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March 22, 2024

Ms. Lisa Felice
Executive Secretary
Michigan Public Service Commission
7109 West Saginaw Highway
P.O. Box 30221
Lansing, MI 48909

Via Electronic Filing

RE: MPSC Case No. U-21483

In the matter of the application of Alpena Power Company, for approval of its proposed interconnection procedures and forms, submitted pursuant to the Commission's own motion, commencing a collaborative for the development of electric utility interconnection procedures.

Dear Ms. Felice:

Enclosed for electronic filing in the above-captioned case, please find Alpena Power Company's application for approval of its proposed interconnection procedures and forms, along with the written direct testimony of the Company's witness, Mr. Kenneth A. Dragiewicz, and accompanying exhibits, which is being submitted in accordance with the the Michigan Public Service Commission's February 8, 2024, order issued in MPSC Case No. U-21483. No paper filing is being made.

Please contact me at tmgulden@bfwlawfirm.com if you have questions, and thank you for your assistance.

Sincerely,

Timothy M. Gulden
Attorney for Alpena Power Company

TMG/tsm
Enclosure

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of Alpena Power Company, for approval of its proposed interconnection procedures and forms, submitted pursuant to the Commission’s own motion, commencing a collaborative for the development of electric utility interconnection procedures.

Case No. U-21483

APPLICATION

Alpena Power Company (“Alpena”) files this Application for approval of its revised interconnection procedures and forms as required by the Michigan Public Service Commission’s (“MPSC” or “Commission”) February 8, 2024 Order in Case No. U-21483 (“February 8 Order”).

In support of its requests, Alpena states as follows:

1. Alpena is a private investor-owned Michigan utility corporation with its office located in the City of Alpena, Michigan, supplying electric service to approximately 16,650 customers in the Northeastern Lower Peninsula of Michigan. Alpena’s service area includes: the City of Alpena; the Townships of Alpena, Green, Long Rapids, Maple Ridge, Ossineke, Sanborn, Wellington and Wilson in the County of Alpena; the Township of Presque Isle in Presque Isle County; the Township of Caledonia in Alcona County; and the Village of Hillman and Township of Hillman in Montmorency County.

2. Alpena purchases approximately 85% of its electric power requirements from Consumers Energy Company (“Consumers”) under wholesale rates subject to the jurisdiction of the Federal Energy Regulatory Commission (“FERC”) and approved by the Commission in Case Nos. U-10705 and U-11029. The balance of power requirements are purchased through contracts with Thunder Bay Power, Wolverine Electric Power Cooperative, and when available, from certain large industrial customers under rates established under special contracts.

3. Alpena presently serves its electric customers under rates and charges as ordered by the Commission in its December 22, 2021 Order Approving Settlement Agreement in Case No. U-21045 (Alpena's last completed general rate case); December 21, 2023 Order Approving Settlement Agreement in Case No. U-21421 (Alpena's 2024 PSCR Plan); December 1, 2023 Order Approving Settlement Agreement in Case No. U-21320 (Alpena's 2023 Energy Waste Reduction Plan); and January 20, 2022 Order Approving Settlement Agreement in Case No. U-21140 (Alpena's Renewable Energy Plan).

4. In the October 5, 2022 order in Case No. U-20890 ("October 5 order"), the Commission approved a revised version of the MIXDG rules for submission to the Michigan Office of Administrative Hearings and Rules (MOAHR) and the Legislative Service Bureau (LSB) for final formal approvals, which were both granted on February 3, 2023. October 5 order, pp. 4-19 and Exhibit A. On February 3, 2023, the MIXDG rules were filed with the Joint Committee on Administrative Rules (JCAR), which, by Page 3 U-21117 virtue of MCL 24.245a(1), had 15 session days to object to the rules by filing a notice of objection. JCAR did not take any action to prevent the rules from being transmitted to the Secretary of State.

5. On April 24, 2023, the Commission issued an order in Case No. U-20890 ("April 24 order"), adopting the MIXDG rules and transmitting the rules to MOAHR for filing with the Secretary of State. April 24 order, p. 4. The MIXDG rules were then filed with the Office of the Great Seal and became effective on April 25, 2023.

6. Included in the adopted MIXDG rules is Mich Admin Code, R 460.920 ("Rule 20"), which requires an Electric Utility to file applications for approval of interconnection procedures and forms within 120 calendar days of the effective date of these rules (i.e., by August 23, 2023).

7. On September 28, 2023, the Commission issued an order in Case No. U-21483 to solicit comments on Alpena's proposed procedures and forms.

8. On October 27, 2023, the Commission Staff filed comments on Alpena's proposed procedures and forms.

9. On February 8, 2024, the Commission issued an order denying Alpena's application for approval of interconnection procedures and required Alpena to file a new application accompanied by revised interconnection procedures incorporating the requirements of Public Act 235 of 2023 no later than 5:00 p.m. (Eastern time) on March 22, 2024.

10. Along with this Application, Alpena files the direct testimony of Kenneth A. Dragiewicz, which explains and supports the proposed interconnection procedures and forms filed by Alpena to comply with Rule 20, the February 8 Order, and Public Act 235 of 2023. The proposed interconnection procedures and applicable forms are also included as exhibits with this filing.

WHEREFORE, Alpena respectfully requests that the Commission:

- A. Accept this Application for filing;
- B. Give such notice to interested parties as may be appropriate;
- C. Establish a date, place, and time for a prehearing conference, if appropriate;
- D. Enter its Order approving Alpena's requests generally described in this Application, and more specifically described in the Company's direct testimony and exhibits.
- E. Grant Alpena such further additional relief as the Commission may deem suitable and appropriate.

Respectfully submitted,

ALPENA POWER COMPANY

Dated: March 22, 2024

By: Timothy M. Gulden (P41232)
Attorney for Alpena Power Company
Bauer, Florip & Wojda PLC
109 E. Chisholm Street
Alpena, MI 49707
(989) 356-3444
tmgulden@gillardlaw.com

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the application of Alpena Power)
Company, for approval of its proposed interconnection)
procedures and forms, submitted pursuant to the)
Commission's own motion,)
commencing a collaborative for the)
development of electric utility interconnection)
procedures.)
_____)

Case No. U-21483

QUALIFICATIONS

AND

DIRECT TESTIMONY

OF

KENNETH A. DRAGIEWICZ

TESTIMONY OF
K A DRAGIEWICZ
CASE U-21483

Q. Please state your name and business address.

A. Kenneth A. Dragiewicz, Alpena Power Company, 401 N. Ninth Avenue, Alpena, Michigan 49707.

Q. What is your educational background?

A. I graduated in 1998 from Michigan State University with a Bachelor of Science Degree in Electrical Engineering. In 2003, I received an MBA from Saginaw Valley State University.

Q. What is your position with Alpena Power Company (“Alpena”)?

A. I am President, and Chief Operating Officer.

Q. Please state your past work experience with Alpena including your present duties and responsibilities.

A. I was employed by Alpena in March 2014 as an Electrical Engineer. I was promoted to Assistant Vice President in April 2016, promoted to Vice President in June 2017, promoted to Executive Vice President and became a Director of Alpena Power Company in April 2020, and promoted to President and Chief Operating Officer on June 1, 2021. My responsibilities include general management of Alpena Power Company. This involves providing direction in daily and long-term planning, developing policies and structure, directing and coordinating employee activities, and managing a competent and knowledgeable workforce, all with the goal of maintaining low cost and reliable service to our customers and providing a fair return to our shareholders.

Q. Have you previously testified in any proceedings before this Commission?

A. Yes. I have testified on behalf of Alpena in the following cases:

TESTIMONY OF
K A DRAGIEWICZ
CASE U-21483

- U-18324 – General Rate Case
- U-21045 – General Rate Case
- U-20874 – Energy Waste Reduction Plan
- U-21320 – Energy Waste Reduction Plan
- U-21204 – Energy Waste Reduction Reconciliation
- U-21311 – Energy Waste Reduction Reconciliation
- U-21140 – Renewable Energy Plan
- U-21196 – Renewable Portfolio Standard Reconciliation
- U-21351 – Renewable Portfolio Standard Reconciliation
- U-18089 – PURPA Biennial Review
- U-18350 – Voluntary Green Pricing Program
- U-21483 – Interconnection Procedures
- U-21488 – General Rate Case

Q. Please briefly describe Alpena’s business and operations.

A. Alpena is a private investor-owned Michigan utility corporation with its office located in the City of Alpena, Michigan, supplying electric service to approximately 16,650 customers in the Northeastern Lower Peninsula of Michigan. Alpena purchases approximately 85% of its electric power requirements from Consumers Energy Company (“Consumers”) under wholesale rates subject to the jurisdiction of the Federal Energy Regulatory Commission (“FERC”) and approved by the Commission in Case Nos. U-10705 and U-11029. The balance of power requirements are purchased through contracts with Thunder Bay Power, Wolverine Electric Power Cooperative and when available, from certain large industrial customers under rates established under special

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contracts.

Q. How many employees does Alpena have?

A. Alpena has a total of 33 full-time employees.

Q. Are Alpena's present rate schedules on file with the Commission?

A. Yes. Alpena presently serves its electric customers under rates and charges as ordered by the Commission in its December 22, 2021 Order Approving Settlement Agreement in Case No. U-21045 (Alpena's last completed general rate case); December 21, 2023 Order Approving Settlement Agreement in Case No. U-21421 (Alpena's 2024 PSCR Plan); December 1, 2023 Order Approving Settlement Agreement in Case No. U-21320 (Alpena's 2023 Energy Waste Reduction Plan); and January 20, 2022 Order Approving Settlement Agreement in Case No. U-21140 (Alpena's 2021 Renewable Energy Plan).

Q. What is the purpose of your testimony in this proceeding?

A. My testimony and will explain and support Alpena's proposed interconnection procedures and forms as well as Alpena's compliance with the Interconnection and Distributed Generation Standards (MIXDG) R 460.920 (Rule 20) and Public Act 235 of 2023.

Q. Did Alpena receive any comments on its proposed procedures?

A. Yes. Alpena's received comments specific to its proposed procedures as well as a MIXDG procedures checklist from Commission Staff.

Q. Please summarize the comments received from Staff.

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A. In its August 23, 2023 filing Alpena did not request any waivers, however if the expected costs exceeded those listed in Section 6, and Alpena files a waiver with the Commission, Alpena shall notify the Applicant of such and place the project in an on-hold status in regard to all interconnection timelines while the waiver is under Commission review. Staff did not support putting the applicant on hold during the review process, rather the Company should continue to process the application parallel with the waiver review if the customer agrees to cover associated study fees. Additionally, the Company should request expeditious review of the waiver request to minimize any delays the applicant should experience.

Q. Did Alpena incorporate Staff's comment into its revised procedures?

A. In section 5, Fixed Fees and Fee Caps, Alpena revised its procedure to continue to process the application in parallel with the waiver review if the customer agrees to cover associated study fees.

Q. Please summarize the checklist received from Staff?

A. The checklist provided by staff indicated Alpena's procedures and forms met the requirements of Rule 20 with the comment that initial screens are missing final part of Rule 46 Part 5(b).

Q. Did Alpena incorporate the final part of Rule 46 Part 5(b) into its procedures?

A. The final part of Rule 46 Part 5(b) was added to initial review screens in Sections 11 and 12.

Q. Do the three changes to distributed generation programs contained in PA 235, which supersede the MIXDG rules, and are referenced in the February 8 Order require modification of Alpena's procedures and forms?

A. After review of its proposed procedures and forms Alpena does not believe PA 235 will require

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modification to Alpena's interconnection procedures and forms. While the Distributed Generation program is referenced in the procedures the details impacted by PA 235 are only contained in Alpena's Distributed Generation Tariff.

Q. Is Alpena requesting any waivers to modify any fixed fees or fee caps listed in section R 460.926 Fees?

A. At this time Alpena is not requesting any waivers to modify any fixed fees or fee caps listed in section R 460.926, as Alpena does not have any history or cost data for conducting supplemental reviews, system impact studies, or facility studies. However, in its procedures, Alpena has included the right to file a request for a waiver pursuant to R 460.910 (Rule 10) if expected costs exceed those listed in Section 5 and, if Alpena files a waiver pursuant to R 460.910 (Rule 10) APC shall continue to process the application parallel with the waiver review if the customer agrees to cover associated study fees. If the customer does not agree to cover associated study fees the Project will be placed in an on-hold status in regards to all interconnection timelines while the waiver is under Commission review.

Q. Do modifications to Alpena's procedures address Staff's comments, comply with MIXDG Rule 20 and PA 235?

A. Yes, I believe Alpena has addressed all of Staff's comments and is in compliance with MIXDG Rule 20 and PA 235.

Q. Are you sponsoring any exhibits with your testimony?

A. In support of my testimony, I have prepared Exhibit A-1, which consists of Schedules as follows:

Schedule 1 Procedures for the Interconnection of Distributed Energy Resources to the

TESTIMONY OF
K A DRAGIEWICZ
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Alpena Power Company Distribution System

- Schedule 2* APC Pre-Application Form
- Schedule 3* APC Interconnection Application Form
- Schedule 4* APC System Impact Study Agreement
- Schedule 5* APC Facility Study Agreement
- Schedule 6* APC Interconnection Agreement Levels 1-3
- Schedule 7* APC Interconnection Agreement Levels 4-5

Q. **Does this complete your testimony?**

A. Yes, it does.

Exhibit

A-1

Schedule 1

Alpena Power Company
Interconnection Procedures

March 22, 2024

Procedures for the
Interconnection of Distributed
Energy Resources to the
Alpena Power Company
Distribution System

March 22, 2024
Case No. U-21483

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1. Introduction

These procedures for the interconnection of Distributed Energy Resources (DER) to the Alpena Power Company (APC) Distribution System

- Explain the basic process used to interconnect a DER
- Provides information on the technical requirements for a DER and the potential system impact a DER may have when interconnecting to the APC Distribution System

For specific rules for the interconnection of DERs please refer to the Department of Licensing and Regulatory Affairs Public Service Commission Interconnection and Distributed Generation Standards filed with the secretary of State on April 25, 2023.

The DER interconnection process is intended to efficiently:

- Determine if the proposed DER is compatible with the electric power system at the proposed interconnection point, and
- Identify and make any additions or modifications to the electric power system or modifications to the proposed DER installation necessary for compatibility.

These procedures for the interconnection of DER to the APC Distribution System are available at www.alpenapower.com pursuant to MI Rule 460.922 (Rule 22).

2. Applicability

This document provides guidance on the interconnection of a DER to the APC Distribution System. A DER includes both generators and energy storage devices capable of exporting active power to a distribution system.

The rules covering the interconnection of a DER to the APC Distribution System are governed by the Department of Licensing and Regulatory Affairs Public Service Commission Interconnection and Distributed Generation Standards. For further information on the specific rules and tariffs covering the use of DERs or other generators please contact:

Alpena Power Company
Attn: Jason Repke
401 N. Ninth Ave
Alpena, MI 49707
Phone: (989) 358-4900
Email: jr@alpenapower.com

A generator used in an automatic or manual transfer scheme in which electrical load is transferred between the APC Distribution System and the generator, but never paralleled with the APC Distribution System is not considered to be a DER. Such a generator must have an approved transfer

switch installed by a qualified electrician so that the generator and APC's service conductors cannot be paralleled.

These procedures cover the issues directly relating to the interconnection of a DER. It does not cover other issues a customer will need to consider when planning to install a DER, such as the terms and conditions relating to any purchase or sale of electric energy, environmental permitting, local ordinances, and fuel supply. Arrangement for purchase or sale of electric energy are handled separately from interconnection. The interconnection process only provides for the safe interconnection of the proposed DER without degradation in the power quality or reliability of the APC Distribution System. Interconnection with the APC Distribution System does not provide an Interconnection Customer any rights to utilize APC's Distribution System for the transmission, distribution or wheeling of electric power, nor does it limit those rights.

These procedures do not cover self-protection of the DER or all operating requirements for the DER. APC's review and authorization for parallel operation shall not be construed as confirming or endorsing the Interconnection Customer's design or as warranting the DER and interconnection systems' safety, durability or reliability. APC shall not, by reason of such review or lack of review, be responsible for the strength, adequacy or capacity of such equipment.

3. Definitions

Definitions as used in these procedures for the interconnection of DER are provided in accordance with MI Rule 460.901a and b. Any definition not included will conform with the MI Rule.

APC Distribution System – Facilities owned, leased, or controlled by APC that deliver electric power to its customers.

Accepted Date – Date which APC has determined the customers application, site diagram, l-line diagram and application fee and complete and conforming

Application Date – Date which APC has received the customers application, site diagram, l-line diagram and application fee

Business Day(s) – Monday through Friday, starting at 12:00:00 a.m. and ending at 11:59:59 p.m., excluding the following holidays: Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving, Day after Thanksgiving, Christmas Eve, Christmas Day, New Years Eve, New Years Day, and any day in which electric service is interrupted for 10% or more of an electric utility's customers.

Certified – An inverter-based system that has met acceptable safety and reliability standards by a nationally recognized testing laboratory in conformance with IEEE 1547.1-2020 and the UL 1741 September 28, 2021 edition except that prior to January 1, 2023, inverter-based systems which conform to the UL 1741SA September 7, 2016 edition are acceptable.

Commission – Michigan Public Service Commission

Distributed Energy Resource or DER – A source of electric power and its associated facilities that is connected to a distribution system. DER includes both generators and energy storage devices capable of exporting active power to a distribution system.

Distributed Generation Tariff – APC’s Commission approved tariff for distributed generation customers

Distribution System – Structures, equipment, and facilities owned and operated by APC to deliver electricity to end users, not including transmission and generation facilities that are subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC)

Fast Track Review – Procedure used for evaluating a proposed interconnection as defined in Section 12

High Voltage Distribution System – The part of APC’s Distribution System that operates at 34.5 kV or 138 kV.

Interconnection Customer – The person or entity, which may include the electric utility, responsible for ensuring a DER is operated and maintained in compliance with all local, state, and federal laws, as well as with all rules, standards, and interconnection procedures.

Level 1 – Certified project of 20 kWac or less

Level 2 – Certified project of greater than 20 kWac and not more than 150 kWac

Level 3 – A project of 150 kWac or less that is not certified, or a project greater than 150 kWac and not more than 550 kWac.

Level 4 – A project of greater than 550 kWac and not more than 1 MWac

Level 5 – A project of greater than 1 MWac.

Low Voltage Distribution System - The part of APC’s Distribution System that operates at 13.2 kV or lower.

Non-Export Track Review – Procedure for evaluating a proposed interconnection that will not inject electric energy into the APC Distribution System as defined in Section 11

Study Track Review – Procedure for evaluating a proposed interconnection as defined in Section 13

4. Overview of the Interconnection Process

APC is committed to providing safe reliable service to our customers at the lowest practical cost. This means that APC will perform as efficiently as practical the work necessary and appropriate to ensure

the continued safety of its employees and the public and continued reliable electric service to our customers.

Improper connection and operation of any source of electrical power, such as a DER, in parallel with the APC Distribution System could jeopardize the safety of APC employees and the public and could degrade the reliability and quality of the electric service to our customers. Therefore, no source of electrical power shall be operated in parallel with the APC Distribution System without the express written approval of APC.

