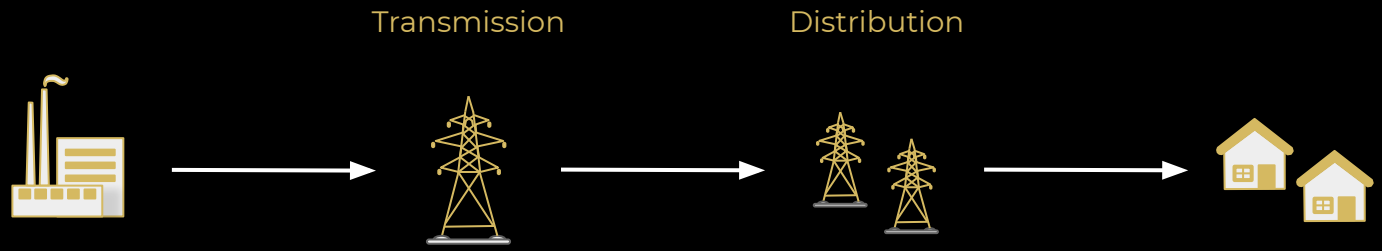
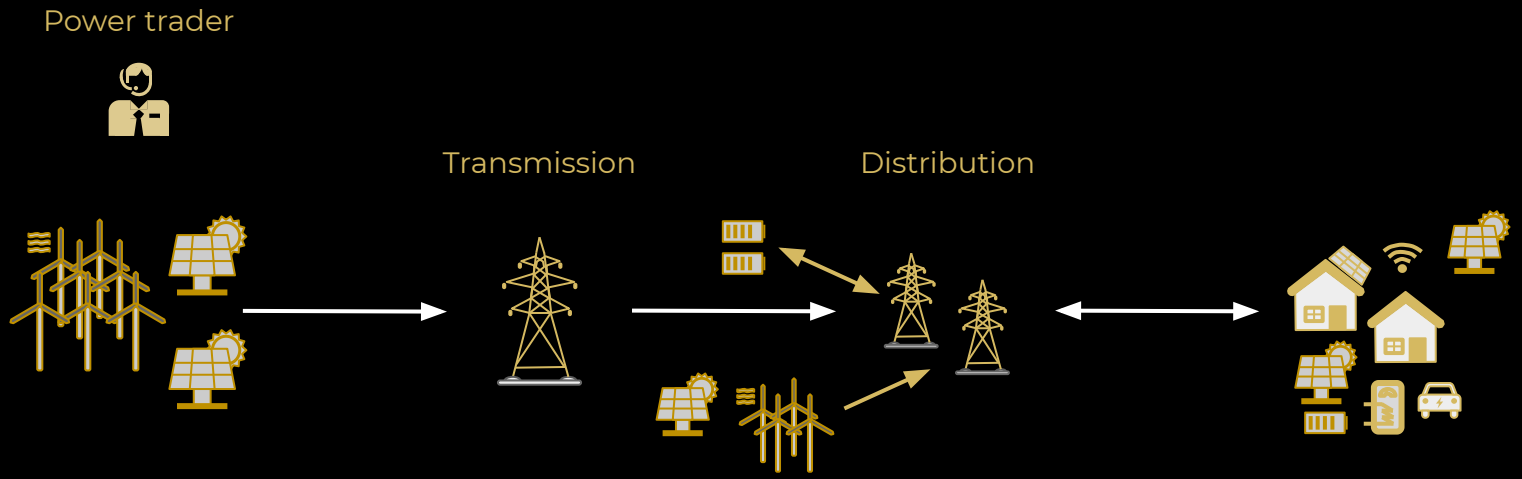

REBASE
Empowering tomorrow’s energy innovators.

