

# Morgan City Policy for: Photovoltaic Net Metering and Stand-alone Photovoltaic Systems January 2016

## **Installation Standards and Code Compliance:**

- A. Any Customer desiring to implement a photovoltaic system within the City of Morgan shall secure an electrical permit for the installation of the system. The customer shall apply for the permit by submitting to the city for review and approval a set of electrical drawings consisting of the following:
  1. One line diagram showing all equipment to be installed. The one line diagram shall include all conductor and conduit sizing. All conductors shall be appropriately de-rated for the installed ambient temperature and installed conditions per the National Electrical Code. The diagram shall include load calculations for all equipment.
  2. Manufacturer cutsheets of all equipment being installed with the specific model highlighted. The cutsheets shall show electrical, dimensional, electrical specifications and operational characteristics of each item.
  3. A site plan showing the installed location of each piece of equipment proposed. This site plan shall indicate the means by which Morgan City staff can disconnect the system from the grid.
  
- B. Customer shall provide the electrical interconnection on the load side of the meter between the customer Facility and Morgan City's Power system. At Customer's expense, Morgan City Power shall make reasonable modifications to Morgan City's power system necessary to accommodate the Facility. The cost for such modifications shall be billed at Morgan City Power's actual cost, with an estimate of such costs due and payable in advance of installation. The net metering Facility shall include, at Customer's expense, all equipment necessary to meet applicable safety, power quality, and interconnection requirements established by Morgan City Power's policies, the current adopted version of the National Electrical Code, National Electrical Safety Code, the Institute of Electrical and Electronic Engineers and Underwriters Laboratories and utility best practices. Customer shall not commence parallel operation of the Facility until it has been certified by an independent qualified and licensed person or entity as being in compliance with all applicable electrical and safety codes and the city electrical inspector has inspected the Facility and issued written approval for its operation. On or within sixty days prior to each three year anniversary of this agreement the Customer shall provide additional

certification by an independent qualified and licensed person or entity that the Facility remains in compliance with all applicable electrical and safety codes. (NEC 690.64)B. Qualified individuals include professional engineers, factory-trained and certified technicians, and licensed electricians with experience in testing protective equipment. Morgan City Power reserves the right to witness verification testing. If the customer fails to provide testing results in writing to the city, the city reserves the right to notify the customer in writing to discontinue the use and disconnect the equipment from the power system until such time as the re-certification can be performed.

- B. Customer must make an application to City and receive approval from City before installing an interconnected Facility on their property. Morgan City may withhold approval if for any reason the requested interconnection would result in a negative monetary or physical impact on the City electrical system.

**Operational Standards:**

- A. Customer shall furnish, install, operate and maintain in good order and repair, without cost to Morgan City Power, all equipment required for the safe operation of the Facility operating in parallel with the Morgan City Power's electrical supply system. This shall include, but is not limited to, equipment necessary to (1) establish and maintain automatic synchronism with Morgan City Power's electric supply system and (2) automatically disconnect the Facility from Morgan City Power's electrical supply system in the event of overload or outage on Morgan City Power's electrical supply system. The Facility shall be designed to operate within allowable operating standards for the Morgan City Power's electrical supply system. Output voltages shall operate within accepted standards and shall match the connected voltages of the system to which they are connected. All systems shall be designed for the lowest temperature that the system will see in Morgan City, use -25° F as a minimum design temperature. Disconnecting means and inverter equipment shall exceed the maximum generated voltage. The Facility shall not cause any adverse effects upon the quality or reliability of service provided to Morgan City Power's other customers. The Customer shall operate its Facility in accordance with applicable rules and regulations.

***Certification of customer-generator facilities:***

In order to qualify for interconnection, a Customer Generating Facility must be certified as complying with the following standards, as applicable:

- A. IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, as amended and supplemented, which is incorporated by reference herein. IEEE standard 1547 can be obtained through the IEEE website at [www.ieee.org](http://www.ieee.org); and UL 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems (January 2001), as amended and supplemented, which is incorporated by

reference herein. UL standards can be obtained through the Underwriters Laboratories website at [www.ul.com](http://www.ul.com).

