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
• Email: IndianEnergy@hq.doe.gov