



RENEWABLE GENERATION UP TO 100 kW_{AC}

Form 981
12/2016

AGREEMENT FOR INTERCONNECTION OF
CUSTOMER-OWNED GENERATION

This Interconnection Agreement allows the Generator to interconnect and operate in parallel with the Lincoln Electric System (LES). The Generator is bound by the LES Service Regulations, the appropriate Rate Schedule and the General Terms and Conditions of Interconnection and Power Purchases and Sales as attached.

The Generator shall comply with all local regulations and obtain all necessary permits.

The Generator shall have an easily accessible disconnection switch which LES may use and lock. Such disconnection switch will prevent the Generator from energizing LES' lines when open. The owner of the Generator shall allow LES to inspect the generator and disconnection switch and the owner shall make changes required by LES prior to interconnecting with LES.

The Generator shall be responsible for all costs incurred by LES to interconnect above the costs for a typical retail customer of similar load characteristics.

Owner, Generator

Lincoln Electric System

Signature _____

Signature _____

Print Name _____

Print Name _____

Service Address _____

Title _____

City, State, Zip _____

Date _____

Date _____

**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-1 *Electrical Service Conditions***A-1.1 *Points of Delivery and Receipt***

The point of delivery and/or receipt between LES and the Qualifying Facility will be the LES metering equipment or that point where the LES service wires are joined to the Qualifying Facility's service terminals unless otherwise mutually agreed to by the Parties.

A-2 *Rights and Obligations***A-2.1 *Ownership and Responsibility***

The Owner of the Qualifying Facility shall design, construct, install, own, operate and maintain the Facility and all equipment on the Owner's side of the point of delivery/receipt that is required to generate and deliver energy to LES except for any special facilities as may be designated. The Facility's protection, control, safety and all associated equipment must meet standards of good engineering and electrical safety practices as determined solely by LES and be capable of parallel operation with LES service wires. The protection, control, safety and other associated equipment shall at all reasonable times be accessible to authorized LES personnel.

A-2.2 *Design*

The Owner of the Qualifying Facility shall supply LES with a copy of technical specifications and drawings upon request related to the production and interconnection facilities and related equipment. LES' review of the Facility's specifications shall not be construed as confirming nor endorsing the design nor as any warranty of safety, durability or reliability of such Facility or equipment. LES shall not, by reason of such review or failure to review, be responsible for strength, details of design, adequacy or capacity of the Qualifying Facility or other equipment, nor shall LES' acceptance be deemed to be an endorsement of any Facility or equipment.

A-2.3 *Interconnection Facilities*

The Owner of the Qualifying Facility shall construct, own and maintain interconnection facilities as required by LES to deliver energy from the Qualifying Facility to the point of delivery/receipt. The interconnection facilities shall be of such size to accommodate the delivery of such energy. In the event it is necessary for LES to install special interconnection facilities to reinforce its electrical system for purposes of this Agreement, the Owner of the Qualifying Facility shall reimburse LES its costs.

A-2.4 *Protective Equipment*

The Owner of the Qualifying Facility shall be responsible for providing and maintaining all equipment deemed necessary for the protection of its own facilities, property and operations. Such equipment shall be provided for on the Owner's side of the point of delivery/receipt. By virtue of the interconnection with the Qualifying Facility, LES assumes no liability for the protection of any property or person associated with the Qualifying Facility's operations.

**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-2.5 *Changes in Conditions*

The Owner of the Qualifying Facility agrees to make and bear all costs, except as otherwise provided, of changes in equipment necessitated by changes in service requirements as may be reasonably required by LES.

A-2.6 *Governmental Regulations, Codes and Ordinance*

The Owner of the Qualifying Facility has the responsibility to comply with all applicable federal, state and local regulations, codes and ordinances including electrical codes. The Owner shall not begin initial operation of the Qualifying Facility until it has passed applicable code inspection requirements and has received written approval from LES. The LES review of design specifications and drawing or on-site inspections shall not be construed as approvals as to compliance with any such regulations, codes and/or ordinances.

A-2.7 *Land Rights*

The Owner of the Qualifying Facility grants to LES all necessary right-of-ways and easements on the property of the Owner to install, operate, maintain, replace and remove LES' metering and interconnection equipment. If any part of LES' facilities are to be located on property owned by other than a Party to this Agreement, the Owner of the Qualifying Facility shall procure all necessary right-of-ways and easements for the construction, operation, maintenance and replacement of LES' facilities upon such property in a form satisfactory to LES. The standard LES easement agreement will be utilized.

Authorized LES personnel have the right to enter at any reasonable time to inspect equipment located on the property. This right does not relieve the Owner of the Qualifying Facility of the obligation to maintain such facilities.

A-3 *Operations and Safety***A-3.1** *Procedures*

The Owner of the Qualifying Facility shall cooperate with LES in developing mutually acceptable operating procedures for the delivery of the electrical output from the Qualifying Facility and associated interconnection. The Owner will be responsible for operating the Qualifying Facility and associated equipment in a manner that will not cause undesirable and harmful effects, unusual fluctuations and disturbances to occur on the electrical system of LES or LES' customers. Any future changes to the interconnection relay settings must receive the approval of LES System Protection personnel before implementation.

