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DISTRIBUTED GENERATION INTERCONNECTION PROCEDURES

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I. GENERAL CONSIDERATIONS

A. These process, requirements and documents ("procedures") establish guidelines for Altamaha EMC (or "the Cooperative") under which Distributed Generation Equipment will be considered for interconnection to Altamaha EMC's distribution system. All distributed generation facilities greater than 10 MW are not subject to these procedures and will be handled on a case by case basis.

B. These procedures are designed to ensure that all applications are considered in an efficient, fair and consistent manner. Most importantly, however, the purpose of these procedures is to ensure that Altamaha EMC does not permit interconnection of Distributed Generation Equipment when doing so presents an unreasonable risk to the safety of Altamaha EMC's employees or the general public, or if it may adversely affect the reliability, integrity or quality of Altamaha EMC's facilities or service.

C. The installation of generation that is isolated through a double-throw, open-transition manual disconnect switch or open-transition automatic transfer switch is not subject to these procedures and does not require an application.

D. To that end, notwithstanding any provision of these procedures to the contrary, Altamaha EMC does, and shall always, retain the right and authority to deny an application if Altamaha EMC determines that the applicant presents an unreasonable threat to the safety, reliability, integrity or quality of Altamaha EMC's facilities or service.

E. The interconnection procedures contained herein have been developed for all generation facilities interconnected with Altamaha EMC's distribution facilities rated 10 MW and less. The procedures differ based on the DGen Resource size. Any such resources are categorized according to the following capacity ratings of the generation resource:

1. "Small" - means a generation resource with a capacity rating of 2.0 kW or less. In all cases, equipment shall be single phase in nature. Customers that own and operate certain Small generation resources that meet the criteria of the Georgia Cogeneration and Distributed Generation Act of 2001, as amended (OCG 46-3-50) may also be referred to as a Net Metering Customer.

2. "Medium" - means a generation resource with a capacity rating of greater than 2.0 kW and not greater than 10 kW. Certain commercial customers that own and operate Small generation resources that meet the criteria of the Georgia Cogeneration and Distributed Generation

Act of 2001, as amended (OCG 46-3-50) may also be referred to as a Net Metering Customer.

3. "Large" - means a generation resource with a capacity rating of greater than 10 MW and not greater than 10 MW.

F. This document provides interconnection procedures based on DGen Resource size categories, i.e., Small, Medium and Large.

Section II – Small Distributed Generation Resources
Section III – Medium and Large Distributed Generation Resources

Issues related to metering and energy sales/purchases for all DGen Resources are contained in Section IV - Disposition of Energy

G. It is the sole responsibility of the DGen customer to obtain all necessary governmental permits that are required for the DGen resource to operate in compliance with all applicable federal, state and county/city regulations.

H. Altamaha EMC has an obligation to provide a safe environment for its employees and public. If after the interconnection is made in accordance with the requirements herein, in Altamaha EMC's sole discretion, the DGen resource does not continue to meet or exceed these interconnection requirements or comply with prudent utility practices, Altamaha will disconnect the DGen resource from its system.

I. Proposed DGen Resources that meet the requirements contained herein will be permitted interconnection approval.

J. Proposed DGen Resources shall execute an Interconnection Agreement prior to Commission Testing or the start of the Distribution Impact Study whichever occurs first.

K. The Form of Interconnection Agreement in Appendix "D" is applicable to Small and Medium DGen resources. Interconnection Agreements shall be developed on a case-by-case basis for Large DGen resources.

L. Terms used herein shall have the meanings specified in the Glossary of Terms appended to this document.

M. All DGen Resources and customer's facilities shall meet all code and standards requirements listed in Appendix "B" included herein, where applicable.

II. SMALL DISTRIBUTED GENERATION RESOURCES

A. Application Process

1. The Small DGen Customer will submit the appropriate interconnection application along with the application fee, defined below, and states the purpose for which the Small DGen Resource is to be installed;

2. The Small DGen Customer submits documentation of site control along with the appropriate application. The site control may be demonstrated through

   a. Ownership of a leasehold interest in, or a right to develop a site for the purpose of constructing a Small DGen Resource Facility, or
   b. an option to purchase or acquire a leasehold site for such purpose; or
   c. an exclusivity or other business relationship between Small DGen Resource Facility and the entity having the right to sell, to lease or to grant the Small DGen Resource Facility the right to possess or occupy a site for such purpose.

3. The Small DGen Customer's installation shall comply with the Interconnection Technical Requirements for Small, Medium and Large Distributed Generation contained in Appendix C or E as appropriate.

B. Initial Screening of Small DGen Application

1. Altamaha EMC will conduct an initial screening of the application. The initial screening will indicate if the proposed generator(s) will have a significant impact on the operation of Altamaha EMC's electrical distribution system.

2. The criteria for the initial screening are contained in Appendix I.

3. If the proposed generation resource fails the initial screening, Altamaha EMC will complete a Distribution Impact Study.

4. If the proposed generation resource passes the initial screening, the Small DGen Customer must then meet the requirements defined in Section II.E.

C. Distribution Impact Study

1. For Small DGen Customers, there is no fee changed for the Distribution Impact Study. The Distribution Impact Study will incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on system operation, as necessary. The detailed contents and considerations of the Distribution Impact Study are contained in Appendix J.

2. The Cooperative will complete the Distribution Impact Study within 60 days of its receipt of the Small DGen's application.

D. Facilities Study

1. If applicable, to implement the recommendations of the Distribution Impact Study, a Facility Study will be conducted. The electric power distribution system interconnection design for any required Interconnection Facilities and/or System Upgrades will be performed by a Facility Study. The detailed contents of the Facility Study are contained in Appendix K.

2. Upon completion of the Facility Study, the DGen Customer will be responsible for the estimated cost for the facility upgrades/modification before proceeding with the installation of the interconnection with the DGen Resource.

E. Additional Requirements for Residential Small DGen Customer

1. A lockable disconnect switch shall be installed by or for the Small DGen Customer which are not compliant with UL-1741. Altamaha EMC will open and lock the disconnect switch for safe live-line maintenance of Altamaha EMC facilities.

2. For DGen Resources which are listed and compliant with UL-*1741UL Standard for Safety Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources*, the application is approved but subject to the standards listed in Appendix B and the certification process in Appendix C.

3. For Small DGen Resources which are not listed as compliant with UL-1741 and have passed the initial screening, the Small DGen Customer shall certify their equipment and installation for interconnection as defined by the Codes and Standards listed in Appendix B. This certification shall be provided by a qualified independent electrical

engineer licensed to practice in Georgia as fully described in Appendix E.

4. Proposed DGen Resources shall execute an Interconnection Agreement prior to Commission Testing or the start of the Distribution Impact Study whichever occurs first.

5. Commission testing is required for the Small DGen Customer. As part of the commission test, Altamaha EMC will verify that the installation complies with the non-islanding and all other applicable provisions of IEEE 1547.

6. Periodic testing is required for Small DGen Resources. The Customer will maintain records for testing and maintenance of the installation. Failure to maintain adequate records of testing can be the basis for disconnecting the Small DGen Resource.

7. Small DGen Customer shall provide Altamaha EMC access to the generator during normal business hours and as needed for emergency access.

8. Small DGen Customer is responsible for obtaining Green-e certification necessary for RECs.

9. Altamaha EMC may install utility grade metering at the Small DGen Resource, at the cost of the Cooperative, according to the provisions defined in Section IV - Disposition of Energy.

10. Net Metering may be used for certain Small DGen Resources as provided in Section IV - Disposition of Energy.

11. For Small DGen Resources with net metering, Altamaha EMC has no requirement for additional liability insurance. For all other Small DGen Resources, DGen Customer will be required to obtain a minimum $100,000 Liability Coverage to insure for claims of property damage and injury.

III. MEDIUM AND LARGE DISTRIBUTED GENERATION RESOURCES

A. Application Process

1. The Medium or Large DGen Customer will submit the appropriate interconnection application along with the application fee, defined below, and states the purpose for which the Medium or Large DGen Resource is to be installed;

    a. Appendix "G" – Application for Paralleling Equipment to Electric System –Greater than 2 kW and less than 10 kW
    b. Appendix "H" – Application for Paralleling Equipment to Electric System – Greater than 10kW and less than 10 MW
    c. Medium and Large Distributed Generation Resource. Application Fee of $250.

2. The Medium or Large DGen Customer submits documentation of site control along with the appropriate application. The site control may be demonstrated through

    a. Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing a Medium or Large DGen Resource Facility, or

    b. an option to purchase or acquire a leasehold site for such purpose; or

    c. an exclusivity or other business relationship between the Medium or Large DGen Resource Facility and the entity having the right to sell, to lease or to grant the Medium or Large DGen Resource Facility the right to possess or occupy a site for such purpose.

3. The Medium or Large DGen Customer's installation shall comply with the Interconnection Technical Requirements for Small, Medium and Large Distributed Generation contained in Appendix E and the Codes and Standards contained in Appendix B.

B. Initial Screening of Medium DGen Application

1. Altamaha EMC will conduct an initial screening for applications of generators greater than 2 KW of capacity. The initial screening will indicate if the proposed generator(s) will have a significant impact in the operation of the Altamaha EMC's electrical distribution system.

2. The criteria for the initial screening are contained in Appendix I.

3. If the proposed generation resource passes the initial screening, the application is approved subject to certification of the equipment described in Appendix C.

4. If the proposed generation resource fails the initial screening, a Distribution Impact Study will be required.

C. Distribution Impact Study

1. A Distribution Impact Study is required for DGen Resources which failed the initial screening or failed to qualify for initial screening.

2. A Scoping Meeting is recommended prior to the start of the Distribution Impact Study. Altamaha EMC will provide an outline of the scope of the study and an estimate of the cost to perform the study. The purpose of the Scoping Meeting shall be to discuss the DGen Customer's interconnection request, and any known system limitations relevant to the DGen Customer's interconnection request.

