



## Distributed Generation Interconnection Process for Residential and Small General Service OVERVIEW

REVISION NO.: 9

EFFECTIVE: 09/16/2019

Required Steps for ED3's Distributed Generation Interconnection Process for Residential and Small General Service:

- Customer to submit an "Application for Operation of Customer Owned Distributed Generation" form to ED3 for review and approval.
- Contractor / Customer is notified by email of any errors on your Application and the Application is corrected by the Contractor.
- The Revised / Corrected Application is re-evaluated by ED3 and if errors are all corrected, it is then approved.
- Contractor / Customer will receive a Letter of Approval for Interconnection via email from ED3.
- Contractor is responsible for providing copy of Letter of Approval for Interconnection to the City of Maricopa (if within City limits) to set up City inspection.
- Once the Letter of Approval for Interconnection has been received, the Customer may proceed with the installation of the Distributed Generation (DG) System.
- Once installation is complete, Customer / Contractor is responsible for scheduling an inspection by a City of Maricopa or Pinal County Electrical Inspector.
- When the system passes the City of Maricopa or Pinal County electrical inspection, the Inspection Department provides ED3 with a Clearance for Connection via email.
- Upon receipt of the Clearance for Connection, the ED3 Solar Coordinator will contact the Customer's Contractor to schedule an appointment for the Commissioning Inspection.
- Once the Commissioning Inspection is complete, ED3 installs a new electric meter which connects the DG System to ED3's electrical grid. **The Commissioning Inspection is the final step required PRIOR to connecting the DG System to ED3's electric grid.**

**PLEASE NOTE:** ED3 is *not* responsible for the workmanship or materials of the customer's installation contractor.

ED3 does *not* inspect the installation of the system on your roof.

**PLEASE NOTE: CUSTOMER APPLICATIONS THAT ARE PLACED IN THE QUEUE ARE SUBJECT TO ALL REVISIONS AND CHANGES TO THIS PROGRAM DURING THEIR TIME IN THE QUEUE.**

**If you have any questions about any of the items listed above,  
please contact our Solar Coordinator at (520) 316-6527 or [solar@ed-3.org](mailto:solar@ed-3.org).**



# Customer Owned Distributed Generation CHECKLIST

REVISION NO.: 16

EFFECTIVE: 09/16/2019

Before submitting your application for Customer Owned Distributed Generation, please make sure you have completed the following steps and included **ALL** the following:

- The “**Guidelines for Customer Owned Distributed Generation**” form - be sure to include:
  - Signature on Guidelines Form*
- The “**Application for Operation of Customer Owned Distributed Generation**” form  
**All listed below are required:**
  - Customer email address*
  - Total Site Load (DC) and Generator Rating (AC) in Kilowatts, and Annual Estimated Generation*
  - All Module and Inverter Information*
  - Storage Capacity in Kilowatt-hours, if DG is coupled with Energy Storage*
  - Signature on Application Form*
- The “**Agreement for Interconnection of Customer Owned Distributed Generation**” form **must** be: **Signed and Initiated by Customer (Required) and Signed by ED3 Operation’s Manager**
- “**Rider No. 08 – Buyback Program – Residential / Small General Service**” form
  - Customer **must** print, sign and date Rider (Required)*
- Site Map & Plan**
- Line Diagram – please include:**
  - PV meter socket**
  - An electrical note if using Current Transformers (CTs)**
- All Equipment Cut Sheets**
- Proof of Purchase or Copy of signed Lease Agreement** (if leasing system).
- Copy of ED3 Utility Bill - for reference (N/A for New Builds)**

Once the application is approved, the Contractor / Customer will receive a Letter of Approval for Interconnection from ED3. Once your System has been installed by your Contractor, the following are required:

- Clearance for Connection (Required) from the City of Maricopa or Pinal County before the Final ED3 Commissioning Inspection can be scheduled.
- Final Commissioning Inspection performed by ED3.

**Final Commissioning Inspection** is required **PRIOR** to connecting the Distributed Generation System to ED3’s electric grid. Once the Final Commissioning Inspection passes, ED3 will install electric meter and have the DG System turned on.

**PLEASE NOTE:** Under no circumstances can DG Systems, or a portion thereof, be energized **until they have been successfully commissioned** by ED3.

ED3 does allow electronic signatures using DocuSign eSignatures **only**. Please be sure to use the frame box that accompanies the eSignature before you submit for approval.

Currently ED3 does not supply the production meter, however, this is subject to change at any time.

Costs incurred by ED3 for the additional or replacement of equipment in order to accommodate a Distributed Generation (DG) System will be borne by the Customer.

**If you have any questions about any of the items listed above, please contact our Solar Coordinator at (520) 316-6527 or solar@ed-3.org.**



# GUIDELINES for Customer Owned Distributed Generation

REVISION NO.: 14

EFFECTIVE: 09/16/2019

## INTRODUCTION

ED3 has created a policy to allow safe connection and export for customer owned distributed energy to the ED3 distribution system. At this time, ED3 will only accept applications for the addition of distributed Solar Photovoltaic (PV) Generation Systems of a maximum of ten kilowatts (10 kW) or less for Residential accounts, and twenty kilowatts (20 kW) or less for Small General Service accounts, with appropriate integral voltage conversion, synchronization, power quality, and protection circuitry.

