

# CITY OF COLUMBUS DIVISION OF POWER CUSTOMER-OWNED DISTRIBUTED ENERGY RESOURCE DOP INTERCONNECTION GUIDELINES 25KW OR LESS

12/09/2022

## CITY OF COLUMBUS DIVISION OF POWER CUSTOMER-OWNED DISTRIBUTED ENERGY RESOURCE GENERATION INTERCONNECTION STANDARDS

## **PURPOSE:**

The purpose of this document is to establish standards for eligible customers ("Generator") to interconnect and operate Customer-Owned, inverter-based, Distributed Energy Resource Generation Facilities ("DER") in parallel with the City of Columbus Division of Power ("DOP") Electric Distribution System.

### **PROJECT CONSIDERATIONS:**

Before investing in a renewable energy system, Generator should consider the following:

- Zoning Check City of Columbus zoning codes and requirements.
- Finding a Qualified Contractor A contractor is not required to install the renewable energy system, but you may consider using a contractor that has North American Board of Certified Energy Practitioners certification.
- Size/Capacity Consult with your contractor to assure your generating equipment is sized appropriately to ensure the safety and reliability of the electric system.
- Utility Consult with the Division of Power prior to the installation of the DER project to assure all electric distribution system interconnection requirements are met.
- Cost Considerations Installing equipment to generate power at your home or business can be expensive and is a long-term investment. Review all impacts to make certain your expectations will be met. If your goal is to reduce your energy usage and save on your bills, you may want to start with making your home more efficient before investing in a renewable energy system.
- Inspections Plan to have your installation inspected by City of Columbus Building and Zoning Services. A building permit prior to construction may be required.

### **ELIGIBILITY CRITERIA:**

A Generation Facility that does not meet all of the requirements of this section is not eligible to interconnect with the Electric Distribution System under these Interconnection Standards. Such facilities are subject to separate negotiation with the DOP. The eligibility requirements for the customer-owner Generating Facility are:

- a) Generator's Facility has an existing Division of Power electric account served under the Residential, Small Commercial or Commercial Rate.
- b) Generator's Facility electric account is in good standing and in compliance with electric rate schedules and the Division's General Rules and Regulations.
- c) The Generator's Facility is an inverter-based energy facility sized not to exceed 100% of the customer's annual kwh needs to a maximum total generator rated capacity of 25kW or less when including any storage capabilities and is interconnected behind the meter.
- d) The Generator's Facility is owned by the Customer, is located on the Customer's premises, and is connected to the customer's side of the meter with one point of common coupling.
- e) The Generator's Facility serves only the Customer's immediate premises and is intended only to offset part of the Customer's own electrical energy requirements for the premises, not to export to the grid.
- f) The Generator's Facility annual energy production shall not exceed Customer's annual energy requirements.
- g) The Generator's Facility is interconnected with and operates in parallel phase and synchronization with the DOP Electric Distribution System and is in compliance with these Interconnection Standards.
- h) The Generator's Facility contains DOP-approved mechanism(s) that automatically disconnects the Generation Facility and interrupts the flow of electricity to the Electric Distribution System in the event that electric service to the Customer is interrupted.

## CITY OF COLUMBUS DIVISION OF POWER CUSTOMER-OWNED DISTRIBUTED ENERGY RESOURCE GENERATION INTERCONNECTION AGREEMENT

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 202\_ by the Department of Public Utilities' Division of Power (the "DOP") of the City of Columbus and \_\_\_\_\_\_ ("Generator"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties". In consideration of the mutual covenants set forth herein, the Parties agree as follows:

### WITNESSETH:

WHEREAS, Generator is installing distributed energy resource generation equipment, controls, and protective relays and equipment ("Generation Facilities") used to interconnect and operate in parallel with the DOP's electric system, which Generation Facilities are more fully described in Attachment A attached hereto and incorporated herein by this Agreement:

1) APPLICATION. It is understood and agreed that this Agreement applies only to the operation of the Generation Facilities described in Attachment A.

Generator represents and warrants that (i) it is duly authorized to enter into this Agreement and (ii) it desires to interconnect and operate the Generation Facilities in parallel with the DOP's electric system, which it shall do in accordance with Good DOP Practice and this Agreement.

For purposes of this Agreement, "Good DOP Practice" shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good DOP Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region.