- B. An equipment package shall be considered certified for interconnected operation if it has been submitted by a manufacturer to a nationally recognized testing and certification laboratory, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable codes and standards listed in (a) above.
- C. If the equipment package includes only the interface components (switchgear, inverters, or other interface devices), an interconnection customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and consistent with the testing and listing specified for the package. If the generator or electric source being utilized with the equipment package is consistent with the testing and listing performed by a nationally recognized testing and certification laboratory, the equipment package will be deemed certified, and Morgan City Power will generally not require further design review, testing or additional equipment.
- C. The Customer Generating Facility must obtain all inspections and permits from the appropriate local government authorities.
- D. The Customer Generating Facility Equipment shall be installed by a licensed electrical contractor qualified in the installation of photovoltaic systems.

#### **INDEMNITY, LIABILITY AND INSURANCE**

- A. The Customer hereby indemnifies and agrees to hold harmless and release the City and its elected officials, officers, employees and agents and each of the heirs, personal representatives, successors and assigns of any of the foregoing (collectively, the "Indemnities") from and against any and all losses, claims, damages, costs, demands, fines, judgments, penalties, obligations, payments and liabilities, together with any costs and expenses (including without limitation attorneys' fees and out-of-pocket expenses and investigation expenses) incurred in connection with any of the foregoing, resulting from, relating to or arising out of or in connection with: (a) any failure or abnormality in the operation the Customer's Electric Generation System or any related equipment; (b) any failure of the Customer to comply with the standards, specifications, or requirements referenced in this Agreement (including Appendices hereto) which results in abnormal voltages or voltage fluctuations, abnormal changes in the harmonic content of the generating facility output, single phasing, or any other abnormality related to the quantity or quality of the power produced by the Customer's Electric Generation System; any failure of the Customer duly to perform or observe any term, provision, covenant, agreement or condition hereunder to be performed by or on behalf of the Customer; or (d) any negligence or intentional misconduct of Customer

related to operation of the Customer's Electric Generation System or any associated equipment or wiring.

Customer shall maintain in full force and effect, general liability insurance for personal injury and property damage of at least ONE HUNDRED THOUSAND DOLLARS (\$100,000.00) per occurrence for the duration of this Agreement. A homeowner's policy providing at least this minimum amount of coverage is acceptable to meet this insurance requirement. The Customer shall submit an acceptable Certificate of Insurance with the Customer's "Net Metering Program Application and Compliance Form" and shall provide the City with copies of renewal certificates to satisfy this insurance requirement.

**Disconnection:**

- A. Morgan City Power shall have the right to disconnect, with or without notice, the Facility from Morgan City Power's electric supply system when necessary, in Morgan City Power's sole judgment, in order to maintain safe and reliable electrical operating conditions or to protect Morgan City Power's system from damage, disruption, interference, or to preserve system reliability or protect system from other harm. Also, Morgan City Power shall have the right to disconnect, with or without notice, the Facility if, in Morgan City Power's sole judgment, the operation of the Facility at any time adversely affects the operation of Morgan City Power's electrical system or the quality and reliability of Morgan City Power's electrical service to other customers. The Facility shall remain disconnected until such time as Morgan City Power is satisfied, in its sole judgment that conditions justifying the disconnection have ended or have been corrected.

**Disconnect Device:**

- A. Customers generating systems of 10 kw or less that are inverter based.