DER projects are separated into the following levels depending on the kWac rating:

- Level 1 – 20 kWac or less
- Level 2 – More than 20 kWac and not more than 150 kWac
- Level 3 – More than 150 kWac and not more than 550 kWac
- Level 4 – More than 550 kWac and not more than 1 MWac
- Level 5 – More than 1 MWac

The project review track will vary depending on the project level and type and the tracks are listed below:

- Non-Export Track review
- Fast Track review
- Study Track review

5. Fixed Fees and Fee Caps

Applicants for interconnection to the Distribution System will be required to pay the fixed fees up to the listed fee caps as applicable in accordance with the following table:

Type/Description	Fee
Pre-application report fee	\$300
Distributed Generation Program Application Fee	\$50
Non-Export Track Fee for Certified DERs	\$100 + \$1/kWac
Non-Export Track Fee for Non-Certified DERs	\$100 + \$2/kWac
Fast Track Initial Review for Certified DERs	\$100 + \$1/kWac
Fast Track Initial Review for Non-Certified DERs	\$100 + \$2/kWac
Scoping Meeting Fee	\$300
Fast Track Supplemental Review	Actual Cost up to \$1,000
Study Track Review and Scoping Meeting Fee	\$300
System Impact Study Fee	Actual Cost up to \$10,000
Facilities Study Fee	Actual Cost up to \$15,000

APC reserves the right to file a request for a waiver pursuant to R 460.910 (Rule 10) if expected costs exceed those listed in Section 5. If APC files a waiver pursuant to R 460.910 (Rule 10) APC shall continue to process the application parallel with the waiver review if the customer agrees to cover associated study fees. If the customer does not agree to cover associated study fees the Project will be placed in an on-hold status in regards to all interconnection timelines while the waiver is under Commission review.

APC reserves the right to update the Fixed Fees and Fee Caps as provided under MI Rule 460.928 (Rule 28).

6. Voltage Ranges

The following voltage ranges and configurations, as required by MI Rule 460.920 (c) (Rule 20(c)) are available on APC’s Distribution System for interconnection applications:

Alpena Power Company Distribution System Voltage Ranges and Configurations		
Type	Voltage	Configuration
Secondary	120/240	1 Phase, Center Tap Neutral
Secondary	240/480	1 Phase, Center Tap Neutral
Secondary	120/208	3 Phase, Grounded Wye
Secondary	277/480	3 Phase, Grounded Wye
Low Voltage Distribution	7,620	1 Phase, Effectively Grounded Line to Neutral
Low Voltage Distribution	13,200	3 Phase, Grounded Wye
High Voltage Distribution	34,500	3 Phase, Ungrounded Delta
High Voltage Distribution	138,000	3 Phase, Grounded Wye

7. Pre-Application Report Request Procedure

A pre-application report request form is required for all Level 4 or Level 5 DER projects prior to submitting an Interconnection Application pursuant to MI Rule 460.930 (Rule 30). A Level 1, 2, or 3 DER project may, but is not required, to submit a Pre-Application Report Request Form.

The pre-application report request form is available on the APC website at (www.alpenapower.com) and must include all of the following information:

1. Project contact information, including name, address, phone number and email address.
2. Project location, as accurately as can be identified, which may be given by any of the following:
 - a. Street address with nearby cross streets and town
 - b. An aerial map with location clearly marked
 - c. GPS coordinates

3. Account number, meter number, pole number, or other equivalent information identifying the proposed point of common coupling, if available.
4. Whether the DER is any of the following:
 - a. Solar
 - b. Wind
 - c. Cogeneration
 - d. Storage
 - e. Solar with storage
 - f. Other type of DER
 - g. Capacity of the DER types in alternating current kW and kVA, and kWh for storage.
 - h. Whether the DER configuration is single phase or three-phase
 - i. Whether the DER will be a stand-alone generator, meaning no onsite load other than station service.
 - j. Whether the DER will be certified.
 - k. Whether new service is requested. If there is existing service, the customer account number and site minimum and maximum current or proposed electric loads in kW, if available, must be included, and how the load is expected to change must be specified.
 - l. Whether the location is new construction.
 - m. If applicable, whether the coupling between the generation and storage is alternating current or direct current and whether separate inverters will be used.

Once the pre-application report request is received and the applicant has paid the pre-application report fee as specified in Section 5, APC will notify the applicant within 20 business days if the request is complete and conforming. If it is not complete and conforming APC will notify the applicant and include a written list of all deficiencies.

Once the applicant has been notified the pre-application report request is complete and conforming APC will provide a pre-application report within 30 business days that includes the following information pursuant to MI Rule 460.932 (Rule 32):

1. The substation bus, bank, or circuit most likely to serve the point of common coupling.
2. Total capacity, in MW, of substation bus, bank, or circuit based on normal or operating limits likely to serve the proposed point of common coupling.
3. Existing aggregate capacity, in MW, interconnected to a substation bus, bank, or circuit likely to serve the proposed point of common coupling.
4. Aggregate capacity, in MW, of generation not yet built but found in previously accepted interconnection applications, for a substation bus, bank, or circuit likely to serve the proposed point of common coupling.
5. Available capacity, in MW, of substation bus, bank, or circuit likely to serve the proposed point of common coupling.
6. Substation nominal distribution voltage.

7. Nominal distribution circuit voltage at the proposed point of common coupling.
8. Name and circuit number of the distribution circuit on which the proposed point of common coupling is located.
9. Approximate circuit distance between the proposed point of common coupling and the substation.
10. The actual or estimated peak load and minimum load data at any relevant line section or sections, including daytime minimum load and absolute minimum load, when available. If not readily available, the report must indicate whether the generator is expected to exceed minimum load on the circuit.
11. Whether the point of common coupling is located behind a line voltage regulator and whether the substation has a load tap changer.
12. Limiting conductor ratings from the proposed point of common coupling to the distribution substation.
13. Number of phases available at the primary voltage level at the proposed point of common coupling, and, if a single phase, distance from the 3-phase circuit.
14. Whether the point of common coupling is located on a spot network, area network, grid network, radial supply, or secondary network.
15. Based on the proposed point of common coupling, the report must indicate whether power quality issues may be present on the circuit.
16. Whether or not the area has been identified as having a prior affected system.
17. Whether or not the site will require a system impact study for high voltage distribution based on size, location, and existing system configuration

APC intends to treat multiple DERs with a common point of coupling as a single application. An applicant may request additional pre-application reports if information about multiple points of common coupling are requested. No more than 10 pre-application report requests may be submitted by an applicant and its affiliates during a 1-week period. APC may reject additional pre-application report requests.

The pre-application report produced by APC is non-binding and does not confer any rights on the applicant.

8. Interconnection Application Procedure

The interconnection application procedure consists of the following steps:

1. Applicant completes an Interconnection Application by downloading the form from APC's website, www.alpenapower.com, and emailing to APC's Interconnection Coordinator at: jr@alpenapower.com
2. The interconnection application must include an expected annual kWh output of the generator or generators per one of the following methods:
 - a. Publicly available model (ex. NREL's PVWatts Calculator)

- b. Private model when model, assumptions, and data are provided to and approved by APC
 - c. Applicant supplied estimated capacity factors
 - d. APC reserves the right to reject any unverified annual generator output estimate
- 3. Applicant submits a site diagram
- 4. Applicant submits a 1-line diagram per the DER Level per MI Rule 460.936 (Rule 36)
 - a. Level 1 – Submitted by applicant (no seal or signature required)
 - b. Level 2 – Includes either a seal from a Michigan Licensed Professional Engineer or signed by an electrical contractor who is licensed in Michigan with the electrical contractor’s license number noted on the diagram.
 - c. Level 3 – Includes either a seal from a Michigan Licensed Professional Engineer or signed by an electrical contractor who is licensed in Michigan with the electrical contractor’s license number noted on the diagram.
 - d. Level 4 - Includes a seal from a Michigan Licensed Professional Engineer
 - e. Level 5 - Includes a seal from a Michigan Licensed Professional Engineer
- 5. Applicant submits applicable application fee per Section 5.
- 6. Applicant must demonstrate site control in one of the following ways pursuant to MI Rule 460.934 (Rule 34):
 - a. Level 1 and 2 DERs
 - i. Proof of site control may be demonstrated by the site owner’s signature and contact information on the application
 - b. Level 3, 4 and 5 DERs
 - i. Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing and operating the DER.
 - ii. An enforceable option to purchase or acquire a leasehold site for this purpose.
 - iii. A legally binding agreement transferring a present real property right to specified real property along with the right to construct and operate a DER on the specified real property for a period of time not less than 5 years.
- 7. Once the application, site diagram, 1-line diagram, site control documentation and fee are received by APC the application will be date stamped and this will be the Application Date.
- 8. Within thirteen (13) business days of the Application Date APC will notify the applicant that all application documents have been received and will issue the applicant an application number. MI Rule 460.936(6). Rule 36(6).
- 9. Within twenty (20) business days of the Application Date APC will notify the applicant of the following: MI Rule 460.936(7). Rule 36(7).
 - a. That the interconnection application is either complete and conforming, or incomplete, or non-conforming
 - b. If the interconnection application is complete and conforming which review track will be used and the date the application was accepted which will be known as the Accepted Date
 - c. If the interconnection application is incomplete or non-conforming a written list of all deficiencies will be included

10. In the case of an incomplete or non-conforming application the applicant will have up to 60 business days to correct and resubmit, otherwise the application will be considered withdrawn.

9. Existing Net Metering Customers

Existing customers being served under the legacy net metering tariff wishing to modify their existing DER may remain in the net metering tariff for the duration of their 10-year grandfather period if both of the following apply:

1. The applicant is not modifying the nameplate rating or estimated kWh output of the system
2. The applicant is adding an energy storage device that is only able to be charged by the applicants existing generation equipment and not by the utility

If both of the above conditions are not met the applicant must complete the interconnection application procedure and will be served under the Distributed Generation Tariff.

This section does not address existing applications for new DER service being modified under Section 10.

10. Modification to an Interconnection Application

The interconnection application modification procedure consists of the following steps:

1. At any point after an interconnection application is considered accepted but before the signing of an interconnection agreement, the applicant, APC, or the affected system owner may propose modification to the interconnection application that may improve the costs and benefits of the interconnection, or that improve the ability of APC to accommodate the interconnection. The applicant shall submit, in writing, all proposed modifications to any information provided in the interconnection application and APC shall perform an evaluation to determine whether the proposed modification is a material modification and provide the results to the applicant within 20 Business Days.
2. APC shall not be required to accept or implement a modification to the Distribution System or generation assets that is proposed by an applicant or affected system operator.
3. Neither APC nor the affected system operator may unilaterally modify an accepted interconnection application. If the DER is being evaluated by an individual study the timelines specific to the interconnection application will be placed on hold while the proposed modification is being evaluated.
4. For a proposed modification which APC has determined is a material modification, the applicant may request a material modification review to determine whether the material modification is an acceptable material modification or an unacceptable material modification.
5. APC considers a Material Modification to be a modification to the DER nameplate rating, electrical size of components, bill of materials, machine data, equipment configuration, or the

- interconnection site of the DER at any time after receiving notification by APC of a complete interconnection application that has been reviewed and been determined to have or anticipated to have a material impact on 1 or more of the following:
- a. The cost, timing, or design of any equipment located between the point of common coupling and the DER.
 - b. The cost, timing, or design of any other application.
 - c. APC distribution system or an affected system.
 - d. The safety or reliability of the distribution system.
6. The procedure for completing the material modification review will be to apply the same screening criteria and studies to the modified project as were applied to the original project. If the modified DER fails any screens that were passed by the original project or, in the option of APC, has a materially different study outcome the modification will be considered an unacceptable material modification.
 7. The applicant will be responsible for any screening or study fees resulting from the requested modification.
 8. APC shall complete the material modification review and determine which of the following options are available to the applicant:
 - a. If the modification is an unacceptable material modification, the applicant may withdraw the modification or withdraw the application.
 - b. If the modification is an acceptable material modification and requires minimal or no restudy, the application study activities will resume with the modification and no change to the timing.
 - c. If the modification is an acceptable material modification but requires restudy, APC shall expedite the restudy. The applicant shall pay any required fee for the expedited restudy.
 9. The applicant may request a 1-hour consultation to discuss the results of the material modification review.
 10. The applicant shall notify APC of its course of action selected from the material modification review within 10 Business Days of receiving the results or the modification will be considered withdrawn.
 11. If the proposed modification is determined not to be a material modification or is determined to be an acceptable material modification, APC shall notify the applicant that the proposed modification has been accepted.
 12. If the modification is considered an unacceptable material modification, the applicant shall withdraw the proposed modification, or initiate mediation pursuant to R 460.904 or R460.906, or file a complaint pursuant to R 792.10439 to R 792.10446 within 10 Business Days of receipt of a decision, or proceed with a new interconnection application for this modification. If the applicant does not provide its determination within the 10 business days the application will be considered withdrawn.
 13. Any modification to the interconnection application or to the DER that could affect the operation of the distribution system, including but not limited to, changes to machine data, equipment configuration, or the interconnection site of the DER, not agreed to in writing by

APC and the applicant will be treated as a withdrawal of the interconnection application requiring submission of a new interconnection application.

14. If at any point prior to the execution of an interconnection agreement, changes to ownership will cause the interconnection application to be placed on hold until the new owner signs all necessary agreements and documents. If a new owner does not sign all required documents and agreements within 30 Business Days the application will be considered withdrawn.
15. Examples of modifications that are not material modification include but are not limited to:
 - a. A change in ownership of a DER; the new owner, however, will be required to execute a new Interconnection Application Form and study agreements for any study that has not been completed and the report issued by APC;
 - b. Replacing a component with another component that is considered like-kind with near-identical characteristics;
 - c. An increase in the DC/AC ratio that does not increase the maximum AC output capability of the generating facility;
 - d. A decrease in the DC/AC ratio that does not reduce the AC output capability of the generating facility by more than 25% before the System Impact Study Agreement or Facilities Study Agreement has been executed or by more than 10% after the System Impact Study Agreement or Facilities Study Agreement has been executed.
 - e. A change in the DC system configuration to include additional equipment that does not impact the maximum generating capacity, daily production profile, or the proposed AC configuration of the DER or energy storage device, including DC optimizers, DC-DC converters, DC charge controllers, powerplant controllers, and energy storage devices such that the output is delivered during the same periods and with the same profile considered during the system impact study.
16. Examples of modifications that are acceptable material modifications include but are not limited to:
 - a. The addition of an energy storage device that does not change the AC nameplate rating of the DER
 - b. A change in point of interconnection to a new location that is on the same circuit less than two poles away from the original location, and the new point of interconnection is within the same protection zone as the original location;
 - c. A change of transformer connections or grounding from that originally proposed;
17. Examples of modifications that are unacceptable material modifications include but are not limited to:
 - a. A change in point of interconnection to a new location, that is not on the same circuit less than two poles away from the original location, or the new point of interconnection is not within the same protection zone as the original location
 - b. A change or replacement of generating equipment, such as generators, inverters, transformers, relaying, or controls, that is not a like-kind substitution in size, ratings, impedances, efficiencies, or capabilities of the equipment specified in the original or preceding interconnection request
 - c. A change from certified to noncertified devices

- d. A change to certified inverters with different specifications or different inverter control specifications or set-up than originally proposed
- e. An increase of the maximum generating capacity of a DER; or a change reducing the maximum generating capacity of the DER by more than 25% before the System Impact Study Agreement or Facilities Study Agreement has been executed or by more than 10% after the System Impact Study Agreement or Facilities Study Agreement has been executed.

11. Non-Exporting Track Review Procedure

A DER could be configured to limit injection of energy to APC's Distribution System. For example, a solar plus energy storage system could be configured so the storage device's role is to capture electricity generated by the solar system during the day for use onsite after the sun goes down, rather than injecting it back into the grid.

Non-exporting DERs must meet the following specifications;

1. Be Certified for non-export operation
2. Ensure that the system enters a "safe" mode if control system failure occurs

An applicant is encouraged to contact APC before submitting a Non-Exporting application for assistance in determining whether a Non-Export Track Review will be sufficient or the Study Track Review is necessary. APC, in its sole discretion, may limit the size of Non-Export Applications and require additional testing.

The Non-Export Track Review consists of the following steps pursuant to MI Rule 460.942 (Rule 42);

1. Applicant completes an Interconnection Application per Section 8.
2. Within 30 business days of the Accepted Date APC will perform an initial review of the DER utilizing the following initial review screens
 - a. The entire proposed DER, including all aggregated site generation and point or points of interconnection, must be located within the electric utility's service territory.
 - b. For interconnection of a proposed DER to a radial distribution circuit, the aggregated generation, including the proposed DER, on the circuit may not exceed 15% of the line section annual peak load as most recently measured or calculated if measured data is not available. A line section is that portion of an electric utility's distribution system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. This screen does not apply to level 1 and level 2 non-export DER applications. In the event daytime loading data is not available, the data must be collected by a date specified in interconnection procedures approved by the Commission, and is not considered as part of the aggregate generation, for purposes of

this screen, DER capacity known to be already reflected in the minimum load data. This screen does not apply to level 1 and level 2 non-export DER applications.

- c. For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and, together with the aggregated other inverter-based DERs, may not exceed the smaller of 5% of a network’s maximum load or 50 kWac.
- d. The proposed DER, in aggregation with other DERs on the distribution circuit, may not contribute more than 10% to the distribution circuit’s maximum fault current at the point on the primary voltage nearest the proposed point of common coupling. This screen does not apply to level 1 applications.
- e. The proposed DER, in aggregate with other DERs on the distribution circuit, may not cause any distribution protective devices and equipment or interconnection customer equipment on the system to exceed 87.5% of the short circuit interrupting capability. An interconnection may not be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability. Distribution protective devices and equipment include, but not limited to, substation breakers, fuse cutouts, and line reclosers. This screen does not apply to level 1 applications.
- f. The initial review screen determines the type of interconnection to a primary distribution line for the proposed DER, according to the requirements specified in the table of this subdivision. This screen includes a review of the type of electrical service provided to the applicant, including line configuration and the transformer connection to limit the potential for creating over-voltages on the electric utility’s distribution system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result
3-Phase, 3 Wire	3-Phase or single phase, phase-to-phase	Pass screen
3-Phase, 4 Wire	Effectively-grounded 3-phase or single-phase, line-to-neutral	Pass screen

- g. If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER export capacity, may not exceed 20 kWac or 65% of the transformer nameplate rating.
- h. If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition may not create an imbalance between the 2 sides of the 240-volt service of more than 20% of the nameplate rating of the service transformer.
- i. If the proposed DER is single-phase and is to be interconnected to a 3-phase service, its nameplate rating may not exceed 10% of the service transformer nameplate rating.

- j. If the proposed DER's point of common coupling is behind a line voltage regulator, the DER's nameplate rating must be less than 250 kWac. This screen does not include substation voltage regulators.
3. If the application passes all the initial review screens and if no interconnection facilities, distribution upgrades, further study or application modifications are required the applicant will be notified within 20 business days of the specifications on any equipment the applicant will be required to install.
4. Within 10 business days of receiving the equipment specifications the applicant shall notify APC if they intent to proceed to an interconnection agreement or withdraw the application. If no notice is given to APC within the 10 Business Day period the application will be considered withdrawn.
5. If the application fails any of the initial review screens the applicant will be notified and have the option to review the project along another track or to provide a modified application within 60 Business Days. If the applicant does not respond within the 60 Business Day period the application will be considered withdrawn.

