



## **ITC Midwest LLC**

**Application to the  
Minnesota Public Utilities Commission  
for a Route Permit**

**Minnesota - Iowa 345 kV  
Transmission Project and Associated Facilities  
in Jackson, Martin, and Faribault Counties**



**Docket No. ET6675/TL-12-1337**

**March 28, 2013**

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## EXECUTIVE SUMMARY

### APPLICANT

ITC Midwest LLC (“ITC Midwest”) is applying for a Route Permit to construct the Minnesota portion of the Minnesota – Iowa 345 kilovolt (“kV”) Transmission Project. “Project” as used in this Route Permit application refers only to the Minnesota portion of the Minnesota – Iowa 345 kV Transmission Project. Construction on the Project is expected to begin by early 2016 and be completed mid-year 2017. The first portion of the Project from the Lakefield Junction Substation to the Huntley Substation is expected to be energized by early 2017. The segment from Huntley Substation to the Iowa border is expected to be energized by mid-year 2017.

### NEED

The Project is needed to enhance regional reliability, increase transmission capacity to support additional generation, including generation to meet renewable energy standards throughout the region, and to remove constraints on the transmission system in southern Minnesota which will enable more efficient and cost-effective delivery of energy.

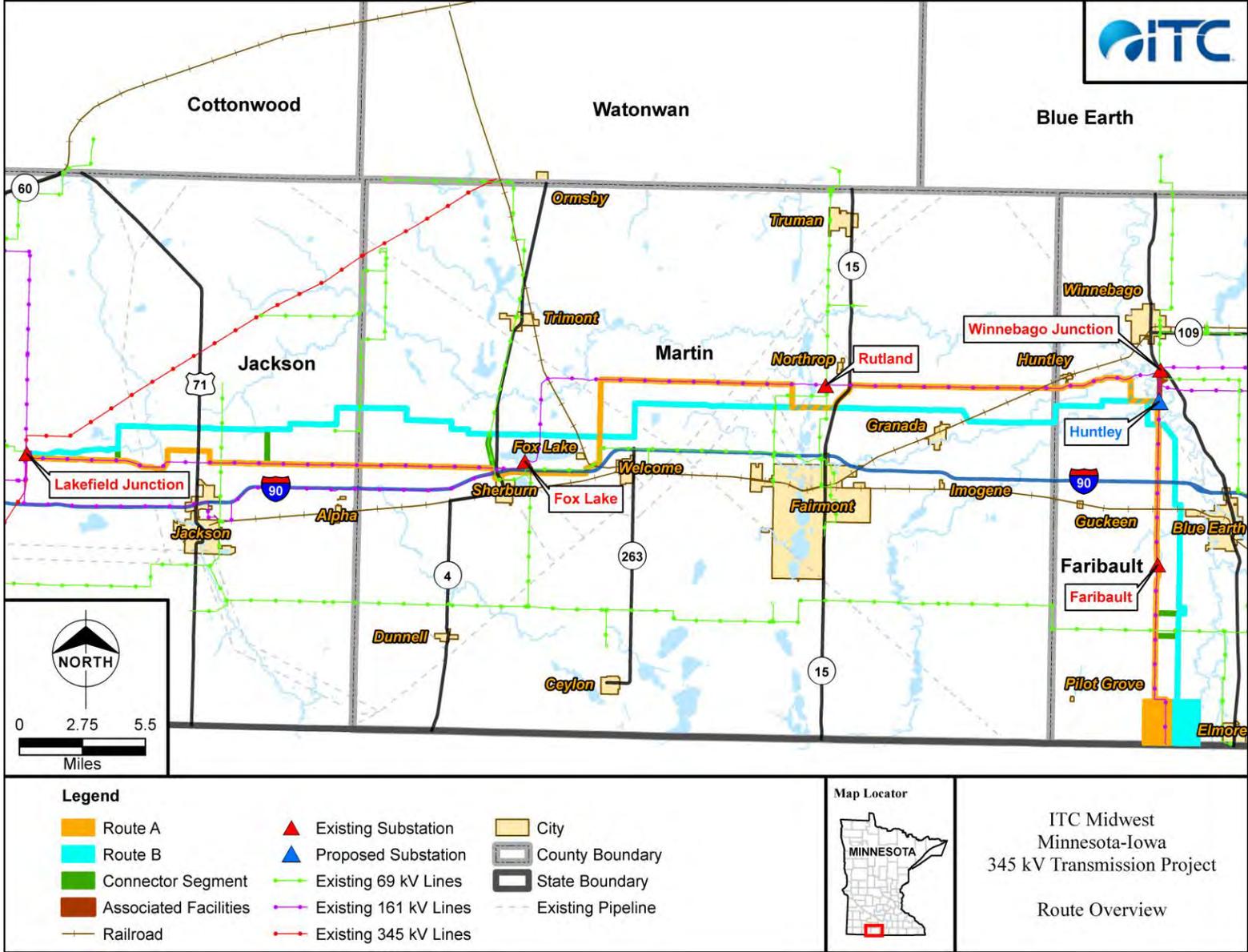
The proposed facilities in Minnesota and Iowa were also studied and approved in December 2011 as part of the Midwest Independent Transmission System Operator (“MISO”) Multi-Value Projects (“MVP”) portfolio in the 2011 MISO Transmission Expansion Plan (“MTEP 11”). MISO oversees and coordinates regional transmission planning and regional transmission services. MISO also manages access to the transmission grid to facilitate fair and competitive wholesale electric markets. The Minnesota – Iowa 345 kV Transmission Project is a portion of what MISO designated as Project 3 in the MVP portfolio and only includes the portions of Project 3 that are to be constructed and owned by ITC Midwest in Minnesota and Iowa. The Iowa portions of Project 3 are subject to review and approval by the Iowa Utilities Board (“IUB”). ITC Midwest submitted an application for a Certificate of Need for the Project to the Minnesota Public Utilities Commission (“Commission”) on March 22, 2013. It is available in Docket No. ET6675/CN-12-1053. A decision on the Certificate of Need request will be made before, or concurrent with, a decision on this application for a Route Permit (“Application” or “Route Permit Application”).

