

Form B

GOVERNMENT OF THE VIRGIN ISLANDS

SMALL SCALE RENEWABLE ENERGY

RESIDENTIAL INTERCONNECTION APPLICATION

TO: General Manager, BVIEC

RE: Approval for Grid-tie Connection for Customers with Solar and/or Wind Electric Generating Facilities of 50 Kilowatts or Less, and for Customers Installing Energy Storage Paired with Such Generating Facilities



Application Identification (APP ID) Number _____ (for BVIEC’s use only)

Part 1 – Identifying the Generating Facility’s Location and Responsible Parties

A. Applicability and Purpose:

This *NET ENERGY METERING APPLICATION AND INTERCONNECTION AGREEMENT FOR CUSTOMERS WITH SOLAR AND/OR WIND ELECTRIC AND/OR ENERGY STORAGE GENERATING FACILITIES OF 50 KW OR LESS* ("Agreement") applies to customers requesting service under British Virgin Islands Electricity Corporation (Renewable Energy) Regulations 2018 (hereafter referred to as “Renewable Energy Regulations”) Schedule 2 Feed In Tariff. The purpose of this Application is to begin the process for Customers requesting to interconnect with BVIEC’s Distribution System, subject to the provisions of this Application and the Interconnection Agreement for Customer Generator. Customer is electing to interconnect and operate its customer generating facility in parallel with BVIEC’s Distribution System, primarily to offset part or all of the Customer's own electrical requirements. Customer shall comply at all times with the Agreement as well as with all applicable laws, tariffs, and requirements of the Renewable Energy Regulations.

B. Description of Service

This application is being filed for (Please select only one):

- A *New Customer Generating Facility* – request for interconnection at an **existing** BVIEC electric service for kW or less.
- A *New Customer Generating Facility* – request for interconnection in conjunction with a **new** BVIEC electric service
 - An **Application for Service** must be completed. Additional fees may be required if a service or line extension is required. Please contact BVIEC.
- Physical Changes to an existing Interconnected Customer Generating Facility* – request for modification of an existing interconnection due to modifications (e.g., adding photovoltaic (“PV”) panels or changing inverters/turbines) of existing to Customer Generating Facility that is operating under an existing interconnection agreement and has previously received permission to operate from BVIEC.
- A *New Customer Generating Facility that will be Paired with an Energy Storage Device that does not exceed 50 kW* - request for interconnection at an existing service for both a Customer Generating Facility that will be paired with energy storage of 50 kW or less.
 - Note that the following energy storage devices require the use of a different application:
 - Devices with a capacity greater than 50 kW
 - Devices with a capacity greater than 150% of the Customer generator’s

maximum output capacity,

- Devices operating as a standalone system, i.e., not paired with a Customer Generating Facility

For a stand-alone energy storage device either exporting or not exporting for resale, please contact BVIEC.

- An **Existing Customer Generating Facility that will be Paired with an Energy Storage Device that does not exceed 50 kW** – request for interconnection of an energy storage device that will be paired with a Customer Generating Facility that is operating under an existing interconnection agreement and has previously received permission to operate from BVIEC.
- An **Existing Customer Generating Facility including standalone systems** – request for all systems already existing, including standalone systems, that were previously interconnected without approval, to bring in line with the law.

C. Estimated Versus Actual Cost Responsibility

If there are fees collected for estimated additional costs for interconnection studies or interconnection upgrades as noted under Part 3(J), and if actual costs for (1) detailed interconnection studies, if required, and/or (2) interconnection Facilities and distribution system modifications, if required, exceed the original estimated amounts, Applicant will be responsible for costs above the estimated amounts.

If actual costs are less than fees paid for such estimated additional costs, BVIEC will refund the difference.

D. Customer Generating Facility Information – Where will the Generating Facility be installed?

Name of Consumer-Generator: (individual or body corporate)

Account Number _____ Meter Number _____

Mailing Address of Applicant:

Physical Address of Installation:

Classification: Commercial Residential Industrial

Block No.: _____ Parcel No.: _____ Phone No.: Business: _____

Mobile Phone: _____ Email Address: _____

E. Electrician Information

Name: _____ Company Name _____

Address: _____

Contact Number: _____ Email: _____

Class of BVI Electrician's License: A B C D E License No.: _____

Certification: NABCEP Other _____ Date of Certification: _____

- Contractor is authorized to act on behalf of Customer with respect to this agreement and BVIEC is authorized by Customer to release confidential Customer information to Contractor.

By checking the box above and signing this agreement, Customer authorizes BVIEC to release information to the contact(s) named above regarding Customer's usage and billing information, Generating Facility location, size and operational characteristics as requested during the course of this interconnection process. BVIEC is authorized to share information with the identified recipients for a period of three years from the date this agreement is received by BVIEC. Contact(s) are also authorized to request rate changes and metering arrangements which may result in charges to Customer.

