

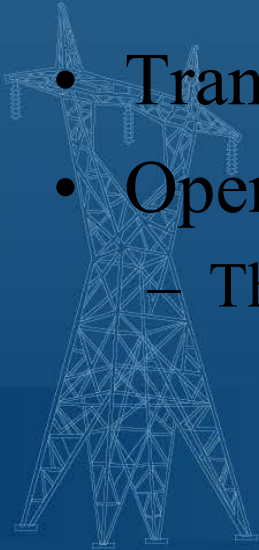
Interconnection Coordination with Environment

John Steward



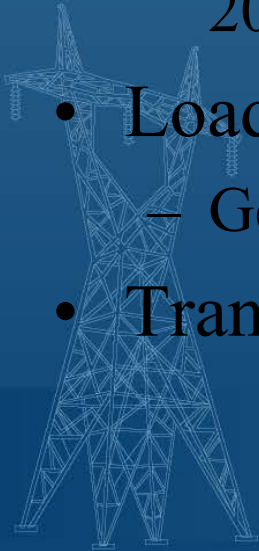
Topics

- Interconnection Types
 - Large Generator Interconnect Procedures (LGIP)
- Interconnection Queue - UGP
- OATT Revision
- Transmission Service Issues
- Open Discussion
 - Thoughts on coordination.



Interconnection Types

- Generators
 - Small Generator Interconnection Procedures (under 20MW)
 - Large Generator Interconnection Procedures (over 20MW)
- Load
 - General Requirements for Interconnection
- Transmission



Large Generator Interconnection Procedures (LGIP)

- For Generating Facilities Greater Than 20 MW
- Application
 - Completed Application (LGIP Appendix 1)
 - \$10,000 deposit
 - Demonstration of **Site Control** or a posting of an additional deposit of \$10,000



Site Control

- **Documentation reasonably demonstrating:**
 - A. Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the Generating Facility,
 - B. An option to purchase or acquire a leasehold for such purpose, or
 - C. An exclusivity or other business relationship between Interconnection Customer and the entity having the right to sell, lease or grant Interconnection Customer the right to possess or occupy a site for such purpose
 - D. Discussion examples.



LGIP – Interconnection Feasibility Study (FS)

- Preliminary evaluate the feasibility of the proposed interconnection to the Transmission System.
 - Power flow and short circuit analysis.
 - Can reduce up to 60%.*



LGIP – Feasibility

(cont'd)

- Interconnection Feasibility Study Agreement (LGIP Appendix 2)
 - Transmission Provider will offer the Interconnection Customer the Interconnection Feasibility Study Agreement. Agreement must be executed and delivered to Transmission Provider along with a \$10,000 deposit no later than 30 Calendar Days after its receipt.



LGIP - Interconnection System Impact Study (SIS)

- Evaluate the impact of the proposed interconnection on the reliability of the Transmission System.
 - Short circuit analysis, a stability analysis, and a power flow analysis.
 - Provides a list of facilities that are required as a result of the Interconnection Request and a good faith estimate of cost responsibility and a non-binding good faith estimated time to construct.
 - Can reduce up to 15%.*



LGIP – System Impact

(cont'd)

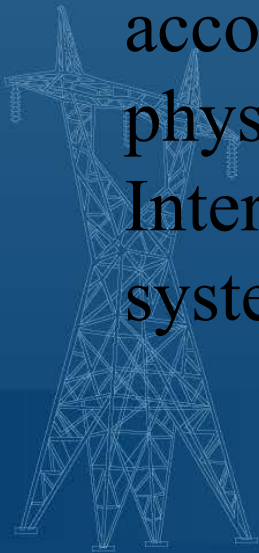
– Interconnection System Impact Study Agreement (LGIP Appendix 3)

- Transmission Provider will offer the Interconnection Customer the Interconnection System Impact Study Agreement. Agreement must be executed and delivered to Transmission Provider along with demonstration of **Site Control** and a \$50,000 deposit no later than 30 Calendar Days after its receipt.



LGIP Interconnection Facilities Study (IFS)

- 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 Interconnection Facility to the Transmission system.



LGIP – Facilities

(cont'd)

- Interconnection Facilities Study Agreement (LGIP Appendix 4)
 - TP will offer the IC the Interconnection Facilities Study Agreement. Agreement must be executed and delivered to TP along with the greater of \$100,000 or Interconnection Customer's portion of the estimated monthly cost of conducting the Interconnection Facilities Study.



Large Generator Interconnection Agreement (LGIA) (LGIP Appendix 6)

- Draft LGIA and Draft Appendices
 - IC shall execute and return within 30 Calendar Days after tender from Transmission Provider.
- Negotiation
 - IC can request only on Draft Appendices.
 - Shall not exceed 60 Calendar Days from initial tender of Draft LGIA.



LGIA

(cont'd)

- Execution – within 15 Business Days after receipt of the final LGIA, IC shall provide TP:
 - Reasonable evidence of continued **Site Control**, or
 - Posting of a non-refundable deposit of \$250,000, which shall be applied toward future construction costs.
- Environmental considerations in appendices.*



Interconnection Queue



August 4, 2011

Interconnection Queue

- Queue Position established upon the date and time of receipt of the valid Interconnection Request by the TP, relative to all other pending valid Interconnection Requests.
- The Queue Position of each Interconnection Request will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection.