The customer has the option to install, on its side of the bi-directional metering equipment a safety disconnect device capable of fully disconnecting and isolating the Facility from the City's electric system. In the event that no disconnect switch is installed, the Customers electric service may be disconnected by Morgan City if the generating Facility must be physically disconnected from the utility's electric system. The Morgan City Power shall have the right to disconnect, with or without notice, the Facility from Morgan City Power's electric supply system when necessary in Morgan City Power's sole judgment, in order to maintain safe and reliable electrical operating conditions or to protect Morgan City

Power's system from damage, disruption, interference, or to preserve system reliability or protect system from other harm. Also, Morgan City Power shall have the right to disconnect, with or without notice, the Facility if in Morgan City Power's sole judgment, the operation of the Facility at any time adversely affects the operation of Morgan City Power's electrical system or the quality and reliability of Morgan City Power's electrical service to other customers. The Facility shall remain disconnected until such time as Morgan City Power is satisfied, in its sole judgment that conditions justifying the disconnection have ended or have been corrected. The meter base main breaker box or bi-directional safety disconnect must be marked with an approved engraved or metallic placard, that is red in color and attached in a secure manner. If at any time the placard is not legible or becomes loose or falls off the Customer will replace it ASAP or the City may disconnect the service until it is repaired to the City's satisfaction.

B. Customers/Commercial with generating systems of 11 kw or more.

An interconnection Customer of Morgan City must install and maintain a manual disconnect switch which will disconnect the generating facility from the utility's electric system. The disconnect switch must be a lockable, load break switch that plainly indicates whether it is in the open or closed position. The disconnect switch must be readily accessible to Morgan City at all times and located within 10 feet of the utility meter.

1. Exemption:

The disconnect switch may be located more than 10 feet from the utility meter if permanent instructions are posted in letters of appropriate size, that is red in color at the utility meter indicating the precise location of the disconnect switch. In this case Morgan City must approve the location of the disconnect switch prior to the installation of the generating facility.

**Maintenance:**

- A. Except for the bi-directional metering equipment owned and maintained by Morgan City Power, all equipment on Customer's side of the delivery point, including the required disconnecting switch, shall be provided and maintained in satisfactory operating condition by the Customer at their sole expense and shall remain the property and responsibility of the

Customer. Morgan City Power shall bear no liability for Customer's equipment or for the consequences of its operation.

**Access:**

- A. Morgan City Power employees shall have the right to enter the customer's property at any time, with or without notice, for the purpose of observing and/or testing the interconnection, disconnecting device and bi-directional metering equipment associated with Customer's Facility. Morgan City Power shall give customer advanced notice of its desire to enter the customer's residence and/or any building on the customer's property as may be reasonably practical under the circumstances, provided however in the event entry is necessary to protect the public's safety or prevent imminent peril or harm to the public or prevent disruption to the operation of the Morgan City electrical supply system, such access may be undertaken without prior advance notice.

***Terms of Net Metering Billing and Energy Crediting***

- A. Morgan City shall measure the net electricity produced or consumed by the Customer during each billing period, in accordance with the City's normal metering practices.
- B. When the electricity supplied by Morgan City exceeds the electricity generated by the Customer, then the Customer shall be billed and pay for the kilowatt-hours supplied by Morgan City at the rate and with the same customer charge(s) paid by other customers of Morgan City at the same rate as the Customer's absent the Net Metering Program.
- C. When the electricity generated by the Customer exceeds the electricity consumed by the Customer, the Customer will be credited for the kilowatt-hours supplied back to Morgan City. The customer will be credited at the current rate and with the same customer charge(s) paid by other customers of Morgan City at the same rate as Customers absent the Net Metering Program. Credits on the Customer's account may only be applied toward kilowatt-hour usage, not toward customer service charges. Credits will appear on the next billing cycle.
- D. All kilowatt-hour electric energy credit(s) remaining on the account at the time of the Customer's April billing each year shall be forfeited to Morgan City, without further liability to Morgan City.

***Governing Law:***

- A. The provisions of this Agreement shall be governed by and interpreted in accordance with the laws of the State of Utah.

- B. The delivery of electric service to Customer's Facility shall be subject to all terms, conditions and provisions set forth in the Morgan City's Electrical Ordinance, as the same presently exists or as may be amended hereafter. In the event of any conflict between the terms and conditions of this Agreement, and such Ordinance, then and in such event the Electrical Ordinance shall prevail.