In addition, Customer authorizes BVIEC to release information regarding Customer's facility, including customer name and Generating Facility location, size, and operational characteristics, as requested from time to time pursuant to the BVIEC's rules and regulations.

This agreement is applicable only to the Generating Facility described below and installed at the above location. The Generating Facility may not be relocated or connected to BVIEC's system at any other location without BVIEC's express written consent.

Customer shall be responsible for the design, installation, operation, and maintenance of the Generating Facility and shall obtain and maintain any required governmental authorizations and/or permits.

F. Interconnection Package

These documents are needed to ensure safe and reliable operation of BVIEC's Distribution System and to confirm that Customer's interconnection has been performed in accordance with the Renewable Energy Regulations. **To insure prompt attention and authorization of your project and to avoid any delays, we would like to be in receipt of your completed package at least two (2) weeks prior to the date that BVIEC receives the Government of the Virgin Islands Electrical Inspection Unit's electrical inspection certificate.**

Required Documents for New Applicants:

1. A completed copy of this Agreement. Please note: The Customer name (as identified in Part I, Section D) must be the same name as on the BVIEC bill.
2. Site plan showing Customer Generator location, service panel and meter location. A sample site plan diagram is shown in **Figure 4**.
3. Completion of Part 3.B. regarding the **Single-Line Diagram** showing Customer's actual installation of his/her Generating Facility. The diagram must include the electrical rating and operating voltages of the significant electrical components such as the service panel, the disconnect switch (if required), inverters, all wind and/or PV generators, circuit breakers and other protective devices of the Generating Facility, the general location of the Customer's loads relative to the Generating Facility, and the interconnection with BVIEC's Distribution System. A sample single line diagram is included in **Figure 3**. The diagram must include the

following information:

- a. A description and location of the visible, lockable **AC disconnect switch** if present.
Note: Customers installing inverter-based systems will not be required to include an AC disconnect switch when the facility has a self-contained electric revenue meter (i.e., 0-320 amp socket based meters or 400 amp K-based meters). This type of meter is used by the vast majority of customers.

To accommodate this change while maintaining utility operating safety needs, the revenue meter, when appropriate, may be temporarily removed by BVIEC to isolate the customer's inverter from the electric distribution system. Removal of the revenue meter (due to an emergency or maintenance on BVIEC's system) will result in loss of electrical service to the customer's facility or residence for the duration of time that work is actively in progress.

BVIEC *recommends* that customers installing an inverter-based generator consider also installing an AC disconnect switch to facilitate maintenance of the customer's equipment (i.e. inverter, PV arrays, etc) without the need for interrupting service to the customer. The AC disconnect switch provides the additional benefit of allowing BVIEC to isolate the customer's generator from the utility's Distribution System without having to interrupt service to the customer's facility or residence but for customers with 50 kW or smaller NEM generating facilities, the switch is optional.

BVIEC's AC disconnect requirement for Distributed Energy Resources (Distributed Generation) will continue to apply to:

- Inverter-based interconnections having a transformer-rated meter (i.e., all meter panels or switchboards employing the use of potential and current transformers).
 - Non-inverter-based generators, including rotating or machine-based generators – regardless if the service meter configuration is transformer-rated or self-contained.
- b. A description of the specific **inverter(s)** used to control the interconnection between BVIEC and the Generating Facility, including rating, brand name, and model number. CEC-AC certified inverters¹ will pass the requirements for interconnection per the Renewable Energy Regulations. Non-certified units will require further study and may involve additional costs.
 - c. A complete description of the generating equipment that the Customer plans to install. If the Generating Facility includes PV panels, the description must include the manufacturer name, model number, number of panels, and the nameplate rating. If the Generating Facility includes a wind turbine, the description must include the manufacturer name, model number, number of turbines, and the nameplate rating. Only CEC-AC certified inverters and certified wind-turbine generators without separate inverters will pass the requirements for interconnection.
 - d. A description of how the power output from the inverter is connected to the **main service panel via a branch breaker**. The ampere rating of this branch breaker and the main service panel breaker must be compatible with the output rating of the Generating Facility. The output rating is computed based on the total nameplate rating of the inverter.

¹ The eligible inverter list can be found under the CSI heading at: www.gosolarcalifornia.org/equipment

- e. If applicable, a complete description of energy storage devices, including, but not limited to, the battery manufacturer, battery model number, the inverter model number, nameplate rating in kilowatts, CEC-AC rating, quantity, output voltage and phase.
4. The final approval by the **Government of the Virgin Islands Electrical Inspection Unit** is required before BVIEC can conduct their field inspection. **The Government of the Virgin Islands Electrical Inspection Unit must notify BVIEC directly.** BVIEC cannot accept copies of an electrical permit directly from Customer.

