UNITED STATES OF AMERICA
BEFORE THE DEPARTMENT OF ENERGY
OFFICE OF ELECTRICITY DELIVERY AND
ENERGY RELIABILITY

Docket No. PP-412

APPLICATION OF

ITC LAKE ERIE CONNECTOR LLC

FOR A PRESIDENTIAL PERMIT FOR THE

ITC LAKE ERIE CONNECTOR PROJECT

May 29, 2015

In accordance with Executive Order 10485, as amended by Executive Order 12038, ITC Lake Erie Connector LLC hereby applies to the United States Department of Energy for a Presidential Permit authorizing the construction, operation, maintenance, and connection of facilities for the transmission of electric energy at the international border between the United States and Canada. This application is made pursuant to the United States Department of Energy's applicable regulations (10 CFR § 205.320 *et. seq.*).

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Section 1
Information Regarding the Applicant

1.1 Legal Name of Applicant

ITC Lake Erie Connector LLC ("ITC Lake Erie") is the Applicant for this Presidential Permit. ITC Lake Erie is a limited liability corporation organized and existing pursuant to the laws of the State of Delaware. ITC Lake Erie's principal place of business is at 27175 Energy Way, Novi, Michigan 48377.

ITC Lake Erie is a wholly owned subsidiary of ITC Lake Erie Holdings LLC, which in turn is a wholly owned subsidiary of ITC Project Holdings LLC. ITC Project Holdings LLC is a wholly owned subsidiary of ITC Holdings Corp. ("ITC Holdings"), the largest independent transmission owner in the country. ITC Holdings is a Michigan corporation which invests exclusively in the electric power transmission grid to improve electric reliability, facilitate access to renewable and other generation, improve access to power markets, and reduce the overall costs of delivered electric power. As the parent corporation of International Transmission Company d/b/a IT*Transmission*, Michigan Electric Transmission Company, LLC, ITC Midwest LLC, and ITC Great Plains, LLC (collectively, "ITC Operating Subsidiaries"), ITC Holdings has established itself as a premier operator of high voltage transmission systems. The ITC Operating Subsidiaries are independent, stand-alone transmission companies engaged exclusively in the development, ownership, and operation of facilities for the transmission of electric energy in interstate commerce. ITC Holdings' operating companies own, operate and maintain more than 15,400 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 Holdings' operating subsidiaries are members of three Regional Transmission Organizations ("RTOs"): PJM Interconnection, Inc. ("PJM"), the Midcontinent Independent System Operator, Inc. ("MISO"), and the Southwest Power Pool, Inc. ("SPP") Among other things, IT*Transmission* holds Presidential Permit PP-230-4, issued on February 24, 2012, which authorizes it to construct, operate, maintain and connect specified electric transmission facilities at the international border of the United States and Canada in the Detroit, Michigan area.

1.2 Legal Name of All Partners

ITC Lake Erie is the sole applicant for this Presidential Permit.

1.3 Communications and Correspondence

All communications and correspondence regarding this application should be addressed to:

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1.4 Foreign Ownership and Affiliations

Neither ITC Lake Erie nor its transmission lines or appurtenant facilities are owned in whole or in part by a foreign government or directly or indirectly assisted by a foreign government or instrumentality thereof. ITC Lake Erie does not have any agreement pertaining to such ownership by or assistance from any foreign government or instrumentality thereof.

1.5 List of Existing Contracts with Foreign Governments or Foreign Private Concerns Relating to the Purchase, Sale or Delivery of Electric Energy

ITC Lake Erie has no existing contracts with foreign governments or foreign private concerns relating to the purchase, sale or delivery of electric energy.

1.6 Opinion of Counsel

Appendix A of this Application includes an opinion of counsel that the construction, connection, operation or maintenance of the proposed Lake Erie Connector Project is within the corporate power of the applicant and that the applicant has complied with or will comply with all pertinent Federal and State laws.

Appendix A also contains the required officer verification of this Application.

Section 2
Information Regarding the Transmission Lines and Appurtenant Facilities to be Covered by the Presidential Permit

2.1 Project Overview and General Project Description

ITC Lake Erie is proposing to construct and operate the ITC Lake Erie Connector Project ("Project"), an approximately 72.4 mile (116.5 km) 1000 megawatt (MW), +/- 320 kilovolt (kV) high-voltage direct current (HVDC) bi-directional merchant electric transmission line to transmit electricity between the United States and Canada. The line will extend from Haldimand County, Ontario, to Erie County, Pennsylvania and will be the first direct interconnection between the

market of PJM Interconnection, Inc. ("PJM") in the U.S. Mid-Atlantic and Midwest regions and the market of the Independent Electricity System Operator ("IESO") in Ontario, Canada. The purpose of the Project is to facilitate the transfer of electricity, improve reliability, and diversify electric energy supply portfolios for both markets.

As shown in the general area map in Figure 2.1.1, the Project consists of three distinct components: two HVDC converter stations located in Haldimand County, Ontario and Lake Erie County, Pennsylvania, respectively, and an HVDC transmission line connecting the two stations. The transmission line will be buried in the lakebed as it crosses Lake Erie and will be buried underground between the respective shorelines and the converter stations. In addition, in the U.S., 345 kV alternating current (AC) transmission cable will be installed to connect the converter station to the existing transmission grid. The converter stations will include equipment to convert alternating current transmitted on the existing grid to the direct current that will be transmitted by the proposed HVDC line, and vice versa. HVDC technology has been chosen for the Project because it has many advantages over AC technology for long distance power transmission, including increased ability to control power flows and lower transmission line losses.

The U.S. Project facilities that will be covered by the Presidential Permit being sought herein include the portion (approximately 42.5 mi or 68.4 km) of the HVDC line extending from the U.S./Canada border in Lake Erie to the Erie County converter station and the converter station itself (hereinafter the "Erie Converter Station"). The underground 345 kV AC cable connecting the Erie Converter Station to the existing grid at the nearby Erie West Substation owned by Penelec will also be covered by the Permit. The route for this line has not been finalized. Depending on the route ultimately selected, the line will be approximately 1,900 feet to 3,000 feet (579 m to 914 m) in length. The U.S. Project facilities, including the Erie Converter Station, the underground cable system between the shoreline and the converter station, and the underwater cable system under Lake Erie are further described in the following sections, along with general information about installation and construction methods and a discussion of project benefits and need.

A detailed project map, indicating the location of the international crossing, as required by the Department's regulations in 10 C.F.R. § 205.322(b)(2) is presented in Figure 2.1-2.

On September 26, 2014, the Federal Energy Regulatory Commission ("FERC") conditionally authorized ITC Lake Erie to sell transmission rights for this Project at negotiated rates.[1] The order confirms, among other things, that upon completion of the Project, ITC Lake Erie will turn over operational control of the Project to PJM, which will operate the Project in accordance with its FERC-approved Open Access Transmission Tariff.

The estimated total capital cost of the Project, including the proposed facilities in both the U.S. and Canada, is $ 1 billion, and the anticipated Project in-service date is the fourth quarter of 2019. The project schedule may be adjusted due to market conditions as a result of the competitive solicitation process that soon will be conducted for capacity on the line, and/or the timing of the formal engineering design process, or the permitting process.

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[1] *ITC Lake Erie Connector LLC*, 148 FERC ¶ 61,236 (2014). ITC Lake Erie plans to initiate an open solicitation process for the purpose of allocating capacity on the Project later in 2015.

2.2 Project Benefits And Need

The Project will establish the first direct intertie between the PJM and IESO wholesale electricity markets. It will thus enable transmission customers to more efficiently access energy, capacity and renewable energy credit opportunities in both markets, thus increasing diversity of supply and system security and reliability in both. Because power imported to the U.S. through the Project is expected to be largely from renewable or low carbon sources, the Project will also support environmental goals. In addition, the Project will provide substantial tax revenues to state and local authorities during its lifetime, and will provide both construction and operations jobs, thus benefitting local economies. These issues are further addressed in the attached Environmental Report.

2.3 Erie Converter Station Description

2.3.1 General Facility Location and Description, Erie Converter Station

The proposed site location and layout of the Erie Converter Station is shown in Figure 2.2-1 of the Environmental Report attached as Appendix B. The selected location and layout is intended to be close to the existing Penelec Erie West Substation, to avoid wetland effects, and to minimize other environmental and community effects.

An area of approximately 6 acres (2.4 hectares) is required for the Erie Converter Station with its surrounding equipment and access ways. In addition to the area occupied by the station, additional areas will be occupied by related construction period and post-construction stormwater management facilities, and an area will be temporarily disturbed during construction for material laydown and to support construction efforts. The total disturbed area associated with the Erie Converter Station site is approximately 16.3 acres. The Erie Converter Station will have a main building, which will house HVDC converter modules, and a separate service building to contain the control and protection equipment, cooling equipment and auxiliary distribution panels. The HVDC converter modules will convert AC power to DC power, and vice versa, utilizing Insulated Gate Bipolar Transistor (IGBT) technology. The main building (converter hall) will be approximately 370 ft by 110 ft (110 m by 35 m), with a building footprint of 1 acre (0.4 hectares) and a height of approximately 60 ft (18 m) (*See* Environmental Report, Figure 2.2-2). The indoor design of the HVDC converter modules will reduce audible sound outside of the building and protect the equipment from exposure. The primary equipment installed outside of the building is anticipated to include circuit breakers, disconnects, surge arrestors, transformers, cooling equipment, and metering units. The facility also will have an emergency generator. Security fencing will prevent unauthorized access and provide for public safety.

