

Q & A for Distributed Generator Inquiry

Thank you for your interest in interconnecting a distributed resource (DR) to the Fannin County Electric Cooperative distribution system. The process starts with the Application. Renewable resources connected to the FCEC system (not isolated DR's serving stand-alone loads) per the Public Utility Commission of Texas (PUC) are required to fill out the attached form – Application for Interconnection. The application requests that you create these site specific sketches of your facility for submittal with your Interconnection Application.

If your system is less than 50 kW, then it will most likely not require a distribution system impact study and associated system impact study, fee depending on the certification status of your equipment and your requirements for separately metered exported energy (see Q&A below). If your system is inverter based, the application requires that you provide certification information proving the device has been tested and meets UL-1741 – Utility Interactive, and conforms to IEEE 1547 standards.

If your system is a wind driven induction generator, please provide the machine NEMA motor code and locked rotor current. If your equipment is an induction generator and does not have proper certification, then a study fee will be required. The study fee for equipment greater than 10kw to 500kW is generally \$320. The study fee for 1 to 10 kW is generally \$220.

All interconnections are subject to the Public Utility Commission of Texas (PUC) Substantive 25.211 and 25.212. <http://www.puc.state.tx.us/rules/subrules/electric/index.cfm>

After completion of the review process and procedures, Fannin County Electric Cooperative will request an Interconnection Agreement be signed. FCEC will send this Agreement to you for signatures.

QUESTIONS AND ANSWERS:

Q1) what is Fannin County Electric Cooperative's role in distributed generation?

A1) Fannin County Electric Cooperative's distribution system is governed by its Tariff for Retail Delivery Service. This Tariff governs the rates, terms of access and conditions for the provision of Delivery Service to Retail Members. What this means is that FCEC uses this tariff to bill and then send you your electric bills. This tariff is also used to govern provisions concerning distributed generation interconnection. Fannin County Electric

Cooperative's role in distributed generation is to insure the safe and reliable interconnection to the electrical distribution system. This distributed generation tariff is available on the FCEC internet site, www.fanninelectric.com Distributed Resource related documents are available for review on Fannin County Electric Cooperative's web site.

Tariff contains:

- Discretionary Service Charges, Distributed Generation Pre-Interconnection Study Fee Schedule
- Distributed Generation
- Application for Interconnection and Parallel Operation of Distributed Generation with the Utility System
- Agreement for Interconnection and Parallel Operation of Distributed Generation

Q2) Is Fannin County Electric Cooperative a Retail Electric Provider? Are they required by law to buy my excess power?

A2) No, Fannin County Electric Cooperative is not a Retail Electric Provider. Retail Electric Providers (REPs) are entities that buy and sell energy to customers in areas of Texas that have opted into competition. FCEC is a distribution service provider and a NOIE (Non Opt in Entity), and as such are exempted from Net Metering. This does not mean however, that FCEC prohibits the installation of distributed generation on a case by case basis. If all criteria are met, you may be allowed to install distributed generation, once again, as long as it meets the requirements outlined by your Cooperative.

Q3) what is the first step in installing my solar or wind generation?

A3) The Public Utility Commission of Texas (PUC) has developed rules for distributed generators, such as generation from renewable resources (wind, photovoltaic, etc.), which require the customer to fill out an interconnection application which is to be sent to the interconnecting utility for consideration. These rules (25.211 and 25.212) are available on the PUC's web site <http://www.puc.state.tx.us/rules/subrules/electric/index.cfm>. If your system is inverter based, the application requires you to provide certification listing information proving the device has been tested and meets IEEE Standard 1547, and UL-1741 – Utility Interactive. Please fax or mail to my attention. This process does not apply to isolated distributed resources (DR's) serving stand-alone loads not connected to the grid.

Q4) Do I have to notify anyone if I decide to install solar panels or a wind turbine for personal use?

