
2010 Renewable RFP ESI's Resource Delivery Webcast

ENTERGY SERVICES, INC.

January 6, 2011

This presentation summarizes certain matters related to ESI's 2010 Renewable Generation Resource Request for Proposals (as it may be amended or modified, the "2010 Renewable RFP"). For the full terms and conditions please review the relevant RFP documents on ESI's website

Agenda Items

- **Webcast Ground Rules and Introductions**
- **RFP Overview and Representative Schedule**
- **RFP Delivery Requirements and Overview of Responsibilities**
- **SGIP Process**
- **LGIP Process**
- **Q&A Session***

** ESI requests that all questions be submitted in writing so as to allow ESI the ability to provide written responses which will be made accessible to all parties via the RFP website. ESI will respond orally to some questions during the Q&A Session today. However, to the extent that ESI also provides a written response to any question, the written response will be deemed to supersede any information provided orally.*

Webcast Ground Rules and Introductions

Antonette Harvey

Webcast Ground Rules

- **Purpose of the Webcast**
 - To clarify RFP requirements related to the delivery of renewable energy resources (“RER”)
 - Only delivery-related questions will be answered during this webcast
 - All questions unrelated to the delivery of RERs must be sent to the RFP Administrator at esirenewable@entergy.com and will be responded to as part of the RFP Q&A process
- **Q&A Process**
 - The webcast will begin with an overview of delivery-related requirements and processes
 - All questions must be submitted in writing through the webcast chat function
 - Participants may submit questions during the presentation
 - Questions will be answered during the webcast to the extent possible and as time permits
 - If clarification of a question is needed, the host will identify the party who submitted the question and that person can then take the floor to clarify the question posed
 - All questions, whether answered during or after the webcast, will be added to the RFP Q&A document
 - Participants retain the option to pose questions anonymously through the RFP Administrator, but such questions may not be answered during the webcast
- **Administration Requirements**
 - All phones must be on mute (NOT on hold!)
 - If participants create background noise, Q&A may be limited to written correspondence without the ability to allow for clarification from participants

Introductions

Entergy Services, Inc.

- **System Planning & Operations**

- Antonette Harvey RFP Project Manager
- Kenisha Webber* Engineer, Power Delivery & Technical Services
- Lee Kellough* Director, Power Delivery & Technical Services
- Alex Lau* Project Manager, Power Delivery & Technical Services

- **Entergy Energy Delivery**

- Mike Gravolet Sr. Wholesale Executive

Southwest Power Pool

- **Entergy's Independent Coordinator of Transmission ("ICT")**

- Ben Roubique Supervisor, ICT Planning

* Members of the Delivery Assessment Team ("DAT") - responsible for the Transmission and Distribution Deliverability Evaluation and related transmission analyses for Bidder proposals submitted in response to this RFP. The DAT will include employees of the Entergy Energy Delivery Business Unit.

RFP Overview and Representative Schedule

2010 Request for Proposals for Renewable Generation Resources

Overview of ESI RFP

- **Participation**
 - The 2010 Renewable RFP will be on behalf of the following Entergy Operating Companies
 - Entergy Gulf States Louisiana, L.L.C. (“EGSL”)
 - Entergy Louisiana, LLC (“ELL”)
 - No Entergy competitive affiliate or self build, self-supply participation allowed

- **Capacity (based on LPSC Renewable Energy Pilot Program)**
 - EGSL/ELL retail share of LPSC maximum of 350 MW nameplate capacity
 - EGSL: approx. 90 MW
 - ELL: approx. 143 MW
233 MW

- **Eligible Renewable Energy Resources (“new” generation and eligible technologies)**
 - Defined by the LPSC General Order R-28271-A, Subdocket B (issued 12/9/2010)

- **Contract Term**
 - 10-20 years
 - Delivery term target start date: 2012-2014

- **Products Solicited**
 - Baseload product
 - As-Available product

Representative Schedule*

<u>Milestone</u>	<u>Date</u>
▪ Full set of RFP documents issued	Dec 10, 2010
▪ Bidder Registration	Jan 10 – 13, 2011
▪ Proposal Fees Due	Jan 26, 2011
▪ Non-refundable \$5,000	
▪ Proposal Submission Period	Jan 31 – Feb 3, 2011
▪ Announce Preliminary Shortlist (as necessary)	June 2011
▪ Announce Primary/Secondary Awards	Nov 2011
▪ Begin Comprehensive Due Diligence & Negotiations	As early as Nov 2011
▪ Notify Secondary Award List of Proposal Status	Jan 2012 (if applicable)
▪ Execute Definitive Agreement	Mar 2012
▪ Target for Receipt of Regulatory Approvals	4 th Quarter 2012
▪ Target Delivery Term Start Date	2012-2014

**This schedule is representative only and subject to change. Any schedule changes will be posted to the RFP Website.*

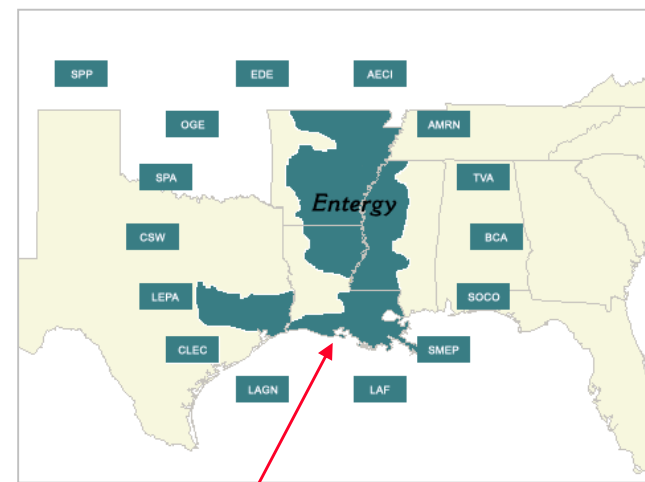
***Delivery Threshold Requirements & Overview of RFP
Responsibilities***

