

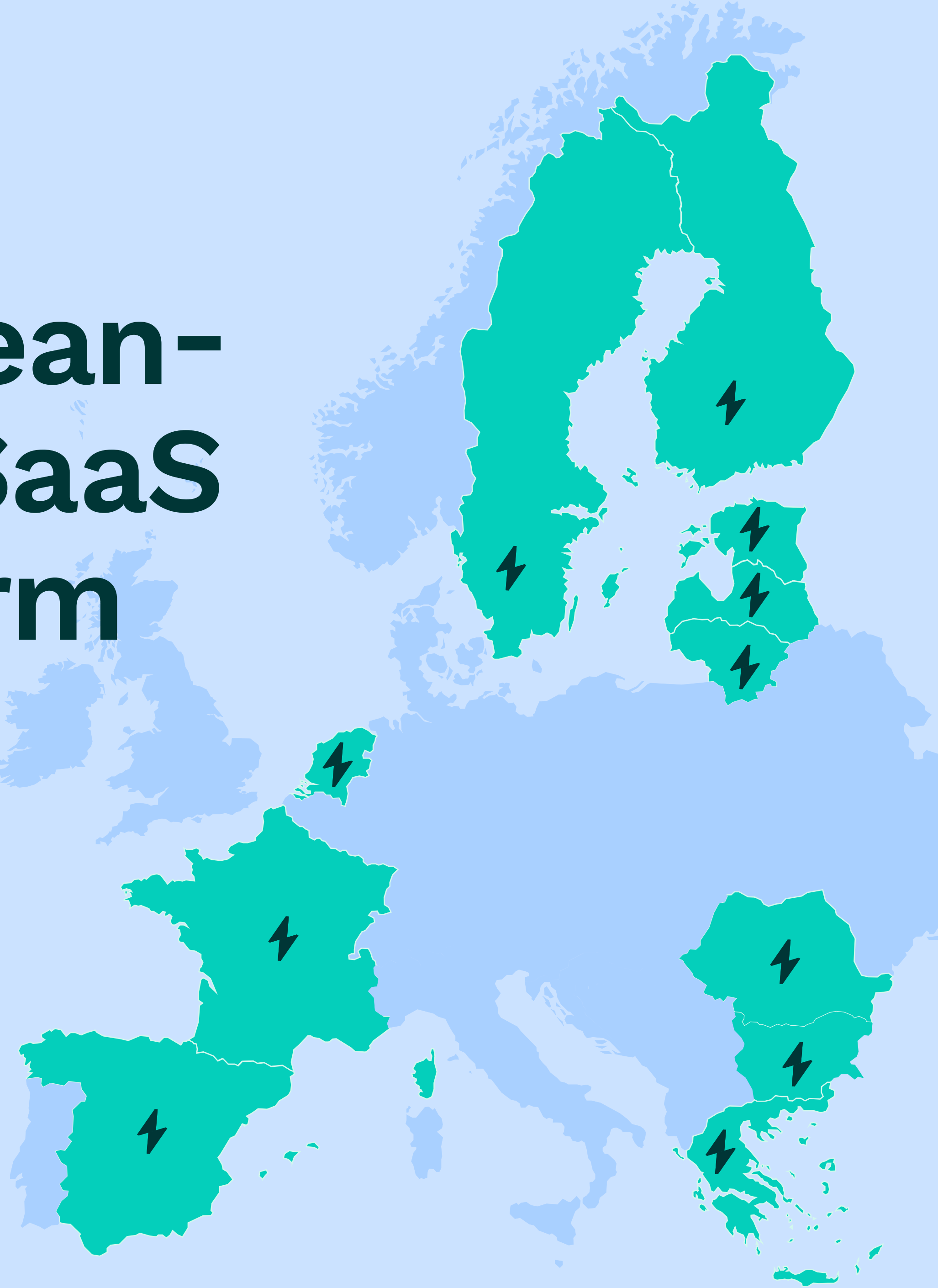
# Cracking the flexibility code



**Aleksandr Sepp**  
*Head of Strategic Partnership*

How we solve  
the energy crisis

# 2025 European- wide SaaS platform



**10+ Years of Flexibility  
management and 3 years  
of SaaS Expertise**



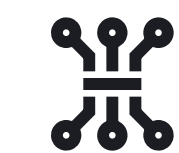
**Connection to 8 TSOs**



**Clients most assets  
connected: 800 assets**



**Clients biggest  
portfolio: 300 MW  
connected**



**Active in mFRR, aFRR,  
FCR, but also FCR-N and  
FCR-D in Nordics**



**Proven Across Europe**



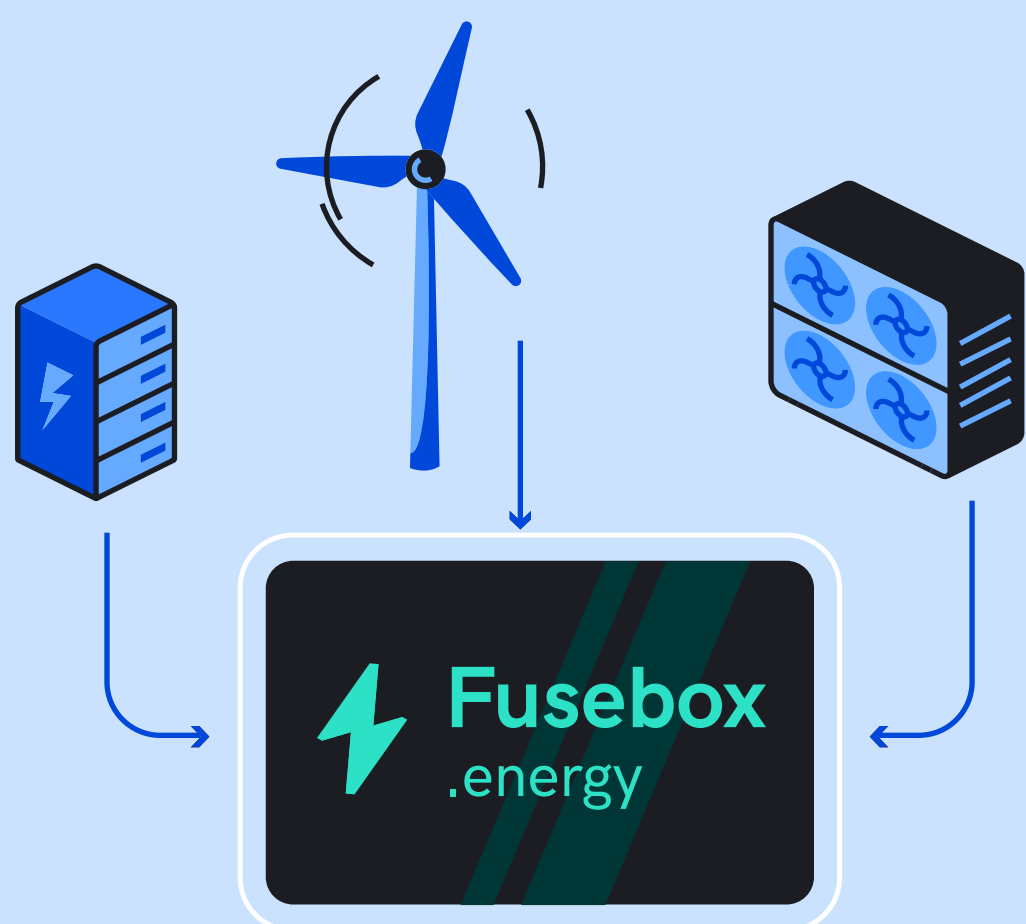
**White label SaaS**



# Modular solution under one platform

## On-site optimization module

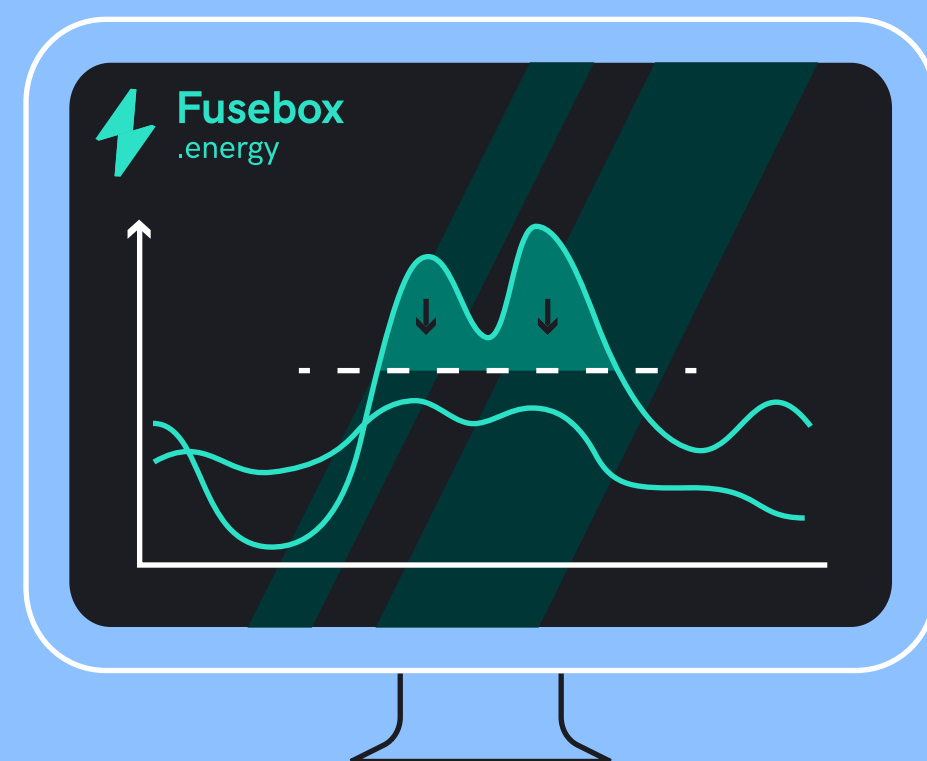
