



PUBLIC WORKS DEPARTMENT
1769 Georgetown Rd., Hudson, Ohio 44236
(330) 342-1750 office

SOLAR INTERCONNECTION APPLICATION PACKET

CITY OF HUDSON

HUDSON PUBLIC POWER

Photovoltaic/Energy Storage System Interconnection Manual Index

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Interconnection Application

Section 1

Application Requirements

I. Application

A. Applicant contacts Hudson Public Works @ 330-342-1750

- B. Interconnection
- C. Applicant obtains and completes Application and returns to Public Works

II. City of Hudson Community Development (330-342-1790)

- A. Applicant supplies Community Development with address, sketch of solar array location for approval

- 1. Approval may involve Historical/Architectural Board review (approximately 10 days). Utility performs Initial Review

III. Hudson Public Power receives application from Hudson Public Works A. Does the installation qualify for Simplified Interconnection?

- 1. If Yes to all of the following go to Step V

- a) Meets Interconnection Grid-Tied Requirements

- (1) IEEE 1547
- (2) UL 1741
- (3) NFPA 70 - Article 690 Solar Photovoltaic (PV) Systems Including any Rapid Shutdown requirements

- b) No forms of stored energy are used for simplified interconnection

- c) Meets HPP loading stipulations

- (1) \leq 25kW residential inverter rating
- (2) \leq 200kW commercial inverter rating
- (3) \leq Distribution transformer kVa rating for all PV (including other connected facilities)
- (4) \leq 5% distribution feeder load (peak)
- (5) \leq 5% substation transformer sizing (N-1)
- (6) \leq 1% system load (historical peak)

- 2. No- go to Step IV

IV. Supplemental Review Process

- A. Does Supplemental Review meet Requirements?

- 1. Yes- go to Step V
- 2. No- go to Step IV B

- B. Hudson Public Power provides timetable & cost for Interconnection Study

- C. Interconnection study determines Requirements

V. Agreement

- A. Applicant and the City of Hudson enter into an Interconnection Agreement

VI. Installation

- A. Proper permits obtained by Applicant
 - 1. City of Hudson
 - a) Community Development
 - b) Hudson Public Power
 - 2. Summit County Building Standards
- B. Generating Facility constructed
- C. Generating Facility inspected (Hudson Community Development and Summit County Building Department)
- D. Interconnection Facilities are tested (copies of Hudson Community Development and Summit County "passed inspection" documents required)
- E. City of Hudson authorizes operation and installs Bi-directional Meter

VII. Permits

- A. Community Development (phone 330-342-1790)
 - a) Accessory Structure Permit
 - (1) May require Historical/Architectural Board review
- B. Hudson Public Power (phone 330-342-1721)
 - a) Application Fee
 - b) Revenue Meter Processing Fee
 - c) Engineering Review (if needed)
- C. Summit County (phone 330-630-7280)

NOTE: Summit County requires specific Engineering Requirements

- 1. Electrical Application
- 2. Plan Review/Structural Evaluation
- 3. Per Circuit for Photo Arrays

SECTION 2
CITY OF HUDSON
PHOTOVOLTAIC/ENERGY STORAGE SYSTEM GENERAL REQUIREMENTS

- I. PV System Output Size
 - A. Residential
 - 1. Maximum 25kW
 - B. Commercial/Industrial
 - 1. Maximum 200kW

NOTE: Requests for Commercial / Industrial system interconnections that exceed the 200kW output limit will be considered and evaluated as to the feasibility of the request on a case-by-case basis and approved by Hudson Public Power.

II. PV Inverter Output Voltage (AC)

- A. 240 VAC nominal residential
- B. 208/240/480 VAC commercial

III. PV System Standards

- A. NEC 690, IEEE 1547, UL1741, UL1703, ANSI & NESC along with all applicable State and Local Standards

B. Voltage Range

Voltage Range (% Nominal)	Max. Clearing Time (sec)*
$V < 50\%$	0.16
$50\% \leq V < 120\%$	2.0
$110\% < V < 120\%$	1.0
$V \geq 120\%$	0.16

(*) Max clearing times for Distributed Energy Resources $\leq 30\text{kW}$;

Default clearing times for Distributed Energy Resources $> 30\text{kW}$

C. Frequency Range

Frequency Range (Hz)	Max. Clearing Time (sec)
$f > 60.5$	0.16
$f < 57.0^*$	0.16
$59.8 < f < 57.0^{**}$	Adjustable (0.16 and 300)

(*) 59.3 Hz if Distributed Energy Resources $\leq 30\text{kW}$; (**) For Distributed Energy Resources $> 30\text{kW}$

D. Automatic disconnection requirements for interactive (grid-tied) only systems.

1. Cease to energize for faults on the City of Hudson electric distribution system.
2. Cease to energize prior to City of Hudson electric system reclose/restoration
3. Detect island condition and cease to energize within 2 seconds of the formation of an island ("anti-islanding")

E. Automatic disconnection requirements for PV with Energy Storage Systems (ESS): While it is recognized that ESS and PV systems may continue to operate during City of Hudson outages and system disturbances, the following safety considerations must be met.