All Distributed Generation (“DG”) Systems coupled with or without energy storage must meet certain electrical criteria to be approved for connection to the ED3 distribution system.

You must work with your contractor to ensure that your generation equipment is installed in a proper and safe manner, and in accordance with all applicable codes, standards, regulations, laws and insurance requirements. In many cases, you will also need to coordinate the installation and approval of your System with the local code inspection authority (City of Maricopa or Pinal County).

DG System interconnections may require a System Engineering Analysis, the cost of which will be borne by the Customer. An initial System Engineering Analysis Fee of \$500 (five hundred dollars) will be required to begin the study. Any additional analysis costs will be billed to the Customer in advance and any unused amounts will be returned upon completion of the analysis.

## APPLICATION PROCESS

### To be Interconnected

If you are planning to interconnect your generator with the ED3 electric power distribution system, you will need to complete the ED3 “Application for Operation of Customer Owned Distributed Generation” form and submit it to ED3 for approval. You will also need to sign the ED3 “Agreement for Interconnection of Customer Owned Distributed Generation” form.

### NOT to be Interconnected

If your small DG System is NOT to be interconnected with ED3’s electric power system, you will need to contact ED3 and provide information including the electrical capacity, manufacturer and name of your electrical installer. ED3 may require you to send a copy of your manufacturer information and installation plans. There is no formal application or fee required, but you may use the ED3 “Application for Operation of Customer Owned Distributed Generation” form to provide information to ED3.

**The System must be completely isolated from the ED3 electric distribution system under all circumstances.**

## INTERCONNECTING TO THE ED3 DISTRIBUTION SYSTEM

ED3 will process, review and approve your application to ensure that ED3 personnel safety and ED3 electric system reliability will not be compromised. As part of ED3’s review of your “Application for Operation of Customer Owned Distributed Generation,” ED3 may request additional information regarding your planned installation and may require special steps to be taken during the installation process.

You may contact our office at any time during this review process to find out the status of your application. If your application is not approved, ED3 will explain the reason or be available to discuss your plans.

As part of our application review process, ED3 will examine the ability of the ED3 electric distribution system to accept your new power generation unit. On certain parts of our system, ED3 may need to replace existing equipment or add some new equipment in order to accommodate your System's generation.

If additional hardware is required, ED3 will not incur costs beyond what is normally required to operate and maintain its electrical system. Therefore, to be fair to other customers, you will be charged for any electrical system upgrades that will be needed to support the addition of your planned System.

If this is the case for your System installation, ED3 will advise you of the additional cost and seek your agreement before approving your application. You will also be asked to sign the "System Upgrade Estimate" and the "Agreement for Interconnection of Customer Owned Distributed Generation".

### ***Technical Requirements***

All DG Systems that will be interconnected with ED3 electric distribution system must meet the following requirements:

- Hardware should be UL approved (when available)
- System design for interconnection should meet the applicable standards set forth in Institute of Electrical and Electronics Engineers (IEEE) 1547 "Standard for Interconnecting Distributed Resources with Electric Power Systems"
- National Electrical Code (NEC)
- National Electric Safety Code (NESC)
- ED3 Electric Service Guidelines.

### ***Power Export to ED3***

If you interconnect your DG system to ED3 electrical grid, you may provide **excess** power that your system generates to ED3. Our current Program provides for the purchase of power from residential customers up to a maximum of 10 kW DC generation capacity and Small General Service customers up to 20 kW DC generation capacity. ED3 is not willing to wheel excess power for you to sell to other utilities.

**ED3 retains the right to refuse generation interconnection by any customer.**

### ***Inspections Required***

- City of Maricopa or Pinal County Electrical Inspection – when the system passes, the City or County will issue a Clearance for Connection of Solar System.
- ED3 Commissioning Inspection – Upon receipt by ED3 of the City or County Clearance, a Commissioning Inspection will be conducted by ED3 solely to verify the size of the system which was installed by the Customer's installation contractor. This is required by ED3 and upon verification of the system size; the ED3 electrical meter will be installed. This is the FINAL step required PRIOR to connecting the DG System to ED3's electrical grid.
- If the DG System is coupled with an energy storage system and both systems were installed at the same time, ED3 will allow for one City or County clearance covering both; however, there may be circumstances in which ED3 must require additional clearances for added systems.

**PLEASE NOTE:** ED3 is **not** responsible for the workmanship or materials of the Customer's installation contractor.

ED3 does **not** inspect the installation of the system on your roof.

ED3 inspects solely to verify the system size.