- 2) INTERCONNECTION. The DOP agrees to allow Generator to interconnect and operate the Generation Facilities in parallel with the DOP's electric system in accordance with the operating procedures and conditions specified in Attachment A and this Agreement. By this Agreement, or by inspection, if any, or by non-rejection, or by approval, or in any other way, the DOP does not give any warranty, express or implied, as to the adequacy, safety, compliance with applicable codes or requirements, or as to any other characteristics, of the Generation Facilities. The Generation Facilities installed and operated by Generator shall comply with, and Generator represents and warrants its compliance with:
  - a) the National Electrical Code and the National Electrical Safety Code, as each may be revised from time to time;
  - b) the DOP's standards, rules and regulations applicable to all similarly situated generating parties and which are communicated to Generator and readily available to the public in their most current form, either electronically or hard copy; and
  - c) all other applicable local, state, and federal codes and laws, as the same may be in effect from time to time.

Generator's interconnection and operation of the Generation Facilities in parallel with the DOP's electric system as granted pursuant to this Agreement includes the right to construct, operate, repair and maintain such Generation Facilities on Generator's side of the Point of Interconnection as Generator may deem necessary to interconnect such Generation Facilities to the DOP's electric system, provided, however, that Generator's right to interconnect and operate the Generation Facilities shall not include the use of any real property owned by the City of Columbus unless the use of such real property is authorized under a separate instrument by the appropriate City of Columbus authorities. For purposes of this Agreement, "Point of Interconnect to the DOP's attachment facilities necessary to connect the Generation Facilities to the DOP's attachment facilities necessary to connect the Generation Facilities to to in POP's attachment facilities necessary to connect the Generation Facilities to the DOP electric system. The DOP and Generator shall coordinate in good faith to (i) allow Generator to construct, interconnect, operate, repair, and maintain the Generation Facilities, and (ii) maintain safe and reliable operation of the DOP's electric system.

5

Generator shall design, install, operate, and maintain, at Generator's sole cost and expense, the Generation Facilities in accordance with:

- a) IEEE Standard 1547, entitled "Interconnecting Distributed Resources with Electric Power Systems;"
- b) UL Standard 1741, entitled "Standard for Safety for Static Inverters and Charge Controllers for use in Distributed Resources;
- c) IEEE Standard 2030.5, entitled "Standard for Smart Energy Profile Application Protocol"; IEEE Standard 2030.7, entitled "Standard for the Specification of Microgrid Controllers"; and
- d) the National Electrical Code.

Generator shall be responsible for protecting, at Generator's sole cost and expense, the Generation Facilities from any condition or disturbance on the DOP's electric system, including, but not limited to, voltage sags or swells, system faults, outages, loss of a single phase of supply, equipment failures, and lightning or switching surges. If a Party becomes aware of an Emergency Condition that may reasonably be expected to affect the operation of the DOP's electric system or the Generation Facilities, such Party shall provide prompt notice to the other Party describing the Emergency Condition and, to the extent known, the extent of damage or deficiency, the expected effect on the Generation Facilities and/or operation thereof, anticipated duration and corrective action taken or to be taken, and such notice shall be followed as soon as practicable with written notice. A Party that becomes aware of an Emergency Condition may take such action, including curtailment of the energy provided from the Generation Facilities or disconnection thereof from the DOP's electric system, as is reasonable and necessary in accordance with Good DOP Practice (i) to prevent, avoid, or mitigate injury or danger to, or loss of, life or property, (ii) to maintain safe and reliable operation of the DOP's electric system or the Generation Facilities, or (iii) to expedite restoration of service. Each Party shall use reasonable efforts to minimize the effect of its actions during an Emergency Condition on the Generation Facilities and operations of the other Party.

For purposes of this Agreement, "Emergency Condition" shall mean a condition or situation (i) that is imminently likely to endanger life or property; or (ii) that is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of,

or damage to, the DOP's electric system; or (iii) that is imminently likely to cause damage to the Generation Facilities. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition.

Generator agrees that, without the prior written permission from the DOP, no changes shall be made to the configuration of the Generation Facilities, as that configuration is described in Attachment A, and no relay or other control or protection settings specified in Attachment A shall be set, reset, adjusted or tampered with, except in accordance with Good DOP Practice or to the extent necessary to verify that the Generation Facilities comply with the DOP-approved settings.