## THE PROJECT

For the Project, ITC Midwest is proposing to construct a 345 kV transmission line from its Lakefield Junction Substation in Jackson County, east through Martin County to the newly-proposed Huntley Substation in Faribault County, before turning south to the Iowa border. In Iowa, the Minnesota - Iowa 345 kV Transmission Project will include a transmission line continuing south, a new ITC Midwest Ledyard Substation, near the City of Ledyard, Iowa, and then on to the Kossuth County Substation to be constructed by MidAmerican Energy Company (“MidAmerican Energy”) near the City of Burt in Kossuth County, Iowa. The rest of Project 3 will be constructed by MidAmerican Energy and includes, from the Kossuth County Substation, a 345 kV transmission line to the west to a new O’Brien Substation near Sanborn, Iowa, and a 345 kV transmission line to the south to a MidAmerican Energy Substation north of Fort Dodge, Iowa.

The Project includes the 345 kV transmission line, expanding the Lakefield Junction Substation, a new Huntley Substation, and reconfiguring several miles of 69 kV and 161 kV transmission line near the Huntley Substation. The reconfigurations are necessary to relocate all 69 kV and 161 kV transmission substation facilities to the Huntley Substation from the existing Winnebago Junction Substation, which will be decommissioned as part of the Project. The 345 kV transmission line will be approximately 75 miles long in Minnesota. The Iowa portion of the Minnesota - Iowa 345 kV Transmission Project will be approximately 25 miles long. The routes proposed by ITC Midwest for the Project are shown in **Figure 1**. Although these are the routes ITC Midwest proposes for the Project, other routes may be proposed by stakeholders through the public involvement process, discussed further below, and the Commission may ultimately choose a route for the Project that is not proposed in this Application.

Figure 1. Routes Proposed by ITC Midwest for the Project



## ROUTE PERMITTING PROCESS

This Route Permit Application is submitted under the Full Permitting Process set forth by Minnesota law, specifically, Minnesota Statutes Section 216E.03 and Minnesota Rules 7850.1700 to 7850.2700 and 7850.4000 to 7850.4400. The applicable statutes and rules require, in addition to other information, that an applicant provide at least two proposed routes in its application for a Route Permit and state a preference for one of the proposed routes. Minn. Stat. § 216E.03, subd. 3; Minn. R. 7850.1900, Subp. 2(C). A “route” is defined in Minnesota Statutes as “the location of a high voltage transmission line between two end points . . . [with] a variable width of up to 1.25 miles.” Minn. Stat. § 216E.01, subd. 8; *see also* Minn. R. 7850.1000, Subp. 16.

