



eviny



Energy Flexibility Aggregation for the Private Enterprise Market

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DC Charging

- Nordens tredje største hurtigladdoperator
- > 150.000 registrerte kunder
- > 120 operative ladestasjoner
- Over 400 hurtigladere i Sør-Norge
- Installerer 200 kW ladere

Communication

Integrated Energy Solutions

Mobile Energy

Solar Panels

Solar Panel
- Roof installation BKK

Offshore Wind



Sustainable construction

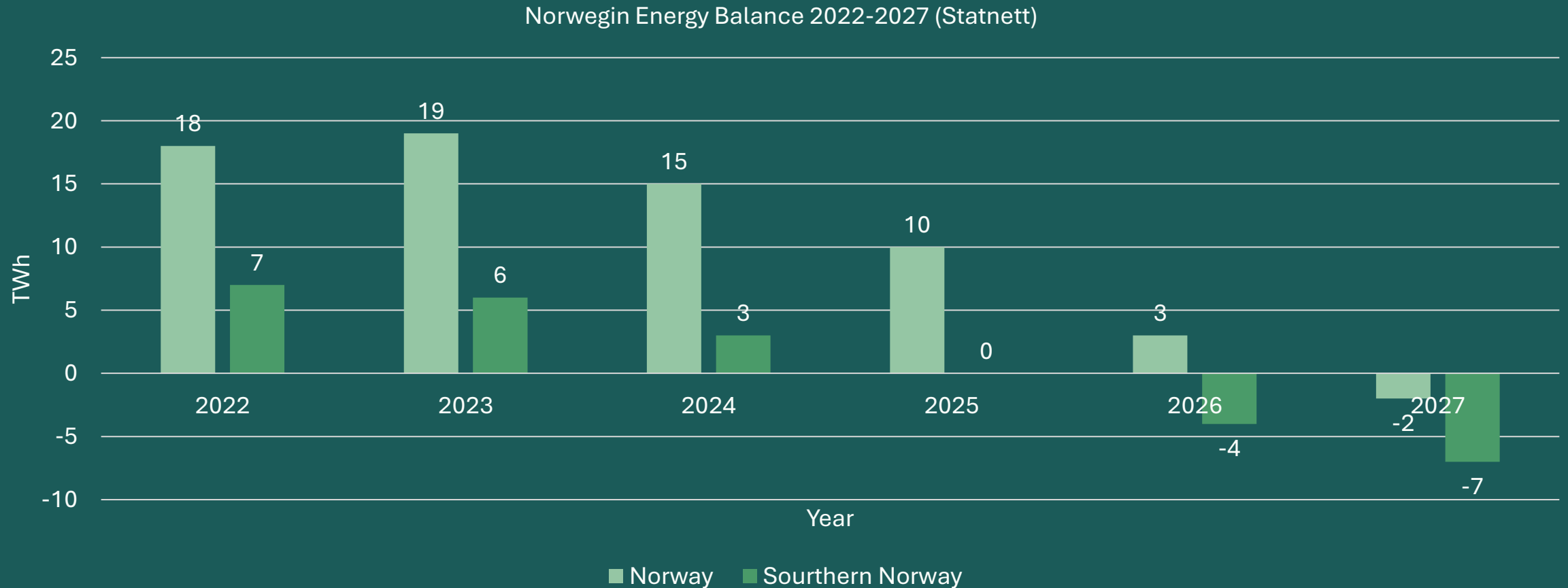
Power Company

Plug Shore Power

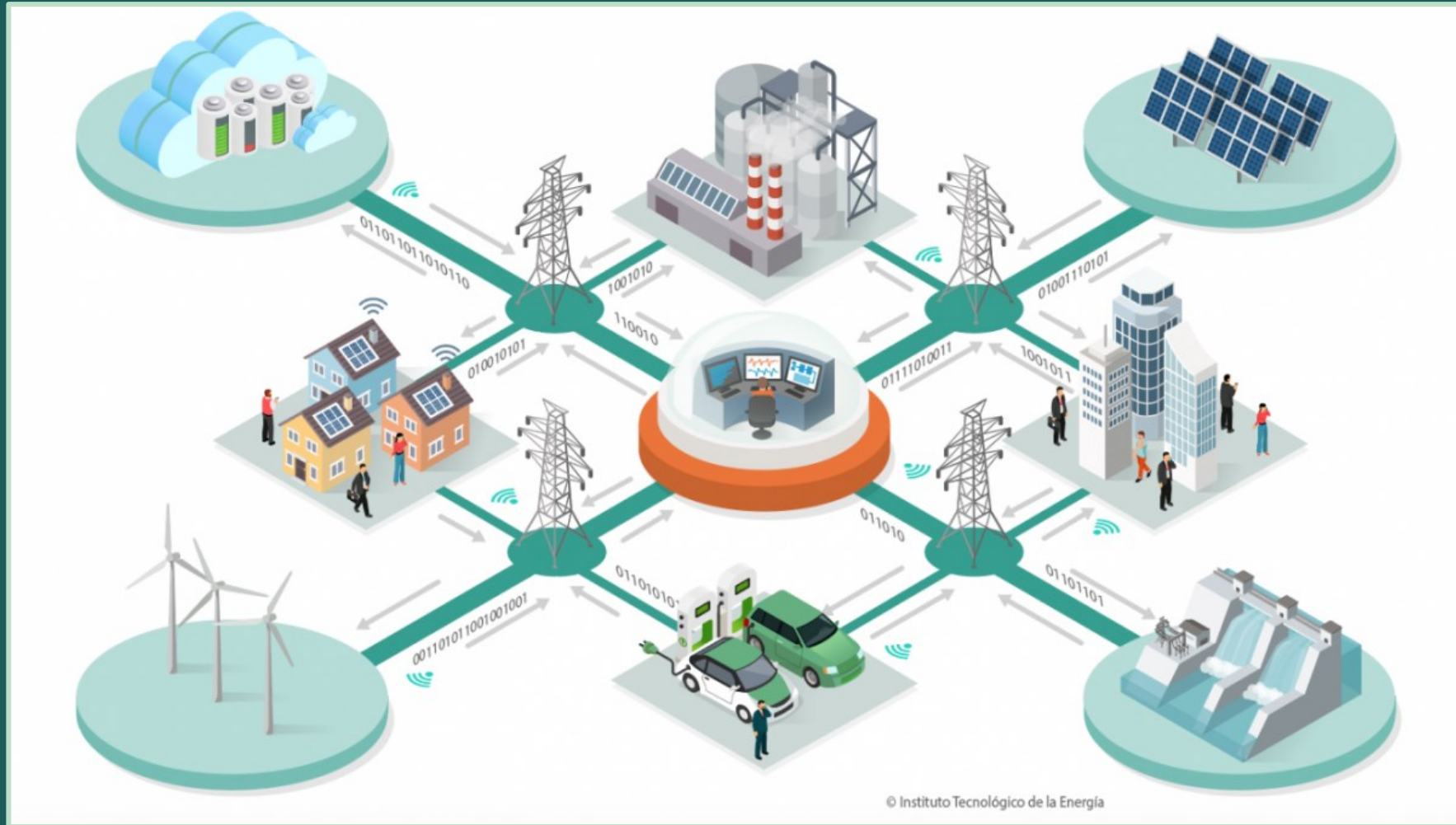
Fornybarselskapet Eviny hjelper bedrifter med å sette fart på det grønne skiftet

Det grønne skiftet innebærer at norske bedrifter må kutte utslipp dramatisk frem mot 2030. Mange bedrifter lurer på hva som er de beste løsningene for å få realisert prosjektene sine. Svaret er enkelt: Energirådgiverne i Eviny med hundre års erfaring med bærekraftige løsninger.

