



Habersham Electric Membership Corporation

A Touchstone Energy® Cooperative 

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Consumer Guidelines for Electric Power Generator Installation and Interconnection

Habersham EMC seeks to provide its members and patrons with the best electric service possible, and at the lowest cost consistent with sound economy and good management. In some cases, cooperative members and patrons may become interested in installing their own electric power generation equipment. In these cases, your cooperative stands ready to work with you 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 most of these cases, you will also need to coordinate the installation and approval of your electric power generator with the local code inspection authority. Your cooperative engineers and customer service representatives can also help identify the appropriate contact for this purpose.

Table 1 summarizes the information required from a customer who is installing distributed generation.

<i>DG Information</i>		<i>Information Required from Customer</i>			
Size	Interconnected with Cooperative?	Application Part 1	Application Part 2	Contract Agreement Short	Contract Agreement Long
10 kW or less	No				
	Yes	✓		✓	
More than 10 kW	No	✓	✓		
	Yes	✓	✓		✓

The remainder of this guideline details specific information that is required for different sizes and applications of customer-owned distributed generation.

Special Accelerated Application Process for Small Generators

If you are planning to install photovoltaic (PV) or other generators 10 kilowatts (kW), or less, in a home residence or farm, we have established a special streamlined process to make it easy for you to complete the installation.

Not to be Interconnected

If your small generator is not to be interconnected with the electric power system, all you need to do is give us a call, and provide us with the electrical capacity, manufacturer and name of your electrical installer. We may ask you to send us a copy of your manufacturer information. There is no formal application or fee required.

To be Interconnected

If you are planning to interconnect your generator with the cooperative's electric power distribution system, you need to complete Part 1 of the attached application and submit it to us. A minimal application fee is also required (see fee schedule attached). You also need to sign our streamlined contract form.

Generators Not Interconnected with the Cooperative Distribution System

You may be planning to install a generator greater than 10 kW for isolated operation, with no connection to the cooperative distribution system.

If you are considering installation of an emergency generator over 10 kW, typically running on gasoline or diesel fuel oil, you are probably not planning to interconnect your generator with the cooperative electric power distribution system. It is important that your installation is safe to you, safe to other customers and to our utility workers. It also should not interfere with your electric cooperative's reliable supply of electric power to your residence or other facility. To accomplish this, care must be taken to install your generator so that it will either 1) only start up to serve your entire load when you have disconnected from the electric power grid, or 2) you are only serving isolated loads where there is a choice of power supply (the cooperative system or your emergency generator). We will review your plans to ensure that your installation is not interconnected, and to make certain to the greatest extent possible that your installation will not endanger safety or reliability on the cooperative's electrical distribution system. We want to make sure that your installation will not place our utility workers in any danger of electric shock. We will report back to you with our findings within 12 business days of your application. You are required to complete Parts 1 and 2 of the attached application to notify us of your plans. No application fee is required. You should also let us know once your generator is up and running.

Generators Interconnected with the Cooperative Distribution System

When installing a generator and planning to interconnect with the distribution system, we must review your plans to ensure that personnel safety and system reliability will not be compromised.

If you are interested in selling some or all of the power that you generate, we have a program in place for the purchase of power from consumers (see rate schedule attached).

Generator Installation and Interconnection with the Cooperative Distribution System (all generators)

Customers may wish to install their new generator and interconnect it with the cooperative electric distribution system. In these cases, you need to complete the attached application form and pay the application fee. If your generator is more than 10,000 watts, you must complete Parts 1 and 2. For generators rated more than 10 kW, you also need to complete the Long Form Contract Agreement if you are interconnected with the cooperative. A check made out to Habersham EMC in the amount of the proper fee must accompany the application. An application fee schedule is attached. Submit your application and fee to a Habersham EMC customer service representative and your application will be passed along to the electric cooperative representative indicated below.

Once we receive your application, we will review your proposed generator installation. If we approve your application, we will let you know if there are special steps you need to take during the generator installation process. We may request additional information regarding your planned installation. We will also ask you to sign a contract in which you agree to operate your generator safely, and maintain the unit properly. We recommend that you seek appropriate insurance to mitigate risk involved with electric power system interconnection. We will furnish you an advance copy of the contract upon request.

You can give us a call at anytime during this review process to find out the status of your application. If your application is not approved for any reason, we will explain the reason and be available to discuss your plans.

Standard 1547 as promulgated and amended by the Institute of Electrical and Electronic Engineers (IEEE) shall govern technical specifications, and testing of, the interconnection itself. It provides requirements relevant to the performance, operation, testing, safety considerations, and maintenance of the interconnection. The title of IEEE Standard 1547 is "IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems". A copy of IEEE Standard 1547 may be obtained from: IEEE, 3 Park Avenue, New York, NY 10016-5997.

As part of our application review process, we will examine the ability of the cooperative electric distribution system to accept your new power generation unit. On certain parts of our system, we may need to replace existing equipment or add some new equipment in order to accommodate customer generation. Habersham EMC will then incur costs

beyond what is normally required to operate and maintain the system to benefit all members. To be fair to all members, you will need to pay for any system upgrades that will be needed. If this is the case for your planned generator installation, we will advise you of the additional cost, and seek your agreement before approving your application. You will also be asked to sign a system upgrade contract that obligates you to reimburse us for the additional expense incurred on your behalf. For further details on the application approval process see the document, "Interconnection of Distributed Resources Application Process in Detail". This document will be provided upon request.