**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-3.2 *Disconnect Equipment*

The Owner shall provide equipment for manually disconnecting and isolating the Qualifying Facility from the LES electrical system. An outside-mounted visible disconnect shall be installed on the Owner's side of the point of delivery/receipt near the meter or mutually agreed upon location. Such equipment must be capable of preventing the Qualifying Facility from energizing the LES service wires and must include a device which, at LES' discretion, LES employees can operate and lock in place.

The Owner shall also provide equipment to automatically disconnect and isolate the Qualifying Facility from LES during a service interruption. The automatic disconnect shall receive its voltage and frequency referenced from the LES service wires. The automatic disconnect shall not close without proper voltage and frequency from the LES service wires. Such equipment must be capable of preventing the Qualifying Facility from energizing LES service wires during a service interruption. Please refer to the latest IEEE standard 1547 section on "Islanding."

A-3.3 *Fault Protection*

Adequate protection facilities shall be provided by the Owner to protect the LES service wires from fault currents originating from the Qualifying Facility. The Owner shall also be responsible to provide adequate protection for the Qualifying Facility from fault currents originating in LES.

A-3.4 *Over/Under Voltage*

It shall be the responsibility of the Owner to provide adequate protection or safeguards to prevent damage to LES caused by over/under voltages originating in the Qualifying Facility and to protect the Qualifying Facility from inadvertent over/under voltage conditions originating from the LES electrical system. Please refer to the latest IEEE standard 1547 for voltage ranges and clearing times when setting the interconnection relay.

A-3.5 *Synchronization*

The Owner shall provide adequate facilities for the proper synchronization of the Qualifying Facility with LES service wires such that such synchronization is accomplished without causing undesirable currents, surges or voltage dips on the LES electrical system. LES employs automatic reclosing on its system circuit breakers. A fault and the subsequent breaker trip and reclose can cause an out-of-phase condition to exist between LES and the customer generation facility. Following a period of interruption, the proper resynchronization of the Qualifying Facility shall be the responsibility of the Owner.

A-3.6 *Grounding*

The Owner shall ground the Qualifying Facility and associated equipment in such a manner that coordination is maintained with the relay protection system in use by LES and the Qualifying Facility is protected from being subject to deleterious voltage and excessive current conditions.

**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-3.7 *Harmonics*

Adequate design precaution must be taken by the Owner to prevent excessive and deleterious harmonic voltages and/or currents caused by the Qualifying Facility from occurring on the electrical system of LES or to LES' customers. The Qualifying Facility must be designed to operate with normal harmonic voltage and currents that originate from the LES electrical system. Please refer to the latest IEEE standard 1547.

A-3.8 *Power Factor*

The operation of the Qualifying Facility shall not produce nor consume excessive reactive power. Should the power factor fall outside acceptable limits either lagging or leading, as determined by LES, the Owner shall undertake the necessary modifications to meet the required power factor level.

A-3.9 *Voltage Regulation*

The Owner shall provide the necessary voltage regulation equipment to prevent the Qualifying Facility from causing excessive voltage variations on the LES electrical system. The voltage variation caused by the Qualifying Facility must be within the ranges capable of being handled by the voltage regulation facilities used by LES.

A-3.10 *Voltage Flicker*

Voltage surges or flickers caused by the operation, synchronization or isolation of the Qualifying Facility shall be within the standards of frequency of occurrence and magnitude established by LES to prevent undue voltage flicker on the LES electrical system. The Owner shall provide suitable equipment to reasonably limit voltage fluctuations caused by the Qualifying Facility.

A-3.11 *Voltage Balance*

The voltage produced by the Qualifying Facility must be balanced if it is a three-phase installation. The Owner shall be responsible in protecting the Qualifying Facility from an inadvertent phase unbalance in LES service voltage.

A-3.12 *Over/Under Frequency*

The Owner shall provide the necessary facilities for safeguards and protection of equipment caused by the incurrence of an over or under frequency event. Please refer to the latest IEEE standard 1547 for frequency ranges and clearing times when setting the interconnection relay.

**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-4 *Continuity of Service*

LES shall not be obligated to accept and LES may require the Qualifying Facility to curtail, interrupt or reduce deliveries of energy in order to construct, install, maintain, repair, replace, remove, investigate or inspect any of its equipment or any part of its electrical system or if it determines that curtailment, interruption or reduction is necessary because of emergencies, forced outages, operating conditions on its electrical system or as otherwise required by prudent electrical utility practices. Such discontinuance of service or purchases shall be without notice or liability.

A-5 *Metering***A-5.1** *Ownership and Maintenance*

LES shall install, own, maintain and test all billing meters and associated equipment that is necessary in LES' judgment to determine amounts and/or times of delivery of energy by the Qualifying Facility to LES and from LES to the Qualifying Facility and any associated load. The cost of any additional metering will be recovered by LES in a monthly billing for interconnection and special facility's costs. The Qualifying Facility shall furnish the meter socket(s) and other related equipment plus sufficient space required by LES in order to accommodate such equipment.

