

Utility Reduces Fuel Costs by 6% Per Annum

Real-world modeling results in significant savings



China Light and Power (CLP) powers millions of homes and businesses across the Asia Pacific regions. In Hong Kong, it operates a vertically integrated electricity supply business providing a highly-reliable supply of electricity to 80% of the city's population. The business includes power generation, transmission and distribution, and electricity and gas retail activities.

Situation

CLP has many fuel constraints including coal port and different mix ratios for its coal plant in Hong Kong, nuclear imports from China and gas supply contracts.

It also has a number of different technologies in its portfolio including steam turbines, CCGTs and GTs as well as emissions constraints.

Solution

CLP chose PLEXOS for its "real world" simulation capabilities, including modeling over 300 unit commitment properties to emulate life-like dispatch. Within the 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, CLP successfully uncovered significant fuel cost savings.

Results

The organization reported that PLEXOS paid for itself in its first run, yielding a 6% annual fuels savings that equated to a **reduction of tens of millions of dollars.**

PLEXOS provided significant ROI – including paying for itself within its first run.

To learn more about PLEXOS and fuel cost savings, visit: energyexemplar.com or contact us at info@energyexemplar.com.