

FEDERAL ENERGY REGULATORY COMMISSION  
Washington, DC 20426  
March 20, 2014

OFFICE OF ENERGY PROJECTS

Project No. 2680-108 – Michigan  
Ludington Pumped Storage  
Project  
Consumers Energy Company and DTE  
Electric Company

**Subject: Scoping Document 1 for Ludington Pumped Storage Project, P-2680**

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Document submitted by Consumers Energy Company and DTE Electric Company (Consumers Energy and DTE Companies) for relicensing the Ludington Pumped Storage Project (Ludington Project) (FERC No. 2680). The Ludington Project is located on the east shore of Lake Michigan in the townships of Pere Marquette and Summit, Mason County, Michigan and in Port Sheldon, Ottawa County, Michigan. The Ottawa County portion is a 1.8-acre satellite recreation site, located about 70 miles south of the project. The Ludington Project is not located on federal lands.

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Commission staff intends to prepare an environmental assessment (EA), which will be used by the Commission to determine whether, and under what conditions, to issue a new license for the project. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the EA is thorough and balanced.

We invite your participation in the scoping process, and are circulating the attached Scoping Document 1 (SD1) to provide you with information on the Ludington Project. We are also soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EA. We are also requesting that you identify any studies that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA for the project.

We will hold two scoping meetings for the Ludington Project to receive input on the scope of the EA. A daytime meeting will be held at 1 p.m. on April 17, 2014, and an

evening meeting will be held at 6 p.m. on April 17, 2014. Both meetings will be held at the Comfort Inn & Suites, 7576 S. Pere Marquette Hwy, Pentwater, MI 49449. We will visit the project facilities on July 30, 2014, starting at 9 a.m., and participants must RSVP by June 30, 2014 to visit the project facilities. Section 2.2, *COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW*, of the scoping document contains information on how to RSVP and the requirements needed to be followed while visiting the project facilities.

We invite all interested agencies, Indian tribes, non-governmental organizations, and individuals to attend one or all of these meetings. Further information on our scoping meetings is available in the enclosed SD1.

SD1 is being distributed to both Consumers Energy and DTE Companies' distribution list and the Commission's official mailing list (see section 9.0 of the attached SD1). If you wish to be added to or removed from the Commission's official mailing list, please send your request by email to [efiling@ferc.gov](mailto:efiling@ferc.gov) or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written or emailed requests must specify your wish to be removed from or added to the mailing list and must clearly identify the following on the first page: **Ludington Pumped Storage Project No. 2680-108**.

Please review the SD1 and, if you wish to provide comments, follow the instructions in section 6.0, *Request for Information and Studies*. If you have any questions about SD1, the scoping process, or how Commission staff will develop the EA for this project, please contact Janet Hutzel at (202) 502-8675 or [janet.hutzel@ferc.gov](mailto:janet.hutzel@ferc.gov). Additional information about the Commission's licensing process and the Ludington Project may be obtained from our website, [www.ferc.gov](http://www.ferc.gov).

Enclosure: Scoping Document 1

cc: Mailing List  
Public Files

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SCOPING DOCUMENT 1  
LUDINGTON PUMPED STORAGE PROJECT

MICHIGAN

PROJECT NO. 2680-108

Federal Energy Regulatory Commission  
Office of Energy Projects  
Division of Hydropower Licensing  
Washington, DC

March 2014

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# SCOPING DOCUMENT 1

## Ludington Pumped Storage Project, No. 2680-108

### 1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),<sup>1</sup> may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On January 21, 2014, Consumers Energy Company and DTE Electric Company (Consumers Energy and DTE Companies) filed a Pre-Application Document (PAD) and Notice of Intent to seek a new license for Ludington Pumped Storage Project (Ludington Project) (FERC Project No. 2680).<sup>2</sup> The Ludington Project is located on the east shore of Lake Michigan in the townships of Pere Marquette and Summit, Mason County, Michigan and in Port Sheldon, Ottawa County, Michigan. The Ottawa County portion is a 1.8-acre satellite recreation site, located about 70 miles south of the project (figure 1). The Ludington Project is not located on federal lands.

The Ludington Project is a pumped storage project with six pump-turbine/motor generating units, for a total plant capability of 1,785 megawatts (MW).<sup>3</sup> The average annual generation during the years 2000 to 2010 was 2,624,189 megawatt hours (MWh), and the average annual pumping consumption during the same period was 3,618,396 MWh. A detailed description of the project is provided in section 3.0.

The National Environmental Policy Act (NEPA) of 1969,<sup>4</sup> the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Ludington Project as proposed, and also consider reasonable alternatives to the licensee's proposed action. At this time, we intend to

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<sup>1</sup> 16 U.S.C. § 791(a)-825(r).

<sup>2</sup> The current license for the Ludington Project was issued on July 30, 1969, with an effective date of July 1, 1969, for a term of 50 years. The license expires on June 30, 2019.

<sup>3</sup> On May 7, 2012, the Commission issued an Order Amending License approving Consumers Energy and DTE Companies' request to upgrade and overhaul the six pump-turbine/motor generating units. The upgrades will increase the authorized installed capacity of the project from 1,657.5 MW to 1,785 MW. Upgrade of the first unit began in November 2013, and the final unit is scheduled to be complete by the second quarter of 2019.