1. Isolate power derived from PV and ESS from the City of Hudson system in the following circumstances. Isolation shall comply with IEEE 1547 and UL 1741.

- a) During faults on the City of Hudson electric distribution system
- b) Until 5 minutes after City of Hudson successful reclose/restoration
- c) Within 2 seconds of the formation of an island.

F. Safety disconnection requirements

- 1. Where applicable by the NEC, upon initiation of the Rapid Shutdown system by firefighters the system shall bring solar-energized DC wiring and PV panels to a safe voltage level. Initiating device shall be labeled per NEC.
- 2. Disconnects shall be mounted on the same side and within 10 feet of the utility meter and labeled per the NEC. Disconnects include the following:
 - a) AC feed from an interactive (grid-tied) inverter ahead of the building electrical system.
 - b) DC feed from any energy storage system (batteries or other) ahead of an inverter.
 - c) AC feed from any inverter intended to operate in islanded mode (capable of controlling voltage and frequency independent of the normal power grid).

G. Voltage Regulation (ANSI C84 Range A)

- 1. 120 VAC 1F 114 VAC – 126 VAC ($\pm 5\%$)
- 2. 240 VAC 1F 228 VAC – 252 VAC ($\pm 5\%$)
- 3. 208 VAC 3F 197 VAC – 218 VAC ($\pm 5\%$)
- 4. 480 VAC 3F 456 VAC – 504 VAC ($\pm 5\%$)

H. Voltage Control

- 1. Not Permitted (IEEE 1547) on inverters in interactive (grid-tied) mode

I. Flicker

- 1. Maximum Borderline of Irritation Curve (IEEE 1453)

J. Harmonics (IEEE 519)

1. < 5% THD
2. < 4% below 11th harmonic
3. < 2% for 11th – 15th harmonic
4. < 1.5% for 17th – 21st harmonic
5. < 0.6% for 23rd – 33rd harmonic
6. < 0.3% for 33rd and greater harmonic

K. Power Factor

1. 0.85 lead/lag or higher

L. Direct Current Injection

1. < 0.5% current of full rated RMS output current (IEEE 1547)

M. Synchronization

1. Utility-interactive inverter

N. Storage Batteries: Energy Storage Systems using storage batteries shall comply with the following applicable standards:

1. NFPA 70 (NEC) Article 480 - Storage Batteries
2. IEEE Standards 484, 485, 1145, 1187, 1375, 1578, 1635
3. ASHRAE 21
4. UL Standards 1973, 1989

O. Safety

1. NFPA
2. NEC
3. IEEE
4. NESC
5. Local Fire Department

SECTION 3 CITY OF HUDSON NET METERING RATE SCHEDULE

Net Metering Rate Schedule. Customers who generate a portion or all of their own electrical needs and provide any excess generation to the City of Hudson's system can receive a billing credit equal to the City's wholesale cost of energy. The unit (kWh) credit to a Hudson Public Power customer's account for surplus power returned to the electric grid as registered by the electric meter will be credited at the City's established kWh rate minus (-) the cost of service (COS) at the time of the credit as calculated by the City Utility Billing Department. This billing credit shall be provided to the customer under a net metering rate schedule subject to the following terms and conditions:

- 1) Limitations. Billing under this schedule is limited to customers who operate a solar renewable energy source electric generating technology. The eligible facilities must be installed on the customer's premises. The maximum size of the electric generation eligible for net metering is 25Kw (inverter rating) or under for residential units and 200 kW (inverter rating) or under for commercial or industrial units. To qualify for this schedule, customer's non-dispatchable (solar) generating units will be limited in size, not to exceed customer's annual self-service energy needs, measured in kWh. The customer property at the distributed generation site's usage history over the last three years, if available, shall be used as a benchmark for determining this kWh total. If a customer has more than one generator, to qualify for this schedule, the total capacity of the generators shall be less than the maximum listed above. The City of Hudson may restrict or deny service under this Schedule once the total connected generation provided under this Schedule equals or exceeds one percent of the City of Hudson's previous year's peak demand. The customer's facility must be in compliance with the City of Hudson's existing interconnection rules and regulations.
- 2) Monthly Rate. Deliveries from the City to the customer shall be billed in accordance with the standard applicable rate schedules.
- 3) Customer Credits for Net Excess Generation (NEG). Net Excess Generation (NEG) represents the amount of electric generation by the customer beyond the customer's own metered usage which is delivered to the City of Hudson during the billing period. The credit to the customer shall not exceed the dollar amount the City of Hudson bills the customer for energy consumption in any billing period. Instead, the net excess dollar amount shall be allowed to accumulate as a net excess generation (NEG) credit to offset the customer's energy charges in the next billing period. The credit will be adjusted based on the currently used power cost adjustment. Net excess generation (NEG) credits, if any, will be carried over from month to month. Following the customer's December billing cycle, the customer's credit balance will be reset to zero. Any unused net excess generation (NEG) credits will be retained by the City of Hudson to offset costs associated with the operation of the net metering program.