Kenisha Webber

Delivery Assessment Team (DAT) Threshold Requirements

- ✓ **Resources must provide to Buyer at least two (2) MW of capacity at the Delivery Point on the Entergy Transmission System**
- ✓ **Energy and other associated electric products from resources must be physically deliverable to the Entergy Transmission System**
- ✓ **Resources must be reasonably expected to be commercially available by 2014**
- ✓ **Bidders must file a required Large Generator Interconnection Procedure (LGIP), Small Generator Interconnection Procedure (SGIP), or other applicable interconnection documents**
 - Bidders must provide a copy of the completed application for interconnection of the RER to the RFP Administrator
 - Bidders must submit the related acknowledgement letter to the RFP Administrator by the required proposal submission deadline (this can be an email from the respective Transmission Owner/Transmission Provider)
 - Bidders must provide the acceptance letter and a revised interconnection application, if applicable, in respect of their interconnection request to the RFP Administrator no later than 45 Calendar days following the required proposal submission date

Entergy Transmission System



Entergy Border – Delivery Point if interconnecting outside the Entergy Transmission System

Bidders' Requirements & Responsibilities

- Bidders must adhere to the following requirements and responsibilities:
 - Please refer to the interconnection application table referencing the LGIP and SGIP process
 - Bidders must complete the interconnection application process at least 3 business days prior to the proposal submission deadline (2/3/11) for the SGIP and at least 5 business days for the LGIP prior to the proposal submission deadline (2/3/11)
 - By the proposal submission deadline, all Bidders must submit the following to the RFP Administrator:
 - Copy of complete interconnection application package
 - Copy of acknowledgement letter
 - Bidders must submit the interconnection acceptance letter to the RFP Administrator within 45 Calendar Days (3/18/11) of the proposal submission deadline

Bidders' Requirements & Responsibilities (cont)

- Proposal pricing must include the all-in interconnection, all-in distribution, and all-in Off-System transmission service cost, if applicable, which includes:
 - Total interconnection costs, inclusive of transmission and distribution upgrade costs specifically required to interconnect the resource
 - For Off-System RERs, the total cost of transmission service, including transmission upgrades necessary for the RER to deliver the energy to Buyer at the Delivery Point on the Entergy Transmission System
 - For all RERs, the total cost of distribution service (if applicable), including distribution upgrades necessary for the RER to deliver the energy to Buyer at the Delivery Point on the Entergy Transmission System
 - Bidders must also provide the (1) total interconnection costs, (2) total embedded interconnection costs, (3) total transmission and distribution (collectively) service costs and (4) total embedded transmission and distribution (collectively) service costs as separate line items in the web portal
 - Embedded costs are all interconnection or T&D service costs for which Bidder will not be, or is not expected to be, separately compensated
 - This pricing breakout will be used for general evaluation purposes only in establishing the viability of Bidder's proposal

Bidders' Requirements & Responsibilities (cont)

- Bidders are permitted to submit updated interconnection cost and revised interconnection application packages, as applicable, and updated all-in distribution and Off-System transmission service costs, if applicable, and updated proposal pricing to reflect these specific updates to the RFP Administrator within 90 calendar days (5/4/11) of the proposal submission deadline
- Please refer to Appendix C, Product Packages A and B, for the RFP's specific requirements for proposal pricing and terms, including product-based data requirements (e.g., interconnection voltage levels, VAR capability, etc.)
- All documents must be received by the RFP Administrator by 5 p.m. on the applicable deadline date
- If Bidders do not meet the required deadlines referenced above and submit all requested documents, the proposal will be considered non-conforming and may not be further evaluated

Entergy Interconnection Standards Requirements & Responsibilities

	Applicable Interconnection Standard	Voltage Level	Generator Facility Size	Point of Contact*	Criteria**	Expected Receipt of Acknowledgement Letter (days)	Expected Receipt of Acceptance Letter (days)
Entergy	LGIP	69 kV and higher	20 MW or greater	ICT	\$10k deposit required with completed application to SPP/ICT	5	10
	SGIP	Any	greater than 2 MW, but less than 20 MW	Entergy	\$1k deposit required with completed application to Entergy Transmission	3	10
Non-Entergy	Bidder must follow other applicable standards						

- ESI is responsible for obtaining long-term Entergy network transmission service for contract capacity from RERs to ensure deliverability of energy from such capacity within the Entergy System, including the cost of any transmission additions or upgrades
- The DAT will develop an estimate of the cost to qualify the resource as an Entergy long-term network resource and that estimated cost will be used by the Economic Evaluation Team (“EET”) during the evaluation phase
- The EET will add the estimated cost to the Bidders proposal pricing
- Bidders must exclude the cost of obtaining Entergy network transmission service from their proposal

Small Generator Interconnection Procedure (SGIP)

Mike Gravolet

Grid Interconnection Process (SGIP)