<sup>4</sup> National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2012).

prepare an environmental assessment (EA) that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives. The EA preparation will be supported by a scoping process to ensure identification and analysis of all pertinent issues. Although our current intent is to prepare a draft and final EA, there is a possibility that an environmental impact statement (EIS) will be required. The scoping process will satisfy the NEPA scoping requirements, irrespective of whether the Commission issues an EA or an EIS.

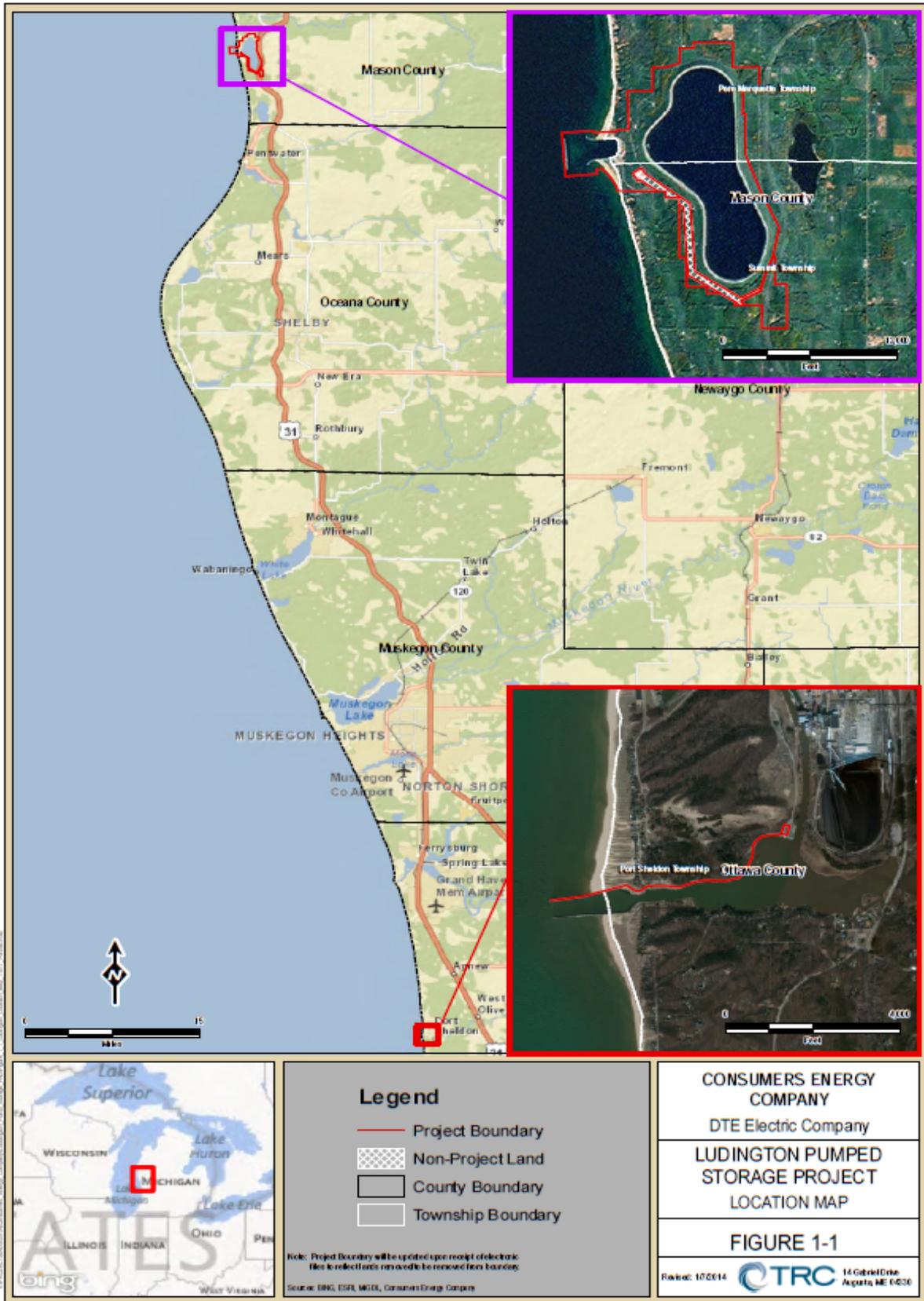


Figure 1 Location of the Ludington Project (Source: PAD)

## **2.0 SCOPING**

This Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for the development of the EA; (2) a description of the proposed action and alternatives; (3) a preliminary identification of environmental issues and proposed studies; (4) a request for comments and information; (5) a proposed EA outline; and (6) a preliminary list of comprehensive plans that are applicable to the project.

### **2.1 PURPOSES OF SCOPING**

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. According to NEPA, the process should be conducted early in the planning stage of the project. The purposes of the scoping process are as follows:

- invite participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue, including existing information and study needs; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

## **2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW**

During preparation of the EA, there will be several opportunities for the resource agencies, Indian tribes, NGOs, and the public to provide input. These opportunities occur:

- during the public scoping process and study plan meetings, when we solicit oral and written comments regarding the scope of issues and analysis for the EA;
- in response to the Commission's notice that the project is ready for environmental analysis; and
- after issuance of the draft EA when we solicit written comments on the EA.

