



UTILITY ANALYTICS Trade Optimiser

Built with WolfStack



The Trade Optimiser is a suite of software tools and algorithms designed to assist traders in efficiently allocating power between power producers and consumers.

Its objective is to optimise end-of-month or end-of-balancing period wheeling allocations by maximising an objective function and minimising inefficiencies. The optimiser takes into account various factors, such as customer requirements, diverse tariffs, and dynamic load profiles of generators and customers.

By using the optimiser, traders can generate schedules that determine the percentage allocations from each supplier to each customer. These schedules optimise the distribution of energy, considering contract conditions, rates, and constraints. The goal of the optimisation process can vary, from minimising expenditure and maximising profit, to maximising customer savings. Visualisations, including Pareto front visualisations, aid in decision-making when there are competing objectives and trade-offs.

The Optimal Wheeling Allocator (OWA) process occurs after all metering data has been collected. It incorporates individual customer pricing, constraints defined by contracts, and additional data on Wholesale Electricity Pricing System (WEPS), other tariffs, and rebate information.

The optimiser is adaptable to different wheeling frameworks implemented by various municipalities, and utilises a linear optimisation algorithm to maximise different objective functions, such as cost reduction and rebate maximisation.

The output of the optimiser provides schedules specifying the percentage allocations for each customer. These schedules are integrated into the ETS Scheduler, allowing for their inclusion in the physical settlement process.

Features

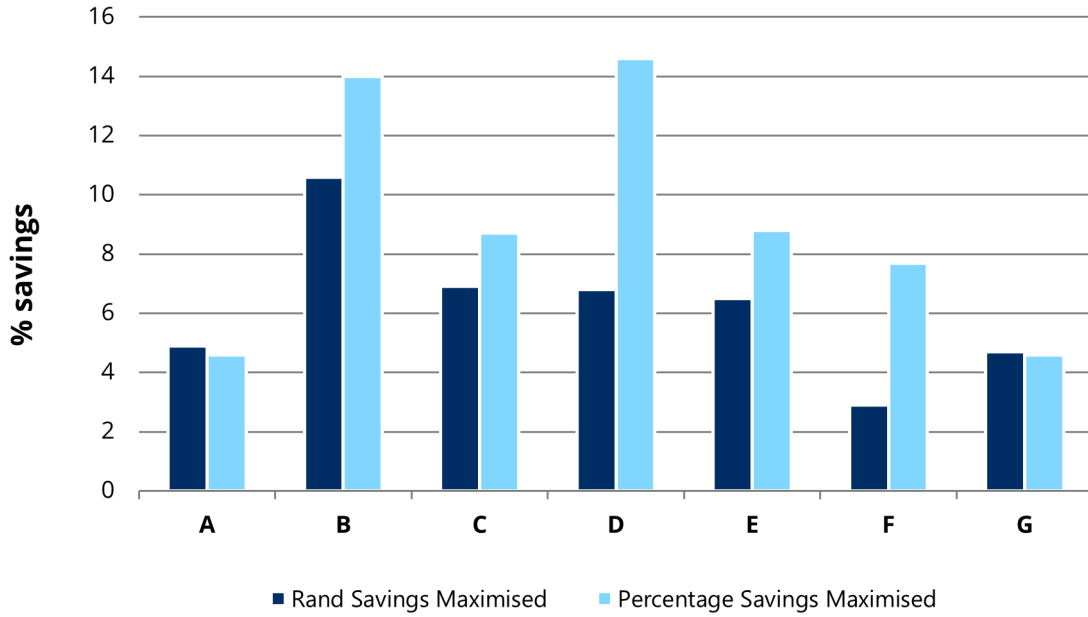
- Advanced algorithms and optimisation techniques for **efficient power allocation** from IPPs to consumers.
- Optimisation specifically tailored for **end-of-month or end-of-balancing** periods to minimise oversupply and undersupply, and to maximise delivery efficiency.
- Captures and manages **customer-specific** load profiles, diverse tariffs, pricing constraints, and individual contract details.
- Ability to optimise various **objective functions** such as cost reduction, profit maximisation, or customer savings.
- **Intuitive visualisations**, including Pareto front visualisations, for informed decision-making with multiple competing objectives.
- Seamlessly **integrates with metering data sources** for accurate input in the optimisation process.
- Utilises **Wholesale Electricity Pricing System (WEPS)** and other tariff data sources for incorporating wholesale pricing information.
- Adapts to accommodate variations in **wheeling frameworks** implemented by different municipalities.
- Generates schedules specifying percentage allocations and **seamless integration with the ETS Scheduler** for accurate energy distribution and physical settlement.