12. Fast Track Review Procedure

Level 1, level 2, level 3, and level 4 applications and level 5 applications as large as 5 MWac in which the DER is not proposing to interconnect with APC's High Voltage Distribution System are eligible for the fast track. These applications may include applications that provide for the use of an acceptable method for limited export. Applications that provide for the use of an energy storage device so the export of power meets the requirements of level 1, level 2, level 3, level 4 or level 5 as large as 5 MWac in which the applicant is not proposing to interconnect the DER with the electric utility's high voltage distribution system are also eligible for the fast track.

An applicant that is eligible for the fast track may forgo the fast track and proceed directly to the study track.

The Fast Track Initial Review consists of the following steps pursuant to MI Rule 460.946(Rule 46):

1. Applicant completes an Interconnection Application per Section 8.
2. Withing 20 Business Days of the Accepted Date of a level 1 or level 2 application or within 30 Business Days of the Accepted Date of a level 3, level 4, or level 5 application APC will perform an initial review of the DER utilizing the following initial review screens
 - a. The entire proposed DER, including all aggregated site generation and point or points of interconnection, must be located within the electric utility's service territory.
 - b. For interconnection of a proposed DER to a radial distribution circuit, the aggregate generation, including the proposed DER, on the circuit may not exceed 15% of the line section annual peak load as most recently measured or calculated if measured data is not available. A line section is that portion of an electric utility's distribution system

connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. The electric utility shall consider 100% of applicable loading, if available, instead of 15% of line section peak load for level 1 and level 2 DER. In the event daytime loading data is not available, the data must be collected by a date specified in interconnection procedures approved by the Commission, and is not considered as part of the aggregate generation, for purposes of this screen, DER capacity known to be already reflected in the minimum load data. This screen does not apply to level 1 and level 2 non-export DER applications.

- c. For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and, together with the aggregated other inverter-based DERs, may not exceed the smaller of 5% of network’s maximum load or 50 kWac.
- d. The proposed DER, in aggregation with other DERs on the distribution circuit, may not contribute more than 10% to the distribution circuit’s maximum fault current at the point on the primary voltage nearest the proposed point of common coupling. This screen does not apply to level 1 applications.
- e. The proposed DER, in aggregate with other DERs on the distribution circuit, may not cause any distribution protective devices and equipment or interconnection customer equipment on the system to exceed 87.5% of the short circuit interrupting capability. An interconnection may not be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability. Distribution protective devices and equipment include, but not limited to, substation breakers, fuse cutouts, and line reclosers. This screen does not apply to level 1 applications.
- f. The initial review screen determines the type of interconnection to a primary distribution line for the proposed DER, according to the requirements specified in the table of this subdivision. This screen includes a review of the type of electrical service provided to the applicant, including line configuration and the transformer connection to limit the potential for creating over-voltages on the electric utility’s distribution system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result
3-Phase, 3 Wire	3-Phase or single phase, phase-to-phase	Pass screen
3-Phase, 4 Wire	Effectively-grounded 3-phase or single-phase, line-to-neutral	Pass screen

- g. If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER export capacity, may not exceed 20 kWac or 65% of the transformer nameplate rating.

- h. If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition may not create an imbalance between the 2 sides of the 240-volt service of more than 20% of the nameplate rating of the service transformer.
 - i. If the proposed DER is single-phase and is to be interconnected to a 3-phase service, its nameplate rating may not exceed 10% of the service transformer nameplate rating.
 - j. If the proposed DER's point of common coupling is behind a line voltage regulator, the DER's nameplate rating must be less than 250 kWac. This screen does not include substation voltage regulators.
3. If the application passes all the initial review screens or if APC determines the proposed DER may be interconnected consistent with safety, reliability, and power quality the applicant will be notified within 20 Business Days. The notification will include any required interconnection or distribution upgrades.
 4. Within 10 Business Days of receiving the review notification the applicant shall notify APC if they intent to proceed to an interconnection agreement or withdraw the application. If no notice is given to APC within the 10 Business Day period the application will be considered withdrawn.
 5. If the application fails any of the initial review screens or if APC determines the proposed DER cannot be interconnected consistent with safety, reliability, and power quality standards the applicant will be notified and have the following options:
 - a. Schedule a customer options meeting to review possible facility modifications, screen analysis, and related results to determine what further steps are needed to permit the DER to be connected safely and reliably to the Low Voltage Distribution System. The customer options meeting must take place within 30 Business Bays of the initial review screen results notice.
 - b. To proceed to the Fast Track Supplemental Review
 - c. Submit within 60 business days a revised interconnection application that includes modifications offered or required by APC
 - d. Withdraw the application
 6. If the applicant does not select a course of action outlined above within 10 Business Days the application will be considered withdrawn.

The Fast Track Customer Options Meeting Procedure consists of the following steps pursuant to MI Rule 460.948 (Rule 48);

1. At the Customer Options Meeting APC shall offer the following options:
 - a. Proceed to a Fast Track Supplemental Review
 - b. Continue evaluating the interconnection application under the Study Track Review
 - c. Submit within 60 business days from the date of the customer options meeting, with up to 2 submissions during this time period, a complete and conforming revised interconnection application that includes application modifications offered or required by the electric utility, which mitigates or eliminates the factors that caused the

application to fail one or more of the initial review screens. After each submission of information APC will notify the customer within 20 Business Days that the interconnection application is either accepted or rejected due to continuing deficiencies. If the applicant does not meet this timeline the application will be considered withdrawn.

- d. Withdraw the interconnection application
2. Following the customer meeting, the applicant has up to 20 Business Days to decide on a course of action and notify APC. In the absence of this notification within the required time the application will be considered withdrawn.
3. The customer options meeting will take place either in person or via telecommunications, at the discretion of APC.

The Fast Track Supplemental Review consists of the following steps pursuant to MI Rule 460.950 (Rule 50):

1. APC will supply the applicant a total fee for the supplemental review not to exceed \$1,000.
2. If the applicant does not pay the supplemental review fee within 25 Business Days the application will be considered withdrawn.
3. Within 40 Business Days of APC receiving the supplemental review fee APC will complete the supplemental review and notify the applicant of the results.
4. The supplemental review consists of the following screens:
 - a. Minimum load screen. Where 12 months of line section minimum load data, including onsite load but not station service load served by the proposed DER, are available, can be calculated, can be estimated from existing data, or can be determined from a power flow model, the aggregate DER capacity on the line section must be less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed DER. If minimum load data is not available, or cannot be calculated, estimated, or determined, APC shall include the reason or reasons that it is unable to calculate, estimate, or determine minimum load in its supplemental review results. All of the following must be applied by APC.
 - i. The type of generation used by the proposed DER will be considered when calculating, estimating, or determining circuit or line section minimum load relevant for the application of the minimum load screen. Solar photovoltaic generation systems with no battery storage must use daytime minimum load. All other generation must use absolute minimum load unless an operating schedule is provided.
 - ii. When this screen is being applied to a DER that serves some station service load, only the net injection of electric energy into APC's distribution system may be considered as part of the aggregate generation.
 - iii. APC shall not consider as part of the aggregate generation, for purposes of this supplemental screen, DER capacity known to be already reflected in the minimum load data.

- b. Voltage and power quality screen. In aggregate with existing generation on the line section, all of the following conditions must be met:
 - i. The voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions.
 - ii. The voltage fluctuation is within acceptable limits as defined by the IEEE Standard 1435-2015, IEEE Recommended Practice for the Analysis of Fluctuating Installations on Power Systems.
 - c. Safety and Reliability Screen. The location of the proposed DER and the aggregate generation capacity on the line section may not create impacts to safety or reliability that require application of the study tack to address. APC shall consider all of the following when determining potential impacts to safety and reliability in applying this screen:
 - i. Whether the line section has significant minimum loading levels dominated by a small number of customers, such as several large commercial customers.
 - ii. Whether the loading along the line section is uniform.
 - iii. Whether the proposed DER is located less than 0.5 electrical circuit miles for less than 5 kV or less than 2.5 electrical circuit miles for greater than 5 kV from the substation. In addition, whether the line section from the substation to the point of common coupling is a mainline rated for normal and emergency ampacity.
 - iv. Whether the proposed DER incorporates a time delay function to prevent reconnection of the DER to the distribution system until distribution system voltage and frequency are within normal limits for a prescribed time
 - v. Whether operational flexibility is reduced by the proposed DER, such that transfer of the line section or sections of the DER to a neighboring distribution circuit or substation may trigger overloads, power quality issues, or voltage issues.
 - vi. Whether the proposed DER employs equipment or systems Certified by a recognized standards organization to address technical issues including, but not limited to, islanding, reverse power flow, or voltage quality.
5. If the application passes all the supplemental review screens or if APC determines the proposed DER may be interconnected consistent with safety, reliability, and power quality standards, APC shall notify the applicant and the interconnection application must proceed pursuant to both of the following:
- a. If the proposed interconnection requires a facilities study, the interconnection application must follow the Facilities Study Procedures listed below under the Study Track Review Procedures.
 - b. If the proposed interconnection does not require further study, the interconnection application must proceed to an interconnection agreement.
6. If the application fails any of the supplemental review screens or if APC determines the proposed DER cannot be interconnected consistent with safety, reliability, and power quality standards the applicant will be notified and have the following options:

- a. Stop the supplemental review and continue evaluating the proposal under the Study Track Review.
 - b. Withdraw the interconnection application
7. If the applicant does not respond and select a course of action to the results of APC supplemental review screen within 10 Business Days the application will be considered withdrawn.

13. Study Track Review Procedures

APC shall use the Study Track Review, pursuant to MI Rule 460.952 (Rule 52), to evaluate an interconnection application that has been accepted if one or more of the following conditions are met:

- 1. The DER is not eligible for the non-export track or fast track.
- 2. The DER did not pass the initial review screens as part of the fast track and the applicant selected the study track option in the customer options meeting.
- 3. The DER did not pass 1 or more supplemental review screens.
- 4. The DER was evaluated under the non-export track and further study is required.
- 5. The DER is eligible for the fast track, but the applicant elected the study track.

The Study Track Review Procedure consists of the following steps:

- 1. Once it is determined the application has been accepted and is to be reviewed under the Study Track APC will notify the applicant within 20 Business Days and present them with an individual study agreement.
- 2. After delivery of the Individual Study Agreement by APC the applicant will have 20 Business Days to execute the agreement and pay the Study Track Fees. If the applicant does not respond in 20 Business Days the application will be considered withdrawn.
- 3. Upon request from the applicant, APC and the applicant shall schedule a scoping meeting to discuss the interconnection application and review existing fast track results, if any. The scoping meeting must take place within 30 Business Days after the interconnection application is considered complete by APC or, if applicable, the fast track has been completed and the applicant has elected to continue with the system impact study or facilities study.
 - a. Scoping meetings are limited to 1 hour per application. Multiple applications by the same applicant may be addressed in the same meeting.
 - b. The scoping meeting may occur in-person or via telecommunications
 - c. During the scoping meeting, APC shall identify and communicate to the applicant whether the application must proceed to a system impact study, a facilities study, or an interconnection agreement and the basis for that decision, and one of the following must occur.
 - i. If a system impact study must be performed, the interconnection application proceeds to the impact study procedures in Section 14

- ii. If a facilities study must be performed, the interconnection application proceeds to the facilities study procedures in Section 15
- iii. If no further studies must be performed the interconnection application proceeds to an interconnection agreement procedure in Sections 17, 18 and 19.

14. System Impact Study Procedures

The System Impact Study procedures consist of the following steps pursuant to MI RULE 460.960 (Rule 60):

1. Within 15 Business Days of proceeding to the System Impact Study APC will provide the applicant with a System Impact Study Agreement which consists of the following:
 - a. An outline of the scope of the study
 - b. The applicable fee including appropriate credit for any studies previously completed pursuant to the fast track or non-export track.
 - c. If necessary, a list of any additional and reasonable technical data needed from the applicant to perform the system impact study.
 - d. A timeline for completion of the system impact study
 - e. A list of information that must be provided to the applicant in the system impact study report.
2. An applicant that has requested a system impact study shall return the completed system impact study agreement, provide any additional technical data requested by the electric utility, and pay the required fee within 20 business days. APC will consider the application withdrawn if the system impact study agreement, payment, and required technical data are not returned within 20 Business Days.
3. APC may request reasonable additional data from the applicant within 20 business days of beginning the system impact study. APC and the applicant shall work together to resolve the additional data requests so APC will be able to complete the system impact study within 70 Business Days.
4. The system impact study report will identify and describe the electric system impacts that would result if the proposed DER was interconnected without electric system modifications and will also include a non-binding good faith list of facilities that are required as a result of the application and non-binding estimates of costs and time to construct these facilities.
5. If the system impact study identifies an affected system issue APC will identify the affected system owner in the impact study report and will put forward reasonable effort to coordinate a system impact study review meeting with all affected parties.
6. An interconnection may be delayed due to an affected system issue identified in the study report. When an interconnection application is delayed due to an affected system issue, other interconnection applications that were placed into the study track on a later date may progress in the order in which the interconnection applications were placed into the study track.

7. Within 15 Business Days of receiving the system impact study report, the applicant shall notify APC that it plans to pursue a system impact study review meeting, proceed to a facilities study agreement or withdraw the application. If the applicant fails to notify the electric utility within 15 business days, the electric utility may consider the application to be withdrawn.
8. Upon request by the applicant, APC and the applicant shall schedule a system impact study review meeting to review system impact study results and determine what further steps are needed to permit the DER to be connected safely and reliably to the Distribution System. The system impact study review meeting must take place within 25 Business Days of APC receiving notification that the applicant plans to attend a system impact study review meeting.
9. At the system impact review meeting, APC shall offer the applicant all of the following options:
 - a. Proceed to a Facilities Study per the facilities study procedures in Section 15
 - b. Proceed to an interconnection agreement per the interconnection agreement procedures in Sections 17, 18 and 19.
 - c. Withdraw the application
10. Following the system impact review meeting, the applicant has not more than 45 Business Days to decide on a course of action. If the applicant fails to notify APC within 45 Business Days the application will be considered withdrawn.
11. The system impact study review meeting may occur in-person or via telecommunications.

15. Facilities Study Review Procedures

If construction of facilities is required to provide interconnection and interoperability of the DER with the APC's Distribution System, APC shall provide the applicant a facilities study agreement and the results of the applicant's system impact study, if applicable. The agreement shall be provided to the applicant within 10 Business Days of proceeding to this step.

The Facilities Study Review Procedures consist of the following steps pursuant to MI RULE 460.962 (Rule 62):

1. The facilities study agreement will include the following:
 - a. An outline of the scope of the study
 - b. The applicable fee including appropriate credit for any studies previously completed pursuant to the fast track or non-export track.
 - c. A timeline for completion of the facilities study
 - d. A list of the information that will be provided to the applicant in the facilities study report.

2. The applicant shall return the signed facilities study agreement and pay the required facilities study fee within 20 Business Days. If the agreement and fee are not received by APC within 20 Business Days the application will be considered withdrawn.
3. The facilities study report shall provide detailed and itemized cost estimates of the required equipment, engineering, procurement, and construction work, including overheads, needed to interconnect the DER, and an estimated timeline for completing the work.
4. APC shall complete the facilities study and transmit a facilities study report within 80 Business Days of receipt of the signed facilities study agreement and payment of the facilities study fee.
5. If the facilities study identifies an affected system issue APC will identify the affected system owner in the facilities study report and will put forward reasonable effort to coordinate a facilities study review meeting with all affected parties.
6. An interconnection may be delayed due to an affected system issue identified in the study report. When an interconnection application is delayed due to an affected system issue, other interconnection applications that were placed into the study track on a later date may progress in the order in which the interconnection applications were placed into the study track.
7. Within 10 Business Days of receiving the facilities study report the applicant shall select 1 option from the following options:
 - a. Request a facilities study review meeting with APC
 - b. Proceed to an interconnection agreement per the interconnection agreement procedures in Sections 17, 18 and 19
 - c. Withdraw the application
8. If the applicant fails to inform APC of its selected course of action within 10 Business Days of its chosen course of action the application will be considered withdrawn.
9. Upon request by the applicant, APC and the applicant shall schedule a facilities study review to review the facilities study results and determine what further steps are needed to permit the DER to be connected safely and reliably to the Distribution System. The facility study review meeting must take place within 35 Business Days of the electric utility receiving notification that the applicant will attend a facilities study review meeting.
10. At the facilities study review meeting APC will offer both of the following options:
 - a. Proceed to an interconnection agreement per the interconnection agreement procedures in Sections 17, 18 and 19
 - b. Withdraw the application
11. Following the meeting, the applicant has no more than 20 Business Days to decide on a course of action and notify APC of this course of action. If the applicant fails to notify the electric utility within 20 Business Days, the application will be considered withdrawn.
12. The facilities study review meeting may be conducted in-person or via telecommunication.

16. Cost Allocation

In accordance with MI Rule 460.970 (Rule 70) costs for interconnection facilities, distribution upgrades, and associated operation and maintenance costs are classified into 1 of the following categories:

1. Site-specific costs, which include, but are not limited to, costs of interconnection facilities and distribution upgrades that are caused by one DER, whether that DER is electrically co-incident with other DERs or not. These costs must be assigned to the cost causing applicant.
2. Study track fees, which include, but are not limited to, scoping meeting fees, facilities study fees, and facility study fees will be assigned to the cost causing applicant. Where study track tasks are shared by multiple Applicants those costs will be split equally amongst Applicants whose Projects necessitate the shared studies.
3. Shared interconnection facilities shall be split equally amongst Applicants whose Projects necessitate the shared interconnection facilities. Once an Applicant's Project interconnection facilities are in service, the upfront original cost to install those interconnection facilities can no longer be shared by future Applicants. Costs of ongoing ownership, maintenance, and future repair/replacement can still be shared by future applicants that share the interconnection facilities in accordance with interconnection agreements.
4. Shared distribution upgrade costs shall be allocated according to the impact of each Applicant's generator on the limits exceeded for the shared distribution facilities. A simple example is shown below for a thermal constraint and the same methodology would be used for voltage, interrupting capability, or other constraints.

Limit Exceeded	Distribution Upgrade Cost	Impact of Project A	Impact of Project B
Load on line X exceeded limit by 5 MVA	Line X Upgrade (\$1M)	3 MVA	2MVA
Cost Allocation		$=(3/5*\$1M) = \$0.6M$	$=(2/5*\$1M) = \$0.4M$

5. Distribution upgrade costs for higher queued Applicants that have agreed to proceed to interconnection agreements will not be considered for cost allocation to lower queued applicants, unless requested and agreed to by all applicants affected.
6. Distribution upgrade costs and allocations of costs are subject to change due to the potential for an Applicant to withdraw until an Applicant's Project is in service and costs are reconciled per the interconnection agreements. APC shall endeavor to notify an Applicant as soon as possible after it becomes aware that an Applicant's cost for distribution upgrades changes due to any other Applicant withdrawing a Project or Projects.