In addition to written comments solicited by this SD1, we will hold two public scoping meetings and an environmental site review in the vicinity of the project. A daytime meeting will focus on concerns of the resource agencies, NGOs, and Indian tribes, and an evening meeting will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or both of the meetings to assist us in identifying the scope of environmental issues that should be analyzed in the EA. All interested parties are also invited to participate in the environmental site review site visit. The times and locations of the meetings and environmental site review are as follows:

### **Daytime Scoping Meeting**

Date and Time: April 17, 2014 at 1 p.m.

Location: Comfort Inn & Suites  
7576 S. Pere Marquette Hwy  
Pentwater, MI 49449

Phone Number: (231) 869-8000

### **Evening Scoping Meeting**

Date and Time: April 17, 2014 at 6 p.m.

Location: Comfort Inn & Suites  
7576 S. Pere Marquette Hwy  
Pentwater, MI 49449

Phone Number: (231) 869-8000

## **Environmental Site Review**

Date and Time: July 30, 2014 at 9 a.m.

Location: Ludington Project's upper reservoir parking lot located within the picnic area.

Attendees will be bused to the project for the environmental site review.

Address: 3525 South Lakeshore Drive, Ludington, MI 49431

RVSP: Please notify Melissa Sherman at [MELISSA.SHERMAN@cmsenergy.com](mailto:MELISSA.SHERMAN@cmsenergy.com) or via phone (231) 843-5226 by **June 30, 2014**, if you plan to attend the environmental site review. Persons not providing an RSVP by June 30, 2014, will not be allowed on the environmental site review. Also, persons attending the environmental site review must adhere to the following requirements:

- persons must be 16 years or older;
- persons must have a current valid government issued or school photo id;
- persons with open toe shoes/sandals/flip flops/high heels, etc. will not be allowed on the environmental site review;
- no cameras or cell phones with cameras will be allowed on-site, if discovered they may be confiscated;
- no back packs/duffle bags/shoulder bags will be allowed (purses are allowed, but are subject to search);
- no weapons are allowed on-site;
- no alcohol/drugs are allowed on-site (or persons exhibiting the effects thereof);
- all persons coming on-site are subject to search; and
- no animals (except for service animals) are allowed on the environmental site review.

The scoping meetings will be recorded by a court reporter, and all statements (verbal and written) will become part of the Commission's public record for the project. Before each meeting, all individuals who attend, especially those who intend to make statements, will be asked to sign in and clearly identify themselves for the record. Interested parties who choose not to speak or who are unable to attend the scoping meetings may provide written comments and information to the Commission as described in section 6.0. These meetings are posted on the Commission's calendar located on the internet at [www.ferc.gov/EventCalendar/EventsList.aspx](http://www.ferc.gov/EventCalendar/EventsList.aspx), along with other related information.

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the relicensing of the Ludington Project. It is advised that participants review the PAD in preparation for the scoping meetings. Copies of the PAD are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website ([www.ferc.gov](http://www.ferc.gov)), using the "eLibrary" link. Enter the docket number, P-2680, to access the documents. For assistance, contact FERC Online Support at [FERCONlineSupport@ferc.gov](mailto:FERCONlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. A copy of the PAD is also available for inspection and reproduction at the following address: Consumers Energy Company, Cadillac Service Center, 330 Chestnut Street, Cadillac, Michigan 49601.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions made as to the level of analysis needed. If preliminary analysis indicates that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the EA.

If we receive no substantive comments on SD1, then we will not prepare a Scoping Document 2 (SD2). Otherwise, we will issue SD2 to address any substantive comments received. The SD2 will be issued for informational purposes only; no response will be required. The EA will address recommendations and input received during the scoping process.

### 3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

#### 3.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Ludington Project would continue to operate as required by the current project license (i.e., there would be no change to the existing environment). No new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

##### 3.1.1 Existing Project Facilities

The Ludington Project is a reversible pumped storage project that consists of the upper and lower reservoir, intake structure and penstocks, powerhouse, and jetties and breakwater. There is also a satellite recreation site (Pigeon Lake North Pier), located about 70 miles south of the project (figures 2 and 3).

**Upper Reservoir:** The upper reservoir is enclosed by a 5.7-mile-long asphaltic-concrete lined earth embankment with an average height of 108 feet and a maximum height of 170 feet. The elevation of the top of the 842-acre upper reservoir is 950 feet National Geodetic Vertical Datum (NGVD) and the water level of a full reservoir is 942 feet NGVD. The upper reservoir has a gross storage capacity of 82,300 acre-feet at 942 feet NGVD.

**Upper Reservoir Intake Structure and Penstocks:** A concrete intake structure located in the upper reservoir provides a separate inlet for each of the six generating units. Six 1,300-foot-long steel penstocks connect the intake structure to the powerhouse. Each penstock varies in diameter from 28.5 feet at the intake to 24 feet at the powerhouse. The penstocks are encased in concrete as they pass through the embankment. They are supported on concrete saddles and buried in fill sand as they emerge from the top of the slope near the powerhouse.