### Assets integration and control



Facilities managers,  
EPCs, OEMs

## Aggregation module

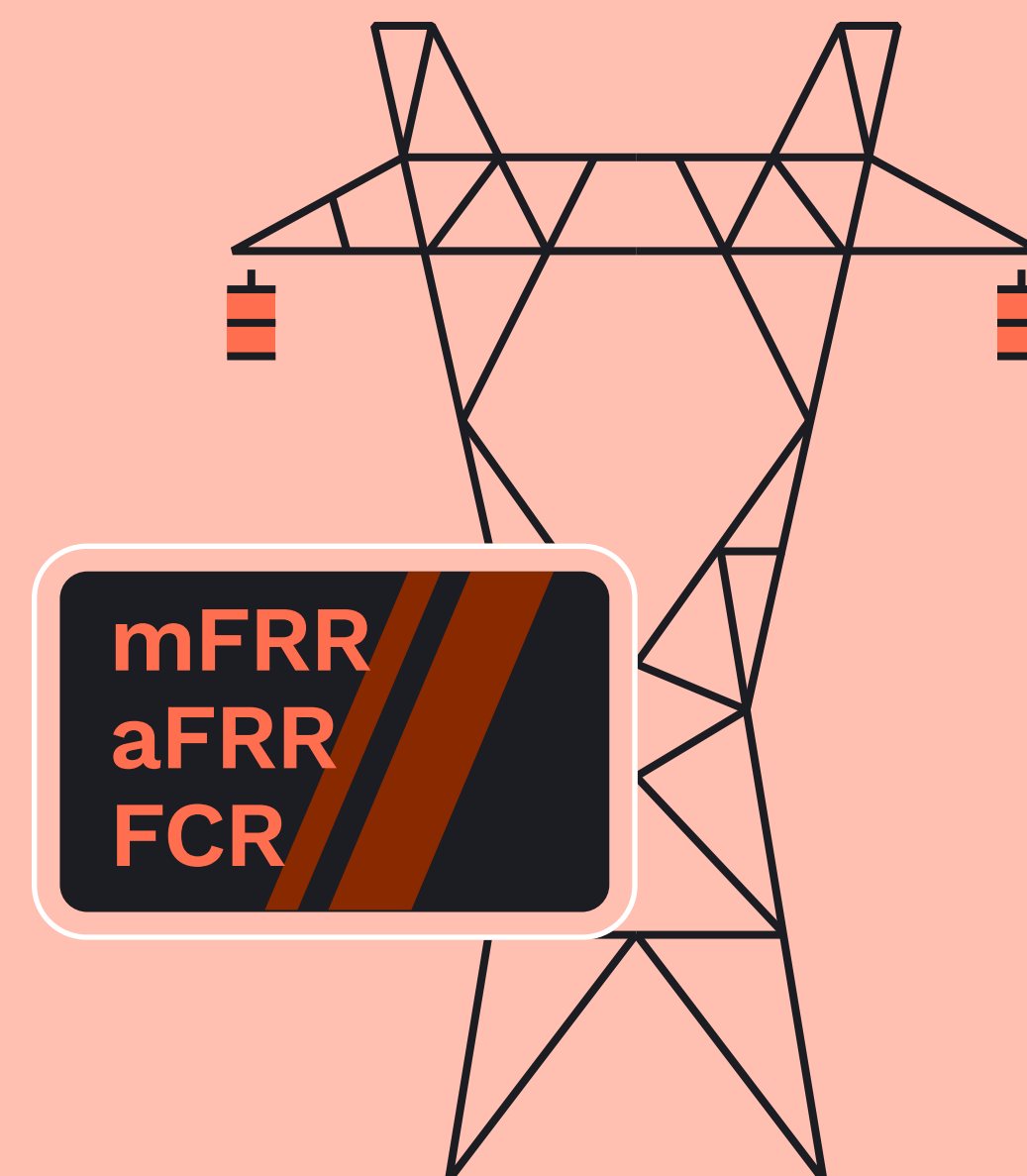
### Smart aggregation and activation



Energy companies and  
Portfolio managers

## Energy and Ancillary markets module

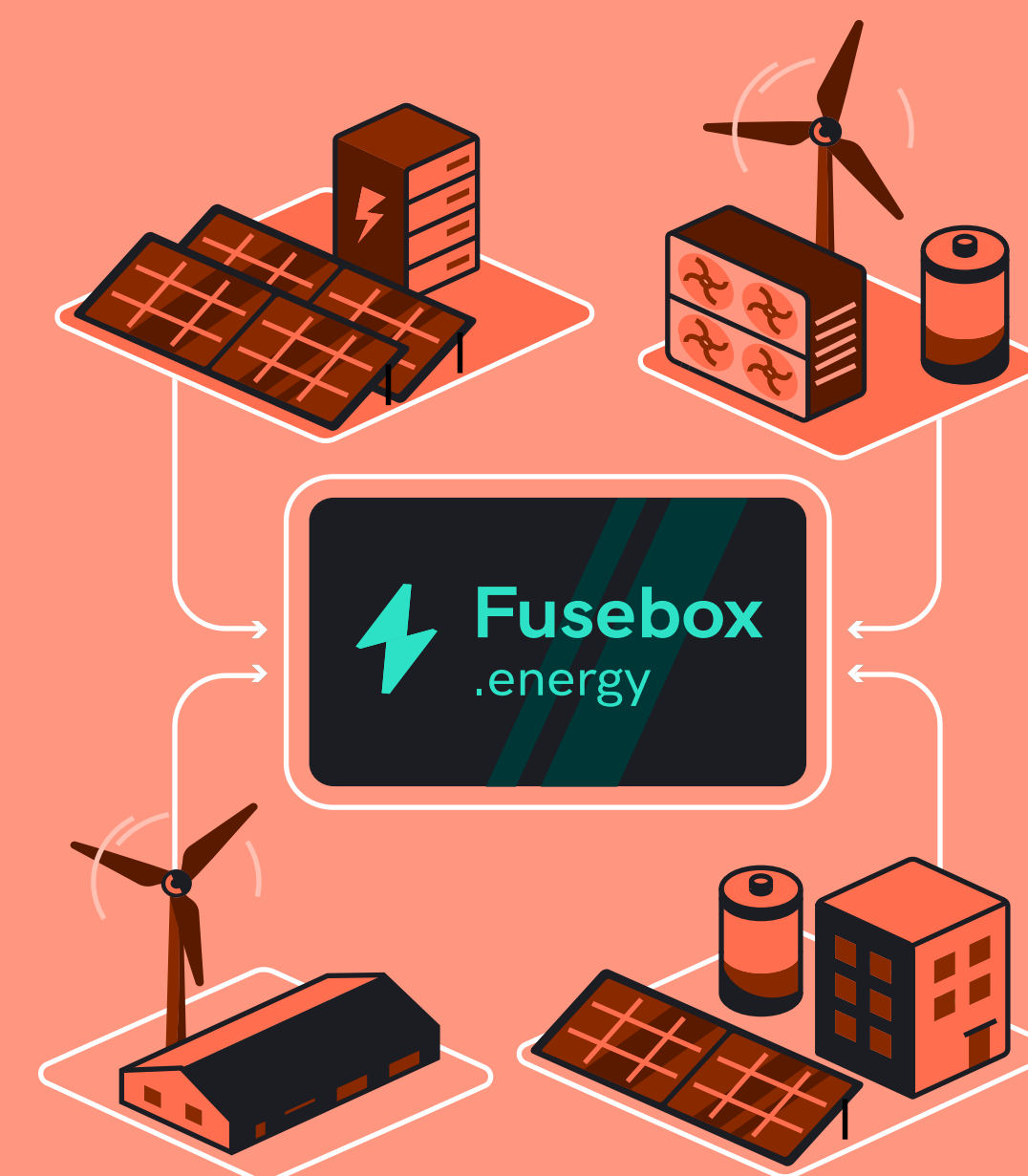
### Trading desk or TSO integration



Energy companies  
and BRPs

## Additional integrations via API, MQTT or IEC104

### Production, ETRM, Algotrading desks

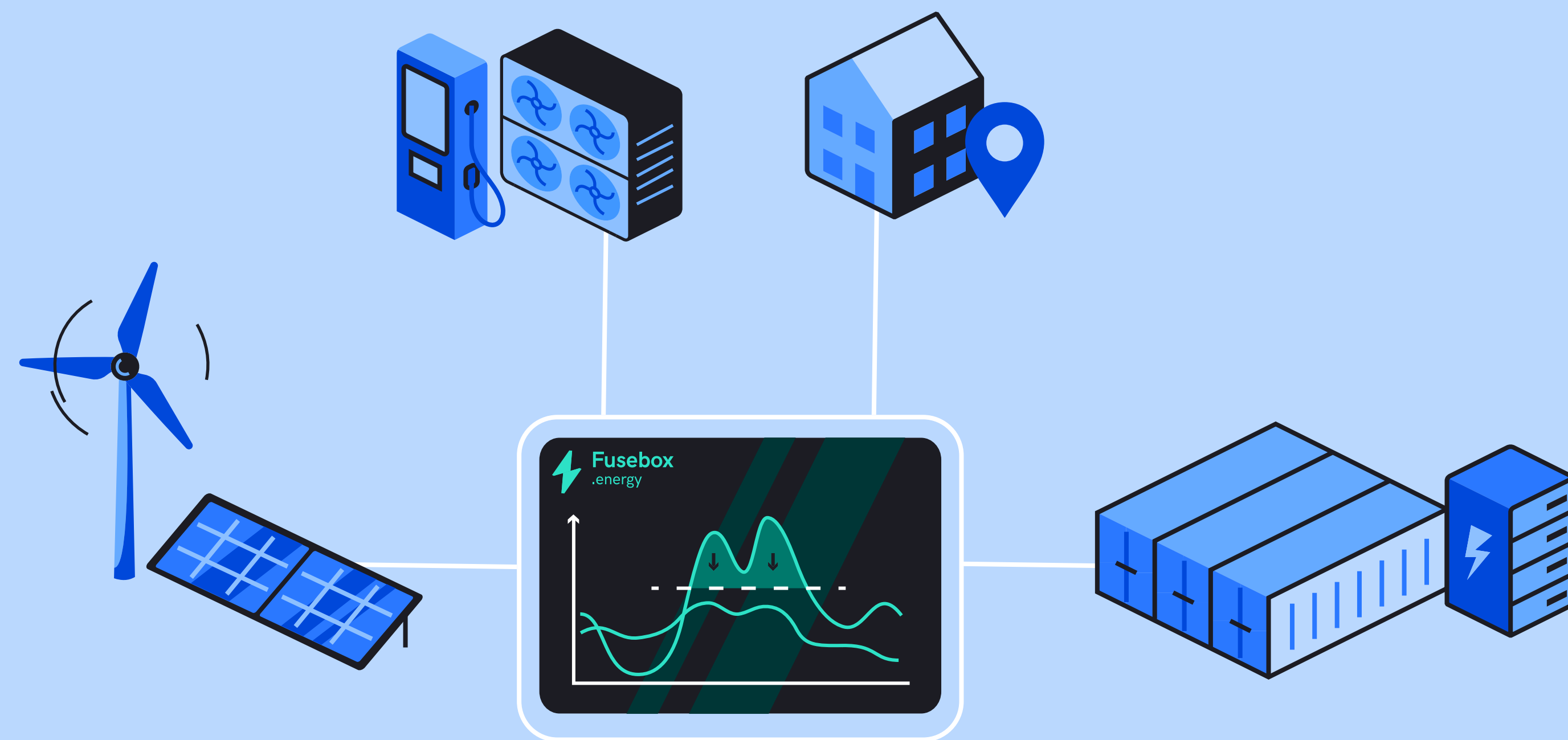


Who want to go beyond  
standard solution

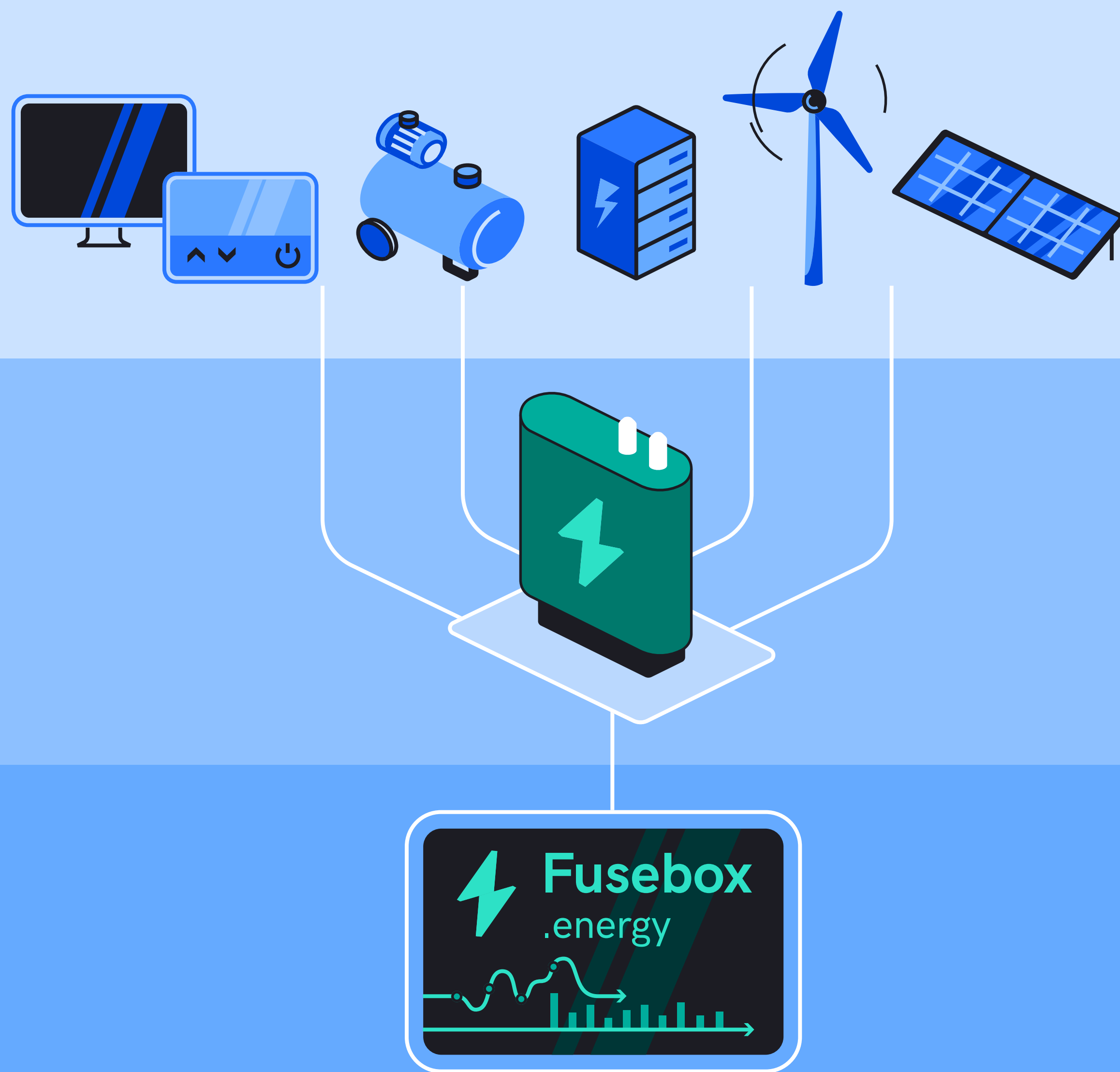
# On-site optimization

## Challenges and opportunities:

- Balances PV, consumption, and battery