<https://emo-web.no.entergy.com/ENTRFP/Renewable/Documents/Docs.html>

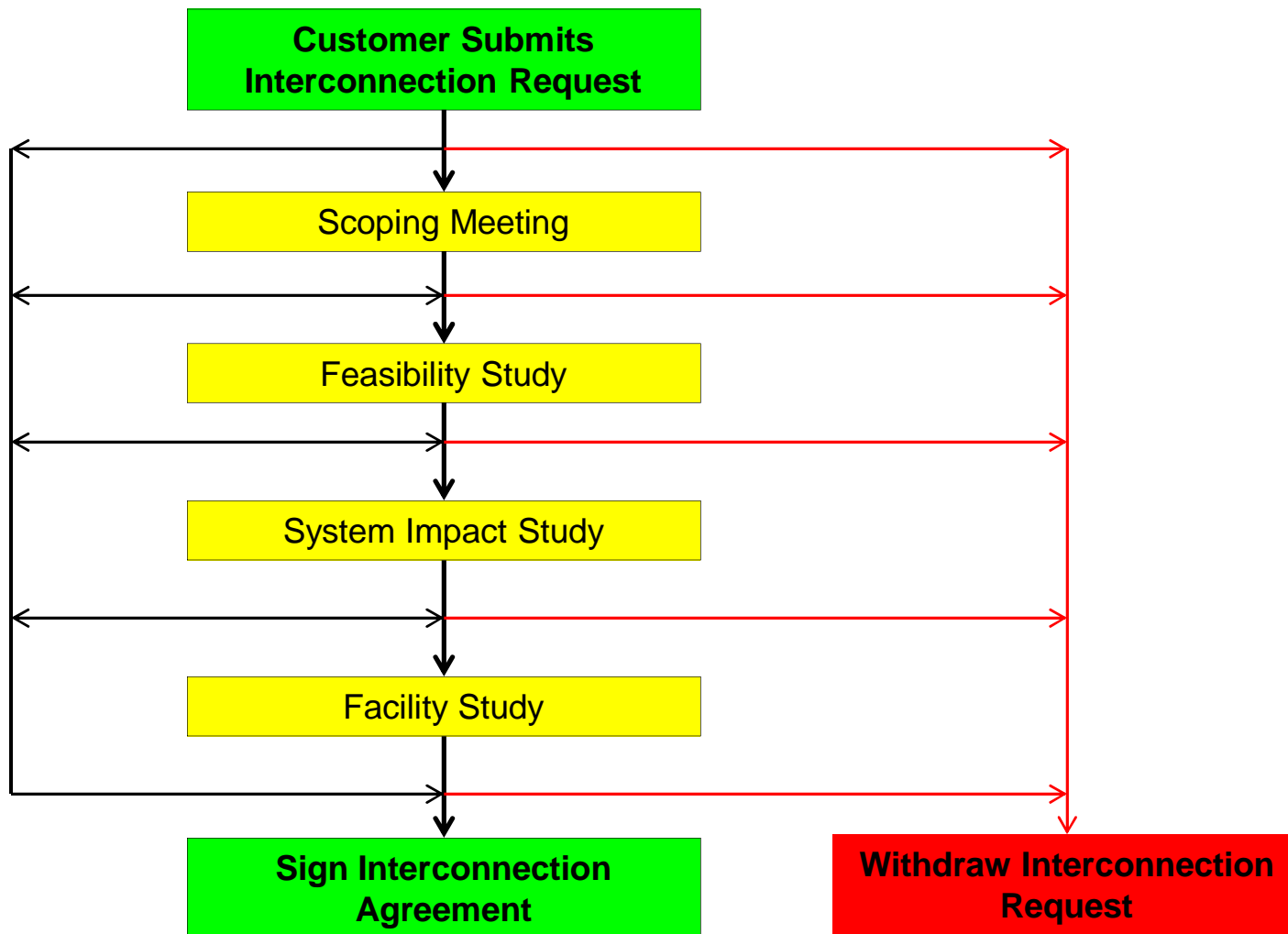
The revisions to this document take effect August 28, 2006, per FERC Order No. 2006-B issued July 20, 2006, FERC Stats. & Regs. ¶ 31,221, which was published in the Federal Register July 27, 2006 (71 FR 42587), as amended by the errata issued September 5, 2006, which was published in the Federal Register September 13, 2006 (71 FR 53965).

SMALL GENERATOR INTERCONNECTION PROCEDURES (SGIP)

(For Generating Facilities No Larger Than 20 MW)

Grid Interconnection Process (SGIP)

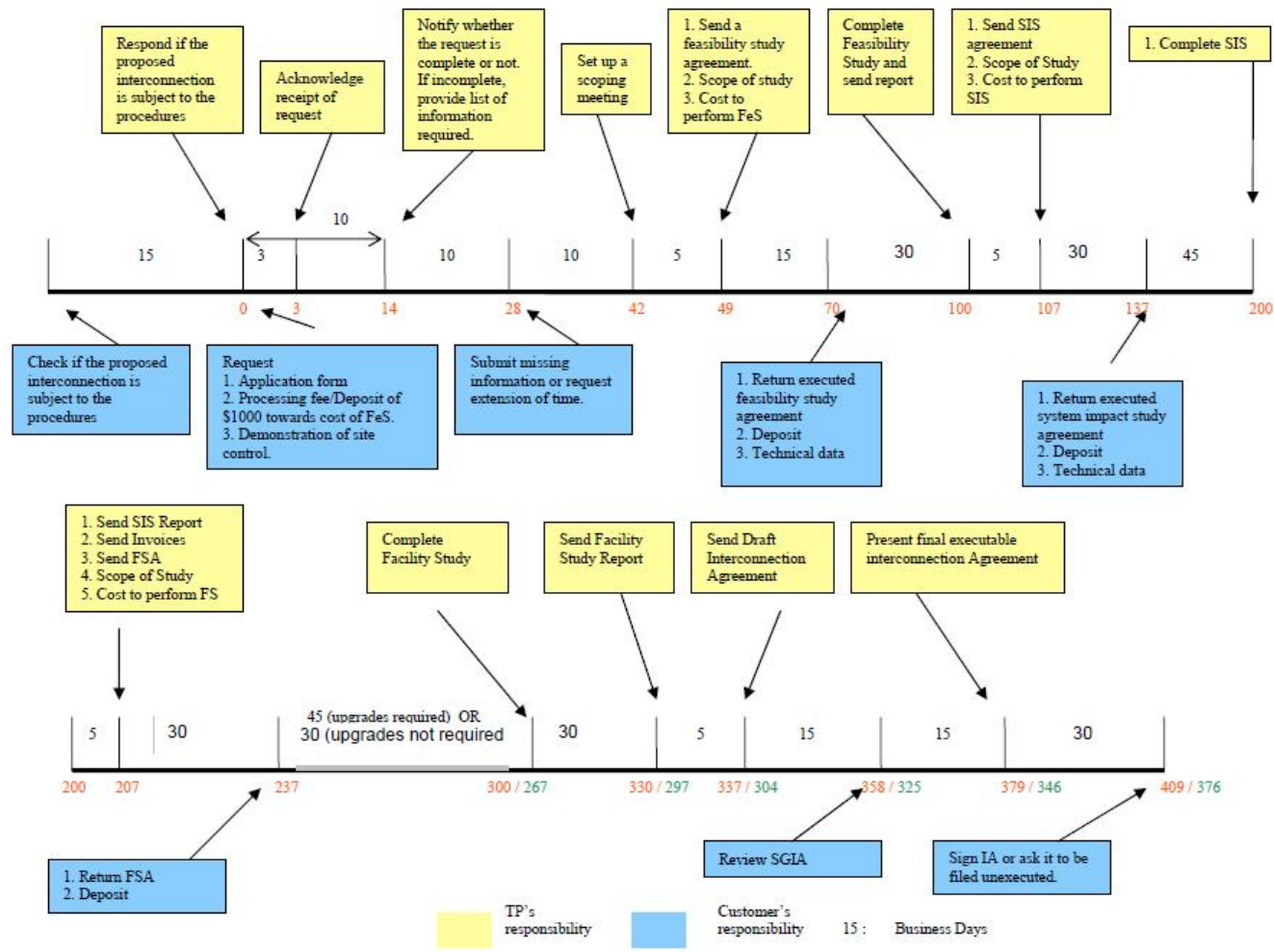
Study Flow for Interconnecting Small Generators



