



CASE STUDY

Leading power generator uncovers tens-of-millions of dollars in fuel savings, hidden within a complex energy mix.

The very first use of PLEXOS yielded the power company significant annual fuel savings, by running "real world" simulations, including modeling over 300 unit commitment properties to emulate life-like dispatch.

The environment to simulate is complex, involving multiple fuel constraints including coal, port and different mix ratios for its coal plant in Hong Kong, nuclear imports from China and various gas supply contracts.

Powering the system is a number of different technologies, including steam turbines, CCGTs and GTs, which need to adhere to emission constraints.

Within the simulation model, the organization applied a variety of constraints using the "constraint class" as well as set up "if" statements using the "conditional classes." The model's "variable classes" also assigned relationships, and together with Mixed Integer Programming.

The results were immediate, making the purchase of PLEXOS a large ROI multiplier with the very first use.