- Maximizes energy utilization
- Takes into account connection point limitations
- Integrates with local RTU
- Adhere to 0-to-grid rules
- Enable access to ancillary markets from ancillary markets



# Assets integration and control



## Turn assets into revenue

100+ asset types from homes to large-scale C&I:

- renewable generation
- industrial & commercial loads
- IoT devices

## Seamless Integration

- Full onboarding support
- Use Fusebox or 3rd-party controllers
- Cloud-to-cloud connectivity
- Cloud-to-device connectivity

## Real-time control

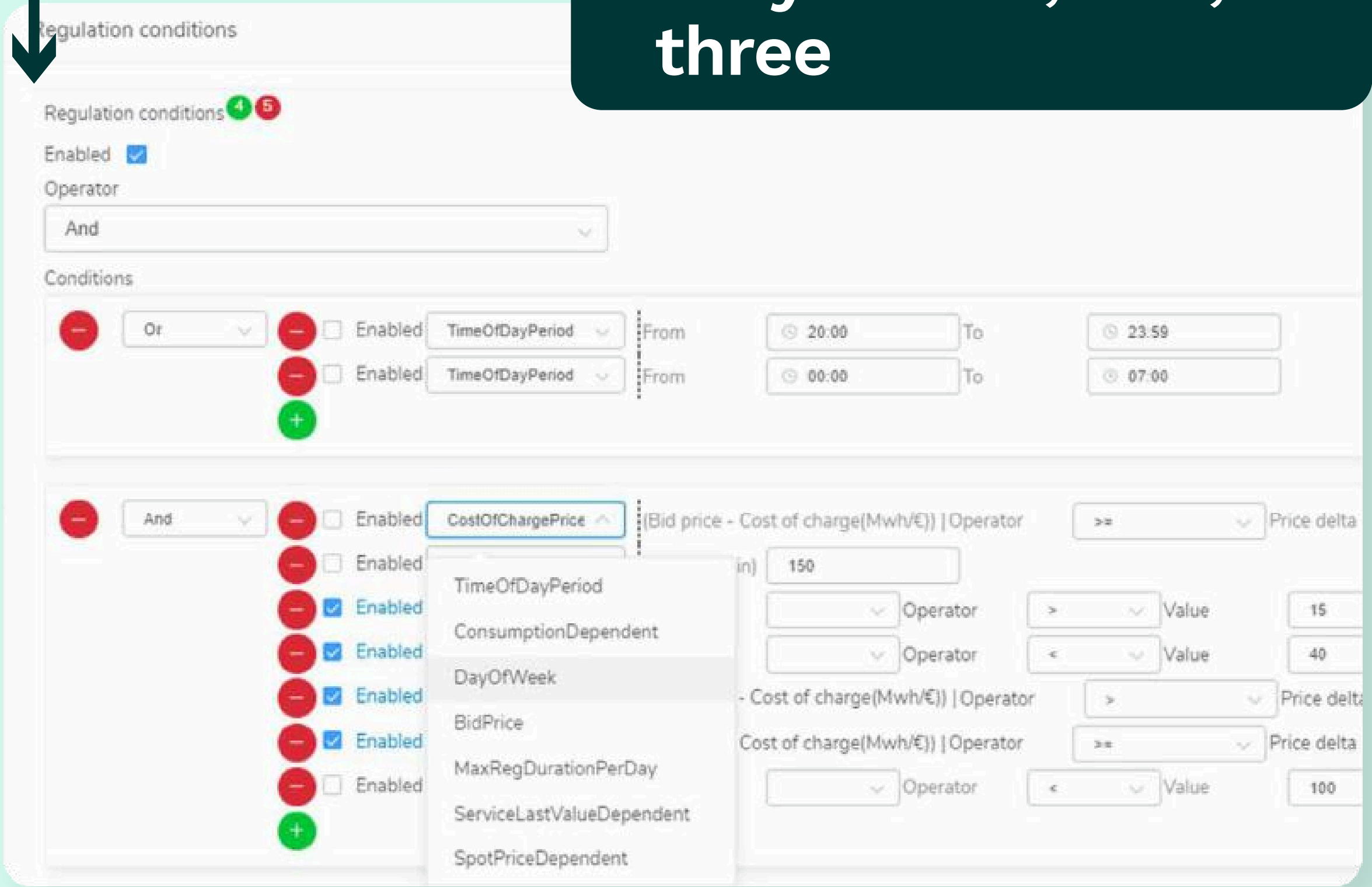
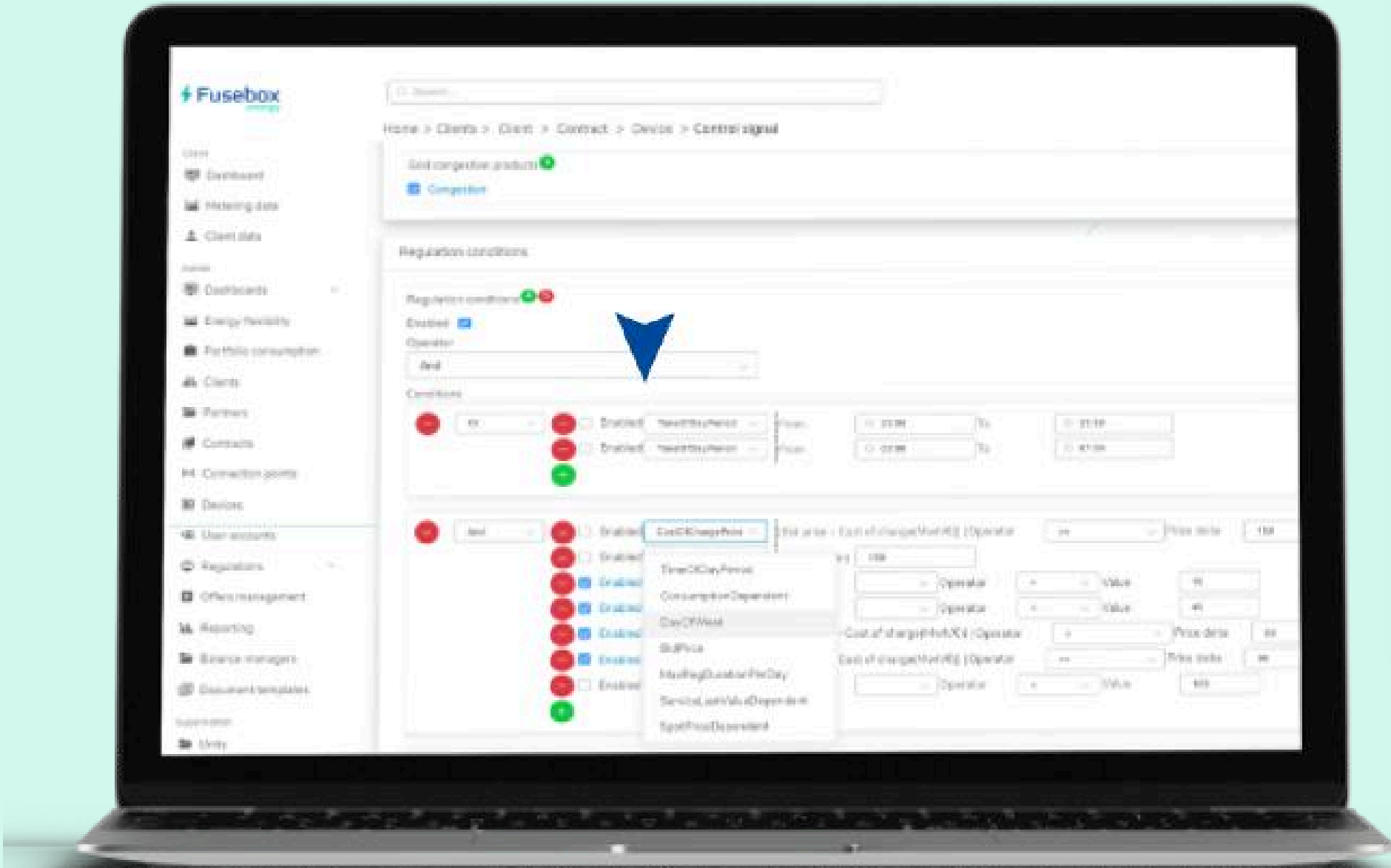
- Monitor & control distributed assets
- 1-second insight resolution

