



## **fsight.OPTIMIZE**

# Management of Distributed Energy Resources

June 2021

## The drastic change in the energy market ...

### Clean energy generation

Millions of distributed energy resources



### Meter data

Access to live energy meter data



### Volatility

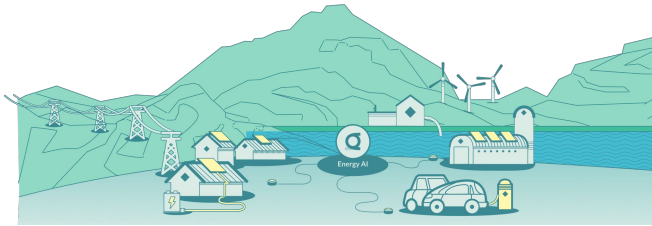
Variable renewables and unseen load profiles



... is calling for data-driven businesses



**Your expert to collect, analyze and act on energy data.**



**ENERGY AI** is our cutting edge platform to forecast, optimize and trade energy behind & in front of the meter



fsight.**PREDICT**

Energy Forecasting



fsight.**OPTIMIZE**

Management of Distributed  
Energy Resources

Single sites

Community/  
Microgrids

# Our platform offers targeted products to create clear market benefits



## fsight.PREDICT

AI Energy Forecasting

### Benefits

- Higher accuracy
- Lower imbalance cost
- Improved trading performance

### Users

- Utilities
- Independent Power Producers
- Grid operator

### Customers & Partners



## fsight.OPTIMIZE

Management of Distributed Energy Resources

- Lower costs/new revenues
- Increased ROI
- Higher DER efficiency

- Utilities
- Independent Power Producers
- Commercial & Industrial Companies
- Microgrid / Community Operator