A driveway will provide access to the Erie Converter Station site from nearby roadways. The driveway will be approximately 20 ft (6.1 m) wide, with an approximate maximum 3-foot (0.9 m) shoulder. Culverts will be installed to maintain appropriate drainage of stormwater flows without adverse impact to upstream or downstream properties.

Figure 2.1-1 Proposed Project Route

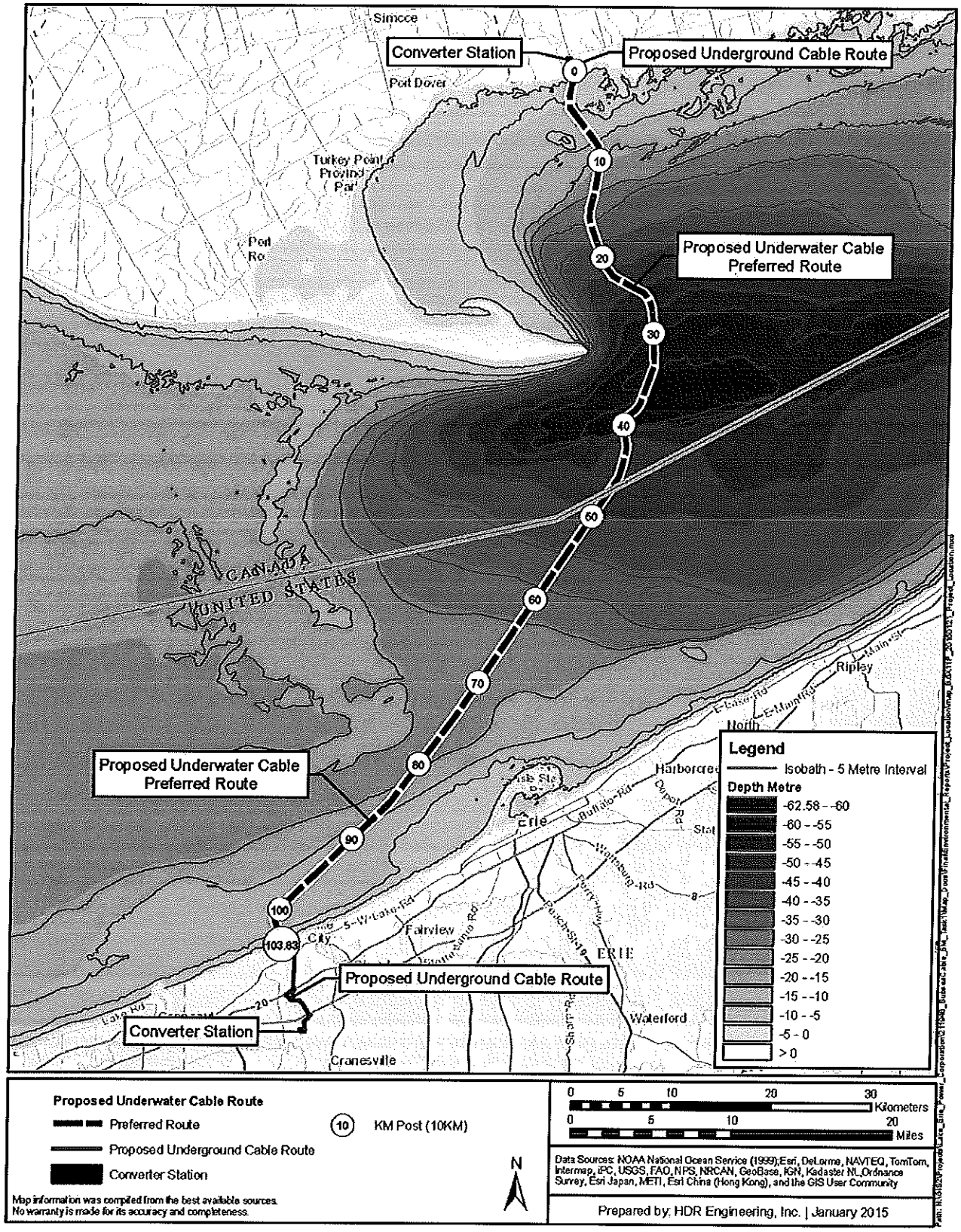
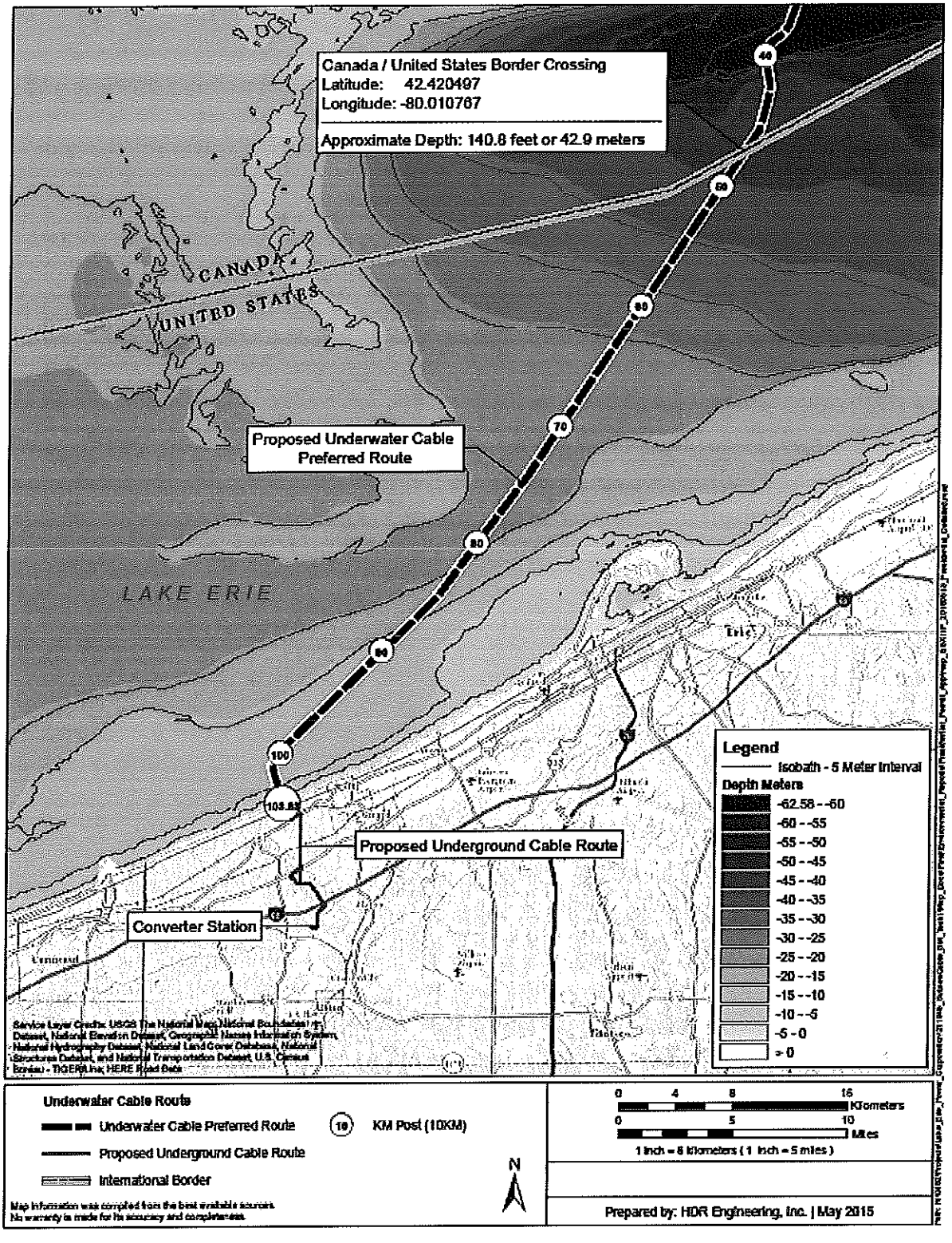


Figure 2.1-2 Detailed Project Map



The Erie Converter Station will interconnect with the existing electrical power system at a point of interconnection (POI) at the nearby existing Penelec Erie West Substation (Figure 2.2-3) through short underground AC cables (discussed further in Section 2.4).

2.3.2 Construction Methods, Erie Converter Station

The Erie Converter Station site will be prepared for staging and laydown activities early in the construction process. Erosion and sedimentation control measures and construction-phase stormwater management best practices will be installed and implemented in accordance with approved erosion and sedimentation control plans, and grubbing and clearing of wooded construction areas will commence. An access roadway will be completed to facilitate equipment deliveries and construction worker movement and parking areas.

When site preparation is completed, the foundation and building construction will commence. Site fencing will be installed to limit access only to construction personnel. The Erie Converter Station will contain buildings, structures, and electrical equipment to be installed on concrete slabs. Construction will include 12 to 18 months of site work and equipment installation, followed by 4 to 6 months of testing and commissioning work inside the converter station buildings.

The AC interconnections with the existing Penelec Erie West Substation will be completed prior to commissioning and testing of the Erie Converter Station. Aerial photographs and conceptual site plans for the station are included in Appendix A of the attached Environmental Report.