SECTION 4 Agreement for the Interconnection of Customer's Photovoltaic Electric /Energy Storage System Generating Facility

To

The City of Hudson Electric System

Customer Name: _____

Customer Address: _____

This Agreement for the Interconnection of Customer's Photovoltaic Electric Generation Facility to the City of Hudson Electric System (hereinafter called "Agreement") is entered into as of, 20, (the "Effective Date") by and between the City of Hudson (hereinafter called, "City") and the customer named above, (hereinafter called "Customer"). City and Customer are hereinafter sometimes referred to individually as "Party" and collectively as "Parties".

In consideration of the mutual covenants and agreements hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Qualified Generating Facility Specifications

- 1.1 Customer intends to own, construct, maintain and/or operate a Qualified Generating Facility ("QGF"), as further defined herein. The City intends to allow Customer to interconnect its QGF with the City's electrical system in order that Customer may operate its QGF in electrical parallel with City's municipal electrical transmission and distribution system. Such interconnection and parallel operation shall be undertaken in accordance with the terms and conditions of this Agreement.
- 1.2 All electric service supplied to the City by Customer's QGF under this Agreement shall be in the form of single or three phase alternating current at nominal 60 Hertz and nominal volts.
- 1.3 The Customer's QGF shall be permanently located at _____, Hudson, Ohio (the "Premises"), and shall be ready to operate not later than six months from the date of this Agreement, set forth above.
- 1.4 The specifications of the QGF shall be:
 - 1.4.1 Type: Photovoltaic (PV) system with inverter
 - 1.4.2 Fuel or Energy Source: Solar or Battery
 - 1.4.3 Unit Nameplate Output Rating: Total Nameplate Output of all Units:
- 1.5 The QGF shall meet the criteria for size, efficiency, and ownership as promulgated in 18 CFR, Chapter 1, Part 292, and Subpart B of the Federal Energy Regulatory Commission's Regulations as applied to photovoltaic systems and shall be limited in total power output to 25kW for residential and 200kW (inverter ratings) for commercial/industrial installations.
- 1.6 With the formal approval of City, the Customer may supply the City with excess generation of electricity from Customer's QGF. Any such excess supply shall be governed by and subject to policies and procedures of the City (including, but not limited to, a net metering rate schedule) which may be amended, revised, modified or repealed at any time by the City, in its sole discretion, without notice to the Customer. No provision of this Agreement is a guarantee that the Customer will receive any compensation, benefit,

credit or offset from the City for any excess electrical generation supplied to the City by Customer.

2. DEFINITIONS

The following terms, when used in this Agreement, shall have the meanings specified:

- 2.1 "Agreement" shall mean this "Agreement for the Interconnection of Customer's Photovoltaic Electric /Energy Storage System Generating Facility to the City of Hudson Electric System" together with all Appendices, Schedules and other documents incorporated herein by specific reference as well as the Interconnection Application filed by Customer with the City which shall be fully incorporated herein by reference.
- 2.2 "Point(s) of Interconnection" shall mean the physical location(s) where City's service conductors for its City System are connected to Customer's service conductors on the City's line side of the Customer's revenue meter to allow parallel operation of Customer's Qualified Generating Facility (QGF) with City's System as shown in interconnection application one line diagram, incorporated herein by specific reference.
- 2.3 "Qualified Generating Facility" or "QGF" shall mean the Customer's photovoltaic solar electrical generating equipment and any energy storage system equipment together with all Protective Devices, safety and associated equipment, and improvements necessary or related to the production of electric power at Customer's Premises, including, but not limited to the Disconnect, as defined herein.
- 2.4 "Protective Devices" shall mean the required protective relaying and/or safety devices or requirements specified by the City for the purpose of protecting City facilities from damage or disruptions caused by a fault, malfunction or improper operation of the Customer's QGF. Protective Devices shall not be construed to include additional relaying, protective or safety devices as may be required by industry and government codes and standards, equipment manufacturer requirements and prudent engineering design and practice to fully protect Customer's QGF or facilities; such shall be the sole responsibility of the Customer.
- 2.5 "City System" shall mean the City of Hudson's municipal electrical transmission and distribution system.

3. EFFECTIVE DATE AND TERM

This Agreement shall become effective upon the execution of this Agreement by all Parties hereto and shall remain in effect thereafter unless and until (a) this Agreement is terminated by mutual agreement of the Parties, (b) this Agreement is superseded by another interconnection agreement between the Parties, (c) the Agreement is terminated by either Party pursuant to a default of this Agreement as specified in Section 13 hereof, (d) upon thirty (30) day's advance written notice given by either Party, or (e) title ownership of the Premises is transferred or conveyed to a person or entity that is not the named Customer under this Agreement.