POWER SYSTEMS USED TO BE PREDICTABLE



POWER SYSTEMS ARE NOW UNPREDICTABLE AND COMPLEX



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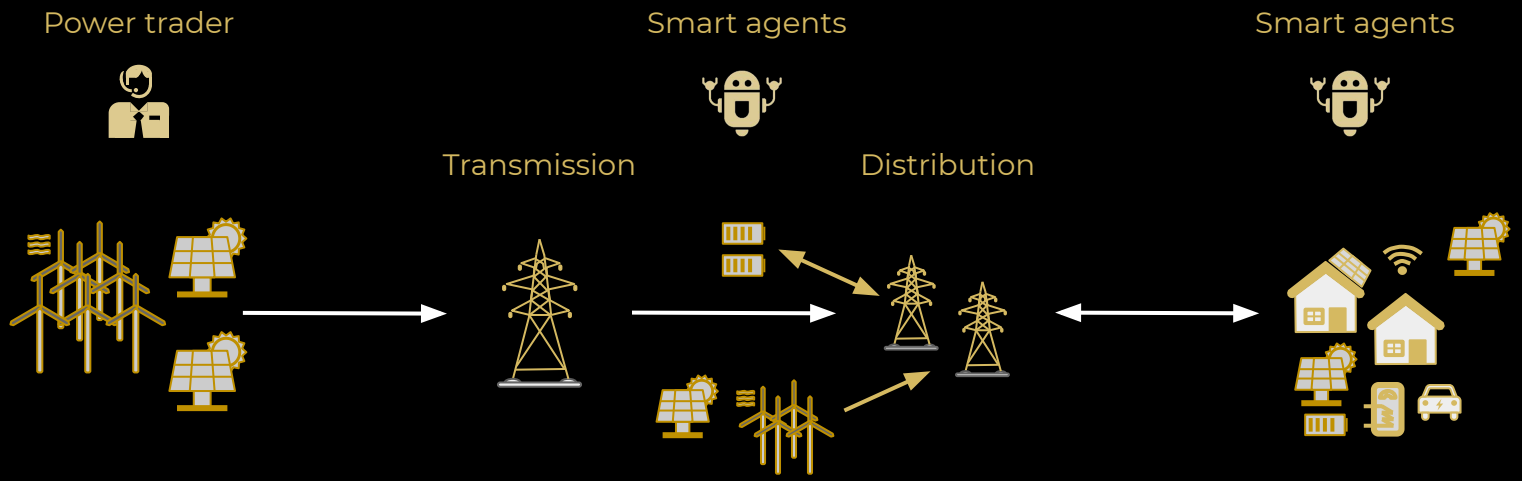


$2 trillion

+380M
Renewable power plants

+540M
Charging points

+100M
Battery storages

+250M
Heat pumps

By 2030, customer investment in distributed energy resources (DERs) is expected to increase tenfold to over $2 trillion, nearly **three times greater than today's global utility investment in generation, transmission, and distribution assets**

SOURCE: EWF (2020) & BNEF (2020)

SMART AGENTS TO OPTIMISE DISTRIBUTED AND COMPLEX ENERGY SYSTEM

Smart agents

SMART AGENTS TO OPTIMISE DISTRIBUTED AND COMPLEX ENERGY SYSTEM

Smart agents

FIWARE Accelerate

FIWARE

Partner network

THE REBASE PRODUCTS

REBASEDATAHUB

Energy data made AI ready

Aggregated and harmonized energy datasets from open & proprietary sources made AI-Ready via a unified API.

API

EPV

jungle

tibber

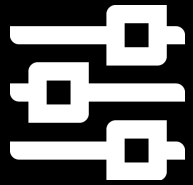
HELEN

e·on

REBASETOOLKIT

Simulation and optimisation made simple

An open energy forecasting and optimisation platform that allows for rapid iteration and deployment of state-of-the-art models.



