# Town of Thatcher

## Checklist for grid connected Distributed Generation (DG) system

Customer Name: _____

Address: _____

### PLANNING

- ☐ Customer verifies Customer of record with Thatcher Electric Utility.
- ☐ Customer determines what benefits they want from the DG system.
- ☐ Customer researches and determines the type of system that will best meet their needs (solar, wind, gas or other)
- ☐ Customer researches vendors for the selected generation type.
- ☐ Customer determines the connected load for their account (Add appliance, electric water heater, AC/heating and any other large electric loads using the kW ratings listed on each piece of equipment, then calculate and add lighting loads{number of bulbs X Watts divided by 1,000 = kW} and add to the total).
- ☐ The DG system rated AC kW size is limited to 125% of the connected load for grid connected systems.
- ☐ Customer discusses the size and site location of a generating system that best meets their needs with vendors. Customer requests Vendor to do a Site Survey and provide an estimate of system cost.
- ☐ Customer obtains a Distributed Generation Application from Thatcher and completes the customer information.
- ☐ Customer provides a copy of the partially completed Application and this checklist to the Vendor for them to provide additional information.

### DESIGN

- ☐ The design of the Distributed Generation system must meet the requirements of Thatcher's Electric Rules and Regulations including 52.28 and 52.40 through 52.45.
- ☐ The design must contain an appropriate Disconnect Switch with lock out capability and appropriate circuit protection equipment.
- ☐ The Site plan shall include location of meters, electrical panels, and disconnect switches in addition to generation system components.
- ☐ The Site plan shall show location of fences, gates, or any restrictions to access by Thatcher personnel.
- ☐ The Disconnect Switch and Generator meter shall be located near the service entrance and Thatcher bi-directional utility meter.
- ☐ Vendor/Contractor provides completed Thatcher Distributed Generation Application and supporting design documentation to Customer, including Site plan and electrical diagram appropriate for the complexity of the DG system. Customer submits application and design information to Thatcher.
- ☐ Thatcher reviews the design and evaluates the interconnection for any required modifications. (Customer is responsible for the cost of any plan review engineering support and any equipment modifications to connect to the Thatcher system)
- ☐ Thatcher will provide the evaluation results and estimated cost for any needed modifications to the Customer for their review and final decision.

- ☐ Customer signs completed DG application (with an estimate of any additional costs recorded). Installation can begin.

## INSTALLATION

- ☐ Installation must be performed by a licensed (AZ) contractor with an active license in the appropriate field.
- ☐ Contractor/Customer shall obtain any required permits for the installation.
- ☐ Contractor installs system and supporting hardware.
- ☐ Each phase of the installation must pass inspection by the permitting authority.
- ☐ Contractor will label DG equipment with appropriate identifications and warnings.
- ☐ Customer/Contractor will notify Thatcher when installation is two weeks from completion.
- ☐ Thatcher will schedule final inspection with Customer/Contractor.

## SYSTEM INSPECTION AND START UP

- ☐ Thatcher representative will review passed inspection records from the building permit.
- ☐ Thatcher representative will inspect installation and verify disconnect switch, protection equipment and generator system meet Thatcher requirements.
- ☐ Thatcher representative will inspect meter socket and install generation meter. If utility service meter is not bi-directional, Thatcher representative will replace utility service meter with the appropriate type.
- ☐ Customer/Contractor will start generator system.
- ☐ Thatcher representative will verify generator operation and if generator is a rotating type, Thatcher will require demonstration of synchronous operation prior to connecting to the grid.
- ☐ Customer/Contractor will connect DG system to the grid for the first time with Thatcher representative present.
- ☐ Customer/Contractor will demonstrate anti-islanding shutdown for grid connected inverters to the Thatcher representative by disconnecting the incoming utility service (inverter should sense loss of utility voltage and shut down).
- ☐ Thatcher representative will indicate DG grid connect authorization by signing this checklist: ( a copy of the completed checklist will be mailed to customer)

  Thatcher representative_____

  Date_____

  (This Thatcher inspection only provides authorization to connect to the Thatcher distribution system. Thatcher does not assume any liability for undetected faults in the condition of the installed system)
- ☐ Customer/Operator will monitor the DG system to ensure proper operation and maintenance.

## BILLING

- ☐ Thatcher will adjust the monthly invoice to account for the DG generation (additional fees may apply). Mail a copy of the completed DG checklist and application to the customer.
- ☐ Thatcher will track any excess generation beyond the monthly customer energy usage and provide the appropriate credit or payment.

  Customer will pay the invoiced amount according to the Thatcher Rules and Regulations.