

REQUIREMENTS FOR CUSTOMER-OWNED SMALL GENERATION

- I. ADMINISTRATIVE REQUIREMENTS
- II. TECHNICAL REQUIREMENTS

For questions or communications regarding net-metered customer-owned generation, contact Citizens' Electric Engineering at:

- operations@citizenselectric.com
- 570-524-2231
- Citizens' Electric Co
Attn: Engineering
1775 Industrial Blvd
Lewisburg, PA 17837

This document is subject to change without notice. For the most recent available version, check online at

<https://citizenselectric.com/safety-service/#requirements>.

PART I

ADMINISTRATIVE REQUIREMENTS

DEFINITIONS

1. Certificate of Completion – The final section of the relevant Interconnection Application document. To be submitted upon physical completion and inspection of the generation system.
 - a. Part II of the Level 1 Interconnection Application
 - b. Attachment B of the Level 2-4 Interconnection Application
2. All municipalities within the Company's service area now require a building permit for solar installations.
 - a. For other types of generation, the customer or their representative is responsible to check with the appropriate municipality to determine what permits are required.
 - b. Additional information on zoning and building permits may be found at www.ckcog.com.
3. At a minimum all *completed* installations shall be inspected¹ by a [certified codes inspector](#) with certification under UCC Class 11 or 19, as appropriate.
4. Plans and applications may be submitted by hardcopy or electronically, electronic submissions are encouraged.
 - a. Faxed applications are not accepted.
 - b. Time intervals for the review and approval of applications will not commence until the required fee check has been received.

APPLICATION

5. Electronic formats of all required applications are available on the Citizens' Electric website at <https://citizenselectric.com/safety-service/#requirements>.
 - a. Electronic completion of forms for legibility is encouraged.
 - b. Illegible or incomplete applications will be returned for resubmittal.
6. Scanned signed applications, as well as certified digital signatures are acceptable.
7. Certificate of Completion will not be accepted until after the installation is complete.
 - a. Sections of the Certificate of Completion signed and dated prior to the actual system installation will render it void and require resubmittal in its entirety.

¹ See Level 1 "Interconnection Application/Agreement" § 2.1 or "Level 2,3 or 4 Interconnection Agreement" § 3(a)

8. Completed systems may not be interconnected or operated until all sections of the relevant Certificate of Completion are satisfied.²
9. A copy of the final system design—including as-built revisions—shall be submitted along with the Certificate of Completion. *(See Part II Sec 8 on Plan Revisions)*

COMMON APPLICATION QUESTIONS & ERRORS

10. Please use the most recent forms available on the Company's website. Re-use of old application forms, or forms provided by other EDC's may result in errors.
11. Section: "The Customer-Generator Facility's Information"
 - a. Annual Energy Consumption – Total consumed kWh as found on the most recently available 12 months of utility bills.
 - i. *If 12 months of data are not available, contact Company for assistance.*
 - b. Number of units – Number of inverters of any given make/model connected in the system.
 - c. Inverter Rating – The rated output in kW_{AC} of *single* inverter of any given make/model.
 - d. Power Factor – Systems shall be designed at unity power factor unless otherwise approved by the Company.
12. Fees:
 - a. Fee checks shall be made payable to: Citizens' Electric Company of Lewisburg, PA
 - b. **Please include an insert or clearly note on fee check that it is a solar interconnection fee.** *Checks without sufficient notation may cause delays in application processing.*
 - c. Level 1 - \$100
 - d. Level 2 - \$250 + \$1/kW rated nameplate capacity + cost of modifications to EDC system or additional review.
 - i. Rated nameplate capacity is the combined total of each inverter's or generating unit's rated AC output capacity.
 - ii. Initial fee shall be the \$250 + \$1/kW rated nameplate capacity. Costs for modifications or additional review will be invoiced separately.
 - e. Level 3 - \$250 + \$2/kW rated nameplate capacity + cost of modifications to EDC system or studies as required.
 - i. Rated nameplate capacity is the combined total of each inverter's or generating unit's rated AC output capacity.
 - ii. Initial fee shall be the \$250 + \$2/kW rated nameplate capacity. Costs for modifications or additional review will be invoiced separately.

² See "Level 1 Interconnection Application/Agreement" § 2 or "Level 2,3 or 4 Interconnection Agreement" § 3

Company reserves the option to charge for additional administrative, engineering, equipment and/or physical labor costs above and beyond those required for a typical installation. Such as (*but not limited to*):

- iii. Multiple application reviews due to errors.
- iv. Returned (/NSF) fee checks.
- v. Multiple site visits required due to errors or incomplete installations.
- vi. Costs associated with repairs, replacements or assistance rendered by field personnel.

VIRTUAL AGGREGATION

13. Per 52 Pa. Code § 75.11-17, Net Metering customers may virtually aggregate load of the same customer-generator located within 2 miles of the net-metered service.
 - a. Loads outside of Citizens' Electric service area are not eligible.
14. Customer-generators wishing to virtually aggregate load must complete and submit a Virtual Aggregation Request Form – available online at <https://citizenselectric.com/safety-service/#requirements>.
15. Additional services may be added at any time, to add additional aggregated load, customer-generator must submit a Virtual Aggregation Request Form listing the additional services. *Re-listing existing virtually aggregated services is not necessary.*

PART II

TECHNICAL REQUIREMENTS

DEFINITIONS

1. *Meter Enclosure* – Any electrical enclosure, junction box, equipment cabinet or conduit installed for the purpose of housing **utility** metering equipment, including:
 - a. Utility revenue meter
 - b. Instrument transformers
 - c. Secondary meter circuits
 - d. Demand/Load/DER control or other smart metering equipment and accessories
2. *AC Disconnect* – except where otherwise noted, the appropriately rated, lockable, accessible AC Disconnect providing the primary means of isolating the system from the utility system.
3. *Utility side* – to be used in place of 'supply side' to clearly denote the utility as the specific 'supply' in context.