3. A payment of the estimated cost of the Distribution Impact Study shall be required from the DGen Customer.

4. The Distribution Impact Study will incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on system operation, as necessary. The detailed contents and considerations of Distribution Impact Study are contained in Appendix J.

5. Upon payment of the estimated cost for the Distribution Impact and receipt of required data on the application form, Altamaha EMC will complete the study in 90 days.

D. Facility Study

1. To implement the recommendations of the Distribution Impact Study, a Facility Study is required. The electric power distribution system interconnection design for any required Interconnection Facilities and/or System Upgrades will be performed by a Facility Study. The detailed contents of the Facility Study are contained in Appendix K.

2. Upon completion of the Facility Study, the DGen Customer will be responsible for the cost for the required upgraded interconnection facilities before proceeding with the installation of the interconnection with the DGen Resource.

E. Additional Requirements for Medium and Large DGen Customer

1. A lockable disconnect switch shall be installed by or for the Medium or Large DGen Customer. Altamaha EMC will open and lock the disconnect switch for safe live-line maintenance of Altamaha EMC facilities.

2. Medium and Large DGen Customers shall certify their equipment and installation for interconnect as defined by the standards listed in Appendix B. This certification shall be provided a qualified independent electrical engineer licensed to practice in Georgia as described in Appendix E. Altamaha EMC will accept self certification for inverters certified by a nationally recognized testing and certification laboratory. Reference Appendix C for details regarding self certification.

3. A transfer trip scheme or relay protection is required for Medium DGen Resources to prevent islanding and to coordinate with Altamaha EMC's overcurrent protection system. A transfer trip scheme will generally be required when the capacity of the aggregated generation, including the proposed Medium DGen Resource, on the circuit exceeds fifteen percent (15%) of the total circuit annual peak load as most recently measured at the substation. The transfer trip scheme will be designed to coordinate the protective device(s) of the Medium DGen Resource and Altamaha EMC's protective device(s). The Medium DGen Customer will be responsible for the cost of the installation and implementation of the transfer trip system.

4. A transfer trip scheme is required for Large DGen Resources. The transfer trip scheme will be designed to coordinate with the protective device(s) of the Large DGen Resource and Altamaha EMC's protective device(s). The Large DGen Customer will be responsible for the cost of the installation and implementation of the transfer trip system.

5. Proposed DGen Resources shall execute an Interconnection Agreement prior to Commission Testing or the start of the Distribution Impact Study whichever occurs first.

6. Commission testing is required for Medium and Large DGen Customers. As part of the commission test, Altamaha EMC will verify that the installation complies with the non-islanding provisions of IEEE 1547.

7. Medium and Large DGen Customers shall provide Altamaha EMC access to the DGen Resource 24 hours a day, 7 days a week.

8. Disturbance monitoring is required for Medium and Large DGen Resources. These Medium or Large DGen Resources must be equipped with a system that has the capability for detailed data logging around fault conditions, with storage in a non-volatile format. This information will be supplied to Altamaha EMC upon reasonable request. Altamaha EMC will at its sole discretion use this monitoring data to verify compliance with the Interconnection Technical Requirements in Appendix E.

9. Real time monitoring is required for Medium and Large DGen Resources. The real time monitoring will provide connection status, real power output, reactive power output, and voltage at the point of connection. The Medium or Large DGen Customer will be responsible for all costs and methods to transmit this data to Altamaha EMC. While not its only purpose, the real time monitoring could be used by Altamaha EMC, at its sole discretion, to verify compliance with the Interconnection Technical Requirements in Appendix E.

10. Periodic (at least annually) testing is required for Medium and Large DGen Resources. The Medium or Large DGen Customer will maintain records for testing and maintenance of the installation. Failure to maintain adequate records of testing can be the basis for disconnecting the DGen Resource.

11. The Medium and Large DGen Customer is responsible for obtaining Green-e certification necessary for RECs.

12. Utility grade hourly metering at the Medium and Large DGen Resource is required, at the cost of the DGen Customer, according to the provisions defined in Section IV - Disposition of Energy.

13. Net Metering may be used for certain Commercial Medium DGen Resources as provided in Section IV - Disposition of Energy.

14. For Medium DGen Resources with net metering, Altamaha EMC has no requirement for additional liability insurance. For all other Medium DGen Resources, DGen Customer will be required to obtain a minimum $1,000,000 Liability Coverage to insure for claims of property damage and injury.

15. Large DGen Customer will be required to obtain Liability Coverage to insure for claims of property damage and injury. The amount will be defined by Altamaha EMC but will not be less than $10,000,000.

16. Altamaha EMC will be named as Additional Insured on all insurance liability policies required herein. The DGen Customer shall furnish Altamaha EMC a certificate evidencing compliance with the foregoing requirements which shall provide no less than thirty days prior written notice to Altamaha EMC of any cancellation or material change in the insurance.

F. Interconnection Metering

1. Any metering necessitated by the use of the Medium or Large DGen Resource shall be installed at the DGen Customer's expense in accordance with State or local regulatory requirements or Altamaha EMC's specifications.

2. Altamaha EMC will install utility grade metering at the Medium or Large DGen Resource, at the cost of the DGen Customer, according to the provisions defined in Section IV - Disposition of Energy.

G. Commissioning

1. Commissioning tests of a Medium or Large DGen Customer's installed equipment will be performed pursuant to applicable codes and standards.

2. Altamaha EMC must be given at least fifteen (15) business day's written notice, or as otherwise mutually agreed to by the Parties, of the tests and may be present to witness the commissioning tests.

IV. DISPOSITION OF ENERGY

All service rules, regulations and restrictions outlined under the Cooperative's schedules for the purchase and sale of electricity will apply, in addition to the following provisions.

A. Small and Medium DGen Resources

For DGen Customers of Altamaha that own and operate either a Small or Medium DGen Resource that meets all of the following conditions immediately below, the Net Metering provisions in Section 1 below shall apply, otherwise Section 2 shall apply[1].

i. For DGen Resources that are primarily intended to offset part or all of the consumer's electrical requirements

ii. Have executed the Cooperative's Interconnection and Parallel Operations Agreement

iii. Are eligible for net-metering as defined by the terms of The Georgia Cogeneration and Distributed Generation Act, O.C.G.A §46-3-50[2]

1. Interconnection With Net Metering

a. Metering

i. The Cooperative will use either a single-directional or bi-directional meter depending upon how the distributed generation facility is connected to the distribution system.

ii. If the distributed generation facility is connected to the distribution system on the Net Metering Customer's side of the retail service meter, the Cooperative will use a bi-directional meter for net metering.

iii. If the distributed generation facility is connected to the distribution system on the Cooperative's side of the retail service meter, the Cooperative will install an additional single directional meter for net metering.

[1] Examples of net metering not being applicable include, but are not limited to: a) the DGen Resource is used for purposes of only exporting energy and not to serve the energy requirements of the DGen Customer, and b) the sum of the installed capacity of generation pursuant to the Net Metering Service rate, Schedule "NMS", exceeds 0.2% of the Cooperative's annual peak demand or the Cooperative has exceeded any other threshold for limiting the amount of Net Metering installations on its system.

[2] Renewable energy resources, as defined by the Georgia Act, with capacity no greater than 10 kW for residential customers and no greater than 100 kW for commercial customers.

iv. At the option and at the cost of the Cooperative, utility grade hourly metering may be installed at the generator.

b. Obligations to Purchase Excess Net Energy

i. When the electricity generated by the Net Metering Customer's distributed generation facility exceeds the electricity supplied by the Cooperative during the billing period, the Net Metering Customer shall receive a credit for the excess net energy pursuant to the Cooperative's applicable net metering service rate. For QF's such credits shall be determined using the Cooperative's avoided cost rates.

ii. The net metering customer shall be charged for electric service under that rate schedule which would otherwise be applicable if the customer was not a net metering customer.

c. Charges for Interconnection And Net Metering

i. The Net Metering Customer shall be responsible for all costs of installing, operating and maintaining protective equipment and/or electrical facilities required to interconnect with the Cooperative's electric distribution system.

ii. The Net Metering Customer shall be charged for the direct and indirect costs incurred by the Cooperative as a result of the interconnection and for providing net metering service.

iii. Said charges will be determined in accordance with the Cooperative's applicable net metering service rate.

2. Interconnection Without Net Metering

a. Metering

i. The Cooperative shall not install either a single-directional or a bi-directional meter for the purpose of net metering.

ii. The Cooperative shall install utility grade metering at the DGen Resource, at the cost of the DGen Customer, if there is an agreement to purchase the energy provided by the DGen Resource.

b. Purchase of Energy

i. The Cooperative is not obligated to purchase any energy produced by the DGen Resource, but may do so at the discretion of the Cooperative.

ii. If any energy from the DGen Resource is purchased by the Cooperative, such purchase shall be made using rates as negotiated between the Cooperative and the DGen Customer, except for QF's, such rates shall be the Cooperative's avoided cost rates.

iii. The purchase shall be conducted under net billing arrangements:

a) When the Energy Payment exceeds the Retail Billing Amount during the billing period, the customer generator shall receive a credit to the member's account for the next month's billing cycle.

b) If the Retail Billing Amount exceeds the Energy Payment, then the customer generator shall be billed for the difference in accordance with normal billing practices.

c. Charges for Interconnection and Net Metering

i. The DGen Customer shall be responsible for all costs of installing, operating and maintaining protective equipment and/or electrical facilities required to interconnect with the Cooperative's electric distribution system.

ii. The DGen Customer shall be charged for the direct and indirect costs incurred by the Cooperative as a result of the interconnection and for providing net metering service.

iii. Said charges will be determined in accordance with the requirements contained herein.