ITC Midwest invested substantial time analyzing and evaluating segments between the proposed endpoints and gathering input from stakeholders prior to submitting this Application. The Project team met with local governments, State and federal agencies, and landowners while hosting open houses in September 2012 throughout the three counties proposed to be crossed by the Project. Geographic Information System (“GIS”) data from local, State, and federal agencies, and other Minnesota utilities has been reviewed, along with aerial photographs.

Through this process, ITC Midwest developed the two routes proposed in this Application and also identified connecting segments between the two routes. Both routes follow existing transmission and/or transportation rights-of-way and agricultural field lines, where feasible. Specifically, ITC Midwest attempted to use existing transmission line rights-of-way in areas where there are suitable and available adjacent lands for the additional right-of-way the Project will require. When crossing new cropland, primarily along Route B, ITC Midwest looked to locate the route along field borders, fence rows, non-tilled borders, or waterways. In each case, ITC Midwest identified a route width of 1,000 feet for the majority of the length of the Project. Near the Iowa border, ITC Midwest identified a route width of 1.25 miles for the two routes. ITC Midwest believes that a wider route is appropriate in this area to ensure that the 345 kV transmission line can be efficiently routed through each state’s regulatory process. Information about the routing process in Iowa is available in **Section 1.4.2** of this Application.

In this Route Permit proceeding, the Commission staff, the Department of Commerce, Energy Facility Permitting staff (“EFP”), and an administrative law

judge will oversee evaluation and review of the proposed routes and the gathering of input from agencies, local units of government (“LGUs”), and the public.

After the Commission finds the Application complete, notices of environmental impact statement (“EIS”) scoping meetings will be provided to stakeholders in the Project area and those on the Project Contact List EFP will maintain throughout the regulatory process. To sign up for the Project Contact List for the Route Permit process and ensure you receive notices of meetings related to the Project in your area, you may contact EFP staff (Ray Kirsch, 651.296.7588, 800.657.3794, or [Raymond.kirsch@state.mn.us](mailto:Raymond.kirsch@state.mn.us)) or sign up by visiting [mn.gov/commerce/energyfacilities](http://mn.gov/commerce/energyfacilities), click on the “Transmission Lines” tab, the “Minnesota-Iowa 345 kV Transmission Project” link under the “Project Name” heading, and then the “Mailing list” links.

At these scoping meetings, and throughout a comment period after the scoping meetings, EFP will gather information from stakeholders on other routes and environmental information that should be evaluated in the EIS. EFP will issue a “Scoping Decision” that identifies routes and information it will evaluate in the EIS, and will begin drafting this environmental review document. EFP will issue a notice of a Draft EIS and a notice for informational meetings to be held in the Project area on the content of the Draft EIS. After these meetings, EFP will issue a Final EIS.

Shortly after these informational meetings, public hearings on the Draft EIS and the Project will be held before an administrative law judge. The public is invited to make comments on the Draft EIS and routes for the Project at these hearings before the administrative law judge. After the hearings, the administrative law judge will provide a period during which stakeholders can provide written comments on the Project. Additionally, the administrative law judge will receive briefs from ITC Midwest and other parties to the proceeding.<sup>1</sup> The administrative law judge will review this Application, the EIS, briefs, and any comments received during the public hearings or the following comment period and then prepare findings of fact and recommend a route for the Project to the Commission. The Commission staff will then provide the Commission with its

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<sup>1</sup> Individual landowners need not become a party to the proceeding to submit comments and have those comments reviewed and considered by the administrative law judge. Only those who formally intervene under the administrative rules (Minn. R. 1405) submit briefs to the administrative law judge.

recommendation on a Route Permit, which will include a route for the Project and proposed conditions for the Project. During an open meeting, the Commission will deliberate and make a decision as to the route it believes is the most prudent and feasible for the Project and any conditions it deems necessary, using the criteria set forth in Minnesota Statutes Section 216E.03, subdivision 7, and Minnesota Rule 7850.4100 to guide its decision.

## PROPOSED ROUTES IN THIS APPLICATION

ITC Midwest proposes two routes in this Application through Jackson, Martin, and Faribault counties in Minnesota. Information on the overall route selection process is provided in **Chapter 4**. A detailed explanation of the two routes is provided in **Chapter 5**. Detailed data on the environmental analysis for the two routes are provided in **Chapter 6** (Route A) and **Chapter 8** (Route B). Detailed data on the environmental analysis for the associated facilities, that are the same for Route A and Route B, and connector segments between Route A and Route B are provided in **Chapter 7**.