GENERAL

4. Connections made directly to service entrance conductors are strongly discouraged.
 - a. Such connections shall be clearly noted on plans.
 - b. Subject to additional requirements and restrictions within this document.
 - c. Clear photographs of actual installed connections shall be made available to Company upon request.
 - d. Contact Company to schedule interruption to safely make connections to service conductors.
5. Citizens' Electric Co does not approve the use of meter collars for the connection of customer-owned generation systems.

PLANS

6. Plans shall be professional in appearance and legible. Hand drawn plans are discouraged.
7. Plans shall include a reference acknowledging compliance with this document, to include the revision number found in the footer of the cover page.
8. Plans shall comply with the most recent version of the NEC—and all other applicable codes—in effect at the time of application.

9. Plans shall note the relevant local codes authority (*See Part 1 Sec 1*)
10. Plans shall, at a minimum, include the following:
 - a. Site plan showing relative locations of:
 - i. Utility Meter
 - ii. AC Disconnect
 - iii. Generation source
 - iv. Structures
 - b. Single Line Drawing, to include:
 - i. Size/type of all new conductors on the utility side of the AC disconnect.
 - ii. Size/type of all new conduits on the utility side of the AC disconnect.
 - iii. Location of any instrument transformers on the supply side of the AC disconnect.
 - iv. Relative configuration of:
 1. Utility Meter
 2. Main Service Panel
 3. Sub panels between the utility meter and generation source.
 4. New electric distribution panels installed in conjunction with the project.
 5. AC Disconnect
 6. Inverter(s)
 7. Generation source
 - v. Make/Model of the following equipment:
 1. Inverters
 2. Disconnect switches
 3. New electric distribution panels
 - vi. Sizes of all protective devices (fuses, circuit breakers, etc) shown on the diagram.
 - vii. Grounding Electrodes connected to equipment shown on the diagram.
 - viii. Total quantity of each make/model of generation equipment.
 - c. Product specifications for the following equipment (as applicable)
 - i. Solar Panels
 1. Must specify rated DC output power.
 - ii. Other generation sources
 1. Must specify rated AC or DC output power as applicable.

- iii. Inverter(s)
 - 1. Must specify rated AC output power.
 - 2. Must specify compliance with UL 1741/IEEE 1547.
 - iv. AC Disconnect switches
 - 1. If connected on the Utility Side of the existing service disconnect, must specify listing as suitable for use as service equipment.
 - v. Taps/connectors/breakers *used to tie* into existing system.
- d. Copies of all safety/warning labels and their location(s).
11. Deviations from or revisions to plans submitted to the company shall be communicated to the Company as outlined below:
- a. The following must be submitted to and accepted by Citizens' Electric prior to installation:
 - i. Changes to electrical configuration in single line diagram, such as changes to interconnection point, addition or removal of equipment.
 - ii. Substitution of inverter to be used.
 - iii. Any changes to work within meter enclosure(s)
 - iv. Change in size of protective elements
 - v. Change in output capacity³
 - vi. Change in physical location or electrical configuration of AC Disconnect.
 - vii. Changes that may affect the overall safety, interoperability or safe isolation of the system.
 - b. The following shall be communicated to Citizens' Electric in the form of a revised plan at the time of the change, explicit acceptance not required:
 - i. Electrically equivalent substitutions of components not listed in (a).
 - ii. Change in the size or number of conductors and conduits.
 - c. All other changes to the design shall be captured in an 'As-built' revision to be provided with the Certificate of Completion.
12. Plan revisions shall be appropriately referenced on plan documents.

WORK IN METER ENCLOSURES

13. **Customer Installer is not permitted to cut or open utility locks or seals.**
- a. If locks or seals are found to be missing or damaged, report to Company immediately.

³ May require revised interconnection application.

14. ALL WORK in meter enclosures requires the *explicit* approval of Citizens' Electric Co.
 - a. In the event an application is accepted without *explicit* approval of work in meter enclosures, customer or their representative shall request such approval before proceeding.
15. Wiring or connections to be located within meter enclosures shall be clearly marked on single line diagram.
16. Work in energized meter enclosures by customer or installer is prohibited.
 - a. An interruption may be scheduled with the Company in order to safely perform approved work.
17. The following components/connections within meter enclosures are prohibited:
 - a. Connections to service entrance conductors
 - i. *Exception: Factory (or factory approved after-market) load side dual connectors*
 - b. Grounding electrodes
 - c. Non-utility instrument transformers and/or connections
 - d. Splices
18. New equipment shall be installed a minimum of 18" from the utility meter base and/or CT cabinet.
 - a. Exceptions must be approved in advance by Company and clearly noted on plan.

SAFETY PROVISIONS

19. Installation of customer-owned generation shall not interfere with the safe work practices of utility personnel.
20. Generation and accessory equipment shall not impede access of utility personnel to utility equipment or meter enclosures.
21. AC Disconnect shall be located conveniently to utility meter.
22. All equipment shall be appropriately labelled to clearly indicate energy sources and means of disconnect.
23. At locations with multiple utility meters, all meters shall be clearly and permanently labeled to identify loads served (examples: "Apt 1", "Unit A", "Garage", "Area Lighting")
 - a. Handwritten labels are discouraged. If used, they must be specifically intended for permanent outdoor use.
 - b. Labels shall be intended for outdoor use.