

### **Distributed Generation Policy**



#### **DISTRIBUTED GENERATION POLICY**

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# DISTRIBUTED GENERATION POLICY FOREWORD

Diverse Power Inc. (herein after referred to as "Diverse Power" or the "Cooperative") seeks to provide its members with the best electric service possible, and at the lowest cost consistent with sound economy and good management. In some cases, Cooperative members may become interested in installing their own electric power generation equipment. In these cases, Diverse Power stands ready to work with its members to ensure that their generation equipment is installed in a proper and safe manner, and in accordance with all applicable codes, standards, regulations, laws and insurance requirements. In most of these cases, members will need to coordinate the installation and approval of their electric power generator with the local code inspection authority.

#### **OBJECTIVES**

This policy outlines the minimum requirements, from the system protection and operations perspective, for the connection of a member's generator to Diverse Power's distribution system. Such generators can be described by several different names such as distribution generator (DG), independent power producer (IPP), co-generator, or peak shaver. Diverse Power will refer to all these as Distributed Generation (DG). DG as described in this policy is a source of electric power that is not directly connected to a bulk power transmission system, but is connected to the distribution system. DG includes rotating generators driven by steam turbine, internal combustion engines, hydro electric, windmills and photovoltaic panels (PV) with DC to AC inverter and energy storage technologies.

This policy is applicable only to distributed generation facilities defined herein. The interconnection of other DG to Diverse Power's distribution system will be addressed with each member on a case-by-case basis. This policy is not applicable to generation intended strictly for emergency backups, open transfer peak shaving, or any other stand-alone operations where DG is never tied directly with Diverse Power's distribution system.

This Distributed Generation Policy establishes the terms and conditions for the interconnection of distributed generation facilities and for providing net energy metering services.

#### A. Definitions

The following words and terms shall have the following meanings unless the context clearly indicates otherwise:

"Billing period" means, as to a particular customer, the time period between the dates on which the Cooperative normally reads the retail service meter for billing purposes.

"Bi-directional meter" is a meter capable of measuring (but not necessarily displaying) electricity flow in both directions.

"Bi-directional metering" means measuring the amount of electricity supplied by the Cooperative and the amount of electricity fed back to the Cooperative by the customer's distributed generation facility using a single meter.

"Customer" means a member of Diverse Power.

"Customer Generator" means a customer who is the owner and operator of a distributed generation facility.

- 6. "**Distributed generation facility**" means a facility owned and operated by a customer of the Cooperative for the production of electrical energy that:
- a. Uses a fuel cell or a renewable energy source;
- b. Has peak generating capacity of not more than 10 kW for a residential application and 100 kW for a commercial application:
- c. Is located on the customer's premises;
- d. Operates in parallel with the Cooperative's distribution facilities;
- e. Is connected to the Cooperative's distribution system on either side of the Cooperative's retail service meter: and
- f. Is intended primarily to offset part or all of the customer generator's requirements for electricity.
  - 7. "Excess net energy" is the positive difference between the electricity generated by the customer's distributed generation facility and the electricity consumed by the Customer Generator during the billing period.
  - 8. "Net metering customer" means a Customer Generator receiving net metering service.
  - 9. "**Net metering**" means measuring the difference, over the billing period, between electricity supplied to a Customer Generator from the electric grid and the electricity generated and fed into the electric grid by the Customer Generator, using a bi-directional meter or an additional single direction meter.
  - "Renewable energy sources" means energy supplied from technologies such as a solar photovoltaic system, wind turbine, biomass system, or other technologies approved in the Georgia Green Pricing Accreditation Program.

#### **B. Application Process**

A prospective Customer Generator that intends to interconnect with the Cooperative's distribution system must:

- (1) Submit a completed Application for Interconnection of Distributed Generation Facility (see Appendix A), including all attachments thereto, accompanied by payment of a \$100.00 application fee to the Cooperative at least forty-five (45) days prior to the date the customer intends to interconnect the distributed generation facility to the Cooperative's electric distribution facilities;
- (2) A representative from Diverse Power will review the Application and notify the prospective customer generator within thirty (30) days if the Application is approved or not approved. Any review or acceptance of the Application by the Cooperative shall not impose any liability on the Cooperative and does not guarantee the adequacy of the customer generator's equipment to perform its intended function. The Cooperative disclaims any expertise or special knowledge relating to the design or performance of the customer's distributed generation facility and does not warrant the efficiency, cost-effectiveness, safety, durability, or reliability of that distributed generation facility.

