



**Interconnection Application
Level 1 Distributed Energy Resources
Inverter-Based Systems of 25 kW or Smaller**

Application Date: _____

Section A: Application Fee

A fee of \$350.00 must accompany this application

Section B: Interconnection Customer Information

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____, State _____ Zip Code: _____

Phone (Day): _____ Phone (Evening): _____ Phone (Cell): _____

Fax _____ Email _____

Section C: Engineering Firm or Installer (If applicable)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____, State _____ Zip Code: _____

Phone (Day): _____ Phone (Evening): _____ Phone (Cell): _____

Fax _____ Email _____

Section D: Contact (If different from Interconnection Customer)

Name: _____

Contact Person: _____

Mailing Address: _____

City: _____, State _____ Zip Code: _____

Phone (Day): _____ Phone (Evening): _____ Phone (Cell): _____

Fax _____ Email _____

Owner of the facility (include percent ownership by any electric utility):

Section E: DER Information

Installation Address (if different than above): _____

GVP customer account number: _____

DER Components:

Inverter Manufacturer: _____

Inverter Model: _____

Inverter Nameplate Rating: _____ (kW AC) _____ (kVA AC)

Single Phase Three Phase

System design capacity*: _____ kW DC (if solar, total nameplate rating of modules)

Prime mover: Photovoltaic Reciprocating Engine Fuel Cell Turbine

Other _____

Energy Source: Solar Wind Hydro Other _____

Is the equipment UL1741 Listed? Yes No

If yes, attach manufacture's cut sheet showing UL1741 listing.

Estimated installation date: _____

Estimated in-service date: _____

***Per Grand Valley Power's Net-Metering Tariff, interconnections at Residential service locations are limited to 10 kW (DC). Qualified Commercial and Industrial service locations are limited to 25 kW (DC) or 120% of the previous 12 months consumption history at the service location in question, but in no event shall exceed 100 kW (DC).**

The 25 kW AC inverter process is available only for inverter-based interconnection resources no larger than 25 kW that meet the codes, standards, and certification requirements as specified in certain of these interconnection rules, or Grand Valley Power has reviewed the design or tested the proposed interconnection resources and is satisfied that it is safe to operate.

Section F: List the components of the small generating facility that are currently certified:

<u>Equipment type</u>	<u>Certifying entity</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Section G: Energy Storage Systems – Export Limiting Data

Energy storage will be included as part of the new Distributed Energy resource: Yes No

Energy storage will be exported to Grand Valley Power’s system: Yes No

Export controlled capacity is less than the Total Aggregate Nameplate Rating: Yes No

Energy Storage System Power Control System operating mode:

- Unrestricted (Export)**
- Import Only (Non-export)
- No Exchange (ESS not interconnected)

If multiple export control systems are used, provide data for each control system, and use additional sheets if needed.

Method of export limitation:

- Power Control System
- Reverse Power Protection
- Minimum Power Protection
- Other (Describe):

****All energy exported to Grand Valley Power’s system from an ESS must be generated from a renewable energy resource. Maximum capacity of interconnections with integrated energy storage systems operated in an exporting mode shall be evaluated based on the combined alternating current (AC) ratings of their generation facilities and storage export capacity.**

Export controls are applied to how many generators? Multiple One

If Power Control System is used, open loop response time(s): _____

Power Control System maximum export capacity: _____ (kW AC) _____ (kVA)

Describe which Generators are controlled by the export control system:

Section H: Certifications

I hereby acknowledge that the equipment and operating information is true and correct.

Signed (Equipment Vendor): _____ Date: _____

Name (Printed): _____ Company: _____

I hereby certify that, to the best of my knowledge, the information provided in this Application is true. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based interconnection resource no larger than 25 kW and return the Certificate of Completion when the interconnection resource has been installed.

Signed (Customer): _____

Name (Printed): _____ Date: _____

Contingent approval to connect the small generating facility.

Deliver, Mail or email Completed Application to: [Grand Valley Power, 845 22 Road, P. O. Box 190, Grand Junction, CO 81502](mailto:dg@gvp.org) or dg@gvp.org. Notification of Acceptance or Rejection will be given within 10 days of GVP receiving application

(For Grand Valley Power use only)

Company signature: _____ Date: _____

Title: _____

System Inspection by: _____ Date: _____

Grand Valley Power waives inspection/witness test? Yes No

Level 1 DER Interconnection Terms and Conditions

1. Construction of the facility:

The Interconnection Customer may proceed to construct the interconnection resource when Grand Valley Power approves the interconnection request (the application) and returns it to the Interconnection Customer.

