included were compared against the base case simulation without the Project to determine the market efficiency benefits derived from the Project. Although this analysis is only indicative since PJM's results cannot be replicated, the Project provides near complete relief of the congestion reported by PJM on the primary targeted flowgate – AP South for the loss of Bedington to Black Oak Interface facility. The Project was shown to relieve congestion on multiple PJM identified

Recommended for Proposal flowgates as shown in Table A1. The full list of flowgate congestion delta provided by the Project is included as Figure 12 in Appendix A.

Table A1 – Project Flowgate Congestion Reduction

			Congestion Delta ($MM)		
Facility Name	**Area**	**Type**	**2019**	**2022**	**2025**
AP SOUTH L/O BED-BLA	PJM		Redacted		
AEP-DOM L/O BED-BLA	PJM				
Fieldale to Thornton 138 kV	AEP				
Brunner Island to Yorkana 230 kV	ME - PPL				

Simulations were performed for the 2015, 2019, 2022, and 2025 study years in order to extrapolate the Project's 15 year net present value (NPV) of benefits consisting of Net Load Payment (NLP) benefit, Adjusted Production Costs (APC) benefit, and Capacity benefit as applicable based on a Regional or Lower Voltage Project classification. In addition to these benefits, the net benefit and overall Benefit-to-Cost Ratio (BCR) was calculated for the Project. Table A2 below provides the total Project cost, in 2015$, along with the key benefit metrics discussed previously. The net benefit, which estimates the result of this project on PJM rate payers, shows that the NPV of benefits exceeds the NPV of cost by $248 million in 2020 dollars.

Table A2 – Project Benefits

Project Type	In-Service Date	Cost (2015 MM$)	NLP Benefits[1] (MM$)	APC Benefits[1] (MM$)	Net Benefit[2] (MM$)	BCR (NPV_B/NPV_C)
Regional	2020	$156.0	$777.68	$213.77	$248	2.00

[1]Benefits shown represent a 15 year NPV from project in-service date assuming 2.5% escalation.

[2]Net Benefit is calculated as net of 15 year NPV of project benefits minus 15 year NPV of costs from project in-service date.

In addition to testing the market efficiency congestion reduction of the Project, high level reliability analysis was performed including Generator Deliverability (GD) and DC and AC Contingency Analysis. These reliability analyses were performed using the posted data for PJM's 2014/2015 RTEP Long Term Proposal Window. These analyses were performed using the posted case (base summer peak) and the modified base cases with the inclusion of the Project. Siemens PSS/E v32.2.1 and the PowerGEM TARA software package v801 were used for simulation. The raw results files can be made available upon PJM request. Single element outages and tower outages were evaluated. The entire PJM footprint was monitored for thermal impacts. Any facility that became overloaded with the addition of the Project and showed greater than 1% difference between the base and change case, was considered an adverse impact.

No adverse thermal impacts to the transmission system were reported as a result of the addition of the Project.

Load flow analysis was also conducted, per the recommendation by PJM, with the inclusion of the Project to determine the incremental impact on the AP South reactive interface transfer limit. Analysis was simulated using PowerGEM TARA v801's PV Analysis tool. Using the reactive interface power flow model posted for the PJM 2014/2015 RTEP Long Term Proposal Window, PV Analysis was performed to study the Project's impact on the AP South Interface. Source and sink areas for the transfer analysis were defined based on the associated load zones provide in the Reactive Interface Areas tab of the Market Efficiency Congestion results file posted for the PJM 2014/2015 RTEP Long Term Proposal Window. All bus voltages 100kV and above were monitored for magnitude and deviation using the criteria defined from previous PJM RTEP Proposals Windows. PV Analysis was performed for base case system conditions and for the loss of the Bedington to Black Oak 500kV line.