#### C. Requirements for Initial Interconnection

- 1. A Customer Generator may begin operation of his distributed generation facility on an interconnected basis when:
- a. The Application Process set forth in Section B above has been completed;
- b. The customer has executed the Distributed Generation Facility Interconnection Agreement with the Cooperative and is in compliance with all requirements set forth therein, including all applicable safety, power quality, and interconnection requirements established by the National Electric Code, National Electric Safety Code, the Institute of Electrical and Electronic Engineers, and Underwriters Laboratories. The Cooperative may adopt additional safety, power quality, and interconnection requirements.
- c. The Customer Generator has paid to the Cooperative all applicable charges and fees set forth in the Distributed Generation Facility Interconnection Agreement.

- d. The Customer Generator has made all payments required by and has otherwise complied with the conditions for extension or modification of the Cooperative's distribution system as may be determined herein and as set forth in the Cooperative's service rules and regulations.
- e. The Customer Generator has submitted to the Cooperative a copy of the final, signed, jurisdictional approval (Permit) for the customer's distributed generation facility from local government entity with jurisdiction over the customer's distributed generation facility (generally the local building and inspection department).
- f. The Cooperative has provided the Customer Generator with written authorization to begin parallel operation of his distributed generation facility.

#### D. Net Metering

The Cooperative will use either a single-directional or bi-directional meter depending upon how the distributed generation facility is connected to the distribution system. If the distributed generation facility is connected to the distribution system on the Customer Generator's side of the retail service meter, the Cooperative will use a bi-directional meter for net metering. If the distributed generation facility is connected to the distribution system on the Cooperative's side of the retail service meter, the Cooperative will install an additional single directional meter for net metering at the member's expense.

#### E. Obligations to Purchase Excess Net Energy

When the electricity generated by the Customer Generator's distributed generation facility exceeds the electricity supplied by the Cooperative during the billing period, the Customer Generator shall receive payment for the excess net energy pursuant to the Cooperative's Net Metering Service, Rider NM-1. However, the Cooperative will only be required to purchase such energy from Customer Generators on a first-come, first-served basis until the cumulative generating capacity of all the Customer Generators' renewable energy resources equals 0.2 percent of the Cooperative's annual peak demand in the previous year.

#### F. Charges for Interconnection And Net Metering

The Customer Generator shall be responsible for all costs of installing, operating and maintaining protective equipment and/or electrical facilities required to interconnect with the Cooperative's distribution system. The Customer Generator shall be charged for the direct cost incurred by the Cooperative as a result of the interconnection and for providing net metering service. Said charges will be determined in accordance with the Cooperative's Net Metering Service, Rider NM-1.

### Distributed Generation Policy

#### Appendix A

# APPLICATION FOR INTERCONNECTION OF DISTRIBUTED GENERATION FACILITY



#### **Application for Interconnection of Distributed Generation Facility**

This application should be completed and returned to the Cooperative Customer Service representative at least forty-five (45) days prior to the customer's proposed interconnection date in order to begin processing the request. Customers must not operate their distributed generation facilities in parallel with Diverse Power's distribution system until they have received written authorization for parallel operation from Diverse Power. Unauthorized parallel operation of customer's distributed generation facilities could result in injury to persons and/or damage to equipment or property.

\*

CUSTOMER/APPLICAN	IT INFORMATION		
Customer/Applicant Na	me:		
Mailing Address:			
City:	County:	State:	Zip Code:
Phone Number:		Representative:	
Email Address:	·	Fax Number	:
<b>ELECTRICAL CONTRA</b>	CTOR		
Company:			
Mailing Address:			
City:	County:	State:	Zip Code:
Phone Number:		Representa	ative:
Email Address:		Fax Numbe	er:
SEC	TION 2 - GENERAT	ING FACILITY INFO	<u>ORMATION</u>
Generator Type (Che	eck One) Photovolt	aic, Wind, I	Fuel Cell, Hydro
Other			
Generator Manufacture	ər:		
Generator Model Nam	e & Number:		
Generator Power Ratir	ng (KW):		
Disconnect Switch Ma	nufacturer / Model N	lumber:	
	ting (A):		
Disconnect Switch Rat	ung (A)		
Disconnect Switch Rat		DATA (if applicable)	
Disconnect Switch Rat  Manufacturer:	INVERTER D	DATA (if applicable)	
	INVERTER D	DATA (if applicable)Model	:
Manufacturer:	INVERTER D	DATA (if applicable)Model tage (Volts):	l: Rated Amperes:
Manufacturer:Rated Power Factor (%):	INVERTER DE LE	DATA (if applicable)Model tage (Volts):	: Rated Amperes:
Manufacturer:Rated Power Factor (%):	:Rated Volt	Model tage (Volts): th modulation, etc): utation: forced line	l: Rated Amperes:

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

#### SECTION 3 - ONE-LINE DIAGRAM AND ADDITIONAL INFORMATION

In addition to the items listed above, please attach <u>a detailed one-line diagram of the proposed facility</u>, 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 interconnection. Also describe the project's planned operating mode (e.g., combined heat and power, peak shaving, etc.).