3. Qualifying Facilities

For any DGen customer that also has formal status as a Qualifying Facility (QF), the following provisions shall apply:

a. The credit for the excess net energy pursuant to the Cooperative's applicable net metering service rate, or net billing procedures, shall be based upon Altamaha EMC's avoided costs.

b. The Cooperative will have retail service rates available for any supplemental, back-up, or maintenance power service requirements, as may be requested by the Small or Medium DGen Customer. (Standard rates that would otherwise apply for QF's with capacity of less than 100 kW.)

4. Renewable Energy Credits

The Small or Medium DGen Customer shall retain ownership of all RECs produced by the DGen Resource, and the ownership of such RECs shall not be transferred to Altamaha EMC unless there are specific provisions in the Interconnection Agreement for such transfer or for their sale and purchase. Altamaha shall not be obligated to purchase RECs but may do so at rates as negotiated between the Cooperative and the DGen Customer.

The DGen Customer shall be responsible for:

a. Gaining Green-e certification, a pre-requisite necessary to produce RECs.

b. Either i) installing separate utility grade metering at the DGen Resource, or ii) developing and gaining approval from the Center for Resource Solutions of an engineering estimate[3] of the DGen Resource output.

c. Maintaining auditable records of the actual energy generated by the DGen Resource used for purpose of producing RECs.

B. Large DGen Resources

For DGen Customers of Altamaha EMC that own and operate a Large DGen Resource, net metering provisions do not apply; however the following provisions are applicable.

1. Metering

   a. The Cooperative shall install utility grade metering at the Large DGen Resource, at the cost of the DGen Customer, if there is an agreement to purchase the energy provided by the DGen Resource.

2. Purchase of Energy

   a. The Cooperative is not obligated to purchase any energy produced by the Large DGen Resource, but may do so at the discretion of the Cooperative.

   b. If any energy from the Large DGen Resource is purchased by the Cooperative, such purchase shall be made using rates as negotiated between the Cooperative and the DGen Customer, except for QF's, such rates shall be the Cooperative's avoided cost rates.

3. Charges for Interconnection and Metering

[3] The use of an engineering estimate for the determination of RECs is applicable to generators with a capacity rating of no greater than 10 kW.

a. The DGen Customer shall be responsible for all costs of installing, operating, and maintaining protective equipment and/or electrical facilities required to interconnect with the Cooperative's electric distribution system.

b. The DGen Customer shall be charged for the direct and indirect costs incurred by the Cooperative as a result of the interconnection.

4. Retail Sales

a. The Cooperative will have retail service rates available for any back-up power service requirements, as may be required for the DGen Customer.

b. The Cooperative may use an existing rate for backup service requirements or may establish a new retail rate applicable to customers with generators.

5. Qualifying Facilities

For any Large DGen customer that also has formal status as a QF, the following provisions shall apply:

a. The purchase rate for any capacity and energy purchased by the Cooperative shall be based upon Altamaha EMC's avoided costs.

b. The Cooperative will have retail service rates available for any supplemental, back-up or maintenance power service requirements, as may be requested by the DGen Customer. (The Cooperative's applicable retail rates applicable for service to QF's with capacity of 100 kW or greater, as may be amended from time to time).

6. Renewable Energy Credits

The DGen Customer shall retain ownership of all RECs produced by the Large DGen Resource, and the ownership of such RECs shall not be transferred to Altamaha EMC unless a) there are specific provisions in the Interconnection Agreement for such transfer or for their sale and purchase. Altamaha EMC shall not be obligated to purchase RECs, but may do so at rates as negotiated between the Cooperative and the DGen Customer.

The DGen Customer shall be responsible for:

a. Gaining Green-e certification, which is a pre-requisite necessary to produce RECs.

b. Installing separate utility grade hourly metering at the DGen Resource.

c. Maintaining auditable records of the actual energy generated by the DGen Resource used for purpose of producing RECs.

“APPENDICES”

APPENDIX "A"

GLOSSARY OF TERMS

"Agreement" – means an Interconnection and Parallel Operation Agreement for Distributed Generation Resources by and between Altamaha EMC and the DGen Customer.

"**Commissioning Test" –** a series of tests and inspections preformed by DGen Customer on its installed equipment for adherence to applicable codes and standards.

"DGen Customer" – means a customer of Altamaha EMC that owns (or leases) and operates a distributed generation resource subject to these interconnection procedures.

"Dedicated Transformer" – a transformer with a secondary winding that serves only one customer.

"Disconnect (verb)" – To isolate a circuit or equipment from a source of power. If isolation is accomplished with a solid-state device, "disconnect" shall mean to cease the transfer of power.

"Disconnect Switch" – a mechanical device used for isolating a circuit or equipment from a source of power.

"Distributed Generation Equipment" – includes any on-site DGen Resources: distributed generation facilities, self-generators, small electric generation facilities, and electric customer-owned generators.

"Distributed Generation (or DGen) Facility " – means a Customer owned or leased generation or energy storage facility operating at a distribution voltage of 25 kV or less, including any generation resource and associated equipment, wiring, protective devices or switches owned or leased by the Customer.

"Distributed Generation (or DGen) Resource " – means a generation or energy storage resource that is: i) located on the Customer premises, ii) operates in parallel with the Cooperative's distribution facilities at a distribution voltage of 25 kV or less, and iii) is connected to the Cooperative's distribution system on either side of the Cooperative's retail service meter, and is iv) subject to these procedures. Any such resources are categorized according to the following capacity ratings of the generation resource:

a. "Small" - means a generation resource with a capacity rating of not greater than 2.0 kW. In all cases, equipment shall be single phase in nature. Customers that own and operate Small generation resources that meet the criteria of the Georgia Cogeneration and Distributed Generation Act of 2001,

as amended (OCG 46-3-50) may also be referred to as a Net Metering Customer.

b. "Medium" - means a generation resource with a capacity rating of greater than 2.0 kW, and not greater than 10 kW.

c. "Large" - means a generation resource with a capacity rating of greater than 10 kW and not greater than 10 MW.

"**Energy Payment**" - means the electricity generated and fed into the electric grid by the customer generator multiplied by the applicable capacity and energy purchase rates, as defined by the terms of the Agreement.

"Facilities Charge" means monthly charge based on the total incremental cost of all facilities installed by the Cooperative, including additional metering equipment, transformers, protective devices, controls and monitoring equipment times the Cooperative's monthly Fixed Charge Rate.

"Fixed Charge Rate" means a percentage factor, as may be modified from time to time, which includes components for the recovery of operations and maintenance expense, administrative and general expense, taxes, depreciation and the cost of capital associated with owning and operating the utility plant necessary for interconnection.

"IEEE" – means Institute of Electrical and Electronics Engineers, Inc., a non-profit technical professional organization responsible with members in 150 countries, responsible for technical publishing, conferences, and consensus-based standards activities (www.ieee.org).

"Islanding" – a condition in which a portion of Altamaha EMC's system that contains both load and a small distributed generator resource is isolated from the remainder of Altamaha EMC's system [adopted from the Institute of Electrical and Electronics Engineers (IEEE)].

"Net Billing" – means the arrangements as described in Section IV.A.2.b.iii applicable to customers with certain Small and Medium DGen resources to either charge the customer for amounts owed to the Cooperative or for amounts credited to the customer.

"Net Metering" – means the arrangements as described in Section IV.A.1.b. applicable to eligible customers, as defined by The Georgia Cogeneration and Distributed Generation Act, O.C.G.A §46-3-50, with Small and Medium DGen resources to either charge the customer for amounts owed to the Cooperative or for amounts credited to the customer.

"Point of Common Coupling (PCC)" – The point at which the interconnection

between Altamaha EMC's system and the DGen Customer's equipment interface occurs. Typically, this is the customer side of Altamaha EMC's revenue meter.

"Pre-certified, Pre-certification" – a specific generating and protective equipment system or systems that have been certified and documented as meeting applicable test requirements and standards relating to safety and reliability by a nationally recognized testing laboratory or, in the absence of such test requirements and standards, by tests and standards approved by Altamaha EMC.

"Qualifying Facility" or "QF" - a generating facility which meets the requirements set forth in Federal Energy Regulatory Rules promulgated under Sections 201 and 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA). In general, a QF must either produce useful thermal energy and electricity through sequential use of energy or have a renewable resource (e.g. biomass, waste, geothermal, etc…) as its primary energy source.

"Renewable Energy Credit" or "REC" - means a renewable energy credit as defined in the Green-e Energy National Standard and shall include all the renewable attributes associated with one (1) MWh of energy production.

"Renewable Resource" – a DGen Resource that generates electricity using a renewable fuel source, as defined by the Georgia Cogeneration and Distributed Generation Act of 2001, as amended (OCG 46-3-50).

"**Retail Billing Amount**" - means the dollar amount calculated by applying the electricity supplied to a customer generator from the electric grid by the Cooperative to the applicable retail rate.

"System Impact Study" – any study or studies performed by a Altamaha EMC or a designated third party to ensure that the safety and reliability of the electric power system with respect to the interconnection of DGen Resources as discussed in this document.

"The Georgia Act" - means The Georgia Cogeneration and Distributed Generation Act, O.C.G.A §46-3-50.

"Transmission Service Provider" – means Georgia Transmission Corporation or another electric utility in Georgia that provides transmission and related services for the delivery of electric power and energy to the Cooperative's substations, as well as the necessary ancillary services which are necessary to support the reliable operations of the transmission of electric power.

"UL" – means Underwriters Laboratory, Inc., an independent, not-for-profit product safety testing and certification organization operating in Canada, Europe, Asia, Latin America, and the U.S.A. (www.ul.com).

"Utility Grade Relay" – a relay that is constructed to comply with, as a minimum, the most current version of the industry standards for non-nuclear Company facilities.