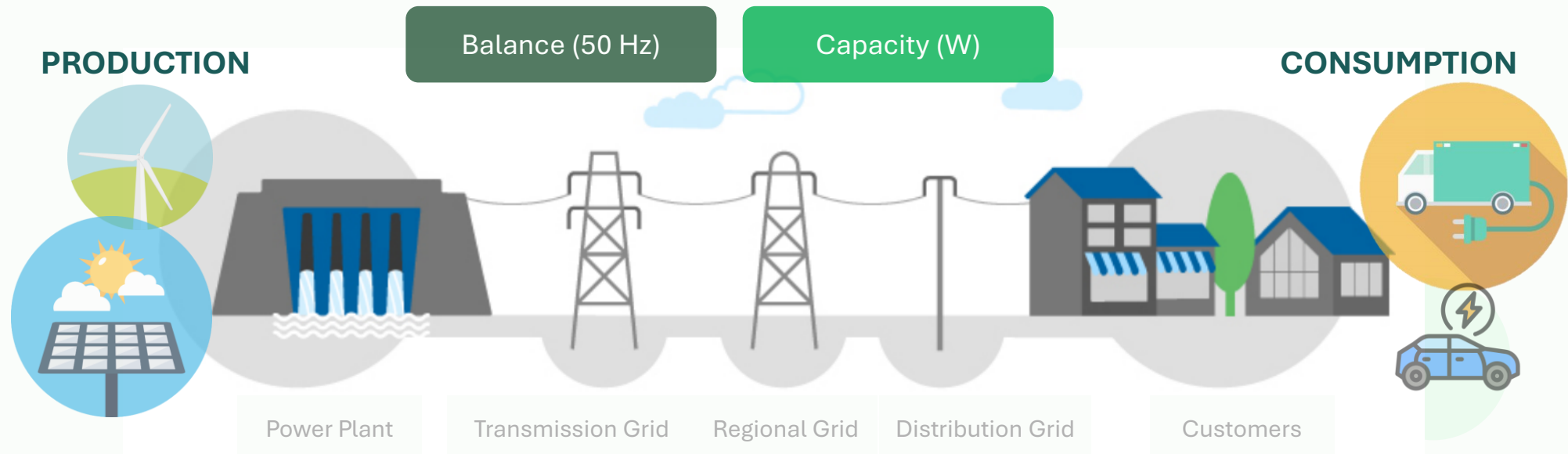
Why do we need more flexibility in our energy system? Negative Norwegian Energy Balance from 2027



The future energy system: More unregulated power production, decentralized production



FLEXIBILITY IS NEEDED TO HARMONIZE THE GRID

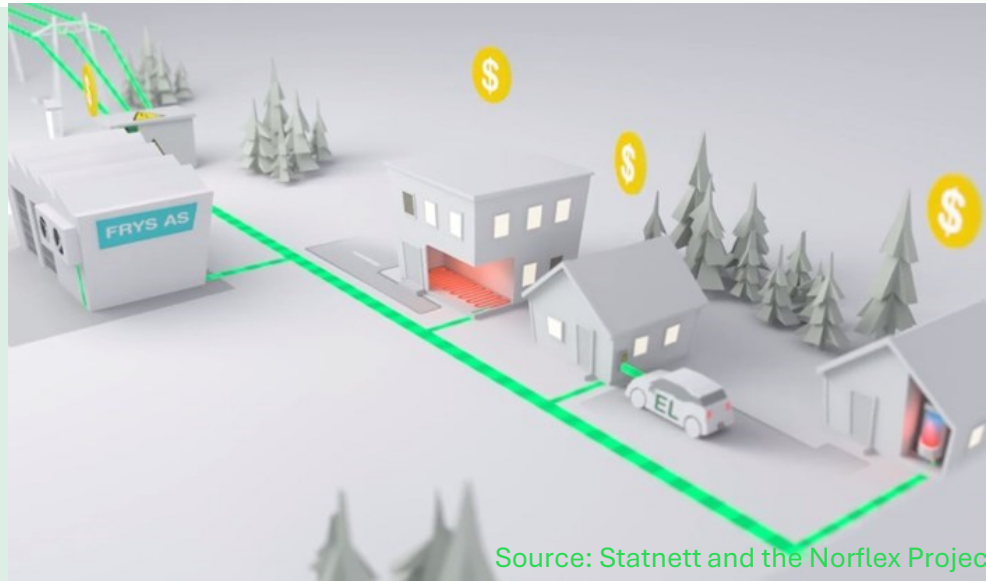


Capacity (W)

Local Flexibility markets

Capacity management examples:

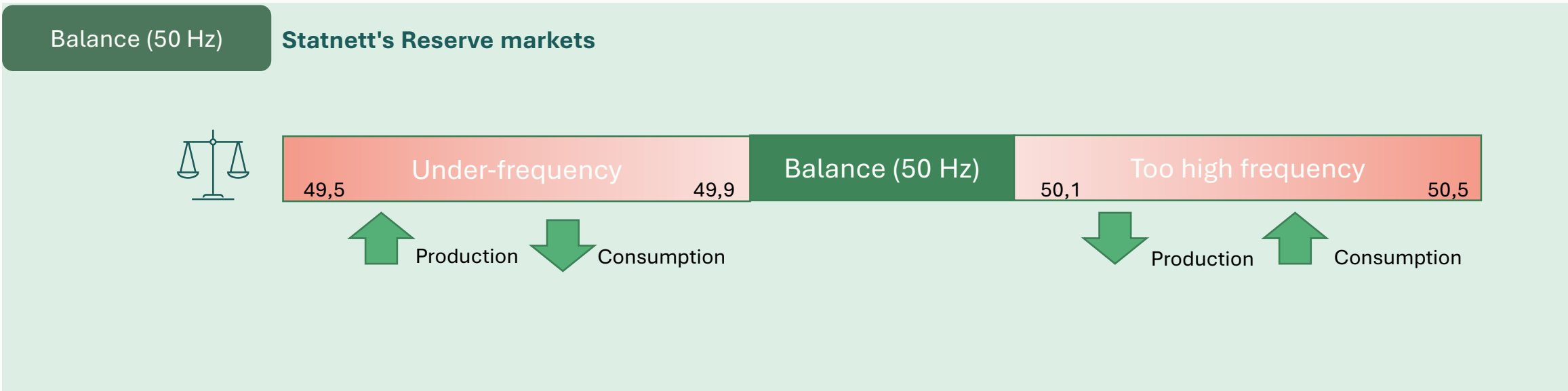
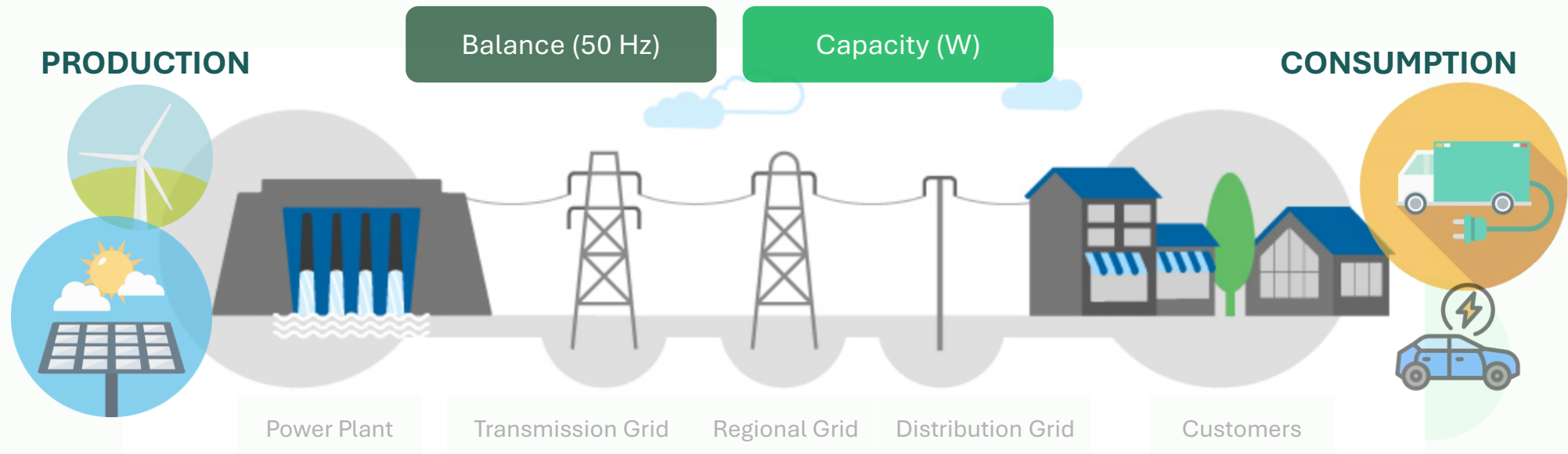
- Reduce EV charging
- Turn down heaters or coolers