4. INTERCONNECTION FACILITIES

Customer is responsible for the installation of all equipment, facilities, and appurtenances that comprise the QGF or are necessary to interconnect Customer's QGF to the City System including, but not limited to, connection, transformation, switching, Protective Devices, metering and safety equipment, including a visibly-open Disconnect. All such equipment, facilities and appurtenances are to be installed by Customer at Customer's sole cost and expense and maintained in good operation and condition and compliant with all federal, state, and local laws, regulations, and ordinances.

5. CUSTOMER'S OBLIGATIONS

5.1 QGF INSTALLATION AND DESIGN

- 5.1.1 Customer shall own Customer's QGF and shall be fully responsible for, and bear the cost of, designing, installing, operating, testing and maintaining the QGF. The QGF shall be designed, installed, operated, tested and maintained in safe and non-hazardous condition in accordance with the requirements of federal, state and local laws, including all applicable construction and safety codes, laws, and regulations of governmental agencies having jurisdiction, including the City of Hudson.
- 5.1.2 Customer shall submit to City, for the City's review and approval, written equipment specifications and detailed plans of the QGF, which shall include interconnection facilities, Protective Devices and settings for the design, installation and operations of its QGF prior to their actual installation. No installation or operation of the QGF shall occur without the City's prior written approval.
- 5.1.3 The QGF shall meet the specifications set forth in Section 1.3 of this Agreement and the specifications listed in the Interconnection Application filed with the City, as specifically incorporated herein by reference.
- 5.1.4 Customer shall obtain and maintain all required permits and inspections indicating that the installation and operation of Customer's QGF complies with all federal, state and local regulations, including applicable building and safety codes.
- 5.1.5 Control and Protective Devices shall be incorporated into the QGF as required by the City to protect both the City System and the Customer's QGF from abnormal operating conditions such as, but not limited to, electrical overloading, abnormal voltages, and fault currents. Such Protective Devices shall promptly disconnect the QGF from City System in the event of a power outage on the City System. Customer shall install, or caused to be installed, and will maintain the following Protective Devices in the QGF:
 - (a) A visible open, load break AC and DC disconnect switch ("Disconnect") installed in an approved location so as to provide easy and unrestricted accessibility to City personnel on a 24-hour basis, and capable of being locked in the visible "open" position by a standard City

padlock. (In the event City or its authorized agent(s) lock-open the Disconnect, Customer shall not remove or tamper with such lock);

- (b) A circuit breaker or contactor on the inverter output;
- (c) Undervoltage protection
 - Under-voltage shutdown protection for interactive grid connected mode or;
 - Under-voltage utility isolation for energy storage backup/islanded mode
- (d) Rapid Shutdown protection for firefighter safety
- (e) Such other safety equipment as required by the City from time to time during the term of this Agreement and any extensions thereof.

5.1.6 Customer's QGF shall be installed by a licensed electrical contractor qualified to install photovoltaic solar generating systems.

5.1.7 Following the City's written approval of Customer's proposed QGF, the Customer, or its successors or assigns, shall not remove, alter, modify or change the approved QGF, including without limitation the QGF specifications or configuration and the Protective Devices or settings. If Customer desires to make any alterations, modifications, changes to or remove the QGF, Customer shall submit plans for such and obtain the City's written approval. No such alteration, modification, change or removal shall be made without the prior written approval of City.

5.2 QGF OPERATION

5.2.1 Customer shall not commence interconnected operation of its QGF with City System until the QGF installation has been inspected by the City and final approval is issued by the City. Customer shall give at least five (5) business days' advance notice to City of all testing of Customer's QGF prior to the initial energizing of the QGF and shall give the City at least five (5) business days' advance notice of the initial energizing of the QGF. City shall have the right to have a representative present during any testing of the QGF and the initial energizing of the QGF. Results of the testing shall be reported to the City in compliance with Section 5.3.1 of this Agreement.

5.2.2 If Customer utilizes the City System to facilitate initial start-up or energizing of its QGF, Customer must ensure that the voltage flicker level will not adversely impact the City System.

5.2.3 The electrical output of Customer's QGF shall not contain harmonic content which exceeds those limited identified in City's adopted policies, rules or regulations pertaining to photovoltaic systems, or which may cause

disturbances on or damage to the City's System, or any other parties' electrical or electronic systems, including, but not limited to, computer, telephone, communication and other sensitive electronic or control systems.

- 5.2.4 The current imbalance for a three phase system, as measured at the Customer's service entrance section, shall not be greater than ten percent (10%) at any time. The power factor of the Customer's facility shall not be less than ninety percent (90%) lagging, but shall not be leading, unless agreed to by City.