	SECTION 4 - INSTALLATION INFORMATION
Installation Date:	Proposed Interconnection Date
	AGREE AND ACCEPT
• • • • • • • • • • • • • • • • • • • •	de the Cooperative with any additional information required to complete the omer shall operate his equipment within the guidelines set forth by the Cooperative.
	VE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE
	Cooperative contact: Scott Sawyer
Т	itle: Residential Marketing Services Coordinator
	Address: 1400 South Davis Rd.
	LaGrange, GA 30240
	Phone: 706-298-0808 Fax: 706-298-0809
	E-mail: pv_program@diversepower.com



## **Distributed Generation Policy**

Appendix B

# DISTRIBUTED GENERATION FACILITY INTERCONNECTION AGREEMENT

#### DISTRIBUTED GENERATION FACILITY INTERCONNECTION AGREEMENT

This Agreement ma	de	, 20, between Diverse Po	wer Inc.
(hereinafter	called	"Cooperative"),	and
<u> </u>		loca	ated at
		(hereinaf	ter called
the "Customer Generat	or"),	,	

#### WITNESSETH:

WHEREAS, the Cooperative is an electric membership corporation providing retail electric service; and

WHEREAS, the Customer Generator is a member of the Cooperative; and

WHEREAS, the Customer Generator desires to install, own, operate and maintain a distributed generation facility as defined in the Cooperative's Distributed Generation Policy; and

WHEREAS, the Customer Generator desires to interconnect with the Cooperative's electric distribution system (hereinafter called "System") of the Cooperative and has complied with the provisions for interconnection contained in the Cooperative's Distributed Generation Policy; and

WHEREAS, the Customer Generator desires to operate its generation equipment in parallel with the Cooperative's System.

NOW THEREFORE, it is understood and agreed that the Cooperative shall permit the Customer Generator to connect its generation system to the System and to operate its generation equipment in parallel with the System subject to the following terms and conditions:

#### 1. COST OF INTERCONNECTION AND PROTECTIVE EQUIPMENT:

The Customer Generator shall be responsible for all costs of installing, testing, operating and maintaining protective equipment and/or electrical facilities required to interconnect the Customer's generation equipment with the System and for providing net metering service.

#### 2. OPERATING LIMITS:

Operation of Customer Generator-owned parallel generating equipment shall not compromise the quality of electric service to other members on the System. The Customer Generator's parallel generating equipment shall meet the following minimum requirements:

#### a) Voltage

The Customer Generator shall be capable of operating its generating equipment at a voltage level of plus/minus 6% of nominal system voltage. Utility grade negative sequence/under-voltage relaying shall be used to trip the equipment off the line for negative excursions exceeding 8.25% of nominal for a maximum duration of six electrical cycles. Positive excursions exceeding 10% of nominal voltage shall cause the equipment to trip off line. Voltage regulating equipment shall maintain stable excitation levels with negligible hunting (less than 2% of nominal phase current).

#### **Flicker**

Parallel operation of the generating equipment shall not cause voltage flicker in excess of 2% of nominal line voltage as measured at the primary terminals of the Customer Generator's generator interface transformer.

#### **Frequency**

While operating in parallel with the System, the Customer Generator must provide a utility grade precision over/under frequency relay calibrated to trip for frequency excursions exceeding plus/minus 0.25 Hz for greater than 10 electrical cycles on a 60 Hz base.

#### Power Factor

Customer Generator-owned generation shall employ automatic means of reactive power regulation while operating in parallel with the System. The Customer Generator's generating equipment shall be capable of operation within the range of 0.8 lagging to 0.8 leading power factor as required by the Cooperative.

#### Harmonics

Total current harmonic distortion shall not exceed 5.0%. Total voltage harmonic distortion shall not exceed 5.0%, with a limit of 3.0% on any individual harmonic. Special consideration will be given to regenerative drive systems and invertors reviewed on an individual case-by-case basis.

#### Stability

While operating in parallel with the System, the Customer Generator's generating equipment shall maintain a stable output level with no noticeable hunting exhibited. In the event a system instability condition arises due to Customer Generator-owned generation, it is the Customer Generator's responsibility to take measures to rectify the source of instability.