Transfer limit results from the base case without any modifications were compared to the results for the case with the inclusion of the Project. Transfer limits were also compared with the incremental inclusion of supplemental projects 14RTEP3-14, 14RTEP3-17, and 14RTEP3-18. Comparison of the results indicate that with the inclusion of the Project or the inclusion of the Project plus supplemental projects, the reactive interface transfer limit increased for both the base case system conditions and for the critical outage of the Bedington to Black Oak 500kV line. Table A3 below provides a summary of the results from the analysis.

Table A3 – Reactive Interface Transfer Limit Results

	Scenario	Outage	Transfer Limit (MW)	Vlow Violation	Incremental Benefit (MW)
	Base	Base Case		Redacted	
14RTEP3-9	Project	Base Case			
14RTEP3-14	Project + Cap	Base Case			
14RTEP3-17	Project + Sub	Base Case			
14RTEP3-18	Project + Cap + Sub	Base Case			
	Base	BEDNGT-BLACKOAK			
14RTEP3-9	Project	BEDNGT-BLACKOAK			
14RTEP3-14	Project + Cap	BEDNGT-BLACKOAK			
14RTEP3-17	Project + Sub	BEDNGT-BLACKOAK			
14RTEP3-18	Project + Cap + Sub	BEDNGT-BLACKOAK			

With the addition of the Project, the reactive interface limit for the AP South interface for loss of the Bedington to Black Oak 500kV line increased approximately 1,400 MW in comparison to the transfer limit without the Project. With the addition of the Project plus any of the supplemental configurations, the reactive interface limit for the AP South interface for loss of the Bedington to Black Oak 500kV line increased approximately between 2,000 and 2,500 MW in comparison to the transfer limit without the Project and supplemental component. On an incremental basis, the addition of any of the supplemental configurations increased the reactive interface limit between

600 and 1,100 MW for the loss of the Bedington to Black Oak 500kV line in comparison to the transfer limit with only the Project.

PJM or others may identify upgrade or greenfield facilities that when incrementally added to the ITC base proposal, or any of alternative configurations directed by ITC, may provide more overall benefits. Given the broad and regional nature of Market Efficiency projects PJM should evaluate the standalone and combined ITC directed greenfield elements, along with combinations of facilities identified by others, to provide the more robust market efficiency solution and maximize the benefits to rate payers. The AP South interface is a persistently limiting issue in the PJM system and a long-term solution, like those provided by ITC, would dramatically mitigate the operational limits experienced by PJM on a daily basis.

4. Project Cost

The capital cost of the proposed project (14RTEP3-9) is estimated to be $156.0 million in 2015 dollars, including the substation work that would be assigned to incumbent transmission owners. This is described in detail in Section C.2.

5. Schedule

The proposed project schedule is expected to span 5 years from kick-off to energization. This is described in detail in Section C.

6. Designated Entity Status

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.

7. Intent to be Considered Designated Entity

ITC Mid-Atlantic Development LLC does intend to be the Designated Entity for the project described in this proposed project submittal.

B – COMPANY EVALUATION INFORMATION

1. Technical & Engineering Qualifications

ITC Mid-Atlantic Development LLC (ITC Mid-Atlantic) is a wholly-owned subsidiary of ITC Grid Development, LLC, which is itself a wholly-owned subsidiary of ITC Holdings Corp. (ITC). 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., a Michigan corporation and its affiliates.

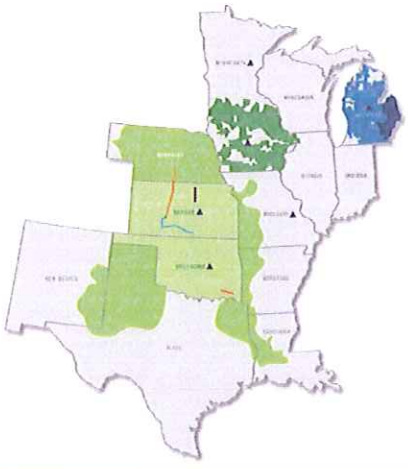
ITC is the nation's first, largest and only publicly traded independent transmission company. Since its founding in 2003, ITC has invested over $4.8 billion in the electric transmission grid to improve reliability, expand non-discriminatory access to markets, lower the overall cost of delivered energy, 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 the existing operating companies provides a high-level context of ITC and its capabilities to develop and own transmission projects (approvals, siting, engineering, construction, operations and maintenance).