Grid Interconnection Process (SGIP)

<https://emo-web.no.entergy.com/ENTRFP/Renewable/Docs/Summary%20Timeline%20SGIPSEGEDS.pdf>

SMALL GENERATOR INTERCONNECTION PROCEDURE TIME LINE CHART



Grid Interconnection Process (SGIP)

- **SUBMITTAL PROCESS**

- Pre-Application Discussions
 - For informal questions pertaining to a proposed project at a particular site contact Mike Gravolet at 504-576-5036 or mgravol@entergy.com
- Process is initiated by a Generator submitting:
 - Interconnection Request
 - Non-Refundable \$1,000 deposit (applies towards cost of Interconnection Feasibility Study)
- Transmission Project Development (“TPD”) will:
 - Provide **Acknowledgment Letter** within 3 days of receiving the Interconnection Request
 - Evaluate Request
 - Notify Generator if there are deficiencies (**Deficiencies Letter**)
 - Provide **Acceptance Letter** after Interconnection Request is deemed to be complete

Grid Interconnection Process (cont)

▪ SUBMITTAL PROCESS (cont)

- Generator specifies Point(s) of Interconnection
- ICT will assign Queue Position based upon date of receipt of a valid Interconnection Request
- Queue Position of each Interconnection Request will be used to determine the order for performing the Interconnection Studies and cost responsibility for the facilities necessary to accommodate the Interconnection Request
- ICT maintains on the OASIS site a list of all Interconnection Requests which includes information such as maximum summer and winter MW electrical output, location by county and state, station or transmission line or lines where the interconnection will be made, projected In-Service Date, status of the Interconnection Request (including Queue Position), etc.

SPP Southwest Power Pool ACTIVE REQUESTS

Last Updated on 3/15/2010

Project ID	Date Time of Completed Application	Oasis ID	Customer Name	Other Customer Names	Location: Substation	Location: Substation ID	Location: Line	Location: Line ID	County	KV	State	Max Summer Output (MW)	Max Winter Output (MW)	Original Customer Provided In Service Date	Revised Customer Provided In Service Date	Feasibility Study Due Date	Most Current Feasibility Study Due Date
1	1/12/1998	2	Tenaska Frontier Partnership, LTD (Tenaska/PECO)		Grimes				Grimes	345	TX	910.0		5/1/2000			
2	1/12/1998	1	Sabine Cogen, LP (Bayer/Air Liquade)		Gulfrich				Orange	69	TX	90.0		1/1/2000			
3	1/13/1998	3	LSP Energy, LP		Batesville				Panola	161	MS	800.0		5/1/2000			
4	2/25/1998	4	Pine Bluff Energy, LLC (Polsky/Skygen)		Pine Bluff				Jefferson	115	AR	230.0		5/31/2001			
5	7/16/1998	5			Cheek				Jefferson	138	TX	33.0		1/1/2000			
6	7/27/1998	6	Carville Energy, LLC (Skygen)		Carville				Iberville	230	LA	530.0		5/1/2000			
7	8/1/1998	7	BASF/FINA		Fina				Jefferson	69	TX	75.0		1/1/2000			
8	8/1/1998	8	Mobil		South Beaumont				Jefferson	138	TX	165.0		1/1/2001			
9	9/11/1998	9	SRW Cogeneration, LP (Conoco)		Dupont				Orange	138	TX	535.0		1/1/2001			

Grid Interconnection Process (SGIP)

- **Schedule Scoping Meeting with Generator (May omit and go directly to a Feasibility Study or System Impact Study)**
 - Purpose is to discuss alternative interconnection options, exchange information including any data that would reasonably be expected to impact such interconnection options, analyze information, and determine potential feasible Point(s) of Interconnection.
 - The Parties would discuss whether a feasibility study should be performed or whether to proceed directly to a system impact study, a facilities study, or an interconnection agreement.

Grid Interconnection Process (SGIP)

- **FEASIBILITY STUDY PROCESS (*Optional – Generator can bypass this step and initiate the System Impact Study Process*)**
 - TPD provides Generator Interconnection Feasibility Study Agreement (Attachment 6)
 - Generator submits signed Interconnection Feasibility Study Agreement (Deposit covered by application fee, customer pays actual cost of study on completion)
 - Entergy Energy Delivery shall use reasonable efforts to complete the Interconnection Feasibility Study no later than thirty (30) business days after Entergy Energy Delivery receives the signed Interconnection Feasibility Study Agreement
 - Purpose of the Interconnection Feasibility Study is to provide a preliminary evaluation of the system impact and cost of interconnecting the proposed Generator to the transmission grid
 - Entergy Energy Delivery and Generator meet to discuss Interconnection Feasibility Study results

Grid Interconnection Process (SGIP)

▪ **SYSTEM IMPACT STUDY (SIS) PROCESS**

- TPD provides the Interconnection System Impact Study Agreement (Attachment 7) to Generator that includes a good faith estimate of the cost and timeframe for completing the Interconnection System Impact Study; Generator is responsible for actual study costs
- Generator delivers to TPD an executed Interconnection System Impact Study Agreement, demonstration of Site Control (e.g., ownership of property), and a deposit equal to the good faith estimated cost of a distribution system impact study and one half the good faith estimated cost of a transmission system impact study
- TPD notifies Generator of any technical data deficiencies needing resolution
- Generator resolves any technical data deficiencies
- Entergy Energy Delivery prepares Interconnection System Impact Study
 - Study consists of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary
 - Study report states the assumptions upon which the study is based, results of the analyses, and the requirements 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 the analyses and implement the interconnection
 - Study report also provides 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 time to construct
- Entergy Energy Delivery uses reasonable efforts to complete the System Impact Study within forty-five (45) Business Days
- Entergy Energy Delivery and Generator meet to discuss Interconnection System Impact Study results

Grid Interconnection Process (SGIP)