17. Interconnection Agreement Procedures - Level 1, 2, and 3 Projects

The interconnection agreement procedures for Level 1, 2 and 3 projects consist of the following steps pursuant to MI Rule 460.964 (Rule 64):

1. For Level 1, 2, or 3 interconnection applications, where no construction of interconnection facilities or distribution upgrades is required, APC shall provide its standard Level 1, 2, and 3 interconnection agreement to an applicant within 13 Business Days of reaching this stage.
2. For Level 1, 2, or 3 interconnection applications, where construction of interconnection facilities or distribution upgrades is required, APC shall provide its standard Level 1, 2, and 3 interconnection agreement with modifications to address required construction activities, construction milestone timing, and cost to an applicant within 15 Business Days of reaching this stage. The applicant and APC shall mutually agree on the timing of construction milestones.
3. For an applicant with a Level 1, 2, or 3 interconnection applications, the applicant shall sign and return the standard Level 1, 2, or 3 interconnection agreement, with payment, if applicable, within 20 Business Days of receiving the agreement.
 - a. If the applicant did not sign and return the standard Level 1, 2, and 3 interconnection agreement and payment, if applicable, within 20 Business Days, APC shall notify the applicant of the missed deadline and grant an extension of 15 Business Days. If APC did not receive the signed Level 1, 2 and 3 interconnection agreement and any applicable payment during the 15-Business Day extension, APC will consider the application withdrawn.
 - b. If the applicant begins either the informal mediation pursuant to R 460.904, the formal mediation pursuant to R 460.906, or the complaint process pursuant to R 792.10439 to R 792.10446 within the 20 Business Days, the outcome of that process must establish a time frame for the applicant to return the signed interconnection agreement and any applicable payment.
4. For Level 1, 2, or 3 projects, APC shall countersign and provide a completed copy of the standard Level 1, 2, and 3 interconnection agreement within 20 Business Days of the applicant returning the signed standard Level 1, 2, and 3 interconnection agreement.

18. Interconnection Agreement Procedures - Level 4 and 5 Projects

The interconnection agreement procedures for Level 4 and 5 projects consist of the following steps pursuant to MI Rule 460.964 (Rule 64):

1. For Level 4 or 5 interconnection applications, where no construction of interconnection facilities or distribution upgrades is required, APC shall provide its standard Level 4 and 5 interconnection agreement to an applicant within 20 Business Days of reaching this stage.

2. For Level 4 or 5 interconnection applications, where construction of interconnection facilities or distribution upgrades is required, APC shall provide its standard Level 4 and 5 interconnection agreement with modifications to address required construction activities, construction milestone timing, and cost to an applicant within 20 Business Days of reaching this stage. The applicant and APC shall mutually agree on the timing of construction milestones.
3. For an applicant with a Level 4 or 5 interconnection applications, the applicant shall sign and return the standard Level 4 or 5 interconnection agreement, with payment, if applicable, within 30 Business Days of receiving the agreement.
 - a. If the applicant did not sign and return the standard Level 4 and 5 interconnection agreement and payment, if applicable, within 30 Business Days, APC shall notify the applicant of the missed deadline and grant an extension of 15 Business Days. If APC did not receive the signed Level 4 and 5 interconnection agreement and any applicable payment during the 15-Business Day extension, APC will consider the application withdrawn.
 - b. If the applicant begins either the informal mediation pursuant to R 460.904, the formal mediation pursuant to R 460.906, or the complaint process pursuant to R 792.10439 to R 792.10446 within the 30 Business Days, the outcome of that process must establish a time frame for the applicant to return the signed interconnection agreement and any applicable payment.
4. For Level 4 or 5 projects, APC shall countersign and provide a completed copy of the standard Level 4 and 5 interconnection agreement within 20 Business Days of the applicant returning the signed standard Level 4 and 5 interconnection agreement.

19. Interconnection Agreement Procedures – All Level Projects

1. Applicant shall pay the actual cost of the interconnection facilities and distribution upgrades. The cost to the applicant for interconnection facilities and distribution upgrades may not exceed 110% of the estimate without an itemized summary and explanation of cost increases being provided to the applicant prior to be incurred. The cost may not exceed 125% of the estimate without the consent of the applicant prior to the costs being incurred. See MI Rule 64(8).
2. A party's obligations under the interconnection agreement may be extended by agreement. If a party anticipates that it will be unable to meet a milestone for any reason other than an unforeseen event, the party shall do all of the following:
 - a. Immediately notify the other party of the reason or reasons for not meeting the milestone.
 - b. Propose the earliest alternate date when it can attain this and future milestones.
 - c. Request amendments to the interconnection agreement, if needed to address the changed milestones. See MI Rule 64(9).

3. The party affected by the failure to meet a milestone shall not withhold agreement to any amendments proposed in (Section 19) (2) of this procedure unless 1 of the following applies:
 - a. The party affected will suffer significant uncompensated economic or operational harm from the amendment or amendments.
 - b. The milestone under question has been previously delayed.
 - c. The affected party has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the party proposing the amendment. See MI Rule 64(10).
4. If the party affected by the failure to meet a milestone disputes the proposed extension, the affected party may pursue either informal mediation pursuant to R 460.904, formal mediation pursuant to R 460.906, or the complaint process pursuant to R 792.10439 to R 792.10446.
5. APC shall provide the applicant with a final accounting report of any difference between costs charged to the applicant and previous payments to the electric utility for interconnection facilities or distribution upgrades. Both of the following apply regarding the final accounting:
 - a. If the costs charged to the applicant exceed its previous aggregate payments, APC shall bill the applicant for the amount due and the applicant shall make a payment to APC within 20 Business Days of the final accounting report. The applicant may dispute an invoice pursuant to either informal mediation pursuant to R 460.904, formal mediation pursuant to R 460.906, or the complaint process pursuant to R792.10439 to R792.10446. If there is a dispute, the applicant shall make payment within 30 business days of final resolution of the dispute. Failure by the applicant to pay its costs is cause for disconnection of the applicant's DER.
 - b. If the applicant's previous aggregate payments exceed its costs under the construction agreement, APC shall refund to the applicant an amount equal to the difference within 20 Business Days of the final accounting report. See MI Rule 64(12).
6. In the event that an executed interconnection agreement requires modification to comply with changes to an independent system operator, a regional system operator, or the MPSC the parties agree to modify the agreement, provided the modifications do not alter the rights or obligations of the interconnection. See MI Rule 64(13).

20. Telecommunications, Cybersecurity, Data Exchange or Remote-Control Operation

Customer owned communication devices are not allowed to connect directly to APC's network without the express written consent of APC. In the event a party requests data exchange or remote-control operation to allow the DER to be safely and reliably interconnected to the Distribution System the parties agree to enter into good faith discussions to amend the interconnection agreement and will not withhold agreement unless 1 of the following applies:

1. The party affected will suffer significant uncompensated economic or operational harm from the amendment or amendments.

2. The amendment will violate APC's cybersecurity policy and procedures in effect at the time of the execution of the interconnection agreement.
3. The amendment will violate APC's system operation policy and procedures in effect at the time of the execution of the interconnection agreement.

Data communication circuits allow for the remote exchange of data between APC and equipment located at the Project. Telemetry, disturbance monitoring, power quality monitoring, direct transfer trip, metering and pilot relaying generally require the use of data communication circuits. The Applicant is responsible for all costs including but not limited to materials, installation, operating, telecommunication, maintenance, cancellation fees and monthly charges for the data communication circuits.

APC will determine the quantity and type (e.g. cellular, fiber, radio) of the data communication circuits required for the application. APC will determine the requirements for the data communication circuits based on the parameters of the project including the location on the system, proximity to other utility assets and the protection, telemetry, and control requirements. APC will provide one or more options to the Applicant which may include utility owned circuits or acceptable leased data communication circuits. In the cases that the Applicant may be required by APC to order and acquire the leased data communication circuits. APC will provide information (e.g. costs, availability) regarding leased data communication circuits once made available by the telecommunication provider. APC is not responsible for any delays caused by the telecommunication provider in providing such information or increased interconnection costs.

Data communication circuits require the installation of equipment at the Project that is accessible to APC and the telecommunications provider. The Applicant shall provide a suitable location, approved by APC, for the Applicant and/or telecommunication provider to install any necessary communication circuit equipment and sufficient space for any APC equipment, risers, antennas, or supporting infrastructure as specified in the construction agreements or design. A review of each installation shall be made to determine the location and space requirements most agreeable to APC and the Applicant. APC will provide the utility information necessary for proper installation of the equipment. The required equipment will vary based on the type of communication circuit. The Applicant and APC shall work together to install the data communication circuit.

APC personnel require the use of cellular phone service while performing checkout of the communication circuits. The Applicant must provide an alternative voice communication method, approved by APC, when cellular phone service is not available. All copper and fiber Communication Circuits must be properly protected as detailed in IEEE Std. 487 and IEEE Std 1590, respectively.

21. Inspection, Testing, and Commissioning

The inspection, testing and commission procedures consist of the following steps pursuant to MI Rule 460.966 (Rule 66):

1. An Applicant shall notify APC when installation of a DER is complete and provide the following:
 - a. Confirmation that an electrical inspection was completed and approved by the inspector having jurisdiction.
 - b. As built site diagram, if different than provided in the application
 - c. As built 1 line diagram, if different than provided in the application
 - d. Any test reports or configuration documents specified in the interconnection agreement
2. APC shall review the supplied documentation and notify the applicant of the proposed date and time to visit the site and witness commissioning tests specified in the interconnection agreement within:
 - a. 20 Business Days for Level 1, 2, or 3 applications
 - b. A mutually agreed upon timeframe for Level 4 or 5 application
3. If the applicant cannot meet at the specified date and time the DER must remain disconnected until the applicant and APC can complete the inspection and testing.
4. With 15 Business Days of APC visiting the site to inspect the DER and witnessing the commissioning tests APC will issue a report notifying the applicant whether it has accepted or rejected the commissioning test report and found the site to be satisfactory or unsatisfactory.
 - a. If the commission test report is accepted and the site was found satisfactory the application shall proceed to a Parallel Operation Authorization as described in Section 21.
 - b. If APC rejects the commissioning test report or did not find the site satisfactory, APC shall provide its reasons for doing so in writing and the applicant has not less than 20 Business Days to implement corrections. The applicant, after taking corrective action, shall request another site visit and allow APC to witness the commissioning tests. The applicant will be billed for actual time and material charges, including overheads, of any re-inspections.
5. If the applicant does not notify APC that the DER is installed and ready to test, APC may, in writing, query the status of the interconnection. If the applicant does not provide a written response within 10 Business Days or no progress is evident, the application may be considered withdrawn.

22. Parallel Operation Authorization

The parallel operation authorization procedures consist of the following steps pursuant to MI Rule 460.968 (Rule 68):

1. APC shall provide the applicant written authorization to operate in parallel with the Distribution System within 15 Business Days of all of the following conditions being met:

- a. APC notified the interconnection applicant that the commission test and inspection, were applicable, and accepted.
 - b. The applicant complied with all applicable parallel operation requirements as set forth in APC's interconnection procedures and applicable interconnection agreement.
 - c. The applicant complied with all applicable local, state, and federal requirements.
 - d. APC received full payment for all outstanding bills.
2. With the written authorization, interconnection of the DER is considered approved for parallel operation, the DER may begin operating, and the applicant is considered an interconnection customer.
 3. The applicant shall not operate its DER in parallel with the Distribution System without prior written permission to operate from APC.

23. Disconnection

APC may refuse to connect, or may disconnect, a project from the distribution system if any of the following conditions apply:

1. Lack of written authorization from APC to interconnect or fully executed Generator Interconnection and Operating Agreement.
2. Termination of interconnection by mutual agreement.
3. Noncompliance with technical or contractual requirements in the Generator Interconnection and Operating Agreement, after 30 business days of notification is provided to the Applicant of the technical or contractual deficiency that does not degrade the reliability of the distribution system, electric utility equipment, and electric customers' equipment or presents a safety hazard.
4. Electric distribution system emergency
5. Routine maintenance, repairs, and modifications, performed in a reasonable time and with prior notice
6. Other material noncompliance with technical or contractual requirements in the Generator Interconnection and Operating Agreement.

APC may require disconnection of a Project from the distribution system for the above conditions, which may include but is not limited to the following examples:

1. When public safety is being jeopardized.
2. During voltage, frequency, or loading problems.
3. When abnormal sectionalizing or circuit configuration occurs on the APC system.
4. During scheduled shutdown of APC equipment that is necessary to facilitate maintenance or repairs.
5. In the event there is demonstrated electrical interference (e.g. voltage flicker, harmonic distortion, etc.) to APC customers, suspected to be caused by the Project, and such interference exceeds then current system standards. APC reserves the right to install special test equipment as may be required to perform a disturbance analysis and monitor the operation and control of

the Project to evaluate the quality of power produced by the Project. In the event that no standards exist, then the applicable tariffs and rules governing electric service shall apply. If the Project is the source of the interference, and that interference exceeds generally accepted industry standards, then it shall be the responsibility of the Applicant to eliminate the interference problem.

6. When either the Project or its associated synchronizing and protective equipment fails or is demonstrated by APC to be improperly maintained, so as to present a hazard to APC's system or its customers.
7. Whenever the Project is operating isolated (islanded) with other APC customers, for whatever reason.

APC may disconnect electric service in order to disconnect a Project from the electric system, pursuant to R 460.136.

24. Maintenance and Testing

APC reserves the right to test the relaying and control equipment that involves protection of the APC electric system whenever APC determines a reasonable need for such testing exists

The Applicant is solely responsible for conducting and documenting periodic maintenance and testing on the generating equipment and its associated control, protective equipment, interrupting devices, and main isolation device per manufacturer recommendations.

If protective relaying is required per the technical requirements, the Applicant is responsible for conducting and documenting periodic maintenance and testing every 4 years on relays and the associated interrupting devices, control schemes, and batteries, unless a written extension is provided by APC. If testing is required, it shall be conducted in accordance with the test procedures provided by APC as part of inspection testing or manufactures recommendations.

APC reserves the right to witness the testing. The Applicant is responsible for maintaining written reports for the above tests for a period of four years. These written reports shall be made available to APC upon request.

25. Interconnection Protection

Utility-grade relaying is generally not required for certified inverter Projects unless reverse or under power relaying is required for Non-Export or Limited-Export Projects. Any additional relaying which may be necessary to protect equipment at the Project is solely the responsibility of the Applicant.

1. APC employes automatic multiple-shot reclosing on most of the circuit breaker and circuit reclosers to increase the reliability of service to its customers. Automatic single-phase overhead reclosers are regularly installed on distribution circuits to isolate faulted segments of these circuits.

2. The Applicant is advised to consider the effects of Automatic Reclosing (both single-phase and three-phase) to assure that the Project's internal equipment will not be damaged. In addition to the risk of damage to the Project, an out-of-phase reclosing operation may also present a hazard to APC equipment not rated for built to withstand this type of reclosing.
3. APC will determine relaying and control equipment (e.g. volt check relays) that needs to be installed to protect its own equipment from out of phase reclosing. Installation of this protection will be undertaken by APC at the expense of the Applicant. APC shall not be liable to the customer with respect to damage(s) to the Project arising as a result of Automatic Reclosing
4. APC also installs single-phase fuses and/or reclosers on its distribution circuits to increase the reliability of service to its customers. Three-phase generator installations may require replacement of fuses and/or single phase reclosers with three-phase circuit breakers or circuit reclosers at the Applicant's expense.

26. Interconnection Protection Settings

The Applicant is required to set the relaying per the following guidelines:

1. 32R Relay – Reverse Power
 - a. This relay will be applied to Non-Export and Limited Export Projects. The reverse power relay must be selected such that it can detect a power flow into the APC system above the Project export capacity. The relay will normally be set to have 102% of the export capacity and will trip after a 5 second delay. The delay will avoid unnecessary tripping for momentary conditions.
2. 32U Relay – Under Power (Min Import)
 - a. This relay will be applied to Non-Export and Limited Export Projects. The under-power relay must be selected such that it can detect a minimum amount of power flow from the APC system. The relay will normally be set near its minimum (most sensitive) setting and will trip after a 5 second time delay. The delay will avoid unnecessary tripping for momentary conditions. Special consideration should be taken when selecting and setting an under-power function due to minimum operating quantities required for the function to operate correctly.
3. Inverter Setting Criteria
 - a. The Applicant is required to set the inverter to meet the default IEEE 1547-2018 requirements, including default setting to meet Category III trip, ride through, and frequency-droop (Freq-Watt) requirements.
 - b. APC may request changes to settings, that impact the safety and reliability of the distribution system. APC and the Project shall work together to implement any proposed setting changes.
4. Additional relaying and settings modifications may be required depending on the size and type of the Project.

27. Miscellaneous Operational Requirements

Miscellaneous requirements include synchronizing equipment, ramp rates, reclose blocking, reactive requirements, and system stability limitations.

1. Operating In Parallel

- a. The Applicant will be solely responsible for the required synchronizing equipment and for properly synchronizing the Project with the APC electric system. Voltage fluctuation at the PCC during synchronization is limited per IEEE 1547-2018.
- b. The Project must be capable of controlling the output of the active (ramp rates) after synchronization to avoid issues on the APC system, which includes but is not limited to voltage fluctuations, harmonics, or oscillations. The Project shall, upon request by APC, modify the active power output characteristics to prevent such issues after synchronization.
- c. The Project must be designed to prevent the Project from energizing into a de-energized APC line. The Project's circuit breaker or contactor must be blocked from closing in on a de-energized APC line.

2. Voltage and Frequency Ride Through

- a. Certified inverter Projects are required to meet ride through requirements by implementing the inverter setting criteria defined within these procedures.
- b. All under/over voltage and under/over frequency protective functions installed by the Applicant or APC are required to coordinate with ride through requirements

3. Reactive Power Control and Voltage Control

- a. The Project shall be designed to be capable of maintaining a continuous rated power output for export portion of the Project, at a power factor within the range of 0.9 (inject) to 0.9 (absorb) for inverter based Projects
- b. The Applicant shall control voltage at the PCC in accordance with instructions (e.g. voltage or reactive power schedule) provided by APC. Inverter based Projects shall be certified, to be capable of controlling the voltage level at the export portion of the Project using the following control modes:
 - i. Specified Power Factor (SPF)
 - ii. Voltage-Reactive Power (Volt-Var)
 - iii. Active Power-Reactive Power (Watt-Var)
 - iv. Constant Reactive Power
 - v. Voltage-Active Power (Volt-Watt)

4. Site Limitations

- a. The Applicant is responsible for evaluating the consequences of unstable generator operation or voltage transients on the Project equipment, and determining, designing, and applying any relaying which may be necessary to protect that equipment. This type of protection is typically applied on individual generators to protect the Project Facilities.

- b. APC will determine if operation of the Project will create objectionable voltage flicker and/or disturbances to other APC customers and develop any required mitigation measures at the Applicant's expense.

28. Insurance Requirements

Applicant is required to maintain the following minimum insurance requirements pursuant to MI Rule 460.986 (Rule 86)

1. Level 1 and level 2 project do not require additional liability insurance
2. For a level 3 project, the applicant shall obtain and maintain general liability insurance of a minimum of \$1,000,000.
3. For a level 4 project, the applicant shall obtain and maintain general liability insurance of a minimum of \$2,000,000.
4. For a level 5 project, the applicant shall obtain and maintain general liability insurance of a minimum of \$3,000,000.
5. For level 3, 4, and 5 projects APC shall be named as an additional insured party

Exhibit

A-1

Schedule 2

Alpena Power Company

Pre-Application Form

March 22, 2024

Alpena Power Company
Pre-Application Report Request Form
REQUIRED for Level 4 and 5 Distributed Energy Resource
OPTIONAL for Level 1 – 3 Distributed Energy Resource

Requests for an Interconnection Pre-Application Report shall include the information identified in MI RULE 460.930 (Rule 30) of the Michigan Administrative Rules for Interconnection and Distributed Generation Standards (MIXDG) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \$300.00 is required as specified in MI RULE 460.926 (Rule 26) of the MIXDG.