**Powerhouse:** The concrete powerhouse consists of six bays which house the pump-turbine motor-generator units. Approximately 85 percent of the powerhouse structure is below Lake Michigan water level and the building has four main floors. The three main transformer banks (two units per bank) and station power transformers are located on the roof of the powerhouse. The first floor (also considered the operating

floor) contains the motor-generators load break switches, which connects the motor-generators to the main transformer banks; a 4,160 volt switchgear; main control room; and other miscellaneous equipment. The remaining floors have auxiliary water equipment, air compressors, and other miscellaneous equipment.

**Lower Reservoir:** The lower reservoir is Lake Michigan, which has a surface area of about 22,300 square miles and a mean depth of 279 feet.

**Jetties and Breakwater:** Two jetties and a breakwater protect the powerhouse against Lake Michigan's waves. Each jetty extends about 1,600 feet into Lake Michigan, while the breakwater is approximately 1,850 feet long and is about 2,700 feet from shore.

**Pigeon Lake North Pier:** In addition to the project facilities located at the powerhouse, a satellite recreational facility is located 70 miles south of the powerhouse. The facility includes a parking area and a 4,600-foot-long boardwalk. The boardwalk provides Lake Michigan fishing access.



**Figure 2 Project Facilities (Source: PAD)**



Figure 3 Pigeon Lake North Pier (Source: PAD)

### **3.1.2 Existing Project Operations**

The Ludington Project is operated to generate during peak demand periods. The project begins generating each week (Monday morning) with the upper reservoir at full pool, with a usable volume of 54,000 acre-feet. Generation usually occurs during the day with the upper reservoir partially replenished at night during pumping. During normal operation, the upper reservoir water surface elevations rises or falls about 1 foot per hour per generating unit, and the project can generate at maximum capacity for about 8 hours. Refilling the upper reservoir requires about 10 hours of pumping at maximum capacity, and the upper reservoir elevation is brought to full pool over the weekend to make up any differences between generation and pumping during the week.

## **3.2 APPLICANT'S PROPOSAL**

The proposed action is to continue to operate and maintain the Ludington Project, and implement certain environmental protection, mitigation, and enhancement measures. Consumers Energy and DTE Companies propose no changes in project operation.

### **3.2.1 Proposed Project Facilities and Operations**

Consumers Energy and DTE Companies propose no new or upgraded facilities, structural changes, or operational changes to the Ludington Project.

### **3.2.2 Proposed Environmental Measures**

Consumers Energy and DTE Companies identified measures to protect and enhance environmental resources of the project area. Consumers Energy and DTE Companies proposes to continue operating the Ludington Project with the environmental protection, mitigation, and enhancement measures described in the following section.

#### **Geologic and Soil Resources**

There are no existing or proposed protection, mitigation, and enhancement measures related to geology and soils for the Ludington Project.

#### **Aquatic Resources**

- Continue to seasonally operate, maintain, and monitor the effectiveness of the existing barrier net to minimize project-related fish entrainment during project operations.

## **Terrestrial Resources**

There are no existing or proposed protection, mitigation, and enhancement measures related to terrestrial resources for the Ludington Project.

## **Threatened and Endangered Species**

There are no existing or proposed protection, mitigation, and enhancement measures related to threatened and endangered species for the Ludington Project.

## **Recreation and Land Use**

- Continue to operate and maintain the existing five project recreation sites at the project, including the Mason County Campground; the Mason County Picnic Area; the Upper Reservoir Observation Platform; the Lake Michigan Overlook;<sup>5</sup> and the Pigeon Lake North Pier, a satellite recreation facility located along Lake Michigan in Port Sheldon, MI.

## **Cultural Resources**

- Develop a Historic Properties Management Plan to mitigate for any adverse effects to the Ludington Project, which is eligible for the National Register of Historic Places.

### **3.3 ALTERNATIVES TO THE PROPOSED ACTION**

Commission staff will consider and assess all alternative recommendations for operational or facility modifications, as well as protection, mitigation, and enhancement measures identified by the Commission, the agencies, Indian tribes, NGOs, and the public.

### **3.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

At present, we propose to eliminate the following alternatives from detailed study in the EA.

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<sup>5</sup> The four aforementioned recreations sites are located at and near the project's upper reservoir.

### **3.4.1 Federal Government Takeover**

In accordance with § 16.14 of the Commission's regulations, a federal department or agency may file a recommendation that the United States exercise its right to take over a hydroelectric power project with a license that is subject to sections 14 and 15 of the FPA.<sup>6</sup> We do not consider federal takeover to be a reasonable alternative. Federal takeover of the project would require congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence showing that federal takeover should be recommended to Congress. No party has suggested that federal takeover would be appropriate, and no federal agency has expressed interest in operating the project.