ITC 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), and ITC Great Plains, LLC (ITCGP) (see Table B1).

ITC Companies in MISO and SPP



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. ITC has invested over $1.4 billion 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 includes predominantly 120kV and 345kV facilities. ITCT also owns and operates some 230kV facilities, as well as underground transmission facilities operated at 120kV and 345kV. ITCT has existing transmission interconnections with the IESO (HydroOne) and PJM (ATSI).

The METC transmission system serves much of the remainder of Michigan's Lower Peninsula and is made up 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 138kV and 345kV 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) serves 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 34.5kV, 69kV, 115kV, 161kV, and 345kV facilities. ITCMW has existing interconnections with PJM (ComEd) as well.

ITC Great Plains (ITCGP) operates approximately 435 miles of 345kV transmission facilities in Kansas and Oklahoma. Preconstruction activities are underway for another 30 miles of 345kV 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 B1 – ITC Line Miles by Voltage

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

ITC is also expanding into PJM and is actively engaged in ensuring all PJM requirements will be met when the new Covert to Segreto 345kV line in Southwest Michigan goes into service on June 1, 2016. This is expected to be ITC's first project energized in PJM.

In summary, ITC offers the following benefits to PJM:

- Largest independent transmission owner in the country: *resources needed to undertake complex projects*
- Experience in the PJM region through existing connections and the Covert-Segreto project: *reduces learning curve and enables ITC to hit the ground running on day one*

- Experience owning, operating and maintaining more than 15,300 miles of transmission line in seven states serving a combined peak load of more than 26,000 megawatts (MW): *processes in place to operate infrastructure in many different regions*
- Transmission-owning member of both Midcontinent Independent System Operator (MISO) and Southwest Power Pool (SPP) Regional Transmission Organizations (RTOs): *experience participating in multiple regional processes*
- Close working relationships with industry-leading consulting firms: *ability to scale up and down resources to match expertise with PJM's needs*

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 design 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 resources up and down 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 use 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. Contractors adhere to the more stringent standard when comparing 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

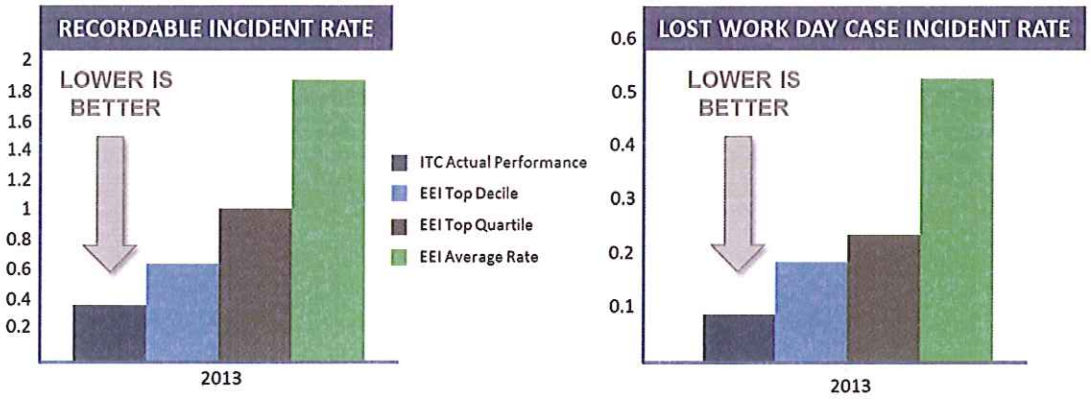
Effective maintenance ensures ITC's transmission facilities remain in proper condition to perform their intended function, whether during routine operations, switching, or emergency conditions. ITC's maintenance program has four building blocks:

1. Maintenance practices 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, so that if a component requires periodic maintenance, 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.