5.3 QGF INITIAL TESTING AND ROUTINE MAINTENANCE

- 5.3.1 At the time of QGF installation, Customer shall have the shutdown Protective Devices specified in Section 5.1.5 tested and calibrated and shall have functional testing of the relays and associated generator or inverter breaker or contactor performed by a licensed electrical contractor qualified to work on photovoltaic solar generating systems. Customer shall provide the City with a copy of calibration and functional test results and report these results on the "Photovoltaic System Acceptance Test Report Form", available from the City, which shall be signed by the electrical contractor. Customer shall also notify City at least five (5) business days in advance of such testing and City personnel or authorized agents shall be permitted to witness such tests.
- 5.3.2 Customer shall ensure that a licensed electrical contractor qualified to work on photovoltaic solar generating systems tests and inspects Customer's QGF, including all Protective Devices, no less than every four (4) years to verify that the electrical operating condition and characteristics of the QGF meet the equipment manufacturer specifications, all applicable federal, state and local codes, industry standards, and requirements of City. Results of periodic testing and inspection shall be submitted to the City on the "Photovoltaic System Maintenance Test Reporting Form", available from the City, which shall be signed by the electrical contractor. Customer shall provide the City with five (5) business days' advance notice of such tests and City personnel or authorized agents shall be permitted to be witness such tests.

5.4 QGF INTERCONNECTION TERMINATION

- 5.4.1 Upon termination of this Agreement pursuant to Section 3 hereof, Customer shall be responsible for ensuring that the electrical conductors connecting the QGF to the City System are immediately disconnected so as to preclude any possibility of interconnected operation in the future without intentional reconnection. City shall have the right, upon notice to the Customer, to inspect the QGF to verify that the QGF is disconnected from the City System.
- 5.4.2 Upon termination of this Agreement, Customer shall immediately and securely lock-open the visible blade Disconnect. In the event Customer fails to do so, the City shall have the right to enter the Property in order to permanently lock-open the Disconnect or disconnect service without liability for injury or damage to Customer or any third party and Customer hereby consents to such entry and disconnection.

6. MUTUAL UNDERSTANDINGS

- 6.1 The City, its employees and agents, shall have the right to enter upon Customer's Premises to inspect the QGF and to lock open the Disconnect without any advance notice to Customer when interconnected operation of the QGF with City System may pose an imminent threat to the operation of the City's System, endanger life or property of any party, or upon termination of this Agreement. Notwithstanding the foregoing, the City shall make a reasonable attempt, under the circumstances, to give Customer advance notice of any such entering on Customer's Premises or the locking open of the Disconnect, but, in any event, City shall give Customer reasonable notice of such action after such action has occurred.
- 6.2 The City, its employees and agents, shall have the right to enter Customer's Premises at all reasonable times with two (2) business days advance notice to (a) inspect Customer's QGF, including Protective Devices, (b) read or test equipment installed by the City related to electrical service provided from or to the QGF, (c) maintain or repair City equipment related to electrical service, whether on or off the Customer's Premises, or (d) lock open the Disconnect if an operating clearance is required by City personnel.
- 6.3 City approvals given pursuant to this Agreement or actions taken hereunder shall not be construed as any warranty or representation to Customer or any third-party regarding the safety, durability, reliability, performance or fitness of Customer's QGF, its control or Protective Devices or the design, construction, installation or operation thereof.
- 6.4 City will not install and maintain any lines or equipment on Customer's side of the Point of Interconnection, except a meter and research equipment and determined by the City.
- 6.5 Notwithstanding any provision of this Agreement, the City may change, modify, add or delete any requirements, charges, classification, service, rule, regulation, or ordinance relating to the City's photovoltaic/energy storage system interconnection program at any time, in its sole discretion, without any notice to Customer.
- 6.6 City shall not be liable to Customer for any damages occasioned by fluctuations, interruptions or curtailment of City's System.

7. NOTICES

All written notices pursuant to this Agreement shall be delivered personally or sent by registered or certified mail, including express overnight courier service, postage prepaid, return receipt required to City or Customer, as the case may be, at the address of that Party set forth below as follows:

To City: City of Hudson Public Works
 Attn: Utility Superintendent
 1769 Georgetown Road Hudson,
 OH 44236
 Telephone: 330-342-1750

To Customer: _____

Either Party may change its address for notice by written notice given to the other Party in the manner hereinabove provided for notices. Any such notice shall be deemed to have been duly given and served on the date received.

8. ENTIRE AGREEMENT

8.1 This Agreement and the documents attached hereto or incorporated herein by reference constitute the entire Agreement between the Parties relating to the subject matter hereof, there being no other agreements or understandings, written or oral, other than those contained in this Agreement and the attachments hereto. This Agreement does not modify, change or impact any other agreement between the parties relating to the supply of electric service, or the sale of, or purchase of, electric power. The terms of this Agreement are not intended to, and shall not, relieve the Customer from compliance with any federal, state, or local law or regulation.