Verbund

uni  
per

ABB

ANDRITZ  
Hydro



SOLARIA



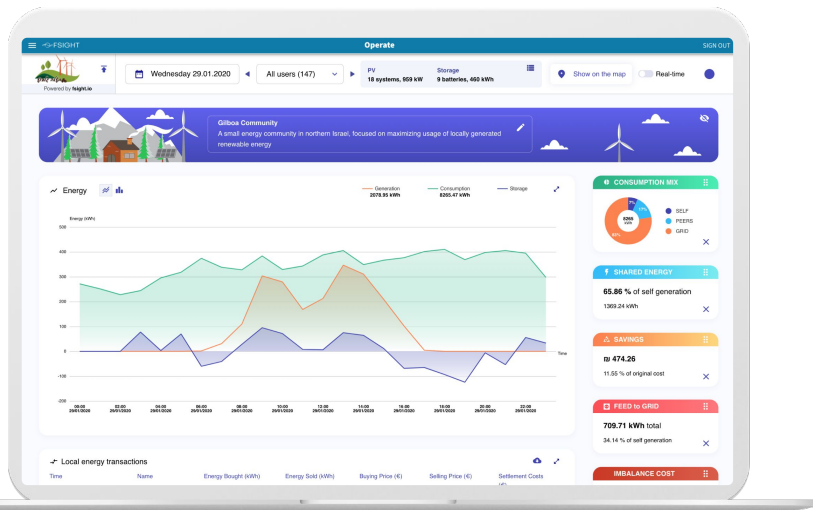
SBB CFF FFS

HS  
TIMBER  
GROUP

vector



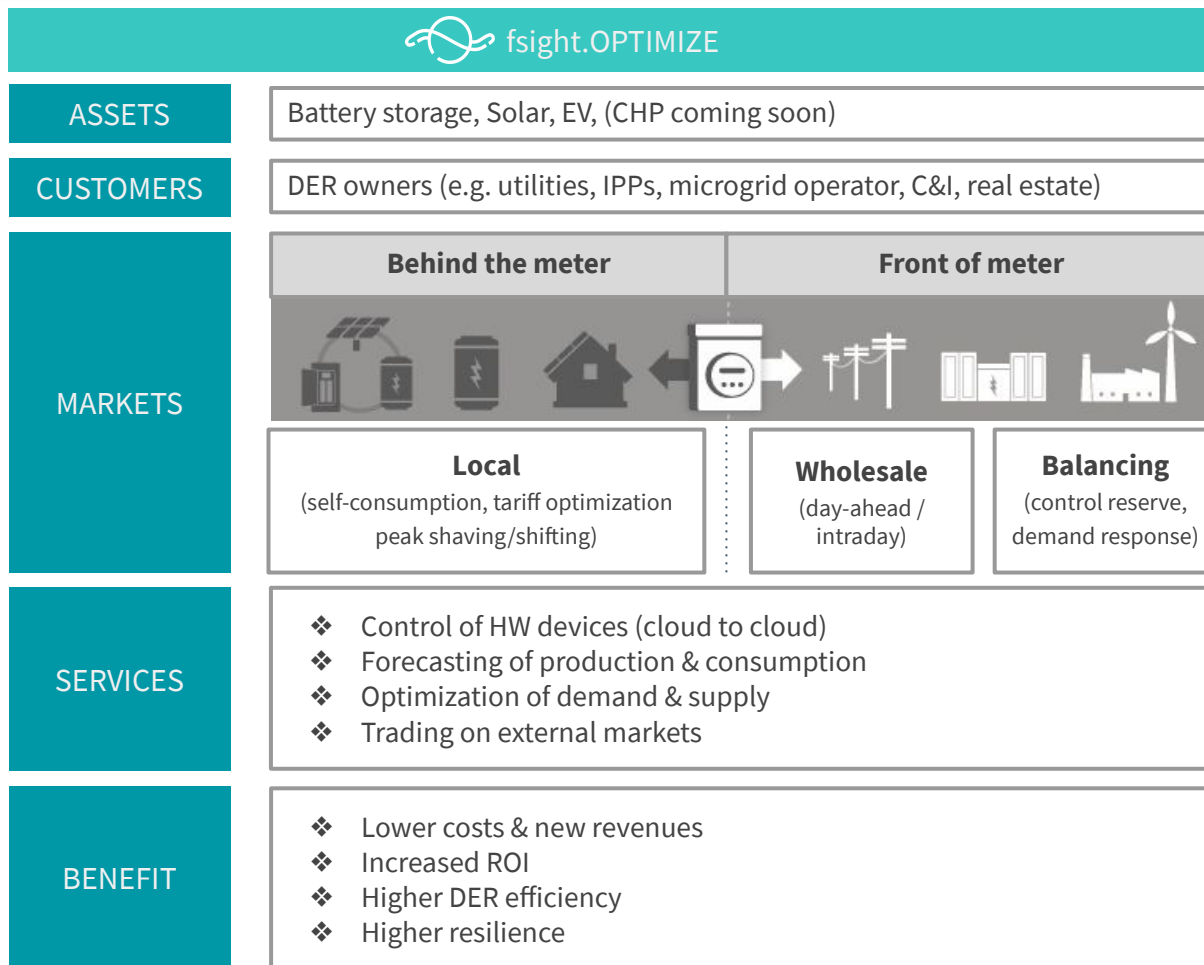
## Management of distributed energy resources combining forecasting, optimization and trading



- ❖ **Unlock** the full potential of flexible energy resources and increase ROI
- ❖ **One platform** to take advantage of multiple market opportunities simultaneously
- ❖ **Support multiple types** of DERs (e.g. batteries, PV, hydropower and more)

Increase ROI by  
**10 - 20 %**

# Generating benefits for DER owners behind and in front of meter





1-2 months

3-4 months

PARTNER

**Select site and decide on HW set-up (energy storage and generation)**

FSIGHT

**Data integration and optional HW integration**

**Selection of use cases:**

- Local: consumption/ peak shaving
- Wholesale: day-ahead/ intraday
- Balancing: control reserve, demand response

**Optimization and results**

(simulation or live operation)

Goal:

**Increase ROI of distributed energy resources by 10-20%**

Effort:

**Required HW (generation + storage)  
Market and use case inputs**

Timing:

**4-6 months**



Israel



**FSIGHT's showcase energy community** that demonstrates the viability of an optimized distributed electricity grid (over 200 members, 1.3 MWp renewable generation, 1 MWh energy storage)



Italy



Integration to ABB Ability smart power infrastructure and **optimization of portfolio of C&I sites** with savings potential of 20%



Austria



Integration into **Andritz real time pump storage operator** and simulation/optimization of different market scenarios



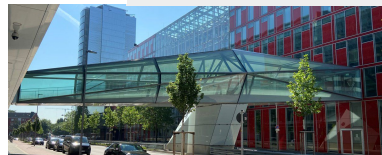
Switzerland



Developed **optimization engine for swarm battery storage in locomotives** and identified savings potential of over CHF 2 mn p.a.



