Kiona

Workshop: Demand response and digitalization of demand side in district heating and cooling systems.
Agenda

> Introduction to Kiona Group
> How we work and create value
> Optimizing buildings – optimizing grids
> What can we do (better) together?
Kiona

Software and services for technical property management, energy optimization with AI, cooling management, energy monitoring and follow up.
With proven integration and connectivity solutions, Kiona helps customers achieve their financial and sustainability goals by digitizing new and old buildings and their heating, cooling, ventilation and refrigeration systems.

→ Facts

**Open. Flexible. Independent**

135 employees in 8 countries

55,000 connected buildings

180+ partners in Europe

~200 NOKm revenue in 2021
Edge

- Works on all buildings!
- Extends the lifespan of existing hardware.
- No need for expensive replacements.
- Easy access from everywhere.
- High security
- Low cost and easy implementation.
- Savings
Flexible platform with efficient analysis tools

- Effective operation & analysis tools in a flexible platform for high availability at all levels throughout the organization

- Identify opportunities for improvement and make data-driven decisions as well as quality-assured follow-up of measures

- Simulate, analyze and follow up the results of various measures, against set energy and financial targets.
En värmestam som har för låg flöde visar sig i undertemperaturer i lägenheterna som ligger ovanför varandra. Inte ovanligt att det är just gavellägenheterna som är svagaste länken.
Det är heller inte ovanligt att ett värmesystem kan förse flera byggnader med värme och där en huskropp ligger betydligt lägre i inomhustemperatur än övriga.
Edge
Typical benefits for customers

> Average 10% reduction in consumption.
> Problems with return temperature solved.
> More stable indoor temperature.
> Better dialog between tenants and service/management personnel.
> Lower maintenance cost due to efficient fault seeking - and targeted efforts.
> Insights to make better decision for long term investments
Edge
Benefits for District Heating Companies

> 10% “free” capacity
> Lower forward temperature due to optimized buildings
> Lower return temperature
Combined gains

> 10% “free” capacity
> Flexibility
> Load shift
> Optimized heat and power production
> Potential business area (service/maintenance) either in-house or by partner models
We collaborate with Utilifeed
Webinar #6: Demo of district energy flexibility optimization tool

Filippa Sandgren & Johan Kensby - Utilifeed 2022-02-08
Key features Optimization

- Load forecast with EnergyPredict
- Electricity price forecast
- Flexibility as a part of the optimization
- Demand side flexibility, Kiona
Current situation in electricity grid

Large variation in electricity prices
November - December (SE3):
- On average - Factor 10 between daily max & daily min price
- All days - Factor >1.8 between daily max & daily min price

The one with flexibility is the winner
- Large value in shifting electricity use (and generation) in time
- Large value in shifting between heating using and not using electricity (e.g. heat pump and district heat from CHP)
Thanks for listening

Looking forward to solve the challenges together with you!

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