The Owner of the Qualifying Facility agrees to allow LES, at LES' expense, to install additional metering to obtain other load and operating data provided such metering does not adversely affect the operations of the Qualifying Facility.

A-5.2 *Sealed Meters and Testing*

All meters used to determine the billings shall be sealed and the seals shall be broken by LES employees only upon those occasions when the meters are to be inspected, tested or adjusted.

If requested to do so by the Qualifying Facility, LES shall inspect or test the meter(s) with the expense of such an inspection or test being paid by the Qualifying Facility unless upon being tested or inspected the meter is found to register inaccurately by more than two percent of full scale. LES shall give reasonable notice of the time when any inspection or test shall take place such that the Owner may have a representative present at the test and inspection. If a meter is found to be inaccurate beyond two percent or is otherwise defective, it shall be repaired or replaced, at LES' expense, in order to provide accurate metering.

A-5.3 *Adjustments*

If any test of metering equipment discloses any inaccuracy of more than two percent, the accounts between the Parties shall be adjusted in accordance with this section. Such correction and adjustment shall be made from the date the meter became inaccurate, if known. If such data cannot be determined, then the adjustment shall be made for the previous month or from the date of the latest test (if within the previous month) and for the elapsed period in the month during which the test was made. Should any metering equipment at any time fail to register or should the registration thereof be so erratic as to be meaningless, the amounts of energy transacted shall be determined by the Parties from the best available data.

**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-5.4 *VAR Metering*

At LES' option, VAR metering may be installed by LES at the Qualifying Facility's expense to measure reactive power.

A-6 *Billing and Payment*

Once per billing month, LES shall read the billing meter(s) installed to measure energy and capacity (real and reactive, if applicable) delivered to LES from the Qualifying Facility. LES shall then prepare a statement computing the amounts owed by LES for such energy. From this amount, LES shall deduct any amounts owed by the Owner of the Qualifying Facility to LES for any additional interconnection, metering, and billing associated with the Qualifying Facility. The billing and payment shall be in accordance with adopted LES regulations regarding such items.

A-7 *Uncontrollable Forces*

A Party shall not be considered to be in default in respect to any obligation hereunder if prevented from fulfilling such obligation by reason of uncontrollable forces. The term uncontrollable forces shall be deemed for the purposes hereof to mean storm, flood, lightning, earthquake, fire, explosion, civil disturbance, labor disturbance, sabotage, war, national emergency, restraint by court or public authority or other causes beyond the control of the Party affected which such Party could not reasonably have been expected to avoid by exercise of due diligence and foresight. Either Party unable to fulfill any obligation by reason of uncontrollable forces will exercise due diligence to remove such disability with reasonable dispatch.

A-8 *Indemnity and Liability*

Each Party shall indemnify the other Party, its officers, agents, and employees against all loss, damage, expense and liability to third persons for injury to or death of person or injury to property, proximately caused by the indemnifying Party's construction, ownership, operation, or maintenance of, or by failure of, any of such Party's works on facilities used in connection with this Agreement. The indemnifying Party shall, on the other Party's request, defend any suit asserting a claim covered by this indemnity. The indemnifying Party shall pay all costs that may be incurred by the other Party in enforcing this indemnity.

Nothing in this Agreement shall be construed to create any duty to any standard of care with reference to or any liability to any person not a Party to this Agreement.

At LES' request, the Owner shall furnish to LES copies of any property or liability insurance on the Facility.

A-9 *Waiver*

Any waiver at any time by either Party of its rights with respect to default under this Agreement shall not be deemed a waiver with respect to any subsequent default by the other Party under this Agreement.

A-10 *Successors, Legal Representative or Assigns*

This Agreement shall be binding upon and inure to the benefit of the successors, legal representatives, or assigns of the respective Parties. Neither Party shall assign this Agreement without the express written consent of the other Party, nor shall a Party be relieved of its obligations hereunder or impose additional obligations or burdens on the other Party by any assignment given.



**GENERAL TERMS AND CONDITIONS OF
INTERCONNECTION AND POWER PURCHASES AND SALES**

A-11 *Governmental Jurisdiction and Authorization*

This Agreement is subject to the jurisdiction of those governmental agencies having control over the Parties or the Agreement. This Agreement shall not become effective until all required governmental authorization and permits are first obtained and copies are submitted to LES.

This Agreement shall at all times be subject to such changes by such governmental agencies, and the Parties shall be subject to such conditions and obligations, as such governmental agencies may from time to time direct in the exercise of their jurisdiction. Both Parties agree to exert their best efforts to comply with all applicable rules and regulations of all governmental agencies having control over either Party or this Agreement. The Parties shall take all reasonable action necessary to secure all required governmental approvals of this Agreement in its entirety and without change.



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APPENDIX B

LOSS FACTOR ADJUSTMENT

The purchase rate or avoided energy cost is calculated at the LES defined inlet of such energy. The purchase rate for energy delivered to LES shall be adjusted by a factor of 1.047 to reflect the savings resulting from the variation in local transmission and distribution losses compared to if LES had generated or purchased elsewhere an equivalent amount of energy.