MOON LAKE ELECTRIC ASSOCIATION, INC.

Application for Operation of Customer-Owned Generation

This application should be completed as soon as possible and returned to the Moon Lake Electric Association, Inc. (the "Cooperative") Customer Service representative in order to begin processing the request. See *Customer Guidelines for Electric Power Generator Installation and Interconnection* for additional information.

INFORMATION: *This application is used by the Cooperative to help determine the required equipment configuration for the Customer interfaced interconnection. Every effort should be made to supply as much information as possible.*

PART 1
OWNER/APPLICANT INFORMATION

Company or Individual who will own the generation: _____

Mailing Address: _____

City: _____County: _____State: _____ Zip Code: _____

Representative: _____ Phone Number:_____

PROJECT DESIGN/ENGINEERING (ARCHITECT) INFORMATION

Company: _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip Code: _____

Representative: _____ Phone Number: _____

ELECTRICAL CONTRACTOR

Company: _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip Code: _____

Representative: _____ Phone Number: _____

PROVIDE PLANNED DATES AS FOLLOWS:

TESTING: _____

START-UP: _____

FULL OPERATION: _____

TYPE OF GENERATOR AND GENERATOR RATING

Photovoltaic: _____ Wind: _____ Microturbine: _____

Diesel Engine: _____ Gas Engine: _____ Turbine: _____

Other: _____

Generator Rating: _____ (kW) Annual estimated Generation : _____(kWh)

DESCRIPTION OF PROPOSED INSTALLATION AND OPERATION

Give a general description of the proposed installation, including a detailed description of its planned location and when you plan to install the generator.

_____

_____

_____

_____

_____

_____

_____

(Provide a description of the planned operation) _____

_____

_____

(Provide information as to how much power and energy will be injected into the distribution system as well as daily, monthly, and season injection patterns) _____

_____

_____

_____

Mode of Operation

Isolated:_____ Paralleling: _____ Power Export: _____

ESTIMATED SITE ELECTRICAL LOAD

Location of Site: _____

Total Site Electrical Load: _____(kW)

Residential: _____ Commercial: _____ Industrial: _____

Please furnish a one-line electrical drawing of your proposed installation.

END OF PART 1 **(Please complete the sign-off area at the end of this document)**

PART 2

(Complete all applicable items. Copy this page as required for each additional generators)

SYNCHRONOUS GENERATOR DATA

Unit Number: _____Total number of units with listed specifications on site: _____

Manufacturer: _____ Type: _____ Date of manufacture: _____

Serial Number (each): _____

Phases: Single: Three: R.P.M.: _____ Frequency (Hz): _____

Rate Output (for one unit): _____ Kilowatt: _____ Kilovolt-Ampere: _____

Rated Power Factor (%): _____ Rated Voltage (Volts): _____ Rated Amperes: _____

Field Volts: _____ Field Amps: _____ Motoring Power (kW): _____

Synchronous Reactance (Xd): _____ % on _____ KVA base

Transient Reactance (X'd): _____ % on _____ KVA base

Subtransient Reactance (X"'d): _____ % on _____ KVA base

Negative Sequence Reactance (Xs): _____ % on _____ KVA base

Zero Sequence Reactance (Xo): _____ % on _____ KVA base

Neutral Grounding Resistor (if applicable): _____

_____

I2 2t or K (heating time constant): _____

Additional information: _____

_____

INDUCTION GENERATOR DATA

Rotor Resistance (Rr): _____ ohms Stator Resistance (Rs): _____ ohms

Rotor Reactance (Xr): _____ ohms Stator Reactance (Xs): _____ ohms

Magnetizing Reactance (Xm): _____ ohms Short Circuit Reactance (Xd): _____ ohms

Design letter: _____ Frame Size: _____

Exciting Current: _____ Temp Rise (deg C°): _____

Reactive Power Required: _____ Vars (no load), _____ Vars (full load)

Additional information: _____

_____

PRIME MOVER (Complete all applicable items)

Unit Number : _____Type: _____Manufacturer: _____

Serial Number : _____ Date of manufacturer: _____

H.P. Rated: _____ H.P. Max.: _____ Inertia Constant: _____Lb.-ft.2

Energy Source (hydro, steam, wind, etc.): _____

_____

GENERATOR TRANSFORMER (Complete all applicable items)

TRANSFORMER between generator and utility system

Generator unit number : _____ Date of manufacturer: _____

Manufacturer: _____

Serial Number: _____

High Voltage: _____ kV, Connection: Delta WYE, Neutral solidly grounded ? _____

High Voltage: _____ kV, Connection: Delta WYE, Neutral solidly grounded ? _____

Transformer Impedance (Z): _____ % on _____ kVa base

Transformer Resistance ®: _____ % on _____ kVa base

Transformer Reactance (X): _____ % on _____ kVa base

Neutral Grounding Resistor (if applicable): _____

_____

INVERTER DATA (if applicable)

Manufacturer: _____ Model: _____

Rated Power Factor (5): _____ Rate Voltage (Volts): _____ Rated Amperes: _____

Inverter Type (ferroresonant, step, pulse-width modulation, etc.): _____

Type of commutation: forced line

Harmonic Distortion: Maximum Single Harmonic (%): _____Maximum Total Harmonic (%): _____

Note: Attach all available calculations, test reports, and oscillographic prints showing inverter output voltage and current waveforms.