2.4 Underground Cable Description

2.4.1 General Facility Location and Description, Underground Cable

The underground cable section (Underground Segment) involves that portion of the HVDC line between the Lake Erie shoreline and the Erie Converter Station, as well as the underground AC cables that will connect the convertor station to the existing Penelec Erie West Substation. Cross sections of the proposed HVDC and AC cables are shown in Figure 2.4-1. The underground HVDC transmission line will consist of two high voltage cables, one positively charged and one negatively charged, along with a fiber optic communications cable, all of which will be underground. The underground cable route will extend approximately 7.1 mi (11.4 km) from the Erie Converter Station site to the Lake Erie landfall, which is located on a private property west of Erie Bluffs State Park. ITC Lake Erie has a purchase option agreement with the landowner for the property at the proposed landfall location. The majority of the proposed transmission cable route between the shoreline and the converter station follows existing road rights of way ("ROWs") in order to minimize environmental disturbance. Conceptual alignment drawings of the proposed Underground Segment between the shoreline and the converter station are included in Appendix A of the attached Environmental Report.

The underground HVDC transmission cables will be constructed with a central copper conductor insulated with extruded solid dielectric polymer rated at +/- 320 kV HVDC. Each cable will be approximately 5 inches (130 mm) in diameter and will weigh approximately 22 pounds per foot (lb/ft) (33.4 kilograms/meter [kg/m]) (see Figure 2.4-1). They will be installed

along with a fiber optic communications cable in a concrete encased PVC duct bank in an excavated trench with a minimum 3 ft (0.9 m) of cover. After installation of the duct bank, the trench will be typically backfilled with the same soils that were originally excavated during construction. In selected areas, low thermal resistivity material, such as well-graded sand, stone dust, or fluidized thermal backfill (controlled density low strength concrete) may be used. A marker tape would then be placed 1 ft to 2 ft (0.3 m to 0.6 m) above the cables in the trench. The top 1 ft to 2 ft (0.3 m to 0.6 m) of the trench will be backfilled to match the surrounding area. A representative cross section of a typical underground duct bank is provided in Figure 2.3-2 of the attached Environmental Report.

Where the duct bank cannot be installed by trenching, such as significant water crossings, railroad crossings and certain highway crossings, the transmission line conduits will be installed by horizontal directional drilling ("HDD") or cased auger boring (Jack & Bore).

As indicated above, the majority of the route of the underground HVDC transmission line lies within existing roadway ROWs. Limited portions of the route will be located on private property. The cables will be installed outside the improved roadway surface, or under the pavement where necessary or appropriate. ITC Lake Erie will coordinate the exact locations of the cables with Pennsylvania Department of Transportation (PennDOT) and the affected townships. Construction activities, including traffic management and paving restoration will be coordinated with the PennDOT, the respective townships, and adjacent property owners, as appropriate, to minimize traffic disruption during installation. Construction activity will generally be conducted during daytime hours, unless night construction is requested by state or local officials to avoid significant impacts to traffic or equipment deliveries. ITC Lake Erie will coordinate surface restoration procedures with PennDOT, the appropriate townships and (as applicable) the owners of private lands on which the underground transmission line is located.

The interconnection to the existing PJM grid will be by a 345 kV AC underground transmission line connecting the Erie Convertor Station to the Penelec Erie West Substation. As noted above, the final route for the AC cable has not yet been determined, but will range from approximately 1,900 ft to 3,000 ft (579 m to 914 m) in length. This line will consist of six 345 kV AC cables with solid dielectric insulation similar to the +/- 320 kV HVDC cables. The cables will be placed underground at an approximate depth of 3 ft to 6 ft (1 m to 2 m).

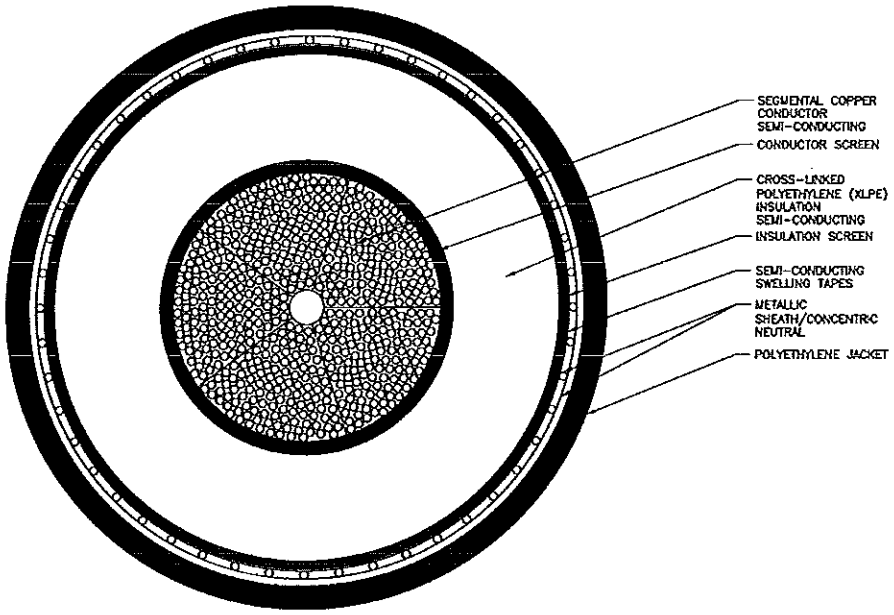
2.4.2 Construction Methods, Underground Cable

Proposed construction methods, erosion and sediment control plans, and wetland and stream crossing methods are summarized in the following sections.

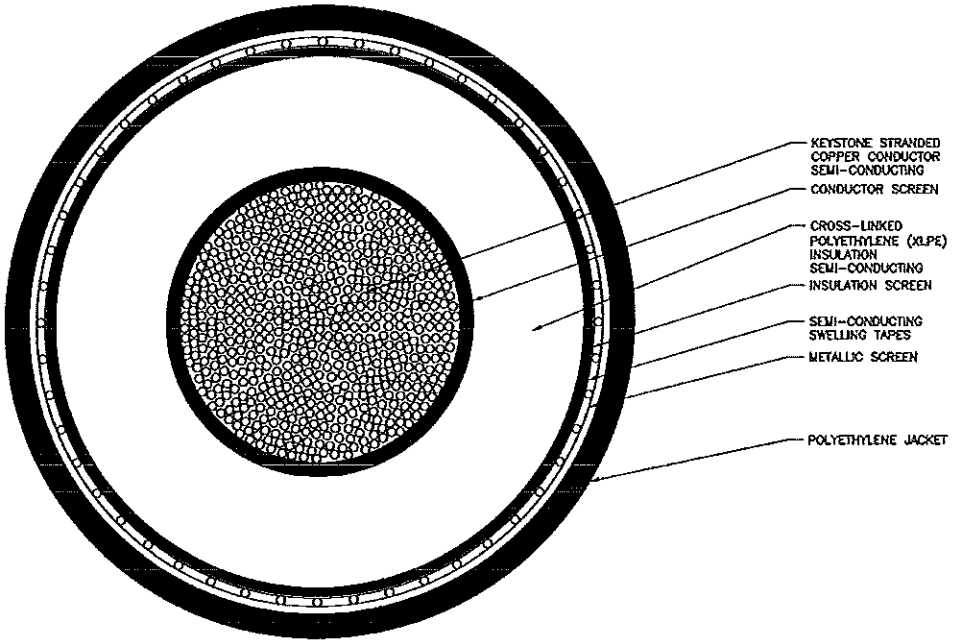
2.4.2.1 Construction Access and Temporary Workspace

The temporary construction work areas for cable installation will be primarily in roadway ROWs. A typical temporary construction area in the roadway ROW will be approximately 24 ft to 38 ft (7 m to 12 m) wide. Transportation of construction equipment and materials on roads that have been posted with weight or other restrictions will be coordinated with PennDOT and applicable local townships and law enforcement authorities depending on the location. Appropriate permits will be obtained for transportation of equipment and materials subject to width or weight restrictions.

Figure 2.4-1 Typical AC (top) and HVDC (bottom) Transmission Cable Cross Sections



DETAIL A
345KV WEST ERIE INTERCONNECTION
SCALE: NTS



DETAIL D
± 320KV DC 2500 SQ MM LAND CABLE
SCALE: NTS

Excavated soils will be temporarily stockpiled within the worksite, or transported to an off-site location if onsite storage is not possible, with topsoil placed separately from excavated subsoils. At wetland and stream crossings, soil stockpiles will be stored in temporary upland workspaces away from the wetland area. Prior to construction, erosion and sedimentation control measures and best management practices ("BMPs") will be implemented in accordance with approved plans and permits along wetland boundaries in these areas to prevent the movement of sediment from work areas and stockpile areas along the roadway.

It is anticipated that most of the work along roadways will be performed with one lane of the road closed over a work area length of a few hundred feet. The work area location will move as various sections are completed. There may be more than one work area if simultaneous crews are to be used. Traffic control will be provided in accordance with PennDOT standards.

In some instances it may be necessary to close the work area road to through traffic. Such closures would be undertaken in coordination with and the approval of the respective township (and PennDOT if applicable). Although through traffic will be limited in such cases, the contractor will be required to provide access to private driveways at all times.