8.2 Conflicts among the following documents, which are specifically incorporated herein by reference, shall be resolved in accordance with the following priority: first, this Agreement; second, the City-approved Electrical One-Line Diagram(s); third, City-approved Map of QGF and Site Plan.

8.3 The Parties may amend this Agreement through a written instrument signed by all Parties.

9. NO ASSIGNMENT OF RIGHTS

Customer shall not assign its rights nor delegate its duties under this Agreement or any part of such rights or duties. Any such assignment or delegation shall be null and void. Assignments prohibited by this section shall not include the transfer of rights through business entity acquisition or merger or transfers of rights between related business entities sharing substantially common ownership.

10. INDEMNITY

Customer agrees to indemnify the City, its elected and non-elected officials, officers, employees, representatives and agents, for, from and against any and all loss, damages, expenses and liability for injury to or death of any person or injury to or loss of property, to the extent caused by Customer's construction, ownership, operation, testing or maintenance of, or by failure of, Customers QGF or related Customer facilities. Customer shall, at City's request, defend any suit asserting a claim covered by this indemnity. Customer shall also pay all costs and expenses that may be incurred by the City in enforcing this indemnity clause, including reasonable attorney's fees. This indemnification shall survive the termination or expiration of this Agreement.

11. GOVERNING LAW

This Agreement shall be governed by, construed, and enforceable in accordance with the laws of the State of Ohio applicable to contracts entered into and to be performed solely within such state, without reference to its principles governing conflicts of laws. Venue for any action arising under this Agreement shall be Summit County, Ohio.

12. UNCONTROLLABLE FORCES

No Party shall be considered to be in default in the performance of any of its obligations under this Agreement when a failure of performance shall be due to an uncontrollable force. The term "uncontrollable force" shall be any cause beyond which, by exercise of due diligence such Party could not reasonably have been expected to avoid or control, and which by exercise of due diligence it shall be unable to overcome or control, including, but not restricted to, failure of or threat of failure of facilities, flood, earthquake, tornado, storm, fire, lightning, epidemic, war, riot, acts of terror, civil disturbance or disobedience, strikes, labor or material shortage, sabotage, restraint by court order or public authority, and action or non-action by or inability to obtain the necessary authorizations or approvals from any governmental agency or authority. Nothing contained herein shall be construed so as to require a Party to settle any strike or labor dispute in which it may be involved. Either party rendered unable to fulfill any of its obligations under this Agreement by reason of an uncontrollable force shall give prompt written notice of such fact to the other Party and shall exercise due diligence to remove such inability with all reasonable dispatch.

13. EVENTS OF DEFAULT; REMEDIES

A party shall be in default hereunder in the event of any breach of any covenant or obligation under this Agreement is not be cured within five (5) days of written notice of such breach. In the event a party is in default hereunder, the non-defaulting party may, in addition to pursuing any other right or remedy available at law or in equity, terminate this Agreement upon notice; provided, however, that neither Party shall have the right to terminate this Agreement on the basis of default if the nature of the other Party's default is such that more than five (5) business days are reasonably required for its cure and the defaulting party commences such cure within said five (5) business day period and thereafter diligently prosecutes such cure to completion.

14. SEVERABILITY

Whenever possible, each provision of this Agreement will be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Agreement is held by a court of competent jurisdiction to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or any other jurisdiction, but this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein or therein.

15. WAIVER

The failure by either party hereto to require strict performance by the other party of any of the provisions, terms and conditions contained in this Agreement shall not waive, affect or diminish

any right of such party at any time or times hereafter to demand strict performance thereof, and no waiver shall operate as a waiver of any other right or any right with respect to the same condition on a future occasion.

16. EFFECT OF SECTION HEADINGS

Section headings appearing in this Agreement are inserted for convenience only and shall not be construed as interpretations of text.

[Signatures on following page]

The Parties have caused this Agreement to be executed by their duly authorized representatives as of the date hereinabove set forth:

CITY OF HUDSON:

Signature: _____

Name:

Date Signed: _____

CUSTOMER(S):

Name: _____

Signature: _____ Name: _____

Date Signed: _____

Section 5

PV/Energy Storage Storage Acceptance Test Reporting Form

Date- _____

I. Customer Information

- A. Name _____
- B. Address _____
- C. Meter Number _____
- D. PV Array Size _____
- E. Energy Storage on site? Yes ____ No ____

II. Approvals

APPROVED INSPECTIONS	YES	NO
City of Hudson Comm. Dev. Inspection		
Summit County Electrical Inspection		
Summit County Building Inspection		

