Net Metering-Distributed Generation -100kW or less

If you are interested in applying for interconnection to Farmers' Electric Cooperative's (FEC) electrical grid system, you should first contact FEC and ask for information related to the interconnection of a parallel distributed generation unit (i.e. hydrogen fuel cell; or generating system powered the by sun, wind or biomass) to the Cooperative's system. It is important that you understand this information before proceeding with the project.

* It is important to note, any consumer who connects in parallel phase and synchronization with any retail electric supplier without written approval can be immediately and without notice disconnected from any and all electric service.

Missouri's Net Metering Rules and Regulations are based on legislation that became effective January 1, 2008. The "Net-Metering and Easy Connect Act" states that the distributed generation is intended to primarily offset part or all of the customer-generator's own electrical energy requirements. Full retail price is paid (credited) for all energy put on the grid up to the amount purchased that month from the utility. For example, all kilowatt hours put onto the grid by the consumer will be subtracted from the total amount purchased that month from the Cooperative. The customer will pay only the "net" difference as calculated by using the applicable standard rate. Avoided cost is paid for all energy put on the grid in excess of that month's purchase. This amount above what is purchased can remain as a credit on the customer's bill for up to a maximum of 1 year. That month's credit will expire if not used within 1 year or at the time of disconnect. All standard service availability fees still apply.

Avoided cost is calculated monthly by Associated Electric Cooperative Inc. (AECI), the Cooperative's power supplier. This cost is the actual cost of generating a kWh of electricity that month using all the sources of generation used that month by AECI. For example, in 2006, this cost of generation ranged from $.023 to $.052/kWh/month. According to the contract, any electric energy that is being generated at the member-generators site must be purchased by AECI. Farmers' Electric is only facilitating the billing/credit for the member-generator.

It is no longer a requirement for the customer-generator to purchase liability insurance for the distributed generation unit. In fact, the new law states that the manufacturer of any electric generation unit may be held liable for any damage to property or person caused by a defect in the generation unit.

However, FEC still strongly suggests that a customer-generator consider purchasing liability insurance. For example, if there was a malfunction in the member's distributed generation system, the customer-generator would likely be named in a lawsuit as a channel to get to the manufacturer. The new law clearly states that the retail electric supplier shall have no liability absent of clear and convincing evidence of their fault.

As a protection for the Missouri customer-generator, any seller, installer, and/or manufacturer who misrepresents any electric generation unit's safety or performance standards may be investigated by the state attorney general upon report.

All of the electricity generated by the distributed generation unit will first be used at the member-generator's site. Any excess electrical power will go back on the grid and be recorded with the use of a special meter located in the member-generator's regular house meter base. The cost of this meter will be paid by the member-generator. An estimated cost of the special AMR electric meter is available upon request.

If you are interested in Distributed Generation

1) Talk to the Member Services Department at Farmers' Electric Cooperative. They will provide information to help you make an informed decision.

2) Make sure you are involved with a reputable dealer and installer. Make sure they understand all local codes as well as the requirements of all applicable state statutes, rules and/or regulations. These requirements are intended to, among other things, maintain safety and system reliability.

Some of the requirements include but are not limited to the following: UL 1741, IEEE 929-2000, IEEE 1547.

The hardware and its installation must comply with all applicable National Electric Safety Code (NESC), Institute of Electrical and Electronics Engineers (IEEE), and Underwriters Laboratories (UL) requirements. The installation of these distributed generation units must comply with any and all local, state and national codes.

The requirements also include a visible, lockable safety disconnect of the distributed generation unit accessible to the Cooperative at the metering point or other location as agreed to between the member and Cooperative.

3) Check with your insurance agent about liability insurance on the customer-generator distributed generation unit. This is not required but highly recommended.

4) Acquire an Application and Agreement For Interconnection and Net Metering of Systems With Capacity of 100kW or Less and fill out sections A, B, C, D, and F. This is outlined in the agreement. This will require you to give the Cooperative:

- Your personal information
- The member-generators system information including but not limited to system type, manufacturer, system plans and specifications, county/city permit numbers, IEEE 1547 compatible inverter details, disconnect location, and a site specific power flow diagram.
- Installer information as well as the identity and qualifications of the qualified person or agency who will certify the installation.

If the rated output of the system is less than or equal to 10 kW, the Cooperative has 30 days from receipt of the application to approve or deny the application. If more than 10 kW, the time frame is 90 days. If denied, the member will be provided with a reason(s) for denial.

5) Contact Farmers' Electric Cooperative for a pre-inspection of the installation.

6) Install the system.

7) Contact Farmers' Electric Cooperative for a final inspection. The pre-inspection and the final inspection will be conducted by a certified engineer chosen by FEC at the expense of the member. Also, when the system is installed in compliance with the plans and specifications as described in the application, the member-generator needs to complete section H of the application and forward the completed application to the Cooperative for review and completion of section I.

8) The Cooperative will complete section I, and with the arrangements made for payment of any applicable fees and/or aid to construction costs, the Cooperative will, within 15 days, interconnect the member-generator system with an active service to the Cooperative's electrical system.

For a member who is assuming ownership or operational control of an existing member-generator system, an Application and Agreement For Interconnection and Net Metering of Systems With Capacity of 100kW or

Less needs to be acquired with completed sections A,B,C,D,F,G, and H. The Cooperative has 15 days to approve or reject the new agreement.

Note: This is a general overview of the process for interconnecting for net metering. Please examine the enclosed material for specific details.

The member-generator is required, at least once every12 months, to conduct a test to confirm the net metering unit automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within 2 seconds of being disconnected from the retail electric power supplier's system. The member-generator should maintain a record of these tests and, upon request, shall provide a copy of the test results to the retail electric supplier.

Farmers' Electric Cooperative members are asked to contact:

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(*SENATE BILL NO. 54 386.890 Net Metering and Easy Connect Act).