Temporary laydown areas will be required during installation. These areas will be utilized for the storage of equipment and materials. No grading or subsurface impacts are expected in these areas, though aggregate or crushed rock would be added. Five lay down areas have been identified (Table 2.4-1) and are shown on Project layout drawings in Appendix A of the attached Environmental Report.

Table 2.4-1 Laydown areas for the Project

Laydown area	Location	Size (ac)
1	US Rte 5 and private access way	1.3
2	N-S Railroad and Townline Rd.	3.6
3	US Rte 20 and Cross Station Rd.	0.8
4	Springfield Rd and convergence of Option 1 and 1A	5.8
5	Springfield Rd. and I-90	6.3
Total		17.8

2.4.2.2 Cable Installation

Typical excavation equipment will be used to dig the trench (e.g., excavators, backhoes, loaders). A concrete-encased PVC duct bank will be installed in the trench and the cable will pulled into the duct bank. Due to weight restrictions for over-road hauling of cable reels, the underground cable will be delivered and installed in lengths of not greater than 2,500 ft (762 m). Cables will be spliced together in pre-cast concrete splice vaults, which will be installed and backfilled in advance of jointing operations to reduce the duration of open excavations. These vaults will be approximately 9 ft (2.7 m) wide by 30 ft (9.1 m) long by 9 ft (2.7 m) deep, and will be installed with a minimum of 1.5 ft (0.5 m) of cover. Splicing vaults typically include permanent access by a pair of 3-foot (0.9 m) manhole access risers. Vaults will be designed for full road traffic loadings.

Approximately 16 splice vaults would be required on the U.S. side. The duct bank is constructed first by excavating a trench, installing conduit on plastic spacers, and encasing the conduit with thermally acceptable concrete. After the concrete has set, the trench will be backfilled and restoration will be initiated within a few days. After the full duct bank segment (vault to vault) is complete, the cable will be pulled into the duct bank and spliced to the next cable segment. The standard construction sequence is summarized as follows:

- Initial clearing operations (as necessary) and install stormwater and erosion control measures.
- Excavate trench, install conduit and spacers.
- Backfill the trench 24 hours after concrete encasement and install marking tape or tracer tape.
- Stabilize and restore areas over duct bank sections.
- Install splicing pits or vaults.
- Pull cable into duct bank segment.
- Splice cable to adjacent cable segments.
- Restore construction area to original conditions and install above grade markers indicating the location of underground HVDC transmission cables.

Installation of the underground cables, both HVDC and AC, will take approximately 6 months.

2.4.2.3 Wetland and Stream Crossing Methods

General procedures in locations to protect wetland and stream resources during construction will include:

- Complying with permit conditions received from the U.S. Army Corps of Engineers (USACE), Pennsylvania Department of Environmental Protection (PADEP) and other applicable agencies in stream crossing and wetland areas.
- Maintenance of narrow workspace corridors, and minimizing intrusion into wetland areas.
- Stockpiling topsoil from wetland areas separately and replacing as cover in wetland areas, in order to preserve seed stock and provide the best success for wetland restoration.

- Completing work through wetland areas carefully but quickly, with restoration following as soon as is practicable.
- No assembly area, temporary equipment, or materials storage areas will be allowed within 50 ft (15 m) of the top of bank of a stream or edge of a wetland, except for materials and equipment associated with an excavation that will be within 50 feet of the stream or wetland. A sediment barrier will be located between the material and the stream or wetland.
- No vehicle repair or vehicle fueling will occur within 100 ft (30 m) of a stream or wetland area.

ITC Lake Erie will follow applicable soil erosion control and dewatering requirements, which will be detailed in an erosion and sedimentation control plan and NPDES stormwater permit, which will include the following typical methods. Water removed from excavated trenches will be discharged to an upland vegetated area off the roadway, through a "pumped water filter bag" surrounded by a compost filter sock ring that will overflow into existing roadway ditches or upland areas. There will be no direct discharges to wetlands or water bodies. Appropriate spill prevention and containment measures for hydraulic fluids or fuels will be applied during construction. Construction crews will have spill response absorbent pads and spill response procedures in construction vehicles. A Preparedness Prevention Contingency Plan will be developed for materials handling and implemented during construction

Except where expressly prescribed by permit, spoil from trench excavation will be stockpiled a minimum of 50 ft (15 m) from wetland edges or streams, and spoil piles will be protected by appropriate erosion and sedimentation control BMPs where the potential exists for sediment transport to wetlands or streams. Disturbed upland areas will be re-graded to pre-existing contours, and re-seeded with an upland conservation seed or appropriate mix to reduce erosion and sedimentation potential.

2.4.2.4 Jack & Bore Construction Method

Trenchless construction methods will be used at the landfall location in Erie County where the transmission line transitions from the underwater segment to the underground segment, and may be utilized in other locations where open trenching is less appropriate due to either physical constraints (e.g., roadway or railroad crossings), or environmental constraints (e.g., certain wetland and stream crossings). There are two types of trenchless installation methods that could be used in construction of the Project: Jack & Bore and HDD methods. The equipment used and type of operation would vary depending on the length and depth of the installation.

Jack & Bore (open-face, cased auger borings) will typically be used for crossings less than 300 ft (91 m) with uniform, cohesive soils. An elevated water table can result in the need to dewater the jacking and receiving pits. Closed face casing installation methods such as micro-tunneling may be required in certain areas with high water tables and non-cohesive soils to prevent running soil conditions.

Jack & Bore installations begin by excavating a launching and receiving pit on either side of an obstacle. The launching pit is typically 10 ft to 15 ft (3 m to 4.5 m) wide and 30 ft to 40 ft (9 m to 12 m) long. The receiving pit is typically about 10 feet wide by 10 feet long. Once the

excavations are open, a hydraulic ram is used to push a steel casing through soil under the obstacle while removing soil inside the casing with an auger. A cutting head on the casing opens the hole; the auger is not advanced ahead of the casing or used for boring. Depending on installation conditions, the steel casing will either be left in place or pushed out by a replacement casing of reinforced concrete pipe or other material. Once the permanent casing is in place, PVC conduits are installed into the casing on rolling spacers. The annular space between the conduits and the casing is filled using a thermally acceptable free-flowing grout before tying the casing installation into the open cut sections.

2.4.2.5 Horizontal Directional Drilling Construction Method

HDD is a method for installing conduit ducts for cable or wire line products, as well as for installing pipelines. The technology avoids excavating a trench and is commonly used for a variety of situations, including crossing lakes, wetlands, rivers, and roads and railways. HDD will be used on this Project for longer crossings where open trenching is less appropriate, with the largest, most complex HDD operation occurring at the transition points between land and Lake Erie. HDD will allow for the avoidance or minimization of disturbance to the Lake Erie shoreline and near shore areas.

HDD is accomplished by using a guided drill rig to open a pilot bore, then making multiple reaming passes of the pilot bore to open the hole to the diameter required to install the pipe bundle into the borehole, typically 50 percent larger than the pipe bundle. Drilling fluid will primarily consist of a combination of water and bentonite clay (a naturally occurring mineral that is nontoxic). In some instances, additives to improve viscosity, improve hole integrity, and prevent or reduce potential fluid release may be added during drilling operations. These additives may include clays, organic fibers, modified starches and non-reactive polymers. No petroleum-based additives will be used. All potential additives will be identified in the drilling plan submitted to and approved by the applicable environmental agencies.

Once the borehole is open and stable, a bundle of fused or welded pipe is pulled into the borehole. For this Project, the pipe will be high density polyethylene heat fused into a single length before being pulled into the borehole.

The equipment used in an HDD operation includes an HDD drilling rig system, a drilling fluid collection and recirculation system, and associated support equipment. For each proposed HDD location, three separate drill holes will be required, one for each cable, and one for the fiber-optic cable. For the shoreline crossings, a single 14-inch (36-cm) to 18-inch (46-cm) pipe would be installed in each borehole as a casing pipe. Smaller 10-inch (25-cm) to 12-inch (30-cm) pipe would be used for HDD installations on land, which have smaller diameter cables. A minimum spacing of approximately 33 ft (10 m) between the shoreline borehole paths and 15 feet (4.6 m) between land borehole paths would be required to minimize interference.

The shoreline HDD operation will occur in a temporarily cleared work area of approximately 100 ft by 150 ft (23 m by 46 m) for large HDD operations; the work area for small HDD operations will be about 15 feet wide by 50 feet long such that it can be done alongside a roadway. Setup for the HDD boring in most cases will be located a minimum of 50 ft (15 m) from stream and wetland areas. Boring equipment setups will not be staged in wetlands. Generally, small (6 ft [1.8 m] x 6 ft [1.8 m] x 4 ft [1.2 m]) sump pits may be

excavated at the drill entry and exit points to accumulate drilling fluid and associated drill spoil to be pumped into tank trucks.

The HDD contractor for each installation will provide a Drilling Fluid Management Plan and Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan. The Drilling Fluid Management Plan will identify the fluid handling, recovery, recycling and disposal procedures and equipment. The Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan will identify procedures for monitoring for fluid release, containing a fluid release if it occurs and cleaning up any fluid losses. Prior to construction, meetings will be held with the authorizing agencies to review the plans.