Part 2 – General Facility and Rate Information

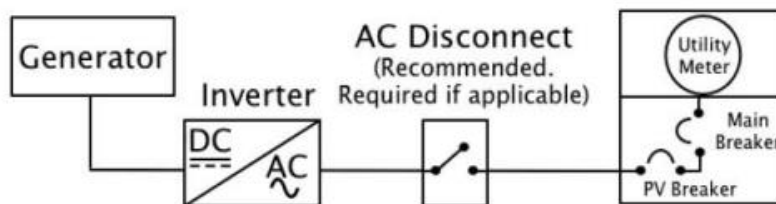
- A. BVIEC rates and rate design, including the rates and rate design reflected in Schedule 2 of the Renewable Energy Regulations, are subject to change from time to time. Customers should take this into consideration when making any long-term decisions based on rate structures that are currently in place.
- B. Is there electric vehicle charging on site at the above address? Yes No
If yes, please indicate how many electric vehicles: _____
- C. Are there any other generators connected on this account? Yes No
If yes, specify what kind of generator _____
- D. Are there any possible meter access issues? Yes No
If yes, check all that apply:
 Locked gate Meter located inside of facility/residence
 Unrestrained animal at meter or AC disconnect switch location
 Other (Please explain) _____

Part 3 – Description of the Generating Facilities *Use additional sheets, if necessary.*

- A. **AC Disconnect Switch** (see Part 1, Section F.3.a above for policy on disconnect switches)
List the AC disconnect switch that will be used at this Generating Facility (Enter “N/A” if not applicable).
Disconnect Switch Manufacturer _____
Disconnect Switch Model Number _____ Rating (amps) _____

B. Basic Single-Line Diagram (SLD) for Customer Generating Facilities (check one):

- I certify that the SLD below and the equipment information in Part 3 accurately represent the Customer’s service and the Generating Facility (there are no other Generating Facility(ies) connected to the service.



- I will submit a custom SLD for one or more of the following reasons: there is/are existing Generating Facility(ies) connected to this service, I am modifying an existing Generating Facility, or the Basic SLD does not accurately reflect the project.

C. Inverters Interconnected with BVIEC:

List all the inverters that will be interconnected to BVIEC.

Customers with non-standard inverters, which are not listed on the GoSolarCalifornia website, or Customers whose aggregate Generating Facility capacity exceed 15% of the peak load on the distribution line section, require a Supplemental Review which may entail a study, additional equipment, fees, and/or other requirements. Please contact BVIEC for further instructions if you plan to install a non-standard inverter. BVIEC will determine and inform the Applicant if the system capacity exceeds 15% of the peak load on the distribution line section.

No.	Inverter Manufacturer	Inverter Model Number	Inverter Nameplate Rating ² kW (per unit)	Inverter CEC-AC Rating kW (per unit)	Quantity of Inverters	Inverter Output Voltage	Single or Three phase?
1							
2							

C.1. PV Generator Equipment

Please provide the PV panel information requested below. If the panels are not all identical modules, list the total capacity connected to each inverter you listed above. (Please attach additional sheets if more space is needed)

No.	PV Panel Manufacturer	PV Panel Model	PV Panel Nameplate Rating kW (per unit)	PV Panel CEC-AC Rating kW (per unit)	Quantity of PV Panels	Total Capacity ³ (kW)	Inverter number from (C) above (1 or 2)
1							
2							

C.2. What is the system output (DC watts)? _____

C.3. What is the system output (AC watts)? _____

C.4. PV Panel Mounting (Please choose one):

- Rooftop, and Tilt (i.e., roof pitched) or Flat (i.e., roof flat)
- Ground
- Carport
- Mixed

² The inverter rating equals the nameplate rating, in kW. If there is more than one inverter of one type being installed, the inverter rating equals the nameplate rating of one unit of the model being installed.

³ The total capacity is the PV panel (or wind turbine) rating times the quantity.

C.5. PV Panel Tracking Type (Please choose one):

- Fixed, please provide:
 Tilt: _____ degrees (°),
 Azimuth: _____ (0° South, positive West-facing, negative East-facing)
- Single-axis
- Dual-axis
- Mixed

D. Wind Turbine Equipment

Please provide the wind turbine information requested below. If there is more than one wind turbine of the same type, list the total capacity connected to each inverter you listed in Section (C) above. Indicate NONE if the inverter is incorporated in the wind turbine and no inverter is required.