# On-site optimization

## Configure rules for behind-the-meter asset limits

Time of the day, Day of the week, State of Charge, Bid or Spot price, Cost of cycle and others

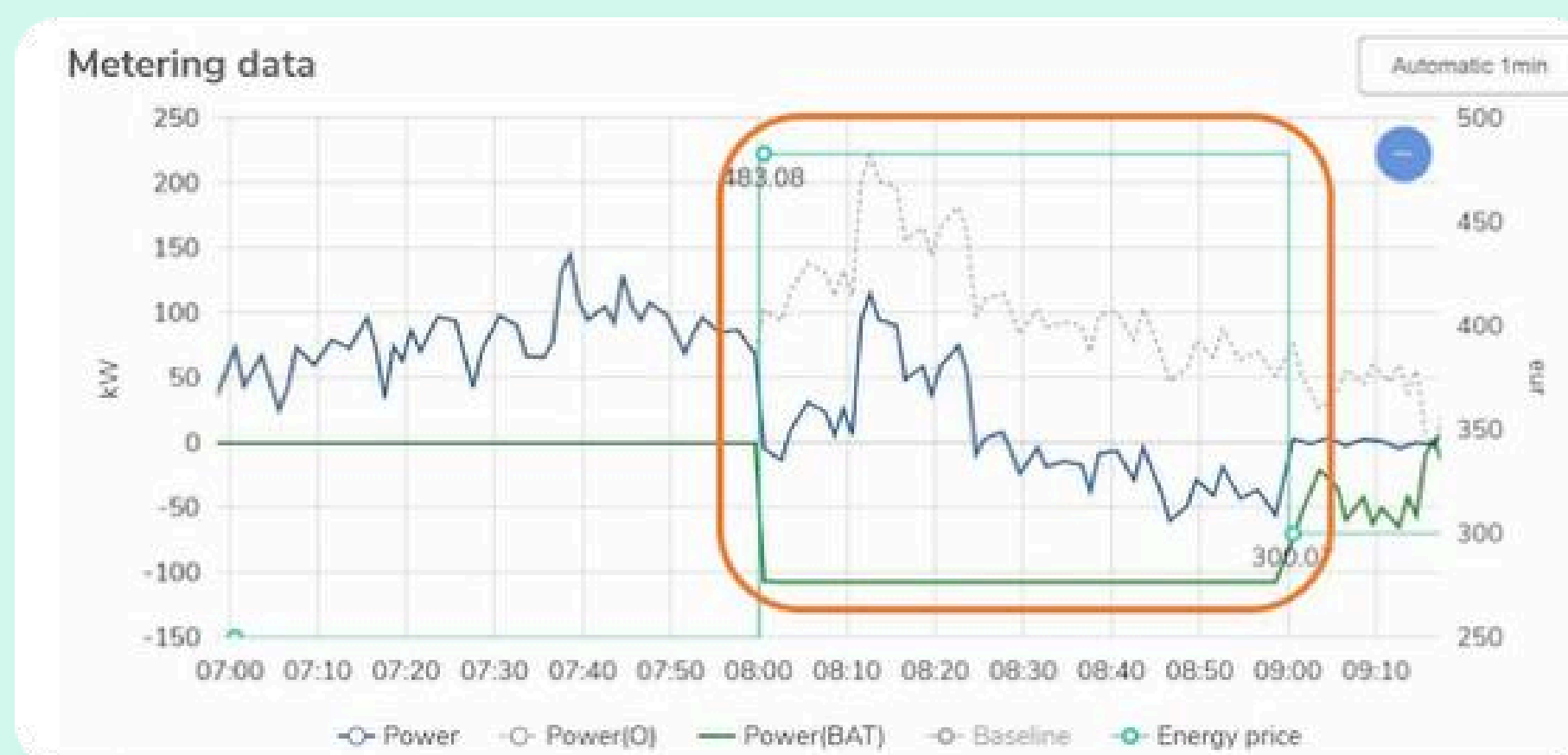
Easy as one, two, three



# On-site optimization

## Load shifting

Using stored energy during high day-ahead hours



## Peak shaving

Using BESS or just curtailing



## Price arbitrage

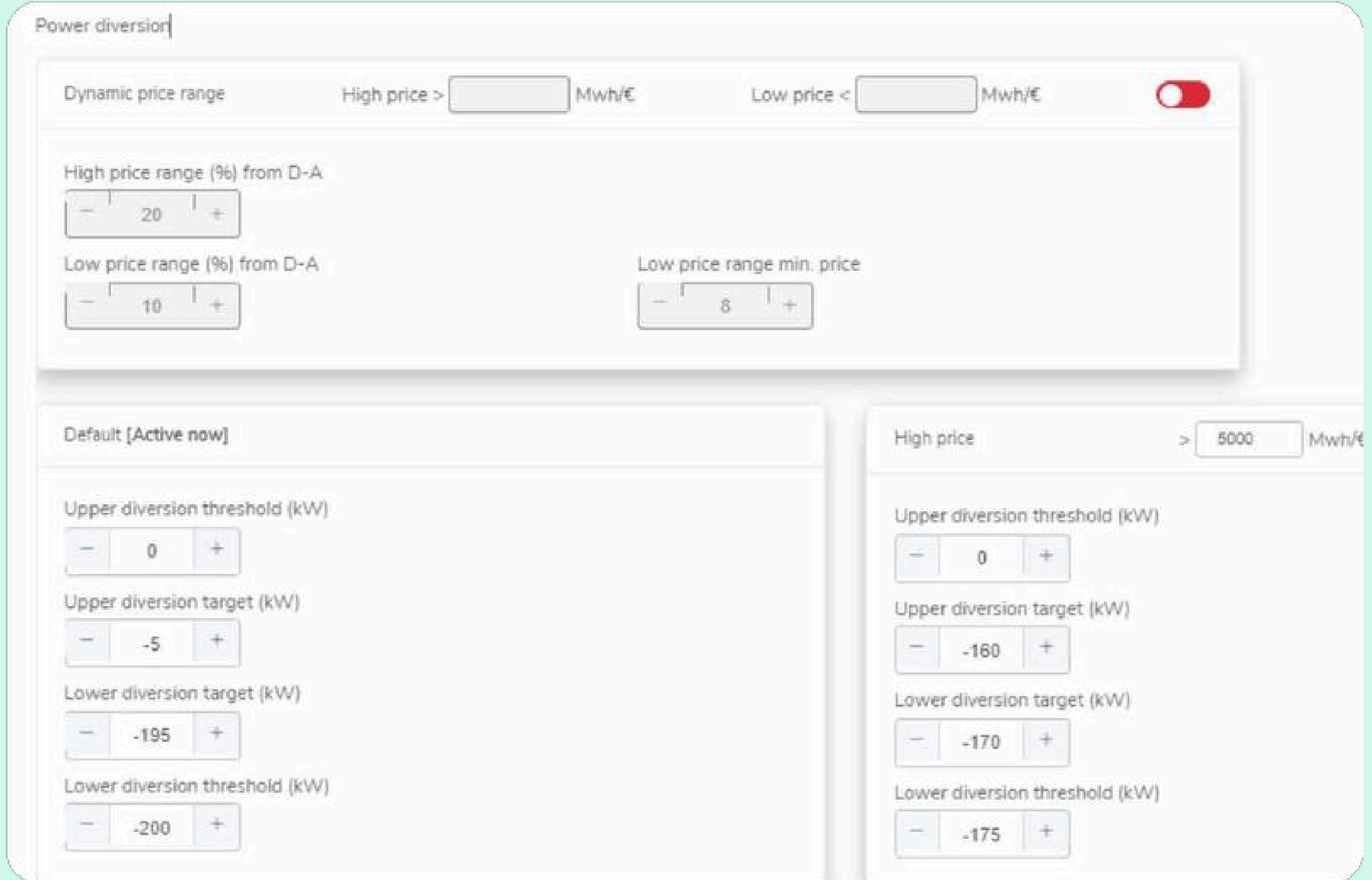
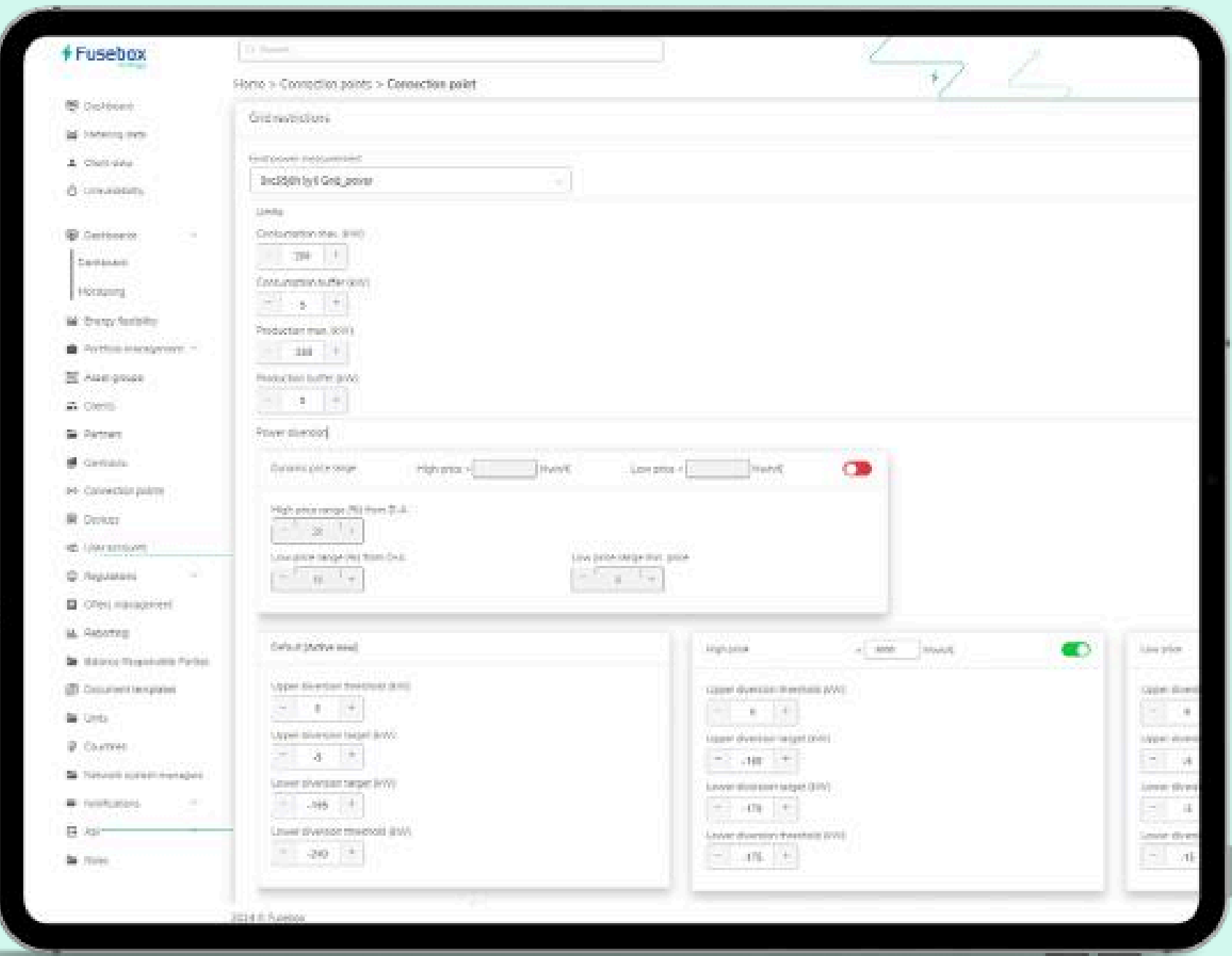
Automatically charge / discharge by the day-ahead price fluctuations