API

Resilience energy

HITACHI

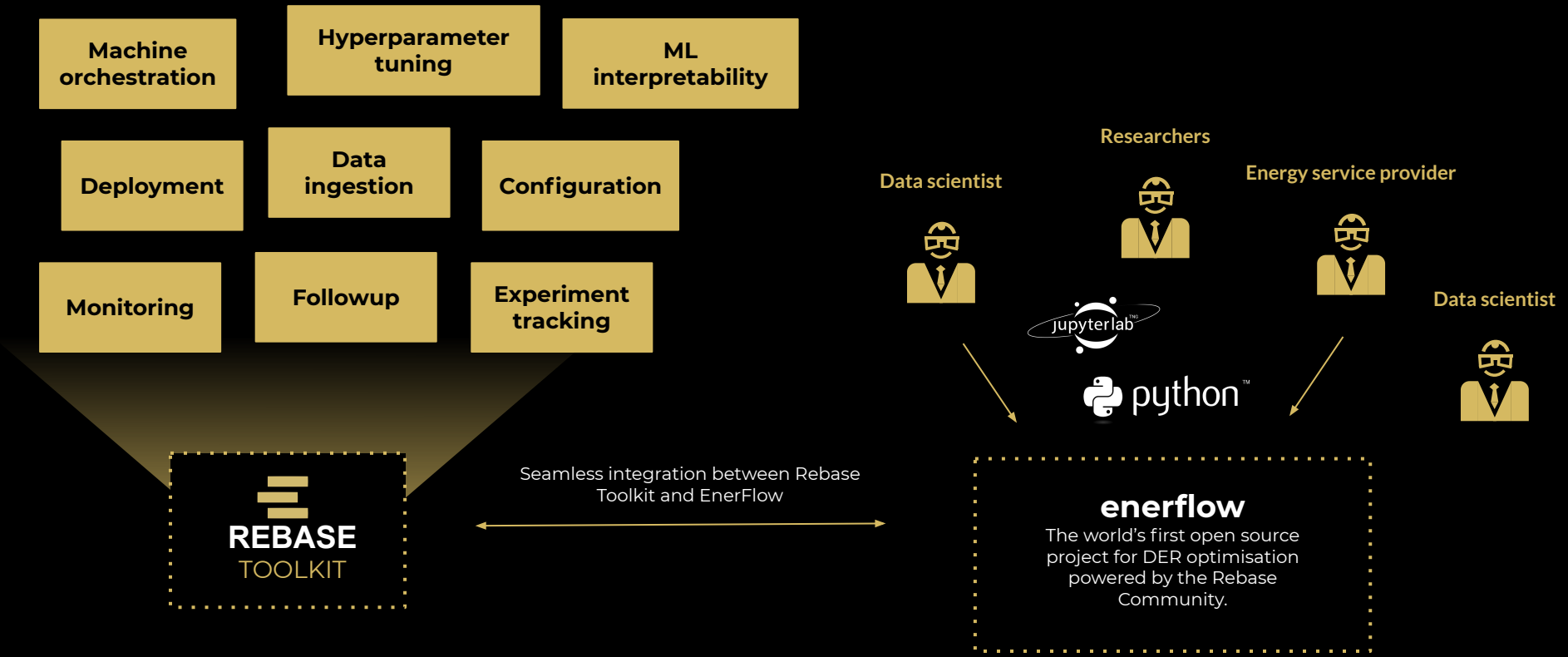
Bixia

SaltX Technology

sympower

Blås Energy

WE UNLOCK THE OPPORTUNITY OF OPENNESS AND DATA COMMUNITY



ENERGY FORECASTING FOR COMMERCIAL BUILDINGS

Gridgularity

14.2 %

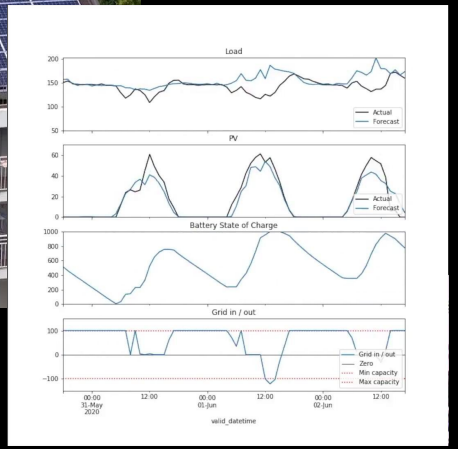
Forecast improvement

Improvement of forecasting accuracy compared to single input forecast.

31.4 %

Export peak reduction

Reduction of grid tariffs fees through smart operation of battery.



REBASE

Click to play video!

- Weather
- Forecast
  - Sites
  - Train
  - Status
  - Evaluation

Create a site manually

Start by selecting the type below

Electricity Demand

Description

Name

Vanha kauppahalli

Location

Latitude

60.1662544 °

Longitude

24.950564 °

REACH Datathon

ENERGY SOURCES OPTIMIZATION (THEME DRIVEN CERTH 3.1)

HIGH-LEVEL SOLUTION DESIGN

1. **Explore** - Explore energy savings potential of solar PV, battery and EV across your building portfolio.
2. **Simulate** - Analyse potential energy upgrades by simulating different clean energy scenarios. Create non-biased simulation using our library of clean energy components.
3. **Implement** - Generate or requests quotes (for solution providers and property owners respectively) to streamline sales and procurement processes.
4. **Operate** - Real-time optimisation of distributed energy assets based on machine learning and operations research.