POWER CIRCUIT BREAKER (if applicable)

Manufacturer: _____ Model: _____

Rated Voltage (*kilovolts):* _____ Rated Ampacity (*Amperes):* _____

Interrupting rating (Amperes): _____ BIL Rating: _____

Interrupting medium / insulating medium (ex. Vacuum, gas, oil): _____ / _____

Control Voltage (Closing): _____ _____ (Volts) AC DC

Control Voltage (Tripping): _____ (Volts) AC DC Battery Charged Capacitor

Close energy: Spring Motor Hydraulic Pneumatic Other: _____

Trip energy: Spring Motor Hydraulic Pneumatic Other: _____

Bushing current Transformers: _____ (Max. Ratio) Relay Accuracy Class: _____

Multi ratio ? No Yes: (Available taps) _____

ADDITIONAL INFORMATION

In addition to the items listed above, please attach a detailed one-line diagram of the proposed facility, all applicable elementary diagrams, major equipment, (generators, transformers, inverters, circuit breakers, protective relays, etc.) specifications, test reports, etc, and any other applicable drawings or documents necessary for the proper design of the interface/interconnection.

END OF PART 2

SIGN OFF AREA

The customer agrees to provide the Cooperative with any additional information required to complete the interconnection. The customer shall operate his equipment within the guidelines set forth by the cooperative. Applicant agrees to adhere to terms of Net Metering rate schedule or negotiated rates contract as applicable*. Applicant shall provide a $385.00 application fee to cover expenses of the new meter, installation and Engineering review.

Applicant **Date**

Mailing Address

City **State** **Zip**

Telephone **Cellular Phone**

E-Mail Address

ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact:

Title:

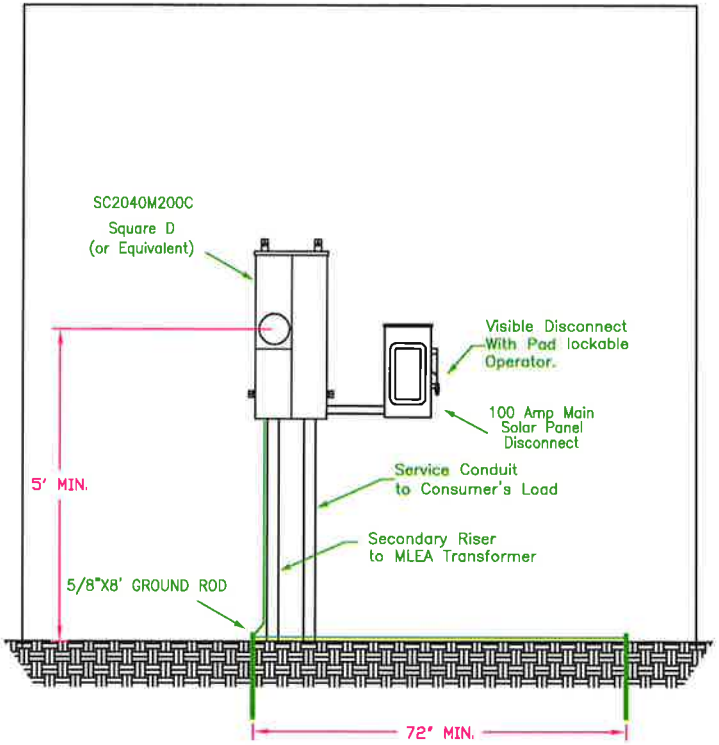
Address:

Phone:

Fax:

E-Mail:

* Negotiated rate contract applies to generation facilities which cannot be categorized as Net Metered installations.



GENERAL ARRANGEMENT VIEWS

Installation Note.
If a building is not available near delivery point then a pedestal installation shall be accepted PROVIDED that the design and installation is approved by MLEA prior to constructing such pedestal.

NET METERING PROJECT

Applicant/Owner:

Contact:

Address:

Phone:

Electrician:
Phone:

Notes:
Existing Transformer needs to be upgraded and the meter loop relocated to either a building or to a MLEA approved pedestal located adjacent to the MLEA service pole.

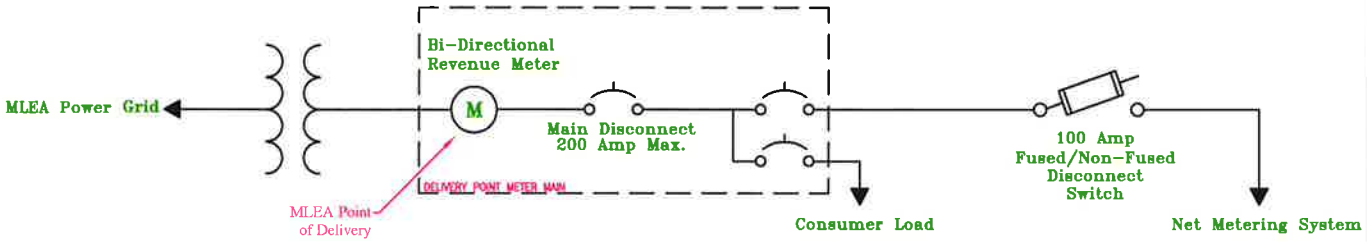
Engineering Data

General 1 Ph, 240 Volt, 100 Amp Max.

Requested Size: 20 kW Solar, Parallel.

LOCATION DATA
Pole No.:
TRANS. NO.:
KVA:
VOLTAGE:

Installation shall comply with NEC and any other applicable codes and standards.



GENERAL ONE-LINE DIAGRAM

MOON LAKE ELECTRIC ASSOC., INC.
Roosevelt, Utah 84066

NET METERING INSTALLATION
TYPICAL INSTALLATION DIAGRAM

DRN. BY - P.CORUN. | DATE - 09/18/2014 | SCALE - N.T.S. | DRAWING #
CHKD - | APP'D - P.CORUN.