# On-site optimization

## Connection point limits

Hard limits of your connection point, both directions

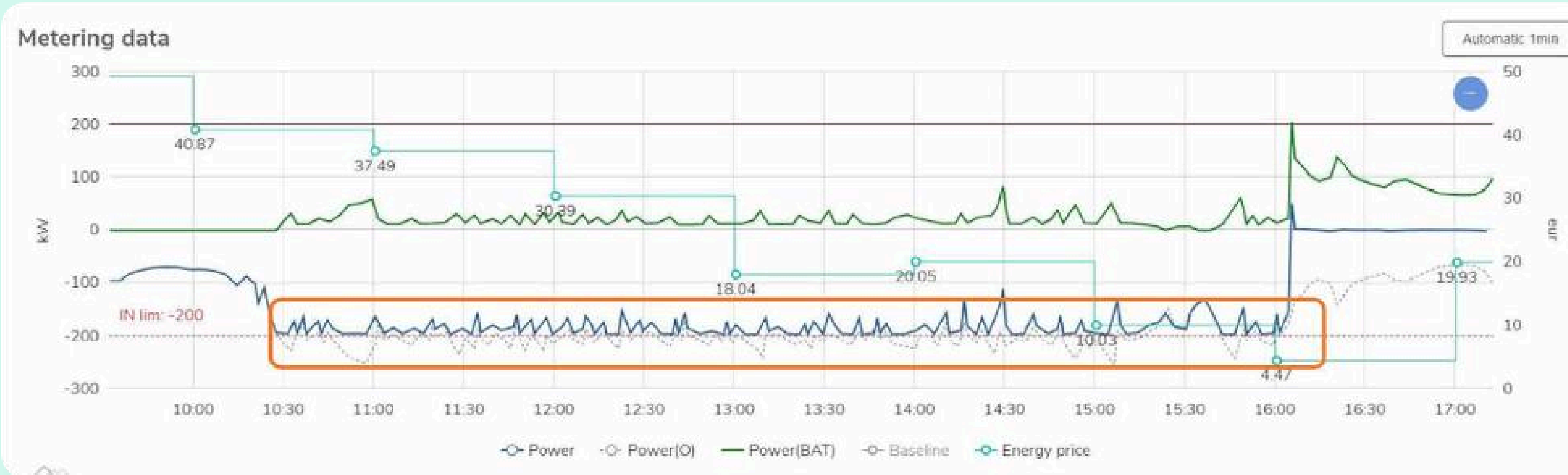


## Grid tariffs optimization

Setting up power diversion thresholds



# On-site optimization



## Connection point limits

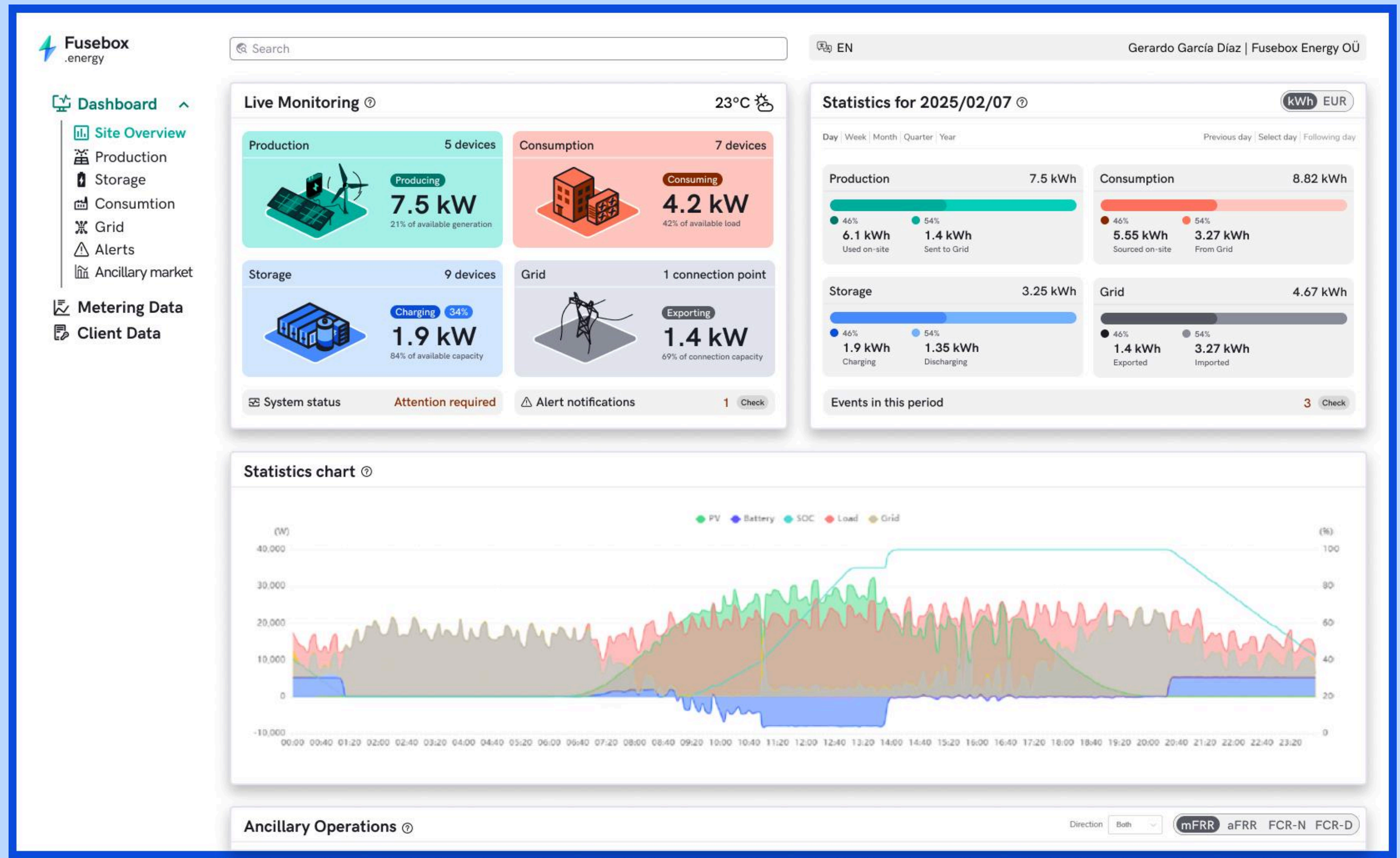
Hard limits of your connection point, both directions



## Zero-to-grid rule

Reduce grid tariffs, cover self-consumption

# On-site optimization



**End-user dashboard**  
full transparency of the results

**Live logs of the results**  
Real-time results as well as  
historical data

# Smart aggregation and activation

## Next step in your portfolio management:

- Aggregate assets into portfolios
- Put bidding logics for different markets
- Set up activation logics for your portfolio
- Create prioritization list, rotation logic or activate assets in a cascade mode
- Adjust buffers for each portfolio and each market separately
- Send your portfolio availability to your or 3rd party trading desk





# On-site optimization

## Group assets and create portfolios

Hundreds of assets in portfolio or one asset = one portfolio

## Set up your bidding logic

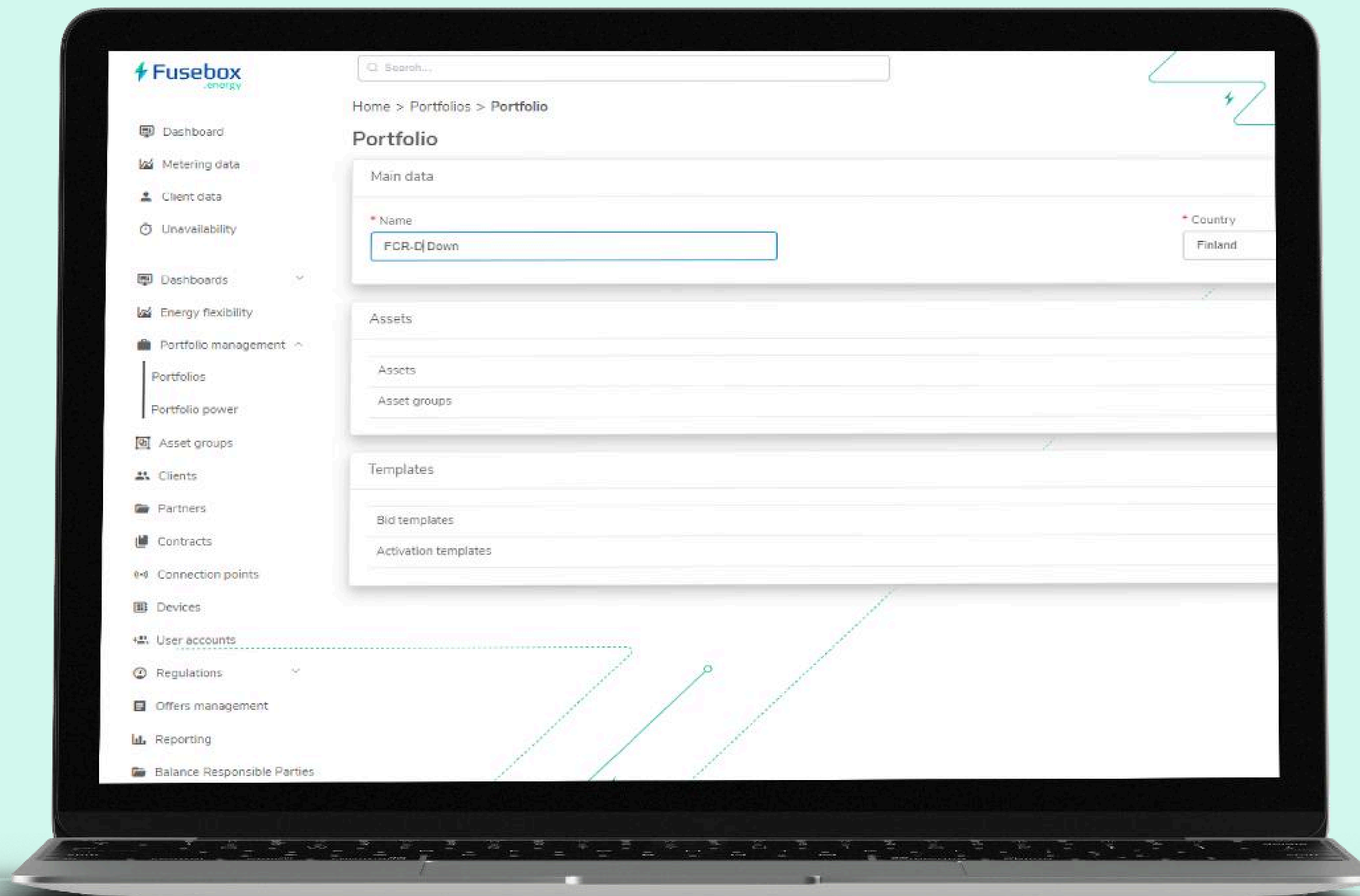
Use preconfigured bidding strategies to automatize your activity