APPENDIX "B"

CODES AND STANDARDS

1. **IEEE 1547™ (2008)** Standard for Interconnecting Distributed Resources with Electric Power Systems as adopted and successor or related IEEE-approved standards
2. **UL 1741** Inverters, Converters, and Controllers for Use in Independent Power Systems
3. **IEEE Std 929-2000** IEEE Recommended Practice for Utility Interface of Photovoltaic (PV) Systems
4. **NFPA 70 (2008),** National Electrical Code
5. **IEEE Std C37.90.1-1989 (R1995),** IEEE Standard Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems
6. **IEEE Std C37.90.2 (1995)**, IEEE Standard Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers
7. **IEEE Std C37.108-1989 (R2002),** IEEE Guide for the Protection of Network Transformers
8. **IEEE Std C57.12.44-2000**, IEEE Standard Requirements for Secondary Network Protectors
9. **IEEE Std C62.41.2-2002**, IEEE Recommended Practice on Characterization of Surges in Low Voltage (1000V and Less) AC Power Circuits
10. **IEEE Std C62.45-1992 (R2002),** IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000V and Less) AC Power Circuits
11. **ANSI C84.1-2006** Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)
12. **IEEE Std 100-2000**, IEEE Standard Dictionary of Electrical and Electronic Terms
13. **NEMA MG 1-1998**, Motors and DGen Resources, Revision 3
14. **IEEE Std 519-1992**, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

15. **IEEE Std C62.42-1992(2002),** IEEE Recommended Practice on Surge Testing for Equipment Connected to Low Voltage (1000V and Less) AC Power Circuits

16. **ANSI/IEEE Std 446-1995**, Recommended Practice for Emergency and Standby Power Systems for Industrial and Commercial Applications

17. ANSI/IEEE Std 142-1991, IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems – Green Book

18. **ANSI/IEEE C2-2007**, National Electric Safety Code (NESC)

19. **IEEE Std. 1453 – 2004**, IEEE recommended Practice for Measurement and Limits of Voltage Fluctuations and Associated Light Flicker on AC Power Systems

APPENDIX "C"

CERTIFICATION OF DISTRIBUTED RESOURCE EQUIPMENT PACKAGES MEETING UL-1741

I. Overview

a. A DGen Resource equipment package shall be considered certified for interconnected operation to Altamaha EMC's electric power distribution system if it has been approved under the certification process described below.

b. After installation, Altamaha EMC may require a Commissioning Test to ensure adherence to local codes and applicable standards contained in Appendix B requirements. Altamaha EMC at its sole discretion may waive the requirement of the witness test.

II. CERTIFICATION PROCESS

a. An equipment package shall be considered certified for interconnected operation if it has been certified by UL-1741.

b. An "equipment package" shall include all interface components including switchgear, inverters, or other interface devices and may include an integrated DGen Resource.

c. If the "equipment package" has been tested and listed as an integrated package which includes a DGen Resource, it shall not require further design review, testing or additional equipment to meet the certification requirements.

d. If the equipment package includes only the interface components (switchgear, inverters, or other interface devices), then a DGen Customer must demonstrate that the DGen Resource being utilized with the equipment package is compatible with the equipment package and consistent with the testing and listing specified for the package.

e. Provided the DGen Resource combined with the equipment package is consistent with the testing and listing be UL-1741, no further design review, testing or additional equipment shall be required to meet the certification requirements.

f. A certified equipment package does not include equipment provided by the utility, nor does certification necessarily exempt an equipment package or DGen Resource from Commissioning Testing required for installation and operation.

APPENDIX "D"

ALTAMAHA EMC

INTERCONNECTION AND PARALLEL OPERATIONS AGREEMENT (SHORT FORM - FOR SMALL AND MEDIUM DGEN RESOURCES)

This Agreement made _____, 20___, between Altamaha Electric Membership Corporation (hereinafter called "Cooperative"), and _____ (hereinafter called the "Distributed Generation Customer"),

W I T N E S S E T H:

WHEREAS, the Cooperative is a Georgia electric membership corporation providing retail electric service; and

WHEREAS, the Distributed Generation Customer is a member of the Cooperative; and

WHEREAS, the Distributed Generation Customer desires to install, own, operate and maintain a distributed generation facility; and

WHEREAS, the Distributed Generation Customer desires to interconnect with the Cooperative's electric distribution system (hereinafter called "System") of the Cooperative and has complied with the provisions for interconnection contained in the Cooperative's Distributed Generation Interconnection Procedures; and

WHEREAS, the Distributed Generation Customer desires to operate its generation equipment in parallel with the Cooperative's System.

NOW THEREFORE, it is understood and agreed that the Cooperative shall permit the Distributed Generation Customer to connect its generation system to the System and to operate its generation equipment in parallel with the System subject to the following terms and conditions:

1. COST OF INTERCONNECTION AND PROTECTIVE EQUIPMENT:

The Distributed Generation Customer shall be responsible for all costs of installing, operating and maintaining protective equipment and/or electrical facilities required to interconnect the Customer's generation equipment with the System.

2. OPERATING LIMITS:

Operation of Distributed Generation Customer-owned parallel generating equipment shall not compromise nor adversely affect the quality of electric service to other members on the System. The Distributed Generation Customer's parallel generating equipment shall meet the following minimum requirements:

a) Voltage

The Distributed Generation Customer shall be capable of operating its generating equipment within Range A of ANSI Standard C84.1-2006. For nominal 120 volt service, this Range A is a voltage level of 114 volts to 126 volts.

Generated voltages exceeding 126 volts shall cause the Distributed Generation Equipment to trip off line. Voltage regulating equipment shall maintain stable excitation levels with negligible hunting (less than 2% of nominal phase current).

b) Flicker

Parallel operation of the generating equipment shall not cause voltage flicker to exceed the visible flicker limit as defined by IEEE 1453 as measured at the primary terminals of the interfacing transformer.

c) Frequency

While operating in parallel with the System, the Distributed Generation Customer with generating equipment over 10 KW must provide a utility grade precision over/under frequency relay calibrated to trip for frequency excursions exceeding plus/minus 0.25 Hz for greater than 10 electrical cycles on a 60 Hz base.

d) Power Factor

Distributed Generation Customer-owned generation shall employ automatic means of reactive power regulation while operating in parallel with the System. The Distributed Generation Customer's generating equipment shall be capable of operation within the range of 0.9 lagging to 0.9 leading power factor as required by the Cooperative. Leading power shall not be used for voltage regulation or other purposes except by written permission from the Cooperative.

e) Harmonics

Total current harmonic distortion shall not exceed 5.0%. Total voltage harmonic distortion shall not exceed 5.0%, with a limit of 3.0% on any individual harmonic. Special consideration will be given to regenerative drive systems and invertors reviewed on an individual case-by-case basis.

f) Stability

While operating in parallel with the System, the Distributed Generation Customer's generating equipment shall maintain a stable output level with no

noticeable hunting exhibited. In the event a system instability condition arises due to Distributed Generation Customer-owned generation, it is the Distributed Generation Customer's responsibility to take measures to rectify the source of instability.

3. GENERATOR INTERFACE TRANSFORMER:

The generator interface transformer is intended to provide isolation of the Distributed Generation Customer's generating equipment from the System. The inherent impedance of the transformer will minimize the impact on the System due to faults originating at the Distributed Generation Customer's generation equipment. This transformer may consist of an existing transformer serving the Distributed Generation Customer's loads or a dedicated transformer dictated by generator or prevailing system characteristics. Interface transformer specifications are determined by the Cooperative and determination of ownership of said transformer shall be at the Cooperative's option.

4. SYNCHRONIZATION:

It is the Distributed Generation Customer's responsibility to provide proper synchronizing of its parallel generating equipment. The Cooperative assumes no liability for any Distributed Generation Customer-owned generation and assumes that the Distributed Generation Customer operates its equipment at its own risk. Synchronizing equipment shall be capable of matching frequency within plus/minus 0.05 Hz and plus/minus 10 electrical degrees phase angle prior to paralleling breaker closure. Voltage shall be matched within plus/minus 4%.

5. SAFETY:

a) Operation of Distributed Generation Customer-owned generation equipment shall not present a safety hazard to the Cooperative employees or other members connected to the System or the public at large. Under no circumstances shall the Distributed Generation Customer-owned generation be used or be capable of energizing a de-energized (dead) System circuit. A positive means of disconnecting and locking out the Distributed Generation Customer-owned generation equipment with visible air-gap shall be provided to insure safety of Cooperative operating personnel during line maintenance. This disconnecting means may be via a lockable air-break disconnect or by a lockable drawout circuit breaker. Islanding of the Distributed Generation Customer-owned generation (a situation whereby the Distributed Generation Customer's loads and generation remains connected to the bus) shall be prevented by protective relaying specified by the Cooperative based on individual review of the Distributed Generation Customer's proposed generating system or through the use of equipment packages design for interconnected operation that have been certified by a nationally recognized testing and certification laboratory for continuous utility interactive operation.

b) It is not the intent of this document to specify protection of the Distributed Generation Customer's generator. Protection of the Distributed Generation Customer's generating equipment is the responsibility of the Distributed Generation Customer and the Cooperative assumes no liability for damage or failure of the Distributed Generation Customer's generation equipment.

c) The Distributed Generation Customer must certify that the required manual disconnect switch has been installed properly; that the distributed generation facility has been installed in accordance with the manufacturer's specifications; and that the installation meets all applicable safety, power quality, and interconnection requirements established by the National Electrical Code, the National Electrical Safety Code and the Institute of Electrical and Electronics Engineers. Three methods are available:

   i) Verification provided by a qualified independent electrical engineer licensed to practice in Georgia.
   ii) An equipment package shall be considered certified for interconnected operation if it has been certified by UL-1741.
   iii) Provide documentation that the equipment package used for interconnected operation has been certified by a nationally recognized testing and certification laboratory, and provide verification that the vendor has been certified, and that the distributed generation facility which has been installed is in compliance with the requirements established by Underwriters Laboratories or other national testing laboratories.

d) Prior to the initial interconnection of the Distributed Generation Customer's distributed generation facility to the Cooperative's distribution system, the Distributed Generation Customer will submit to the Cooperative a signed copy of all jurisdictional approvals (i.e., permit) for Distributed Generation Customer's distributed generation facility demonstrating compliance with all applicable federal, state and county/city regulations.

e) In the case of static inverter-connected generators with capacity in excess of 10 kilowatts, the Distributed Generation Customer must have the inverter installation and settings inspected by the Cooperative. The Cooperative may impose a fee for such inspection;

f) In the case of non-static inverter-connected generators, the Distributed Generation Customer must interconnect according to the Cooperative's interconnection guidelines and the Cooperative must inspect all protective equipment settings. The Cooperative may impose a fee for such inspection.