3) OPERATION BY GENERATOR. Generator shall operate the Generation Facilities in such a manner as not to cause undue fluctuations in voltage, intermittent load characteristics or otherwise interfere with the operation of the DOP's electric system. At all times when the Generation Facilities are being operated in parallel with the DOP's electric system, Generator shall so operate the Generation Facilities in such a manner that no electric disturbance will be produced thereby to the service rendered by the DOP to any of its other customers or to any electric system interconnected with the DOP's electric system, including but not limited to with respect to such requirements regarding harmonics, frequency, power factor, or power quality as the DOP may provide in advance in writing. Generator understands and agrees that the interconnection and operation of the Generation Facilities pursuant to this Agreement is secondary to, and shall not interfere with, the DOP's ability to meet its primary responsibility of furnishing reasonably adequate service to its customers.

Generator shall install control equipment for the Generation Facilities that can immediately, completely, and automatically disconnect and isolate the Generation Facilities from the DOP's electric system in the event of a fault on DOP's electric system, a fault on Generator's electric system, or loss of a source or sources on the DOP's electric system. The automatic disconnecting device included in such control equipment shall not be capable of reclosing until after service is restored on the DOP's electric system. Additionally, if the fault is on the Generator's side of the Point of Interconnection, such automatic disconnecting device shall not be reclosed until after the

fault is isolated. Generator shall promptly notify or make such information readily available to the DOP whenever such automatic disconnecting devices operate.

Generator shall maintain commercially reasonable operating communications with the DOP system dispatcher or representative designated by the DOP pursuant to this Agreement.

- 4) INTERCONNECTION AND OPERATION. The Generator shall only interconnect with the DOP's electric system and operate the Generation Facilities after all of the following have occurred:
  - a) Electrical Inspection: Upon completing construction, the Generator shall have the Generation Facilities inspected and certified by a licensed independent professional engineer that the Generation Facilities meet the requirements of the National Electric Code and National Electric Safety Code, as applicable.
  - b) Certificate of Completion: The Generator shall provide the DOP with a completed copy of the Certificate of Completion, in the form attached hereto as Attachment B, including evidence of the electrical inspection as set forth in Section 4(a) above. This includes acceptance testing reports by an independent testing contractor that is NETA certified.
  - c) Inspection: Within fifteen (15) business days after receipt of the Certificate of Completion, the DOP shall, upon reasonable notice and at a mutually convenient time, conduct an inspection of the Generation Facilities, including observing a witness test, to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with the National Electric Code and the National Electric Safety Code. Other than for purposes of testing and commissioning of the Generation Facilities, the Generator shall not interconnect and operate the Generation Facilities until the DOP has completed its inspection or waived in writing its right to conduct its inspection of the Generation Facilities.
  - d) Proof of Insurance: The Generator shall provide proof of insurance satisfying the requirements of Attachment C of this Agreement.

- e) Metering: In consultation with the DOP, the Generator shall construct meter trim, components and enclosure to accommodate the DOP-specified meter (if necessary). The DOP shall install and test revenue quality metering equipment. The DOP shall own, operate, test, and maintain such metering equipment and shall bear the costs associated with the purchase, installation, operation, testing, and maintenance of the metering equipment. Generator, at its option and expense, may install and operate on its premises and on its side of the Point of Interconnection, one or more additional meters. The Generator's meters will be subject at all reasonable times to inspection and examination by the DOP or its designee. The installation, operation, and maintenance of any Generator's meters shall be performed entirely by Generator in accordance with Good DOP Practice.
- f) Acceptance: Other than for purposes of testing and commissioning of the Generation Facilities, the Generator may interconnect and operate the Generation Facilities after the DOP or its authorized representative has signed and returned the Certificate of Completion that the requirements for interconnection are complete and interconnection of the Generation Facilities is accepted for parallel operation.
- 5) ACCESS AND INSPECTION BY THE DOP. Generator shall provide the DOP, in accordance with this Agreement, reasonable opportunity to inspect the Generation Facilities prior to operation and witness the initial testing and commissioning of the Generation Facilities. The DOP may witness any commissioning tests required by IEEE 1547. Following the initial testing and inspection of the Generation Facilities, in accordance with this Agreement, and upon reasonable advance written notice to Generator, the DOP shall have access at reasonable times to the Generation Facilities to perform reasonable on-site inspections to verify that the installation, maintenance and operation of the Generation Facilities comply with the requirements of this Agreement. The DOP's cost of such inspection(s) shall be at the DOP's sole expense and shall not interfere with the operation of the Generator may incur as a result of such inspection(s). Upon written request, Generator shall reasonably inform the DOP of the maintenance schedule and allow the DOP to witness the maintenance program and any associated testing. The DOP shall also have,

at all times, immediate access to breakers or any other equipment that will isolate the Generation Facilities from the DOP's electric system.