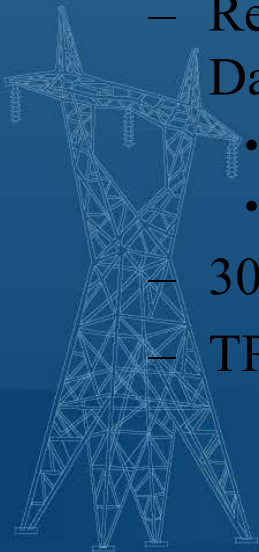
OATT Revision



August 4, 2011

OATT Revisions Specific to Env.

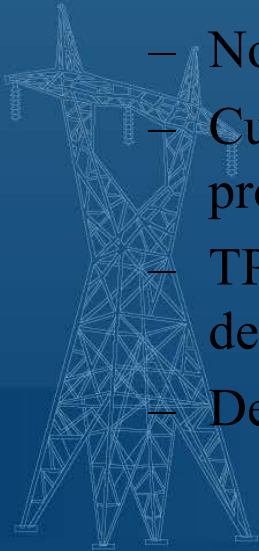
- **Notice of Need for Environmental Review, OATT Sections 19.11 (Firm PtP) and 32.5 (Network)**
 - TP determines if env. review is required.
 - Reasonable Efforts to tender env. agreement within 15 Calendar Days of providing ISIS Report.
 - IC shall make advance payment of funds.
 - IC's responsibilities.
 - 30 Calendar Days to execute and return with deposit.
 - TP reserves the right to deem the request withdrawn.



OATT Revisions Specific to Env.

- **Environmental Compliance, Attachment J
Section 16.0**

- Customer recognizes that TP must comply with env. and natural resource laws regulating the construction, operation and maintenance for its facilities.
- Not limited to NHPA, NEPA, ESA, ARPA...
- Customer shall comply with all env. laws, regs., resource protection, mitigation, BMPs...
- TP's decision to execute LGIA dependent on NEPA determination*.
- Decision is not subject to dispute resolution.



OATT Revisions Specific to Env.

- **Environmental Review Agreement, LGIP Section 3.3.5 and SGIP Section 3.3**
 - Within 15 Calendar Days of providing the ISIS Report, Transmission Provider shall use Reasonable Efforts to tender an environmental review agreement.
 - Interconnection Customer shall execute the environmental review agreement and return it, along with the required funds set forth in the agreement, to the Transmission Provider within 30 Calendar Days of receipt of the final version offered for execution.



OATT Revisions Specific to Env.

- **Environmental Review Agreement, LGIP Section 3.3.5 and SGIP Section 3.3 (cont'd)**

- If an executed environmental review agreement and the required funds are not provided in the manner set forth above, the Interconnection Request shall be deemed withdrawn.
- In addition, if at any time prior to the issuance of Transmission Providers final NEPA decisional document the Interconnection Customer fails to comply with the terms of the environmental review agreement, Transmission Provider reserves the right to deem the Interconnection Request withdrawn.



OATT Revisions Specific to Env.

- **LGIP Sections 11.1, 11.2, & 11.3 LGIA**

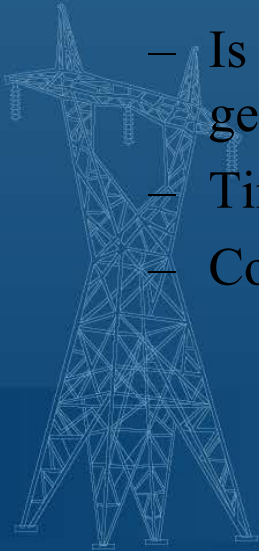
- Transmission Provider's decision to execute the LGIA is dependent on conclusions reached in the record of decision under NEPA, or other such appropriate NEPA document, concerning the interconnection of the Large Generating Facility and that Transmission Provider's NEPA review could result in a decision not to execute the LGIA, or to delay LGIA execution.

Transmission Provider's decision shall not be subject to dispute resolution.



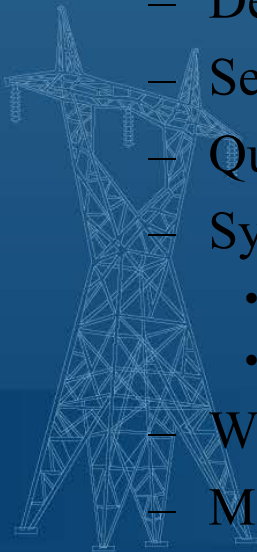
Transmission Service Requests Issues

- **I can interconnect, but I can't deliver??**
 - How transmission ratings are developed for marketing the transmission.
 - Transmission constraints to deliver energy to the markets/loads.
 - Environmental Issues for analysis on new lines.
 - Is environmental work on a transmission service request from a generator a connected action?
 - Time is of the essence.
 - Conditional Firm, a possible solution.



Discussion Question

- **Appropriate time to initiate env. review with Interconnection Customer?**
 - Available resources vs. existing workload
 - Schedule for construction start
 - Desired in service date
 - Seasonal considerations
 - Queue issues - time spent in queue before initiating system studies
 - System studies
 - Identifying facility improvements
 - Changes in the project
 - Western's risk vs. customer's risk
 - More...?



Other Questions?

John Steward, Western RMR Phoenix

steward@wapa.gov

602-605-2774