6. TESTING:

The Distributed Generation Customer shall verify proper tripping and lockout of the generator system for all defined faults as determined by the Cooperative during final review of system relay requirements. Failure to maintain records will be grounds for refusal of permission to operate parallel generating equipment. Under no circumstances shall parallel generating equipment be operated with inoperative or defective protective relays.

7. COMPLIANCE PROCEDURE:

The Cooperative reserves the right to automatically or manually disconnect and lockout the Distributed Generation Customer's generation equipment without prior notice whenever, at the Cooperative's sole discretion, the Distributed Generation Customer is deemed by the Cooperative to not be in compliance with the minimum interconnection requirements as specified via this Agreement. The interconnection will remain open until corrective action is taken and suitable testing is completed.

8. NET METERING AND INTERCONNECTION CHARGE:

The Distributed Generation Customer shall pay the Cooperative in accordance with the rates, terms and conditions of the "Net Metering Service" rate schedule attached to and made a part of this Agreement, and as may be revised from time to time.

INTERCONNECTION CHARGE (ALTERNATE #8 FOR NON- NET METERING):

The Distributed Generation Customer shall pay the Cooperative in accordance with the applicable rate for retail electric service and a Facilities Charge for all costs associated with the interconnection of the distributed generation resource.

INTERCONNECTION CHARGE (ALTERNATE #8 FOR NO RETAIL SERVICE):

The Distributed Generation Customer shall pay the Cooperative a Facilities Charge for all costs associated with the interconnection of the distributed generation resource.

9. LIMITATION OF LIABILITY AND INDEMNIFICATION:

Notwithstanding any other provision in this Agreement, with respect to the Cooperative's provision of electric service to Distributed Generation Customer and the services provided by the Cooperative pursuant to this Agreement, the Cooperative's liability to Distributed Generation Customer shall be limited as set forth in accordance with this paragraph.

For the purposes of this Agreement, a Force Majeure event is any event: (a) that is beyond the reasonable control of the affected Party; and (b) that the affected Party is unable to prevent or provide protection against by exercising reasonable diligence,

including the following events or circumstances, but only to the extent that they satisfy the preceding requirements: acts of war, public disorder, legal cease and desist orders, rebellion or insurrection; floods, hurricanes, earthquakes, lighting, storms or other natural calamities; explosions or fires; strikes, work stoppages or labor disputes; embargoes; and sabotage. If a Force Majeure event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing and will keep the other Party informed on a continuing basis as to the scope and duration of the Force Majeure event. The affected Party will specify the circumstances of the Force Majeure event, its expected duration and the steps that the affected Party is taking to mitigate the effect of the event on its performance. The affected Party will be entitled to suspend or modify its performance of obligations under this Agreement but will use reasonable efforts to resume its performance as soon as possible. ALL PROVISIONS NOTWITHSTANDING, IN NO EVENT SHALL THE COOPERATIVE BE LIABLE TO THE DISTRIBUTED GENERATION CUSTOMER FOR ANY INTEREST, LOSS OF ANTICIPATED REVENUE, EARNINGS, PROFITS, OR INCREASED EXPENSE OF OPERATIONS, LOSS BY REASON OF SHUTDOWN OR NON-OPERATION OF DISTRIBUTED GENERATION CUSTOMER'S PREMISES OR FACILITIES FOR ANY INDIRECT, INCIDENTIAL, OR CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES ARISING OUT OF OR RELATED, IN WHOLE OR PART, TO THIS AGREEMENT. The Cooperative shall not be liable in any event for consequential damages.

The Distributed Generation Customer shall assume all liability for and shall indemnify the Cooperative and its members, trustees, directors, officers, managers, employees, agents, representatives, affiliates, successors and assigns for and shall hold them harmless from and against any claims, losses, costs, and expenses of any kind or character to the extent that they result from the Distributed Generation Customer's design, construction, installation, operation or maintenance of the Distributed Generation Facility. Such indemnity shall include, but is not limited to, financial responsibility for (a) monetary losses; (b) reasonable costs and expenses of defending an action or claim; (c) damages related to death or injury; (d) damages to property; and (e) damages for the disruption of business.

The Cooperative and Distributed Generation Customer shall each be responsible for the safe installation, maintenance, repair and condition of their respective lines, wires, switches, or other equipment or property on their respective sides of the point where the electric energy first leaves the wires or facilities owned by the Cooperative and enters the wires or facilities provided by the Distributed Generation Customer (the "Point of Common Coupling"). The Cooperative does not assume any duty of inspecting the Distributed Generation Customer's lines, wires, switches, or other equipment or property. The Distributed Generation Customer assumes all responsibility for the electric service supplied hereunder and the facilities used in connection therewith, at or beyond the Point of Common Coupling.

10. INSURANCE:

The Distributed Generation Customer agrees to take out and maintain throughout the term of this Agreement liability insurance in the amount of_____ and, if applicable, worker's compensation and employer's liability in the amount of_____, as may be required by law and when required by the Cooperative's distributed generation interconnection policies, covering all the Distributed Generation Customer's employees or representatives who perform any obligations of the Distributed Generation Customer set forth herein. The Cooperative shall be named as an Additional Insured on all the Distributed Generation Customer's policies of insurance.

When insurance is required as specified above, a current certification of the Distributed Generation Customer's insurance policies with the Cooperative being named as an Additional Insured must be on file with the Cooperative at all times. The policies of insurance shall be in such form and issued by such insurer as shall be satisfactory to the Cooperative. The Distributed Generation Customer shall furnish the Cooperative a certificate evidencing compliance with the foregoing requirements within the first 30 days of each insurance policy renewal term, and shall provide not less than 30 days prior written notice to the Cooperative of any cancellation or material change in the insurance

11. <u>ACCESS:</u>

[For Small DGen Customers] The Cooperative shall have access to the Distributed Generation Customer's premises during normal business hours for inspections, meter reading, testing, verification, operations, or other required activities, and at all times for emergency access.

[For Medium DGen Customers] The Cooperative shall have access at all times to the Distributed Generation Customer's premises for inspections, meter reading, testing, verification, operations, emergencies, or other required activities.

The Cooperative reserves the right, but not the obligation, to inspect the Distributed Generation Customer's distributed generation facility.

12. <u>TERM:</u>

This Agreement shall become effective on the date first above written and shall remain in effect until _____ years following the start of the initial billing period and thereafter until terminated by either party giving to the other three (3) months' notice in writing; provided, however, the Cooperative may terminate this Agreement prior to the expiration of the term hereof upon any breach of this Agreement by the Distributed Generation Customer.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement all as of the day and year first above written.

ATTEST:

_____
Altamaha EMC

_____ By: _____
President

ATTEST:

_____
Consumer

_____ By: _____
Secretary Title of Officer*

APPENDIX "E"
SMALL, MEDIUM, AND LARGE DISTRIBUTED GENERATION INTERCONNECTION TECHNICAL REQUIREMENTS

I. INTRODUCTION

A. This Section contains additional technical requirements for interconnecting small, medium, and large generators with the Altamaha EMC electric system

B. Appendix C provides the Certification process for generator systems which meet UL-1741.

II. OPERATING LIMITS

A. Operation of DGen Resource Customer-owned parallel generating equipment shall not compromise the quality of electric service to other members on the System.

B. The DGen Resource Customer's parallel generating equipment shall meet the following minimum requirements:

1. Voltage

a. The DGen Resource Customer shall be capable of operating its generating equipment within Range A of ANSI C84.1-2006. For nominal 120 volt service, this Range A is a voltage level of 114 volts to 126 volts.

b. For DGen Resource Customers with generators over 10 KW, utility grade negative sequence/under-voltage relaying shall be used to trip the equipment off the line for negative excursions below 118 volts for a maximum duration of six electrical cycles.

c. Voltages exceeding 126 volts shall cause the equipment to trip off line.

d. Voltage regulating equipment shall maintain stable excitation levels with negligible hunting (less than 2% of nominal phase current).

2. Flicker

a. Customer shall operate and maintain the generation equipment such that any power output fluctuations do not cause voltage flicker that exceeds the visible flicker limits as defined in IEEE 1453 -1993 as measured at the primary terminals of the DGen Resource Customer's generator interface transformer.

3. Frequency

   a. While operating in parallel with the System, the DGen Resource Customer with generating equipment over 10 KW shall provide a utility grade precision over/under frequency relay calibrated to trip for frequency excursions exceeding plus/minus 0.5 Hz for greater than 10 electrical cycles on a 60 Hz base.

4. Power Factor

   a. DGen Resource Customer-owned generation shall employ automatic means of reactive power regulation while operating in parallel with the System.

   b. Generating equipment shall operate as near unity power factor as possible, but in no case below 0.9 or 90% lagging.

   c. Leading power factor shall not be used for voltage regulation or other purposes except by written permission of Altamaha EMC.

5. Harmonics

   a. Total current harmonic distortion shall not exceed 5.0%.

   b. Total voltage harmonic distortion shall not exceed 5.0%, with a limit of 3.0% on any individual harmonic.

   c. Special consideration will be given to regenerative drive systems and invertors reviewed on an individual case-by-case basis.

6. Stability

   a. While operating in parallel with the System, the DGen Resource Customer's generating equipment shall maintain a stable output level with no noticeable hunting exhibited.

   b. In the event a system instability condition arises due to DGen Resource Customer-owned generation, it is the DGen Resource Customer's responsibility to take measures to rectify the source of instability.