### Route A

Route A is located in the townships of Belmont, Des Moines, Hunter, and Wisconsin in Jackson County; Center Creek, Fox Lake, Fraser, Jay, Manyaska, and Rutland in Martin County; and Jo Daviess, Pilot Grove, and Verona in Faribault County. Route A primarily follows an existing ITC Midwest 161 kV transmission line from the Lakefield Junction Substation east of the City of Lakefield, east to a new substation south of the existing Winnebago Junction Substation and then south to the Iowa border. Route A deviates from the existing 161 kV transmission line in areas where the existing alignment cannot be followed because of development near the existing right-of-way and in four other areas: Jackson Municipal Airport, Fox Lake, Lake Charlotte, and Winnebago Junction Station.

The deviation at Jackson Municipal Airport is to avoid hazards to air navigation if the Project were constructed along the existing 161 kV transmission line centerline. Route A does not follow the existing 161 kV transmission line across either Fox Lake or Lake Charlotte to avoid environmental impacts associated with adding new structures and a second circuit at these lake crossings. Deviating from the existing 161 kV transmission line is necessary west of the Winnebago Junction Substation to configure the Project to terminate at the new Huntley Substation. Each of these four deviations and the reasons for the deviations are discussed in more detail in **Section 4.4.3**.

## Route B

Route B is located in the townships of Belmont, Des Moines, Enterprise, and Hunter, in Jackson County; Center Creek, Elm Creek, Fox Lake, Fraser and Rutland in Martin County; and Elmore, Jo Daviess, Pilot Grove, and Verona in Faribault County. Route B is generally located within two miles of an existing ITC Midwest 161 kV transmission line and connects the Lakefield Junction Substation east of the City of Lakefield to a new substation south of the existing Winnebago Junction Substation, before entering Iowa near Elmore, Minnesota.

## “Preferred Route”

For purposes of this Route Permit Application, and based on factors identified in Minnesota Statutes Section 216E.03, subdivision 7, and Minnesota Rules 7850.1900, Subpart 3, 7850.4000, and 7850.4100, ITC Midwest prefers Route A as identified in **Figure 1**, and described above, for the Project. Route A makes the greatest use of existing transmission line rights-of-way, has fewer new impacts to agricultural production lands and other land uses, and reduces the amount of new tree clearing necessary for the Project. Route A and Route B are close in length. Although ITC Midwest prefers Route A for the Project, the Commission may determine that another route is the most prudent and feasible for the Project based on information gathered during its evaluation of the Route Permit Application, the EIS to be prepared by EFP, the findings and recommendations from the administrative law judge, and input from stakeholders.

## ENVIRONMENTAL IMPACTS

The Project, as proposed in this Application, will traverse primarily agricultural land. It is estimated that permanent right-of-way, 200 feet wide for 345 kV transmission lines and 150 feet wide for 161 kV transmission lines, will include approximately 1,770 acres of land. If Route A is selected, at least 540 acres of the necessary right-of-way are currently maintained for the existing transmission line that is proposed to be co-located with the 345 kV line. Another 11.2 acres of land will be permanently impacted by the expansion of the Lakefield Junction Substation and construction of the Huntley Substation in Minnesota. Other land rights will be acquired in Iowa for portions of the Minnesota - Iowa 345 kV Transmission Project located within that state. ITC Midwest, after reviewing the routes proposed in this Application, does not anticipate displacement of homes or businesses.

## REQUESTED COMMISSION ACTION

This Route Permit Application and the data contained herein demonstrate that construction of the Project along either Route A or Route B would comply with the applicable standards and criteria set out in Minnesota Statutes Section 216E.03, subdivision 7, and Minnesota Rules 7850.4000 and 7850.4100. Further, construction of the Project will support State goals to conserve resources, minimize environmental and human settlement impacts and land use conflicts, and ensure the State's electric energy security through the construction of efficient, cost-effective infrastructure. Detailed information on the need for the Project is available in the application for a Certificate of Need in Docket No. ET6675/CN-12-1053.

ITC Midwest requests that the Commission issue a Route Permit for Route A because it makes the greatest use of existing transmission line rights-of-way, has fewer new impacts to agricultural production lands, and minimizes impacts to the natural and cultural environment. Based on review of the Project area, ITC Midwest believes that Route A best satisfies the criteria identified in Minnesota Statutes Section 216E.03, subdivision 7, and Minnesota Rules 7850.4000 and 7850.4100.