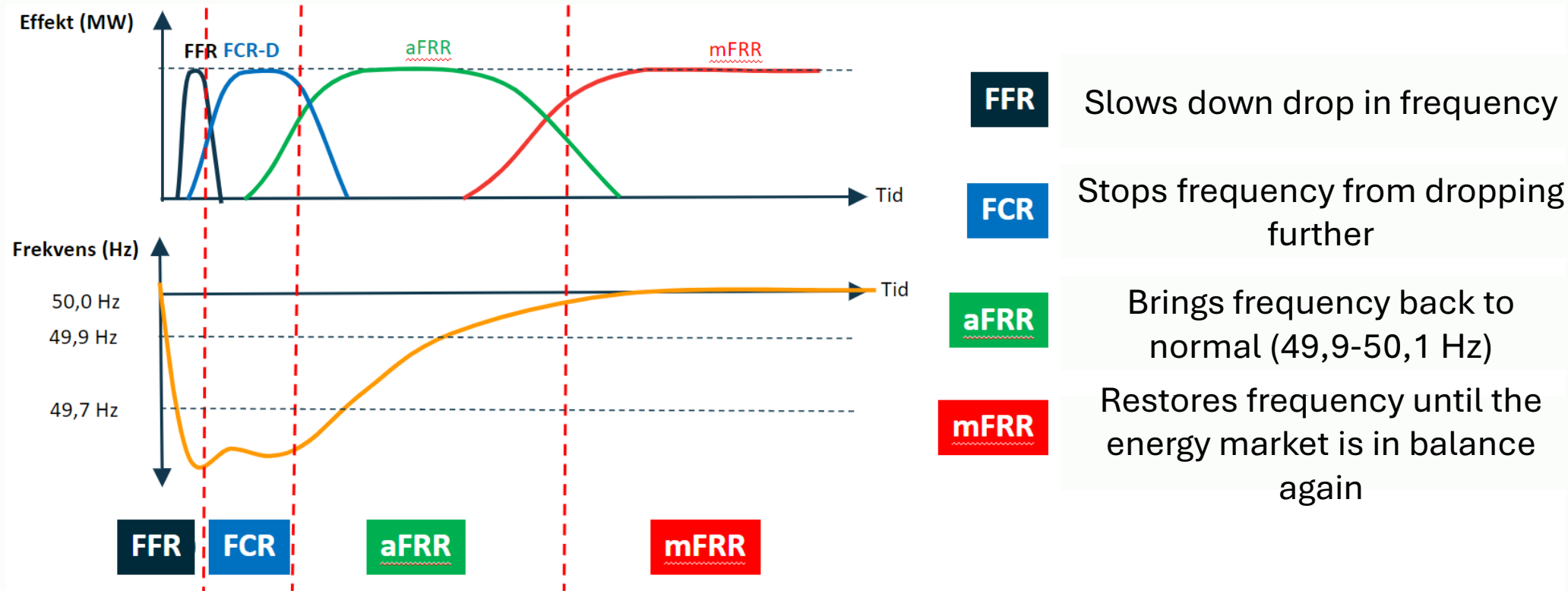
Source: Statnett and the Norflex Project



FLEXIBILITY IS NEEDED TO HARMONIZE THE GRID



TSO (Statnett) is the transmission system operator and has overall balancing responsibility for the power grid. The reserve markets help Statnett to do this.