III. Test Results

A. Weather Conditions: Sunny ____ Cloudy ____ Temperature ____

B. PV System Test

PV TESTS	PV AC DISC CLOSED	PV AC DISC OPEN
Utility AC Voltage		
Inverter AC Output Voltage		
Rapid Shutdown (Outside Array Perimeter)	MAX DC VOLTS (<30vdc)	SHUTDOWN TIME (Max <30 seconds)
(+) to (-) DCV and Seconds		
(+) to Ground DCV and Seconds		
(-) to Ground DCV and Seconds		

C. Energy Storage System Test (where applicable)

ENERGY STORAGE ISOLATION TEST	WITH METER IN PLACE	WITH METER PULLED
Voltage at load-side meter lugs		

PV Maintenance Test Reporting Form

Date- _____

IV. Customer Information

- A. Name _____
- B. Address _____
- C. Meter Number _____
- D. PV Array Size _____
- E. Energy Storage on site? Yes ____ No ____

V. Contractor Information

- A. Company Name _____
- B. Address _____
- C. Company Representative _____

VI. Maintenance Test

- A. Weather Conditions: Sunny ____ Cloudy ____ Temperature ____

B. PV System Test

PV TESTS	PV AC DISC CLOSED	PV AC DISC OPEN
Utility AC Voltage		
Inverter AC Output Voltage		
Rapid Shutdown (Outside Array Perimeter)	MAX DC VOLTS (<30vdc)	SHUTDOWN TIME (Max <30 seconds)
(+) to (-) DCV and Seconds		
(+) to Ground DCV and Seconds		
(-) to Ground DCV and Seconds		

C. Energy Storage System Test (where applicable)

ENERGY STORAGE ISOLATION TEST	WITH METER IN PLACE	WITH METER PULLED
Voltage at load-side meter lugs		

Section 6

Hudson PV Interconnection Contact Information

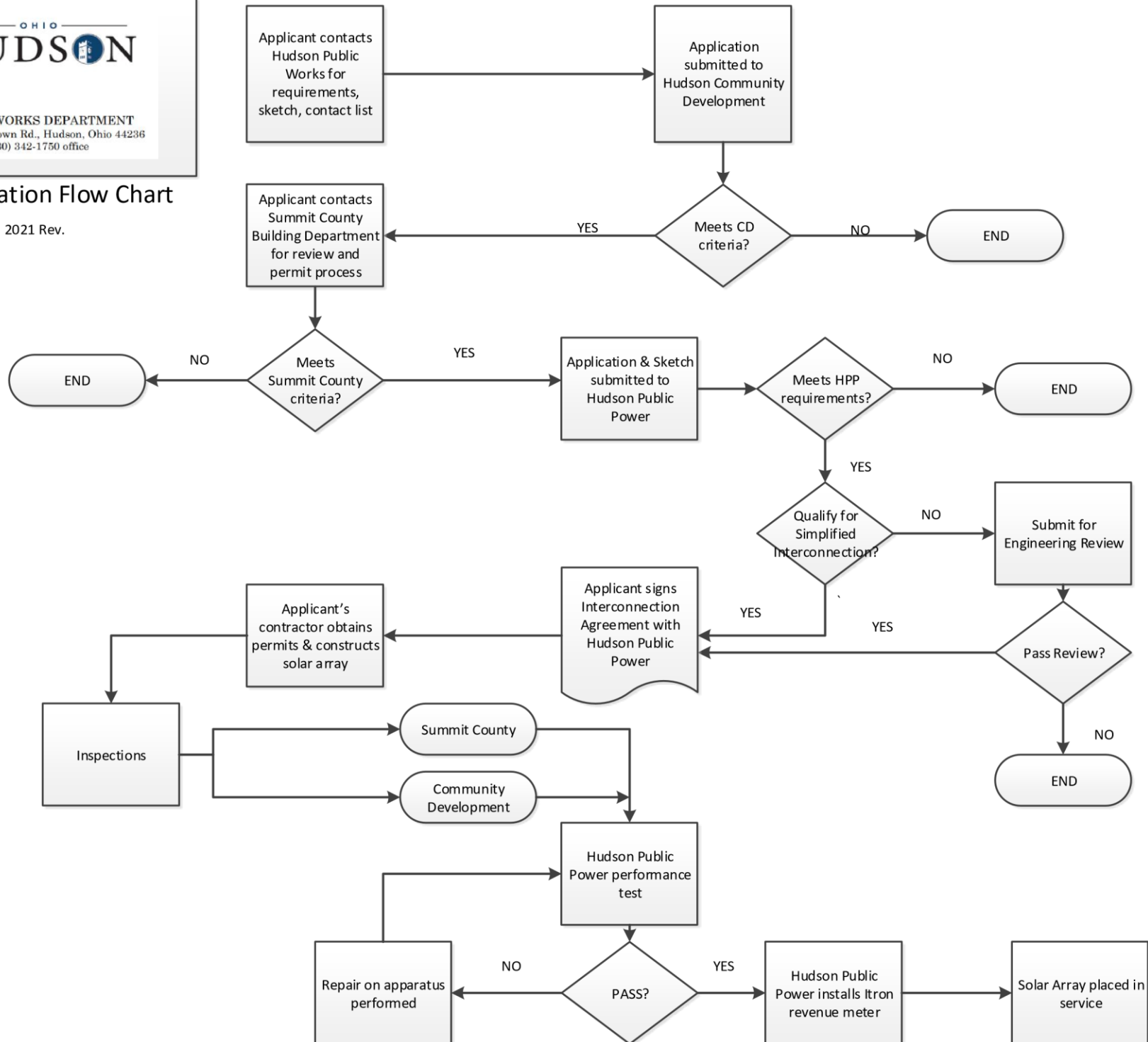
fees: Listed below are numbers regarding general information on processes, permits, and applicable