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 North American Electric Reliability Corporation (NERC) compliance in all areas (vegetation management, line, substation equipment, etc.). This is the link between the first and second components 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.



2. Experience

Developing, Constructing, Operating and Maintenance

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 (ITC does not "flip" transmission investments). Several recent examples of transmission development and construction are provided below. ITCT has over a hundred circuit miles of 230kV lines supporting the transmission grid throughout Lower Michigan with interconnections to neighboring systems. ITC is well prepared to successfully construct, own and operate the proposed facilities given the well-established ITC resources for similar 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, 345kV 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 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 345kV 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 to cost containment and operational excellence.

V-Plan

In cooperation with Sunflower Electric Power Corporation and Mid-Kansas Electric Company, ITC has designed has constructed two segments of the V-Plan project totaling approximately 122 miles of double-circuit 345kV 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 was placed 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 138kV to future double-circuit 230kV design and construction standards. This will increase its capacity and reliability, provide increased lightning protection, and facilitate potential future 230kV 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 focused on siting preparations and worked with other utilities to finalize ownership levels of the projects in support of our targeted in-service dates. In 2014, two 345kV line sections received Iowa regulatory approval and easements have been secured. Also in 2014, regulatory hearings were completed toward the Certificate of Need and Route Permit in Minnesota. These projects are part of MISO's 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 2020.

ITC will build portions of the following projects:

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

Underground Experience

ITC owns, operates and maintains 53 circuits that are either partially or entirely underground. These transmission circuits are located in dense urban areas and serve as integral components of the ITCT footprint. In locations with routing and siting constraints that make overhead transmission lines impractical, these underground circuits provide ITC a prudent method of ensuring vital system reliability.

ITC utilizes its strong relationships with qualified firms to install underground circuits via Engineering/ Procurement/ Construction (EPC) contracts. Recently ITC improved its underground facilities by reconductoring 7.29 miles of the Caniff-Stephens 345kV circuit in Metropolitan Detroit. High Pressure Oil Filled 2500 kcmil conductor was installed, replacing the existing 2000 kcmil cable to provide a reliable solution to system issues. ITC also recently installed a new 4.53 mile Erin to Stephens 120kV circuit in Metropolitan Detroit. Both of these circuits, along with the remainder of its underground transmission circuits, supplement ITC's overhead backbone system, providing a comprehensive transmission network.

Standardized Construction Practices

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 their 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 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:

- Design
- Capital Improvements
- Operations
- 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 ITCTransmission 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 that ITC places on 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 components:

1. Practices 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 (preventive, reactive, facilities, vegetation and vehicular) comprise 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

Redacted

Redacted

Regional Experience

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.

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 RTOs including transmission project development, advocacy and participation in Federal Energy Regulatory Commission (FERC) Order 890 Compliant stakeholder planning processes. ITC has MISO transmission assets in Michigan, Iowa, Minnesota, Illinois and Missouri. ITC also has SPP operational transmission assets 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 is actively involved in a wide range of activities, committees, and working groups. We have a valuable working relationship with MISO management and staff, and have proven to be a contributing and collaborative member.

ITC played a key leadership role in advocating regional transmission projects which resulted in MISO's MVPs – a set of 17 regional projects valued at $5.2 billion.

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, 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 in varying stages of development or operation by ITCGP.

ITC is also expanding into the PJM footprint and actively engaged in ensuring all PJM requirements will be met when the new Covert to Segreto 345kV line in Southwest Michigan goes into service on June 1, 2016. This will be ITC's first project energized in PJM.

Acquiring Rights of Way and Permitting

ITC has extensive experience acquiring rights of way (ROW) in the eastern interconnection. ITC's primary land acquisition firm, who would likely work on this project if we are successful, has extensive experience working on ROW acquisition projects in the region where this project is proposed. This experience is another strength offered by ITC. 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. ROW is generally secured

V-Plan project: A 122-mile, double-circuit, 345kV line under construction in Kansas with a projected in-service date of December 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 help facilitate further wind farm development.

