

+ PSImetals Energy

Energy Efficiency as a Basis for Competitiveness

Comprehensive Energy Management for Metals

PSI 

Cost Optimization by Energy

Comprehensive Energy Management for Metals

Metal producers are large energy consumers. Many of them produce gas as a by-product of their metallurgical processes. In many parts of the world energy costs account for a substantial share of production costs and selling produced energy at the right moment may generate additional revenue.

PSI's energy management system incorporates an energy consumption forecasting function as well as a power demand control that considers all production phases of a metallurgical production. It supports activities designed to ensure adherence to the maximum consumption limits as agreed to in the

relevant energy supply contracts.

The energy demand forecast is used to minimize both the financial risk of exceeding the consumption limit and the costs of externally supplied energy. It enables companies to effectively track and control energy consumption processes, so that the cost transparency of energy consumption can be significantly improved.

PSImetals Energy software offers the possibility to use the market chances in different areas like production, renewable energy, energy trading, etc.



What are your benefits?

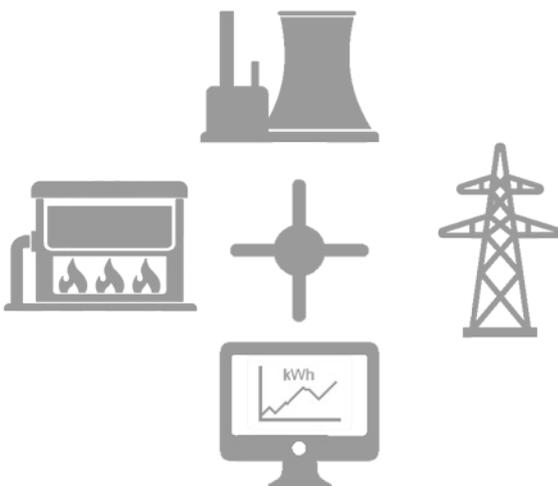
- + Optimize energy consumption and avoid line shutdowns
- + Reduce the demand for extra energy and therefore penalty costs
- + Utilize the agreed energy quota more effectively
- + Forecast and control energy consumption
- + Monitor predicted energy consumption and update forecasts in case of deviations

10% < energy consumption in melt shop

1% energy savings

10% throughput raise

< natural gas usage



Why PSImetals Energy?

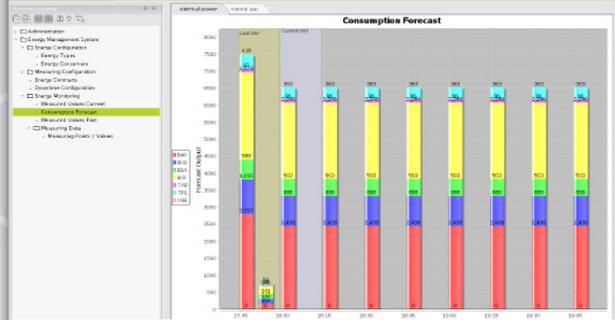
- Combining process know-how in metals with PSI's business know-how in energy
- Integrative aspect of production management: from planning to production control, from procuring to monitoring
- Lower costs by dynamic energy procurement
- More revenue by participation in the energy trading
- Use of market chances to produce at a low price
- Considering availability of volatile energy sources (renewable energy) based on market realtime decisions about consumption of available energy or buying / selling energy to the market

Selected reference customers:



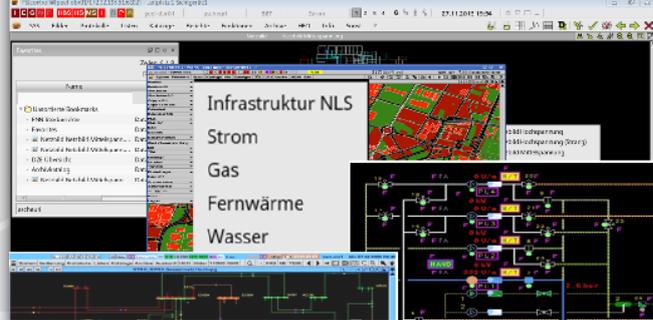


Production Planning with PSImetals



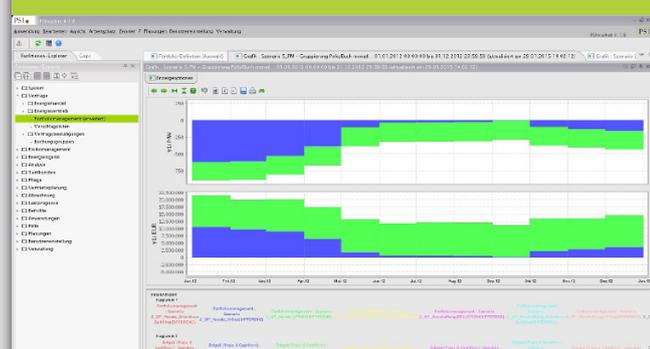
- + Consideration of energy restrictions
- + Effective use of existing energy quota
- + Energy distribution by priority

Control & Monitoring with PSImetals



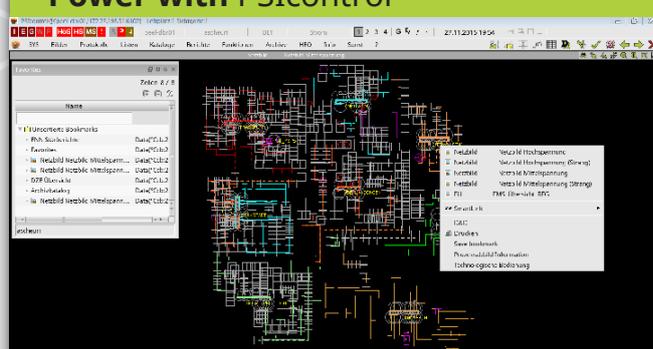
- + Controlling energy consumption for switchable consumers
- + Continuous recalculation of the short-term forecast
- + Monitoring of energy consumption and available remaining energy
- + Re-scheduling in case of shifts in production shifts (earlier/later)

Energy Purchase with PSImarket

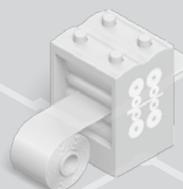
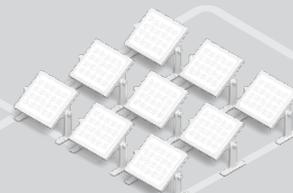
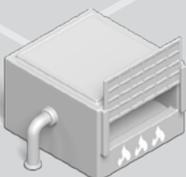


- + Favourable and flexible purchase
- + Bundling of purchasing
- + Billing of contracted energy

Management of Controlling Power with PSicontrol



- + Participation in auctions
- + Collaboration with production planning
- + Easy process changes
- + Switching activities execution
- + Alternative strategies for non-availability
- + Monitoring and archiving





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