Markkinapohjainen kaukolämmön tuotannon optimointi

Automaatiolla tehokkuutta energiajärjestelmiin

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Complete Optimized Solution

Changing Markets
*A challenge for CHP production!*

Optimized Production Planning
DNA Energy Management

Advanced Process Control
DNA District Heating Manager
DNA Energy Management
Optimized Production Planning
It’s a modular production optimization and planning system for heat and electricity production featuring:

- Load forecasting
- Electricity price forecasting
- Production optimization
- Electricity trading

**DNA Energy Management**

Optimized Production Planning

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Industrial Internet

Valmet experts
DNA Energy Management

Benefits

- Reduced production costs
- Optimized timing for start-ups and stops
- Cheapest fuel mix used
- Improved fuel purchasing
- Capitalized on the electricity trading potential
- Same way to plan for every shift
DNA Energy Management

Results

Load and Price Forecasts

Energy System Model

Optimized loads and start, stop timing

Modelling with graphical editor

Optimized production plans
DNA District Heating Manager
Advanced Process Control
DNA District Heating Manager

Advanced Process Control

- Secured Optimized Production Plan
- Reduced Heat Losses
- Minimized Pumping Costs

DNA District Heating Manager
Advanced Process Control

- Predictive Supply Temperature Control
- Advanced Economic Load Dispatch
- Optimization of Static Pressure level

It's an Advanced Process Control for district heating networks featuring:
- Predictive Supply Temperature Control
- Advanced Economic Load Dispatch
- Optimization of Static Pressure level

Customer’s process

Smart District Heating

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DNA District Heating Manager

Benefits

- Secured production plans
- Reduced fuel costs
- Reduced heat losses
- Minimized pumping costs
- Increased electricity production efficiency
- Grid Balancing with CHP units
- Reduced thermal stress
- Extended network lifetime
- Same way to operate for every shift