

# Duke Energy Carolinas

## South Carolina Interconnection Request Checklist

(for inverter based-technologies up to 100kW)

The Public Service Commission of South Carolina approved the *Standard for Interconnecting Small Generation 100 KW or Less with Electric Power Systems (EPS)* in SCPSC Docket No. 2005-387-E, Order No. 2006-772 and was effective on December 19, 2006. This statewide interconnection standard was developed to streamline the interconnection process and protect the integrity of the electric grid without compromising public safety.

- 1. Application to Interconnect:** The *Standard for Interconnecting Small Generation 100 KW or Less with Electric Power Systems (EPS)* permits parallel interconnection of non-utility owned single phase small generation systems which are rated at 20 kW or less for residential customers and 100 kW or less for nonresidential customers. Meeting the requirements of this standard may eliminate or reduce the need for utility-owned protective equipment as part of the interconnection facilities.

To submit an *Application to Interconnect* request for net metering or to sell the output to Duke Energy Carolinas, use the one-page *Application to Interconnect* that is located on the Duke Energy Carolinas website at <http://www.duke-energy.com/customer-owned-generation/sc-main.asp>. Interconnection Requests must be signed by the customer requesting service.

- 2. Application Fee:** A non-refundable application fee should accompany the *Application to Interconnect*. The fee is \$100 for residential customers and \$250 for non-residential customers. Checks should be made payable to **Duke Energy Carolinas**.
- 3. Electrical one-line diagram:** An electrical one-line schematic diagram depicting the project and the equipment to be installed should accompany the *Application to Interconnect*. The one-line diagram should include the project owner's name, project name, project address, and model numbers and nameplate sizes of equipment, including number and nameplate electrical size information for solar panels, inverters, wind turbines, disconnect switches, etc.

The diagram should also depict the metering arrangement required whether installed on the customer side of an existing meter ("net metering/billing") or directly connected to the grid through a new delivery point requiring a separate meter. **Include equipment specification (product literature) information for the solar panels and inverter(s) that provide technical information and certification information of the equipment to be installed with the application.**

- 4. Disconnect Switch:** The National Electric Code and Duke Energy require the installation of a manual load-break AC disconnect switch or safety switch installed between the Utility System and the Interconnection Customer's equipment to be able to positively isolate the generation source from the grid when needed for emergency events, to perform maintenance, or assist in the restoration of service, etc. The switch must be able to provide a clear visible open point of disconnection, a clear visible indication of switch position, and have padlock provisions for locking the switch in the open position.

The switch must be installed on the Interconnection Customer's side of the electrical interconnection with the Utility's system, accessible to Utility personnel, and located in close

proximity to the utility's electrical delivery point. The switch must be labeled "Generator Disconnect Switch." The switch may isolate the Interconnection Customer and its associated load from the Utility's System or disconnect only the Generator from the Utility's System and shall be accessible to the Utility at all times.

- 5. FERC Qualifying Facility Status:** A generating facility proposing to sell electricity to Duke Energy Carolinas under a Purchased Power Agreement on Rate Schedule PP(SC) must be a "Qualifying Facility" as defined by the Public Utility Regulatory Policies Act of 1978 ("PURPA") and the Federal Energy Regulatory Commission ("FERC") regulations implementing PURPA. A "Qualifying Facility" is one that meets certain federal guidelines and qualifies to receive avoided cost payments from the utility (Rate Schedule PP(SC)).

Projects smaller than 1 MW (1,000 KW) are no longer required to file an FERC Form 556 to obtain QF status as long as they meet the QF requirements. To determine if you are exempt from the requirement to file a Form 556 for your facility, based on the small size of your facility, download the Form 556 from the FERC website and complete section 7. If the value you obtain in line 7g is less than or equal to 1,000 KW, then your facility is exempt from the Form 556 filing requirement.

Although facilities smaller than 1 MW are exempt from the requirement to file, there is no prohibition against filing the Form No. 556 application either for self-certification or Commission certification for these facilities.

Facilities larger than 1 MW (1,000kW) in size as defined by maximum net power production capacity must file a FERC Form No. 556 either as a self-certification (or self-recertification) or as an application for Commission certification.

Instructions for completing this simple, self-registration process with the FERC are found on the Duke Energy Carolinas Customer Generation Website under *Obtaining FERC Qualifying Facility Status* or directly on the Federal Energy Regulatory Commission's website located at [www.ferc.gov](http://www.ferc.gov).

Please send a copy of the FERC QF Certificate filing to Duke Energy Carolinas with the *Application to Interconnect* if you are required to file Form 556.

- 6. Insurance Certificate:** Residential customers are required to demonstrate liability insurance coverage maintained with an insurer authorized to do business in South Carolina. The required coverage shall be a standard homeowner's insurance policy with liability coverage in the amount of at least \$100,000 per occurrence.

Non-residential customers are required to demonstrate liability insurance coverage maintained with an insurer authorized to do business in South Carolina. The required coverage shall be comprehensive general liability insurance with coverage in the amount of at least \$300,000 per occurrence.

Please send an insurance certificate from the insurer to Duke Energy Carolinas with the *Application to Interconnect*

- 7. Purchased Power Agreement or Interconnection Agreement:** If the projects intends to sell its production to Duke Energy Carolinas on Rate Schedule PP-N(NC) or Schedule PP-H(NC), Duke Energy Carolinas will prepare a *Purchased Power Agreement* based on the *Application to Interconnect* and mail to the customer for signature.

If the project intends to “net meter” using the Duke Energy Carolinas Rate Rider NM(SC), an *Interconnection Agreement* will be required. The *Interconnection Agreement* may be downloaded from the website, signed by the customer, and submitted with the initial interconnection request application. Duke Energy will sign and return a copy of the *Interconnection Agreement* to the customer.

- 8. Inspection:** After the project is installed it must be inspected by the local electrical inspector and by Duke Energy Carolinas before final interconnection acceptance can be granted. Please send a copy of the local electrical inspection approval document to Duke Energy Carolinas when the installation of the project is complete and has been inspected by the local electrical inspection authority.

When submitting an application for interconnection, please include all required documents with the *Application to Interconnect*. The *Application to Interconnect* must be signed by the requesting customer. All documents, including the electrical one-line drawing, equipment specification sheets, insurance information, etc., are required to be submitted before processing can begin. Omitting documents that are required or submitting documents with incomplete or inconsistent information will delay the processing of an application.

Mail complete interconnection request packages to:

Duke Energy Corporation  
Customer Prototype Lab  
Mail Code: EY500  
139 East Fourth Street  
PO Box 960  
Cincinnati, OH 45202

Phone: (866) 233-2290  
Fax: (513) 287-2718  
Email: [customerownedgeneration@duke-energy.com](mailto:customerownedgeneration@duke-energy.com)

Please contact the Customer Prototype Lab if you have any questions regarding rate options or the interconnection process.

**NOTE:** If your goal is to complete your new solar photovoltaic, wind, or micro-hydro generation project by December 31, you must submit a complete Interconnection Request in time to reach Duke Energy Carolinas prior to December 1. It is Duke Energy’s goal to process interconnection requests as quickly as possible and help projects become operational by year end; however, holiday schedules, the threat of inclement weather, and other unforeseen system emergencies may prevent Duke Energy from inspecting and approving interconnection requests and installing any necessary interconnection equipment and metering in late December for any request that is not submitted prior to December 1, or for any Interconnection Request that is submitted with incomplete information or missing documents..

Project construction should be completed and inspected by the local electrical inspector in time to permit Duke’s field inspection to be completed before December 15.

Good luck with the development of your project.

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