## PUBLIC INVOLVEMENT IN ROUTE PERMIT REGULATORY PROCESS

Members of the public who wish to be involved in the Route Permit regulatory process are encouraged to visit the following websites to find out more about the Project and opportunities for public input and involvement:

<http://www.itctransco.com/minnesota-iowa-project>

[mn.gov/commerce/energyfacilities](http://mn.gov/commerce/energyfacilities) ("How to Participate" Tab)

<http://mn.gov/commerce/energyfacilities/documents/Full%20Process,%20EIS%20-%20Color%20Flowchart%207850%20DOC.pdf>

## 1.0 INTRODUCTION

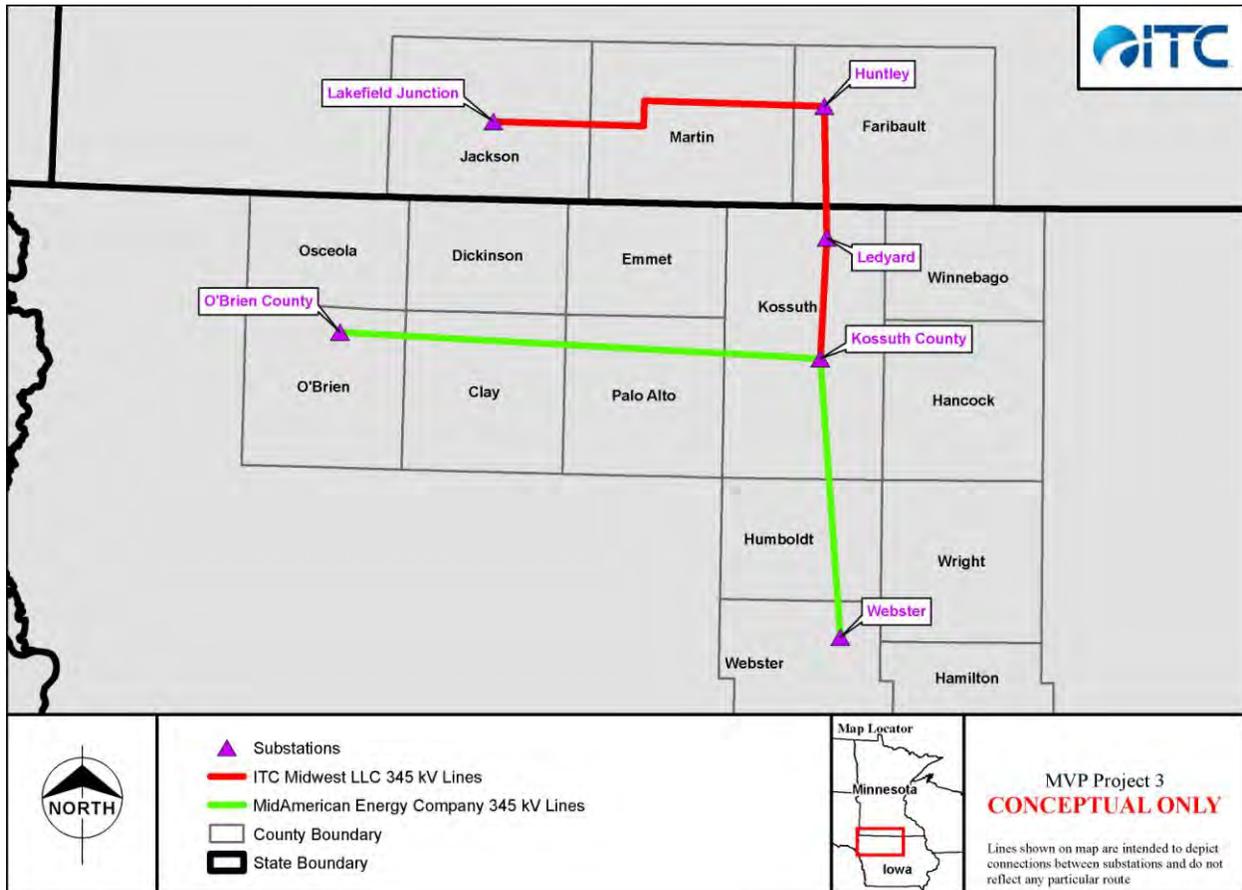
ITC Midwest is applying for a Route Permit to construct the Project (*i.e.*, the Minnesota portion of the Minnesota – Iowa 345 kV Transmission Project). In Minnesota, ITC Midwest proposes to construct a new 345 kV transmission line from the Lakefield Junction Substation to a new Huntley Substation near Winnebago to the Iowa border near Elmore, Minnesota. The Project also includes relocating four existing 161 kV lines and three 69 kV lines that currently terminate at the Winnebago Junction Substation and all associated 161 kV and 69 kV equipment from the Substation to the new Huntley Substation. The Project, as proposed, is approximately 75 miles long. From the Iowa border, the Minnesota – Iowa 345 kV Transmission Project will continue south to connect to a new ITC Midwest Ledyard Substation located near Ledyard, Iowa, and then on to a new Kossuth County Substation to be located near Burt, Iowa. The Kossuth County Substation will be constructed and owned by MidAmerican Energy. Approximately 25 miles of 345 kV transmission line will be constructed by ITC Midwest in Iowa as part of the Minnesota – Iowa 345 kV Transmission Project.