FFR = fast frequency reserve – requires fast response time <1s

FCR = frequency containment reserves – requires quick response time <30s

mFRR = manual frequency restoration reserves – slower response time < 15 min



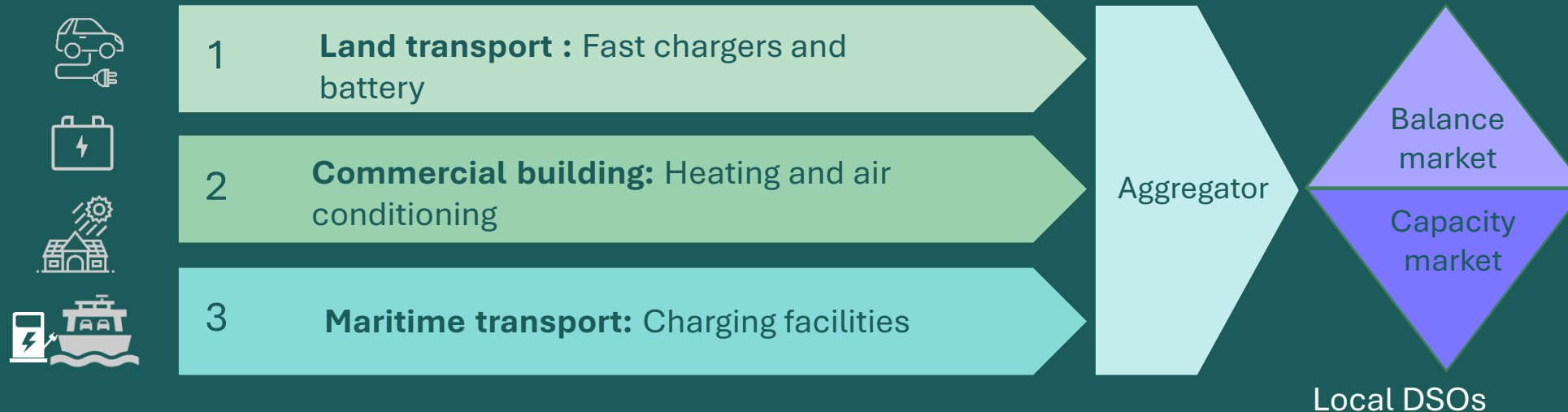


PARTNERS IN THE PROJECT



The Pilot-E project explores accessibility and aggregation of various flexibility resources through 3 pilots:

Flexible resources



In the pilots we explore and develop;