No.	Wind Turbine Manufacturer	Wind Turbine Model	Wind Turbine Nameplate Rating ⁴ kW (per unit)	Quantity of Wind Turbines	Total Capacity (kW)	Turbine Output Voltage	Single or Three Phase	Inverter number from (C) above (1 or 2)
1								
2								

E. Energy Storage

Please provide the energy storage information requested below.

If the energy storage device is connected to a separate inverter which is not connected to any other generator, provide information about the inverter in the table below.

No.	Inverter Manufacturer	Inverter Model Number	Inverter Nameplate Rating kW (per unit)	Inverter CEC-AC Rating kW (per unit)	Quantity of Inverters	Inverter Output Voltage	Single or Three phase?
1							
2							

Is the inverter for your energy storage device UL listed? (yes/no) _____

No.	Battery Manufacturer	Battery Model Number	Quantity of individual batteries	Capacity (amp-hours) of individual battery	Total Capacity of battery system (kWh)	Battery Chemistry	Single or Three phase?	Rating of Inverter (kW)
1								
2								

⁴ For all generation equipment ratings, please use the nameplate rating found on the equipment or in the equipment specifications.

F. Other Non-Depleting Energy Sources

For other energy sources listed above, please check the box(es) below and attach additional sheets to fill out information.

- Hydro Biomass Bio-fuel Sewage gas Landfill gas
- Geothermal energy Ocean energy
- Other source (requires written designation by Minister) _____

G. Service Panel Short Circuit Interrupting Rating:

For systems larger than 10 kW **but less than 50 kW**, what is the short circuit interrupting rating of the service panel connected to this generating facility? _____

H. System Output Monitoring:

Does the system have output monitoring? Yes No

If Yes, is the system output monitor reporting system sent to an (select one):

- Outside entity, or only to the Customer

If to an outside entity, state the name: _____

I. Customers interconnecting inverter-based Generating Facilities are required to comply with the requirements of the Renewable Energy Regulations, including configuration of protective settings in accordance with the specifications therein. Verification of compliance with such requirements shall be provided by the Customer upon request by BVIEC in accordance with the Renewable Energy Regulations.

- I certify that all inverters that will be or have been installed on the project described herein meet the applicable requirements, including the activation of the required autonomous functions such as anti-islanding, set forth in the Renewable Energy Regulations. (Please note: This box must be checked in order for BVIEC to accept your application.)

J. Interconnection Fees:

All customers are required to pay a nonrefundable application fee of \$150. A separate fee is required if there are additional interconnection studies or required system upgrades or modifications; see the Renewable Energy Regulations for further guidance or contact BVIEC.

K. Indemnity and Liability

Each party as indemnitor shall defend, hold harmless, and indemnify the other party and the directors, officers, employees, and agents of the other party against and from any and all loss, liability, damages, claim, cost, charge, demand, or expense (including any direct, indirect or consequential loss, liability, damages, claim, cost charge, demand, or expense, including retained or in-house attorneys' fees) for injury or death to persons, including employees of either party, and damage to property, including property of either party, arising out of or in connection with (a) the engineering, design, construction, maintenance, repair, operation, supervision, inspection, testing, protection or ownership of the indemnitor's facility, or (b) the making of replacements, additions betterments to or reconstruction of the indemnitor's facilities. This indemnity shall apply notwithstanding the active or passive negligence of the

indemnatee. However, neither party shall be indemnified hereunder for its loss, liability, damage, claim, cost, charge, or expense resulting from its sole negligence or willful misconduct. The indemnitor shall, on the other party's request, defend any suit asserting a claim covered by this indemnity and shall pay for all costs, including reasonable attorney fees, which may be incurred by the other party in enforcing this indemnity.

L. Governing Law

This Agreement shall be interpreted, governed, and construed in accordance with the laws of the British Virgin Islands.

M. Term of Agreement

This Agreement shall become effective as of the date of BVIEC's issuance of the Permission to Operate Letter after receipt of all applicable fees, required documents, and this completed Agreement. This Agreement shall continue in full force and effect until terminated by either Party providing 30-days prior written notice to the other Party, or when a new Customer takes service with BVIEC operating this approved generating facility. See Appendix A for expiration terms of interconnection application.

N. Governing Authority

This Agreement shall at all times be subject to such changes or modification by BVIEC as BVIEC may, from time to time, direct in the exercise of its jurisdiction under the Renewable Energy Regulations.

CUSTOMER ACKNOWLEDGES THAT IT HAS READ THIS AGREEMENT IN ITS ENTIRETY AND AGREES WITH THE REQUIREMENTS SET FORTH HEREIN.

Customer understands and agrees that it must not operate its Generating Facility in parallel with BVIEC's Distribution System until Customer receives written authorization for Parallel Operation from BVIEC.