**PLEASE NOTE: CUSTOMER APPLICATIONS THAT ARE PLACED IN THE QUEUE ARE SUBJECT TO ALL REVISIONS AND CHANGES TO THIS PROGRAM DURING THEIR TIME IN THE QUEUE.**

**Submit your application to the ED3 Solar Coordinator:**

Address: Electrical District No. 3 of Pinal County (ED3)  
41630 W. Louis Johnson Drive  
Maricopa, AZ 85138-5402

Direct Line: (520) 316-6527

Fax: (520) 423-4949

E-mail: solar@ed-3.org

**AGREED TO BY:**

**DG OWNER / OPERATOR:**

Name:  
(Please Print) \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Email Address:  
(Required) \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# APPLICATION for Operation of Customer Owned Distributed Generation

REVISION NO.: 19

EFFECTIVE: 09/16/2019

SEE: GUIDELINES FOR CUSTOMER OWNED DISTRIBUTED GENERATION for additional information.

INFORMATION: *This Application is used by ED3 to determine the required equipment configuration for the Customer interface. Every effort should be made to supply as much information as possible.*

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**PART 1**

**SERVICE LOCATION**

Service Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Designated Meter Type / ED3 Rate: Standard / Residential

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**OWNER / APPLICANT INFORMATION**

Customer: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email Address (**Required**): \_\_\_\_\_

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**PROJECT DESIGN / ENGINEERING (ARCHITECT)** (as applicable)

Company: \_\_\_\_\_

ROC#: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

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**ELECTRICAL CONTRACTOR** (as applicable)

Company: \_\_\_\_\_

ROC#: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Representative: \_\_\_\_\_

**PART 2**

**ESTIMATED LOAD, GENERATOR RATING AND MODE OF OPERATION INFORMATION**

*(The following information will be used to help properly design the ED3 customer interconnection. This information is not intended as a commitment or contract for billing purposes.)*

Total Site Load (DC): \_\_\_\_\_ (kW)                      Inverter Rating (AC): \_\_\_\_\_ (kW)

Annual Estimated Generation: \_\_\_\_\_ (kWh)

**Mode of Operation**

Isolated: \_\_\_\_\_                      Interconnected Power Export: \_\_\_\_\_

**Module Info:**

Manufacturer \_\_\_\_\_                      Model # \_\_\_\_\_

DC W-STC Rating \_\_\_\_\_                      Number of Modules \_\_\_\_\_                      Listed to UL 1703?  Yes  No

**INVERTER / BATTERY #1 INFO:**

**INVERTER / BATTERY #2 INFO:**

Manufacturer: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Model #: \_\_\_\_\_

Model #: \_\_\_\_\_

Rated Voltage (Volts): \_\_\_\_\_

Rated Voltage (Volts): \_\_\_\_\_

Rated Power Factor (%): \_\_\_\_\_

Rated Power Factor (%): \_\_\_\_\_

Rated Amperes: \_\_\_\_\_

Rated Amperes: \_\_\_\_\_

UL Rating: \_\_\_\_\_

UL Rating: \_\_\_\_\_

Harmonic Distortion:

Harmonic Distortion:

Maximum Total Harmonic (%): \_\_\_\_\_

Maximum Total Harmonic (%): \_\_\_\_\_

Storage Capacity: \_\_\_\_\_ (kWh)

**NOTE:** Please attach a detailed one-line or three-line diagram of the proposed facility, all applicable elementary diagrams, major equipment (generators, transformers, inverters, circuit breakers, protective relays, etc.) In addition, include all specifications, such as AC disconnect and rating, breaker sizes, wire and inverter sizes, grounding, production meter socket (meter supplied by customer), and subpanel with load center breaker sizes, and/or any other applicable drawings or documents necessary for the proper design of the interconnection. An electrical note will be required for Current Transformers (CTs).

**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 operate the generator.

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**PART 3**

***The Customer agrees to provide ED3 with any additional information required to complete the Interconnection. The Customer shall operate his equipment within the Guidelines set forth by ED3.***

_____ Applicant Name – Please Print	_____ Signature
_____ Applicant Name – Please Print	_____ Signature
_____ Date	_____ Date

**PLEASE NOTE:** ED3 is **not** responsible for the workmanship or materials of the Customer’s installation contractor.

ED3 does **not** inspect the installation of the system on your roof.

**PLEASE NOTE: CUSTOMER APPLICATIONS THAT ARE PLACED IN THE QUEUE ARE SUBJECT TO ALL REVISIONS AND CHANGES TO THIS PROGRAM DURING THEIR TIME IN THE QUEUE.**

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**CONTACT OUR ED3 SOLAR COORDINATOR FOR APPLICATION SUBMISSION AND ADDITIONAL INFORMATION:**

**ADDRESS:** 41630 W. Louis Johnson Drive  
Maricopa, AZ 85138-5402

**DIRECT LINE:** (520) 316-6527

**FAX:** (520) 423-4949

**EMAIL:** solar@ed-3.org





# AGREEMENT FOR INTERCONNECTION of Customer Owned Distributed Generation

REVISION NO.: 13

EFFECTIVE: 06/12/2019

Date \_\_\_\_\_

This Agreement for Interconnection of Customer Owned Distributed Generation (“Agreement”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, by Electrical District No. 3 of Pinal County, Arizona, (“ED3”), a political subdivision of the State of Arizona, an electrical district organized under Chapter 12 of Title 48 of the Arizona Revised Statutes, and Customer (*please print name*)

\_\_\_\_\_, a Distributed Generation Owner / Operator (“DG Owner / Operator”), each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties”. In consideration of the mutual covenants set forth herein, the Parties agree as follows:

This Agreement provides for the safe and orderly operation of the electrical facilities interconnecting the DG Owner / Operator’s facility at service location stated below and the electrical distribution facility owned by ED3.