#### 3. GENERATOR INTERFACE TRANSFORMER:

The generator interface transformer is intended to provide isolation of the Customer Generator's generating equipment from the System. The inherent impedance of the transformer will minimize the impact on the System due to faults originating at the Customer Generator's generation equipment. This transformer may consist of an existing transformer serving the Customer Generator's loads or a dedicated transformer dictated by generator or prevailing system characteristics. The Cooperative determines interface transformer specifications and the determination of ownership of said transformer shall be at the Cooperative's option.

#### 4. GENERATOR PARALLELING BREAKER:

It is required that a generator-paralleling breaker be of draw-out construction, electrically operated, and rated as a five electrical cycle device for fault clearing or tripping.

#### 5. SYNCHRONIZATION:

It is the Customer Generator's responsibility to provide proper synchronizing of its parallel generating equipment. The Cooperative assumes no liability for any Customer Generator-owned generation and assumes that the Customer Generator operates its equipment at its own risk. Synchronizing equipment shall be capable of matching frequency within plus/minus 0.05 Hz and plus/minus 10 electrical degrees phase angle prior to paralleling breaker closure. Voltage shall be matched within plus/minus 4%.

#### 6. SAFETY:

Operation of Customer Generator-owned generation equipment shall not present a safety hazard to the Cooperative employees or other members connected to the System or the public at large. Under no circumstances shall the Customer Generator-owned generation be used or be capable of energizing a dead System circuit. A positive means of disconnecting and locking out the Customer Generator-owned generation equipment with visible air-gap shall be provided to insure safety of Cooperative operating personnel during line maintenance. This disconnecting means may be via a lockable air-break disconnect or by a lockable drawout circuit breaker. Islanding of the Customer Generator-owned generation (a situation whereby the Customer Generator's loads and generation remains connected to the bus) shall be prevented by protective relaying specified by the Cooperative based on individual review of the Customer Generator's proposed generating system.

It is not the intent of this document to specify protection of the Customer Generator's generator. Protection of the Customer Generator's generating equipment is the responsibility of the Customer Generator and the Cooperative assumes no liability for damage or failure of the Customer Generator's generation equipment. The Customer Generator must provide verification that a qualified independent electrical engineer licensed to practice in Georgia has certified that the required manual disconnect switch has been installed properly; that the distributed generation facility has been installed in accordance with the manufacturer's specifications; and that the installation meets all applicable safety, power quality, and interconnection requirements established by the National Electrical Code, the National Electrical Safety Code and the Institute of Electrical and Electronics Engineers; The Customer Generator must provide verification that the vendor has certified that the distributed generation facility which has been installed is in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories; Prior to the initial interconnection of the Customer Generators' distributed generation facility to the Cooperative's distribution system, the Customer Generator will submit to the Cooperative a copy of the signed jurisdictional approval (PERMIT) for Customer Generator's distributed generation facility from the local government entity with jurisdiction over the Customer Generator's distributed generation facility (generally the local building and inspections department).

In the case of static inverter-connected renewable fuel generators with an alternating current capacity in excess of 10 kilowatts, the Customer Generator must have the inverter settings inspected by the Cooperative. The Cooperative may impose a fee on the Customer Generator of no more than \$50 for such inspection:

#### 7. LIMITATION OF LIABILITY AND INDEMNIFICATION

Notwithstanding any other provision in this Agreement, with respect to the Cooperative's provision of electric service to Customer Generator and the services provided by the Cooperative pursuant to this Agreement, the Cooperative's liability to Customer Generator shall be limited as set forth in accordance with this paragraph

The Cooperative and Customer Generator shall each be responsible for the safe installation, maintenance, repair and condition of their respective lines, wires, switches, or other equipment or property on their respective sides of the point where the electric energy first leaves the wires or facilities owned by the Cooperative and enters the wires or facilities provided by the Customer Generator (the "Point of Interconnection"). The Cooperative does not assume any duty of inspecting the Customer Generator's lines, wires, switches, or other equipment or property. The Customer Generator assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith, at or beyond the Point of Interconnection

#### 8. INSURANCE:

The Customer Generator agrees to take out and maintain throughout the term of this Agreement adequate liability insurance and, if applicable, worker's compensation and employer's liability, as required by law, covering all the Customer Generator's employees or representatives who perform any obligations of the Customer Generator set forth herein.