▪ **FACILITIES STUDY PROCESS**

- TPD provides Interconnection Facilities Study Agreement (Attachment 8) to Generator
- Entergy Energy Delivery provides good faith estimate of the cost and timeframe for completing the Interconnection Facilities Study
- Generator delivers to Entergy an executed Interconnection Facilities Study Agreement, any required technical data, and the deposit of the good faith estimated cost for the Interconnection Facilities Study
- Purpose of the Interconnection Facilities Study
 - Specify and estimate the cost of equipment, engineering, procurement, and construction work (including overheads) needed to implement the conclusions of the System Impact Study
 - Identify the nature and estimated cost of any Entergy Interconnection Facilities and network upgrades necessary to accomplish the interconnection
 - Provide an estimate of the time required to complete the construction and installation of such facilities
- Entergy Energy Delivery uses reasonable efforts to complete the Interconnection Facilities Study within:
 - 45 business days; or
 - 30 business days if no upgrades are necessary and facilities are limited to Interconnection Facilities
 - The Draft Facility Study Report will be issued within 30 days after the Facility Study is completed
- Entergy and Generator meet to discuss Interconnection Facilities Study draft report
- Generator provides comments to the draft report
- Entergy issues the final Interconnection Facilities Study report

Grid Interconnection Process (SGIA)

▪ **SMALL GENERATOR INTERCONNECTION AGREEMENT PROCESS**

- Entergy prepares a draft Small Generator Interconnection Agreement (“SGIA”) and submits it to Generator
- Generator reviews and comments on SGIA draft attachments
- Entergy issues final SGIA
- Generator executes the final SGIA
- Entergy executes the final SGIA and returns fully executed copy to Generator
- Entergy and the Generator are to perform their respective obligations in accordance with the terms of the SGIA

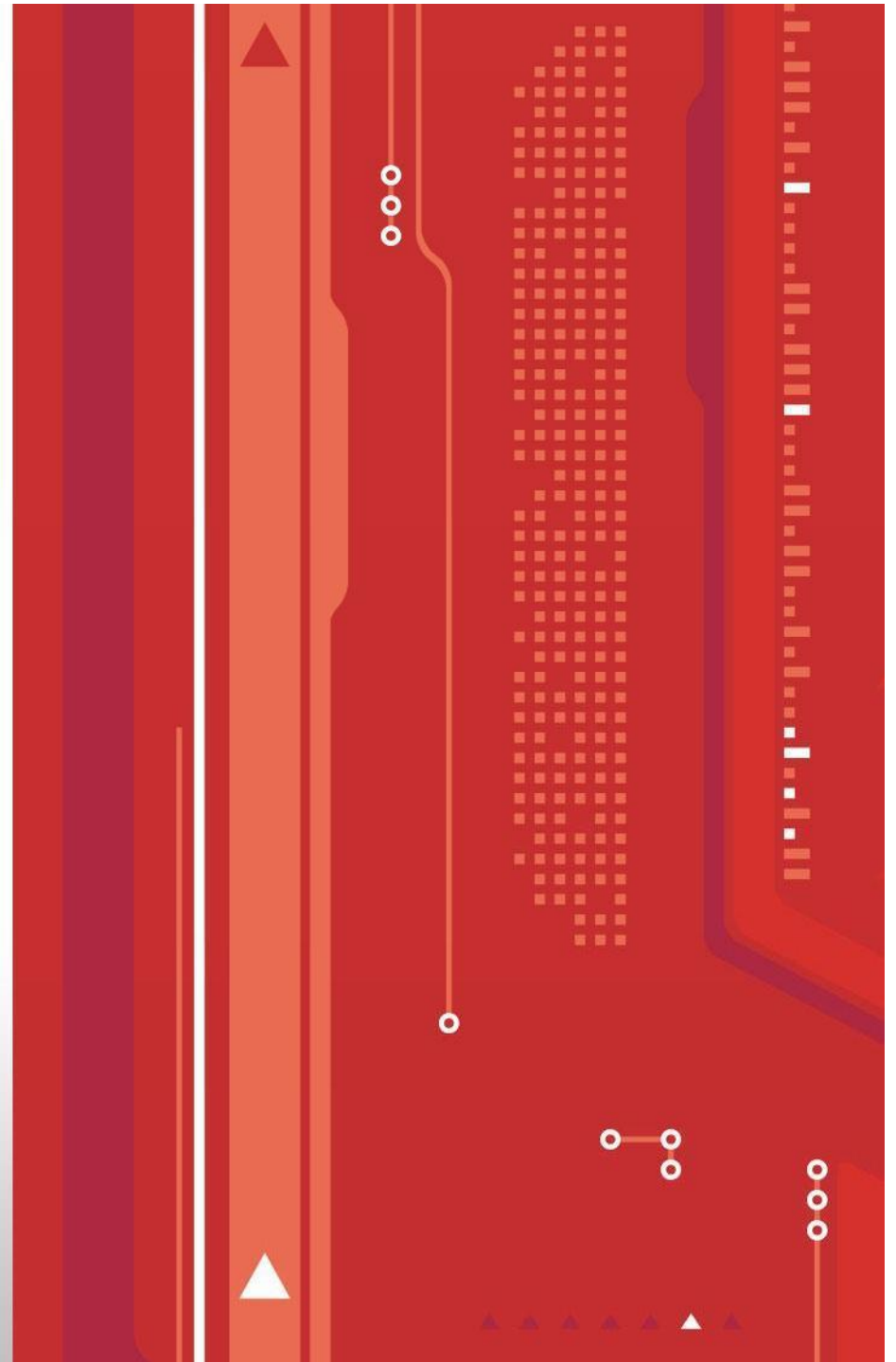


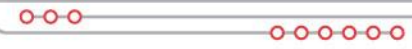
Helping our members work together
to keep the lights on... today
and in the future