Service Location: \_\_\_\_\_

Type of Service:       Residential                      **OR**                       Small General Service

This Agreement does not supersede any requirements of any by-laws, applicable tariffs, rates, rules and regulations in place between the DG Owner / Operator and ED3.

1.      **Intent of Parties:** It is the intent of the DG Owner / Operator to interconnect a Customer Owned Distributed Generation (DG) System to ED3’s electrical grid in order to offset electric power supplied by ED3.

It is the intent of DG Owner / Operator to operate the DG facilities in a way that ensures the safety of the public and the ED3 personnel.

It is the intent of ED3 to operate the ED3 distribution system to maintain a high level of service to their customers and to maintain a high level of power quality.

2.      **Operating Authority:** The DG Owner / Operator is responsible for understanding operating procedures and standards for the Distributed Generation System. The DG Owner / Operator is responsible for operating and maintaining the generator facility in accordance with all applicable safety and electrical codes, applicable laws, and ED3 operational standards.

ED3 shall ensure that the DG Owner / Operator is aware of the provisions of any applicable ED3 operating procedures and regulations relating to the safe operation of the ED3 electrical power system.

The operating authority for the DG System is:

Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

3. **Suspension of Interconnection:** It is intended that the interconnection should not compromise ED3's protection or operational requirements. The operation of the DG Owner / Operator's System and the quality of electric energy supplied by DG Owner / Operator shall meet the standards as specified by ED3. If the operation of the DG Owner / Operator's system or quality of electric energy supplied (in the case of power export) does not meet the standards as specified, then ED3 will notify DG Owner / Operator to take reasonable and expedient corrective action. ED3 shall have the right to disconnect the DG Owner / Operator's System, until compliance is reasonably demonstrated. Notwithstanding, ED3 may in its sole discretion disconnect the DG Owner / Operator's generating plant from the Distribution Facility without notice if the operation of the generating plant imposes a threat, in the District's sole judgment, to life or property.
4. **Rates and Fees:** ED3's electricity rates and all other fees are subject to change. These changes may positively or negatively impact any potential economic attributes of your DG System. As is the case for all customers, the DG Owner / Operator is subject to any and all of these changes. **Any projections of the economic attributes of your system, regardless of the source, are not approved by or binding on ED3.**  

DG Owner / Operator Initials: \_\_\_\_\_
5. **Maintenance Outages:** Maintenance outages will occasionally be required on ED3's system, and the District will provide as much notice and planning as practical to minimize downtime. It is noted that in some emergency cases such notice may not be practical. Compensation will not be made for unavailability of ED3's facilities due to outages.
6. **Access:** Access is required at all times by ED3 to the DG Owner / Operator's plant site for maintenance, operating and meter reading. ED3 reserves the right, but not the obligation, to inspect the DG Owner / Operator's facilities.
7. **Liability and Indemnification:** DG Owner / Operator shall assume all liability for and shall indemnify ED3 for any claims, losses, costs, and expenses of any kind or character to the extent that they result from DG Owner / Operator's negligence or other wrongful conduct in connection with the design, construction or operation of DG Owner / Operator's facility.
8. **Term:** This document is intended to be valid for the period of time that the DG Owner / Operator's System is connected to ED3's distribution system. It may be canceled by either party with not less than thirty (30) days' notice to the other party. The DG Owner / Operator's System will be disconnected from ED3's system if the contract is canceled.
9. **Governing Law and Attorney's Fees:** This Agreement shall be governed by Arizona law and if any Party brings any action in respect to its rights under this Agreement, the prevailing Party shall be entitled to reasonable fees and court costs, as determined by the court.
10. **Assignment.** ED3 has to consent to the "Assignment" of this Agreement as a condition of its transfer to "Assignee"

**PLEASE NOTE:** ED3 is **not** responsible for the workmanship or materials of the Customer's installation contractor.  
ED3 does **not** inspect the installation of the system on your roof.