## Portfolio reliability limits

Set each portfolio buffers and limits

## Create activation logic

Use our template to set up priority logic within the portfolio



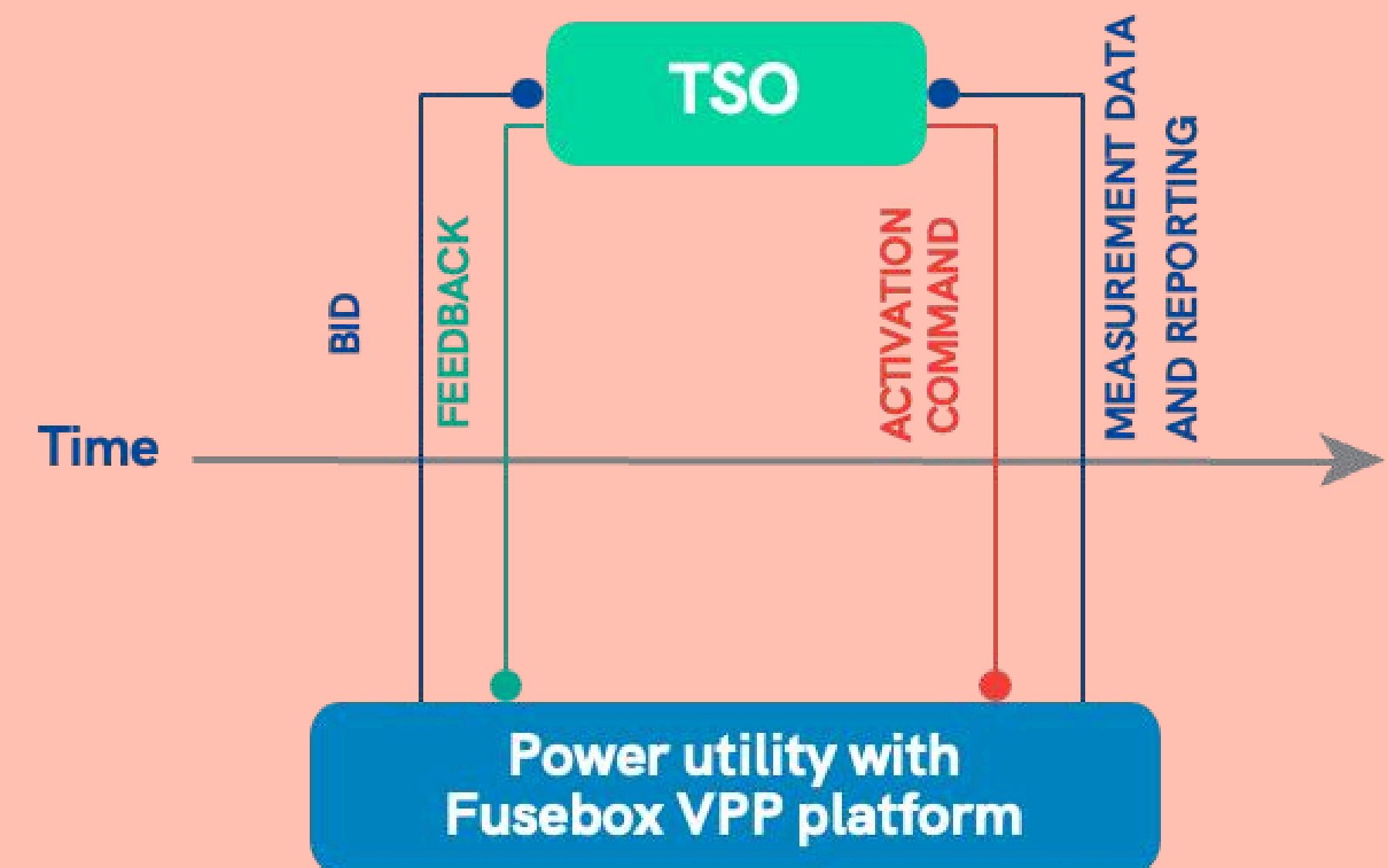


# Markets integration

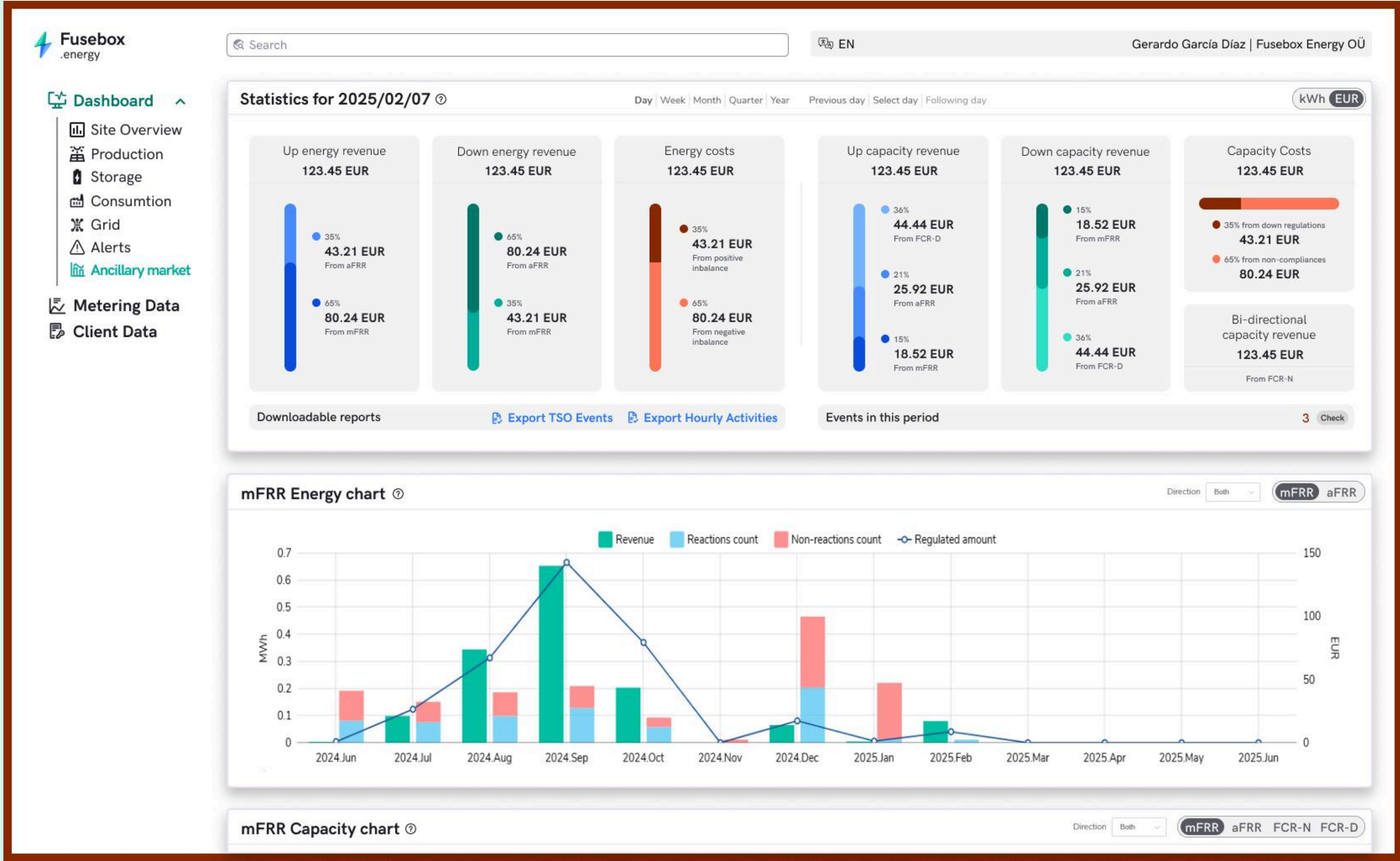
## Integration to the TSO data exchange environment:

- Fully automated TSO integration for seamless operations the ancillary market, including:
  - price strategy, bidding, market result monitoring, and scheduling;
  - dispatch and regulation; reporting, settlement, and billing
- Manage different portfolios/assets across different markets.
- Combine Grid-scale assets with small ones
- Automate bidding logic linked to internal or external prognosis models
- Create a merit order for the assets activation logic