2. Interconnection and operation:

The Interconnection Customer may operate the interconnection resource and interconnect with Grand Valley Power's electric system once all of the following have occurred:

- a. upon completing construction, the Interconnection Customer will cause the interconnection resource to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction;
- b. the customer returns the certificate of completion to Grand Valley Power; and
- c. Grand Valley Power has completed its inspection of the interconnection resource. All inspections must be conducted by Grand Valley Power, at its own expense, within ten business days after receipt of the certificate of completion and shall take place at a time agreeable to the parties. Grand Valley Power shall provide a written statement that the interconnection resource has passed inspection or shall notify the customer of what steps it must take to pass inspection as soon as practicable after the inspection takes place.
- d. Grand Valley Power has the right to disconnect the interconnection resource in the event of improper installation or failure to return the certificate of completion.

3. Safe operations and maintenance:

The Interconnection Customer shall be fully responsible to operate, maintain, and repair the interconnection resource as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4. Access:

Grand Valley Power shall have access to the disconnect switch and metering equipment of the interconnection resource at all times. Grand Valley Power shall provide reasonable notice to the customer when possible prior to using its right of access.

5. Disconnection:

Grand Valley Power may temporarily disconnect the interconnection resource as allowed in the interconnection agreement and upon the following conditions:

- a. for scheduled outages per notice requirements in Grand Valley Power's tariff or Commission rules;
- b. for unscheduled outages or emergency conditions pursuant to Grand Valley Power's tariff or Commission rules; or
- c. if the interconnection resource does not operate in the manner consistent with these terms and conditions.
- d. Grand Valley Power shall inform the Interconnection Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

6. Indemnification:

The parties shall at all times indemnify, defend, and save the other party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other party's action or inactions of its obligations under this agreement on behalf of the indemnifying party, except in cases of gross negligence or intentional wrongdoing by the indemnified party.

7. Insurance:

The Interconnection Customer is not required to provide general liability insurance coverage as part of this agreement, or through any other Grand Valley Power requirement.

8. Limitation of liability:

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of the interconnection agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either party be liable to the other party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under section 6 of these terms and conditions.

9. Termination:

The interconnection agreement to operate in parallel may be terminated under the following conditions:

- a. By the customer by providing written notice to Grand Valley Power.
- b. By Grand Valley Power if the interconnection resource fails to operate for any consecutive 12-month period or the customer fails to remedy a violation of these terms and conditions.
- c. Permanent disconnection. In the event the interconnection agreement is terminated, Grand Valley Power shall have the right to disconnect its facilities or direct the customer to disconnect its interconnection resource.
- d. Survival rights. The interconnection agreement shall continue in effect after termination to the extent necessary to allow or require either party to fulfill rights or obligations that arose under the agreement.

- 10. Assignment/Transfer of ownership of the facility.** The interconnection agreement shall survive the transfer of ownership of the small generating facility to a new owner when the new owner agrees in writing to comply with the terms of the agreement and so notifies Grand Valley Power. Alternatively, the new owner can enter into a new Interconnection Agreement with Grand Valley Power.

CERTIFICATION CODES & STANDARDS

ANSI C84.1-2016 Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

ANSI/NEMA MG 1--2016, Motors and Generators

IEEE Std C37.90.1-2012, IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems

IEEE Std C37.90.2-2004, IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-2002, IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2014, IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002/Cor 1-2012, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits Corrigendum 1: Deletion of Table A.2 and Associated Text

IEEE Std C62.45-2002, IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits

IEEE Std 100-2000, The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition

IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

IEEE Std 1453-2015 IEEE Recommended Practice for the Analysis of Fluctuating Installation on Power Systems

IEEE Std 1547-2018, IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces

IEEE Std 1547.1-2005, IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

NFPA 70 (2017), National Electrical Code

UL 1741 Inverters, Converters, and Controllers for Use in Independent Power Systems

UL 1741 SA, until January 1, 2022, or until such time new DERs applying for interconnection will comply with IEEE 1547-2018, IEEE Standards for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources

CERTIFICATION OF DER PACKAGES

1. Small generating facility equipment proposed for use separately or packaged with other equipment in an interconnection system shall be considered certified for interconnected operation if it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in rule 3857; it has been labeled and is publicly listed by such NRTL at the time of the interconnection application; and, such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
2. The Interconnection Customer must verify that the intended use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
3. Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for an on-site commissioning test by the parties to the interconnection nor follow-up production testing by the NRTL.
4. If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
5. Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL and does not violate the interface components' labeling and listing performed by the NRTL, no further design review, testing or additional equipment on the customer side of the point of interconnection shall be required to meet the requirements of these interconnection procedures.
6. An equipment package does not include equipment provided by Grand Valley Power.