**PLEASE NOTE:** **CUSTOMER APPLICATIONS THAT ARE PLACED IN THE QUEUE ARE SUBJECT TO ALL REVISIONS AND CHANGES TO THIS PROGRAM DURING THEIR TIME IN THE QUEUE.**

**AGREED TO BY DG OWNER / OPERATOR:**

**ELECTRICAL DISTRICT NO. 3:**

Name: \_\_\_\_\_

Name: Michael Bristol

Address: \_\_\_\_\_

Address: 41630 W. Louis Johnson Drive

\_\_\_\_\_

Maricopa, AZ 85138-5402

Email Address (Required): \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Internal Distribution:      Engineering & Operations / Finance Dept. / Customer Service

# ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY



## RIDER NO. 08

### SOLAR PROGRAM – BUYBACK - RESIDENTIAL / SMALL GENERAL SERVICE

Page 1 of 1

REVISION NO.: 1

EFFECTIVE: 03/26/18

**PLEASE NOTE: CUSTOMER APPLICATIONS THAT ARE PLACED IN THE QUEUE ARE SUBJECT TO ALL REVISIONS AND CHANGES TO THIS PROGRAM DURING THEIR TIME IN THE QUEUE.**

#### Applicability

Program applies to Customer Owned Distributed Generation (“DG”) Systems with a DC electrical peak capability of ten kilowatts (10 kW) or less for Residential Service and twenty kilowatts (20 kW) or less for Small General Service. Limited to customers served by ED3, who purchase power and energy provided by ED3, and whose generation systems are qualified to deliver power and energy back to ED3.

An “Application for Operation of Customer Owned Distributed Generation” with the customer shall be required for service under this rider.

Distributed Generation Interconnections *may* require a System Engineering Analysis, the cost of which will be borne by the Customer. An initial System Engineering Analysis Fee of **\$500** (five hundred dollars) will be required to begin the study. Any additional analysis costs will be billed to the Customer in advance and any unused amounts will be returned upon completion of the analysis.

Prior to receiving service under this Rider, the customer will be required to sign the ED3 “Agreement for Interconnection of Customer Owned Distributed Generation”.

Service under this schedule is in accordance with the terms of ED3’s Electric Service Guidelines, including any amendments.

#### Conditions

1. The customer energy usage (kWh) will be netted with the DG kWh each month. If customer energy usage exceeds generation, the monthly net will be billed according to the applicable retail Residential or Small General Service rate. If generation exceeds customer usage, ED3 will pay the customer based on the ED3 avoided cost for energy<sup>1</sup> (for the monthly net energy amount).
2. Distributed Generation Fixed Cost Recovery (DGFCR) – A monthly surcharge will be applied based on the nameplate kW-DC power rating of the distributed generation facility. DG Systems require the use of multiple registers; therefore, the customer charge will be equivalent to those of Time of Use rates.
3. The customer shall pay ED3 for interconnection costs prior to commencement of service under this rider. Interconnection costs may include but are not limited to reasonable costs of connection, switching, relaying, metering, safety provisions, engineering studies and administrative costs incurred by ED3 directly related to the installation of the physical facilities necessary to permit interconnected operations. An estimate of these costs will be provided to the customer following their completed “Application for Operation of Customer Owned Distributed Generation”.
4. The customer is required to provide a meter socket for any additional meters. Typically, a meter is required for incoming service from ED3, and a meter is required for generated power from the DG System. At the discretion of ED3, if a single bi-directional meter is available that can record load and generation separately; a single meter may be used.

#### Green Credits

Title to and ownership of any and all environmental / green credits associated with Customer Owned Distributed Generation System shall pass from Customer to ED3 upon initiation of service and ED3 shall maintain title to and ownership of all such environmental / green credits, benefits, emissions reductions, offsets and allowances, howsoever entitled, attributable to the generation of energy from the DG System. The calculation, use and retirement of any and all environmental / green credits shall be in the sole and exclusive discretion of ED3. Any funds derived from these green credits will be added to the ED3 Solar program funds.

Customer Name: \_\_\_\_\_ Date: \_\_\_\_\_  
*Please Print*

Customer Signature: \_\_\_\_\_

<sup>1</sup> ED3 avoided energy costs will be periodically evaluated and the amount paid under this rider will change accordingly. The generation / purchased power cost component included in ED3’s retail rates can change based on actual costs incurred by ED3.



## Customer Owned Distributed Generation POLICY SUMMARY

**REVISION NO.: 7**

**EFFECTIVE: 03/26/18**

The Customer Owned Distributed Generation Policy serves to provide a framework for Residential and Small General Service Customers to establish on-site Distributed Generation (DG) Systems to be interconnected to the Electrical District No. 3 (ED3) Electrical Distribution System.

A Distributed Generation (DG) System, as defined for the purposes of this Policy, pertains to all applicable distributed energy resources and coupled power generating technologies with or without energy storage, whether or not the Systems are interconnected to ED3's electrical grid.

All District Policies are subject to revisions approved at a properly-noticed ED3 Board of Directors Meeting without prior notification to or written consent from the Customer.

All Customers may be subject to future rate changes in accordance with the terms and policies of ED3's Electric System Guidelines. These changes may positively or negatively impact any potential economic attributes of your DG System. As is the case for all Customers, the DG Owner / Operator is subject to any and all of these changes.