Large Generator Interconnection Procedures (LGIP) Overview

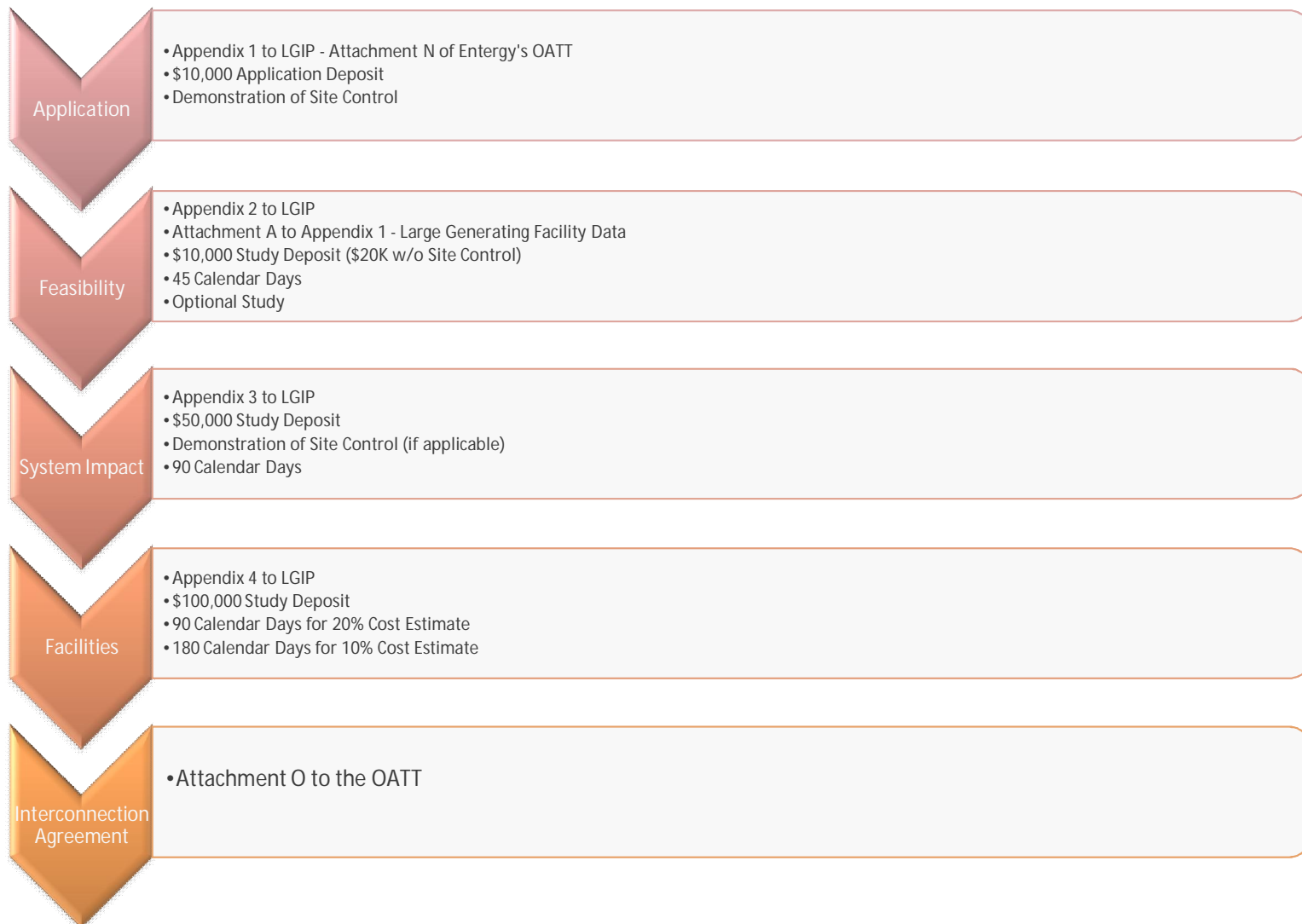
January 7, 2011

Ben Roubique
broubique@spp.org · 501.614.3331





LGIP Overview



*Complete process can range from approximately 10 months (no Feasibility and 90 day Facilities) to approximately 16 months (include Feasibility and 180 day Facilities)



Governing documents

- Attachment N to the OATT covers the Large Generator Interconnection Process (LGIP)
 - Describes the process in detail
 - Contains study agreements (Appendices)
 - Appendix 6 contains special procedures for wind generators
- Attachment O to the OATT is the Standard Large Generator Interconnection Agreement
- Documents can be found at:

<https://www.oatioasis.com/EES/EESdocs/tariffs1%2Ehtml>



Application Process

- Customer submits:
 - Appendix 1 of Attachment N
 - \$10K application deposit (apply to study cost)
 - Demonstration of site control or post additional \$10K deposit
- ICT response:
 - Acknowledge receipt of Interconnection Request
 - Validate request within five (5) business days of receipt or issue notification of deficiencies in Interconnection Request (ten [10] business days to provide requested information)
 - Assign Interconnection Request a queue position (PID#)

Application Process cont.

- ICT response cont.:
 - Provide customer an Interconnection Feasibility Study Agreement – Appendix 2 of Attachment N
- ICT and Customer schedule Scoping Meeting
 - Within ten (10) business day of validation of Interconnection Request
 - Discuss alternative interconnection options, exchange information including any transmission data that would reasonably be expected to impact such interconnection option, analyze such information and determine the potential feasible Point(s) of Interconnection
 - Customer will specify Point of Interconnection and one or more available alternative Point(s) of Interconnection

**APPENDIX 1 to LGIP
INTERCONNECTION REQUEST FOR A
LARGE GENERATING FACILITY**

1. The undersigned Interconnection Customer submits this request to interconnect its Large Generating Facility with Transmission Provider's Transmission System pursuant to a Tariff.
2. This Interconnection Request is for (check one):
 A proposed new Large Generating Facility.
 An increase in the generating capacity or a Material Modification of an existing Generating Facility.
3. The type of interconnection service requested (check one):
 Energy Resource Interconnection Service
 Network Resource Interconnection Service
4. Check here only if Interconnection Customer requesting Network Resource Interconnection Service also seeks to have its Generating Facility studied for Energy Resource Interconnection Service
5. Interconnection Customer provides the following information:
 - a. Address or location of the proposed new Large Generating Facility site (to the extent known) or, in the case of an existing Generating Facility, the name and specific location of the existing Generating Facility;
 - b. Maximum summer at ___ degrees C and winter at ___ degrees C megawatt electrical output of the proposed new Large Generating Facility or the amount of megawatt increase in the generating capacity of an existing Generating Facility;
 - c. General description of the equipment configuration;
 - d. Commercial Operation Date (Day, Month, and Year);
 - e. Name, address, telephone number, and e-mail address of Interconnection Customer's contact person;
 - f. Approximate location of the proposed Point of Interconnection (optional); and
 - g. Interconnection Customer Data (set forth in Attachment A)
6. Applicable deposit amount as specified in the LGIP.