All installations shall include appropriate electric power system disconnect facilities, which shall include a lockable disconnect, a visible open, and fusing, that are readily accessible to and operable by authorized personnel at all times.

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Your electric cooperative representative:

Cooperative contact: Ricky Bates or Tim Dean

Address: 6135 Highway 115 West
Clarkesville, GA 30523

Phone: 706-754-2114

Fax: 706-754-4482

e-mail: forinfo@hemc.coop

Application Fee Schedule

DG Size	Operating Characteristics	Application	Application Fee
10 kW or less	Isolated	Not Required	None
>10 kW to 100kW	Isolated	Parts 1 & 2	None
10 kW or less	Parallel operation	Part 1	\$100
>10kW to 100kW	Parallel operation	Parts 1 & 2	\$200
>100kW to 10MW	Parallel operation	Parts 1 & 2	\$1000

Rate Schedule

HABERSHAM ELECTRIC MEMBERSHIP CORPORATION

RIDER "NM" NET METERING SERVICE

AVAILABILITY

Available in all territory served by the Corporation, subject to the established Service Rules and Regulations of the Corporation.

APPLICABILITY

Applicable to any consumer of the Corporation owning and operating a distributed generation facility as defined below, provided that the consumer has met all applicable conditions and requirements set forth in the Interconnection of Distributed Resources Policy, including submittal of the Application for Operation of Customer-Owned Generation and the execution of the Agreement for Interconnection of Distributed Generation.

The capacity of a distributed generation facility used by residential consumers shall not exceed 10 kW and the capacity of a distributed generation facility used by a commercial consumer shall not exceed 100 kW.

DEFINITIONS

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

1. "Billing period" means, as to a particular consumer, the time period between the dates on which the Corporation 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 Corporation and the amount of electricity fed back to the Corporation by the consumer's distributed generation facility using a single meter.
4. "Consumer Generator" means the owner and operator of a distributed generation facility.

DEFINITIONS (continued)

5. “Distributed generation facility” means a facility owned and operated by a consumer of the Corporation for the production of electrical energy that:
 - a. Uses a fuel cell, or a renewable energy source as defined below;
 - 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 consumer’s premises;
 - d. Operates in parallel with the Corporation’s distribution facilities;
 - e. Is connected to the Corporation’s distribution system on either side of the Corporation’s retail service meter; and
 - f. Is intended primarily to offset part or all of the Consumer Generator’s requirements for electricity.
6. “Excess net energy” is the positive difference between the electricity generated by the consumer’s distributed generation facility and the electricity consumed by the Consumer Generator during the billing period.
7. “Carrying cost factor” shall be 0.0175. This factor includes costs such as operations and maintenance expense, administrative and general expenses, taxes, depreciation and the Corporation’s cost of capital related to its utility plant investment. The 0.0175 carrying cost factor is based upon costs estimated at the effective date shown above and may be revised by the Corporation in accordance with the latest cost information available.
8. “Net metering consumer” means a Consumer Generator receiving net metering service.
9. “Net metering” means measuring the difference, over the billing period, between electricity supplied to a Consumer Generator from the electric grid and the electricity generated and fed into the electric grid by the Consumer Generator, using a single bi-directional meter or an additional single direction meter.
10. “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.

TYPES OF NET METERING

Net Metering will be accomplished using either (1) bi-directional metering for distributed generation facilities interconnected on the Consumer Generator’s side of the retail service meter, or (2) single directional metering for distributed generation facilities interconnected with the Corporation’s distribution system on the Corporation’s side of the retail service meter.

DISPOSITION OF ENERGY

If the electricity consumed by the Consumer Generator during the billing period exceeds the electricity generated by the consumer’s distributed generation facility during the billing period, then all electricity generated by the consumer generation shall be deemed to have been used by the Consumer Generator. If the electricity generated by the consumer’s distributed generation facility during the billing period exceeds the electricity consumed by the Consumer Generator, then such excess net energy shall be purchased by the Corporation as provided under the Rate For Purchase of Net Energy section herein.

CHARGES FOR NET METERING SERVICE

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

1. A facilities charge based on the total cost of all facilities installed by the Corporation, including transformers, protective devices, controls and monitoring equipment times the Corporation’s monthly carrying cost factor;
2. A facilities charge based on the total incremental cost of metering equipment times the Corporation’s monthly carrying cost factor; and
3. \$15.00 per month administrative charge.

RATE FOR PURCHASE OF NET ENERGY

The rate used to determine the dollar amount paid for net energy purchased by the Corporation shall be based upon the Corporation’s avoided average annual cost of purchased power. The purchase rate as of the effective date shown below is:

All kWh	\$0.052 per kWh
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The above-stated rate may be adjusted annually at the sole discretion of the Corporation, to reflect the prevailing avoided average cost of purchased power.

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

TERM OF SERVICE

The term of service hereunder shall be set forth in the Agreement for Interconnection of Distributed Generation between the Consumer Generator and the Corporation.