### **GENERATION CAPACITY STANDARDS LIMITS**

Minimum Size Limit:	1,000 Watts DC
Residential Interconnections Maximum Size Limit:	Ten kilowatts (10 kW) DC
Small General Service Interconnections Maximum Size Limit:	Twenty kilowatts (20 kW) DC

### **APPLICATION PROCESS**

#### **To Be Interconnected:**

Customers will need to complete the ED3 "Application for Operation of Customer Owned Distributed Generation" form, sign the "Agreement for Interconnection of Customer Owned Distributed Generation" form, the "Guidelines for Customer Owned Distributed Generation" form, and include their design package to interconnect a DG System with ED3's Electrical Distribution System. Customers shall submit all the documents for ED3's review and approval via email to [solar@ed-3.org](mailto:solar@ed-3.org).

ED3 must review all DG System Projects to ensure the safety of ED3 personnel and that ED3's Electrical System reliability will not be compromised.

To accommodate your DG System's generation, ED3 may need to replace existing equipment or add new equipment to the Electrical System. If additional equipment is required to specifically support the addition of your planned Project, ED3 will incur only the costs of what is normally required to operate and maintain the Electrical System to benefit all ED3 Customers, therefore, the DG Owner may be required to pay for any system upgrades that will be needed and will be required to sign a "System Upgrade Estimate."

## **NOT to be Interconnected:**

If your small DG System will NOT be interconnected to ED3's Electrical Distribution System, you will still need to contact ED3 and provide information including the electrical capacity, manufacturer and name of your electrical installer. Use the ED3 "Application for Operation of Customer Owned Distributed Generation" form to provide this information to ED3.

***The system must be completely isolated from the ED3 Electrical Distribution System under all circumstances.***

## **SYSTEM ENGINEERING ANALYSIS**

DG System Projects as defined herein may require a System Engineering Analysis. Upon review of the application documentation, it may be necessary for ED3 to examine the ability of the ED3 Electrical Distribution System to take on additional new power generation. Fees associated with this System Engineering Analysis and any costs incurred by ED3 for the addition or replacement of equipment in order to accommodate a DG System's generation will be borne by the Customer.

Fees are listed in the Electric Service Guidelines, Rules and Regulations, **Section 26 – Schedule of Charges and Fees**. All DG System Projects will be subject to requirements and any additional costs as identified in the System Engineering Analysis.

## **INSTALLATION, OPERATIONS AND MAINTENANCE AND OTHER TERMS**

The Customer's DG System must meet or exceed the requirements of the Institute of Electrical and Electronics Engineers Inc. (IEEE) "Standard for Interconnecting Distributed Resources with Electric Power Systems".

### **DG Customer MUST:**

- Adhere to the **technical requirements** listed in the "Guidelines for Customer Owned Distributed Generation."
- Follow the procedures to complete all Program agreements and forms.
- Be approved by ED3 **prior to any installation** or interconnection to ED3's Electrical Distribution System.
- Pay all deposits and fees associated with the cost of interconnection to ED3's Electrical Distribution System.
- Obtain all the applicable approvals and releases from either the City of Maricopa or Pinal County as applicable.
- Receive a Final Commissioning Inspection from ED3 **before** the System can be turned on.

## **OPERATING AUTHORITY**

The DG Owner / Operator is responsible for understanding the operating procedures and standards for their DG System. The DG Owner / Operator is responsible for operating and maintaining the generator facility in accordance with all applicable safety and electrical codes, applicable laws, and ED3 operational standards.

ED3 policy does not supersede any requirements of any by-laws, applicable tariffs, rates, rules and regulations in place between the DG Owner / Operator and ED3. It provides for the safe and orderly operation of the electrical facilities interconnecting the Electrical Distribution facility owned by ED3 to the DG Owner / Operator's DG System at the service location as identified in the "Application for Operation of Customer Owned Distributed Generation" and all associated documentation.

It is the intent of the DG Owner / Operator to interconnect a Distributed Generation System to ED3's Electrical grid in order to offset electric power supplied by ED3. It is the intent of ED3 to operate its Electrical Distribution System to maintain a high level of service and power quality to all Customers. It is the intent of the DG Owner / Operator and ED3 to operate their DG facilities in a way that ensures the safety of the public and ED3 personnel.

## **SUSPENSION OF INTERCONNECTION**

It is intended that the DG System's interconnection should not compromise ED3's protection or operational requirements. The operation of the Customer's System and the quality of electric energy supplied shall meet all standards as specified by ED3.

If the operation of the DG System or quality of electric energy supplied (in the case of power export) does not meet the standards as specified, then ED3 will notify the DG Owner / Operator to take reasonable and expedient corrective action. ED3 shall have the right to disconnect the DG System from its Electrical Distribution System until such compliance is reasonably demonstrated. Notwithstanding, ED3 in its sole discretion may disconnect any DG System from the ED3 Distribution System without notice if the operation of the DG System imposes a threat to life or property.