a.The Cooperative shall be named as an Additional Insured on all the Customer Generator's policies of insurance. A current certification of the Customer Generator's insurance policies with the Cooperative being named as an Additional Insured must be on file with the Cooperative at all times. The policies of insurance shall be in such form and issued by such insurer as shall be satisfactory to the Cooperative. The Customer Generator shall furnish the Cooperative a certificate evidencing compliance with the foregoing requirements within the first 30 days of each insurance policy renewal term, and shall provide not less than 30 days prior written notice to the Cooperative of any cancellation or material change in the insurance

b. A current certification of the Customer Generator's insurance policies with the Cooperative being named as an Additional Insured must be on file with the Cooperative at all times. The policies of insurance shall be in such form and issued by such insurer as shall be satisfactory to the Cooperative. The Customer Generator shall furnish the Cooperative a certificate evidencing compliance with the foregoing requirements within the first 30 days of each insurance policy renewal term, and shall provide not less than 30 days prior written notice to the Cooperative of any cancellation or material change in the insurance

#### 9. TESTING

The Customer Generator shall retain a qualified independent electrical engineer licensed to practice in Georgia to maintain and annually test system protective relaying for the Customer Generator's generating equipment. Upon demand, the Customer Generator shall produce records of testing and relay setting sheets for review by the Cooperative.

The Customer Generator shall verify proper tripping and lockout of the generator system for all defined faults as determined by the Cooperative during final review of system relay requirements. Failure to maintain records will be grounds for refusal of permission to operate parallel generating equipment. Under no circumstances shall parallel generating equipment be operated with inoperative or defective protective relays. The Cooperative at the expense of the Customer Generator will perform testing and maintenance of the inter-tie package

#### 10. ACCESS:

The Cooperative shall have access at all times to the Customer Generator's premises for the purpose of metering reading and performing operations and maintenance activities. The Cooperative reserves the right, but not the obligation, to inspect the Customer Generator's distributed generation facility.

#### 11. COMPLIANCE PROCEDURE:

The Cooperative reserves the right to automatically or manually disconnect the Customer Generator's distributed generation facility without prior notice whenever, at the Cooperative's sole discretion, the Customer Generator is deemed by the Cooperative to not be in compliance with the minimum interconnection requirements as specified via this Agreement. The interconnection will remain open until corrective action is taken and suitable testing is completed.

#### 12. INTERCONNECTION AND NET METERING CHARGES:

The Cooperative shall install, own and operate metering equipment that it deems necessary to permit an accurate determination of the quantity of energy delivered by the Cooperative to the Customer Generator and the quantity of energy generated and delivered by the Customer Generator to the Cooperative's distribution system. The Customer Generator shall pay the Cooperative for the costs incurred by the Cooperative to provide the interconnection of the Customer Generator's distributed generation facility to the Cooperative's distribution system and to provide net metering service, in accordance with the rates, terms and conditions of the Cooperative's Net Metering Service Rider NM-1 attached to and made a part of this Agreement.

#### 13. TERM:

This Agreement shall become effective on the date first above written and shall remain in effect until terminated by either party giving to the other thirty (30) days' written notice; provided, however, the Cooperative may also terminate this Agreement by giving thirty (30) days' written notice to the Customer Generator upon any breach of this Agreement by the Customer Generator or upon failure of the Customer Generator's distributed generation facility to generate energy in parallel with the Cooperative's distribution system for six (6) consecutive months

IN WITNESS parties hereto have Agreement all as of the day and year f		WHEREOF, the executed this
ATTEST	l:	
Diverse Power,		Inc.
	By:	
	Title	
ATTEST	:	
	Customer Generator	
	By:	
	Title	



# Distributed Generation Policy

# Appendix C NET METERING SERVICE RIDER NM-1

# NET METERING SERVICE RIDER NM-1

#### A. PURPOSE

The purpose of this Rider is to establish the methods and procedures for determining credits, payments, and charges applicable to members of the Cooperative who own and operate a distributed generation facility as defined in the Cooperative's Distributed Generation Policy.

#### **B. APPLICABILITY**

This Rider applies to any member of the Cooperative owning and operating a distributed generation facility as defined in the Cooperative's Distributed Generation Policy. The capacity of a distributed generation facilities used by residential customers shall not exceed 10 kW and the capacity of a distributed generation facility used by a commercial customer shall not exceed 100 kW.