All drilling fluid solids (bentonite clay) and cuttings will be contained and settled in tanks or sediment traps and subsequently disposed of at an approved off-site facility. Water used in the drilling fluid will be recovered and reused after filtering out cuttings. When the HDD is complete, water used in drilling fluid will be disposed of with the solids at an approved facility. Excavated soils will be temporarily stored on site during construction and will be used to restore the site to its previous grade once the drilling process has been completed, or transported for disposal/reuse at an approved location. The disturbed areas will be restored to their original grade and seeded with an appropriate seed mix for natural revegetation.

2.5 Underwater Cable Description

2.5.1 General Facility Location and Description, Underwater Cable

The underwater cable route (referred to as Lake Segment or Underwater Segment), for the +/-320 kV HVDC transmission line would extend approximately 35.4 mi (57.0 km) within Lake Erie from the U.S./Canada border to the proposed landfall location in Erie County (see Figure 2.1-1). A 1,640 ft (500 m) route corridor has been identified for the underwater HVDC cable route (250 m on either side of the centerline shown on Figure 2.1-1). The cable route will be refined to a corridor width of approximately 328 ft (100 m) through additional in-water surveys that are planned to occur during the summer of 2015. As noted in the previous section, the HVDC transmission cables would transition from Lake Erie through the landfall location via borings through bedrock installed by HDD methods. The underwater transmission cables are generally sited to maximize the system's operational reliability while minimizing the costs and potential environmental impacts caused during construction, operation, and maintenance.

The underwater HVDC transmission cables will be solid dielectric extruded insulated HVDC cables (Figure 2.4-1), which will be deployed with a fiber optic cable. An extruded lead moisture barrier with a polyethylene jacket will be used to protect the insulation system. To protect the cable and provide additional strength during installation, an armoring system consisting of one layer of galvanized wires with bedding layers will be installed over the polyethylene jacket. Each cable will be approximately 6 in (15.2 cm) in diameter and weigh approximately 41.9 lb/ft (62.4 kg/m). The two underwater HVDC transmission cables and the fiber optic cable will be bundled together during installation to minimize disturbance and external electrical and magnetic fields.

In most areas, the cables will be buried in the lakebed to protect the cables from damage due to shipping traffic, fishing activity, and ice scour. Typical burial depth in material suitable

for jet plowing is 6 ft (2 m). No pipeline crossings have been identified for the proposed transmission cable route in U.S. waters.

A small number of joints will be required in the underwater HVDC transmission cable system. Cable joints for the underwater cables are slightly larger than the cables themselves. Splices typically cannot be buried and will require protection in the form of articulated concrete mattresses or other means.

2.5.2 Construction Methods, Underwater Cable

Installation engineering and marine route surveys are being performed to evaluate the route position, in order to avoid shipwrecks, existing pipelines or other utilities to the extent possible and to refine construction methods. The general sequence for installing the underwater HVDC transmission cables will be as follows:

- Install HDD conduit at shoreline crossings;
- Perform pre-lay grapnel run; and
- Install cable.

2.5.2.1 Install HDD Conduit at Shoreline Crossings

The crossing from the shore into Lake Erie in the U.S. will be completed in the first year of construction by three separate HDD bores, one bore for each HVDC cable and one bore for the fiber optic cable. It is currently estimated that the HDD will exit into the lake approximately 2,000 ft (600 m) from shore, at a water depth of approximately 18 ft (5.4 meters). It is expected that the distance between the separate bores at the exit point will be approximately 33 ft (10 m). This will be verified following detailed survey and engineering.

The rocky and steep nature of the bluffs at the shoreline will require an HDD operation with special attention to preventing fluid releases into the nearshore area. Prior to drilling operations an offshore sump pit will be excavated (in rock); the pit will be approximately 20 x 10 x 7 feet (6.1 x 3.1 x 2.1 meters) and is designed such that it could contain approximately 10,000 gallons of bentonite if there was an unexpected discharge. Since bentonite clay has a specific gravity greater than water, any bentonite that is discharged will be contained at the bottom of the sump. Divers and video cameras will monitor the sump, and, if any bentonite is discharged, divers will employ a submersible pump to vacuum the bentonite slurry into tanks that will be located on the support barge. The use of this system minimizes the amount of disposal required and minimizes potential impacts to water quality from the release of bentonite. The drilling mud will then be returned to shore in the tanks for upland disposal.

While the borehole is being completed, the conduit pipe will be assembled on land, then floated out onto the lake, and pulled into the borehole from the water to the land side terminus of the HDD bore. The method used for this installation will depend on topography and geotechnical investigation. If the soils are too hard for forward reaming tools, a method that allows access from both sides may be required.

HDD has the potential for an inadvertent return, which occurs when drilling fluids (i.e. bentonite clay) leak through an unidentified weakness or fissure in the soil. This could cause drilling fluid to become suspended or dispersed in the lake or on the land surface. An

Inadvertent Fluid Release Prevention, Monitoring, and Contingency Plan will be developed for each location, describing how to monitor for, identify, contain, and remediate releases of drilling fluid. Descriptions of drilling fluid (e.g., material safety data sheets) will also be included in the plan. Among other elements, the monitoring program will consist of visual observations in the surface water at the targeted drill exit point and monitoring of the drilling fluid volume and pressure within the borehole. Visual observations of drilling fluid on the surface or in nearby water, or excessive loss of volume or pressure in the borehole would trigger response actions by the HDD operator, including halting drilling activities and initiating recovery of released bentonite clay.

At the land side terminus of the HDD bore, a pit will be excavated to contain any drilling fluids for later pumping out and disposal, and to act as a start point for the cable burial. The HDD installation of the 3 bores (2 for the power cables and 1 for the fiber optic cable) will take approximately 3 months. Clear access to the end of the bore is required during the HDD operation, together with calm lake waters and low wind speeds. Therefore, the lakeshore HDD is required to occur during summer between June and September.

2.5.2.2 Perform Pre-Lay Grapnel Run

The purpose of a pre-lay grapnel run is to locate any immovable obstructions, such as large boulders, and to remove any smaller obstructions such as fishing gear, rocks or wood. During this process, which will be conducted in the second year of construction, a grapnel chain will be towed along the lake bottom by a self-propelled barge. The grapnel will penetrate the lake bottom to a depth of about 3.3 ft (1 m), depending on sediment type. If an obstacle is encountered, the barge will stop, and send a diver to the bottom, and the obstacle will be brought to the surface for disposal. Debris will be disposed of at an upland facility. If an object is too large, or not movable, the location will be recorded and the route modified to avoid the obstacle during the cable installation.

2.5.2.3 Install Cable

At the Erie County landfall, bedrock is either exposed or very close to the surface for a substantial distance out to deeper water (about one mile). In this nearshore area, depending on the final geology, a trench may be excavated in the bedrock which is primarily shale, from the exit of the HDD bore to the softer lake bed material where jet plow burial can be utilized. This trench depth would be approximately 6 ft (1.8 m) to grade which includes the bedrock, mud, and silt covering; the width would be about 4 ft (1.2 m). Some low level blasting will be necessary in this bedrock area. It is expected that a barge mounted drill will drill 4 inch blast holes to a depth of 4 ft below planned excavation grade. The holes will be packed with low level Hydromite emulsion explosive and detonated. The blasted rock will be removed by a barge mounted excavator and side cast. The trench will be bedded and backfilled with a sand and gravel mixture originating from an on-land source. Drilled and excavated material will be side cast on the lake bottom.