## **MAINTENANCE OUTAGES**

Maintenance outages will occasionally be required on ED3's Electrical Distribution System, and ED3 will provide as much notice and planning as practical to minimize downtime. It is noted that in some emergency cases such notice may not be practical. Compensation will not be made for the unavailability of ED3's facilities due to outages.

## **ACCESS**

Access is required at all times by ED3 to the Customer Owned DG System for maintenance, operating, and meter reading. ED3 reserves the right, but not the obligation, to inspect the DG Owner / Operator's facilities.

## **LIABILITY AND INDEMNIFICATION**

The DG Owner / Operator shall assume all liability for and shall indemnify ED3 for any claims, losses, costs, and expenses of any kind or character to the extent that they result from the DG Owner / Operator's negligence or other wrongful conduct in connection with the design, construction, or operation of the Customer's DG System.

## **TERM**

The policies in this Summary are intended to be valid for the period of time that the Customer Owned DG System is connected to ED3's Electrical Distribution System. It may be cancelled by either party with not less than thirty (30) days' notice to the other party. The DG System ***must*** be disconnected from ED3's Electrical Distribution System if the contract is cancelled and an ED3 Site Inspection ***will*** be mandatory upon removal of the DG System. Please contact ED3's Solar Department at (520) 424-0418 to schedule an inspection following the removal of the DG System. Fees for this service are listed in ED3's Electric Service Guidelines, Rules and Regulations – ***Section 26 – Schedule of Charges and Fees.***

## **GOVERNING LAW AND ATTORNEY'S FEES**

ED3's Customer Owned Distributed Generation Policy shall be governed by Arizona law and if any party brings any action in respect to its rights under this policy, the prevailing party shall be entitled to reasonable fees and court costs, as determined by the court.

## **BILLING, GREEN CREDITS AND OTHER CONDITIONS**

Under the current **Rider No. 8**, Customer energy usage (kWh) will be netted with the Customer Distributed Generation kWh each month. If Customer energy usage exceeds generation, the monthly net will be billed according to the applicable retail Residential or Small General Service rate. If generation exceeds Customer usage, ED3 will pay the Customer based on the ED3 avoided cost for energy<sup>1</sup> (for the monthly net energy amount).

Under Closed Rider Nos. 3 and 4, Customer energy usage (kWh) will be netted with the Customer's Distributed Generation kWh each month. If Customer energy usage exceeds generation, the monthly net will be billed according to the applicable retail Residential and Small General Service rate. If the Customer's generation exceeds the energy usage, a kWh credit will be carried forward to apply to future month's usage. If the Customer disconnects the DG System, the excess generation credit kWh remaining will be paid to the Customer at the avoided cost of energy rate in effect at the time.

The Distributed Generation Fixed Cost Recovery (DGFCR) monthly surcharge will be applied based on the nameplate kW-DC power rating of the distributed generation facility. DG Systems require the use of multiple registers, therefore, the Customer charge will be equivalent to those of Time of Use rates.

Title to and ownership of any and all environmental / green credits associated with the Customer Owned DG System shall pass from the Customer to ED3 upon initiation of service and ED3 shall maintain title to and ownership of all such environmental / green credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation of energy from the DG System. The calculation, use, and retirement of any and all environmental / green credits shall be in the sole and exclusive discretion of ED3. Any funds derived from these green credits will be added to the ED3 Solar Program funds.

All Customers may be subject to future rate changes in accordance with the terms and policies of ED3's Electric Service Guidelines.

## **POWER EXPORT TO ED3**

Customers interconnected to ED3's Electrical Distribution System will provide all of the excess power that the DG System generates to ED3. ED3 is not willing to wheel excess power for the Customer to sell to other utilities and retains the right to refuse DG System interconnection to any Customer.

## **REMOVAL OR RELOCATION OF A CUSTOMER OWNED DG SYSTEM**

The DG System's current Rider will remain effective regardless of ownership or location. Through ED3's application, approval, and inspection process, these Systems can be moved from one location to another at the sole expense of the Customer.

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<sup>1</sup> ED3 avoided energy costs will be periodically evaluated and the amount paid under this rider will change accordingly. The generation / purchased power cost component included in ED3's retail rates can change based on actual costs incurred by ED3.

Removal of any DG System will be subject to an ED3 Site Inspection designed to verify and ensure safe removal of the System. The fee for this service is listed in ED3's Electric Service Guidelines, Rules and Regulations – **Section 26 – Schedule of Charges and Fees**.

## **TRANSFER OF OWNERSHIP ASSIGNMENT**

By establishing and turning on electrical services for an existing DG System location, the new DG Owner / Operator, as described herein will **assume** and **agree** to the terms, regulations and policies of the ED3 "Agreement for Interconnection of Customer Owned Distributed Generation" and in addition, to the associated Rider and rates effective on the Interconnection Date of the DG System. The operation of the DG System and the quality of electric energy supplied shall meet all standards as specified by ED3. The DG Owner / Operator is responsible for operating and maintaining the generator facility in accordance with all applicable safety and electrical codes, applicable laws, and ED3 operational standards. Liability and Indemnification of ED3 as described herein the Policy shall also apply. Please contact the Solar Department at (520) 424-0418 for a copy of the Agreement, the appropriate Rider, and rate description applicable to your DG System.