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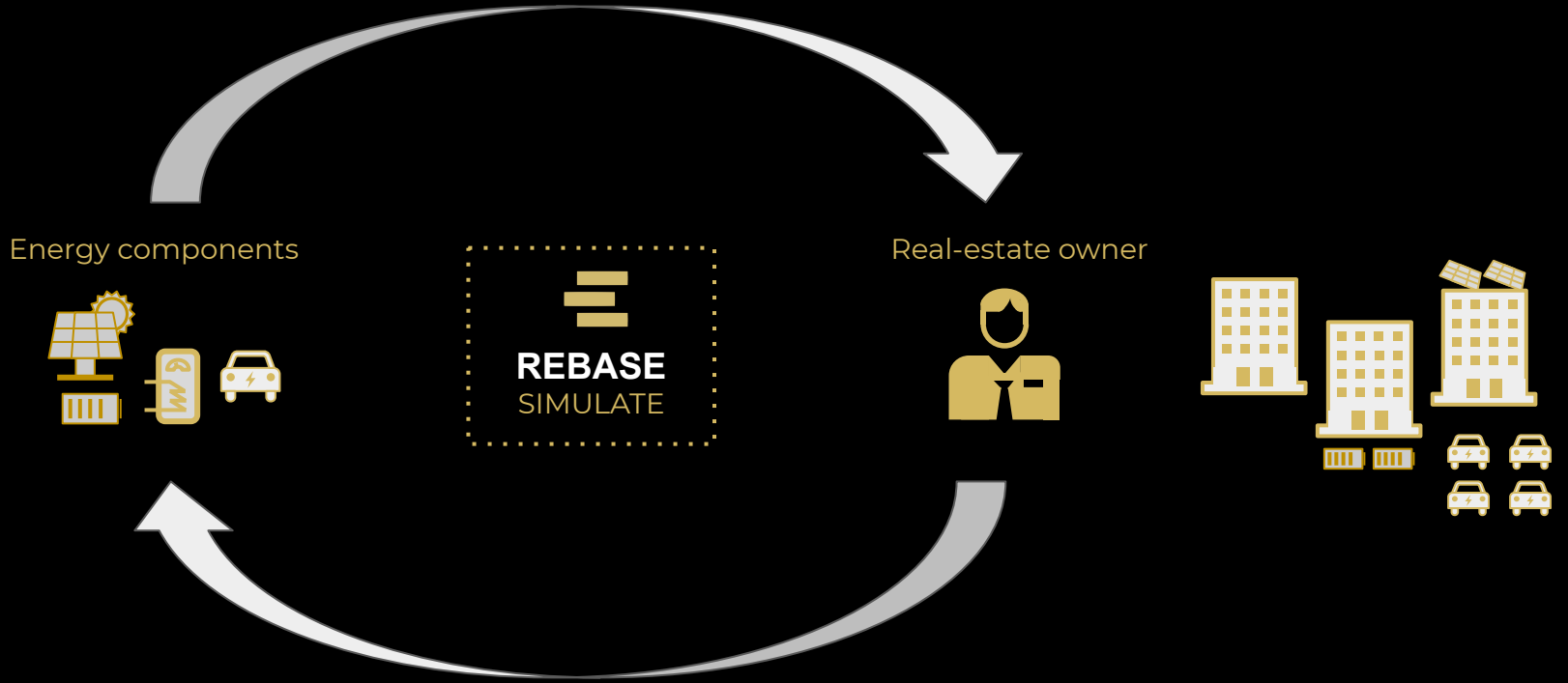
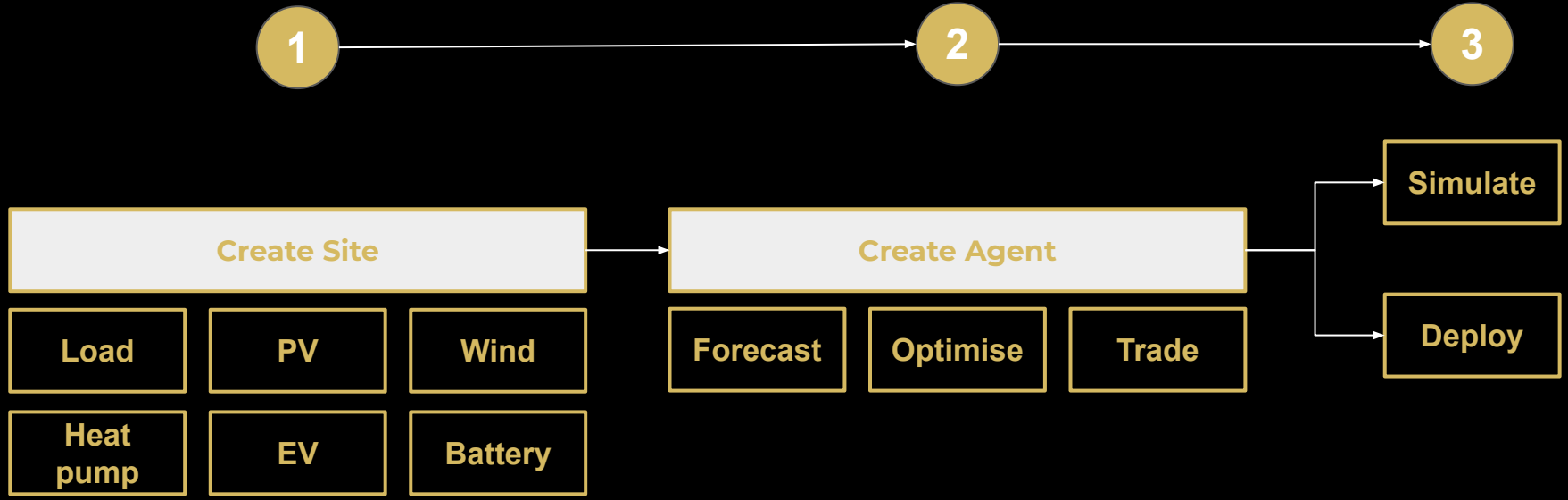
SIMULATE 1000's OF SCENARIOS TO FIND THE BEST OPTIONS