Figure 2.5-1 Photograph of a Typical Jet Plow

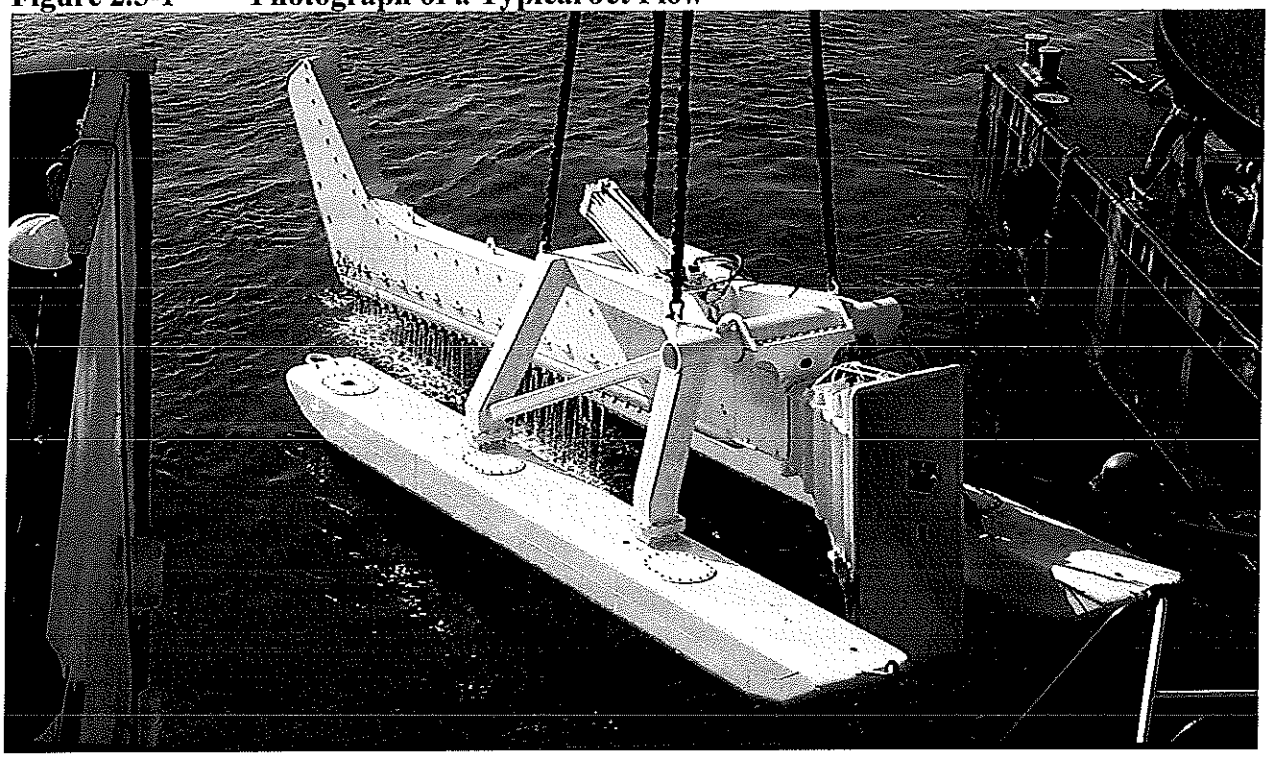
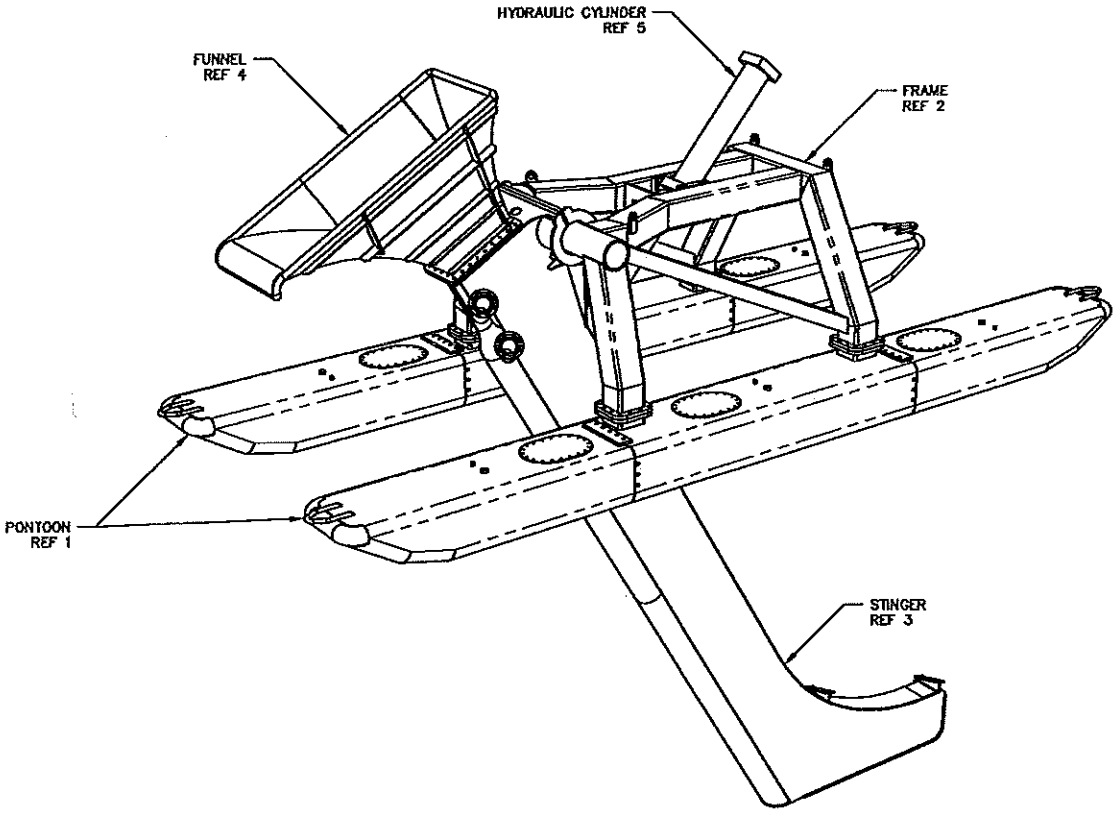


Figure 2.5-2 Diagram of a Typical Jet Plow



Beyond the nearer shore areas underlain by shallow bedrock, installation of the transmission cables will be conducted by the use of a towed jet plow. This is a very common technique for burying submarine cables and uses the combination of a plow shear and high pressure water jets to fluidize a trench in the lakebed (see Figures 2.5-1 and 2.5-2). The installation process would be conducted using a dynamically positioned vessel and towed plow device that simultaneously lays and buries the underwater transmission cables in a trench.

No utility, pipeline, or other submerged infrastructure crossings have been identified at this time along the U.S. portion of the Project's proposed underwater cable corridor.

Cable laying is a continuous procedure. The majority of the material required for the cable installation will be transported and stored on the installation vessel, although it cannot carry enough cable to complete the entire route. A cable transport barge will therefore be used to carry the rest of the cable. In the unlikely event that the cable installation must be abandoned due to extreme weather conditions, the cable will either be surfaced laid along the route, or in extreme cases, the cable will be cut. Following return of appropriate weather conditions, the cable will then be retrieved, spliced as necessary, and the installation process will continue.

The cable installation in the U.S. and Canadian waters will occur over a two year period. In the first year, the HDD and bedrock trenching will be conducted. During the second year, the pre-lay grapnel run and cable installation will occur, including jet plowing in soft sediments. These activities are expected to occur between May and November each year. Jet plowing will proceed at about 0.9 – 1.2 miles per day (1.5 – 2.0 km/day).

2.6 Transmission System Operating and Design Features

The following sections outline general information about proposed system operation, the protective measures included in the cable system design, and information regarding repair measures that will be undertaken if the cable system sustains damage.

2.6.1 System Operation

The Project will be operated in accordance with the established engineering and technical criteria of the IESO and PJM as well as the mandatory Reliability Standards of the North American Electric Reliability Corporation ("NERC"). Bulk power system Project facilities, as identified under the NERC "Statement of Compliance Registry Criteria – Revision 5.1," Appendix 5B, dated July 1, 2014, in the U.S. fall within the ReliabilityFirst Corporation region. Project facilities in Canada fall within the NERC region governed by the Northeast Power Coordinating Council ("NPCC"). ITC Lake Erie will comply with applicable NERC Reliability Standards, as well as applicable Regional Reliability Standards established by ReliabilityFirst and NPCC.

In the U.S., the Project will be placed under the operational control of PJM. Market rules established by these system operators will govern transactions utilizing Project facilities. Coordination between the IESO and PJM will determine the direction and quantity of electricity flow through the Project. Because the Project is a DC facility, PJM can control energy flow over the Project, matching operational and commercial decisions while eliminating the possibility of any unintended power flows.

2.6.2 Electromagnetic Compatibility Limit

The Erie Converter Station will also be designed in accordance with the applicable standards for Electromagnetic Compatibility Limits and will not exceed the design criterion for interference levels. No operational impacts on communication systems would be expected because the transmission cables would not create induced voltages or currents that could impact communications equipment such as marine radios, remote telephones, and cellular telephones. The transmission cables will be designed with outer metal layers and would not create an external electric field. Insulated cables do not have corona discharge and are not independent sources of radio, telephone, or television interference.

2.6.3 Relay Protection

Both the AC and HVDC cable systems will be protected by high-speed protection systems at the converter station. Protection of the AC interconnection facilities will be designed in accordance with the requirements of the interconnected utility.

2.6.4 Damage Repair

While it is not expected that the cable would be damaged, since it will be armored and will be underground or in the lakebed for its entire length, it is possible that over the expected minimum 30-year lifespan of the Project the transmission cables could be damaged, either by human activity or natural processes. Before operation of the Project begins, an Emergency Repair and Response Plan ("ERRP") will be prepared to identify procedures and contractors necessary to perform maintenance and emergency repairs. The typical procedure for repair of a failure within the underwater and underground portions of the Project route is as follows:

- Underwater Transmission Cable Repair - In the event underwater cable repair is required, the location of the problem would be identified and crews of qualified repair personnel would be dispatched to the work location. The damaged portion of the cable would first be cut underwater, and a portion of the transmission cable would be raised to the surface. A new cable section would be spliced in place by specialized jointing personnel. Once repairs are completed, the transmission cable would be laid back onto the lakebed and reburied using a water jetting device or covered with concrete mattresses. This repair would result in an additional length of cable that would be placed on the lakebed, with the excess cable forming a U-shaped loop (bight) to the side of the original cable alignment. The additional width of the loop (perpendicular to the original cable alignment) would be approximately equal to the water depth at the repair location.

- Underground Transmission Cable Repair - In the event underground transmission cable repair is required, the location of the problem would be identified and excavated, qualified personnel would remove the damaged portion of the cables, and a new cable section would be spliced in. Once repairs are completed, the transmission cable and splices would be reburied.

The time required to repair a damaged cable will vary due to such factors as the nature and the amount of damage, the location in the lake, and the weather conditions. If the damage

occurs when the lake is frozen, an icebreaker may be necessary to move some of the ice, or alternately, it may be necessary to wait for the ice to melt.