7. Fault Current Margin

   a. Altamaha EMC's substations and distribution lines are subject to fault duty limitations.

b. Adding generation will increase the fault current imposed on the system.

c. No generating equipment which increases the fault current beyond the design rating of the distribution system equipment may be installed.

d. Customer may obtain a waiver of this requirement by paying the cost of any upgrades deemed necessary by Altamaha EMC.

III. GENERATOR INTERFACE TRANSFORMER

A. The generator interface transformer is intended to provide isolation of the DGen Resource Customer's generating equipment from the System.

B. The inherent impedance of the transformer will minimize the impact on the System due to faults originating at the DGen Resource Customer's generation equipment.

C. This transformer may consist of an existing transformer serving the DGen Resource Customer's loads or a dedicated transformer dictated by generator or prevailing system characteristics.

D. Interface transformer specifications are determined by the Cooperative and determination of ownership of said transformer shall be at the Cooperative's option.

IV. GENERATOR PARALLELING BREAKER

A. For DGen with a capacity greater than 2MW, it is required that a generator-paralleling breaker be electrically operated and rated as a five electrical cycle device for fault clearing or tripping.

V. SYNCHRONIZATION

A. It is the DGen Resource Customer's responsibility to provide proper synchronizing of its parallel generating equipment.

B. The Cooperative assumes no liability for any DGen Resource Customer-owned generation and assumes that the DGen Resource Customer operates its equipment at its own risk.

C. Synchronizing equipment shall be capable of matching frequency within plus/minus 0.05 Hz and plus/minus 10 electrical degrees phase angle prior to paralleling breaker closure.

D. Voltage shall be matched within plus/minus 4%.

VI. SAFETY

A. Operation of DGen Resource Customer-owned generation equipment shall not present a safety hazard to the Cooperative employees or other members connected to the System or the public at large.

B. Under no circumstances shall the DGen Resource Customer-owned generation be used or be capable of energizing a dead (i.e., de-energized) System circuit.

C. A positive means of disconnecting and locking out the DGen Resource Customer-owned generation equipment with visible air-gap shall be provided to ensure safety of Cooperative operating personnel during line maintenance.

D. When required, the disconnecting means may be via a lockable air-break disconnect or by a lockable drawout circuit breaker.

E. Islanding of the DGen Resource Customer-owned generation (a situation whereby the DGen Resource Customer's loads and generation remains connected to the bus) shall be prevented by protective relaying specified by the Cooperative based on individual review of the DGen Resource Customer's proposed generating system. At the Cooperative's sole discretion, this non-islanding provision will be verified by Commission Testing.

F. It is not the intent of this document to specify protection of the DGen Resource Customer's generator. Protection of the DGen Resource Customer's generating equipment is the responsibility of the DGen Resource Customer and the Cooperative assumes no liability for damage or failure of the DGen Resource Customer's generation equipment.

G. The DGen Resource Customer must provide verification that a qualified independent electrical engineer licensed to practice in Georgia has certified that the required manual disconnect switch has been installed properly; that the distributed generation facility has been installed in accordance with the manufacturer's specifications; and that the installation meets all applicable safety, power quality, and interconnection requirements established by the National Electrical Code, the National Electrical Safety Code and the Institute of Electrical and Electronics Engineers and other standards as required by Altamaha EMC as listed in Appendix B. Altamaha EMC may at its sole discretion allow a State of Georgia certified licensed electrician to certify the installation and operation of the manual disconnect switch in lieu of a State of Georgia registered Professional Engineer's (PE) certification. Altamaha EMC will consider each certification of this type on a case-by-case basis.

H. The DGen Resource Customer must provide verification that the vendor has certified that the distributed generation facility which has been installed is in

compliance with the requirements established by Underwriters Laboratories (UL) or other national testing laboratories.

I. In the case of static inverter-connected renewable fuel generators with an alternating current capacity in excess of 10 kilowatts, the Cooperative will review the inverter settings as installed by the DGen Resource Customer. The Cooperative may impose a fee on the DGen Resource Customer for such inspection.

J. In the case of non-static inverter-connected renewable fuel generators, the DGen Resource Customer must interconnect according to the Cooperative's interconnection guidelines and the Cooperative will inspect all protective equipment settings. The Cooperative may impose a fee on the DGen Resource Customer for such inspection.

VII. COMMISSION TESTING AND MAINTENANCE TESTING

A. Small generators not greater than 2.0 KW can be self certified.

B. For all other generators, the DGen Resource Customer shall retain a qualified independent electrical engineer licensed to practice in Georgia to maintain and annually test system protective relaying for the Customer-owned generating equipment. Altamaha EMC may at its sole discretion allow a State of Georgia certified licensed electrician to maintain and annually test protective relaying in lieu of having a Professional Engineer (PE) perform the annual testing and maintenance. Altamaha EMC will consider each activity of this type on a case-by-case basis.

C. Upon demand, the DGen Resource Customer shall produce records of testing and relay setting sheets for review by the Cooperative. Failure to maintain records will be grounds for refusal of permission to operate parallel generating equipment. This requirement does not apply to small generators not greater than10 KW.

D. The DGen Resource Customer shall verify proper tripping and lockout of the generator system for all defined faults as determined by the Cooperative during final review of system relay requirements.

E. Under no circumstances shall parallel generating equipment be operated with inoperative or defective protective relays.

VIII. COMPLIANCE PROCEDURE

A. The Cooperative reserves the right to automatically or manually disconnect the DGen Resource Customer's generation equipment without prior notice whenever, at the Cooperative's sole discretion, the DGen Resource Customer is deemed by the Cooperative to not be in compliance with the minimum interconnection requirements as specified via this Agreement.

B. The interconnection will remain open until corrective action is taken and suitable testing is completed.

IX. INDUCTION GENERATORS

A. Starting

1. Induction generators shall be started using techniques that minimize voltage flicker to meet the requirements of IEEE 1453.

2. Customer shall submit studies showing impact on the system of any capacitors used for starting or power factor correction.

B. Protection

1. Induction generators of any size shall be provided with over and under voltage, over and under frequency, utility grade relay protection.

C. Grounding

1. An appropriate grounding scheme suitable for the type of transformer and generator connections shall be provided.

2. The effects of ground-fault overvoltage, ferroresonance, harmonics, and ground-fault contribution and detection shall be studied and the results submitted to the Cooperative for approval.

X. STATIC POWER CONVERTERS

A. Static power converters shall meet the requirements of UL 1741, IEEE 929-2000, and IEEE-1547-2003 or the most recent revision.

B. Soft starting shall be used to minimize voltage flicker.

C. Inverter shall operate as near unity power factor as possible, but in no case below 0.9. Power factor shall not be used for voltage regulation purposes except by written permission of Altamaha EMC.

D. Inverters 10 KW or less shall provide protective functions required in UL 1741.

E. Inverters over 10 KW shall provide utility grade relays with over and under voltage, over and under frequency, phase and ground over-current functions.

F. The Cooperative reserves the right to require sensing on the primary connections if deemed necessary.

G. Proposed protection settings shall be submitted to the cooperative for approval prior to connecting the inverter to the /cooperative's system.

H. Islanding

1. Inverters with stand alone capability shall be provided with protection functions to isolate the customer's island from the Cooperative's system.

2. Customer shall not energize any part of the Cooperative's system at any time.

I. Grounding

1. An appropriate grounding scheme suitable for the type of transformer and generator connections shall be provided. The effects of ground-fault overvoltage, ferroresonance, harmonics, and ground-fault contribution and detection shall be studied and the results submitted to the Cooperative for approval.

XI. SYNCHRONOUS GENERATORS

A. General

1. All synchronous generators, regardless of size, shall meet the requirements of this section.

B. Power Factor

1. Customer shall operate the synchronous generator in the voltage following mode at near unity power factor.

2. The Cooperative will consider the use of reactive current-based regulation for the purpose of improving Customer's power factor or to improve voltage regulation.

3. Customers wishing to use reactive current-based regulation shall submit a request in writing to the Cooperative.

C. Voltage Flicker

1. Customer shall operate and maintain the generation equipment such that any power output fluctuations do not cause voltage flicker that exceeds the visible flicker limit as defined in IEEE 519-1992 and IEEE 1453.

D. Protection

1. Synchronous generator installations shall include the following functions, using utility grade relays, as a minimum:

   a. Over and under-voltage relays
   b. Over and under-frequency relays
   c. Sync check relay
   d. Ground fault detection (Device 51N), providing detection on the primary side of the service transformer.
   e. Phase fault detection (Device 50/51)

E. Reclosing protection for the generator

1. Customer shall be responsible for providing protection to the generator from automatic reclosing of the Cooperative's breakers.

2. Reclosing protection must respond to reclose operations of 0.65 seconds.

F. Grounding

1. An appropriate grounding scheme suitable for the type of transformer and generator connections shall be provided.

2. The effects of ground-fault overvoltage, ferroresonance, harmonics, and ground-fault contribution and detection shall be studied and the results submitted to the Cooperative for approval.

G. Harmonics

1. Synchronous generators shall not supply objectionable harmonics beyond the PCC.

2. The generation system design shall consider effects of transformer connections, grounding, and winding arrangement in mitigating harmonics.

H. Synchronous generators shall be designed to maximize stability and to minimize impacts to other customers on the system.

APPENDIX "F"

NOTIFICATION FOR PARALLEL GENERATION EQUIPMENT TO THE ELECTRIC SYSTEM LISTED BY UL 1741 2 KW OR LESS

Preamble and Instructions

An owner of a distributed generator resource that is listed by UL-1741 who requests interconnection to Altamaha EMC's distribution facilities, should submit a notification to Altamaha EMC, as follows:

Altamaha EMC's Designated Contact Person: _____
Altamaha EMC's Contact Information: Altamaha EMC
P.O. Box 346
Lyons, GA 30436
Phone: 800-822-4563
FAX: 912-526-4235

Application Fee

Altamaha EMC does not require an application for this size generator installation.