6) EXTERIOR AC DISCONNECT SWITCH / ISOLATION DEVICE. Generation Facilities shall be capable of being isolated from the DOP's electric system by means of a lockable, visiblebreak isolation device reasonably accessible by the DOP. The isolation device shall be installed, owned and maintained by the Generator and located between the Generation Facilities and the Point of Interconnection. The isolation device shall be clearly labeled.

The Generator shall provide the DOP reasonable access to the isolation device. The Generator shall install the lockbox in a location that is readily accessible by the DOP, and the Generator shall permit the DOP to affix a placard in a location of the DOP's choosing that provides clear instructions to the DOP operating personnel regarding how to access the isolation device. If the Generator elects to locate the isolation device in a building or area that may be unoccupied and locked or not otherwise readily accessible to the DOP, Generator shall install a lockbox provided by the DOP that provides ready access to the isolation device. The Generator, at the DOP's option, may provide and install both the lockbox and placard, and shall notify the DOP upon installation the location of the lockbox and placard.

7) DISCONNECTION OF GENERATION FACILITIES. The DOP shall have the right and authority to isolate the Generation Facilities at the DOP's sole discretion if the DOP reasonably believes that: (a) continued interconnection and parallel operation of the Generation Facilities with the DOP's electric system creates or contributes (or will imminently create or contribute) to an Emergency Condition on either the DOP's electric system or Generator's Generation Facilities; (b) the Generation Facilities are not in compliance with the requirements of this Agreement, and the non-compliance adversely affects the safety, reliability or power quality of the DOP's electric system; or (c) the Generation Facilities interfere with the operation of the DOP's electric system; provided, however, in all non-emergency situations, the DOP shall give Generator advance written notice of noncompliance including a description of the specific noncompliance condition and allow Generator a reasonable time, as determined by the DOP in its reasonable discretion, to cure the noncompliance prior to isolating the Generating Facilities. The DOP shall comply with Good DOP Practice when performing any disconnection work under this section.

The Generator retains the option to temporarily disconnect from the DOP's system at any time.

For routine maintenance, non-emergency repairs on the DOP's electric system, or other planned outages, any of which may result in a service interruption to the Generation Facilities, the DOP shall provide Generator with not less than seven days' advance written notice of any service interruption to the Generation Facilities and shall advise of the estimated outage duration. Except as otherwise required by Good DOP Practice due to an Emergency Condition, the DOP shall use best efforts to schedule all such activities outside the months of June, July, and August, and commercially reasonable efforts to avoid scheduling such activities in May and September. The DOP shall limit such outage duration to the shortest time reasonably practicable.

The Parties agree to confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Generation Facilities. Generator may, in accordance with Good DOP Practice, remove from service the Generation Facilities in order to perform maintenance or testing or to install or replace equipment. Except in the event of an Emergency Condition or corrective maintenance, Generator shall provide seven days prior written notice of such activities to the DOP, and the Parties shall coordinate all scheduling of such outages.

Generator may undertake one or more modifications to the Generation Facilities; provided however, that Generator shall give notice (and any reasonably requested information thereafter) to the DOP at least thirty (30) days prior to the beginning of work on such modification that would result in a material impact on the DOP's electric system, and no such modification shall have an adverse effect on the DOP's electric system.

8) ATTACHMENT FACILITIES AND DISTRIBUTION UPGRADES. The DOP shall not be obligated to make upgrades or improvements to its electric distribution system to accommodate the Customer's Generations Facility. Where system upgrades are required prior to interconnection of the Generation Facility, DOP, at the Customer's sole cost and expense, shall design, procure, construct, install, and own the attachment facilities and all distribution upgrades necessary for the DOP to interconnect the Generation Facilities. 9) RATES AND OTHER CHARGES. Generator shall be responsible for the actual cost of any and all attachment facilities, distribution and communication upgrades necessary to interconnect the Generation Facilities and otherwise support the continued interconnection of the Generation Facilities during the term as well as any required testing.

