FOR INTERNAL USE ONLY
GI Number:
Queue Date:

2100 East Exchange Place
PO Box 2088
Tucker, GA 30085-2088
Phone 770-270-7400
Fax 770-270-7872

Generation Interconnection Study Datasheet - Photovoltaic 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) i. Type of Request (i.e. ERIS, NRIS, IPP): , ii. Requested MW:

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 size in MW/MVA of other request

Location: _____, Size: _____ 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 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. Substation or Transmission Line: _____

iii. If Interconnecting to Transmission Line, indicate distance of Point of Interconnection to either end (substation) of the Transmission line: _____ miles to_____substation

iv. Voltage level requested for interconnection: kV

5) Key Dates:

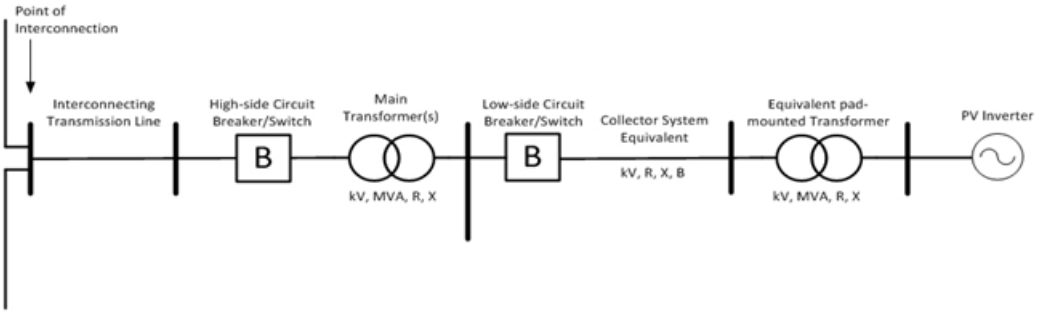
i. Expected In Service Date: _____ ii. Expected Synchronization Date: _____

iii. Expected Commercial Operation Date: _____

C) TECHNICAL DATA

1) Single Line Diagram

Please provide a single line diagram of the generation plant similar to the diagram below



2) Interconnection Transmission Line:

i. Line voltage = _____ kV

ii. Line rating at 95^0F = _____ MVA

iii. Line length = _____ miles

iv. Conductor wire type ,size and temperature (ex 4/0 ACSR at 100^0C):

v. R = _____ Ohm or _____ p.u on 100 MVA and line kV base (positive sequence)

vi. X = _____ Ohm or _____ p.u on 100 MVA and line kV base (positive sequence)

vii. B = _____ µF or _____ p.u on 100 MVA and line kV base (positive sequence)

viii. R = _____ Ohm or _____ p.u on 100 MVA and line kV base (zero sequence)

ix. X = _____ Ohm or _____ p.u on 100 MVA and line kV base (zero sequence)

x. B = _____ µF or _____ p.u on 100 MVA and line kV base (zero 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): ___/___kV

iii. Available high side taps: _____+/-_____, Low side fixed or with LTC? _____

iv. Positive sequence ZHL: ____%, Zero Sequence Z_0HL: _____%, X/R ratio: ____ on _____ MVA base

v. Winding Connections (Low/High): _____

v. Does the transformer include a tertiary winding? YES☐ NO ☐

vi. If the answer is yes to the question above, provide the following:

a. Nominal Voltage for tertiary winding: ___kV
b. Positive Sequence ZHT (high side-tertiary) : _____%, X/R ratio: ____ on _____ MVA base
c. Positive sequence ZLT (low side-tertiary) : _____%, X/R ratio: ____ on _____ MVA base
d. Zero Sequence Z_0HT : _____%, X/R ratio: _____ on _____ MVA base
e. Zero Sequence Z_0LT : _____%, X/R ratio: _____ on _____ MVA base

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

5) Collector System Equivalent Model:

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

ii. R =_____Ohm or _____ p.u on 100 MVA and collector kV base (positive sequence)

iii. X =_____Ohm or _____ p.u on 100 MVA and collector kV base (positive sequence)

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

v. R =_____Ohm or _____ p.u on 100 MVA and collector kV base (zero sequence)

vi. X =_____Ohm or _____ p.u on 100 MVA and collector kV base (zero sequence)

vii. B = _____ µF or _____p.u on 100 MVA and collector kV base (zero sequence)

6) Inverter 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 high side taps: ____+/-____ , Low side fixed or with LTC? _____ High side operating tap: _____

v. Positive sequence impedance (ZHL): ____%, Zero Sequence (Z_0HL): ____%, X/R ratio:_____ on _____ MVA base

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

7) Inverter and PV Module Data:

i. Number of Inverters: _____

ii. Gross Individual Nameplate Rating (each Inverter) at 95°F: ___ kVA

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

iv. Describe reactive capability: _____

v. Inverter Manufacturer and Model #: _____

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

vii. Please submit the manufacturer specification sheet for the inverters

8) Plant Parasitic/Auxiliary load:

i. Auxiliary load for total plant: _____ kW,_____kVAr

ii. How is the auxiliary 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

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

i. Individual shunt capacitor and size of each: _____ MVAr*

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

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

(*) If the generator is not capable of meeting the reactive requirements, static reactive power compensation will be considered on a case by case basis, as an addition to the full range of generator reactive power.

12) Standards for PV Interconnection to Transmission Power Grid:

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

_____