Section 1 – Applicant Information

Legal Name of Interconnecting Applicant (or, if an Individual, Individual's Name)
Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ Telephone (Evening): _____
FAX: _____
E-Mail Address: _____

Facility Location (if different from Above):
Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ Telephone (Evening): _____
FAX: _____
E-Mail Address: _____

Will the generation resource be used for any of the following (check all that apply):

To supply power to the DGen Customer? Yes __No __
To export power to Altamaha EMC? Yes ___ No ___
Emergency Use? Yes ___ No ___

For generators installed at locations with existing electric service to which the proposed generator will interconnect, provide:
Existing Account Number _____

Planned in-service date: _____

Existing Electric Service

Capacity: _____Amperes Voltage: _____Volts_____
Service Type:
____ Single Phase
____ Three Phase

Section 2 – Generator Qualifications

Energy source:

___ Solar
___ Wind
___ Hydro
___ Hydro ___ Type (e.g. Run-of-River)
___ Diesel
___ Natural Gas
___ Fuel Oil
Other (state type) _____

Type of Generator:
____Synchronous
____Induction
____ DC Generator or Solar with Inverter

List components of the Generating Facility that are currently certified by a U.S. Department of Energy-approved laboratory and/or listed by the Underwriters Laboratory:

	Equipment Type	UL Listing or U.S. Lab Certification (Identify)
1.		
2.		
3.		
4.		
5.		
6.		

Section 3 – Generator Technical Information

Generator (or solar collector) Manufacturer_____
Model Name _____
Model Number _____

Nameplate Output Power Rating in kW: (Summer)_____ (Winter) _____
Nameplate Output Power Rating in kVA: (Summer)_____ (Winter) _____

Section 4 – Additional Information

Provide a block diagram or one-line diagram of the proposed interconnection. Indicate following items as applicable.

Generator
Inverter
Protective equipment
Lockable disconnect switch
Utility electric meter

<u>Section 5</u> – Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Notification is true and correct.

Signature of Applicant: _____ Date: _____

APPENDIX "G"

APPLICATION FOR PARALLELING GENERATION EQUIPMENT TO ELECTRIC SYSTEM – GREATER THAN 2 KW AND NOT GREATER THAN 10 KW

Preamble and Instructions

An owner of a distributed generator resource greater than 2 kW and not greater than 10 kW who requests interconnection to Altamaha EMC's distribution facilities, must submit an application to Altamaha EMC, as follows:

Altamaha EMC's Designated Contact Person: _____
Altamaha EMC's Contact Information: Altamaha EMC
P.O. Box 346
Lyons, GA 30436
Phone: 800-822-4563
FAX: 912-526-4235

An application is a Complete Application when it provides all applicable and correct information required below. (Additional information to evaluate a request for Interconnection may be required pursuant to the application process after the application is deemed complete.)

Application Fee

Altamaha EMC will require an Application Fee of $50 for this application to be paid at the time of application.

Section 1 - Applicant Information

Legal Name of Interconnecting Applicant (or, if an Individual, Individual's Name)
Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ Telephone (Evening): _____
FAX: _____
E-Mail Address: _____

Facility Location (if different from Above):
Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ Telephone (Evening): _____
FAX: _____

E-Mail Address: _____

Will the generation resource be used for any of the following (check all that apply):

To supply power to the DGen Customer? Yes __No __
To export power to Altamaha EMC? Yes ___ No ___
Emergency Use? Yes ___ No ___

For generators installed at locations with existing electric service to which the proposed generator will interconnect, provide:

Existing Account Number _____

Interconnection Applicant's requested in-service date: _____

Existing Electric Service

Capacity: _____Amperes Voltage: _____Volts_____
Service Type:
____ Single Phase
____ Three Phase

Location of Protective Interface Equipment on Property
(Include address if different from customer address)

<u>Section 2</u> – Generator Qualifications
All data collected in Section 2 is applicable only to the generator facility, NOT the necessary interconnection facilities.
Energy source:

___ Solar
___ Wind
___ Hydro
___ Hydro ___ Type (e.g. Run-of-River)
___ Diesel
___ Natural Gas
___ Fuel Oil
Other (state type) _____

Type of Generator:

____Synchronous
____Induction
____ DC Generator or Solar with Inverter

List components of the Generating Facility that are currently certified by a U.S. Department of Energy-approved laboratory and/or listed by the Underwriters Laboratory:

Equipment Type UL Listing or U.S. Lab Certification (Identify)

1. _____

2. _____

3. _____

4. _____

5. _____

Section 3 – Generator Technical Information

Generator (or solar collector) Manufacturer_____
Model Name _____
Model Number _____

Nameplate Output Power Rating in kW: (Summer)_____ (Winter) _____
Nameplate Output Power Rating in kVA: (Summer)_____ (Winter) _____

Section 4 – Additional Information

Provide a block diagram or one-line diagram of the proposed interconnection. Indicate following items as applicable.

Generator
Inverter
Protective equipment
Lockable disconnect switch
Utility electric meter

Section 5 – Site Control

Enclose documentation verifying site control. The site control may be demonstrated through

a) Ownership of the site,

b) a leasehold interest in, or a right to develop a site for the purpose of constructing a distributed generation resource facility,
c) an option to purchase or acquire a leasehold site for such purpose;
d) an exclusivity or other business relationship between distributed generation resource facility and the entity having the right to sell, to lease or to grant the distributed generation resource facility the right to possess or occupy a site for such purpose.

Section 6 – Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct.

Signature of Applicant: _____ Date: _____

APPENDIX "H"

APPLICATION FOR PARALLEL GENERATION EQUIPMENT TO THE ELECTRIC SYSTEM – GREATER THAN 10 KW AND NOT GREATER THAN 10 MW

Preamble and Instructions

An owner of a distributed generator resource greater than 10 kW and not greater than 10 MW who requests interconnection to Altamaha EMC's distribution facilities, must submit an application by hand delivery, mail, e-mail or fax to Altamaha EMC, as follows:

Altamaha EMC's Designated Contact Person: _____

Altamaha EMC's Contact Information:
Altamaha EMC
P.O. Box 346
Lyons, GA 30436
Phone: 800-822-4563
FAX: 912-526-4235

An application is a Complete Application when it provides all applicable and correct information required below. (Additional information to evaluate a request for Interconnection may be required pursuant to the application process after the application is deemed complete.)

Application Fee

Altamaha EMC will require an Application Fee, to be paid at the time of application. The fee is provided in Altamaha EMC's Distributed Generation Interconnection Procedures.

Section 1 – Applicant Information

Legal Name of Interconnecting Applicant (or, if an Individual, Individual's Name)
Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ Telephone (Evening): _____
FAX: _____
E-Mail Address: _____

Facility Location (if different from Above):
Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ Telephone (Evening): _____

FAX: _____
E-Mail Address: _____

Will the resource be used for any of the following (check all that apply):
Net Metering? Yes __ No __
To supply power to the DGen Customer? Yes __No __
To export power to Altamaha EMC? Yes ___ No ___
To export power to the Transmission Service Provider? Yes ___ No ___

For generators installed at locations with existing electric service to which the proposed generator will interconnect, provide:
Existing Account Number _____

Requested Point of Interconnection: _____

Interconnection Applicant's requested in-service date: _____

Existing Electric Service

Capacity: _____Amperes Voltage: _____Volts_____
Service Type:
____ Single Phase
____ Three Phase

Location of Protective Interface Equipment on Property
(Include address if different from customer address)

<u>Section 2</u> – Generator Qualifications
All data collected in Sections 2 and 3 are applicable only to the generator facility, NOT the necessary interconnection facilities.

Energy source:

___ Solar
___ Wind
___ Hydro
___ Hydro ___ Type (e.g. Run-of-River)
___ Diesel
___ Natural Gas
___ Fuel Oil
Other (state type) _____

Type of Generator:
____Synchronous
____Induction
____DC Generator or Solar with Inverter

Applicant or Customer-Site Load _____kW (if none so state);
_____ (Reactive Load, if known)

Maximum Physical Export Capability Requested _____ kW

List components of the Generating Facility that are currently certified by a U.S. Department of Energy-approved laboratory and/or listed by the Underwriters Laboratory:

	Equipment Type	UL Listing or U.S. Lab Certification (Identify)
1.		
2.		
3.		
4.		
5.		

Section 3 – Generator Technical Information
Generator (or solar collector) Manufacturer, Model Name & Number:
_____
Version Number _____

Nameplate Output Power Rating in kW: (Summer)_____ (Winter) _____
Nameplate Output Power Rating in kVA: (Summer)_____ (Winter) _____
Individual Generator Power Factor
Rated Power Factor Leading: _____
Rated Power Factor Lagging: _____
Total Number of Generators in Wind Farm to be interconnected pursuant to this application:
_____

Elevation _____ _____Single phase _____Three phase
Inverter Manufacturer, Model Name & Number (if used): _____
List of Adjustable Set points the protective equipment or software: _____

Generator Characteristic Data (for rotating machines)
[Note: For Wind Generators, a completed General Electric Company Power Systems Load Flow (PSLF) data sheet must be supplied with the application.]

For Synchronous and Induction Generators
Direct Axis Transient Reactance, X'd: _____P.U.
Direct Axis Unsaturated Transient Reactance, X'di: _____ P.U.
Direct Axis Subtransient Reactance, X'd: _____P.U.
Generator Saturation Constant (1.0): _____
Generation Saturation Constant (1.2): _____
Negative Sequence Reactance: _____ P.U.
Zero Sequence Reactance: _____ P.U.
kVA Base: _____
RPM Frequency: _____

Additional information for Induction Generators

*Field Volts _____
*Field Amperes _____
*Motoring Power (kW) _____
*Neutral Grounding Resistor (If Applicable) _____
*I^2t or K (Heating Time Constant) _____
*Rotor Resistance _____
*Stator Resistance *Stator Reactance _____
*Rotor Reactance*Magnetizing Reactance _____
*Short Circuit Reactance _____

*Exciting Current _____
*Temperature Rise _____
*Frame Size *Design Letter _____
*Reactive Power Required In Vars (No Load) _____
*Reactive Power Required In Vars (Full Load) _____
*Total Rotating Inertia, H: _____ Per Unit on kVA Base

[*Note: Please contact Altamaha EMC prior to submitting the Application to determine if the specified information above is required.]

