Training Program:

Introduction to the Wien Automatic System Planning Package (WASP-IV)

OVERVIEW:

The Windows version of the Wien Automatic System Planning Package (WASP-IV) is the premier power systems expansion model used by utility planners, ministries, lending agencies, and research institutions around the world. WASP-IV is a non-commercial model maintained by the International Atomic Energy Agency (IAEA) who distributes the tool internationally. In principle, WASP-IV is distributed only to non-profit institutions and Argonne is authorized to distribute the model to qualified institutions within the United States.

FORMAT AND TOPICS:

An intensive series of lectures and hands-on laboratories will be used to introduce the foundational ideas of WASP-IV. In addition, lectures will present each of the main WASP-IV modules. Participants will learn how to operate and run the model, develop model inputs, as well as interpret WASP-IV results. During the hands-on work sessions, participants will execute the model for different demonstration cases and run a variety of scenarios to test the effects of the main model input parameters.

WHO SHOULD ATTEND?

This is an introductory course to WASP-IV. Anyone with interest in power systems expansion planning and with limited to no experience in WASP should attend, in particular, strategic planners in energy companies or energy ministries, energy analysts, students or faculty with interest in long-term power market research and forecasts. Note that we plan on offering an advanced course in the future. Also, note that the software is available for free to non-profit institutions, subject to their acceptance and signing of the Basis for Release form. For-profit and consulting companies do not qualify to obtain the software as stipulated by the IAEA.

PREREQUISITES AND REQUIREMENTS:

There are no prerequisites or requirements for this course. Participants will not need to bring their own energy statistics for this introductory course. Basic knowledge in power systems analysis will be helpful.

CERTIFICATE

BTS attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration.

PRELIMINARY COURSE SCHEDULE:

Day 1	Introduction and overview of WASP Overview of generating system expansion planning
Day 2	Modeling the system loads and load forecast in WASP Modeling the existing power system in WASP
Day 3	Screening analysis of candidate technologies Modeling the expansion candidates in WASP
Day 4	Probabilistic simulation of system operation Modeling of renewable sources and other operational constraints in WASP
Day 5	Dynamic programming optimization of system expansion, Review of the least-cost expansion path and other reports