Upon receipt of a complete Pre-Application Report Request Form (including site aerial map) and processing fee, Alpena Power Company (APC) shall provide a report containing the information set forth in MI RULE 460.932 (Rule 32), to the extent the information exist and is readily available. As provided in MI RULE 460.932(6), APC shall provide the data required in the pre-application report to the applicant within 30 business days of receipt of the completed request form and payment of the fee. The pre-application report produced by the electric utility is non-binding and does not confer any rights on the applicant.

Requestor Contact Information:

Name	
Company Name	
Street Address	
City/State/Zip	
Contact Phone	
Contact Email	

Project Information:

Project Location	
Point of Common Coupling	

DER Type	
DER Capacity (AC/DC/KVA)	
DER Storage Capacity (kWh)	
DER Configuration (1 Phase or 3 Phase)	
Stand Alone Generator? (Y/N)	
Is DER Certified? (Y/N)	
Is New Service Requested? (Y/N)	
New Construction? (Y/N)	
Is there existing DER on the site? (Y/N)	
Service Voltage	
Estimated DER Output (kW/kWh)	
Estimated Total Site Output (kW/kWh)	
Estimated Site Usage (kW/kWh)	

An Site Map is required that shows the following:

- a) True north
- b) Proposed project location, including general area of project
- c) Proposed service point location
- d) Major roads, streets and/or highways

Requestor Signature:

Name (type or print): _____

Signature: _____

Date: _____

Exhibit

A-1

Schedule 3

Alpena Power Company
Interconnection Application
Form

March 22, 2024

Interconnection Installer Information

Name:	
Mailing Address:	
Telephone:	
Email	
Project Site Address:	
If capacity addition or Material Modification to existing facility , please describe:	

SECTION 2. DER/GENERATOR INFORMATION

DER Level/Category

- Level 1 – 20 kWac or less
- Level 2 – More than 20 kWac and not more than 150 kWac
- Level 3 – More than 150 kWac and not more than 550 kWac
- Level 4 – More than 550 kWac and not more than 1 MWac
- Level 5 – More than 1 MWac

Distributed Energy Resource Information

Data applies only to the Distributed Energy Resource not the Interconnection Facilities.

Energy Source:

<input type="radio"/> Solar	<input type="radio"/> Wind	<input type="radio"/> Storage	<input type="radio"/> Cogeneration
<input type="radio"/> Solar w/Storage	<input type="radio"/> Other	<input type="radio"/>	<input type="radio"/>

Expected Annual kWh Output

Amount _____

Methodology (Check one):

- Publicly available model (ex. NREL’s PVWatts Calculator)
- Private model when model, assumptions, and data are provided to and approved by APC
- Applicant supplied estimated capacity factors

NOTE: APC reserves the right to reject any unverified annual generator output estimate.

Generator System Information

Generator Type (Inverter, Induction, Synchronous)	
Total Generator(s) Nameplate DC Rating (Solar Only) kW	Total Generator Nameplate AC Rating kW
Generator AC Operating Voltage	Wiring Configuration (Single Phase, Three Phase}
Certified Test Record No (Testing to Standard UL 1741 Scope 1.1a}	

Generator System Site Information

Project Type (Base load, Peaking, Intermediate)	Energization Date for Project Interconnection Facilities
First Parallel Operation Date for Testing	Project Commercial Operation Date
Estimated Project Cost	Operation Mode
Attached Customer’s Proof of General Liability (See MI Rule 460.986) Insurance Proof - Page # APC Level 1 & 2 projects do not require additional liability insurance APC Level 3 Insurance Required \$1,000,000 minimum APC Level 4 Insurance Required \$2,000,000 minimum APC Level 5 Insurance Required \$3,000,000 minimum For Level 3, 4, and 5 projects APC shall be named as an additional insured party	
Attached Site Plan Page # __	
Attached Electrical One-Line Drawing Page # _____ (MI Rule 460.936, levels 4 and 5 require the applicant to shall provide a 1-line diagram that is sealed by a professional engineer who is licensed in Michigan.) <input type="checkbox"/> See Page 11 for sample Site Plan <input type="checkbox"/> See Page 12 for sample of Synchronous Generator Electrical One-Line Drawing	

<input type="checkbox"/> See Page 14 for sample of Induction Generator Electrical One-Line Drawing Attached Specification for Equipment
Page # __

Isolating Transformer(s) Between Generator(s) and Utility (Levels 3, 4, and 5 ONLY)

Transformer Model Number	Transformer Manufacturer
Rated kV and connection (delta, wye, wye-gnd) of each winding	kVA of each winding (kW)
BIL of each winding	Fixed taps available for each winding (kW)
Positive/Negative range for any LTC windings	% impedance on transformer self cooled rating (kW)
Percent Excitation current at rated kV	Load Loss Watts at full load or X/R ratio (kW)

SYNCHRONOUS, INDUCTION AND INVERTER GENERATOR - BASED SYSTEMS

The following information on these system components shall appear on the Electrical One-Line Drawing:

- Breakers – Rating, location and normal operating status (open or closed)**
- Buses – Operating voltage**
- Capacitors – Size of bank in Kvar**
- Circuit Switchers – Rating, location and normal operating status (open or closed)**
- Current Transformers – Overall ratio, connected ratio**
- Fuses – Normal operating status, rating (Amps), type**
- Generators – Capacity rating (kVA), location, type, method of grounding**
- Grounding Resistors – Size (ohms), current (Amps)**
- Isolating Transformers – Capacity rating (kVA), location, impedance, voltage ratings, primary and secondary connections and method of grounding**
- Potential Transformers – Ratio, connection**
- Reactors – Ohms/phase**
- Relays – Types, quantity, IEEE device number, operator lines indicating the device initiated by the relays**
- Switches – Location and normal operating status (open or closed), type, rating**
- Tagging Point – Location, identification**

Manufacturer	Model Name	Model Number
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Inverter Generators (If Applicable)

GENERATOR INFORMATION	
System Type (Solar, Wind, Biomass, Methane Digester, etc)	Generation Nameplate Rating (kW or MVA)
AC Operation Voltage	Manufacturer
Model (Name/Number)	Attached Grid Configuration
	Page # <u> </u>

Synchronous Generators (If Applicable)

GENERATOR INFORMATION	
Generator Nameplate Voltage	Generator Nameplate Watts or Volt-Amperes
Generator Nameplate Power Factor (pf)	RPM
TECHNICAL INFORMATION	
Minimum and Maximum Acceptable Terminal Voltage	
Direct Axis Reactance (saturated)	
Direct Axis Reactance (unsaturated)	
Quadrature Axis Reactance (unsaturated)	
Direct Axis Transient Reactance (saturated)	
Direct Axis Transient Reactance (unsaturated)	
Quadrature Axis Transient Reactance (unsaturated)	
Direct Axis Sub-Transient Reactance (saturated)	
Direct Axis Sub-Transient Reactance (unsaturated)	

Leakage Reactance
Direct Axis Transient Open Circuit Time Constant
Quadrature Axis Transient Open Circuit Time Constant
Direct Axis Sub-Transient Open Circuit Time Constant
Quadrature Axis Sub-Transient Open Circuit Time Constant
Open Circuit Saturation Curve
Reactive Capability Curve Showing Overexcited and Underexcited Limits (Reactive Information if Non-Synchronous)
Excitation System Block Diagram with Values for Gains and Time Constants (Laplace Transforms)
Short Circuit Current Contribution From Generator at the Point of Common Coupling
Rotating Inertia of Overall Combination Generator, Prime Mover, Couplers and Gear Drives
Station Power Load When Generator is Off-Line, Watts, pf
Station Power Load During Start-Up, Watts, pf
Station Power Load During Operation, Watts, pf

Induction Generators (If Applicable)

GENERATOR INFORMATION	
Generator Nameplate Voltage	Generator Nameplate Watts or Volt-Amperes
Generator Nameplate Power Factor (pf)	RPM
TECHNICAL INFORMATION	
Synchronous Rotational Speed	Rotation Speed at Rated Power
Slip at Rated Power	
Minimum and Maximum Acceptable Terminal Voltage	
Motoring Power (kW)	
Neutral Grounding Resistor (If Applicable)	
I ² 2t or K (Heating Time Constant)	
Rotor Resistance	
Stator Resistance	
Stator Reactance	
Rotor Reactance	
Magnetizing Reactance	
Short Circuit Reactance	
Exciting Current	
Temperature Rise	
Frame Size	

Design Letter
Reactive Power Required in Vars (No Load)
Reactive Power Required in Vars (Full Load)
Short Circuit Current Contribution from Generator at the Point of Common Coupling
Rotating Inertia, H in Per Unit on kVA Base, of Overall Combination Generator, Prime Mover, Couplers and Gear Drives
Station Power Load When Generator is Off-Line, Watts, pf
Station Power Load During Start-Up, Watts, pf

SECTION 3. REVIEW TRACK AND FEES

Track Review Requested (See Interconnection Procedures for more information):

<input type="checkbox"/> Non-Export Track Review	<input type="checkbox"/> Fast Track Review
<input type="checkbox"/> Study Track Review	

Fees

Non-Export Track Fee for Certified DERs	\$100 + \$1/kWac
Non-Export Track Fee for Non-Certified DERs	\$100 + \$2/kWac
Fast Track Initial Review for Certified DERs	\$100 + \$1/kWac
Fast Track Initial Review for Non-Certified DERs	\$100 + \$2/kWac
Scoping Meeting Fee	\$300
Fast Track Supplemental Review	Actual Cost up to \$1,000
Study Track Review and Scoping Meeting Fee	\$300
System Impact Study Fee	Actual Cost up to \$10,000
Facilities Study Fee	Actual Cost up to \$15,000

Enclosed Application Fees: _____

SECTION 4. PROOF OF SITE CONTROL AND SITE DIAGRAM

Applicant must demonstrate site control in one of the following ways pursuant to MI Rule 460.934 (Rule 34). Please select the appropriate method and attach the necessary documentation to demonstrate site control to the application:

Level 1 and 2 DERs

- Proof of site control may be demonstrated by the site owner’s signature on the application

Level 3, 4 and 5 DERs

- Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing and operating the DER.

- An enforceable option to purchase or acquire a leasehold site for this purpose.
- A legally binding agreement transferring a present real property right to specified real property along with the right to construct and operate a DER on the specified real property for a period of time not less than 5 years.

Please see Page 11 of this application for a sample Site Diagram.

SECTION 5. SINGLE LINE DIAGRAM

Applicant must submit a 1-line diagram per the DER Level per MI Rule 460.936. Depending on the Level of the project, there are certain requirements to be met:

- Level 1 – Submitted by applicant (no seal or signature required)
- Level 2 – Includes either a seal from a Michigan Licensed Professional Engineer or signed by an electrical contractor who is licensed in Michigan with the electrical contractor’s license number noted on the diagram.
- Level 3 – Includes either a seal from a Michigan Licensed Professional Engineer or signed by an electrical contractor who is licensed in Michigan with the electrical contractor’s license number noted on the diagram.
- Level 4 - Includes a seal from a Michigan Licensed Professional Engineer
- Level 5 - Includes a seal from a Michigan Licensed Professional Engineer

SECTION 6. CERTIFICATION AND SIGNATURE

Sign and Return Completed Application with Application Fee to Electric Utility Contact

To the best of my knowledge, all the information provided in this application form is complete and correct.

Customer Signature: _____ Date: _____

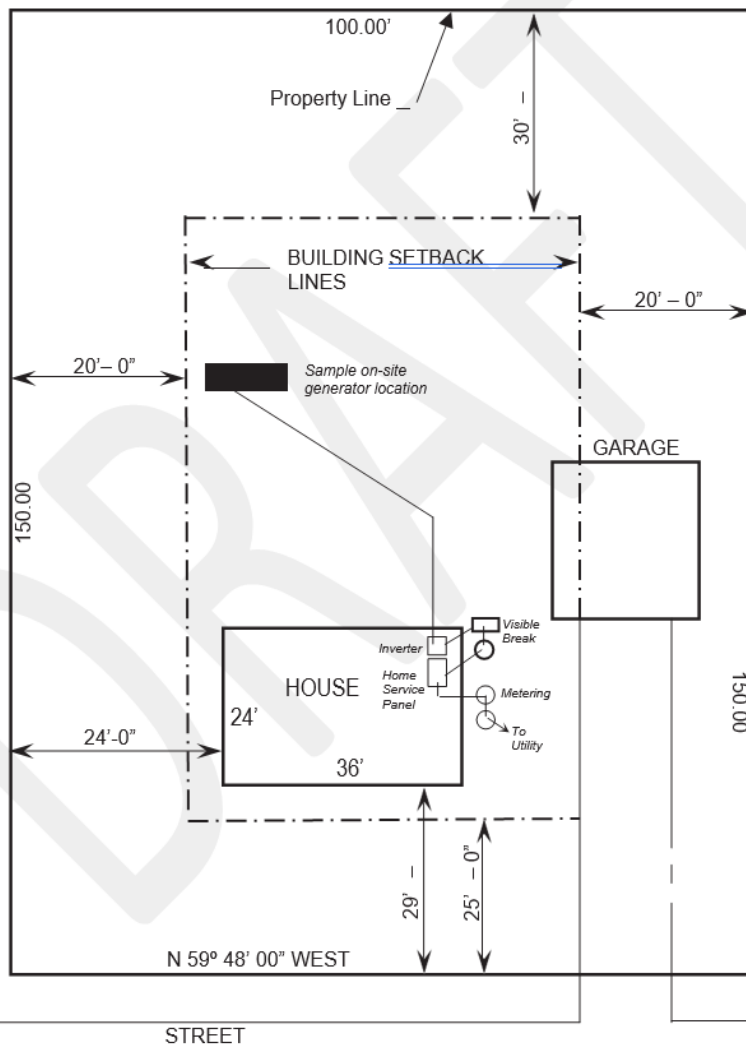
Project Developer/Contractor Signature (if applicable):
 _____ Date: _____

Note: Refer to the applicable “Michigan Electric Utility Interconnection Procedures” for a detailed explanation of the Interconnection Process, Fees, Timelines, and Technical Requirements.

SAMPLE SITE PLAN – PROVIDED FOR REFERENCE ONLY

Weblink to State of Michigan / Plats: <https://aca-prod.accela.com/LARA/Default.aspx>
 Legible hand drawn site plans are acceptable

SITE PLAN
Applicant
Address
City/Town
Signature



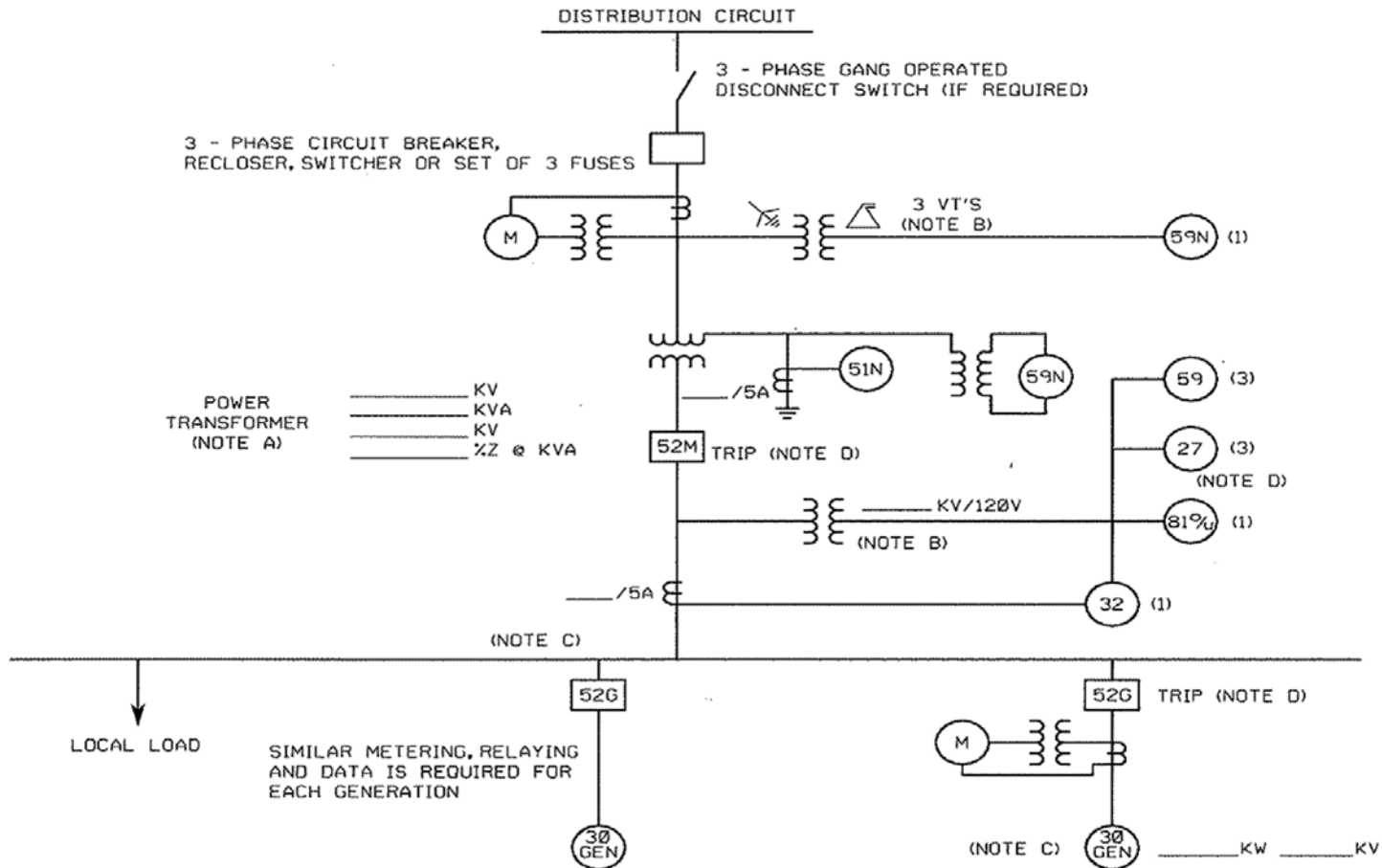
a 59N is required for an ungrounded secondary connection. IEEE std 1547 requirements for voltage and frequency must be met at the PCC. IEEE Std. 1547 permits the VT's to be connected at the point of generator connection in certain cases.

C) Main breaker protection, generator protection and synchronizing equipment are not shown.

D) Trip of all 52G breakers or the 52M breaker is acceptable, depending upon whether the Project Developer wants to serve its own isolated load after loss of Utility service.

**SAMPLE ELECTRICAL ONE-LINE DRAWING – PROVIDED FOR REFERENCE
ONLY TYPICAL ISOLATION AND FAULT PROTECTION FOR INDUCTION
GENERATOR**

ONE-LINE DRAWING	
Licensed PE/Contractor	PE/Contractor License Number
PE/Contractor Address	PE/Contractor Signature



LEGEND

- 27 Undervoltage
- 32 Reverse Power (Not Required for Flow-Back)
- 51N Neutral overcurrent (required for grounded secondary)
- 59 Overvoltage
- 59N Zero sequence overvoltage (assuming ungrounded secondary on power transformer) 81o/u
- Over/Underfrequency

NOTES

A) See technical requirements for permissible connection configurations and protection.

Transformer connections proposed shall be shown on the one-line drawing by the Project Developer. Transformer connection and secondary grounding to be approved by Utility.