The proposed facilities in Minnesota and Iowa were studied and approved as part of the MISO MVP portfolio. The Project is a portion of what was designated as Project 3 by MISO in the MVP portfolio. Project 3 includes the Project and the Iowa portion of the Minnesota – Iowa 345 kV Transmission Project that will be constructed and owned by ITC Midwest. Project 3 also includes transmission lines and substation facilities that will be constructed in Iowa and owned by MidAmerican Energy. Project 3 and Project 4 will interconnect at the Ledyard Substation, proposed to be located near Ledyard, Iowa. Project 4 will be constructed to the east of the Ledyard Substation and portions will be owned by ITC Midwest.

As part of Project 3, MidAmerican Energy will construct, from its new Kossuth County Substation near Burt, Iowa, a 345 kV transmission line west to a new O'Brien Substation to be located near Sanborn, Iowa, and a 345 kV transmission line south to its Webster Substation, north of Fort Dodge, Iowa. The Iowa portions of Project 3, as defined in the MVP portfolio, are subject to review and approval by the IUB. The need for the Project and its other required approvals are discussed in more detail in Minnesota Docket No. ET6675/CN-12-1053.

A map showing the conceptual configuration of the Minnesota – Iowa 345 kV Project (the ITC Midwest portion of MVP Project 3) and the MidAmerican Energy portion of MVP Project 3 is provided in **Figure 2**.

Figure 2. MVP Project 3 Conceptual Overview



### 1.1 PROJECT OWNERSHIP

ITC Midwest connects more than 700 communities over almost 54,000 square miles in Iowa, southern Minnesota, northeastern Missouri, and northwestern Illinois. ITC Midwest acquired electric transmission assets previously owned by Alliant Energy’s Interstate Power & Light Co. subsidiary in December 2007 (Docket No. E001/PA-07-540). ITC Midwest owns approximately 6,600 circuit miles of transmission lines and more than 200 transmission substations in Iowa, Minnesota, Illinois, and Missouri. ITC Midwest is a transmission-owning member of MISO and maintains operating locations at Dubuque, Iowa City, and Perry, Iowa; and Albert Lea and Lakefield, Minnesota.

ITC Midwest will be the owner of all facilities proposed in this Application to be constructed in Minnesota with the exception of insulators and conductors for one of the 161 kV transmission lines near the Huntley Substation. Northern States Power Company, doing business as Xcel Energy, owns one 161 kV transmission line proposed to be reconfigured to terminate at the Huntley Substation due to

the decommissioning of the Winnebago Junction Substation as part of this Project. ITC Midwest proposes to enter into a pole sharing agreement and Xcel Energy will own the insulators and conductors for the reconfigured N.B.E.I. – Huntley 161 kV transmission line that will be installed on poles and right-of-way to be owned by ITC Midwest as part of this Project.

## **1.2 PERMITTEE**

ITC Midwest is the requested permittee for the Project. Contact information is available below.

