GeorgiaTransmission

FOR INTERNAL USE ONLY
GTC Project Number:
Queue Date:

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Generation Interconnection Study DatasSheet - Wind Power ONLY

Customers must provide the following information in its entirety. GTC will not proceed with an interconnection study until all data is received and confirmed to be practical. GTC uses PTI standard models to perform power flow and stability analysis. If the information provided conforms to a PTI model, please specify. Study results are dependent on study data provided by the customer. Notification of changes to data should be provided, in writing, as promptly as possible. Any change in the study data will have an impact on the performance of the study and the study results provided.

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A) REQUESTOR OF INTERCONNECTION STUDY

Company Name:	Company Phone Number:
Project Name:	
Project Address:	
Contact Name:	Application Date:
Contact Phone Number:	Email:
Datasheet Revision#:	Revision date:

B) DESCRIPTION OF REQUEST

1) Type of Request (i.e. ERIS, NRIS, IPP):

2) Is this request an alternate to another request made by an ITS Participant?

NOTE: The ITS Participants are Georgia Transmission Corporation, Georgia Power/Southern Company, MEAG Power, and Dalton Utilities. This information is needed to alleviate duplication of analysis of generation requests within the ITS.

YES☐ NO ☐

If yes, please indicate location and M/MVA of other request

Location: _____ MW/MVA: _____

When making multiple requests for interconnection, the customer is required to provide a separate datasheet for each request.

3) Maximum Gross Capacity:

i. _____MVA at 104 °F and _____ MVA at 95°F (Gross plant/facility aggregate nameplate rating)

ii. Will generation be installed incrementally? YES☐ NO ☐

iii. Portion of request which is designated a network resource: _____%

iv. Portion of request for interconnection service only: _____%

4) Location of Interconnection

i. County: _____

ii. Distance of customer plant from ITS point of interconnection: _____ miles

iii. Substation or Transmission Line: _____

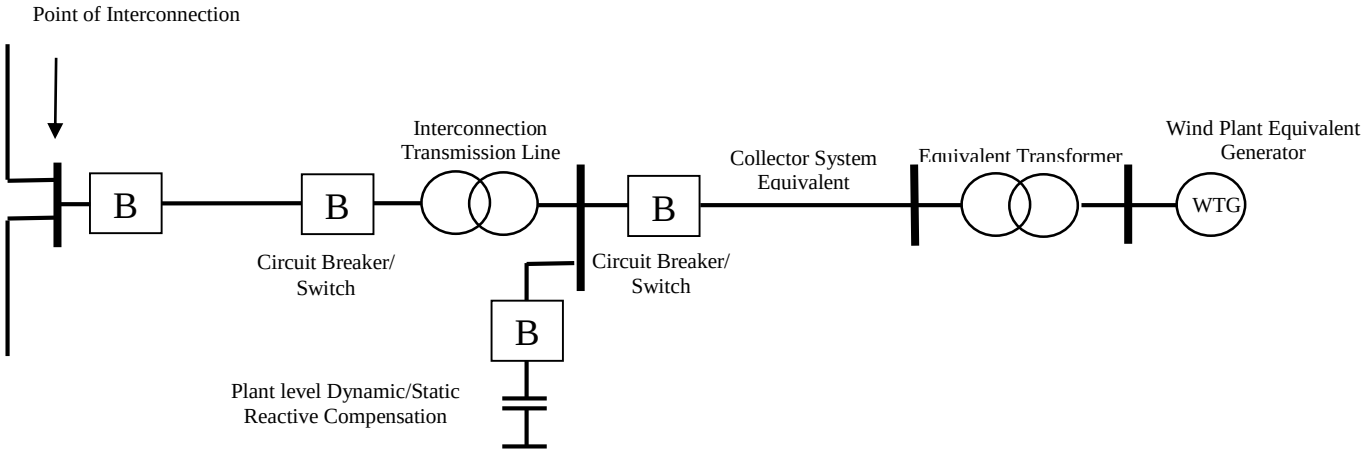
iv. Voltage level requested for interconnection: kV

5) Key Dates:

i. Expected In Service Date: _____ ii. Expected Commercial Operation Date: _____

C) TECHNICAL DATA

1) Provide a Single Line Diagram, similar to the diagram below



2) Interconnection Transmission Line:

i. Line voltage = _____ kV
ii. Line rating at 95^0F = _____ MVA
iii. Line rating at 104^0F = _____ MVA
iv. Line length = _____ miles
v. Conductor type:
vi. R = _____ ohm or _____ pu on 100 MVA and line kV base (positive sequence)
vii. X = _____ ohm or _____ pu on 100 MVA and line kV base (positive sequence)
viii. B = _____ µF or _____ pu on 100 MVA and line kV base (positive sequence)