Benefits

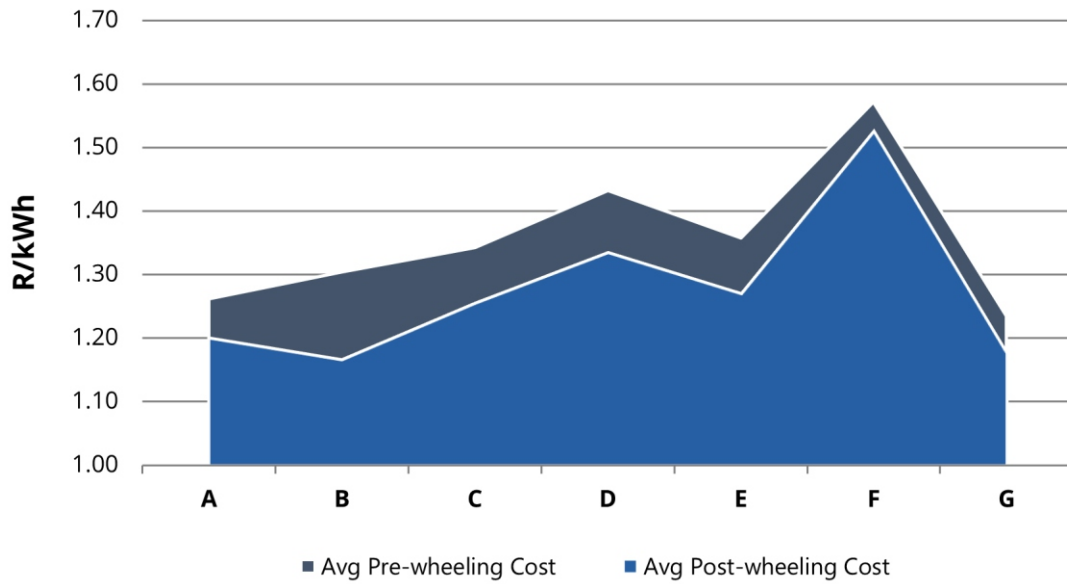
- **Cost reduction and improved profitability** through efficient power allocation and elimination of oversupply.
- **Maximisation of objectives** (e.g. expenditure reduction, profit increase, customer savings) by optimising energy distribution based on contract conditions, rates, and constraints.
- **Enhanced decision-making** with multi-dimensional visualisations, facilitating trade-off navigation and improved allocation processes.

Optimise power and wheeling allocations, reduce cost, and improve profitability with Enerweb's Trade Optimiser.



Percentage Savings per Customer

The Trade Optimiser can allocate power according to different objective functions. If the trader wants to maximise the percentage savings across the portfolio, this can be done, with negligible impact on total customer savings.



Pre-wheeling vs. Post-wheeling Cost

Comparison between pre wheeling cost per kWh and post wheeling after optimisation.

Enerweb at a Glance



Blending **engineering, business, and IT expertise** to provide electricity utilities and power pools with solutions for a rapidly changing environment

1999

Established



Well-proven **implementation and systems integration** skills

Flagship products in the **Energy Trading, Energy Data Solutions, Demand Response** and **Utility Analytics** environments



Energy industry focussed



Innovative solutions



ISO 9001 certified

Connecting buyers and sellers of electricity

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