

Concept Paper		
Webinar on “Energy System Optimization Modelling through PLEXOS® for SAARC member states”		
Webinar		SEC

Background:

With increasing shares of renewables in the energy system and the importance of energy for prosperity of nations, system optimization and modelling has gained significant importance all over the world. Due to the associated complexities and uncertainties, decision makers and planners always face increased pressure to respond more effectively and timely to a number of energy-related issues and conflicts, as well as GHG emission mitigation within the multiple scales of energy management systems. The Energy system optimization models (ESOMs) can help decision makers and planners by providing insights into energy and environment. This helps in strategic planning and decision making and policy making. An effective and efficient energy ESOM provides detailed information for immediate decision making and strategic planning for long-term expansion.

Introduction:

There are many ESOMs available in the market with their own attributes and functionalities. One of these is **PLEXOS® Integrated Modelling Software**. PLEXOS is being used in over 300 companies across 62+ countries for the modelling, simulation, and optimization of electricity, gas and water systems. PLEXOS is an economic software that uses mathematically based optimization techniques for forecasting. PLEXOS is easy to use and offers the latest data handling, visualization features, and distributed computing methods, to provide a high performance, robust simulation system for electric power, water and gas.

PLEXOS® is an integrated optimization tool used to simulate the energy market (electricity, gas and/or water) and assist on:

- Dispatch Optimization
- Hydro-Thermal Coordination
- Maintenance Planning
- Reliability Analysis
- Transmission Analysis
- Ancillary Services
- Long-term Capacity Expansion Planning
- Renewable Energy Integration
- Energy Storage
- Electricity and Gas Co-optimization

PLEXOS integrated software offers numerous functionalities, making its applications highly useful to a variety of users and needs. Current and potential users include:

- Departments of Energy and Ministries

- Market Operators, Regulators and Commissions
- Electricity Generators, Traders and Retailers
- Transmission System Operators
- Power Plant Manufacturers and Construction companies
- Gas Producers, Traders and Retailers
- LNG Operators and Traders
- Consultants, Analysts and Research Institutions
- Academics

Objective:

This webinar provides an opportunity to learn what other professionals alike are using around the globe. The main objectives of the webinar are:

- Knowledge of what PLEXOS® is by reviewing each use case
- A better understanding of what can be achieved with PLEXOS® by reviewing user's applications
- Insights on power system modelling best practices
- Awareness of the benefits of an integrated analysis approach
- Introduction to a rapidly growing global community

Who should attend the webinar?

The content appeals to professionals who are interested in economic modelling software and executives who face challenging decision-making across a variety of organizations, but they all have a common interest in the future of the electricity and gas industry:

- Chief Officers
- Strategy & Risk managers
- Policy makers
- Regulators
- Generation and transmission planners
- Generator Operators
- Fuel procurers
- Market analysts and marketers
- Analysts in trading support
- Consultants
- Academicians and Researchers

Potential Professional Resource

Presentations will be made by professionals from Energy Exemplar, a world leader in power system software for electricity gas, and water system modelling, simulation and optimization.

Venue of the Webinar

The Webinar shall be broadcasted from the office of SAARC Energy Centre (SEC), Islamabad.