David Grover  
Manager, Regulatory Strategy  
ITC Midwest LLC  
444 Cedar Street, Suite 1020  
St. Paul, MN 55101  
dgrover@itctransco.com  
651.222.1000

## **1.3 CERTIFICATE OF NEED PROCESS**

Minnesota Statutes Section 216B.243 dictates that a Certificate of Need is required for a “large energy facility” as defined in Minnesota Statutes Section 216B.2421. A large energy facility includes “any high-voltage transmission line with a capacity of 200 kilovolts or more and greater than 1,500 feet in length” and “any high-voltage transmission line with a capacity of 100 kilovolts or more with more than ten miles of its length in Minnesota or that crosses a state line.” Minn. Stat. § 216B.2421, subds. 2(2) and 2(3). ITC Midwest filed an application with the Commission on March 22, 2013, for a Certificate of Need to construct the Project in Minnesota. The application is available at Docket No. ET6675/CN-12-1053 (“Certificate of Need Application”).

The Project is needed to enhance regional reliability, increase transmission capacity to support additional generation, including generation to meet renewable energy standards throughout the region, and to remove constraints on the transmission system in southern Minnesota which will enable more efficient and cost-effective delivery of energy. The Project is part of MISO MVP Project 3. MISO is a non-profit Regional Transmission Organization (“RTO”) responsible for the independent planning and operation of the transmission system and wholesale energy market across 11 states and the Canadian province of Manitoba. More detailed information on MISO, the MVP development and

approval process, MVP Project 3, and the need for the Project is available in the Certificate of Need Application (Docket No. ET6675/CN-12-1053).

## 1.4 STATE ROUTING PROCESSES

### 1.4.1 Minnesota

The Power Plant Siting Act (“PPSA”) provides that no person may construct a high voltage transmission line without a route permit from the Commission. Minn. Stat. § 216E.03, subd. 2. The definition of a high voltage transmission line under the PPSA is broader than that under Minnesota Statutes Section 216B.2421. Under the PPSA, a high voltage transmission line includes a transmission line of 100 kV or more and greater than 1,500 feet in length and associated facilities. Minn. Stat. § 216E.01, subd. 4. The 345 kV transmission line and associated facilities, including 161 kV line reconfigurations and 69 kV upgrades, qualify as high voltage transmission lines under the PPSA and, therefore, a route permit is required prior to construction.

A list of all the content requirements for a route permit application and where to find that information in this Application can be found in **Appendix A**.

At least 90 days prior to submitting an application for a route permit, an applicant must provide written notice to local units of government and offer to schedule a preapplication consultation meeting. Minn. Stat. § 216E.03, subds. 3a and 3b. The notices sent to LGUs by ITC Midwest on September 27, 2012, in compliance with this requirement are provided in **Appendix B** and a list of those that requested consultation meetings is provided in **Section 9.1.3**.

Before the Iowa portion of the Minnesota – Iowa 345 kV Transmission Project can be constructed, a franchise from the IUB must be obtained.

### 1.4.2 Iowa

No person may construct, operate, or maintain a proposed electric transmission line in Iowa capable of operating at an electric voltage of 69 kV or more and be greater than a mile in length without first obtaining a separate franchise from the IUB. Iowa Code § 478.1. A franchise from the IUB must be obtained for each county to be traversed by the proposed transmission line route. A person seeking a franchise must first file a detailed petition requesting a franchise for each of the counties to be traversed. Iowa Code § 478.2(1). A petition to the IUB for a franchise must propose one or more routes for the transmission line. Iowa Code

§ 478.3. The Iowa Code requires that transmission lines be routed near and parallel to roads, the rights-of-way of active railroads, or land division lines (section, quarter-section, and quarter-quarter-section lines) wherever practical and reasonable. Iowa Code § 478.18(2). These routes must also not interfere with the use by the public of the highways or streams of the State and must not unnecessarily interfere with the use of any lands by the occupant. Iowa Code § 478.18(2).

Once a franchise petition is filed, the IUB will provide notice of the petition to potentially affected citizens of each county through which the proposed route traverses that provides general information on the contents of the petition, including the lands proposed to be traversed by the route. Iowa Code § 478.5. If the proceeding is heard by an administrative law judge, she/he will issue a proposed decision that can be appealed to the three-member IUB. If the proposed decision is not appealed to the IUB, it becomes the final decision of the IUB.

The IUB may grant a franchise, in whole or in part, and may impose terms, conditions, restrictions, or modifications of location and route, as the IUB deems just and proper. Iowa Code § 478.4. The IUB cannot grant a franchise without expressly finding that the proposed line is necessary to serve a public use and represents a reasonable relationship to an overall plan of transmitting electricity in the public interest. *Id.* The franchise will also provide the petitioner the right of eminent domain if requested in the petition and granted by the IUB to the extent it is found necessary for public use. Iowa Code §§ 478.6 and 478.15.

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