Signature of Customer-Generator/Applicant _____ Date _____

Signature of Electrician _____ Date _____

General Manager, BVIEC _____ Date _____

Hard copy applications should be dropped off at our Headquarters at Long Bush, Road Town, Tortola, and at our office in The Valley, Virgin Gorda.

Electronic copies can be emailed to bviecgm@bvielectricity.com.

FOR BVIEC OFFICIAL USE ONLY

Fee Paid \$ _____ Receipt No.: _____

- Completed copy of Agreement: Yes No
- Single line diagram: Yes No
- Site plan: Yes No
- AC disconnect switch (optional for 50 kW or less): Yes No
- Meter access: Yes No
- Signage from: Customer Installer/Electrician

BVIEC SYSTEM DATA TO ACCOMPANY APPLICATION

Point of Interconnection

Distribution Feeder information

- Feeder / branch circuit # _____
- Distribution transformer rating _____ kVA
- Maximum feeder/branch total load _____ kVA
- Minimum feeder/branch total load _____ kVA

Customer generation penetration levels on feeder (prior to application):

- Total installed customer generator capacity on feeder: _____ kVA
- Total installed generating capacity as % of feeder peak load _____ %
- Total installed generating capacity as % of feeder minimum load _____ %

Customer generation penetration level on BVIEC system (as determined within last 60 days before receipt of this application):

- Total customer generating capacity on system: _____ kVA
- System peak load: _____ kVA System minimum load _____ kVA
- Total customer generating capacity as % of system peak load _____ %
- Total customer generating capacity as % of system minimum load _____ %

APPROVAL

- Approved Expiration Date: _____
- Denied, check reason below

Your application is denied for reason(s) founded on

- Technical Data Public Safety Food Security
- Health and/or Environmental Safety
- Other, explain _____

Appendix A Requirements for Interconnection

IN SUBMITTING THIS DOCUMENT, I THE CUSTOMER, UNDERSTAND AND AGREE TO THE FOLLOWING TERMS AND CONDITIONS:

Permission to Operate

Customers must not operate their Generating Facility in parallel with BVIEC's Distribution System until they receive written authorization for Parallel Operation from BVIEC.

Unauthorized Parallel Operation could result in injury to persons and/or damage to equipment and/or property for which the Customer may be liable.

Safe Operation of your Generating Facility

Notwithstanding any other provision of this Agreement, if at any time BVIEC determines that either (a) the Customer's Facility, or its operation, may endanger BVIEC personnel, or (b) the continued operation of the Customer's Facility may endanger the safe and reliable operation of BVIEC's electrical system, BVIEC shall have the right to disconnect the Facility from BVIEC's system. Customer's Facility shall remain disconnected until such time as BVIEC is satisfied that the unsafe condition(s) have been corrected.

Meter Access

Your meter must be installed in a safe BVIEC-accessible location and remain unobstructed. BVIEC's ability to access the meter must be maintained at all times for purposes, including, but not limited to, meter reading system maintenance, and system emergencies. Any animals owned by the customer, including pet dogs, should not have access to these areas to avoid hindering BVIEC service personnel from completing their work. If a self-contained meter is being utilized in lieu of an AC disconnect switch, the meter cannot be located within a residence or garage.

Document and Fee Requirements

Other Documents and/or Fees may be required and there may be requirements for interconnection in addition to Part 1 Section F, depending on the specifics of the proposed Generating Facility. Other approvals and/or other agreements may be needed for special BVIEC programs or regulatory agency requirements.

Stale Agreements

If this agreement is still pending two years from its date of submittal, or if application extensions approved by BVIEC have expired, and customer has not met all of the requirements, BVIEC will close this application and Customer will be required to submit a new application.