2.7 Project Schedule

Project construction is anticipated to begin after issuance of all required construction permits in the second quarter of 2017 and will take approximately two and one-half years to complete, with an anticipated in-service date in the fourth quarter 2019. The project schedule may be adjusted due to market conditions as a result of the competitive solicitation process that will soon be conducted for capacity on the line, and/or the timing of the formal engineering design process, and/or the permitting process.

The following provides a description of the major phases of the Project's development:

- Consultation, Approvals and Permitting
  - The first phase of the Project commenced in 2013. ITC Lake Erie has consulted extensively with agencies, Aboriginal groups, the public and other stakeholders during this period and will continue to do so as appropriate through the permitting process. Section 4.5 below provides further details regarding the consultation process.
  - Details regarding the permits and approvals for the Project are presented in Section 4 below.

- Design and Engineering
  - The second phase will include completion of System/Interaction Studies, engineering and main components design.
  - The design and engineering phase is currently scheduled from approximately 3rd quarter 2017 to 1st quarter 2019.

- Converter Station Installation (Haldimand and Erie County Converter Stations)
  - The scheduling of the third phase is dependent on the receipt of the required approvals and permits and the manufacturing of the Converter Station components.
  - Civil design and civil works would be undertaken from 2nd quarter 2018 to 1st quarter 2019.
  - The installation of Converter Station equipment is scheduled from 4th quarter 2018 to 4th quarter 2019.

- AC and HVDC Cables Installation
  - The HVDC cable installation in Lake Erie must be scheduled for the spring or summer when Lake Erie is ice-free and weather conditions are likely to be optimal.
  - The manufacturing of cables and joints is anticipated to occur from 2nd quarter 2017 to 4th quarter 2018.
  - Preparatory work (construct infrastructure, route clearances, and crossings) is scheduled from 2nd quarter 2017 to 1st quarter 2019.
  - The installation of terrestrial (AC and HVDC) cables and submarine (HVDC) cables is scheduled from the 2nd to 3rd quarter 2019.

- Commissioning
  - Currently projected for the 4th quarter 2019.

- Operation and Maintenance
  - The Project has a minimum 30-year design life, but may operate longer. The Project has been designed to require minimal/infrequent maintenance. A maintenance schedule will be developed as part of detailed design.

- Decommissioning, abandonment and site reclamation.
  - The Project's anticipated decommissioning is approximately 30 years or more following commissioning (i.e., 2048).
  - The replacement of Converter Station components would extend the operating life of the Project.
  -

Table 2.7-1 below shows major elements of the current project schedule:

Table 2.7-1 ITC Lake Erie Connector Project Schedule

Canada National Energy Board (NEB) Certificate Application Filing	May 2015
U.S. Presidential Permit Application Filing	May 2015
U.S. Army Corps of Engineers/Pennsylvania Dept. of Environmental Protection Joint Application Filing	Q3 2015
PJM Facilities Study	Q1 2016
PJM Interconnection Services Agreement and Interconnection Construction Service Agreement	Q2 2016
NEB Approval	Q2 2016
DOE Approval	Q3 2016
All required pre-construction permits and approvals	Q2 2017
Design and Engineering Phase	Q3 2017 – Q1 2019
Converter Stations Civil Works	Q2 2018 – Q1 2019
Converter Stations Equipment Installation and Testing	Q4 2018 – Q4 2019
AC and HVDC (Terrestrial and Submarine) Installation	Q2 – Q3 2019
Commercial Operation	Q4 2019

2.8 Bulk Power System Information

The following is a brief overview of the analyzed and expected impacts of the Project on the bulk power system. Additional information responsive to the requirements of the DOE regulations in 10 C.F.R. § 205.322(b)(3) regarding power transfer capability, system power flow plots and the relay protection scheme will be provided when it is available as a supplement to this Application.

2.8.1 Overview

The Project will connect the transmission system owned and operated by Penelec at the Erie West 345 kV substation in Pennsylvania with the transmission system owned and operated by Hydro One at the Nanticoke TS switchyard in Ontario. The interconnection of the Project with these stations will be undertaken together with Penelec and Hydro One respectively, subject to their customer impact and approvals processes.

The Project will be designed to provide a target maximum transfer capability of 1,000 MW for either export or import under summer and winter conditions. As a part of the bulk electric system, the Project has and will continue to undergo rigorous evaluation by PJM and the IESO through their respective interconnection processes to assess the potential impacts of this new connection on the reliability of the integrated power system. These studies will also identify any changes to the connection proposal or enhancements to the existing AC transmission systems required to mitigate any potential adverse impacts. As a practical matter, the PJM and IESO interconnection processes ensure that the Project as installed will not have any such adverse impacts.

ITC Lake Erie has submitted the Project to both PJM and the IESO for review. The results of the review are as follows:

- **PJM System Impact Study Report** ("SIS") for Merchant Transmission Request Queue Position #Y3-092 dated December 2014 and updated January 2015[2] assessed 1,000 MW of injection and withdrawal rights at the Erie West 345 kV substation. The PJM SIS study concluded that there were no network impacts associated with transient system stability, but that certain PJM network upgrades will be necessary to mitigate potential thermal, voltage and short circuit impacts.
- **IESO System Impact Analysis ("SIA")**[3] assessed 1,000 MW of injection and withdrawal at the Nanticoke TS switchyard and concluded "...that the [P]roject, subject to any requirements identified in this Addendum report and the requirements specified in original SIA, is expected to have no material adverse impact on the reliability of the integrated power system. Thus, it is recommended that a *Notification of Conditional Approval for Connection* be re-issued for the [P]roject subject to the implementation of the requirements outlined in the reports."

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[2] http://www.pjm.com/pub/planning/project-queues/merch-impact-studies/y3092_imp.pdf.
[3] The initial SIA is available at:
http://www.ieso.ca/Pages/Participate/Connection-Assessments/Application-Status.aspx.

2.8.2 Expected System Transfer Capability

The Project will be a fully controlled HVDC link; therefore, existing interconnection contingencies will not limit the amount of active power that flows over the Project in either direction. In addition, the incorporation of the Project will not result in a significant impact on the existing interconnection flows. Accordingly, the incorporation of the Project will result in an increase in Ontario and PJM overall import/export capability by the full 1,000 MW capability of the Project tie-line under both summer and winter conditions.

2.8.3 Line Design for Minimizing Television and/or Radio Interference

As stated in section 2.6.2 above, the Erie Converter Station will also be designed in accordance with the applicable standards for Electromagnetic Compatibility Limits and will not exceed the design criteria for interference levels. No operational impacts on communication systems are expected because the transmission cables will not create induced voltages or currents that could impact communications equipment such as marine radios, remote telephones, and cellular telephones. The transmission cables will be designed with outer metal layers and will not create an external electric field. Insulated cables do not have corona discharge and are not independent sources of radio, telephone, or television interference.

2.8.4 Relay Protection Scheme

As stated in section 2.6.3 above, both the AC and HVDC cable systems will be protected by high-speed protection systems at the converter station. Protection of the AC interconnection facilities will be designed in accordance with the requirements of the interconnected utility.

Section 3
Environmental Information

A detailed Environmental Report for this Project is attached hereto as Appendix B. The Report was prepared by HDR Engineering, Inc., a nationally recognized, highly qualified environmental consulting firm with substantial experience with projects of this type, with input from a series of additional well-qualified specialist consultants. Among other things, the Report includes information regarding Historic Properties; details regarding the proposed rights-of-way for the Project transmission lines; an analysis of potential environmental effects of the Project, including information regarding threatened or endangered wildlife and plant life; an identification and description of alternatives analyzed as practicable alternatives, including substation locations, converter station locations, underwater route alternatives and underground route alternatives. The Environmental Report concludes that if this Project is constructed as proposed, impacts on the environment will be temporary and minimal and shows that issuance of the requested Presidential Permit, therefore, will not constitute a major Federal action significantly affecting the quality of the human environment.

If the Department determines that an environmental assessment is appropriate in this case, ITC Lake Erie believes that the attached Environmental Report is suitable for use as an

applicant prepared environmental assessment pursuant to Section 205.329(a)(3) of the Department's rules and respectfully requests that the Report be utilized as such.

Section 4
US Approvals, Regulatory Schedule, and Public Outreach

In addition to this Presidential Permit, the various federal, state, and local permits and/or approvals required for the Project will address such factors as the Project purpose, design, and potential impacts to natural resources. This section provides a summary of the required permits and approvals, sets forth the proposed schedule for the issuance of those authorizations, and reviews the public outreach activities that the Project has undertaken thus far.

ITC Lake Erie Holdings LLC acquired the rights to pursue the future development of the Lake Erie Connector Project from Lake Erie Power Corp. in June 2014. Prior to this time, Lake Erie Power Corp. engaged in consultation with federal, state and local agency staff, including a joint agency meeting in August 2013. Lake Erie Power Corp. held meetings with the affected Pennsylvania townships and the Erie County Executive, and held a public launch of the Project in September 2013. Since acquiring the Project, ITC Lake Erie has been proactive in consulting with agency staff, including written requests for agency data, project site visits, conference calls to review desktop and field study plans and schedules, kick-off and project status update meetings, and teleconferences to clarify agency input and regulatory requirements.