- I. Hudson Public Works- 330-342-1750
- II. Hudson Community Development- 330-342-1790
- III. Summit County Building Department- 330-630-7280
- IV. Electric Utilities
 - 1. Hudson Public Power- 330-342-1741
 - 2. Ohio Edison- 330-436-4178



PV Application Flow Chart

2021 Rev.



HPP INTERCONNECTION POLICY FEES

Item	Applicant Fee	Current Fee
Application Submittal (CD Fee)	Per Community Development fee schedule at time of application.	\$80-\$150
Meter and Hardware	Fees to cover HPP costs at time of application	Up to \$500.00
Engineering (If Required)	Fee based on system design engineering requirements	No current projects



INTERCONNECTION APPLICATION

CITY OF HUDSON

Inverter-based Units of 25KW and under
(Application – to be filled out prior to installation)

CUSTOMER GENERATOR CONTACT INFORMATION

Legal Name and Mailing Address of Customer-Generator: (if an Individual, Individual's Name)

Name

Street Address

City

State

ZIP

Phone (Daytime)

Phone (Evening)

Email (required)

Fax

Project Contact Information: (if different from Customer-Generator above)

Company Name (if applicable)

Contact Person (If other than above)

Mailing Street Address

City

State

ZIP

Phone (Daytime)

Phone (Evening)

Email (required)

Fax

CUSTOMER GENERATOR FACILITY INFORMATION

Street Address

City State ZIP

Current Annual Energy Consumption *kWh*

Est. Gross Annual Energy Production *kWh*

Do you plan to export power? ☐ Yes ☐ No

If Yes, Estimated Maximum: *kWAC*

HPP Account # Meter #

One-line Diagram Attached? ☐ Yes ☐ No
(Required)

☐ ☐

 kWAC

Estimated In-service Date

IEEE1547/UL1741 Certification ☐ Yes ☐ No

VAC

kWDC

Voltage Rating

DC Source Rating

AmpsAC

☐ 1 ☐ 3

Ampere Rating

No. of Phases

Inverter Manufacturer

Total Inverter Rating

 Location of Utility Access-

 Inverter Model No.

No. of Array Panels Visible Disconnects

☐

Interconnection Application



INTERCONNECTION APPLICATION

CITY OF HUDSON

Inverter-based Units of 25kW and under
(Application – to be filled out prior to installation)

EQUIPMENT INSTALLATION CONTRACTOR (Indicate by owner if applicable)

Company Name (if applicable)

Contact Person (If other than above)

Mailing Street Address	City	State	ZIP
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Phone (Daytime)	Phone (Evening)	Email	Fax
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ELECTRICAL CONTRACTOR (if different than Equipment Installation contractor)

Name	Contact Person (If other than ove)
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Mailing Street Address	City	State	ZIP
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Phone (Daytime)	Phone (Evening)	Email (required)	Fax
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CUSTOMER GENERATOR SIGNATURE

I hereby certify that the Equipment Installation Contractor is acting on behalf of the Customer-Generator and the City is authorized to act in reliance upon the Equipment Installation Contractor's relationship with the Customer-Generator. The Applicant shall notify the City of any changes to the proposed Customer-Generator Facility that would be subject to the criteria of this review (e.g., Equipment Installation Contractor, inverter manufacturer/model number, size, etc.). Once an Interconnection Request is deemed complete, any modification to the proposed Customer-Generator Facility that would affect the application criteria of this review that is not agreed to in writing by the City, shall require submission of a new Interconnection Request. .

Customer Generator Signature	Date
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Printed Name	Title
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CONDITIONAL APPROVAL TO INTERCONNECT CUSTOMER GENERATOR FACILITY (For Use by City Only)

The requested information is complete and interconnection of the Customer-Generator Facility is approved contingent upon the Terms and Conditions of this Agreement, the return of a duly executed Certificate of Completion, verification of electrical inspection, successful witness test or City waiver thereof and upon signature and return of this Part 1 or by notification by electronic mail or other acceptable means by the City.

HPP Signature	Date
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Community Development Signature	Date
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Interconnection Application