### **3.4.2 Non-power License**

A non-power license is a temporary license the Commission would terminate whenever it determines that another governmental agency is authorized and willing to assume regulatory authority and supervision over the lands and facilities covered by the non-power license. At this time, no governmental agency has suggested a willingness or ability to take over the project. No party has sought a non-power license, and we have no basis for concluding that the Ludington Project should no longer be used to produce power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

### **3.4.3 Project Decommissioning**

Decommissioning of the project could be accomplished with or without dam removal. Either alternative would require denying the relicensing application and surrender or termination of the existing license with appropriate conditions. There would be significant costs involved with decommissioning the project and/or removing any project facilities. The project provides a viable, safe, and clean renewable source of power to the region. With decommissioning, the project would no longer be authorized to generate power.

No party has suggested project decommissioning would be appropriate in this case, and we have no basis for recommending it. Thus, we do not consider project decommissioning a reasonable alternative to relicensing the project with appropriate environmental measures.

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<sup>6</sup> 16 U.S.C. §§ 791(a)-825(r).

## **4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE ISSUES**

### **4.1 CUMULATIVE EFFECTS**

According to the Council on Environmental Quality's regulations for implementing NEPA (40 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

#### **4.1.1 Resources that could be Cumulatively Affected**

Based on our review of the PAD and preliminary staff analysis, we have not identified any resources that could be cumulatively affected by the proposed continued operation and maintenance of the Ludington Project.

### **4.2 RESOURCE ISSUES**

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We identified these issues, which are listed by resource area, by reviewing the PAD and the Commission's record for the Ludington Project. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue in the EA.

#### **4.2.1 Aquatic Resources**

- Effects of accidental spills of oil, grease, lubricants, etc., on water quality.
- Effects of project operation on water quality, particularly dissolved oxygen, water temperature, and turbidity, in Lake Michigan.
- Effects of fish entrainment associated with pumping operations on fish populations, including state-listed species (i.e., lake herring and lake sturgeon), in Lake Michigan.

#### **4.2.2 Terrestrial Resources**

- Effects of continued project operation, including reservoir fluctuations, on riparian, littoral, and wetland habitats and associated wildlife.
- Effects of continued project operation, including maintenance activities (e.g., road maintenance, transmission line maintenance, and rights-of-way vegetation management), on wildlife habitat and associated wildlife.
- Effects of continued project operation and maintenance on the introduction, establishment, and spread of invasive plant species in the project area.
- Effects of continued project operation and maintenance on Michigan state species of special concern, including the bald eagle, marsh wren, eastern box turtle, and ginseng.

#### **4.2.3 Threatened and Endangered Species**

- Effects of continued project operation and maintenance on the federally endangered Indiana bat, piping plover, karner blue butterfly, and the federally threatened pitcher's thistle.

#### **4.2.4 Recreation and Land Use Resources**

- Adequacy of existing recreational facilities in the project boundary to meet current and future recreational demand.

#### **4.2.6 Cultural Resources**

- Effects of the proposed action and alternatives on properties included in, or eligible for inclusion in, the National Register of Historic Places.

## **5.0 PROPOSED STUDIES**

Depending upon the findings of studies completed by Consumers Energy and DTE Companies and the recommendations of the consulted entities, Consumers Energy and DTE Companies will consider, and may propose certain other measures to enhance environmental resources affected by the project as part of the proposed action.

Consumers Energy and DTE Companies' initial study proposals are identified by resource area in table 1. Some studies have overlapping objectives and are thus duplicated. These studies are identified by shading. Detailed information on Consumers Energy and DTE Companies' initial study proposals can be found in the PAD. Further studies may need to be added to this list based on comments provided to the Commission and Consumers Energy and DTE Companies from interested participants, including Indian tribes.

Table 1. Consumers Energy and DTE Companies' Initial Study Proposals (Source: PAD).

<b>Resource Area and Issue</b>	<b>Proposed Study/Information Need</b>
<b>Terrestrial Resources</b>	
Wildlife Survey	Conduct a wildlife survey within the project boundary to identify any terrestrial or potential rare, threatened, and endangered species habitat, using an intuitive meander approach and focusing on areas of potential habitat; no species-specific surveys are planned at this time.
Botanical Survey	Conduct a botanical survey within the project boundary to identify any terrestrial or potential rare, threatened, and endangered species habitat, using an intuitive meander approach, and focusing on area of potential habitat for ginseng and pitcher's thistle.
<b>Recreation and Land Use</b>	
Recreation Facilities and Use	Use the Licensed Hydropower Development Recreation Report (i.e., FERC Form 80 survey) to identify the number of recreation amenities within the project boundary and determine the user capacity of each amenity.
<b>Cultural Resources</b>	
Archeological Resources	Conduct a Phase 1 survey to identify any cultural resource sites within the project boundary.

## 6.0 REQUEST FOR INFORMATION AND STUDIES

We are asking federal, state, and local resource agencies; Indian tribes; NGOs; and the public to forward to the Commission any information that will assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with relicensing the Ludington Project. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues;
- identification of, and information from, any other EA, EIS, or similar environmental study (previous, on-going, or planned) relevant to the proposed relicensing of the Ludington Project;
- existing information and any data that would help to describe the past and present actions and effects of the project and other developmental activities on environmental and socioeconomic resources;
- information that would help characterize the existing environmental conditions and habitats;
- the identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber harvest activities, or fish management programs), along with any implementation schedules;
- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Indian tribes, NGOs, and the public;
- documentation showing why any resources should be excluded from further study or consideration; and

- study requests by federal and state agencies, local agencies, Indian tribes, NGOs, and the public that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA/EIS for the project.