#### C. DEFINITIONS

The following words and terms shall have the following meanings unless the context clearly indicates otherwise:

- 1. "Billing period" means, as to a particular customer, the time period between the dates on which the Cooperative normally reads the retail service meter for billing purposes.
- 2. "Bi-directional meter" is a meter capable of measuring (but not necessarily displaying) electricity flow in both directions.
- 3. "Bi-directional metering" means measuring the amount of electricity supplied by the Cooperative and the amount of electricity fed back to the Cooperative by the customer's distributed generation facility using a single meter.
  - 4. "Customer" means a member of Diverse Power Inc.
  - 5. "Customer Generator" means the owner and operator of a distributed generation facility.
  - 6. "Distributed generation facility" means a facility owned and operated by a customer of the Cooperative for the production of electrical energy that:
    - a. Uses a fuel cell, or a renewable energy source;
    - b. Has peak generating capacity of not more than 10 kW for a residential application and 100 kW for a commercial application;
    - c. Is located on the customer's premises;
    - d. Operates in parallel with the Cooperative's distribution facilities;
    - e. Is connected to the Cooperative's distribution system on either side of the Cooperative's retail service meter; and
    - f. Is intended primarily to offset part or all of the customer generator's requirements for electricity.
- 7. "Excess net energy" is the positive difference between the electricity generated by the customer's distributed generation facility and the electricity consumed by the Customer Generator during the billing period.
- 8. "Fixed charge rate" shall be a percentage factor that includes components for the recovery of operations and maintenance expense, administrative and general expense, taxes, depreciation and the cost of capital which are all associated with owning and operating the utility plant necessary for interconnection and for the provision of net Metering pursuant to this Rider. The fixed charge rate may be modified at any time by the Cooperative to reflect prevailing costs

- 9. "Net metering customer" means a Customer Generator receiving net metering service.
- 10. "Net metering" means measuring the difference, over the billing period, between electricity supplied to a Customer Generator from the electric grid and the electricity generated and fed into the electric grid by the Customer Generator, using a single bi-directional meter or an additional single direction meter.
- 11. "Renewable energy sources" means energy supplied from technologies as a solar photovoltaic system, wind turbine, biomass system, or other technologies approved in the Georgia Green Pricing Accreditation Program.

#### D. CONDITIONS OF SERVICE

The Generator Customer must have met all of the conditions of interconnection contained in the Cooperative's Distributed Generation Policy, including submittal of the Application for Interconnection of Distributed Generation Facility and the execution of the Distributed Generation Facility Interconnection Agreement.

#### E. TYPES OF NET METERING

Net Metering will be accomplished using bi-directional metering for distributed generation facilities interconnected on the Customer Generator's side of the retail service meter or single directional metering for distributed generation facilities interconnected with the Cooperative's distribution system on the Cooperative's side of the retail service meter.

#### F. DISPOSITION OF ENERGY

If the electricity consumed by the Customer Generator during the billing period exceeds the electricity generated by the customer's distributed generation facility during the billing period, then all electricity generated by the customer generation shall be deemed to have been used by the Customer Generator. If the electricity generated by the customer's distributed generation facility during the billing period exceeds the electricity consumed by the Customer Generator, then such excess net energy shall be purchased by the Cooperative as provided under the Purchase Rate section of this Rider

#### G. RATES AND CHARGES FOR NET METERING SERVICE

Each Customer Generator shall be charged for electric service under that rate schedule which would otherwise be applicable if the customer was not a Customer Generator. In addition, each Customer Generator shall pay a monthly service charge based upon the direct costs to the Cooperative associated with interconnecting the customer's distributed generation facility and with the provision of and administration of net metering services. Said monthly service charge shall include the following:

A facilities charge based on the total cost of all facilities installed by the Cooperative, including transformers, protective devices, controls and monitoring equipment times the Cooperative's monthly fixed charge rate:

A facilities charge based on the total incremental cost of metering equipment times the Cooperative's monthly fixed charge rate; and

\$5.00 per month administrative charge.

**H. PURCHASE RATE** The rate used to determine the dollar amount paid for net energy purchased by the Cooperative shall be based upon the Cooperative's avoided average annual cost of purchased power. The purchase rate as of the effective date of this Rider shown below is:

All kWh \$0.031 per kWh

The above-stated rate may be adjusted annually at the sole discretion of the Cooperative, to reflect the prevailing avoided average cost of purchased power.

The Cooperative will purchase energy from Customer Generators on a first-come, first served basis only until the cumulative generating capacity of all the Customer Generators' renewable resources equals 0.2 percent of the Cooperative's annual peak demand in the previous year.

#### I. TERM OF SERVICE

The term of service under this Rider shall be the same as that set forth in the Distributed Generation Facility Interconnection Agreement between the Customer Generator and the Cooperative.