Excitation & Governor System Data for Synchronous Generators only

Provide appropriate IEEE model block diagram of excitation system, governor system, and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies.

A copy of the manufacturer's block diagram may not be substituted.

Section 4 – Interconnection Equipment Technical Data Information

Will a transformer be used between the generator and the point of interconnection?
___Yes ___No

Will the transformer be provided by Interconnection Applicant? ____Yes ____No

Transformer Data (if applicable. for Interconnection Applicant-Owned Transformer):
Is the transformer: ____single-phase _____three-phase
Size: _____kVA

Transformer Impedance: _____% on _____kVA Base

If Three-Phase:
Transformer Primary: _____ Volts _____ Delta _____Wye _____ Wye Grounded
Transformer Secondary: _____ Volts _____ Delta _____Wye _____ Wye Grounded

Transformer Fuse Data (if applicable, for Interconnection Applicant-Owned Fuse):
(Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves)
Manufacturer: _____Type: _____ Size: _____Speed: _____

Interconnecting Circuit Breaker (if applicable)
Manufacturer: _____ Type: _____ Load Rating (Amps): _____
Interrupting Rating: _____(Amps) Trip Speed: _____ (Cycles)

Interconnection Protective Relays (if applicable)
(Enclose copy of any proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed setting: _____
Manufacturer: _____ Type: _____ Style/Catalog No.: _____ Proposed setting: _____

Current Transformer Data (if applicable)

(Enclose a copy of manufacturer's Excitation & Ratio Correction Curves)
Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection _____
Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection _____

Potential Transformer Data (if applicable)

Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection _____
Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection _____

Section 5 – General Technical Information
Enclose a copy of site electrical One-Line Diagram showing the configuration of all generating facility equipment, current and potential circuits, and protection and control schemes.
Is One-Line Diagram Enclosed? _____Yes _____ No

[Note: This one-line diagram must be signed and stamped by a licensed Professional Engineer if the generating facility is larger than 50 kW.]

Enclose a copy of any site documentation that indicates the precise physical location of the proposed generating facility (e.g., USGS topographic map or other diagram or documentation).
Is Site Documentation Enclosed? ____ Yes ____ No

Proposed Location of Protective Interface Equipment on Property:

(Include Address if Different from Application Address) _____

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Any Available Documentation Enclosed? _____Yes ____ No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).
Are Schematic Drawings Enclosed? _____Yes ____ No

Section 6 –Site Control

Enclose documentation verifying site control. The site control may be demonstrated through:

a) Ownership of the site,
b) a leasehold interest in, or a right to develop a site for the purpose of constructing a distributed generation resource facility,
c) an option to purchase or acquire a leasehold site for such purpose;
d) an exclusivity or other business relationship between distributed generation resource facility and the entity having the right to sell, to lease or to grant the distributed generation resource facility the right to possess or occupy a site for such purpose.

Section 7 – Applicant Signature

I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct.

Signature of Applicant: _____ Date: _____

Appendix "I"

Initial Screening Criteria – Small and Medium Distributed Generation Resources

1. For interconnection of a proposed DGen Resource to a radial distribution circuit, the aggregated generation, including the proposed DGen Resource, on the circuit will not exceed fifteen percent (15%) of the total circuit annual peak load as most recently measured at the substation. In addition, the aggregate generation will not exceed 15% of a distribution circuit line section's annual peak load. A line section is defined as that section of the distribution system between two (2) sectionalizing devices in the area electric power system, as defined in national industry standards.

2. The proposed DGen Resource, in aggregation with other generation on the distribution circuit, will not contribute more than ten percent (l0%) to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

3. The proposed DGen Resource, in aggregate with other generation on the distribution circuit, will not cause any distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), or DGen Customer equipment on the system to exceed eighty-five percent (85%) of the equipment short circuit interrupting capability.

4. For interconnection of a proposed single-phase DGen Resource where the primary distribution system is single-phase two-wire, the DGen Resource will be connected line-to-neutral.

5. For interconnection of a proposed three-phase DGen Resource to a three-phase four-wire distribution circuit, the DGen Resource will be connected line-to-line.

6. If the proposed DGen Resource is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DGen Resource, will not exceed 10 kW.

7. If the proposed DGen Resource is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition will not create an imbalance between the two (2) sides of the 240-volt service of more than twenty percent (20%) of nameplate rating of the service transformer.

8. The proposed DGen Resource's point of common coupling will not be on a transmission line.

Appendix "J"

Distribution Impact Study

Medium and Large Distributed Generation Resources

1. PURPOSE

   a. The purpose of a Distribution Impact Study is to identify and detail the system impacts that would result if the proposed unit were interconnected to the distribution system. The Impact Study shall evaluate the impact of the proposed interconnection on the reliability of the electric power distribution system.

   b. The Distribution Impact Study prepared by Altamaha EMC will not address power flows onto the transmission system. These power flows and interconnection issues with the Transmission Service Provider will be addressed by the Transmission Service Provider. Altamaha EMC will not permit power flows onto the transmission system without a signed agreement between the Transmission Service Provider and the DGen Customer.

2. THE DISTRIBUTION IMPACT STUDY

   a. This Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and protective coordination studies, and grounding reviews, as necessary. The Distribution Impact Study will consider the Interconnection Technical Requirements for Small, Medium, and Large Distribution Generation Resources contained in Appendix E and the standards listed in Appendix B.

   b. The Impact Study will state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implementation of the interconnection. The Impact Study will provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.

   a. The Distribution Impact Study will incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on system operation, as necessary. A

deposit of the estimated cost of the Study will be required from the DGen Customer.

b. Upon receipt of the deposit, the Distribution Impact Study should be completed within 90 business days for Medium DGen Resources, and 90 days for large DGen Resources.

3. TRANSMISSION IMPACT STUDY

a. DGen Resources shall not normally export to the transmission system. However, a DGen Resource may inadvertently export fault current to the transmissions system.

b. In those instances where a Distribution Impact Study shows potential for high voltage transmission system Violations, Altamaha EMC shall notify the appropriate high voltage transmission service provider.

c. The DGen Customer must make an application to the Transmission Service Provider for an interconnection agreement and for any ancillary services, as appropriate.

d. Altamaha EMC will not permit exports on to the transmission system without a signed agreement between the Transmission Service Provider and the DGen Customer.

e. If the Distribution Impact Study shows no potential export onto the high voltage transmission system, it will be stated as such by Altamaha EMC in the Distribution Impact Study.

Appendix "K"

Facility Study

Distributed Generation Resources

V. PURPOSE

1. PURPOSE

   a. The purpose of a Facility Study is to design and estimate the cost for any required Interconnection Facilities and/or System Upgrades identified by the Distribution Impact Study.

   b. The Facility Study prepared by Altamaha EMC will not address changes to the Transmission Service Provider's system. The DGen Customer must make separate arrangements with the Transmission Service Provider for design and costs related to export sales off of Altamaha EMC's distribution system.

2. THE FACILITY STUDY

   a. The DGen Customer must request that Altamaha EMC perform a Facility Study after the completion of the Distribution Impact Study. Altamaha EMC will provide an outline of the scope of the Facility Study and the cost to perform the Facilities Study.

   b. Cost of the Facility Study

      i. A deposit for the cost of Facility Study shall be required from the DGen Customer.

   c. Altamaha EMC may contract with consultants to perform certain of the activities required to complete the Study.

   d. Where additional facilities are required to permit the interconnection of a Resource, and offer no benefit to system capacity, DGen Customer will bear the entire reasonable cost of such facilities as determined by the Facilities Study, but will not be subject to retroactive increases or decreases in such costs, unless determined by credits or refunds provided by mutual agreement with subsequent interconnection Customers.

   e. Altamaha EMC may propose to group facilities required for more than one DGen Customer addition in order to minimize facilities costs through economies of scale, but any Medium or Large DGen Customer may require

the installation of facilities required for its own system if it is willing to pay the costs of those facilities.

f. If the Medium or Large DGen Resource was invited or otherwise selected to provide benefits to Altamaha EMC's system, costs charged to the interconnection Customer will be reduced commensurate with such benefit. Benefits must be measurable and verifiable.

g. Where multiple interconnection requests require system facilities, interconnection Customers will be assigned costs or benefits separately where impacts can be separately attributed to respective projects.

3. CONFIDENTIALITY

a. In accordance with operative State laws, each Party shall hold in confidence and shall not disclose Confidential Information to any person (except to employees, officers, representatives and agents that agree to be bound by this provision), except as required by law.

b. Confidential Information shall mean any confidential and/or proprietary information provided by one Party ("Disclosing Party") to the other Party ("Receiving Party") that is clearly marked or otherwise designated "Confidential".

c. For purposes of procedures, all design, operating specifications, and metering data provided by Medium or Large DGen Resource shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.

d. Confidential Information shall not include information that the Receiving Party can demonstrate is as follows:

i. Is generally available to the public other than as a result of a disclosure by the Receiving Party;

ii. Was in the lawful possession of the Receiving Party on a non-confidential basis before receiving it from the Disclosing Party;

iii. Was supplied to the Receiving Party without restriction by a third party, who, to the knowledge of the Receiving Party, was under no obligation to the Disclosing Party to keep such information confidential;

iv. Was independently developed by the Receiving Party without reference to Confidential Information of the Disclosing Party; or

v. Was disclosed with the prior written approval of the Disclosing Party. If a Party believes it is required by law to disclose Confidential Information,

that Party shall provide the other Party with prompt notice of such requirement(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of these procedures.