3. Financing Plan

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 MW through its regulated operating subsidiaries. ITC is a highly rated entity with senior unsecured ratings of BBB+/Stable from Standard & Poor's and Baa2/Stable at Moody's.

ITC has significant access to liquidity with a present capacity on its revolving credit facility of $400 million. This facility is financed by banking institutions including Bank of America, Barclay's, Co-Bank, Comerica, Credit Suisse, Deutsche Bank, Goldman Sachs, JP Morgan, Mizuho, Morgan Stanley, PNC and Wells Fargo. The facility also has an optional $100 million expansion feature that would allow the company the capability to access $500 million in cash in a short time. Moreover, ITC has a proven track record of accessing both public and private capital markets on a timely basis to construct green-field projects and reinvestments in existing assets. In summary, ITC has a solid balance sheet, strong credit ratings and significant access to liquidity with deep access to capital markets.

4. Cost Containment

Redacted

Redacted

ITC Achievements

The KETA project is a 174-mile, 345kV 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, 345kV line looping through the "thumb" area of Michigan. The scope also 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 remains on track to meet the in-service date for the entire loop.

5. Cost Caps or Commitments

Redacted

6. Unique Qualifications

ITC's success story is the proven integration of established systems, organic expansions and non-incumbent developments into a unified independent transmission company. ITC will apply resources and experience with non-incumbent development to integrate this green-field project into an ITC facility.

ITC has successfully expanded from its origins in Southeast Michigan to include planning, construction, operation and maintenance of over 15,000 miles of transmission facilities in seven states covering three NERC regions and two RTO footprints. ITC is expanding into the PJM footprint and is actively engaged in ensuring all PJM requirements will be met when the new Covert to Segreto 345kV line in Southwest Michigan goes into service on June 1, 2016. This will be ITC's first project energized in PJM.

Since ITC was formed in 2003, contract maintenance services have been used over its entire multistate 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 (including 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 vital to its corporate identity. ITC does not own generation or distribution assets; ITC employees and directors 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, it does not have and is not distracted by, conflicting interests with generators, markets, electricity retailers and other market participants. ITC's attention is focused on the reliable delivery of low cost energy to end users.

The independent transmission model provides numerous, substantial benefits:

- **Transparency:** Throughout transmission development and operations, ITC is transparent in its planning processes, design and routing, construction, operations and maintenance
- **Operational Excellence:** Since high-voltage transmission is ITC's sole focus and the core of its business, it is attentive to transmission operations and brings experience, creative and flexible solutions, and an exceptional focus on how an excellent transmission system can benefit customers.
- **Reliability:** Without other activities or lines of business that can become distractions, ITC is completely focused on the reliability of 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 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 that 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 will be treated fairly throughout the interconnection process.

- **Customer Focus:** ITC's independence from all electricity generators, buyers and sellers allows planned 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