Effective: June 1, 2008

#### Photovoltaic Installers List - Georgia

Hannah Solar 1311 Collier Rd NW

Atlanta, Ga 30318

404-609-7005 Office

James Fonder, Electrical Project Manager 770-316-9451 Cell

Present Energi LLC 706-883-7336 LaGrange, Georgia www.presentenergi.com

One World Sustainable Energy Corporation
Athens/Atlanta area: 706/742-7760
Savannah: 912/596-1780
Georgia

Solairgen, Inc. 706-867-0678 Georgia

Southern Energy Solutions
770-973-6298
Marietta, Georgia
www.soenso.com
info@soenso.com

TEC Restorations 770-345-0638 Georgia

www.tecrestorations.com

Source: <a href="http://www.southface.org/solar/solar-roadmap/solar\_how-to/solar-vendors.htm#PVvendors">http://www.southface.org/solar/solar-roadmap/solar\_how-to/solar-vendors.htm#PVvendors</a>
List as of Aug 1, 2016.

Note: Diverse Power Inc. provides this list as a public service to our members. The list is provided for informational purposes only. We do not endorse or promote or recommend any one vendor or installer over another. Diverse Power assumes no responsibility or liability for their use or the quality of the service or product of provided.

#### Photovoltaic Vendors List

#### List Courtesy of Southface. List as of May 1, 2008.

Note: Diverse Power Inc. provides this list as a public service to our members. The list is provided for informational purposes only. We do not endorse or promote or recommend any one vendor or installer over another. Diverse Power assumes no responsibility or liability for their use or the quality of the service or product provided.

Southern Energy Solutions

770-973-6298

Marietta, Georgia

www.soenso.com

info@soenso.com

Alter Systems, LLC

886-568-5579

Retailer

www.altersystems.com

Atlanta Solar

423-265-0307

Retailer

www.atlantasolar.com/index.php

**BP Solar** 

301-698-4200

MonoC, MultiC PV, Retailer

www.bpsolar.com/

**Energy Photovoltaics Inc** 

609-587-3000

TF PV

www.epv.net/

Evergreen Solar Inc

508-357-2221

Stringribbon PV

www.evergreensolar.com/

First Solar LLC

602-414-9300

CdTe PV

www.firstsolar.com/index.html

**GE** Energy

303-451-7500

MonoC PV

www.gepower.com/prod serv/

products/solar/en/index.htm

**Sharp Solar Division** 

81-745-63-3579

MonoC, MultiC PV

solar.sharpusa.com/solar/home/0,2462,,00.html

Global Solar

520-546-6313

TF PV

www.globalsolar.com

Hutton Communications, inc

877-896-2806

Retailer

www.huttononline.com/HuttonOnline/huttonsolar.aspx

KingSolar

800-589-5560

Retailer

www.kingsolar.com/

**Kyocera Corporation** OutBack Power Systems 800-223-9086 360-435-6030 MultiC PV Inverters, Controls global.kyocera.com/ www.outbackpower.com/

PowerFilm Mitsubishi Electric Corporation TF PV 81-3-3218-2111 MultiC PV www.iowathinfilm.com/

global.mitsubishielectric.com/bu/solar/index.html

www.solardirect.com/index.htm

800-442-1972 New England Solar 800-914-4131 Retailer Retailer www.realgoods.com/

Real Goods

Sunelco

www.newenglandsolar.com/

Shell Solar 805-388-6519 Sunlight Products, Inc MonoC, MultiC, TF PV 770-300-0030

www.shell.com/home/Framework?siteId=shellsolar Retailer mikemacl@aol.com

> Solar Cells Ltd The Solar BiZ 385-21-374-510 888-826-0939 TF PV Retailer

www.solar-cells.net/solar.html www.thesolar.biz/

United Solar Ovonic Corp Solar Components Corporation 603-668-8186 248-364-0510 TF PV Retailer

www.solar-components.com/default.htm www.uni-solar.com/

> Solar Direct Sun Power Corporation 800-333-WARM 408-991-0900 Retailer Hi Eff PV www.sunpowercorp.com/html/

Solatron Technologies Sunstor 864-297-6776 888-647-6527 Retailer Retailer, Installer www.partsonsale.com/ www.sunstor.net

#### **Application for Photovoltaic Rebate Program**

This application should be completed and returned to the Photovoltaic Rebate Program Manager (PM). The PM will review the rebate application and notify the customer in writing whether the rebate application has been accepted and the rebate funding reserved for the customer. Customers MUST NOT OPERATE their photovoltaic system in parallel with Diverse Power, Inc.'s distribution system until they have received written authorization for parallel operation from Diverse Power. Unauthorized parallel operation of customer's photovoltaic system could result in injury to persons and/or damage to equipment or property.