- B) Protection alternatives for the various acceptable transformer connections are shown. Only one protection alternative will ultimately be used, depending on the actual transformer winding connections. VT's for 59, 27, 81o/u and 32 are shown connected on the primary (Project side) of the power transformer, but may instead be connected on the secondary (Utility side). VT's are required on the secondary of the power transformer if a 59N is required for an ungrounded secondary connection. IEEE std 1547 requirements for voltage and frequency must be met at the PCC. IEEE Std. 1547 permits the VT's to be connected at the point of generator connection in certain cases.**
- C) Main breaker protection, generator protection and synchronizing equipment are not shown.**
- D) Trip of all 52G breakers or the 52M breaker is acceptable, depending upon whether the Project Developer wants to serve its own isolated load after loss of Utility service.**

Exhibit

A-1

Schedule 4

Alpena Power Company

System Impact Study

Agreement

March 22, 2024

ALPENA POWER COMPANY
System Impact Study Agreement

Interconnection Customer Name:	
Facility Address:	
City, State, Zip:	
Mail Address:	
Mail City, State, Zip:	
Project Name:	
Project Level:	

This System Impact Study System Impact Study Agreement made and entered into this ____ day of _____, 20__ by and between _____, (“Interconnection Customer”), and Alpena Power Company. Interconnection Customer and Alpena Power Company each may be referred to as a “Party,” or collectively as the “Parties.”

WHEREAS, the Interconnection Customer is proposing to develop a Distributed Energy Resource (DER) or generating capacity addition to an existing DER consistent with the Interconnection Application completed by the Interconnection Customer on _____; and

WHEREAS, the Interconnection Customer desires to interconnect the DER with Alpena Power Company’s electric system;

WHEREAS, the Interconnection Customer has requested Alpena Power Company to perform a system impact study(s) to assess the impact of interconnecting the DER with Alpena Power Company’s electric system, and potential affected system(s);

- 1.0 When used in this System Impact Study Agreement, the terms specified shall have the meanings indicated or the meanings specified in *MI RULE 460.900 et. seq.* of the Michigan Administrative Rules for Interconnection and Distributed Generation Standards (MIXDG).
- 2.0 The Interconnection Customer elects and Alpena Power Company shall cause to be performed a system impact study(s) consistent with *MI RULE 460.960* (Rule 60).
- 3.0 As set forth in *MI RULE 460.960(c)*, the Interconnection Customer who has requested a system impact study shall return the completed system impact study agreement, provide any additional technical data requested by Alpena Power Company, and pay the required fee within 20 business days. Alpena Power Company may consider the application withdrawn if

the system impact study agreement, payment, and required technical data are not returned within 20 business days.

- 4.0 A system impact study will be based upon the technical information provided by Interconnection Customer in the Interconnection Application. As set forth in *MI RULE 460.960(g)*, Alpena Power Company reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study. Alpena Power Company and the Interconnection Customer shall work together to resolve the additional data request so that Alpena Power Company will be able to complete the system impact study within 60 business days.
- 5.0 Consistent with *MI RULE 460.960(b)*, a system impact study may, as necessary, consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. As set forth in *MI RULE 460.960(d)*, a system impact study shall provide a list of facilities that are required as a result of the Interconnection Application and non-binding good faith estimates of cost responsibility and time to construct.
- 6.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 7.0 Affected systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All affected systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems.
- 8.0 If Alpena Power Company uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all Distributed Energy Resources that, on the date the system impact study is commenced –
 - 8.1 Are directly interconnected with the Alpena Power Company electric system; or
 - 8.2 Are interconnected with affected systems and may have an impact on the proposed interconnection; and
 - 8.3 Have a pending higher queued Interconnection Application to interconnect with the Alpena Power Company's electric system.
- 9.0 Consistent with *MI RULE 460.960(a)*, a fee shall be required from the Interconnection Customer when the signed System Impact Study Agreement is provided to Alpena Power Company in the amount of \$_____.

- 10.0 Any study fees shall be based on Alpena Power Company’s actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.
- 11.0 Consistent with *MI RULE 460.960(b)(iv)*, the timeline for the completion of the system impact study is as follows:
- 12.0 As set forth in *MI RULE 460.960(h)*, within 15 business days of receiving the system impact study report, the Interconnection Customer shall notify Alpena Power Company that it plans to pursue a system impact study review meeting, proceed to a facilities study pursuant to *MI RULE 460.962*, or withdraw the application. If the Interconnection Customer fails to notify Alpena Power Company within 15 business days, Alpena Power Company may consider the application to be withdrawn.
- 13.0 As set forth in *MI RULE 460.960(i)*, upon request by the Interconnection Customer pursuant to *MI RULE 460.960(h)*, Alpena Power Company and the Interconnection Customer shall schedule a system impact study review meeting between the Parties to review system impact study results and determine what further steps are needed to permit the DER to be connected safely and reliably to the distribution system. The system impact study review meeting must take place within 35 business days of Alpena Power Company receiving notification that the Interconnection Customer plans to attend a system impact study review meeting. The system impact study review meeting may occur in-person or via telecommunications pursuant to *MI RULE 460.960(l)*.
- 14.0 As set forth in *MI RULE 460.960(j)*, at the system impact study review meeting, Alpena Power Company shall offer the Interconnection Customer all of the following options:
- (i) Proceed to a facilities study pursuant to R 460.962.
 - (ii) Proceed directly to R 460.964 for an interconnection agreement.
 - (iii) Withdraw the interconnection application.
- 15.0 As set forth in *MI RULE 460.960(j)(ii)(k)*, following the meeting, the Interconnection Customer has not more than 45 business days to decide on a course of action. If the Interconnection Customer fails to notify the electric utility within 45 business days, Alpena Power Company may consider the application to be withdrawn.

IN WITNESS THEREOF, the Parties have caused this System Impact Study Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Alpena Power Company

Interconnection Customer]

Signed: _____ Signed: _____

Name (Printed):

Name (Printed):

Title: _____ Title: _____

Exhibit

A-1

Schedule 5

Alpena Power Company

Facility Study Agreement

March 22, 2024

ALPENA POWER COMPANY
Facilities Study Agreement

Interconnection Customer Name:	
Facility Address:	
City, State, Zip:	
Mail Address:	
Mail City, State, Zip:	
Project Name:	
Project Level:	

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Distributed Energy Resource or generating capacity addition to an existing Distributed Energy Resource consistent with the Interconnection Application completed by the Interconnection Customer on _____; and

WHEREAS, the Interconnection Customer desires to interconnect the Distributed Energy Resource with Alpena Power Company's Distribution System;

WHEREAS, the Alpena Power Company has completed Initial Review, Supplemental Review, and/or a system impact study and provided the results of said review to the Interconnection Customer, or determined none was required; and

WHEREAS, the Interconnection Customer has requested Alpena Power Company to perform a facilities study to specify, and estimate the cost of, the equipment, engineering, procurement and construction work needed to implement the conclusions of the above noted review in accordance with Good Utility Practice to physically and electrically connect the Distributed Energy Resource (DER) with Alpena Power Company's Distribution System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Facilities Study Agreement the terms specified shall have the meanings indicated or the meanings specified in the MI RULE 460.962 (Rule 62) of the Michigan Administrative Rules for Interconnection and Distributed Generation Standards (MIXDG).
- 2.0 As set forth in MI RULE 460.962(d), the facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads)

needed to interconnect the Customer's DER. The facilities study shall also identify an estimate of the time required to complete the construction and installation of such facilities.

- 3.0 As set forth in MI RULE 460.962(c), a deposit of the estimate of the facilities study costs shall be required from the Interconnection Customer and provided when the signed Facilities Study Agreement is provided to Alpena Power Company. Any study fees shall be based on Alpena Power Company's actual costs and will be invoiced to the Interconnection Customer after the study is completed and delivered and will include a summary of professional time. The Interconnection Customer must pay any study costs that exceed the deposit on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, Alpena Power Company shall refund such excess of the invoice.
- 4.0 As set forth in MI RULE 460.962(g), within 10 business days of receiving a facilities study report from Alpena Power Company, the Interconnection Customer shall select 1 option from the following options:
- (i) Request a facilities study review meeting with the electric utility.
 - (ii) Proceed to an interconnection agreement pursuant to MI RULE 460.964.
 - (iii) Withdraw the interconnection application.

If the Interconnection Customer fails to inform Alpena Power Company within 10 business days of its chosen course of action, Alpena Power Company may consider the application withdrawn.

Upon request by the Interconnection Customer pursuant to MI RULE 460.962(g)(i), Alpena Power Company and the Interconnection Customer shall schedule a facilities study review to be conducted in person or via telecommunications, MI RULE 460.962(h), to review the facilities study results and determine what further steps are needed to permit the DER to be connected safely and reliably to the distribution system. The facilities study review meeting must take place within 35 business days of Alpena Power Company receiving notification that the Interconnection Customer will attend a facilities study review meeting.

- 5.0 As set forth in MI RULE 460.962(i), at the facilities study review meeting, Alpena Power Company shall offer both of the following options:
- (i) Proceed to an interconnection agreement pursuant to R 460.964.
 - (ii) Withdraw the interconnection application.
- 6.0 As set forth in MI RULE 460.962(j), following the meeting under section 4.0 and 5.0 of this Facilities Study Agreement, the Interconnection Customer has no more than 20 business days to decide on a course of action and notify Alpena Power Company of this course of action. If the Interconnection Customer fails to notify Alpena Power Company within 20 business days, Alpena Power Company may withdraw the application.
- 7.0 The Interconnection Customer shall furnish a final site plan detailing the location of major equipment at the time this agreement is returned. The Point of Common Coupling (PCC) and Point of DER Connection (PoC) shall be clearly marked. The site plan shall depict any nearby roads and be labeled with the road name. Accurate dimensions shall be included on the site plan. The proper emergency (911) address, corresponding to the site, shall be labeled on the site plan.

- 8.0 The Interconnection Customer shall furnish a final one-line diagram detailing the electrical connections between major components. The one-line shall be returned with the signed Facilities Study Agreement.
- 9.0 Pursuant to MIRULE 460.988, If an electric utility line extension is required to accommodate an interconnection, the Applicant is responsible for providing and obtaining easements or rights-of-way. The applicant is responsible for the cost of providing and obtaining easements or rights-of-way. For all other necessary easement, the Applicant shall secure any necessary easements from private land owners prior to signing the Facilities Study Agreement. Documentation of any such agreements shall be provided to Alpena Power Company.
- 10.0 In the event that Alpena Power Company determines a site survey is necessary in order to complete a Facilities Study, the Interconnection Customer shall make good faith efforts to complete the site survey in a timely manner.
- 11.0 The Facilities Study assumes all land use permits required for the interconnection will be approved by the proper authorities. Permits are submitted after the Interconnection Agreement is signed and may impact project costs (i.e. overhead to underground requirement.)
- 12.0 The Interconnection Customer and Alpena Power Company shall provide a single point of contact for design and construction related matters. The Interconnection Customer single point of contact shall respond in a timely manner to Area EPS Operator questions during the Facilities Study.

IN WITNESS WHEREOF, the Parties have caused this Facilities Study Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Alpena Power Company

[Interconnection Customer]

 Signed _____ Signed _____

Name (Printed):

Name (Printed):

 Title _____ Title _____

Exhibit

A-1

Schedule 6

Alpena Power Company
Interconnection Agreement
Levels 1-3

March 22, 2024

ALPENA POWER COMPANY
INTERCONNECTION AND PARALLEL OPERATING AGREEMENT
FOR LEVEL 1, 2, AND 3 PROJECTS

This Interconnection and Parallel Operating Agreement ("Agreement") is entered into on _____ by Alpena Power Company (the "Utility") and _____ (the "Applicant"), and (if applicable under Paragraph 5) _____ (the "Property Owner"). Utility and Applicant are sometimes also referred to in this Agreement collectively as "Parties" or individually as "Party."

Applicant shall be the "Interconnection Customer" as used in and for purposes of the applicable Michigan Electric Utility Interconnection and Distributed Generation Standards ("Interconnection Procedures") approved by the Michigan Public Service Commission ("Commission").

This Agreement shall be used for all interconnection Level 1, 2 and 3 requests as defined in Michigan Rule 460.901b.

I. RECITALS

- A. Applicant is an electric service customer of Utility in good standing and has submitted a Generator Interconnection Application ("Application") to Utility under Michigan Rule 460.936.

- B. An Applicant who desires to interconnect an inverter-based electrical generation system that has met acceptable safety and reliability standards by a nationally recognized testing laboratory in conformance with IEEE 1547.1-2020 and the UL 1741 September 28, 2021 edition except that prior to January 1, 2023, inverter-based systems which conform to the UL 1741SA September 7, 2016 edition are considered hereafter "Certified" and all other systems will not be considered Certified.

- C. Applicant desires to interconnect a Certified electric generating facility with a maximum capacity of 550 kW kilowatts associated with the alternating current output of a DER at unity power factor ("kWac") or less (the "Applicant Facility") with Utility's electric distribution system and operate Applicant Facility in parallel with Utility's distribution system, under the Utility's Interconnection Procedures for Level 1, 2, or 3 projects, as defined in the

Interconnection And Distributed Generation Standards approved by the Commission (the "Standards"), as applicable.

- D. Applicant desires to interconnect a non-Certified electric generating facility with a maximum capacity of 150 kWac or less (the "Applicant Facility") with Utility's electric distribution system and operate Applicant Facility in parallel with Utility's distribution system, under the Utility's Interconnection Procedures for Level 1, 2, or 3 projects, as defined in the Interconnection And Distributed Generation Standards (the "Standards"), as applicable.

- E. For purposes of this Agreement, pursuant to MI Rule 460.901, "Interconnection" means the process undertaken by an electric utility to construct the electrical facilities necessary to connect a DER with a distribution system so that parallel operation can occur. (In this case, the "Applicant Facility" and Utility's distribution system.) "Operate in parallel" means the operation, for longer than 100 milliseconds, of a DER while connected to the energized distribution system (in this case, the Applicant Facility) that is connected to Utility's system. In all cases, terms shall have the meaning as defined in the Standards.

- F. Interconnection of the Applicant Facility with Utility's distribution system is subject to this Agreement, the Application, the Interconnection Procedures, the Standards and utility tariffs approved by the MPSC, as applicable. Pursuant to Michigan Rule 460.964 (3) the Applicant shall sign and return the interconnection agreement with payment, if applicable, within 20 business days of receiving the agreement. If the Applicant does not sign and return the interconnection agreement and payment, if applicable, within 20 business days, the Utility shall notify the Applicant of the missed deadline and grant an extension of 15 business days. If the Utility does not receive the signed Agreement and any applicable payment during the 15-business-day extension, the Utility may consider the interconnection application withdrawn subject to Michigan Rule 460.964, subrule 3(b).

- G. This Agreement does not address any purchase or sale of electricity between Utility and Applicant nor does it create any agency, partnership, joint venture or other business arrangement between or among Utility, Applicant and/or Property Owner.

II. AGREEMENT

NOW THEREFORE, in consideration of the above recitals, the mutual covenants contained herein and for good and valuable consideration, the Parties agree as follows:

I. Description of Applicant Facility

1.1 The Applicant Facility must be built with the following ratings, which shall not be changed without thirty (30) days advance written notice to Utility according to the notice requirements herein and as depicted in Exhibit 1 - Interconnection Diagram:

Photovoltaic/Solar ("PV") Array Rating: _____ (AC) kWac

Photovoltaic/Solar ("PV") Array Rating: _____ (DC) kW

Wind Turbine (WT) Rating: _____ kWac

Hydroelectric Turbine (HT) Rating: _____ kWac

Fuel Cell (FC) Rating: _____ kWac

Other (specify type and rating): _____ kWac

Service Type (circle one): Single Phase / Three Phase

Voltage Level: _____

Equipment Specifications: Make: _____

Equipment Specifications: Model: _____

1.2 Applicant Facility Location:

(Street Address, City, State, ZIP)

If Applicant is not the owner of the property identified above, the Property Owner must sign this Agreement for the purposes indicated in Paragraph 5.

1.3 Applicant's Utility service account number: _____

Property Owner's Utility service account number (if applicable): _____

1.4 The Applicant Facility is planned to be ready for parallel operation on or about: _____

2. Interconnection Facilities

- 2.1 If it is necessary for Utility to install certain interconnection facilities ("Interconnection Facilities") and make certain system modifications in order to establish an interconnection between the Applicant Facility and Utility's distribution system, the Interconnection Facilities and modifications shall be described to the Applicant in writing.
- 2.2 Pursuant to MI Rule 460.964(2), for Level 1, 2, or 3 interconnection applications, where construction of interconnection facilities or distribution upgrades is required, the parties will execute a Construction Agreement setting forth any special operating conditions, required construction activities, construction milestone timing, and cost to an applicant within 5 business days of reaching this stage. The Applicant and the Utility shall mutually agree on the timing of construction milestones.

3. Design Requirements, Testing and Maintenance of Applicant Facility

- 3.1 Applicant shall be responsible for the design and installation of the Applicant Facility and obtaining and maintaining any required governmental authorizations and/or permits, which may include, but shall not be limited to, easements to clear trees, and necessary rights-of-way for installation and maintenance of the Utility Interconnection Facilities.
- 3.2 Applicant shall, at its sole expense, install and properly maintain protective relay equipment and devices to protect its equipment and service, and the equipment and system of Utility, from damage, injury or interruptions, and will assume any loss, liability or damage to the Applicant Facility caused by lack of or failure of such protection. Such protective equipment specifications and design shall be consistent with the applicable Interconnection Procedures. Prior to the Applicant Facility operating in parallel with Utility distribution system, Applicant shall provide satisfactory evidence to Utility that it has met the Interconnection Procedures, including but not limited to the receipt of approval from the local building/electrical code inspector. The Utility's approval, or failure to approve, under this section shall in no way act as a waiver or otherwise relieve the Applicant of its obligations under this section.
- 3.3 Pursuant to Michigan Rule 460.966, the Applicant shall notify the Utility when installation of a DER and any required local code inspection and approval is complete. The Utility shall review the Applicant's inspection, test reports, or configuration documents, and communicate its intent to perform a witness or commissioning test, or waive its right to perform a witness test and commissioning test within 10 business days.

- 3.4 If the Utility intends to witness or perform commissioning tests required to comply with the interconnection agreement or the interconnection procedures and inspect the DER, the Utility shall witness or perform the commissioning tests and inspect the DER within either of the following:
- (a) Ten business days of receiving the notification from the Applicant pursuant to Michigan Rule 460.966 (3), for level 1 applications.
 - (b) Twenty business days of receiving the notification from the Applicant pursuant to Michigan Rule 460.966 (3) for level 2 and level 3 applications.
- 3.5 The Utility may waive its right to visit the site and inspect the DER or perform the commissioning tests.
- (a) If the Utility waives this right, it shall provide a written waiver to the Applicant within 10 business days from receiving the notification from the applicant pursuant to Michigan Rule 460.966 (5).
 - (b) The Applicant shall provide the Utility with the completed commissioning test report within 20 business days of receipt of the Utility's written waiver.
- 3.6 If the Utility attempts to conduct the inspection and testing pursuant to Michigan Rule 460.966 (4) at the arranged time and is unable to access the DER or complete the testing, the DER must remain disconnected until the Applicant and the Utility can complete the inspection and testing.
- 3.7 If the Utility witnessed or performed commissioning tests and inspected the DER within 15 business days of the receipt of the completed commissioning test report, the electric utility shall notify the Applicant whether it has accepted or rejected the commissioning test report and found the site to be satisfactory or unsatisfactory.

If the commissioning test report is accepted and the site was found satisfactory, the Utility shall provide the notification of acceptance in writing, and the interconnection application proceeds to MI Rule 460.968.