3) Main Transformer: *Note: If there are multiple transformers, data for each transformer should be provided)*

i. Rating (ONAN/ONAF/ONAF): ___ /___ /___MVA
ii. Nominal Voltage for each winding (Low /High /Tertiary): ___/___/___kV
iii. Available taps: _____ (indicate fixed or with LTC), Operating Tap: _____
iv. Positive sequence ZHL: ___%, ___X/R on transformer self-cooled (ONAN) MVA
v. Winding Connections (Low/High): _____

4) High Side Breaker/Protection Switch:

i. Rated Maximum Voltage in kV (R.M.S., Line-to-line, 60 Hz Operating Voltage): _____ kV
ii. Rated Nominal Voltage in kV (R.M.S., Line-to-line, 60 Hz Operating Voltage): _____ kV
iii. Rated Ampere (Maximum, R.M.S., continuous, 60 Hz rated current): _____ A
iv. Interrupting Rating: _____ kA
v. Rated interrupting time: _____cycles
vi. BIL Rating: _____
vii. Interrupting and insulating media: _____
viii. Tripping and closing control voltages: _____
ix. Breaker Current Transformer accuracy class: _____
x. Rated Frequency: _____Hz

5) Collector System Equivalent Model:

i. Collector system voltage = kV and equivalent rating at 95°F =_____MVA and at 104°F =_____MVA

ii. R =_____ohm or _____ pu on 100 MVA and collector kV base (positive sequence)

iii. X =_____ohm or _____ pu on 100 MVA and collector kV base (positive sequence)

iv. B = _____ μF or _____pu on 100 MVA and collector kV base (positive sequence)

6) Turbine Generator Step-Up Transformer: *Note: These are typically two-winding air-cooled transformers. If the proposed project contains different types or sizes of step-up transformers, please provide data for each type.*

i. Number of transformers:

ii. Rating: _____ kVA

iii. Nominal voltage for each winding (Low /High): ___ /___ kV

iv. Available taps: _____ (indicate fixed or with LTC), Operating Tap: _____

v. Positive sequence impedance (Z1) _____%,_____X/R on transformer self-cooled MVA

vi. Winding Connections (Low/High): ___ /___

7) Wind Plant Data:

i. Number of Turbine Generators: _____

ii. Gross Individual Nameplate Rating (each Turbine) at 104 °F: ___ / ___ kW/kVA and 95°F: ___ / ___ kW/kVA

iii. Describe Nameplate Rating as a function of temperature: _____

iv. Turbine Generator Manufacturer and Model #: _____

v. Turbine Generator Type_____ . If Type 5 please Describe:

(Type 1: Squirrel cage induction, Type 2: Wound rotor induction, Type 3: Doubly fed asynchronous, Type 4: Full converter interface, Type 5: Other)

vi. Describe Turbine Generator Reactive Capability: _____

vii. Please submit the Manufacturer Specification Sheets

viii. Please submit PSS/E dynamic data either using PSS/E model(s) or user written dynamic models.

8) Plant Parasitic/Auxiliary load:

i. Auxiliary load for total plant: ___/___ kW/kVAr

ii. Load served through GSU, dedicated distribution feed etc. please specify: _____

9) Plant Controller:

i. Plant Controller Manufacturer and Model #:

ii. Please submit PSS/E dynamic data either using PSS/E model(s) or user written dynamic models.

10) Low Side Breaker/Protection Switch:

i. Rated Maximum Voltage in kV (R.M.S., Line-to-line, 60 Hz Operating Voltage): _____ kV

ii. Rated Nominal Voltage in kV (R.M.S., Line-to-line, 60 Hz Operating Voltage): _____ kV

iii. Rated Ampere (Maximum, R.M.S., continuous, 60 Hz rated current): _____ A

iv. Interrupting Rating: _____ kA

v. Rated interrupting time: _____cycles

vi. BIL Rating: _____

vii. Interrupting and insulating media: _____

viii. Tripping and closing control voltages: _____

ix. Breaker Current Transformer accuracy class: _____

x. Rated Frequency: _____Hz

11) Plant Reactive Power Compensation: Provide the following information for plant-level reactive compensation, if applicable:

i. Individual shunt capacitor and size of each: ___ X___ MVA

ii. Dynamic reactive control device, (SVC, STATCOM):

iii. Control range(lead and lag): MVAR at 104 °F: _____ and 95°F: _____

iv. Control mode (e.g., voltage, power factor, reactive power): _____

v. Regulation point: _____

vi. Please submit completed PSS/E dynamic and static data for the dynamic reactive control devices

vii. Describe the overall reactive power control strategy: _____

12) Standards for Wind Interconnection to Transmission Power Grid:

Please explicitly list all applicable electric power standards and electric power industry codes that the Wind TG conform to:_____

_____