Appendix B Sample diagrams

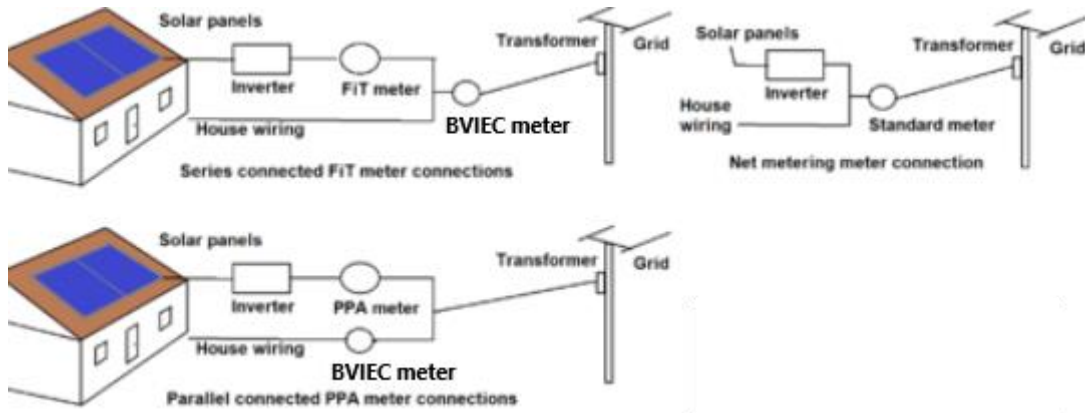


Figure 1 Sample Feed-in Tariff and PPA meter connections

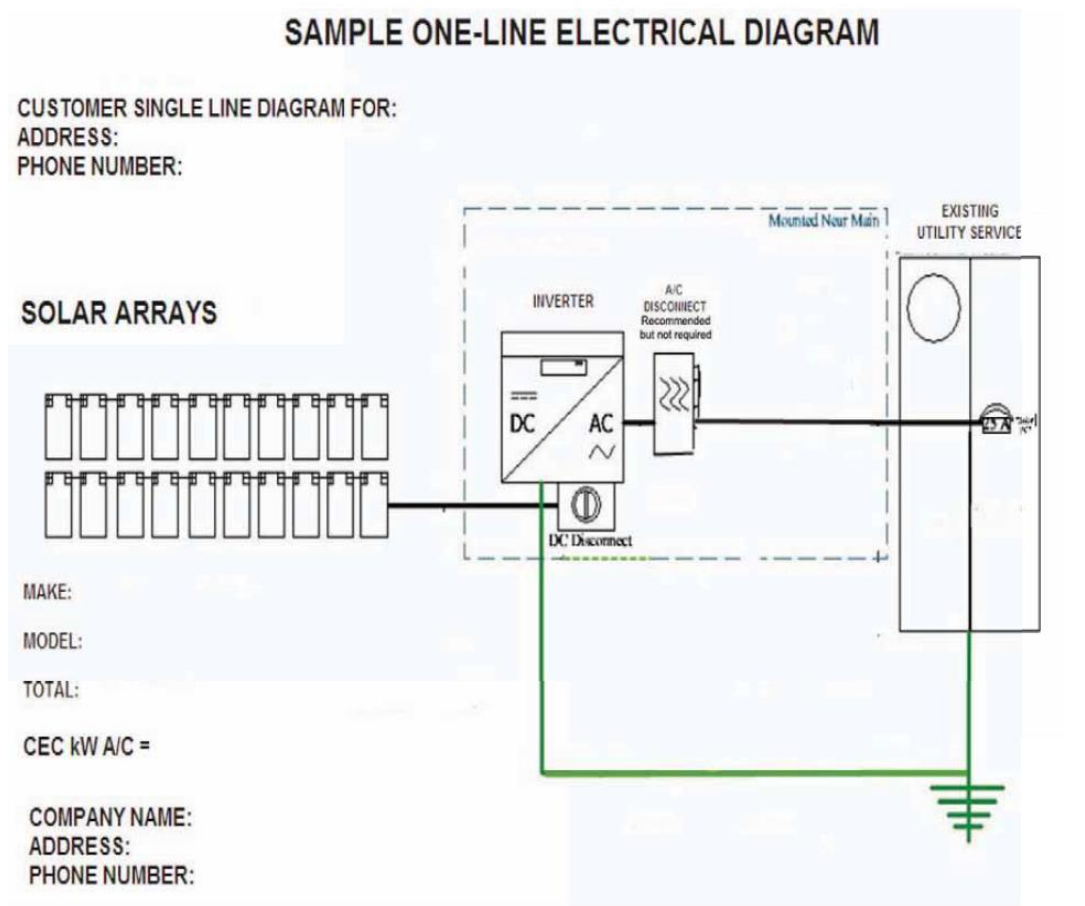


Figure 2 Sample system diagram, small residential up to 50 kW generator system (customer generator meter location not shown)