If the Utility rejects the commissioning test report or did not find the site satisfactory, the Utility shall provide its reasons for doing so in writing and the Applicant has not less than 20 business days to implement corrections. The Applicant, after taking corrective action, shall request the Utility to reconsider its findings. The Applicant may be billed the actual cost of any re-inspections.

- 3.8 If the Utility waives its right to witness or perform commissioning tests and inspect the DER, within 15 business days of the receipt of the completed commissioning test report, the Utility shall notify the Applicant whether it has accepted or rejected the commissioning test report.

If the commissioning test report provide by the Applicant is accepted, the Utility shall provide notification of acceptance, and the interconnection application proceeds to Michigan Rule 460.968.

If the Utility rejects the commissioning test report, the Utility shall provide its reasons for doing so in writing and the Applicant has not less than 20 business days to implement corrections. The Applicant, after taking corrective action, may then request the electric utility to reconsider its findings

Applicant shall operate and maintain the Applicant Facility in a safe and prudent manner and in conformance with all applicable laws and regulations. Applicant shall obtain or maintain any governmental authorizations and permits required for construction and operation of the Applicant Facility.

4. Disconnection

- 4.1 Pursuant to Michigan Rule 460.978 (Rule 78), The Utility may refuse to connect or may disconnect a project from the distribution system if any of the following conditions apply:
- (a) Failure of the interconnection customer to bring a DER into compliance pursuant to Michigan Rule 460.976(1).
 - (b) Failure of the interconnection customer to pay costs of remedy pursuant to Michigan Rule 460.976(2).
 - (c) Termination of interconnection by mutual agreement.
 - (d) Distribution system emergency, but only for the time necessary to resolve the emergency.
 - (e) Routine maintenance, repairs, and modifications performed in a reasonable time and with prior notice to the interconnection customer.
 - (f) Noncompliance with technical or contractual requirements in the interconnection agreement that could lead to degradation of distribution system reliability, electric utility equipment, and electric customers' equipment.
 - (g) Noncompliance with technical or contractual requirements in the interconnection agreement that presents a safety hazard.
 - (h) Other material noncompliance with the interconnection agreement.
 - (i) Operating in parallel without prior written authorization from the electric utility as provided for in Michigan Rule 460.968.
- 4.2 A Utility may disconnect electric service, where applicable, pursuant to Michigan Rule 460.136.

5. Access to Property

- 5.1 At its own expense, Applicant shall make the Applicant Facility site available to Utility. The site shall be free from hazards and shall be adequate for the operation and construction of the Interconnection Facilities. Utility, its agents and employees, shall have full right and authority of ingress and egress at all reasonable times on and across the property at which the Applicant Facility is located, for the purpose of installing, operating, maintaining, inspecting, replacing, repairing, and removing the Interconnection Facilities. The right of ingress and egress shall not unreasonably interfere with Applicant's or (if different) Property Owner's use of the property and does not include the right to enter applicant's residence or other enclosed structure on the property where the Applicant Facility is located, except on reasonable notice where the Interconnection Facilities are located within the residence or other enclosed structure.
- 5.2 Utility may enter the property on which the Applicant Facility is located to inspect, at reasonable hours, Applicant's protective devices and read or test meters. Utility will use reasonable efforts to provide Applicant or Property Owner, if applicable, at least 24 hours' notice prior to entering said property, in order to afford Applicant or Property Owner the opportunity to remove any locks or other encumbrances to entry; *provided, however*, that Utility may enter the property without notice (removing, at Applicant's expense, any lock or other encumbrance to entry) and disconnect the Interconnection Facilities if Utility believes that disconnection is necessary to address a hazardous condition and/or to protect persons, Utility's facilities, or the property of others from damage or interference caused by Applicant Facility.
- 5.3 By executing this Agreement, Applicant and Property Owner consent to and agree to provide access to its property, including all rights of ingress and egress, on which the Applicant Facility is located to Utility as described in this section, but does not assume or guarantee other performance obligations of the Applicant under this Agreement.

6. Liability

- 6.1 As between the Parties, unless caused by the sole negligence or intentional wrongdoing of the other Party, each Party to this Agreement shall at all times assume all liability for, any and all damages, losses, claims, demands, suits, recoveries, costs, legal fees, and expenses to the extent caused by its directors, officers, employees, and agents: (a) for injury to or death of any person or persons whomsoever occurring on its own system, and/or (b) for any loss, destruction of or damage to any property of third persons, firms, corporations or other entities occurring on its own system, including environmental harm or damage arising out of or resulting from, either directly or indirectly, the Interconnection Facilities or the Applicant Facilities, or arising out of or resulting from, either directly or indirectly, any electric energy furnished to it hereunder after such energy has been delivered to it by such other Party.
- 6.2 The provisions of this Section 6 shall not be construed to relieve any insurer of its obligations to pay any insurance claims in accordance with the provisions of any valid insurance policy.
- 6.3 Notwithstanding anything in this Section, or any other provision of this Agreement to the contrary, any liability of a Party to the other Party shall be limited to direct actual damages,

and all other damages at law or inequity are hereby waived. Under no circumstances shall a Party be liable to the other Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits.

- 6.4 The obligations and limits on liability in this Section 6 shall continue in full force and effect notwithstanding the expiration or termination of this Agreement, with respect to any event or condition giving rise to an obligation that occurred prior to such expiration or termination.
- 6.5 Nothing in this Section 6 waives or limits, or shall be construed to waive or limit, the governmental immunity of a Party.
- 6.6 Nothing in this Section 6 shall imply, or be construed to imply indemnification of any Party by the State of Michigan, its department, and agencies, or by other governmental customers that are restricted from entering into indemnification provisions by law.

7. Subcontractors

Either Party may contract with a subcontractor to perform its obligations under this Agreement and shall incorporate the obligations of this Agreement into its respective subcontracts, agreements and purchase orders. Each Party shall remain liable to the other Party for the performance of such subcontractor under this Agreement subject to the provisions of Section 6.

8. Force Majeure

As set forth in MI Rule 460.901a(dd), Force majeure event means an act of God; labor disturbance; act of the public enemy; war; insurrection; riot; fire, storm, or flood; explosion, breakage, or accident to machinery or equipment; an emergency order, regulation or restriction imposed by governmental, military, or lawfully established civilian authorities; or another cause beyond a party's control. A force majeure event does not include an act of negligence or intentional wrongdoing.

9. Breach and Default

A breach of this Agreement ("Breach") shall occur upon the failure of a Party to perform or observe any material term or condition of this Agreement. Upon a Breach by one Party, the non-breaching Party shall give written notice of such Breach to the breaching Party. The Party in Breach shall have thirty (30) days from the date of the written notice to cure the Breach. If a Breach is not cured within the thirty (30) day period provided for herein, the party in Breach shall be deemed in default ("Default"). If the Breach is not cured within 30 business days, the Utility, at its sole discretion, may apply a remedy and bill the Applicant. The Applicant shall pay this bill within 5 business days. The non-defaulting Party shall then have the right to terminate this Agreement by written notice, shall be relieved of any further obligations hereunder, and may pursue any and all remedies available to it at law or in equity.

10. Retirement

Upon termination or cancellation of this Agreement or at such time after any of the Interconnection Facilities described herein are no longer required, the Parties shall mutually agree upon the retirement of the Interconnection Facilities, which may include without limitation (i) dismantling, demolition, and removal of equipment, facilities, and structures, (ii) security, (iii) maintenance and (iv) disposing of debris. The cost of such removal shall be borne by the Utility.

11. Governing Law

This Agreement shall be interpreted, governed, and construed under the laws of Michigan.

12. Amendment, Modification or Waiver

Any amendments or modifications to this Agreement shall be in writing and agreed to by both Parties. The failure of any Party at any time to require performance of any provision hereof shall in no manner affect its right at a later time to enforce the same. No waiver by any Party of the breach of any term or covenant contained in this Agreement, whether by conduct or otherwise, shall be deemed to be construed as a further or continuing waiver of any such breach or a waiver of the breach of any other term or covenant unless such waiver is in writing.

13. Insurance

Pursuant to MI Rule 460.986, An Applicant interconnecting a level 1 or 2 project to the distribution system of the Utility is not required by the Utility to obtain any additional liability insurance.

For a level 3 project, the Applicant shall obtain and maintain general liability insurance of a minimum of \$1,000,000.

Evidence of insurance coverage on a certificate of insurance shall be provided to the Utility upon execution of this Agreement and thereafter within ten (10) days after expiration of coverage; however, if evidence of insurance is not received by the 11th day, the Utility has the right, but not the duty, to purchase the insurance coverage required under this Section and to charge the annual premium to Project Developer. The Utility shall receive thirty (30) days advance written notice if the policy is cancelled or substantial changes are made that affect the additional insured. At the Utility's request, Project Developer shall provide a copy of the policy to the Utility.

14. Notices

Any notice required under this Agreement shall be in writing and mailed or personally delivered to the Party at the address below. Written notice is effective within 3 days of depositing the notice in the United States mail, first class postage prepaid. Personal notice is effective upon delivery. Written notice of any address changes shall be provided. All written notices shall refer to the Applicant's Utility account number, as provided in Section 1 of this Agreement. All written notices shall be directed as follows:

Notice to Utility:

Notice to Applicant:

Notice to Property Owner (if different than Applicant):

15. Term of Agreement and Termination

This Agreement shall become effective upon execution by all Parties and, if applicable, the Property Owner, and it shall continue in full force and effect until terminated upon thirty (30) days' prior notice by the Applicant, upon Default of either Party as set forth in Section

9, or upon mutual agreement of the Parties. The Utility may terminate the agreement on reasonable notice for reasons consistent with existing law, regulations and tariffs.

16. Entire Agreement

This Agreement supersedes all prior discussions and agreements between the Parties with respect to the subject matter hereof and constitutes the entire agreement between the Parties hereto.

17. No Third Party Beneficiary

The terms and provisions of this Agreement are intended solely for the benefit of each Party, and it is not the intention of the Parties to confer third-party beneficiary rights upon any other person or entity.

18. Assignment and Binding Effect

This Agreement shall not be assigned by a Party without the prior written consent of the other Party, which shall not be unreasonably withheld. Any attempt to assign this Agreement without consent will be void. Subject to the preceding, this Agreement is binding upon, inures to the benefit of, and is enforceable by the Parties and their respective successors and assigns. Applicant agrees to notify Utility in writing upon the sale or transfer of the Applicant Facility. This Agreement shall terminate upon such notice unless Utility consents to an assignment in writing.

19. Severability

If any provision of this Agreement is determined to be partially or wholly invalid, illegal, or unenforceable, then such provision shall be deemed to be modified or restricted to the extent necessary to make such provision valid, binding, and enforceable; or, if such provision cannot be modified or restricted in a manner so as to make such provision valid, binding or enforceable, then such provision shall be deemed to be excised from this Agreement and the validity, binding effect, and enforceability of the remaining provisions of this Agreement shall not be affected or impaired in any manner.

20. Signatures

The Parties to this Agreement hereby agree to have two originals of this Agreement executed by their duly authorized representatives (three originals are necessary if the Property Owner signs this Agreement). This Agreement is effective as of the later (or latest) of the dates set forth below.

21. Counterparts and Electronic Documents

This Agreement may be executed and delivered in counterparts, including by a facsimile or an electronic transmission thereof, each of which shall be deemed an original. Any document generated by the parties with respect to this Agreement, including this

Agreement, may be imaged and stored electronically and introduced as evidence in any proceeding as if original business records. Neither party will object to the admissibility of such images as evidence in any proceeding on account of having been stored electronically.

UTILITY

APPLICANT

By: _____

By: _____

(Duly Authorized Signature)

(Duly Authorized Signature)

(Print or Type Name)

(Print or Type Name)

Title: _____

Title: _____

Date: _____

Date: _____

(Property Owner, if applicable)

By: _____

(Duly Authorized Signature)

(Print or Type Name)

Title: _____

Date: _____

EXHIBIT 1

INTERCONNECTION DIAGRAM

(Insert the One-Line Diagrams (PDF file) for the generator that will be installed.)

**EXHIBIT 2
CONSTRUCTION AGREEMENT
LEVEL 1 – 3 DISTRIBUTED ENERGY RESOURCES**

[APPLICANT NAME]
[APPLICANT STREET ADDRESS]
[APPLICANT CITY AND STATE]

Dear [APPLICANT]:

Alpena Power Company completed the distribution study to determine if upgrades are required to our distribution system to accommodate your proposed generating facility and found that system upgrades are required.

The total estimated cost of these upgrades is \$XXXXXX (the “Estimate”) The system upgrades will require the following activities to be completed by Alpena Power Company or its agents:

	Construction Activity	Estimated Completion Date	Estimated Cost of Activity
Milestone #1			
Milestone #2			
Milestone #3			
Milestone #4			
Milestone #5			
Total Estimate Cost:			

You shall pay the actual cost of the interconnection facilities and distribution upgrades. Should the costs for these interconnection facilities and distribution upgrades exceed 110% of the Estimate an itemized summary and explanation of cost increases will be provided to you prior to being incurred and should the cost exceed 125% of the Estimate Alpena Power Company will contact you for consent prior to the costs being incurred.

Alpena Power Company shall provide you with a final accounting report of any difference between the actual costs charged to you and all payments to Alpena Power Company received from you for interconnection facilities or distribution upgrades.

If the final cost of construction exceeds all of your previous payments, Alpena Power Company shall bill you for the remaining amount due and this final payment will be due to Alpena Power Company within 20 business days of the final accounting report. Initial billing shall take place 30-60 days after project completion.

If the all of your payments for this project exceed the final cost of construction, Alpena Power Company shall refund to you the difference within 20 business days of the final accounting report

Alpena Power Company will schedule the work upon receipt of the sketch, signed letter and payment. Payment can be made by check, calling Alpena Power Company or online at www.alpenapower.com When the upgrades are complete, your equipment can be installed or interconnected, as applicable, within an agreeable time frame. You may then proceed with the interconnection process after signing and returning the INTERCONNECTION AND PARALLEL OPERATING AGREEMENT in the enclosed envelope

Once you notify Alpena Power Company the installation is complete, Alpena Power Company will conduct the commissioning test. Please contact me at (989) 358-4900 with questions or visit www.alpenapower.com for more information on customer-owned generation.

Enclosures

Accepted: _____ Date: _____

Print name: _____

Exhibit

A-1

Schedule 7

Alpena Power Company

Interconnection Agreement

Levels 4-5

March 22, 2024

**ALPENA POWER COMPANY
INTERCONNECTION AND PARALLEL OPERATING AGREEMENT
FOR LEVEL 4 AND 5 PROJECTS**

This Interconnection and Parallel Operating Agreement ("Agreement") is entered into on _____ by Alpena Power Company (the "Utility"), _____ (the "Applicant"), and (if applicable under Paragraph 5) _____ (the "Property Owner"). Utility and Applicant are sometimes also referred to in this Agreement collectively as "Parties" or individually as "Party."

Applicant shall be the "Interconnection Customer" as used in and for purposes of the applicable Michigan Electric Utility Interconnection and Distributed Generation Standards ("Interconnection Procedures") approved by the Michigan Public Service Commission ("Commission").

This Agreement shall be used for all interconnection Level 4 and 5 requests as defined in Michigan Rule 460.901b, wherein a Level 4 means a project of greater than 550 kWac and not more than 1 MWac and a Level 5 means a project of greater than 1 MWac.

I. RECITALS

- A. Applicant is an electric service customer of Utility in good standing and has submitted a Generator Interconnection Application ("Application") to Utility under Michigan Rule 460.936.
- B. An Applicant who desires to interconnect an inverter-based electrical generation system that has met acceptable safety and reliability standards by a nationally recognized testing laboratory in conformance with IEEE 1547.1-2020 and the UL 1741 September 28, 2021 edition except that prior to January 1, 2023, inverter-based systems which conform to the UL 1741SA September 7, 2016 edition are considered hereafter "Certified" and all other systems will not be considered Certified.
- C. Applicant desires to interconnect a Certified electric generating facility with a minimum capacity of _____ kW kilowatts associated with the alternating current output of a DER at unity power factor ("kWac") or less (the "Applicant Facility") with Utility's electric distribution system and operate Applicant Facility in parallel with Utility's distribution system, under the Utility's Interconnection Procedures for Level 4 and 5 projects, as defined in the Interconnection And Distributed Generation Standards approved by the Commission (the "Standards"), as applicable.
- D. Applicant desires to interconnect a non-Certified electric generating facility with a maximum capacity of _____ kWac or less (the "Applicant Facility") with Utility's electric distribution system and operate Applicant Facility in parallel with Utility's distribution system, under the Utility's Interconnection Procedures for Level 4 and 5 projects, as defined in the Interconnection And Distributed Generation Standards (the "Standards"), as applicable.
- E. For purposes of this Agreement, pursuant to MI Rule 460.901, "Interconnection" means the process undertaken by an electric utility to construct the electrical facilities necessary to connect a DER with a distribution system so that parallel operation can occur. (In this case, the "Applicant Facility" and the Utility's distribution system.) "Operate in parallel" means the operation, for longer than 100 milliseconds, of a DER while connected to the energized distribution system (in this case, the Applicant Facility) that is connected to Utility's system. In all cases, terms shall have the meaning as defined in the Standards.

- F. Interconnection of the Applicant Facility with Utility's distribution system is subject to this Agreement, the Application, the Interconnection Procedures, the Standards and utility tariffs approved by the MPSC, as applicable. Pursuant to Michigan Rule 460.964 (6) the Applicant shall sign and return with payment, if applicable, the Agreement within 30 days. If the Applicant does not sign and return the Agreement with payment within 30 business days, the Utility shall notify the Applicant of the missed deadline and grant an extension of 15 business days. If the Utility does not receive the signed Agreement and payment, if applicable, during the 15-business-day extension, the Utility may consider the interconnection application withdrawn, subject to Michigan Rule 460.964, subrule 6(b).
- G. This Agreement does not address any purchase or sale of electricity between Utility and Applicant nor does it create any agency, partnership, joint venture or other business arrangement between or among Utility, Applicant and/or Property Owner.

II. AGREEMENT

NOW THEREFORE, in consideration of the above recitals, the mutual covenants contained herein and for good and valuable consideration, the Parties agree as follows:

I. Description of Applicant Facility

1.1 The Applicant Facility must be built with the following ratings, which shall not be changed without thirty (30) days advance written notice to Utility according to the notice requirements herein and as depicted in Exhibit 1 - Interconnection Diagram:

Photovoltaic/Solar ("PV") Array Rating: _____ (AC) kWac

Photovoltaic/Solar ("PV") Array Rating: _____ (DC) kW

Wind Turbine (WT) Rating: _____ kWac

Hydroelectric Turbine (HT) Rating: _____ kWac

Fuel Cell (FC) Rating: _____ kWac

Other (specify type and rating): _____ kWac

Service Type (circle one): Single Phase / Three Phase

Voltage Level: _____

Equipment Specifications: Make: _____

Equipment Specifications: Model: _____

1.2 Applicant Facility Location:

(Street Address, City, State, ZIP)

If Applicant is not the owner of the property identified above, the Property Owner must sign this Agreement for the purposes indicated in Paragraph 5.

1.3 Applicant's Utility service account number: _____

Property Owner's Utility service account number (if applicable): _____

1.4 The Applicant Facility is planned to be ready for parallel operation on or about: _____

2. Interconnection Facilities

2.1 If it is necessary for Utility to install certain interconnection facilities ("Interconnection Facilities") and make certain system modifications in order to establish an interconnection between the Applicant Facility and Utility's distribution system, the Interconnection Facilities and modifications shall be described to the Applicant in writing.

