

# Engineering Courses

## Strategic Generation and Transmission Planning

### Training objectives:

The participants will acquire extensive knowledge about the operation of a power system from the point of view of the various company officers from a CEO to a maintenance supervisor. They will learn how the power system operates including what type of power plant to operate during a given period, the best time to maintain your power plants, when to order new generating capacity and what type of capacity to order. The participant will come away with a basic knowledge of the operation of a power system from a multi-faceted point of view.

### The course is intended for:

Engineers and technicians who work for power supply companies, and industry professionals who have a need to know how economic decisions are made to operate various power plant and transmission systems. One will also learn how much generating and transmission capacity is needed, along with when it should be added to the system, and of what technologies.

### Main features:

- Overview of Historic Electric Utility trends
- Load Forecasting concepts and methodologies
- Power system reliability methodology and application
- New unit decision optimization techniques
- Financial Implications of decisions
- Pathways and integrated interregional planning practices to support decarbonization and grid needs during the energy transition (Pathways to long term decarbonization planning)
- Decision analysis for long term planning and adequacy
- Decarbonization exercise (i.e. Meet decarbonization goals for 2050 for specific region and/or plant operations)
- Macrogrid concepts

### Recommended prior knowledge:

Basic knowledge of an electric utility system.

**Note: The course is held in English. Class subject to change. Class times are 8-4.**

For more information visit: [www.geenergyconsulting.com](http://www.geenergyconsulting.com)