Issued by: Randall Helmick
Vice President, Transmission

Effective: July 13, 2007

7. Evidence of Site Control as specified in the LGIP (check one)
 Is attached to this Interconnection Request
 Will be provided at a later date in accordance with this LGIP
8. This Interconnection Request shall be submitted to the representative indicated below:

[To be completed by Transmission Provider]
9. Representative of Interconnection Customer to contact:

[To be completed by Interconnection Customer]
10. This Interconnection Request is submitted by:
Name of Interconnection Customer: _____
By (signature): _____
Name (type or print): _____
Title: _____
Date: _____

Issued by: Randall Helmick
Vice President, Transmission

Effective: July 13, 2007



Feasibility Study Process

- Customer submits:
 - Appendix 2 of Attachment N (study agreement)
 - Attachment A to Appendix 2 (designated POI and alternative POI)
 - Attachment A to Appendix 1 (technical data)
 - \$10K study deposit
 - Demonstration of site control or post additional \$10K deposit
- ICT response:
 - Acknowledge receipt of study agreement and deposit
 - Provide study within 45 calendar days after receipt of executed study agreement



Feasibility Study Process cont.

- ICT response cont.:
 - High-level study to assess the reliability impact of the new facility on the Entergy transmission system with respect to the steady state and transient stability performance of the system as well as its effects on the system's existing short circuit current capability
 - Simultaneously issue study posting notification and System Impact Study agreement
- ICT and Customer schedule results call:
 - Results call to be held within ten (10) business days of study report posting to discuss study results

**APPENDIX 2 to LGIP
 INTERCONNECTION FEASIBILITY STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this ___ day of _____, 20___ by and between _____, a _____ organized and existing under the laws of the State of _____, ("Interconnection Customer,") and Southwest Power Pool, Inc. as Independent Coordinator of Transmission ("ICT"). Interconnection Customer, the ICT, and Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating Facility with the Transmission System; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform an Interconnection Feasibility Study to assess the feasibility of interconnecting the proposed Large Generating Facility to the Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be performed an Interconnection Feasibility Study consistent with Section 6.0 of this LGIP in accordance with the Tariff. The ICT shall carry out the responsibilities of the Transmission Provider as provided in Attachment S (including all protocols attached thereto) to the Tariff.
- 3.0 The scope of the Interconnection Feasibility Study shall be subject to the assumptions set forth in Attachment A to this Agreement.
- 4.0 The Interconnection Feasibility Study shall be based on the technical information provided by Interconnection Customer in the Interconnection Request, as may be modified as the result of the Scoping Meeting. Transmission Provider reserves the right to request additional technical information from Interconnection Customer as may reasonably become necessary consistent with Good Utility

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 Vice President, Transmission

Effective: July 13, 2007

**Attachment A to Appendix 1
 Interconnection Request**

LARGE GENERATING FACILITY DATA

UNIT RATINGS

kVA _____ °F _____ Voltage _____
 Power Factor _____
 Speed (RPM) _____ Connection (e.g. Wye) _____
 Short Circuit Ratio _____ Frequency, Hertz _____
 Stator Amperes at Rated kVA _____ Field Volts _____
 Max Turbine MW _____ °F _____

COMBINED TURBINE-GENERATOR-EXCITER INERTIA DATA

Inertia Constant, H = _____ kW sec/kVA
 Moment-of-Inertia, WR² = _____ lb. ft.²

REACTANCE DATA (PER UNIT-RATED KVA)

	DIRECT AXIS	QUADRATURE AXIS
Synchronous – saturated	X _{dv} _____	X _{qv} _____
Synchronous – unsaturated	X _{di} _____	X _{qi} _____
Transient – saturated	X' _{dv} _____	X' _{qv} _____
Transient – unsaturated	X' _{di} _____	X' _{qi} _____
Subtransient – saturated	X'' _{dv} _____	X'' _{qv} _____
Subtransient – unsaturated	X'' _{di} _____	X'' _{qi} _____
Negative Sequence – saturated	X _{2v} _____	
Negative Sequence – unsaturated	X _{2i} _____	
Zero Sequence – saturated	X _{0v} _____	
Zero Sequence – unsaturated	X _{0i} _____	
Leakage Reactance	X _{lm} _____	

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 Vice President, Transmission

Effective: July 13, 2007

**Attachment A to Appendix 2
Interconnection Feasibility
Study Agreement**

**ASSUMPTIONS USED IN CONDUCTING THE
INTERCONNECTION FEASIBILITY STUDY**

The Interconnection Feasibility Study will be based upon the information set forth in the Interconnection Request and agreed upon in the Scoping Meeting held on _____:

Designation of Point of Interconnection and configuration to be studied.
Designation of alternative Point(s) of Interconnection and configuration.
[Above assumptions to be completed by Interconnection Customer and other assumptions to be provided by Interconnection Customer and Transmission Provider]

Issued by: Randall Helmick
Vice President, Transmission

Effective: July 13, 2007

Issued on: July 13, 2007



System Impact Study Process

- Customer submits:
 - Appendix 3 of Attachment N (study agreement)
 - Attachment A to Appendix 3 (designated POI and alternative POI)
 - Attachment A to Appendix 1 (technical data)
 - \$50K study deposit
 - Demonstration of site control
- ICT Response:
 - Acknowledge receipt of study agreement and deposit
 - Notify customer of any technical deficiencies within five (5) business days of receipt of executed study agreement

System Impact Study Process cont.

- ICT Response cont.:
 - Customer has ten (10) business days to cure data deficiency
 - Provide study within 90 calendar days after receipt of executed study agreement
 - High-level study to assess the reliability impact of the new facility on the Entergy transmission system with respect to the steady state and transient stability performance of the system as well as its effects on the system's existing short circuit current capability



System Impact Study Process cont.

- ICT Response cont.:
 - Simultaneously issue study posting notification and Facilities Study agreement
- ICT and Customer schedule results call:
 - Results call to be held within ten (10) business days of study report posting to discuss study results

**APPENDIX 3 to LGIP
INTERCONNECTION SYSTEM IMPACT STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this ___ day of _____, 20___
by and between _____, a
_____ organized and existing under the laws of the State of
_____, ("Interconnection Customer,") and Southwest Power Pool, Inc. as
Independent Coordinator of Transmission ("ICT"). Interconnection Customer, the ICT, and
Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating
Facility or generating capacity addition to an existing Generating Facility consistent with the
Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating
Facility with the Transmission System;

WHEREAS, Transmission Provider has completed an Interconnection Feasibility Study
(the "Feasibility Study") and provided the results of said study to Interconnection Customer
(This recital to be omitted if Transmission Provider does not require the Interconnection
Feasibility Study.); and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform
an Interconnection System Impact Study to assess the impact of interconnecting the Large
Generating Facility to the Transmission System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained
herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall
have the meanings indicated in Transmission Provider's FERC-approved LGIP.
- 2.0 Interconnection Customer elects and Transmission Provider shall cause to be
performed an Interconnection System Impact Study consistent with Section 7.0 of
this LGIP in accordance with the Tariff. The ICT shall carry out the
responsibilities of the Transmission Provider as provided in Attachment S
(including all protocols attached thereto) to the Tariff.