Germany



Piloting new business cases for **renewable energy communities**

**Verbund**

Austria



Developed **energy community simulator** to demonstrate pool trading and wholesale market trading effects



Israel



Integrated and highly efficient **compressed air energy storage solution**, achieving cost savings for industrial applications

**Achieving optimization benefits of 10 - 20 %**



## SUMMARY

### SET-UP

Portfolio of 3 commercial and industrial assets in Italy with PV installations and batteries

### RESULTS

Expected energy cost savings of 20% by connecting the sites into an energy community and optimizing local flexibility and exchange of electricity.



Swiss global leading technology company that serves utility and industry customers in more than 100 countries and employs around 110,000 people.

### DESCRIPTION

- Joint showcase project in Italy to integrate Fsght and ABB smart power offerings and to demonstrate savings potential for C&I customers
- Develop joint energy optimization offering for C&I customers

### PROBLEM

- Distributed energy resources (DERs) on C&I sites currently not used to their full potential
- Looking for opportunities to reduce payback times and return in investment

### SOLUTION

- Integration of FSIGHT's intelligent OPTIMIZE platform with ABB's smart power infrastructure and electrical distribution control system
- FSIGHT's OPTIMIZE platform forecasts local supply and demand, controls battery flexibility and optimizes energy exchange within the community and with the market

### RESULT

- Project recently started
- Expected energy cost savings of 20%



German based energy solution provider developing energy centers for commercial real estate complexes and supplying them with local green electricity.

## SUMMARY

### SET-UP

Shopping center with decentral generation (PV & CHP), EV charging stations and battery storage

### RESULTS

Expected energy cost savings of 20% due to optimization of DERs

### DESCRIPTION

- Shopping center in Berlin with local generation (PV & CHP), EV charging stations and battery storage

### PROBLEM

- Intelligent energy management system needed to increase local self consumption, reduce peak consumption and market excess electricity to increase the savings potential of the installed DERs

### SOLUTION

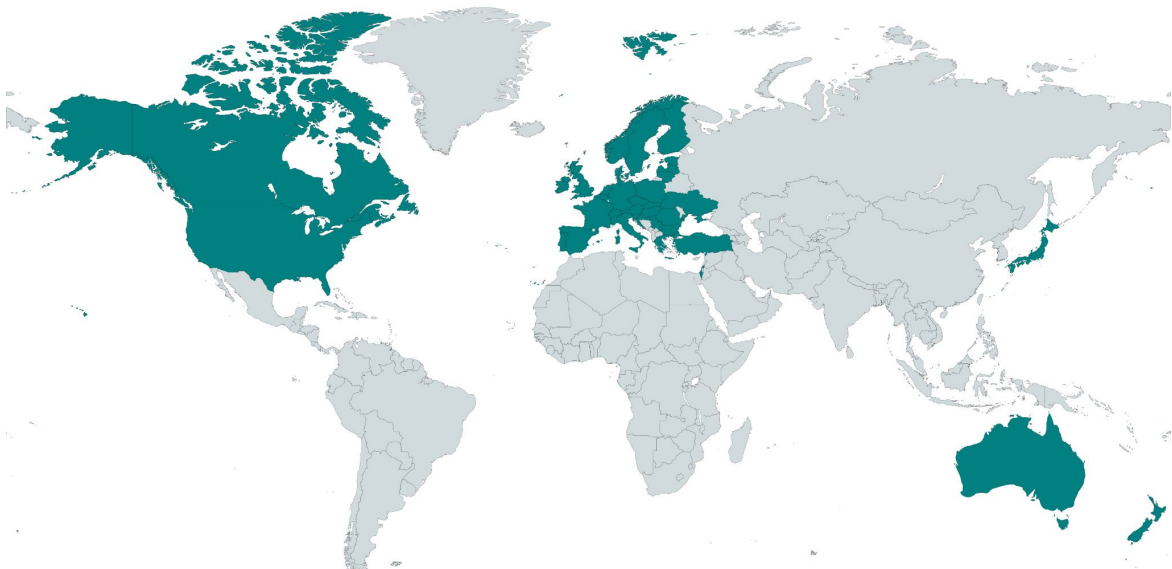
- Fsight's OPTIMIZE platform used to collect local energy data, forecast local supply and demand and control flexibility sources like battery, CHP and EV chargers

### RESULT

- Project recently started
- Expected energy cost savings of 20%



FSIGHT is a technology leader with strong international traction



Customers & Partners

Recognition

**FSIGHT** was established in 2015 by former leaders in the energy industry

We currently employ 25 energy specialists, data scientists and algorithm researchers

Our offices are located in **Israel** and **Austria**

Serving leading companies in the energy and industrial sector worldwide

FSIGHT has raised a total of \$10M





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