## Ancillary Energy Market



# Markets integration



## Portfolio performance metrics and results

Revenue, regulated amount, participation logs

## Every market separately or summarized view

Per each market and direction, or country view

## Activity logs

Extract them in xlsx or csv formats

# Markets integration

## Flexibility availability machine learning

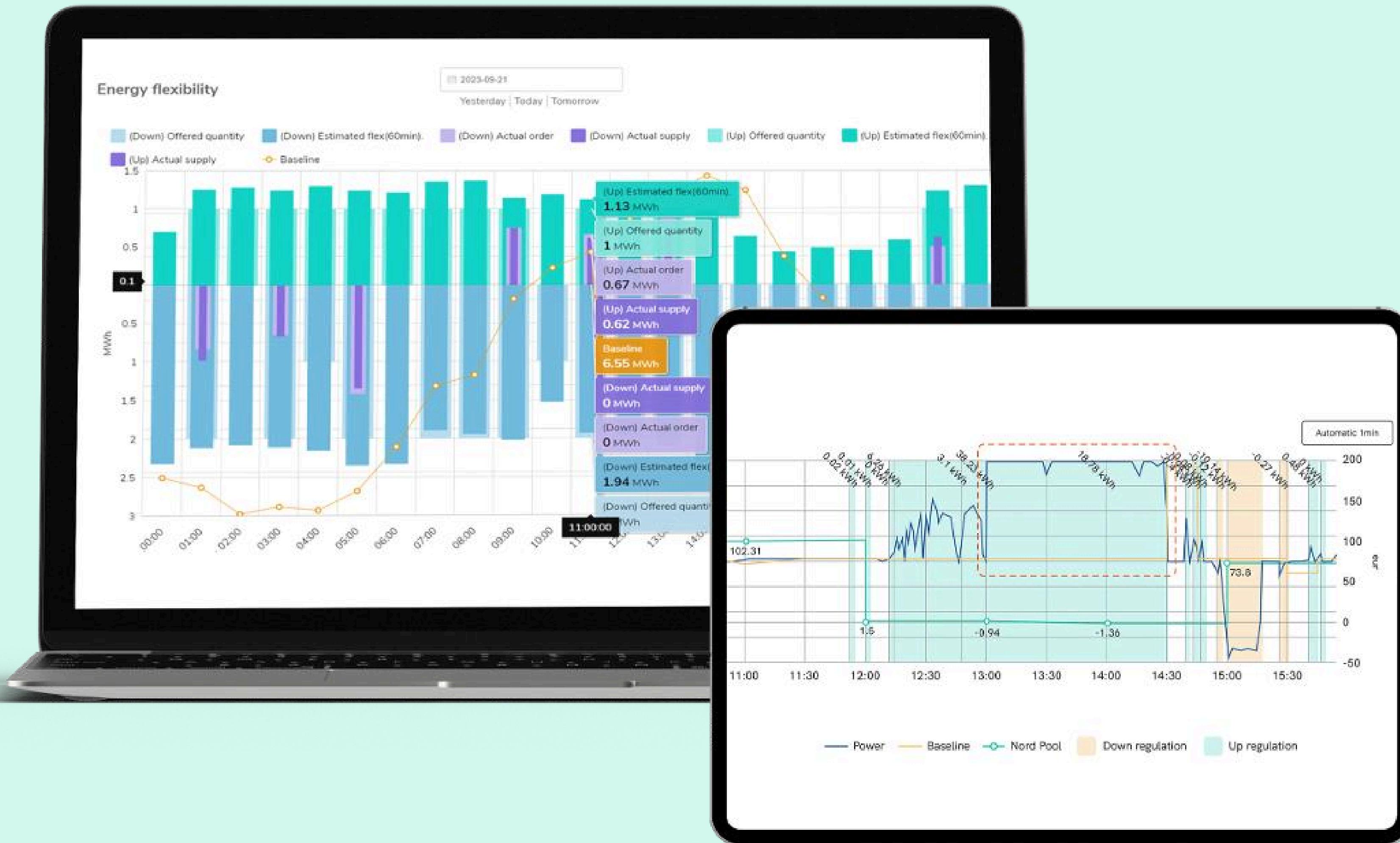
Optimizes assets availability and dispatches efficiently

## Overview of each activation

Visualize the performance of the portfolio once it is activated

## Operational insight

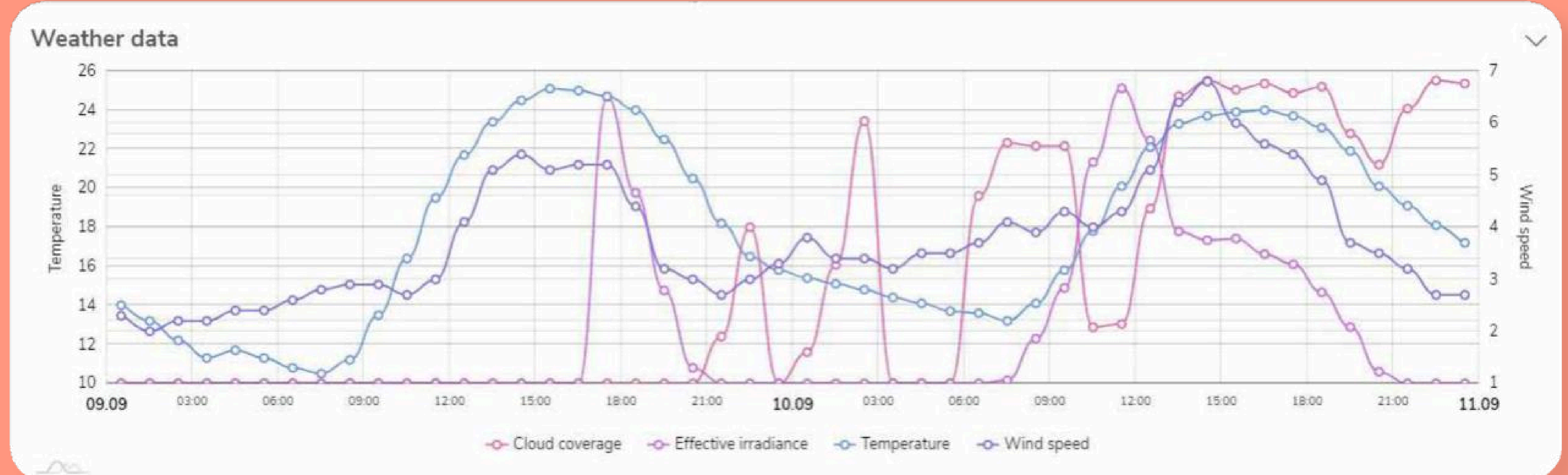
Visualization and log of activation goes down to the asset level



# Integration to the external desks

# Forecasting models

Can be within the standard solution  
or imported from the external  
models

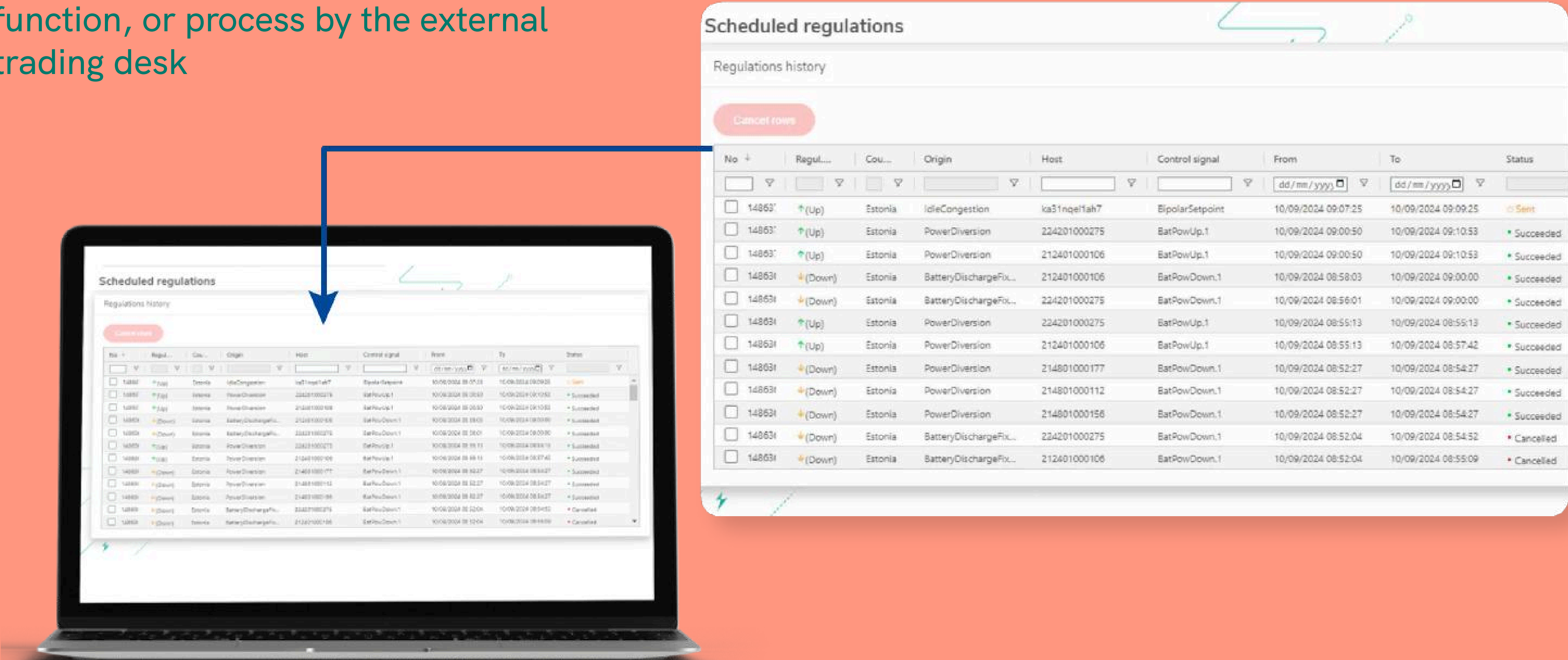




# Integration to the external desks

## Scheduling models

Internal manual dispatching function, or process by the external trading desk



**Scheduled regulations**

Regulations history

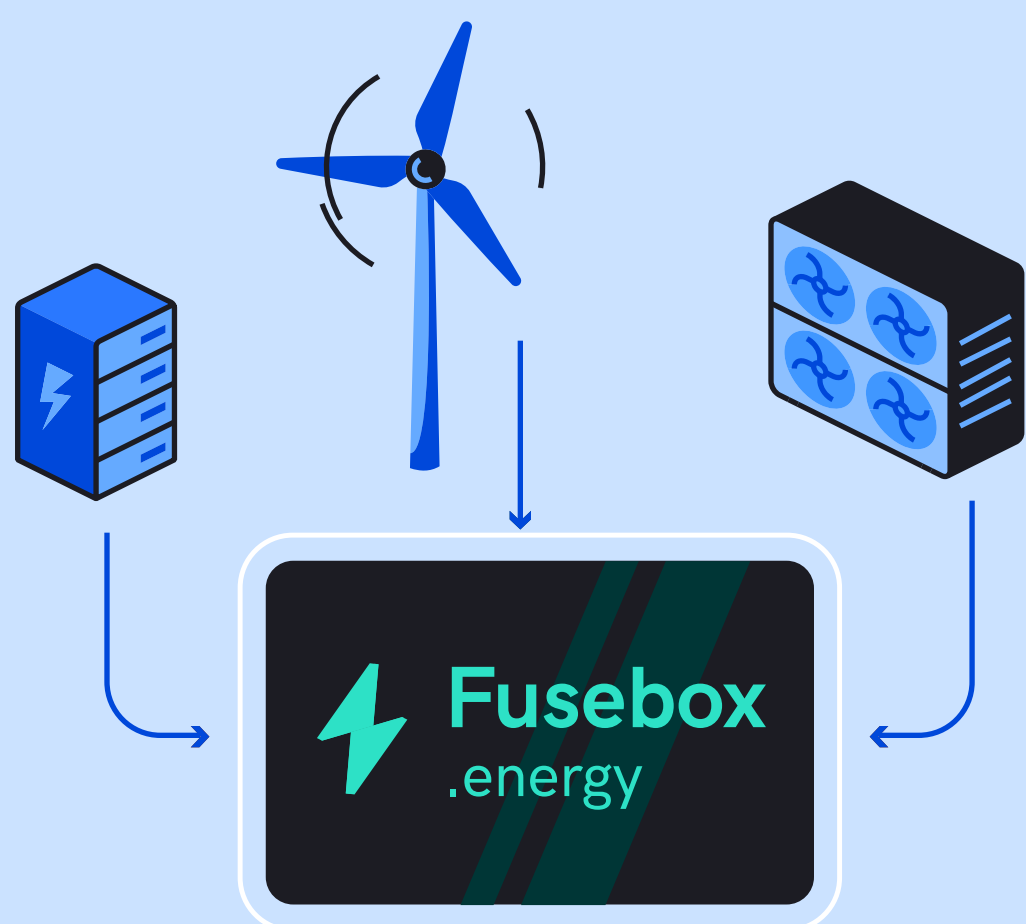
Cancel rows

No	Regul...	Cou...	Origin	Host	Control signal	From	To	Status	
<input type="checkbox"/>	14863	↑(Up)	Estonia	IdleCongestion	ka31nqelfah7	BipolarSetpoint	10/09/2024 09:07:25	10/09/2024 09:09:25	⚡ Sent
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# Modular solution under one platform