- HW Regulation
- SW Platform
- Business models

GOAL: Make resources available to the flexibility market



**Flexible
energy
resources
in the
project**



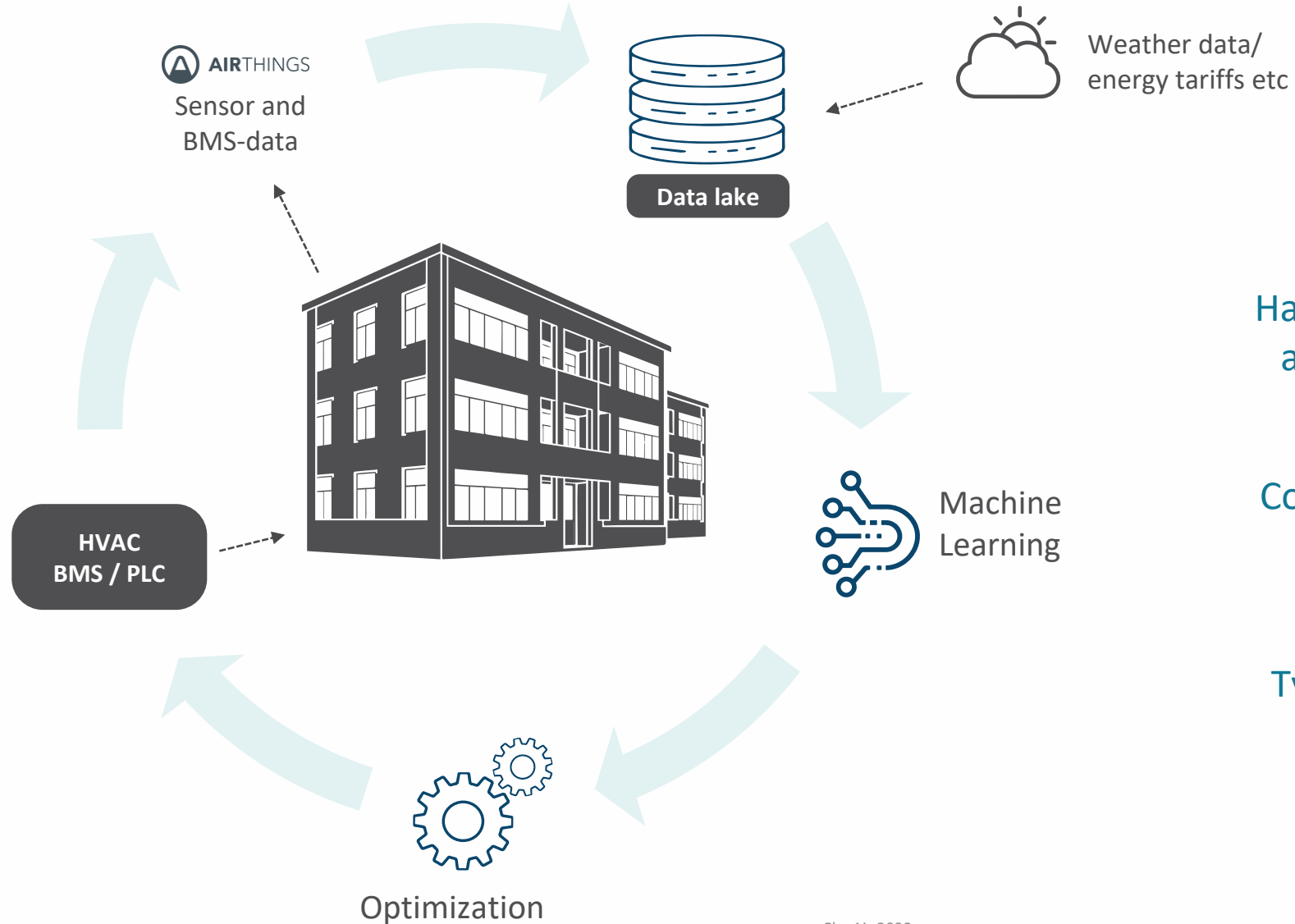
Battery and EV charger from Ayond



EV charger from Eviny



Flexible energy resource in the project Commercial buildings



Harvest data from IoT devices
and BMS in real time, 24/7

Connects to buildings with no
BMS (70% of EU market)

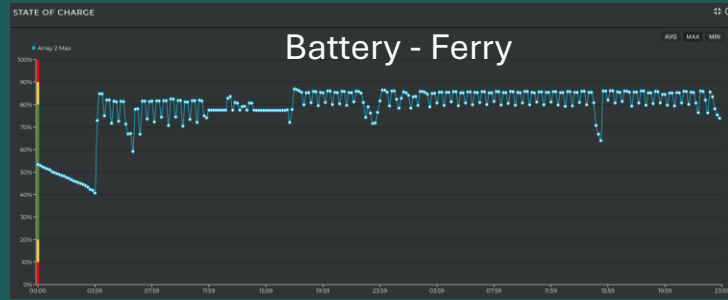
Typically reduces the energy
consumption by 20 - 25%

Flexible energy resources in the project

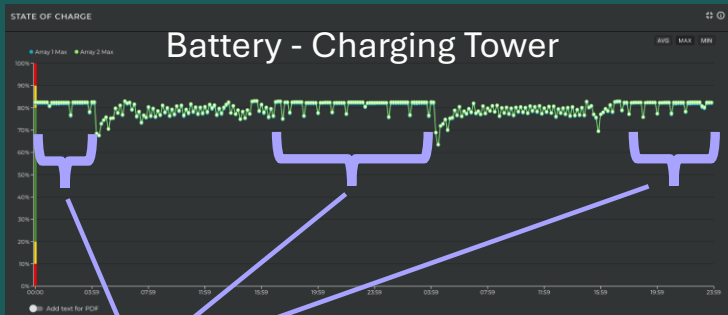
Charging infrastructure for ferries

Charging towers for ferries

Public infrastructure with battery. Offer fixed times of day within the ferry's safety margins and commitment. Up/down regulation.