This Agreement does not constitute an agreement by the DOP to purchase or wheel power produced by the Generation Facilities, or to furnish any backup, supplemental or other power or services associated with the Generation Facilities. This Agreement also does not afford Generator any rights to export power from the DOP's electric system to the bulk electric system.

10) EFFECTIVE TERM AND TERMINATION RIGHTS. This Agreement shall become effective when executed by both Parties and shall continue in effect until terminated in accordance with the provisions of this Agreement. This Agreement may be terminated for the following reasons: (a) Generator may terminate this Agreement at any time by giving the DOP at least sixty (60) days' prior written notice stating Generator's intent to terminate this Agreement at the expiration of such notice period; (b) the DOP may terminate this Agreement at any time following Generator's failure to generate energy from the Generation Facilities in parallel with the DOP's electric system by the later of (i) two years from the date of execution of this Agreement or (ii) twelve (12) months after completion of the interconnection provided for by this Agreement, with such dates being extended on a day for day basis for any delays due to Force Majeure or any acts or omissions of the DOP; (c) either Party may terminate this Agreement at any time by giving the other Party at least sixty (60) days' prior written notice that the other Party is in default of any of the material terms and conditions of this Agreement, so long as the notice specifies the basis for termination and the Party in default is allowed a reasonable opportunity (and in no case less than thirty (30) days) to cure the default; or (d) the DOP may terminate this Agreement at any time by giving Generator at least sixty (60) days' prior written notice in the event that there is a change in an applicable rule or statute affecting this Agreement that renders performance by the DOP impossible or illegal.

Upon termination of this Agreement, the Generation Facilities shall be disconnected from the DOP's electric system. Termination of this Agreement shall not relieve either party of its liabilities and obligations, owed or continuing at the time of the termination.

11) NOTICE. Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, sent by Electronic Mail (E-mail), sent by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the DOP:

Division Administrator

City of Columbus, Division of Power

3500 Indianola Avenue

Columbus, OH 43214

Email: paaustin@columbus.gov

If to Gene	rator:		
Name:		 	 
Address:		 	 

Email:
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- 12) TRANSFER OF GENERATION FACILITIES. In the event the Generator sells or otherwise transfers the property at which the Generation Facilities listed in Attachment A of this Interconnection Agreement are installed, the Generator shall promptly provide the DOP with the appropriate contact information for the new owner of the property. Upon any transfer of ownership, the then-current owner shall provide the DOP with the new owner's information. The Generator's obligations under this Agreement are binding on all successors in interest and/or transferees.
- 13) ENTIRE AGREEMENT. It is mutually understood and agreed that this Agreement contains the entire understanding between the Parties, that there are no oral, written, implied or other

understandings or agreements with respect to the subject of this Agreement. This Agreement shall be binding upon and inure to the benefit of the Parties hereto, as well as their respective successors in interest and/or transferees.

- 14) MODIFICATION. Except as provided in section 12 of this Agreement, no modification, amendment, alteration, addition or waiver of any section or condition of this Agreement shall be effective or binding unless it is in writing and signed by an authorized representative of the DOP and Generator and approved by the appropriate City of Columbus authorities.
- **15) ASSIGNMENT.** Except as provided in section 12 of this Agreement, Generator shall not assign, transfer, sell, or sublet any of the rights hereby granted or an ownership interest in the Generation Facilities without the prior written consent of the DOP.
- 16) FORCE MAJEURE. For purposes of this Agreement, the term "Force Majeure" means any cause or event not reasonably within the control of the Party claiming Force Majeure, including, but not limited to, the following: acts of God, strikes, lockouts, or other industrial disturbances; acts of public enemies; orders or permits or the absence of the necessary orders or permits of any kind which have been properly applied for from the government of the United States, the State of Ohio, any political subdivision or municipal subdivision or any of their departments, agencies or officials, or any civil or military authority; unavailability of a fuel or resource used in connection with the generation of electricity; extraordinary delay in transportation; unforeseen soil conditions; equipment, material, supplies, labor or machinery shortages; epidemics; landslides; lightning; earthquakes; fires; hurricanes; tornadoes; storms; floods; washouts; drought; arrest; war; civil disturbances; explosions; breakage or accident to machinery, transmission lines, pipes or canals; partial or entire failure of utilities; breach of contract by any supplier, contractor, subcontractor, laborer or material manufacturer; sabotage; injunction; blight; famine; blockade; pandemics or quarantine orders, which, in any of the foregoing cases, by exercise of due diligence such party could not reasonably overcome.