All requests for studies filed with the Commission must meet the criteria found in Appendix A, *Study Plan Criteria*.

The requested information, comments, and study requests should be submitted to the Commission no later than **May 21, 2014**. The Commission strongly encourages electronic filing. Please file all documents using the Commission's eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp>. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at <http://www.ferc.gov/docs-filing/ecomment.asp>. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov), (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426. The first page of any filing should include docket number P-2680-108.

Register online at <http://www.ferc.gov/esubscription.asp> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support. <mailto:fercoNLINEsUKPPORT@FERC.GOV>

Any questions concerning the scoping meetings, site visits, or how to file written comments with the Commission should be directed to Janet Hutzel at (202) 502-8675 or [janet.hutzel@ferc.gov](mailto:janet.hutzel@ferc.gov). Additional information about the Commission's licensing process and the Ludington Project may be obtained from the Commission's website, [www.ferc.gov](http://www.ferc.gov).

## **7.0 EA PREPARATION**

At this time, we anticipate the need to prepare a draft and final EA. The draft EA will be sent to all persons and entities on the Commission's service and mailing lists for the Ludington Project. The EA will include our recommendations for operating procedures, as well as protection, mitigation, or enhancement measures that should be part of any license issued by the Commission. All recipients will then have 30 days to review the EA and file written comments with the Commission. All comments on the draft EA filed with the Commission will be considered in preparation of the final EA. A schedule for the EA preparation will be provided after a license application is filed.

The major milestones, with pre-filing target dates, are as follows:

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	April 2014
License Application Filed	June 2017
Ready for Environmental Analysis Notice Issued	
Deadline for Filing Comments, Recommendations, and Agency Terms and Conditions/Prescriptions	
Draft EA Issued	
Comments on Draft EA Due	
Deadline for Filing Modified Agency Recommendations	
Final EA Issued	

A copy of the pre-filing portion of Consumers Energy and DTE Companies' process plan, which has a complete list of milestones for developing the license application for the Ludington Project, is attached as appendix B to this SD1.

## **8.0 PROPOSED EA OUTLINE**

The preliminary outline for the Ludington Project EA is as follows:

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## APPENDICES

A—License Conditions Recommended by Staff

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## 9.0 COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The staff has preliminarily identified and reviewed the plans listed below that may be relevant to the Ludington Project. Agencies are requested to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at <http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf>.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the Ludington Project.

Michigan Department of Environmental Quality. 1996. Nonindigenous aquatic nuisance species, State management plan: A strategy to confront their spread in Michigan. Lansing, Michigan.

Michigan Department of Natural Resources. 1994. Fisheries Division strategic plan. Lansing, Michigan. June 1994.

Michigan Department of Natural Resources. Statewide Comprehensive Outdoor Recreation Plan (SCORP): 2008-2012. Lansing, Michigan

Michigan Department of Environmental Quality. 1997. Lake Sturgeon rehabilitation strategy. Special Report 18. Lansing, Michigan. August 1997.

National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington D.C. 1993.

U.S. Fish and Wildlife Services. 1988. Great Lakes and Northern Great Plains Piping Plover Recovery Plan. Department of the Interior, Twin Cities, Minnesota. May 12, 1988.

U.S. Fish and Wildlife Services. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.

U.S. Fish and Wildlife Services. 1988. The Lower Great Lakes/St. Lawrence Basin: A component of the North American waterfowl management plan. December 29, 1988.

U.S. Fish and Wildlife Services. 1993. Upper Mississippi River & Great Lakes region joint venture implementation plan: A component of the North American waterfowl management plan. March 1993.

## 10.0 MAILING LIST

The list below is the Commission’s official mailing list for the Ludington Project (FERC No. 2680). If you want to receive future mailings for the Ludington Project and are not included in the list below, please send your request by email to [efiling@ferc.gov](mailto:efiling@ferc.gov) or by mail to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the mailing list must clearly identify the following on the first page: Ludington Project No. 2680-108. You may use the same method if requesting removal from the mailing list below.

Register online at <http://www.ferc.gov/esubscribenow.htm> to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at [FERCOnlineSupport@ferc.gov](mailto:FERCOnlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659.