Customers who purchase a home from a builder with a DG System within the ED3 service territory will need to complete the ED3 "Application for Operation of Customer Owned Distributed Generation" form for ED3's review and approval, and schedule a transfer of service by calling ED3's Solar Department at (520) 424-0418. **ED3 may disconnect service should this process fail to be completed.**

## **UPGRADING A DG SYSTEM**

Customers who wish to increase the size of an existing DG System will be required to complete the ED3 "Application for Operation of Customer Owned Distributed Generation" form and submit all appropriate documentation for ED3's review and approval.

The existing system size including the increased kilowatts cannot exceed the Residential Interconnection Maximum Limit of ten kilowatts (10 kW) DC or the Small General Service Interconnection Maximum Limit of twenty kilowatts (20 kW) DC.

The Rider effective at the time of the original interconnection of the DG System will remain effective regardless of any System upgrades. However, all costs associated with a System upgrade or costs ED3 will incur to support the addition of a planned DG System shall be borne by the Customer.

**NOTE:** Clearance from the City or County is required **before** the Final ED3 Commissioning Inspection can be scheduled.

## **METERING**

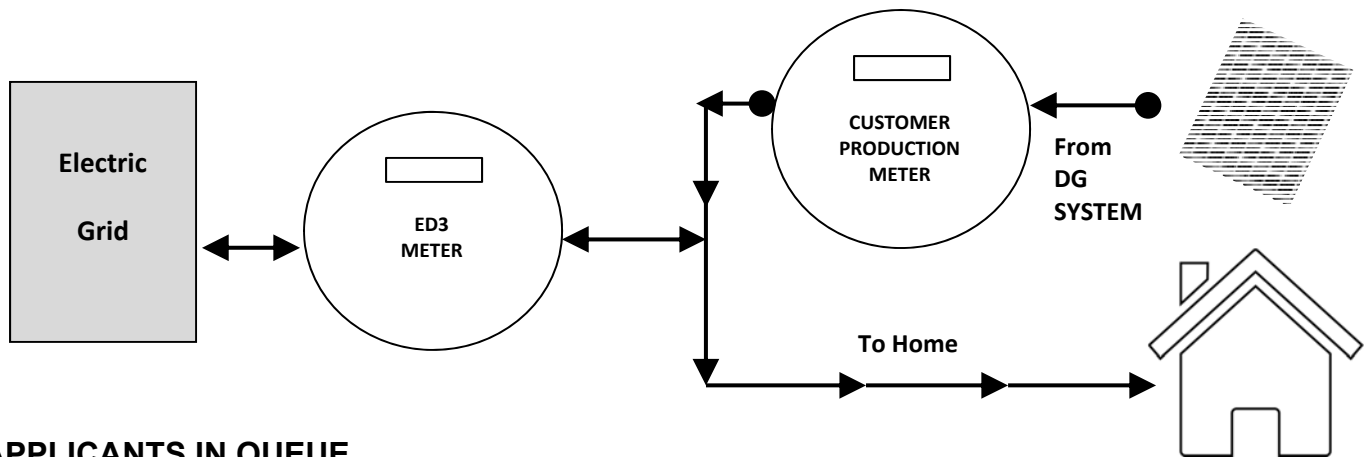
The Customer's production meter reads energy generated by their DG System.

ED3's meter reads energy delivered from the electric grid and any energy delivered onto the electric grid from the DG System.

ED3's meter does **NOT** read energy generated by the DG System that is used by the Customer's home or business.



## METERING METHOD



## APPLICANTS IN QUEUE

DG applications are limited to thirty (30) per month on a first-come, first-served basis. Any additional applications received will be placed in the Queue to be approved the following month.

NOTE: Customer applications that are placed in the Queue are subject to all revisions and changes made to this Program during the Customer's time in the Queue.

## PROGRAM FORMS

The following Forms are subject to revisions in accordance with the terms of ED3's Electrical Service Guidelines. Completion of all Forms and approvals **are required** to participate in the ED3 Customer Owned Distributed Generation Program.

- ✓ Distributed Generation Interconnection Process Overview for Residential and Small General Service
- ✓ Customer Owned Distributed Generation Checklist
- ✓ Guidelines for Customer Owned Distributed Generation
- ✓ Application for Operation of Customer Owned Distributed Generation
- ✓ Agreement for Interconnection of Customer Owned Distributed Generation
- ✓ Rider No. 8 – Solar Program – *Buyback* – Residential / Small General Service

ED3 is **NOT** responsible for:

- The maintenance of the Customer's actual DG System, nor does ED3 provide an inspection of the system installed on the Customer's property by their Contractor.
- The workmanship or materials of the Customer's Installation Contractor.
- The financial arrangements made between the Customer and the Customer's Contractor.
- Any projections of the economic attributes of the DG System, regardless of the source, are **not** approved or binding on ED3.