Week 1

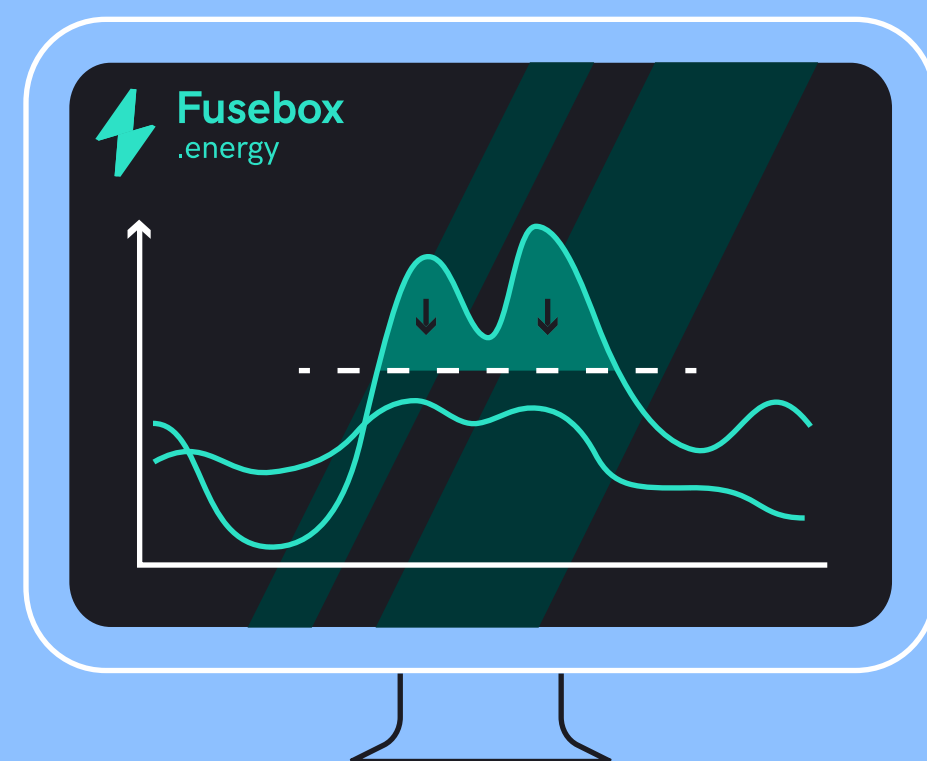
**Assets integration and control**



PV, BESS, HVAC, CHP, EV, Hydro

Month 1

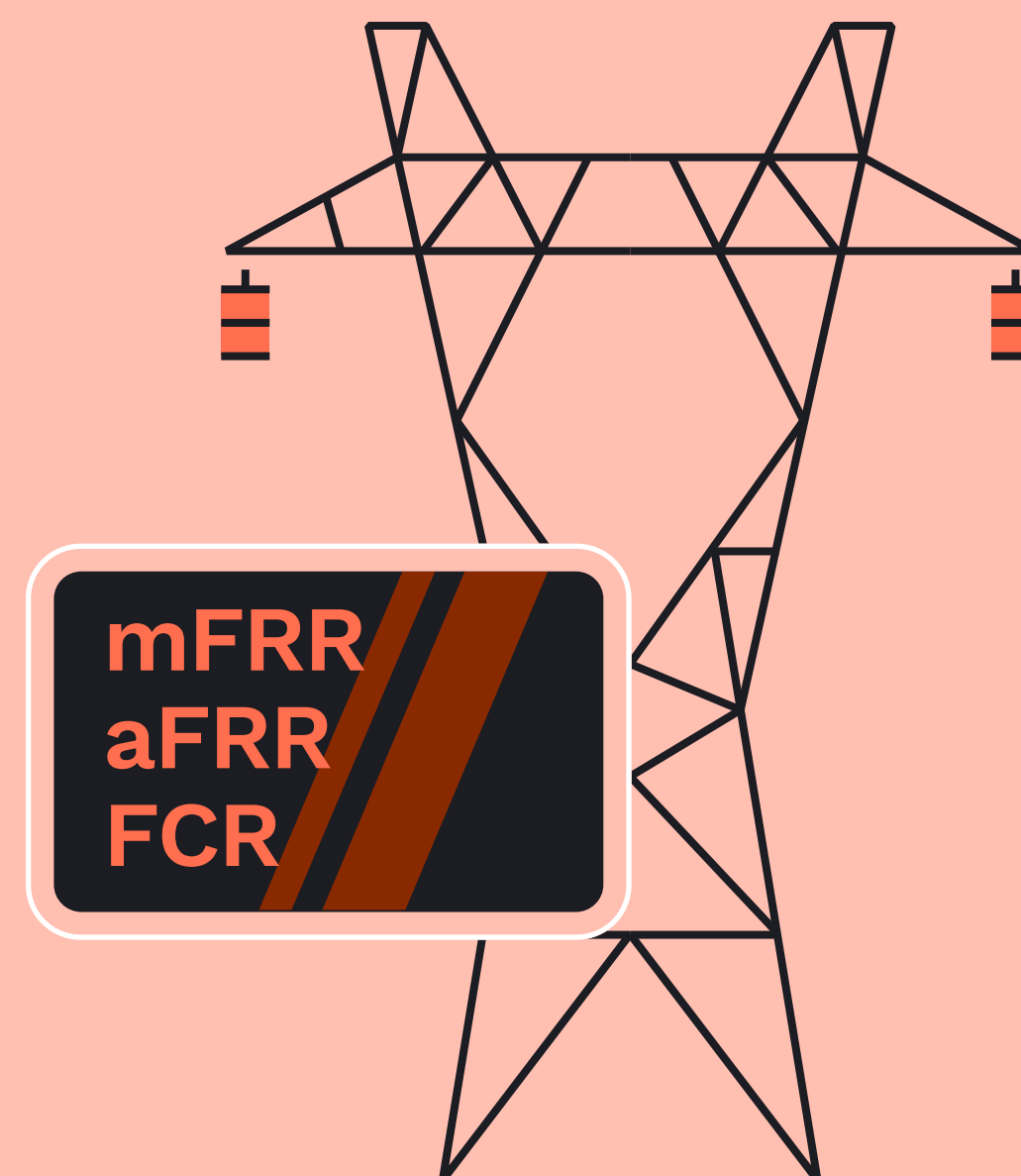
**Smart aggregation and activation**



Create asset groups and portfolios

Quarter 1

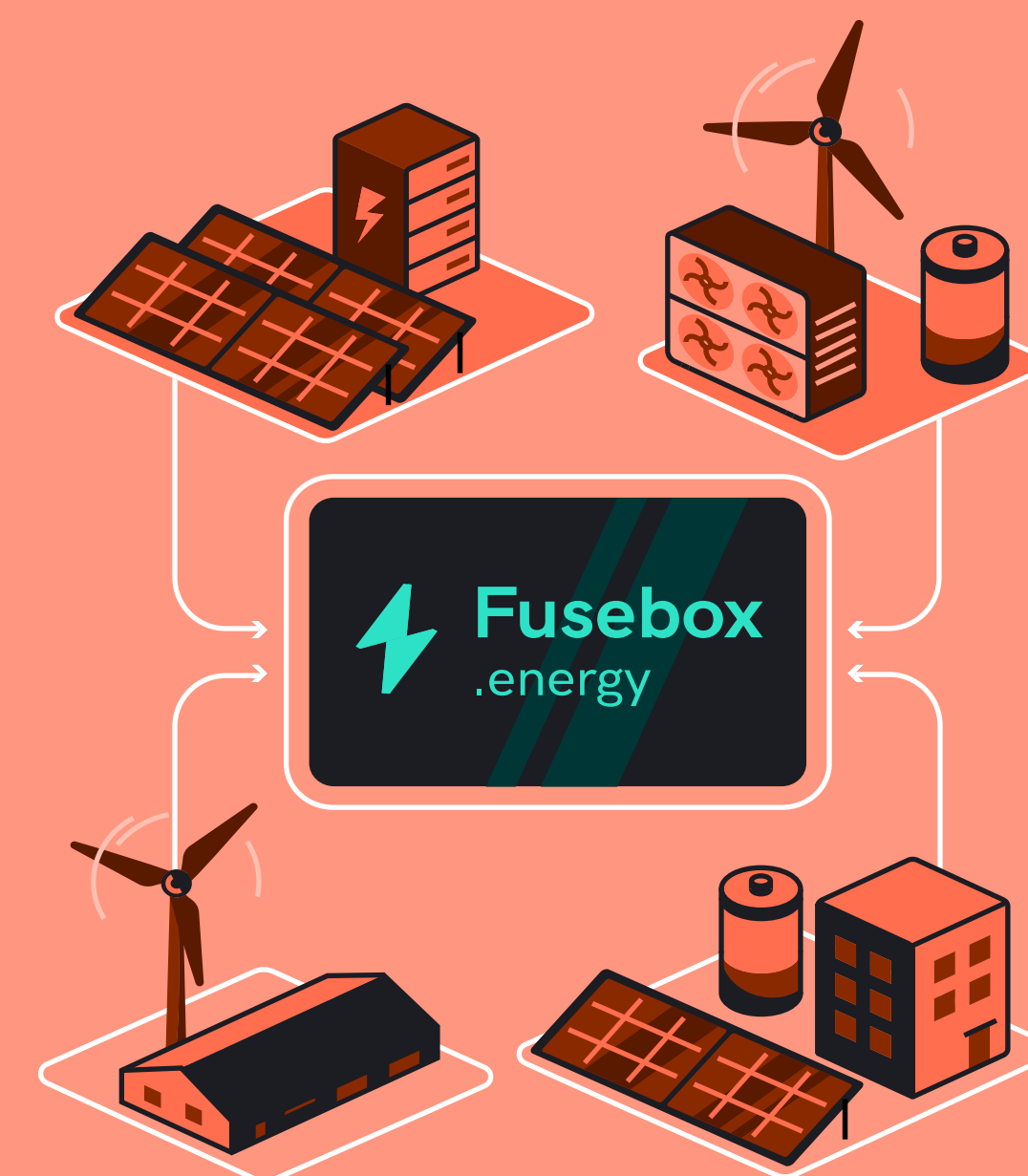
**Trading desk or TSO integration**



mFRR, aFRR, FCR, FCR-D, FCR-N

Year 1

**Further expansion**



New business segments or countries





# Thank you!

**Interested to know more?**

Drop us a line

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Strategic Partnership

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[aleksandr@fusebox.energy](mailto:aleksandr@fusebox.energy)

