

Format and Topics: An intensive series of lectures and hands-on laboratories will be used to introduce the foundational ideas of WASP-IV, TIMES-VEDA, and MARS; and present each of the main components of these models. Participants will learn how to operate and run the models, develop model inputs, as well as interpret model 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.

Course Venue: Training on WASP, TIMES-VEDA and GE MARS will be provided at Adica's Office located at 2021 Midwest Road, Suite 200, Oak Brook, Illinois, 60616 USA.

Contact Information:

Week 1: WASP Bruce Hamilton, President Adica (630) 853.5170

Week 2: TIMES-VEDA Gary Goldstein, President DecisionWare

Week 3: GE MARS Devin Van Zandt, Software Product Manager, GE Energy Consulting
Mark Walling, Software Analyst

Preliminary Course Agenda:

Week 1

MON, 8/11	<p>AM: Introductions of Participants & Goals for the Training Course WASP Model Overview, Software Installation and Operation</p> <p>PM: Modeling System Loads and Load Forecast in WASP <i>Working Session – WASP Model Installation, Operation, Load Forecast</i></p>
TUE, 8/12	<p>AM: Modeling Existing Power System in WASP Screening Analysis and Modeling of Expansion Candidates in WASP</p> <p>PM: Exercise: Developing an Initial WASP Generation Expansion Plan <i>Working Session – WASP Existing Power System</i></p>
WED, 8/13	<p>AM: Probabilistic Simulation of System Operation and Overview of WASP Model Results Dynamic Programming Methodology for Optimization of System Expansion</p> <p>PM: Strategy for Development of Least Cost Generation Expansion Plan using WASP <i>Working Session – Developing WASP Generation Expansion Plan for Korea</i></p>
THUR, 8/14	<p>AM: Pumped-Storage Hydro, Wind, and other Special Unit Representations in WASP Modeling of Energy, Fuel, and Emissions Limitations in WASP</p> <p>PM: <i>Working Session – Developing WASP Generation Expansion Plan for Korea</i></p>
FRI, 8/15	<p>AM: Preparation of Final Report on WASP Generation Expansion Planning Study</p> <p>PM: <i>Working Session – Developing WASP Generation Expansion Plan for Korea</i></p>

Week 2

MON, 8/18	AM: Participant Presentation on Generation Expansion Plan and Priority Issues in Korea Energy Systems Analysis Introduction PM: MARKAL/TIMES Basics
TUE, 8/19	AM: Introduction to VEDA PM: A Simple TIMES Model Under VEDA
WED, 8/20	AM: Working with the TIMES Demo Model PM: Intermediate TIMES Features (storage, user constraints, elastic demands)
THUR, 8/21	AM: Working with a Production National Model PM: Decision Ware's Analytics Graphing Workbook
FRI, 8/22	AM: Production National Model Exercise PM: TIMES Model Review and Open Q/A

Week 3

MON, 8/25	AM: Overview of GE Power Systems Load Flow Software (PSLF) PM: Overview of GE production simulation software (MAPS)
TUE, 8/26	AM: Introduction to power plant reliability concepts and Monte Carlo methodologies PM: Modeling features in MARS: Load forecasts, Uncertainty in load forecasts, Unit details for hydro and thermal generation
WED, 8/27	AM: Modeling features in MARS (continued): Multi area modeling, Contracts, Operating procedures and Resource sharing PM: Applications of MARS: Overview and demonstration of applications for MISO, NYISO and ISO-NE
THUR, 8/28	AM: Wrap-up Session and Closing Ceremony