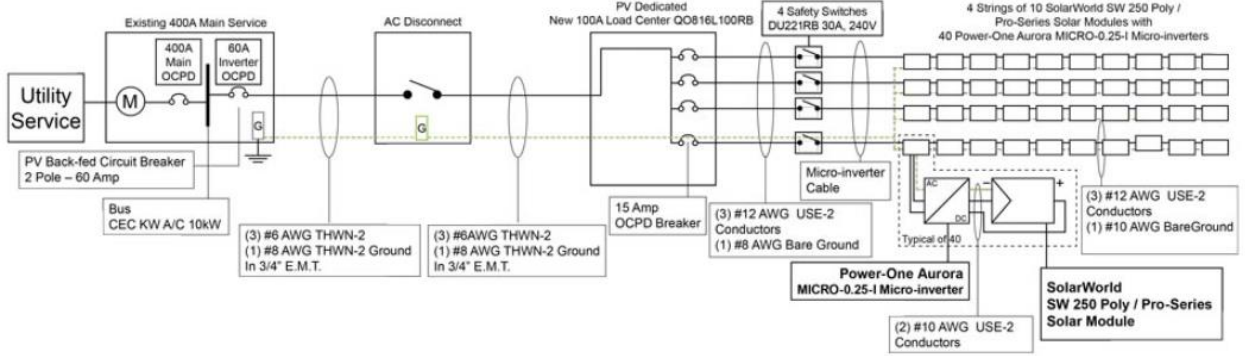


Figure 3 Sample single line diagram: Small residential

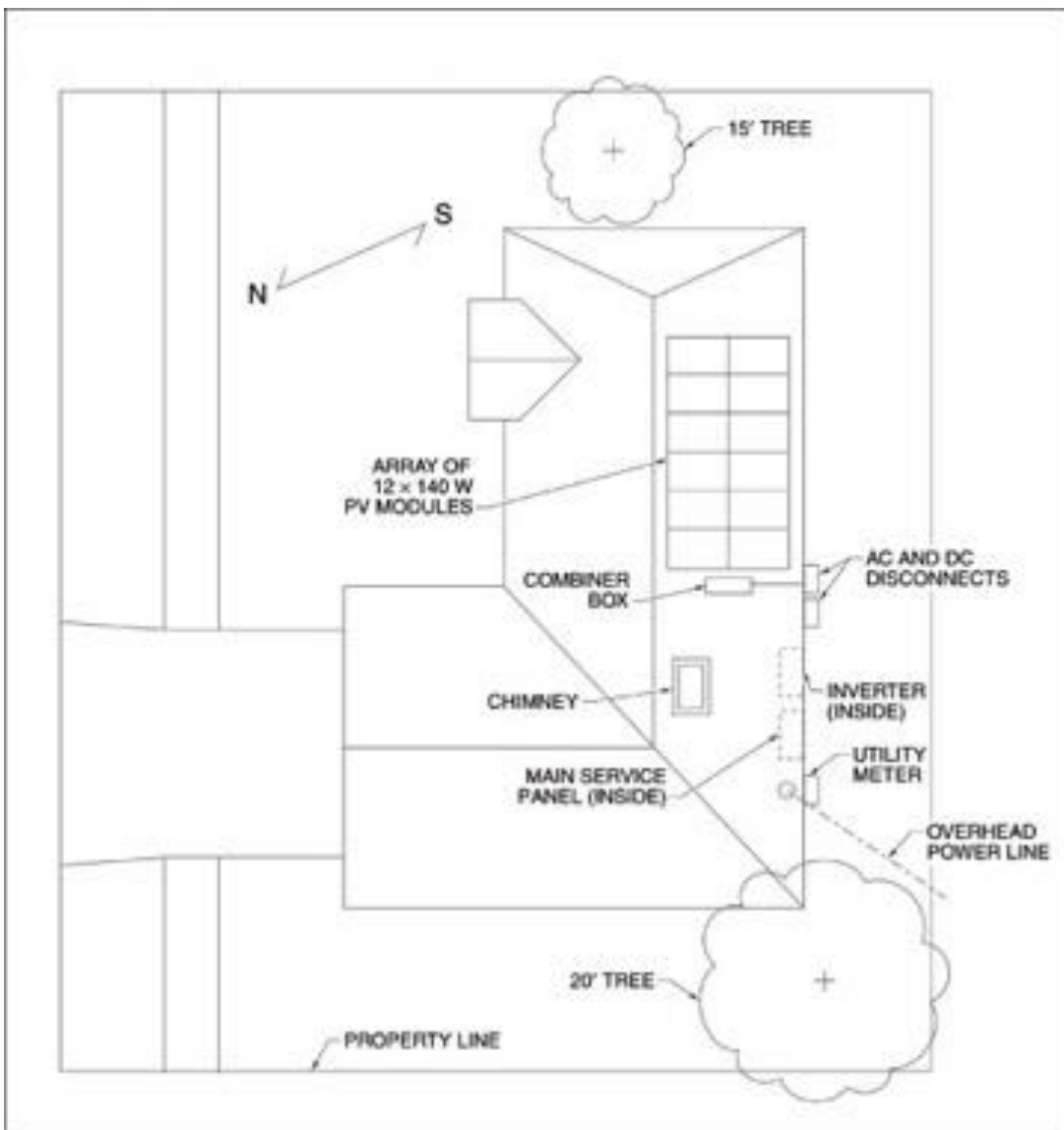


Figure 4 Sample site plan

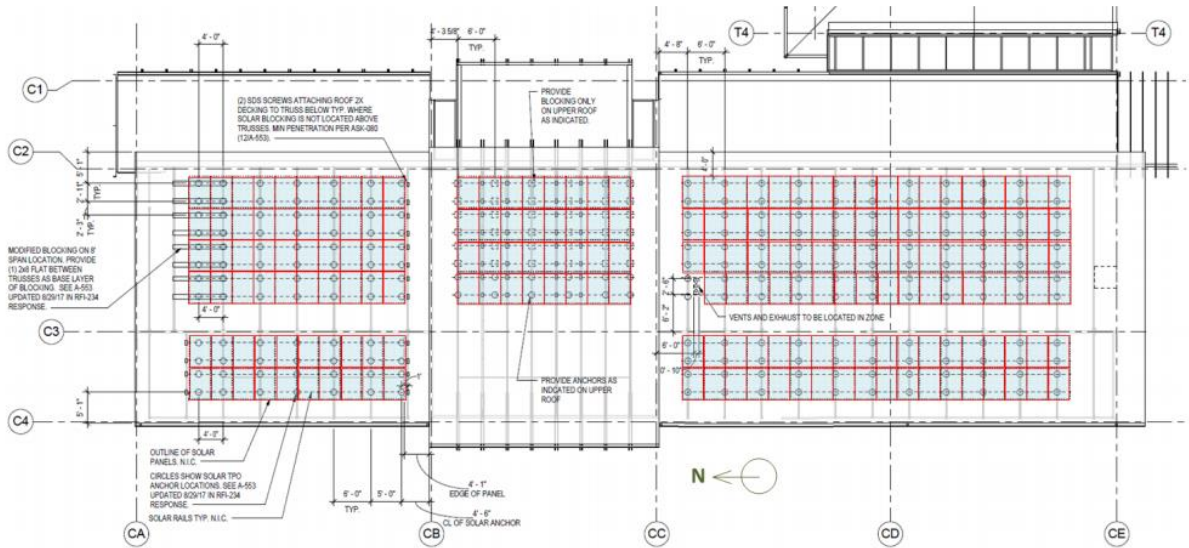