If either Party is rendered wholly or partly unable to perform its obligations under this Agreement because of Force Majeure, both Parties shall be excused from whatever obligations under this Agreement are affected by the Force Majeure (other than the obligation to pay money) and shall not be liable or responsible for any delay in the performance of, or the inability to perform, any such obligations for so long as the Force Majeure continues. The Party suffering an occurrence of Force Majeure shall, as soon as is reasonably possible after such occurrence, give the other Party written notice describing the particulars of the occurrence and shall use commercially reasonable efforts to remedy its inability to perform; provided, however, that the settlement of any strike, walkout, lockout or other labor dispute shall be entirely within the discretion of the Party involved in such labor dispute.

- 17) INDEMNITY. Generator shall indemnify and hold harmless the DOP and its managers, representatives, directors, agents and employees from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder) (collectively, "Loss") to the extent arising out of, in connection with, or resulting from (i) the Generator's breach of any of the representations or warranties hereunder, or failure of the Generator or any of its employees, officers, agents, representatives, or subcontractors to perform any of the Generator or any of its employees, officers, agents, negres, agents, representatives, or its subcontractors.
- 18) CHOICE OF LAW; WAIVER OF JURY TRIAL. All claims, counterclaims, disputes and other matters in question between the Parties arising out of or relating to this Agreement or its breach will be decided in a court of competent jurisdiction within the County of Franklin, State of Ohio.
- **19) MULTIPLE COUNTERPARTS** -- This Agreement may be executed in multiple counterparts, each of which is deemed an original, but all constitute one and the same instrument.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective duly authorized representatives.

City of Columbus Division of Power	Customer - Generator
BY:	BY:
NAME:	
TITLE:	ACCOUNT NUMBER:
DATE:	DATE:

## CITY OF COLUMBUS, DIVISION OF POWER CUSTOMER-OWNED DISTRIBUTED ENERGY RESOURCE GENERATION INTERCONNECTION APPLICATION

The following information shall be supplied by the Generator or Generator's authorized designated representative. All applicable items must be accurately completed in order that the Generator's Generating Facility may be effectively evaluated for interconnection with the city's electric distribution system.

## **Generator Information**

Name:
Mailing Address:
City:        Zip Code:
Facility Location (if different from above):
Telephone (Daytime): (Evening):
Generator Type: Commercial/Industrial Residential
Account Number:
Generating System will be owned by: Customer Lease Lease Lease to Own
Developer/Supplier Cooperative Power purchase agreement
Other
Estimated in service date:
Generator Technical Information
Type(s) of distributed energy resource to be installed (check all that apply):
Solar PV Solar thermal Wind Battery Natural Gas Diesel
CHP- fuel cell CHP- gas turbine CHP- microturbine CHP- steam turbine
CHP- reciprocating engine CHP- absorption chiller Other
Type of Generator: Inverter Synchronous Induction
Number of Generators:
Service Characteristics: 1 phase 3 Phase Power Factor%
Connected voltage:

Have the Generator Manufacturer machine characteristics been supplied to the City?
Generator (or solar collector) Manufacturer, Model Name & Number:
For Synchronous Generators:
Xd% (Synchronous Reactance)
X'd% (Transient Reactance)
X''d% (Subtransient Reactance)
For Induction Generators Only:% Stator Resistance% Stator Leakage Reactance% Rotor Resistance% Rotor Leakage Reactance
Dutput Power AC and DC Ratings in kW (per generator):
Anticipated monthly generation output in kWh:
nverter Manufacturer, Model Name & Number (if used):
nverter Continuous Rating and Surge Rating:# Inverters:
Short Circuit Current Produced by GeneratorAmps (if generator is 3 phase)
OR Single Phase (phase to phase) Fault Current
Layout sketch showing lockable, visible disconnect device attached? Yes The disconnect device shall be accessible to the Municipality be installed? Yes
Installation Details
The distributed energy system <u>must be installed by a licensed professional</u> with experience in nstalling like systems. The National Energy Code (NEC) and IEEE 1547 Standard for interconnecting Distributed Resources with Electric Power Systems must be adhered to.
Generating System will be installed by: Contractor State Licensed Electrician
nstaller: Firm:
License Number:
Mailing Address:

City:	State:	Zip Code:
Telephone:		
Email:		
Expected Installation date:		onnection Date:
Location of installation: Ro	of Inside I	Grade Other
One line diagram attached?	Yes	
		obtained for the project prior to this pendices to this application.
No I	Please attach a brief descr	iption of all permits in process.
Normal operation of interconnection standby, backup power etc.)		neet base load, demand management,
The undersigned asserts that the G	Generation Facilities hav	e been installed in accordance with the
Interconnection Application as well	l as all applicable codes a	and regulations.
Signed:		Date:
Printed Name:	Tit	le:

## ATTACH A NARRATIVE DESCRIPTION OF THE GENERATION FACILITIES THAT INCLUDES A DESCRIPTION OF ALL GENERATION EQUIPMENT, CONTROLS, PROTECTIVE RELAYS, EQUIPMENT, **OPERATING PROCEDURES, A SITE PLAN AND A ONE-LINE DIAGRAM.**

## Generator or Authorized Designee's Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct. I also agree to install a Warning Label on or near my service meter location.

Signature: Date:

## CITY OF COLUMBUS, DIVISION OF POWER CUSTOMER-OWNED DISTRIBUTED ENERGY RESOURCE GENERATION CERTIFICATE OF COMPLETION

The following information shall be supplied by the Generator or Generator's authorized designated representative after the project installation has been completed.

## **Electrical Inspection<sup>1</sup>:**

The system has been installed and inspected in compliance with the provisions of the National Electrical Code, National Electric Safety Code, and other applicable codes and standards as well as the local Building/Electrical Code of:

	(Appropriate Governmental Authority)	
Ву:	Date:	

## **Generator Signature:**

The Generation Facilities are complete and ready for interconnected operation in accordance with all the provisions of the Interconnection Agreement. The Generator acknowledges that it shall **<u>not</u>** operate the facility until receipt of Final Acceptance (below), or as otherwise provided for by regulation, the Interconnection Agreement, for testing purposes, or as otherwise agreed to by the Parties in writing.

Signed:		Date:	
Printed Name:	Title:		

## Sections Below for Division of Power Use Only

## **Final Acceptance to Interconnect Generation Facilities**

The requirements for interconnection are complete and interconnection of the Generation Facilities is accepted upon signature and return of this Certificate of Completion or by notification by electronic mail or other acceptable means by the DOP.

DOP Waives Witness Test?	(Initial)	Yes ()	)	No (	_)
If no, Successful Witness Tes	t Date:	_Passed: (Initial) ()			
DOP Signature:		]	Date: _		
Printed Name:		Title:			

<sup>1</sup> Completion of local inspections may be designated on inspection forms used by local inspecting authorities.

Comments: \_\_\_\_\_

Approval to connect to the Division of Power system indicates only that the minimum requirements for a safe and proper interconnection have been satisfied. Such approval does not imply that the Generation Facilities meet all federal, state and local standards or regulations.

## **Internal Notifications**

Electrical Inspection Completed:	Yes
Notify Billing Department of Interconnection Generation:	Yes
Notify Other Departments (i.e. Fire, Safety, Building, Zoning)	Yes

## REQUIRED INSURANCE

- 1) Owner/Operator shall maintain in full force and effect, general liability insurance for personal injury and property damage of at least \$100,000 per occurrence. An Owner/Operator's policy that provides at least this level of coverage is acceptable for meeting the insurance requirements of this Agreement. City of Columbus Division of Power shall be listed as an additional insured on the policy.
- 2) Owner/Operator shall provide a Certificate of Insurance to City of Columbus Division of Power and the certificate shall become a part of the Application. If applicable, automatic notification to City of Columbus Division of Power must be established for both annual renewals and any termination of such insurance. In the event that Owner/Operator fails to maintain the insurance coverage required by this Agreement, City of Columbus Division of Power has the right to immediately terminate this Agreement, immediately terminate the interconnection and require Owner/Operator to permanently disconnect the from the distribution system.