### Mailing List

Chairman Bad River Band Of Lake Superior Tribe Of Chippewa Indians PO Box 39 Odanah, Wisconsin 54861-0039	Bill Schoenlein Consumers Energy Company One Energy Plaza Ep11-238 Jackson, Michigan 49201	Alvin Pedwaydon, Chairperson Grand Traverse Band Of Ottawa & Chippewa Indians 2605 N.W. Bayshore Dr. Suttons Bay, Michigan 49682
Kurt Perron, Chairman Bays Mills Indian Community 12140 W. Lakeshore Drive Brimley, Michigan 49715	John H Flynn Detroit Edison Company	William Rastetter Grand Traverse Band Of Ottawa, Et Al. 6724 County Road 645 Cedar, Michigan 49621
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	Chicago, Illinois 60604-1695	
David McIntosh, Senior Engineer Consumers Energy Company 330 Chestnut Street Cadillac, Michigan 49601	Warren C. Swartz Jr., President Keweenaw Bay Indian Community 16429 Beartown Road Baraga, Michigan 49908	James Williams Jr., Chairperson Lac Vieux Desert Band of Lake Superior Chippewa Indians PO Box 249 Watersmeet, Michigan 49969
Larry Romanelli, Ogema Little River Band of Ottawa Indians 375 River St Manistee, Michigan 49660-2729	Fred Kiogima, Chairperson Little Traverse Bay Bands of Odawa Indians 7500 Odawa Circle Harbor Springs, Michigan 49740	David K. Spague Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians PO Box 218 Dorr, Michigan 49323
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Kelley Smith Michigan Department of Natural Resources PO Box 30028 Lansing, Michigan 48909-7528	Pamela Stevenson Assistant Attorney General Department of Attorney General PO Box 30755 Lansing, Michigan 48909	FERC Coordinator Michigan Department of Natural Resources PO Box 30446 Lansing, Michigan 48909-7946
Gary E Whelan, Coordinator Michigan Department of Natural Resources PO Box 30028 Lansing, Michigan 48909-7528	Keith Creagh Michigan Department of Natural Resources PO Box 30028 Mason Bldg Lansing, Michigan 48909-7757	Michigan Forest Management Div. PO Box 30028 Lansing, Michigan 48909-7528
Martha L Macfarlane-Faes Environmental Review Coordinator Michigan Historical Center PO Box 30740 Lansing, Michigan 48909-8240	Michigan Public Service Commission Executive Secretary PO Box 30221 Lansing, Michigan 48909-7721	Michigan State Historic Preservation Officer Michigan Bureau Of History 717 W Allegan St Lansing, Michigan 489151703
Tamara Zuker Michigan State Senate	Michigan Wildlife Division PO Box 30028	Michael O. Lareau President

PO Box 30036 Lansing, Michigan 48909-7536	Lansing, Michigan 48909-7528	Mountain Beach Association 894 Bradford Holw NE Grand Rapids, Michigan 49525-3300
Andy Buchsbaum, Director National Wildlife Federation Great Lakes Natural Resource Center 213 W Liberty St Ste 200 Ann Arbor, Michigan 48104-1398	Natural Resources Conservation Service State Conservationist U.S. Department Of Agriculture 3001 Coolidge Rd Ste 250 East Lansing, Michigan 48823-6362	NOAA National Marine Fisheries Service Regional Director Northeast Regional Office-DOC/NOAA 55 Great Republic Dr Gloucester, Massachusetts 01930-2298
John Rodwan, Tribal Environmental Director Nottawaseppi Huron Band of Potawatomi 2221 One Half Mile Road Fulton, Michigan 49025	Maxine Margiotta, Vice Chair Pokagon Band of Potawatomi Indians of Michigan PO Box 180 Dowagiac, Michigan 49047	Floyd Jourdain, Chairman Red Lake Band of Chippewa Indians PO Box 550 Red Lake, Michigan 56671
Steve Pego Saginaw Chippewa Indian Tribe 7070 East Broadway Road Mt. Pleasant, Michigan 48858	Aaron Payment, Chairperson Sault Ste. Marie Tribe Of Chippewa Indians 523 Ashmum Street Saul Ste. Marie, Michigan 49783	U.S. Army Corps of Engineers 477 Michigan Ave Detroit, Michigan 48226-2523
U.S. Bureau of Indian Affairs BIA - Midwest Regional Office Norman Pointe II Bldg 5600 West American Blvd, Ste 500 Bloomington, Minnesota 55437	U.S. Bureau of Land Management Field Manager 626 E Wisconsin Ave Ste 200 Milwaukee, Wisconsin 53202-4618	U.S. Bureau of Land Management – Va 7450 Boston Blvd Springfield, Virginia 22153-3121
U.S. Coast Guard MSO Sault Ste. Marie C/O Cg Group Sault Ste. Marie, Michigan 49783-9501	FERC Contact U.S. Coast Guard MSO Chicago 555 Plainfield Rd, Ste A Willowbrook, Illinois 60527	U.S. Coast Guard MSO Detroit 110 Mount Elliott St Detroit, Michigan 48207-4319
U.S. Department of	Marcia M Kimball	Jean W Sutton

<p>Agriculture PO Box 30017 Lansing, Michigan 48909-7517</p>	<p>U.S. Department of Interior 1 Federal Dr, Rm 686 Fort Snelling, Minnesota 55111-4030</p>	<p>U.S. Department of Interior Office of the Field Solicitor 1 Federal Dr Rm 686 Twin Cities AMF, Minnesota 55111-4030</p>
<p>U.S. Environmental Protection Agency Region V 77 W Jackson Blvd Chicago, Illinois 60604-3511</p>	<p>U.S. Fish &amp; Wildlife Service Regional Director 5600 American Blvd W Ste 990 Bloomington, Minnesota 55437-1458</p>	<p>Peter Hoekstra, Honorable U.S. House Of Representatives Washington, District of Columbia 20515</p>
<p>Bart Stupak, Honorable U.S. House Of Representatives Washington, District of Columbia 20515</p>	<p>Nick Chevance Regional Environmental Coordinator U.S. National Park Service 601 Riverfront Drive Omaha, Nebraska 68128</p>	<p>Carl M Levin, Senator U.S. Senate United States Senate 269 Russell Senate Office Building Washington, District of Columbia 20510</p>
<p>Debbie Stabenow, Honorable U.S. Senate 133 Hart Senate Office Building Washington, District of Columbia 20510</p>		