Figure 5 Sample site plan, PV panel configuration implemented on roof structure

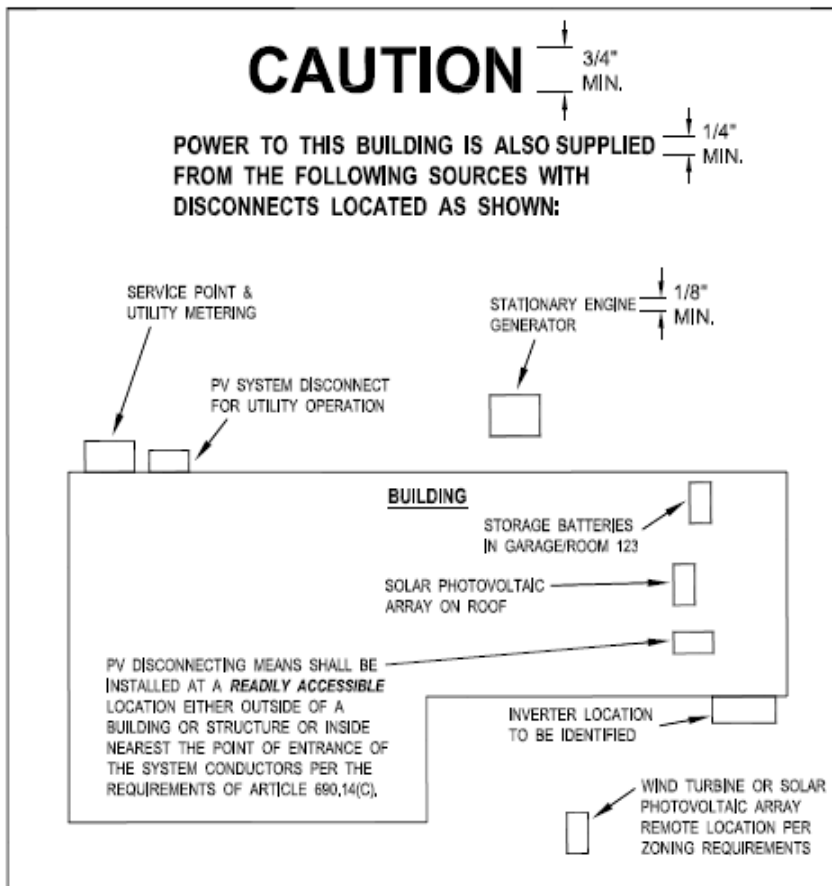


Figure 6 Sample placard to be installed at electric service panel