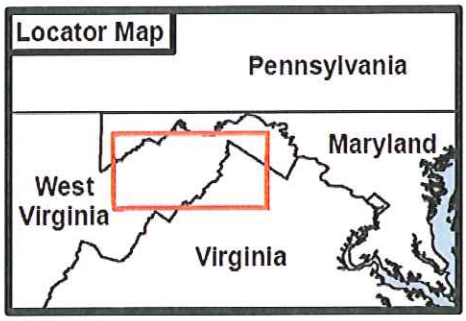
7. Assumptions

- The proposed route is preliminary and was used to determine the project cost estimate. The actual route will be studied and determined at a later date.
- The detailed engineering and construction work required to modify the existing Black Oak and Meadow Brook substations will be performed by the existing transmission owner.
- The engineering and construction work required to tie existing transmission lines into the proposed substation will be performed by the existing transmission owners. This is described in Section C.1.
- The demarcation point between the proposed transmission line and the existing Black Oak and Meadow Brook substations will occur at the first structure within the substation fence.
- Market efficiency and security constrained economic dispatch was performed using Ventyx PROMODIV version 11.1.4 and applicable PJM posted models.
- For purposes of calculating project benefits, any solution consisting of double circuit 345kV or higher elements was considered a Regional Project and benefits were derived 50% from Net Load Payment and 50% from Adjusted Production Cost. All other solutions were treated as a Lower Voltage Project and benefits were derived 100% from Net Load Payment.
- Where applicable, DC Contingency (single and tower), AC Contingency, Generator Deliverability, PV, and Capacity Emergency Transfer Limit (CETL) analysis was performed using PowerGEM TARA software package v801 and applicable PJM posted models.
- Escalation was assumed to 2.5% per year.

C - CONSTRUCTABILITY INFORMATION

1. Component Scope

ITC identified the Black Oak to Meadow Brook 500kV line as a potential solution to provide market efficiency benefits to the PJM region. This project, referred to as 14RTEP3-9, consists of constructing approximately 50 miles of new 500kV single-circuit overhead line from the existing Black Oak substation (First Energy) to the existing Meadow Brook substation (First Energy). ITC is proposing all-overhead construction with steel structures and conductor. This configuration balances constructability, cost, and schedule while still benefitting from ITC's standard processes, vendor alliances.



Greenfield Transmission Line Element Details

This project would be a highly beneficial addition to the PJM system 500kV backbone upon which the entire PJM interconnection system heavily relies for reliability and security as well as market efficiency. Due to this vital nature, the benefit of reusing or co-locating new transmission adjacent to existing right of way should be weighed against the benefit provided by using new right of way that provides locational diversity. Such diversity would improve security and potentially mitigate or reduce the occurrence of catastrophic and wide-spread outages.

The Project is being proposed to utilize all-overhead line construction using primarily steel structures with triple bundled . ITC has extensive experience using this conductor and benefits from supplier alliances, standard designs and recent construction experience. Table C1 below shows the proposed project terminal points.

Table C1 – Terminal Points

	Beginning Station (Black Oak)	Ending Station (Meadow Brook)
Station Name	Black Oak	Meadow Brook
Owner	First Energy	First Energy
Voltage	500kV	500kV
State	Maryland	Virginia
County	Allegany	Frederick
Coordinates	Redacted	

Redacted

2. Project Component Cost Estimates

Table C8: Project Costs

ITEM	COST ($MM)
Transmission Line – Black Oak to Meadow Brook	
Engineering & Design	Redacted
Material & Equipment	
Construction & Commissioning	
Construction Management	
Land & ROW	
Permitting	
Overhead	
Subtotal – Transmission Line	-
Substation Modifications	
Black Oak	
Engineering& Design	Redacted
Material & Equipment	
Construction & Commissioning	
Construction Management	
Meadow Brook	
Engineering& Design	
Material & Equipment	
Construction & Commissioning	
Construction Management	
Subtotal - Substations	-
Total	-
Contingency	-
GRAND TOTAL (2015 dollars)	**156.0**

4. Ongoing Transmission Facility Items

Operational Plan

ITC incorporated new service territories into its existing operations and control center as the company has grown. This is both a result of existing systems and organic growth of ITCGP and other operations.

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

ITC will operate the new transmission facilities from its primary control center, which is operates 15,000 miles of transmission lines and associated facilities in three NERC regions (Midwest Reliability Organization, RF, and SPP) as well as in two ISO/RTO footprints (MISO and SPP). In anticipation of continued growth, the 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 redundant and independent backup 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 secured in PJM. ITC will become a PJM Member in conjunction with the future Covert to Segreto 345kV line and is in the process of ensuring all requirements of the PJM manuals are met before the scheduled in-service date of June 1, 2016, including the PJM telemetry requirements identified in Attachment A of Manual 01 and the operator certification requirements in Manual 40. Many of the requirements covered in the manuals are similar to those ITC already meets for other RTO footprints.

Maintenance Plan

Redacted