A4) Yes, provided the installation is to be operated in parallel with the utility distribution system (not a stand alone system). The PUCT rules require the customer to fill out an interconnection application (attached) and send it to the distribution utility. If the customer's equipment is "pre-certified" (tested to UL-1741 Utility Interactive), and conforms to IEEE Standard 1547, then there is usually no application fee or interconnection cost associated with the interconnection. The utility will require a PUCT-approved interconnection agreement be signed to complete the process. The utility will send you this after receipt of your application. In addition, your Cooperative must be notified of your parallel interconnection with the distribution utility.

Q5) what is "Net Metering?" - If I am served by Fannin County Electric Cooperative, and I generate more electricity than I consume, can I receive a refund?

A5) in some cases regulated distribution service providers allow what is commonly called "net metering." This is where the meter spins forward and backward, effectively netting out energy production and consumption during a monthly period. This "behind the meter" system enables one to potentially produce and consume energy before it ever registers on the electrical meter and allows the meter to spin backward if power is exported to the grid, i.e., more power is generated than is being consumed at any time. If end-of-month meter readings are negative (meaning more was exported to the grid than was consumed from the grid) then the monthly consumption reading will be set to zero. Annualized net metering is not available meaning that you cannot "bank" excess production in one month and apply it to the consumption of another month. Net Metering is a way that private generators are *virtually* compensated retail amounts by saving the money that they would have spent on purchasing energy from their Electric Cooperative. Cooperatives and Municipals are currently exempted from Net metering requirements for residential systems and are normally approved by Cooperatives on a case by case basis.

Q6) If Net metering is approved by my cooperative, will my existing residential or <10 kW non-demand commercial meter spin forward and backward?

A6) generally all residential older style electromechanical meters will spin forward and not backward because of an anti-reversing technology installed by the manufacturer, which would allow for monthly off-sets. Electromechanical meters have the traditional spinning disk under glass. Fannin County Electric Cooperative will have to change your meter to a digital meter. If you have a digital meter then it most likely will not allow off-sets. Please allow a minimum of 2-3 weeks after the application is processed or after the service order is issued to allow for this change.

Q7) I really want to be paid money for my exported generation in ERCOT. How can I get monetarily compensated?

A7) If all qualifications are met, exported energy from your generator could be purchased by an entity other than your Cooperative at their avoided cost. You're Cooperative, due to contractual obligations and rules relating to retail and wholesale sales of energy prohibit any wholesale activity. In addition, the power supply contracts contain an all purchase requirement which also prohibits the purchase of additional wholesale energy from additional sources. To receive cash payments for any potentially exported wholesale generation, the requirements specified by the Texas energy market model (i.e., ERCOT) must be satisfied. Small generators desiring compensation for selling (exporting) electrical energy into the ERCOT (Electric Reliability Council of Texas) wholesale market must follow the rules and requirements prescribed by the ERCOT market model including the ERCOT Protocols and sell their energy to a wholesale entity such as the one providing wholesale power to your cooperative at their avoided cost. This process involves many steps and requirements. Due to the relatively small output of these generators, these process requirements often make it undesirable or not economically feasible to sell wholesale energy back into the grid for re-sale (at wholesale avoided cost prices in ERCOT). In any case, the customer must individually contract with the wholesale entity, NOT Fannin County Electric Cooperative, to sell exported energy. Installations will likely require additional metering to account for the "exported" energy, depending on the wholesalers requirements. Using the definition that net metering is a single meter which allows offsets means that customers with two channel metering, one measuring consumption and the other exporting, would most likely not be able to utilize "net metering" for monthly energy banking. Exported energy would be accounted for at wholesale pricing while consumption would be billed at retail pricing. Exporting applications could require an Impact Study fee for interconnection. In any case the amount you get paid is a confidential bilateral agreement between whomever you negotiate with (Wholesale Electric Provider) and yourself.

If you have any further questions or you can not view the documents, please feel free to contact me.

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