>80%
battery
capacity



>80%
battery
capacity

Multiple charging towers
- aggregated



Vessels combined with
land transport and industry

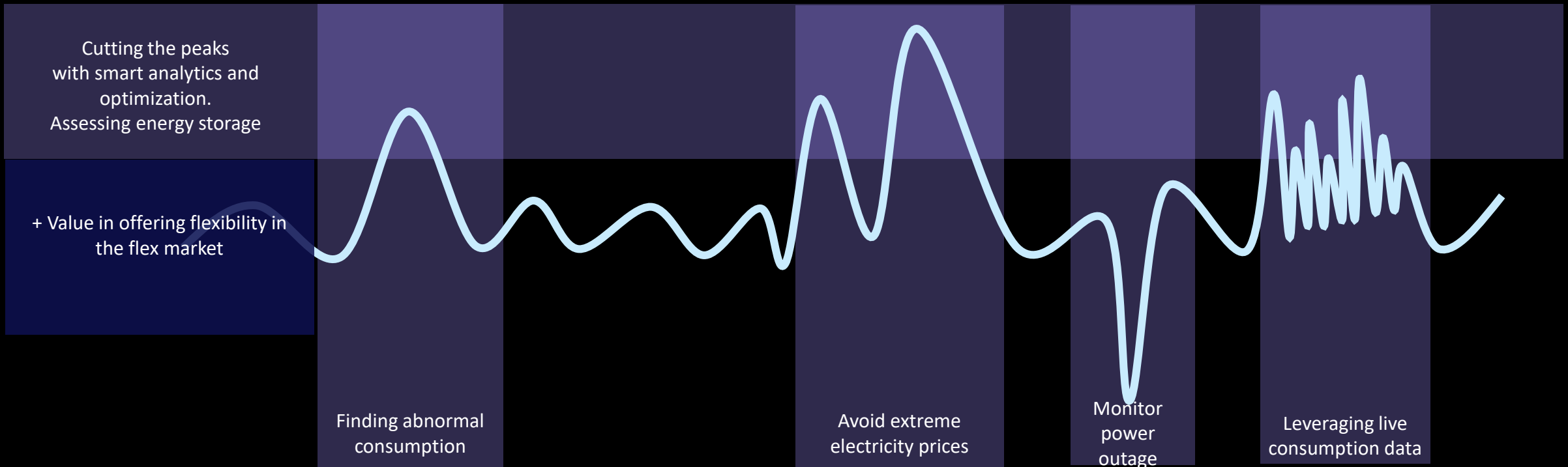




There is a lot of value in knowing your energy data



Analyzing energy data





There is a lot of value in knowing your energy data



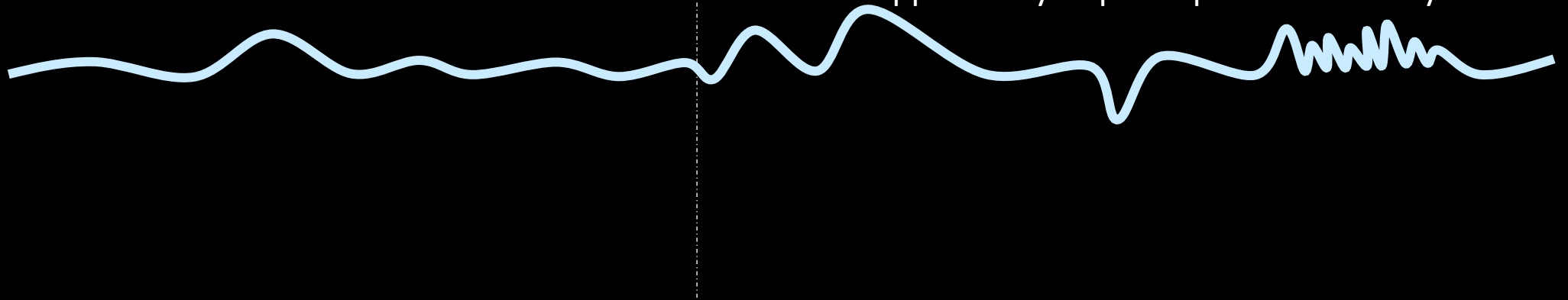
Lower costs

Lower consumption

Lower emissions

Increased sustainability

Opportunity to participate in flexibility markets



Must-Win battles for the project

Sustainable business models...



... safe data handling



... hasslefree onboarding



Profitability
for everyone in the value chain

What's in it for the resource
owners?

Clear value proposition

Automated data handling

Standard data formats

Cyber security

Easy for resource owners to join

Standard interface



Questions?

Flex-E - Ener...

SINTEF

eviny

volte

pluc

CLEVAIR

Corvus

Vestland fylkeskommune

UNIVERSITETET I BERGEN

RELOG

FLE...

Haukeland universitetssjukehus

