

Operator Training Simulator



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ABB is a multinational corporation headquartered in Zurich, Switzerland, operating in robotics and mainly in the power and automation technology areas.

GridView is a powerful energy market simulation and analysis tool designed to deal with the most challenging issues facing decision makers in the electric energy industry today. It uses state-of-the-art modeling technology to simulate security constrained unit commitment and economic dispatch in large-scale transmission networks. It produces unit commitments and economic dispatches that respect the physical laws of power flow and transmission reliability requirements. Therefore, GridView coupled with graphic interface and easy-to-use system makes it a unique analytical tool for decision-making.

Simulation and Forecasting Technology role

Energy market simulation, analytical tool for decision making

Sector

Engineering and Electronics

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The collage features several screenshots of the GridView software interface, including a map titled 'Visualization of Transmission Utilization & Congestion' showing power flow percentages (e.g., 47%, 62%, 84%, 85%, 92%, 95%, 96%, 97%, 98%, 99%), a 'Transmission Studies' menu with options like 'Asset utilization', 'Bottleneck identification', and 'Congestion mitigation optimization', and a 'Power Market Volatility Modeling' chart showing 'Volatility Prices' and 'Discouraged Prices' over time. A central document titled 'GridView - Modeling to Predict Economic Value -' contains the following text:

GridView is a powerful energy market simulation and analysis tool designed to deal with the most challenging issues facing decision makers in the electric energy industry today. In GridView, advanced analysis methodology combines generation, transmission, loads, fuels, and market economics into one integrated framework to deliver location dependent market indicators, transmission system utilization measures and power system reliability and market performance indices. It provides invaluable information for both generation and transmission planning, operational decision making and risk management.

GridView uses state-of-the-art modeling technology to simulate security constrained unit commitment and economic dispatch in large-scale transmission networks. It produces unit commitments and economic dispatches that respect the physical laws of power flow and transmission reliability requirements. As such, the generation dispatch and market clearing price are feasible market solutions within real power transmission networks. This makes GridView fundamentally different from the competition. Other industry models bear little resemblance to real power systems and ignore transmission constraints. Therefore, GridView coupled with graphic interface and easy-to-use system makes it a unique analytical tool for decision-making.

GridView is used by planners, engineers, energy traders and consultants to analyze challenging issues facing them today. Built-up databases and service experiences around GridView include all NERC regions in the US and some overseas power systems. Major studies have been performed for various market participants, policy makers, power plant and transmission developers, and generation and transmission companies.

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