. CUSTOMER/APPLICAN			
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		OTOVOLTAIC SYSTI	
Generator Power Rat			
Contract Fower Rat		CEPTANCE	
Customer agrees to prov	ide Diverse Power v		formation required to com

ELECTRIC COOPERATIVE CONTACT FOR APPLICATION SUBMISSION AND FOR MORE INFORMATION:

Cooperative contact Scott Sawyer

Title: Residential Marketing Services Coordinator

Address: 1400 South Davis Rd.

LaGrange, Ga 30240

Phone: 706-298-0808 E-Mail: pv\_program@diversepower.com



#### Diverse Power PV Rebate Program

Diverse Power encourages and supports the wise and efficient use of electricity. Diverse Power also supports the proper application and use of reliable renewable energy technologies. To help encourage the adoption of these proven resources, Diverse Power is offering a rebate to help make installing and generating electricity from PV systems more affordable for you.

Should a Diverse Power member choose to install a qualifying PV system on their home, the rebate is designed to help offset the first cost of the system. Members who qualify for the program are eligible to receive a one-time rebate of \$450.00 per kilowatt AC (KW) installed

*Example*: Customer installs a qualifying PV system that will generate 3,150 watts of electricity.

3,150 watts divided by 1000 = 3.15 KW

3.15 X \$450.00 = \$1417.50 rebate from Diverse Power

\* Other Financial Incentives – Federal tax credits and other incentives may be available to help lower the effective costs of investments in PV systems

#### Project Economics

#### **Estimated Project Cost**

To provide 3,150 watts (3.15 KW) of power to a home, the estimated costs associated with purchasing and installing the system is approximately \$6.00 per watt or \$18,900\*:

\*This is an estimated installed cost and is for illustrative purposes only. The actual installed cost of your PV system will vary and will depend on your specific structure, the angle, orientation and size of your system, the need for any additional supporting structures, the quality of your system components and the quality of the installation.

#### **Estimated Project Generation**

Based on the average output of a typical PV system located in Atlanta area, a 3.15 KW system will generate about 5,500 kWh\*\* of electricity each year. This represents about one-third of the electrical energy usage of a typical home in Georgia.

\*\*This is an estimated amount of PV produced electricity and is for illustrative purposes only. The actual amount of electricity your PV system produces will vary and will depend on your specific geographic location, the angle, orientation and size of your system, natural variations in the weather and climate, the quality of your system components and the quality of the installation.

#### **Estimated Project Savings**

In this example, the 3.15 KW PV system generating about 5,500 kWh annually will offset electricity costs of about \$500 per year\*\*\*, based on today's electricity rates. Your savings will increase as electricity prices increase in future years.

\*\*\*This is an estimate of savings and is for illustrative purposes only. Your actual savings will vary and will depend on the amount of electricity actually produced by your PV system and the average cost per KWH normally charged by your co-operative for this amount of PV-generated electricity had it been supplied by the cooperative.

PV system installed cost (\$6.00/watt x 3,150 watts):	\$18,900.00
Less PV rebate (\$450/KW x 3.15 KW):	( \$1,417.50)
Less Federal Tax Credit (30% of installed cost ):	( \$5670.00)
Less GEFA State Tax Credit (lessor of 35% of installed cost of \$10,500)	<u>(-\$6615.00)</u>
Net Project Cost	\$5197.50

**Project Cost Summary** as of 7/1/2016

#### **ROI (Return on Investment)**

Net Investment \$5197.50

Estimated annual savings \$ 500.00

Simple payback 10.3 years

#### Terms & Conditions

Diverse Power reserves the right to change the Photovoltaic Rebate program requirements and incentives at any time.

Program participants agree and understand that:

- The information provided on the Photovoltaic Rebate Program Application Forms will be accurate and complete; incomplete applications or those failing program requirements will be returned via fax or e-mail notification;
- The proposed incentive payment from Diverse Power is subject to change based on availability, verification and Diverse Power approval;
- o Diverse Power may verify the installed equipment for each application submitted, which may include a site inspection by a Diverse Power representative or Diverse Power agent;
- o Participant may not receive more than one incentive from Diverse Power on any new system installation;
- o Any incentives paid in the program may be taxable;
- o Participants agree to indemnify, hold harmless and release Diverse Power and its affiliates from any actions or claims in regards to the installation, operation and/or disposal of equipment (and related materials) covered herein including liability from any incidental or consequential damages.