4.1 Federal Authorizations and Approvals

U.S. Army Corps of Engineers (USACE): The USACE will review and issue a permit for portions of the Project involving work in the bed of Lake Erie and the placement of any fill material in wetlands or other waters of the United States under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act (CWA). Section 10 requires approval prior to the commencement of construction activities in or over navigable waters of the United States, or that affect the course, location, condition, or capacity of such waters. CWA Section 404 requires approval prior to discharging dredged or fill material into jurisdictional waters of the United States, including wetlands.

Federal Energy Regulatory Commission (FERC): The proposed Project will be a public utility subject to regulation by FERC under the Federal Power Act (FPA). As indicated above, FERC has authorized the Project to sell transmission rights at negotiated rates, subject to FERC approval of a subsequent filing under Section 205 of the FPA regarding the open solicitation and capacity allocation process for the Project.

4.2 Pennsylvania Authorizations and Approvals

Pennsylvania Department of Environmental Protection (PADEP): The PADEP is responsible for processing requests for several permits and approvals. These include:

- 401 Water Quality Certificate: Section 401 of the federal CWA requires that a state issue a Water Quality Certificate for any project involving a discharge to navigable waters.

- Dam Safety and Encroachments Act: A permit from the PADEP is required for projects involving the construction of any water obstruction or encroachment. The Act defines a "water obstruction" as an structure in, along or across any body of water, and defines an "encroachment" as any structure or activity that in any manner changes, expands, or diminishes, the course, current, or cross-section of any watercourse, floodway, or body of water (including wetlands). The transmission line and other structures in the bed of Lake Erie, all crossings of streams by the transmission lines, and any wetland encroachments will be subject to such a permit from PADEP. In Pennsylvania, this permit is applied for in a "Joint Permit Application" form with the application for a USACE Section 404 Permit.
- Submerged Land License Agreement: A Submerged Lands License Agreement must be issued by the PADEP for the occupation of a publically owned submerged lands. In Pennsylvania, beds of traditionally navigable waterways, including the bed of Lake Erie, are publically owned.
- Coastal Zone Management Consistency Approval: Under the Federal Coastal Zone Management Act (CZMA), the PADEP must issue a Coastal Zone Consistency Certification for projects that would occur within and directly affect a state's coastal area.
- NPDES Permit for Stormwater Discharges Associated with Construction Activities: Any development with an earth disturbance of one acre or more must obtain coverage under a National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges Associated with Construction Activities. The Erie County Conservation District will coordinate review and issuance of this permit with the PADEP.

Erie County Conservation District: The Erie County Conservation District will review and approve the Project's Erosion and Sediment Control Plan, including the associated post-construction stormwater management plan. Approval of the Erosion and Sediment Control Plan is issued concurrent with the aforementioned NPDES Permit for Stormwater Discharges Associated with Construction Activities.

Pennsylvania Department of Transportation (PennDOT): PennDOT must issue a Highway Occupancy Permit for any utility that seeks to locate a utility within or across a State highway right-of-way.

Pennsylvania Historical and Museum Commission (PHMC): As part of the consultation process under Section 106 of the National Historic Preservation Act (NHPA), the State Historic Preservation Office (SHPO) is authorized to review and will be consulted by involved federal agencies with respect to projects that could have a significant impact on sites, structures or resources eligible for listing on the National Registry of Historic Places. The PHMC fulfills the role of state SHPO in Pennsylvania.

4.3 Municipal Authorizations and Approvals

The following municipal permits may be required for the Project:

Stormwater Management Analysis Consistency Review: All municipalities along the Project route will need to review stormwater management plans for consistency with local stormwater

management ordinances. Such consistency is required as part of criteria for issuance of the NPDES permit for stormwater associated with construction activities.

Zoning/Land Use Consistency Review: Erie County and the three municipalities along the Project route will be requested to provide comment concerning consistency of the Project with local zoning ordinances (where they exist) and comprehensive land development plans.

Land Development Plan Approval: Erie County approval of a land development plans for the Erie Converter Station site will be required. Plans will be reviewed for conformance with Erie County Subdivision and Land Development Ordinances.

Local Highway Occupancy Permits: Municipal permits or agreements will be required for any portion of the Project located within or across local road right-of-ways.

Bluff Recession and Setback Act Approval: Springfield Township, where the landfall location occurs, is charged with enforcing the Pennsylvania Bluff Recession and Setback Act which regulates land development activities along bluff recession hazard areas adjacent to Lake Erie. The Project will obtain a variance for construction activities on and near the bluff area.

Converter Station On Lot Septic System Permit: The converter station will require approval from Conneaut Township sewage enforcement officer for an on-site septic system.

4.4 Regulatory Schedule

The Project schedule is shown above inTable 2.7-1. A NEB Election Certificate Application was submitted to the Canadian National Energy Board on May 22, 2015. The USACE/PADEP Joint Application is expected to be filed in the 3rd quarter of 2015. It is anticipated that NEB approval will be received in the second quarter of 2016, that DOE approval will be received in the third quarter of 2016 and that any other pre-construction approvals required for the Project will be received by the second quarter of 2017. Construction is expected to be initiated in the second quarter of 2017, with commissioning and commercial operation targeted for the 4th quarter of 2019.

4.5 Public Outreach

Public outreach efforts undertaken by ITC Lake Erie have included local presentations with the affected townships and Erie County Executive regarding the Project objectives and elements, a public launch/media event, and a public open house held on March 12, 2015. Notice of the open house was mailed to 120 residents located within 1,000 feet of the proposed transmission line right-of-way as well as to local government officials. The open house was held at Girard High School in Girard Township, PA, where ITC Lake Erie described the proposed Project and various technical experts answered questions. A description of the regulatory requirements associated with the project development and related opportunities for future public input were also provided. ITC Lake Erie also provided updated information on the Project and the associated development schedule and answered questions from the public during the regularly scheduled meeting of the Girard Township Supervisors on May 12, 2015.

In addition, ITC Lake Erie has created a publicly available ITC Lake Erie Connector website (http://www.itclakeerieconnector.com) that includes baseline information on the proposed Project, links to media articles, frequently asked questions and upcoming Project events. The website also allows the public to submit questions about the Project and register for e-mailed updates, including announcements of future public meetings or how to access Project permit applications. The website summarizes public outreach activities already undertaken and those planned for the future.

ITC Lake Erie has also maintained an ongoing dialogue regarding the Project with affected landowners. It has already made a number of refinements to the Project in response to landowner concerns and will continue to do so when feasible as the Project proceeds.

Section 5
Conclusion

The foregoing application and supporting Environmental Report provide the basis for the Department to evaluate the potential impacts that the Project could have on the environment, the operating reliability of the United States electric power supply, and the other factors relevant to the public interest. For the reasons set forth above, ITC Lake Erie submits that the ITC Lake Erie Connector Project will serve the public interest, and respectfully requests that a Presidential Permit be issued to it authorizing the construction, operation, maintenance, and connection of the Project facilities for the transmission of electric energy at the international border between the United States and Canada as described herein.

Respectfully submitted,

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Counsel to ITC Lake Erie Connector LLC

Appendix A

Opinion of Counsel and Verification

VERIFICATION OF ITC HOLDINGS CORP. PURSUANT TO 10 C.F.R. § 205.322(e)

STATE OF MICHIGAN)
)
COUNTY OF OAKLAND)

NOW, BEFORE ME, the undersigned authority, personally came and appeared, Terry S. Harvill, who first being sworn, did depose and say:

That he is Vice President, International and Merchant Development of ITC Holdings Corp., the sole member of ITC Project Holdings LLC, which in turn is the sole member of ITC Lake Erie Holdings LLC, which is the sole member of ITC Lake Erie Connector LLC; that he has authority to verify the foregoing Application of ITC Lake Erie Connector LLC for a Presidential Permit for the ITC Lake Erie Connector Project ("Application"); that he has read said Application and knows the contents thereof; and that all of the statements contained in said Application are true to the best of his knowledge, information and belief.

T. S. Harvill

Terry S. Harvill, Ph.D.

Subscribed to and sworn before me this 27th day of May, 2015.

Laura J. McCray

Notary Public

My Commission expires: 7/30/2021

LAURA J. MCCRAY
NOTARY PUBLIC, STATE OF MI
COUNTY OF OAKLAND
MY COMMISSION EXPIRES Jul 30, 2021
ACTING IN COUNTY OF Oakland

May 26, 2015

The Honorable Patricia Hoffman
Assistant Secretary for Electricity Delivery and Energy Reliability
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585

Re: ITC Lake Erie Interconnector LLC
Application for a Presidential Permit
Opinion of Counsel

Dear Secretary Hoffman:

In connection with the application of ITC Lake Erie Interconnector LLC ("ITC Lake Erie") for a Presidential Permit authorizing it to construct, operate, connect and maintain the ITC Lake Erie Connector Project, and in satisfaction of the requirements of Section 205.322(a)(6) of the Department of Energy's regulations, 10 C.F.R. § 205.322(a)(6), I hereby confirm that ITC Lake Erie is an indirect, wholly owned subsidiary of ITC Holdings Corp., that I have reviewed and am familiar with ITC Lake Erie's application and its organizational documents, and that the activities and undertakings contemplated by the application are within ITC Lake Erie's corporate power. I further confirm that ITC Lake Erie has or will comply with all pertinent Federal and State laws.

Very truly yours,

Christine Mason Soneral
Senior Vice President and General Counsel
ITC Holdings Corp.

Appendix B

Environmental Report

(Under Separate Cover)