**APPENDIX A**  
**STUDY PLAN CRITERIA**  
**18 CFR Section 5.9(b)**

Any information or study request must contain the following:

1. Describe the goals and objectives of each study proposal and the information to be obtained;
2. If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;
3. If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study;
4. Describe existing information concerning the subject of the study proposal, and the need for additional information;
5. Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements;
6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge; and
7. Describe considerations of level of effort and cost, as applicable, and why proposed alternative studies would not be sufficient to meet the stated information needs.

**APPENDIX B**

## LUDINGTON PROJECT PROCESS PLAN AND SCHEDULE

This process plan establishes the deadlines for the pre-filing process. If the due date falls on a weekend or holiday, the due date is the following business day. Early filings or issuances will not result in changes to these deadlines. Shaded milestones are unnecessary if there are no study disputes.

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
Consumers Energy and DTE Companies	Issue Public Notice for NOI/PAD	January 21, 2014	5.3(d)(2)
Consumers Energy and DTE Companies	File NOI/PAD with FERC	January 21, 2014	5.5, 5.6
FERC	Issue Notice of Commencement of Proceeding; Issue Scoping Document 1	March 22, 2014	5.8
FERC	Scoping Meetings	April 17, 2014	5.8(b)(viii)
All stakeholders	PAD/SD1 Comments and Study Requests Due	May 21, 2014	5.9
FERC	Issue Scoping Document 2	July 5, 2014	5.1
Consumers Energy and DTE Companies	File Proposed Study Plan (PSP)	July 5, 2014	5.11(a)
All stakeholders	Ludington Project Environmental Site Review	July 30, 2014	5.8
All stakeholders	Proposed Study Plan Meeting	July 31, 2014	5.11(e)
All stakeholders	Proposed Study Plan Comments Due	October 3, 2014	5.12
Consumers Energy and DTE	File Revised Study Plan	November 2, 2014	5.13(a)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
Companies			
All stakeholders	Revised Study Plan Comments Due	November 17, 2014	5.13(b)
FERC	Director's Study Plan Determination	December 2, 2014	5.13(c)
FWS	Any Study Disputes Due	December 22, 2014	5.14(a)
Dispute Panel	Third Dispute Panel Member Selected	January 6, 2015	5.14(d)
Dispute Panel	Dispute Resolution Panel Convenes	January 11, 2015	5.14(d)(3)
Consumers Energy and DTE Companies	Applicant Comments on Study Disputes Due	January 16, 2015	5.14(j)
Dispute Panel	Dispute Resolution Panel Technical Conference	January 2015 [prior to engaging in deliberative meetings]	5.14(j)
Dispute Panel	Dispute Resolution Panel Findings Issued	February 10, 2015	5.14(k)
FERC	Director's Study Dispute Determination	March 2, 2015	5.14(l)
Consumers Energy and DTE Companies	First Study Season	2015	5.15(a)
Consumers Energy and DTE Companies	Initial Study Report	December 2, 2015	5.15(c)(1)
All stakeholders	Initial Study Report Meeting	December 17, 2015	5.15(c)(2)
Consumers Energy and DTE Companies	Initial Study Report Meeting Summary	January 1, 2016	5.15(c)(3)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
All stakeholders	Any Disputes/Requests to Amend Study Plan Due	January 31, 2016	5.15(c)(4)
All stakeholders	Responses to Disputes/Amendment Requests Due	March 1, 2016	5.15(c)(5)
FERC	Director's Determination on Disputes/Amendments	March 31, 2016	5.15(c)(6)
Consumers Energy and DTE Companies	Second Study Season	2016	5.15(a)
Consumers Energy and DTE Companies	Updated Study Report due	December 2, 2016	5.15(f)
All stakeholders	Updated Study Report Meeting	December 17, 2016	5.15(f)
Consumers Energy and DTE Companies	Updated Study Report Meeting Summary	January 1, 2017	5.15(f)
All stakeholders	Any Disputes/Requests to Amend Study Plan Due	January 31, 2017	5.15(f)
All stakeholders	Responses to Disputes/Amendment Requests Due	March 2, 2017	5.15(f)
FERC	Director's Determination on Disputes/Amendments	April 1, 2017	5.15(f)
Consumers Energy and DTE Companies	File Preliminary Licensing Proposal	January 31, 2017	5.16(a)
All stakeholders	Preliminary Licensing Proposal Comments Due	April 1, 2017	5.16(e)
Consumers Energy and DTE	File Final License Application	June 30, 2017	5.17

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
Companies			
Consumers Energy and DTE Companies	Issue Public Notice of License Application Filing	July 14, 2017	5.17(d)(2)