

WAPA Interconnection Process

USEA Tribal Energy Webinar

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Topics

- High Level Overview of Large Generator Interconnection Agreement (LGIA) Process
- Common Challenges of Building a Generator
 - Overcoming Those Challenges
- Unique Challenges for Developing on Tribal Land
 - Solutions



High Level Overview of Generator Interconnection Process

- Application Submittal
 - Costs of the application will range between \$10,000 to \$250,000.
 - Some Transmission Service Providers (TSPs) have a set deadline for application submittals. [Cluster Study]
 - Other TSPs have no deadline for application submittals. [Serial Study]
 - Customer responsible for providing all data needed to evaluate the interconnection.
- Deposits/Fees
 - Some application fees to the TSP are non-refundable.
 - Interconnecting Requestor (IR) will fund the cost of all work.



High Level Overview of Generator Interconnection Process

- Generally, there are two studies required System Impact Study (SIS) and Facility Study.
 - SIS - evaluate the impact of the proposed interconnection on the reliability of the Transmission System.
 - Several types of studies are performed.
 - Results provides a list of system/facility modifications required as a result of the Interconnection Request.
- Study answers the question: What reliability upgrades are needed for the project to be permitted to interconnect?



High Level Overview of Generator Interconnection Process

- Facility Study is performed after the SIS
 - Facility Study - specify and estimate the cost of the engineering, equipment, procurement, and construction work needed to interconnect.
 - Answers the questions: How much is the project going to cost?" and "How long for construction?"
- Final step is working with the TSP on the Large Generator Interconnection Agreement.



Common Challenges of Building a Generator

- Development costs are high.
 - Costs will be in the millions for labor hours.
 - Financing will need to be secured.
- The whole process takes on average four years from submittal of application to final construction.
- Environmental assessment for the project can be time consuming and delay it creating uncertainty.



Common Challenges of Building a Generator

- No guarantee of a Power Purchase Agreement (PPA).
- On average only about 5% of requests make it to construction.
- A successful LGIA does not grant permission to use the transmission system, only the ability to interconnect to it.
 - A separate Transmission Service Request (TSR) may be necessary.



Overcoming Common Challenges of Building a Generator

- With great risks, comes great rewards.
 - Those who successfully navigate the Interconnection process are typically awarded with a twenty-year Power Purchase Agreement.
 - A portion of the labor and material costs associated with the interconnection may be recovered over time through Network Credits.
 - Tax incentives, coupled with other revenues, may make a project financially viable.



Unique Challenges and Potential Solutions for Developing on Tribal Land

- How to get developers interested in Tribal Land?
 - Participate in forums, meet developers, attend conferences.
 - Work with Tribal leaders to explore zoning land for development.
 - Preference towards land near high voltage lines, flat terrain, and accessibility.
 - Consider posting a Request for Proposal (RFP) advertising your interest.
 - Perform a SIS to identify how much generation can be injected.



WAPA's Coordination with Tribal Requests

- WAPA must follow our Interconnection process as specified in our tariff.
- We are available to assist developers and Tribes through the interconnection process.
 - WAPA typically works directly with the developer on interconnections.
 - We can direct Tribal personnel to DOE resources able to provide additional assistance.
 - WAPA will work closely with the Tribe on the environmental studies.
- WAPA does not have the authority to purchase long-term power from developers.



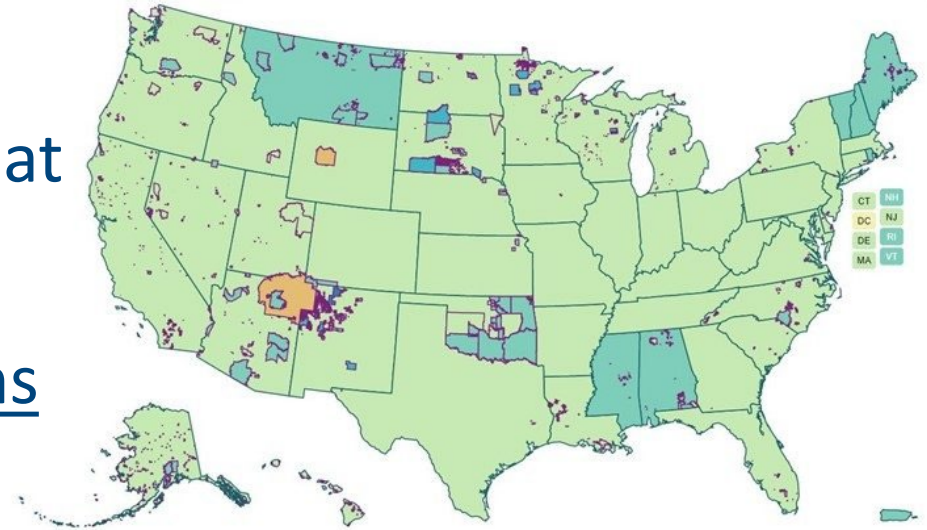
WAPA's Coordination with Tribal Requests

- Are there ways Tribes can work with WAPA to streamline? Are there new opportunities on the horizon?
 - Our process is fairly streamlined. I believe there is typically good coordination on the environmental side. Understanding the process and the players, having a purchaser of the energy signed help prevent delays. The existing markets (EIM/WEIS) do not make it essential to have an off-taker and may not require transmission (though there are certainly risks in those approaches). An expanded market (EDAM/Markets+) and especially an RTO will likely create additional opportunities for generators in the future.
 - Explore Government Programs. One of the great successful programs for Tribes was through a Technical Analysis, or TA, through Office of Indian Energy Policy and Programs.



DOE Office of Indian Energy Policy and Programs

- The Office of Indian Energy, DOE national laboratories, and other partnering organizations provide technical assistance at no cost.
- Office of Indian Energy Policy and Programs
- Main phone: (240) 562-1352
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