Facilities Study Process

- Customer submits:
 - Appendix 4 of Attachment N (study agreement)
 - Attachment A to Appendix 4 (schedule election)
 - Attachment B to Appendix 4 (technical data)
 - \$100K study deposit
- ICT Response:
 - Acknowledge receipt of study agreement and deposit
 - Provide study within 90 calendar days with no more than a +/- 20% cost estimate or within 180 calendar days with no more than a +/- 10% cost estimate (see Attachment A to Appendix 4)



Facilities Study Process cont.

- ICT Response cont.:
 - Study shall specify and estimate the cost of the equipment, engineering, procurement, and construction work needed to implement the findings of the study. The study shall also estimate the time required to complete the construction and installation of such facilities.
 - The Interconnection Facilities Study shall include a ground grid analysis and also identify the electrical switching configuration of the connection equipment, including, without limitation: the transformer, switchgear, meters, and other station equipment; the nature and estimated cost of any Transmission Provider's Interconnection Facilities and Network Upgrades necessary to accomplish the interconnection; and an estimate of the time required to complete the construction and installation of such facilities.

Facilities Study Process cont.

- ICT and Customer schedule results call:
 - Results call to be held within ten (10) business days of study report posting to discuss study results
- Customer will have 30 calendar days to provide the ICT comments to be included in the FSR. If no comments are submitted by the customer, the posted report will be declared FINAL after 30 calendar days.
- Attachment O of Entergy's OATT and Section 11 of Attachment N describe the processes guiding the issuance and executing of a Standard Large Generator Interconnection Agreement.

**APPENDIX 4 to LGIP
INTERCONNECTION FACILITIES STUDY AGREEMENT**

THIS AGREEMENT is made and entered into this ___ day of _____, 20___
by and between _____, a
_____ organized and existing under the laws of the State of
_____. ("Interconnection Customer,") and Southwest Power Pool, Inc. as
Independent Coordinator of Transmission ("ICT"). Interconnection Customer, the ICT, and
Transmission Provider each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, Interconnection Customer is proposing to develop a Large Generating
Facility or generating capacity addition to an existing Generating Facility consistent with the
Interconnection Request submitted by Interconnection Customer dated _____; and

WHEREAS, Interconnection Customer desires to interconnect the Large Generating
Facility with the Transmission System;

WHEREAS, Transmission Provider has completed an Interconnection System Impact
Study (the "System Impact Study") and provided the results of said study to Interconnection
Customer; and

WHEREAS, Interconnection Customer has requested Transmission Provider to perform
an Interconnection Facilities Study to specify and estimate the cost of the equipment,
engineering, procurement and construction work needed to implement the conclusions of the
Interconnection System Impact Study in accordance with Good Utility Practice to physically and
electrically connect the Large Generating Facility to the Transmission System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained
herein the Parties agreed as follows:

**Attachment A To Appendix 4
Interconnection Facilities
Study Agreement**

**INTERCONNECTION CUSTOMER SCHEDULE ELECTION FOR CONDUCTING
THE INTERCONNECTION FACILITIES STUDY**

Transmission Provider shall use Reasonable Efforts to complete the study and issue a draft Interconnection Facilities Study report to Interconnection Customer within the following number of days after of receipt of an executed copy of this Interconnection Facilities Study Agreement:

- ninety (90) Calendar Days with no more than a +/- 20 percent cost estimate contained in the report, or
- one hundred eighty (180) Calendar Days with no more than a +/- 10 percent cost estimate contained in the report.

Issued by: Randall Helmick
Vice President, Transmission

Effective: July 13, 2007

Issued on: July 13, 2007

**Attachment B to Appendix 4
Interconnection Facilities
Study Agreement**

**DATA FORM TO BE PROVIDED BY INTERCONNECTION CUSTOMER WITH THE
INTERCONNECTION FACILITIES STUDY AGREEMENT**

Provide location plan and simplified one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

One set of metering is required for each generation connection to the new ring bus or existing Transmission Provider station. Number of generation connections:

On the one line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT)

On the one line diagram indicate the location of auxiliary power. (Minimum load on CT/PT)
Amps

Will an alternate source of auxiliary power be available during CT/PT maintenance?
 Yes No

Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation? Yes No (Please indicate on one line diagram).

What type of control system or PLC will be located at Interconnection Customer's Large Generating Facility?

What protocol does the control system or PLC use?

Please provide a 7.5-minute quadrangle of the site. Sketch the plant, station, transmission line, and property line.

Physical dimensions of the proposed interconnection station:

Bus length from generation to interconnection station:

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LGIA Process

- Following finalization of the FS, Entergy prepares a draft LGIA and submits to the customer
- Generator negotiates, completes and returns the LGIA
- Entergy issues the final LGIA

* The above steps should be completed within 60 calendar days from finalization of the Facilities Study



LGIA Process

- Prior to filing of the LGIA, customer will need to provide:
 - Evidence of continued site control, or an additional \$250K deposit (counted against construction costs)
- And one or more of the following:
 - Contract for the supply or transportation of fuel to the facility
 - Contract for the supply of cooling water to the Large Generating Facility
 - Contract for the engineering for, procurement of major equipment for, or construction of, the Large Generating Facility
 - Contract for the sale of electric energy or capacity from the facility
 - Application for an air, water, or land use permit.



Useful Links

- LGIA Contact info

https://www.oatioasis.com/EES/EESdocs/app_process.htm

- Entergy's OATT

<https://www.oatioasis.com/EES/EESdocs/tariffs1%2Ehtml>

- Attachment N

https://www.oatioasis.com/EES/EESDocs/Attachment_N.pdf

Q&A Session

ESI requests that Bidders submit all questions in writing to the RFP Administrator at ESIRENEWABLE@ENTERGY.COM

Participant Questions and/or Feedback

- ESI will accept written questions/feedback from market participants and other interested parties. Questions must be emailed to the RFP Administrator at esirenewable@entergy.com.
- In addition, questions received during today's webcast will be posted to the ESI RFP website: <https://emo-web.no.entergy.com/ENTRFP/index.htm>