2.2 Pursuant to MI Rule 460.964(5), for Level 4 and 5 interconnection applications, where construction of interconnection facilities or distribution upgrades is required, the parties will execute a Construction Agreement and append the executed Construction Agreement to this Agreement. The Construction Agreement will shall specify timelines, cost estimates, and payment milestones for construction of facilities and distribution upgrades to interconnect a DER into the distribution system, and shall identify design, procurement, installation, and construction requirements associated with installation of the DER.

3. Design Requirements, Testing and Maintenance of Applicant Facility

3.1 Applicant shall be responsible for the design and installation of the Applicant Facility and obtaining and maintaining any required governmental authorizations and/or permits, which may include, but shall not be limited to, easements to clear trees, and necessary rights-of-way for installation and maintenance of the Utility Interconnection Facilities. In accordance with Michigan Rule 460.988, if an electric utility line extension is required to accommodate an interconnection, the Applicant is responsible for procurement and the cost of providing and obtaining easements or rights-of-way.

3.2 Applicant shall, at its sole expense, install and properly maintain protective relay equipment and devices to protect its equipment and service, and the equipment and system of Utility, from damage, injury or interruptions, and will assume any loss, liability or damage to the Applicant Facility caused by lack of or failure of such protection. Such protective equipment specifications and design shall be consistent with the

applicable Interconnection Procedures. Prior to the Applicant Facility operating in parallel with Utility distribution system, Applicant shall provide satisfactory evidence to Utility that it has met the Interconnection Procedures, including but not limited to the receipt of approval from the local building/electrical code inspector. The Utility's approval, or failure to approve, under this section shall in no way act as a waiver or otherwise relieve the Applicant of its obligations under this section.

- 3.3 Pursuant to Michigan Rule 460.966, the Applicant shall notify the Utility when installation of a DER and any required local code inspection and approval is complete. The Utility shall review the applicant's inspection, test reports, or configuration documents, and communicate its intent to perform a witness or commissioning test, or waive its right to perform a witness test and commissioning test within 20 business days.

If the Utility intends to witness or perform commissioning tests required to comply with this Agreement or the interconnection procedures and inspect the DER, the Utility shall witness or perform the commissioning tests and inspect the DER at a mutually-agreed upon timeframe after receiving the notification from the Applicant pursuant to Michigan Rule 460.966(4)(c) for level 4 and 5 applications.

The Utility may waive its right to visit the site and inspect the DER or perform the commissioning tests.

(a) If the Utility waives this right, it shall provide a written waiver to the Applicant within 20 business days from receiving the notification from the Applicant pursuant to Michigan Rule 460.966(3).

(b) The Applicant shall provide the Utility with the completed commissioning test report within 20 business days of receipt of the electric utility's written waiver.

If the electric utility attempts to conduct the inspection and testing pursuant to Michigan Rule 460.966 (4) at the arranged time and is unable to access the DER or complete the testing, the DER must remain disconnected until the Applicant and the Utility can complete the inspection and testing.

If the Utility witnessed or performed commissioning tests and inspected the DER pursuant to Michigan Rule 460.966 (7) within 15 business days of the receipt of the completed commissioning test report, the Utility shall notify the Applicant whether it has accepted or rejected the commissioning test report and found the site to be satisfactory or unsatisfactory.

(a) If the commissioning test report is accepted and the site was found satisfactory, Utility shall provide the notification of acceptance in writing, and the interconnection application proceeds to Michigan Rule 460.968.

(b) If the Utility rejects the commissioning test report or did not find the site satisfactory, the Utility shall provide its reasons for doing so in

writing and the Applicant has not less than 20 business days to implement corrections. The Applicant, after taking corrective action, shall request the Utility to reconsider its findings. The Applicant may be billed the actual cost of any re-inspections.

If the Utility waives its right to witness or perform commissioning tests and inspect the DER, within 15 business days of the receipt of the completed commissioning test report, the Utility shall notify the applicant whether it has accepted or rejected the commissioning test report.

(a) If the commissioning test report is accepted, the Utility shall provide notification of acceptance, and the interconnection application proceeds to Michigan Rule 460.968.

(b) If the Utility rejects the commissioning test report, the Utility shall provide its reasons for doing so in writing and the Applicant has not less than 20 business days to implement corrections. The Applicant, after taking corrective action, may then request the Utility to reconsider its findings

- 3.4 Applicant shall operate and maintain the Applicant Facility in a safe and prudent manner and in conformance with all applicable laws and regulations. Applicant shall obtain or maintain any governmental authorizations and permits required for construction and operation of the Applicant Facility.

4. Parallel Operation

4.1 Pursuant to **Michigan Rule 460.968**.

(1) The Utility shall provide to the Applicant written authorization to operate in parallel with the Utility within 15 business days of all of the following conditions being met:

- a) The Utility notified the interconnection Applicant that the commissioning test and inspection, where applicable, are accepted.
- b) The Applicant complied with all applicable parallel operation requirements as set forth in the Utility's interconnection procedures and this Agreement.
- c) The Applicant complied with all applicable local, state, and federal requirements.
- d) The Utility received full payments for all outstanding bills.

(2) With the written authorization, interconnection of the DER is considered approved for parallel operation, the DER may begin operating, and the Applicant is considered an interconnection customer.

(3) The Applicant shall not operate its DER in parallel with the Utility's distribution system without prior written permission to operate from the electric utility.

(4) Subject to reasonable timing and other conditions, including completion of conditions in this Agreement or interconnection procedures, the Utility

shall allow for reasonable but limited testing before written authorization has occurred.

5. Disconnection

Pursuant to Michigan Rule 460.978, The Utility may refuse to connect or may disconnect a project from the distribution system if any of the following conditions apply:

- (a) Failure of the interconnection customer to bring a DER into compliance pursuant to Michigan Rule 460.976(1).
 - (b) Failure of the interconnection customer to pay costs of remedy pursuant to Michigan Rule 460.976(2).
 - (c) Termination of interconnection by mutual agreement.
 - (d) Distribution system emergency, but only for the time necessary to resolve the emergency.
 - (e) Routine maintenance, repairs, and modifications performed in a reasonable time and with prior notice to the interconnection customer.
 - (f) Noncompliance with technical or contractual requirements in the interconnection agreement that could lead to degradation of distribution system reliability, electric utility equipment, and electric customers' equipment.
 - (g) Noncompliance with technical or contractual requirements in the interconnection agreement that presents a safety hazard.
 - (h) Other material noncompliance with the interconnection agreement.
 - (i) Operating in parallel without prior written authorization from the Utility as provided for in Michigan Rule 460.968.
- (2) The Utility may disconnect electric service, where applicable, pursuant to Michigan Rule 460.136.

6. Access to Property

6.1 At its own expense, Applicant shall make the Applicant Facility site available to Utility. The site shall be free from hazards and shall be adequate for the operation and construction of the Interconnection Facilities. Utility, its agents and employees, shall have full right and authority of ingress and egress at all reasonable times on and across the property at which the Applicant Facility is located, for the purpose of installing, operating, maintaining, inspecting, replacing, repairing, and removing the Interconnection Facilities. The right of ingress and egress shall not unreasonably interfere with Applicant's or (if different) Property Owner's use of the property and does not include the right to enter applicant's residence or other enclosed structure on the property where the Applicant Facility is located, except on reasonable notice where the Interconnection Facilities are located within the residence or other enclosed structure.

6.2 Utility may enter the property on which the Applicant Facility is located to inspect, at reasonable hours, Applicant's protective devices and read or test meters. Utility will use reasonable efforts to provide Applicant or Property Owner, if applicable, at least 24 hours' notice prior to entering said property, in order to afford Applicant or Property Owner the opportunity to remove any

locks or other encumbrances to entry; *provided, however*, that Utility may enter the property without notice (removing, at Applicant's expense, any lock or other encumbrance to entry) and disconnect the Interconnection Facilities if Utility believes that disconnection is necessary to address a hazardous condition and/or to protect persons, Utility's facilities, or the property of others from damage or interference caused by Applicant Facility.

- 6.3 By executing this Agreement, Applicant and Property Owner consent to and agree to provide access to its property, including all rights of ingress and egress, on which the Applicant Facility is located to Utility as described in this section, but does not assume or guarantee other performance obligations of the Applicant under this Agreement.

7. Liability

- 7.1 As between the Parties, unless caused by the sole negligence or intentional wrongdoing of the other Party, each Party to this Agreement shall at all times assume all liability for, any and all damages, losses, claims, demands, suits, recoveries, costs, legal fees, and expenses to the extent caused by its directors, officers, employees, and agents: (a) for injury to or death of any person or persons whomsoever occurring on its own system, and/or (b) for any loss, destruction of or damage to any property of third persons, firms, corporations or other entities occurring on its own system, including environmental harm or damage arising out of or resulting from, either directly or indirectly, the Interconnection Facilities or the Applicant Facilities, or arising out of or resulting from, either directly or indirectly, any electric energy furnished to it hereunder after such energy has been delivered to it by such other Party.
- 7.2 The provisions of this Section 6 shall not be construed to relieve any insurer of its obligations to pay any insurance claims in accordance with the provisions of any valid insurance policy.
- 7.3 Notwithstanding anything in this Section, or any other provision of this Agreement to the contrary, any liability of a Party to the other Party shall be limited to direct actual damages, and all other damages at law or inequity are hereby waived. Under no circumstances shall a Party be liable to the other Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits.
- 7.4 The obligations and limits on liability in this Section 6 shall continue in full force and effect notwithstanding the expiration or termination of this Agreement, with respect to any event or condition giving rise to an obligation that occurred prior to such expiration or termination.
- 7.5 Nothing in this Section 6 waives or limits, or shall be construed to waive or limit, the governmental immunity of a Party.
- 7.6 Nothing in this Section 6 shall imply, or be construed to imply indemnification of any Party by the State of Michigan, its department,

and agencies, or by other governmental customers that are restricted from entering into indemnification provisions by law.

8. Subcontractors

Either Party may contract with a subcontractor to perform its obligations under this Agreement and shall incorporate the obligations of this Agreement into its respective subcontracts, agreements and purchase orders. Each Party shall remain liable to the other Party for the performance of such subcontractor under this Agreement subject to the provisions of Section 7.

9. Force Majeure

As set forth in MI Rule 460.901a(ee), Force majeure event means an act of God; labor disturbance; act of the public enemy; war; insurrection; riot; fire, storm, or flood; explosion, breakage, or accident to machinery or equipment; an emergency order, regulation or restriction imposed by governmental, military, or lawfully established civilian authorities; or another cause beyond a party's control. A force majeure event does not include an act of negligence or intentional wrongdoing.

10. Breach and Default

A breach of this Agreement ("Breach") shall occur upon the failure of a Party to perform or observe any material term or condition of this Agreement. Upon a Breach by one Party, the non-breaching Party shall give written notice of such Breach to the breaching Party. The Party in Breach shall have thirty (30) days from the date of the written notice to cure the Breach. If a Breach is not cured within the thirty (30) day period provided for herein, the party in Breach shall be deemed in default ("Default"). If the Breach is not cured within 30 business days, the Utility, at its sole discretion, may apply a remedy and bill the Applicant. The Applicant shall pay this bill within 5 business days. The non-defaulting Party shall then have the right to terminate this Agreement by written notice, shall be relieved of any further obligations hereunder, and may pursue any and all remedies available to it at law or in equity.

11. Retirement

Upon termination or cancellation of this Agreement or at such time after any of the Interconnection Facilities described herein are no longer required, the Parties shall mutually agree upon the retirement of the Interconnection Facilities, which may include without limitation (i) dismantling, demolition, and removal of equipment, facilities, and structures, (ii) security, (iii) maintenance and (iv) disposing of debris. The cost of such removal shall be borne by the Utility.

12. Governing Law

This Agreement shall be interpreted, governed, and construed under the laws of Michigan.

13. Amendment, Modification or Waiver

Any amendments or modifications to this Agreement shall be in writing and agreed to by both Parties. The failure of any Party at any time to require performance of any provision hereof shall in no manner affect its right at a later time to enforce the same. No waiver by any Party of the breach of any term or covenant contained in this Agreement, whether by conduct or otherwise, shall be deemed to be construed as a further or continuing waiver of any such breach or a waiver of the breach of any other term or covenant unless such waiver is in writing.

Pursuant to MI Rule 460.984, Modifications to the DER, after the execution of this Agreement, the applicant shall notify the Utility of any plans to modify the DER. The Utility shall review the proposed modification to determine if the modification is considered a material modification. If the Utility determines that the modification is a material modification, the Utility shall notify the Applicant, in writing of its determination and the Applicant shall submit a new application and application fee along with all supporting materials that are reasonably requested by the Utility. The Applicant may not begin any material modification to the DER until an interconnection agreement incorporating the material modification is fully executed.

13. Insurance

Pursuant to MI Rule 460.986, for a Level 4 project, the applicant shall obtain and maintain general liability insurance of a minimum of \$2,000,000. For a Level 5 project, the applicant shall obtain and maintain general liability insurance of a minimum of \$3,000,000

Evidence of insurance coverage on a certificate of insurance shall be provided to the Utility upon execution of this Agreement and thereafter within ten (10) days after expiration of coverage; however, if evidence of insurance is not received by the 11th day, the Utility has the right, but not the duty, to purchase the insurance coverage required under this Section and to charge the annual premium to Project Developer. The Utility shall receive thirty (30) days advance written notice if the policy is cancelled or substantial changes are made that affect the additional insured. At the Utility's request, Project Developer shall provide a copy of the policy to the Utility.

14. Notices

Any notice required under this Agreement shall be in writing and mailed or personally delivered to the Party at the address below. Written notice is effective within 3 days of depositing the notice in the United States mail, first class postage prepaid. Personal notice is effective upon delivery. Written notice of any address changes shall be provided. All written notices shall refer to the Applicant's Utility account number, as provided in Section 1 of this Agreement. All written notices shall be directed as follows:

Notice to Utility:

Notice to Applicant:

Notice to Property Owner (if different than Applicant):

15. Term of Agreement and Termination

This Agreement shall become effective upon execution by all Parties and, if applicable, the Property Owner, and it shall continue in full force and effect until terminated upon thirty (30) days' prior notice by the Applicant, upon Default of either Party as set forth in Section 9, or upon mutual agreement of the Parties. The Utility may terminate the agreement on reasonable notice for reasons consistent with existing law, regulations and tariffs.

16. Entire Agreement

This Agreement supersedes all prior discussions and agreements between the Parties with respect to the subject matter hereof and constitutes the entire agreement between the Parties hereto.

17. No Third Party Beneficiary

The terms and provisions of this Agreement are intended solely for the benefit of each Party, and it is not the intention of the Parties to confer third-party beneficiary rights upon any other person or entity.

18. Assignment and Binding Effect

This Agreement shall not be assigned by a Party without the prior written consent of the other Party, which shall not be unreasonably withheld. Any attempt to

assign this Agreement without consent will be void. Subject to the preceding, this Agreement is binding upon, inures to the benefit of, and is enforceable by the Parties and their respective successors and assigns. Applicant agrees to notify Utility in writing upon the sale or transfer of the Applicant Facility. This Agreement shall terminate upon such notice unless Utility consents to an assignment in writing.

19. Severability

If any provision of this Agreement is determined to be partially or wholly invalid, illegal, or unenforceable, then such provision shall be deemed to be modified or restricted to the extent necessary to make such provision valid, binding, and enforceable; or, if such provision cannot be modified or restricted in a manner so as to make such provision valid, binding or enforceable, then such provision shall be deemed to be excised from this Agreement and the validity, binding effect, and enforceability of the remaining provisions of this Agreement shall not be affected or impaired in any manner.

20. Signatures

The Parties to this Agreement hereby agree to have two originals of this Agreement executed by their duly authorized representatives (three originals are necessary if the Property Owner signs this Agreement). This Agreement is effective as of the later (or latest) of the dates set forth below.

21. Counterparts and Electronic Documents

This Agreement may be executed and delivered in counterparts, including by a facsimile or an electronic transmission thereof, each of which shall be deemed an original. Any document generated by the parties with respect to this Agreement, including this Agreement, may be imaged and stored electronically and introduced as evidence in any proceeding as if original business records. Neither party will object to the admissibility of such images as evidence in any proceeding on account of having been stored electronically.

UTILITY

APPLICANT

By: _____
(Duly Authorized Signature)

By: _____
(Duly Authorized Signature)

(Print or Type Name)

(Print or Type Name)

Title: _____

Title: _____

Date: _____

Date: _____

(Property Owner, if applicable)

By: _____
(Duly Authorized Signature)

(Print or Type Name)

Title: _____

Date: _____

EXHIBIT 1
INTERCONNECTION DIAGRAM

(Insert the One-Line Diagrams (PDF file) for the generator that will be installed.)

EXHIBIT 2
CONSTRUCTION AGREEMENT
LEVEL 4 AND 5 DISTIRBUTED ENERGY RESOURCE

[APPLICANT NAME]
 [APPLICANT STREET ADDRESS]
 [APPLICANT CITY AND STATE]

Dear [APPLICANT]:

Alpena Power Company completed the distribution study to determine if upgrades are required to our distribution system to accommodate your proposed generating facility and found that system upgrades are required.

The total estimated cost of these upgrades is \$XXXXXX (the “Estimate”) The system upgrades will require the following activities to be completed by the Alpena Power Company or its agents:

	Construction Activity	Estimated Completion Date	Estimated Cost of Activity
Milestone #1			
Milestone #2			
Milestone #3			
Milestone #4			
Milestone #5			
Total Estimate Cost:			

The payment schedule for this project is the following:

	Construction Activity	Payment Amount	Due Date for Payment from Applicant
Initial Payment			
Milestone #1			
Milestone #2			
Milestone #3			
Milestone #4			
Milestone #5			
Final Payment			

You shall pay the actual cost of the interconnection facilities and distribution upgrades. Should the costs for these interconnection facilities and distribution upgrades exceed 110% of the Estimate an itemized summary and explanation of cost increases will be provided to you prior to being incurred and should the cost exceed 125% of the Estimate Alpena Power Company will contact you for consent prior to the costs being incurred.

Alpena Power Company shall provide you with a final accounting report of any difference

between the actual costs charged to you and all payments to Alpena Power Company received from you for interconnection facilities or distribution upgrades.

If the final cost of construction exceed all of your previous payments, the Alpena Power Company shall bill you for the remaining amount due and this final payment will be due to Alpena Power Company within 20 business days of the final accounting report. Initial billing can be expected 30 to 60 days after project completion.

If the all of your payments for this project exceed the final cost of construction, Alpena Power Company shall refund to you the difference within 20 business days of the final accounting report

Should the agreement be terminated Alpena Power Company shall refund to you any unspent and unobligated funds.

Alpena Power Company will schedule the work upon receipt of the sketch, signed letter and payment. Payment can be made by check, calling [UTILITY PHONE] or online at [UTILITY WEB ADDRESS] When the upgrades are complete, your equipment can be installed or interconnected, as applicable, within an agreeable time frame. You may then proceed with the interconnection process after signing and returning the INTERCONNECTION AND PARALLEL OPERATING AGREEMENT in the enclosed envelope

Once you notify Alpena Power Company the installation is complete, Alpena Power Company will conduct the commissioning test. Please contact me at (989) 358-4900 with questions or visit www.alpenapower.com for more information on customer-owned generation.

Enclosures

Accepted: _____ Date: _____

Print name: _____