REACH PROJECT SCOPE



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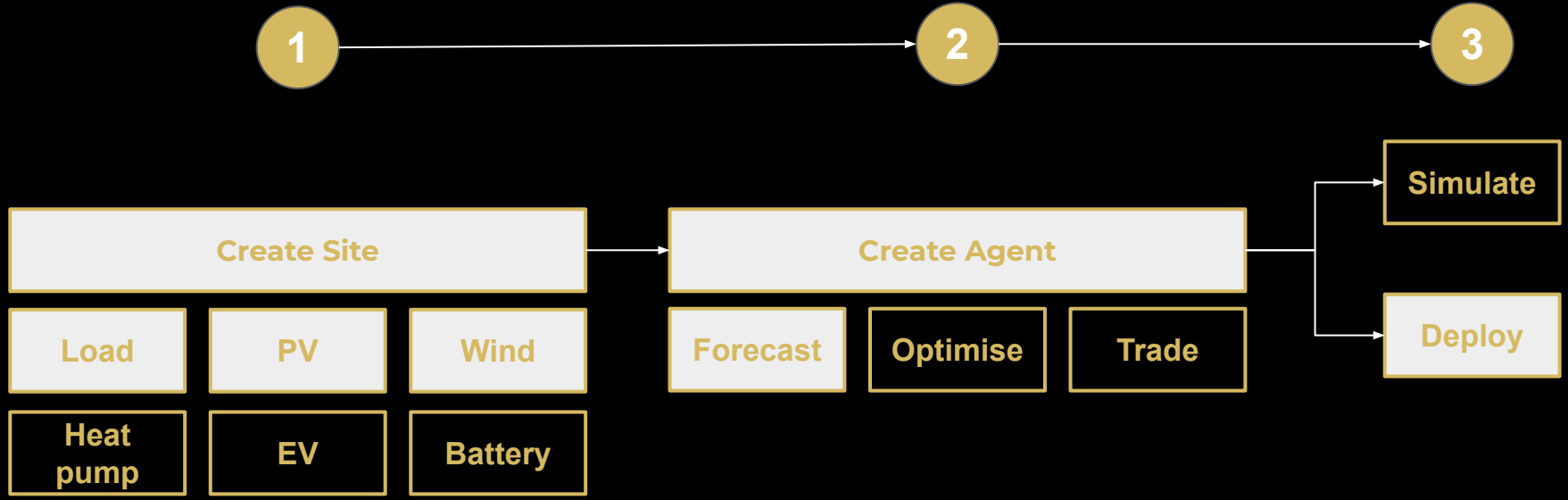

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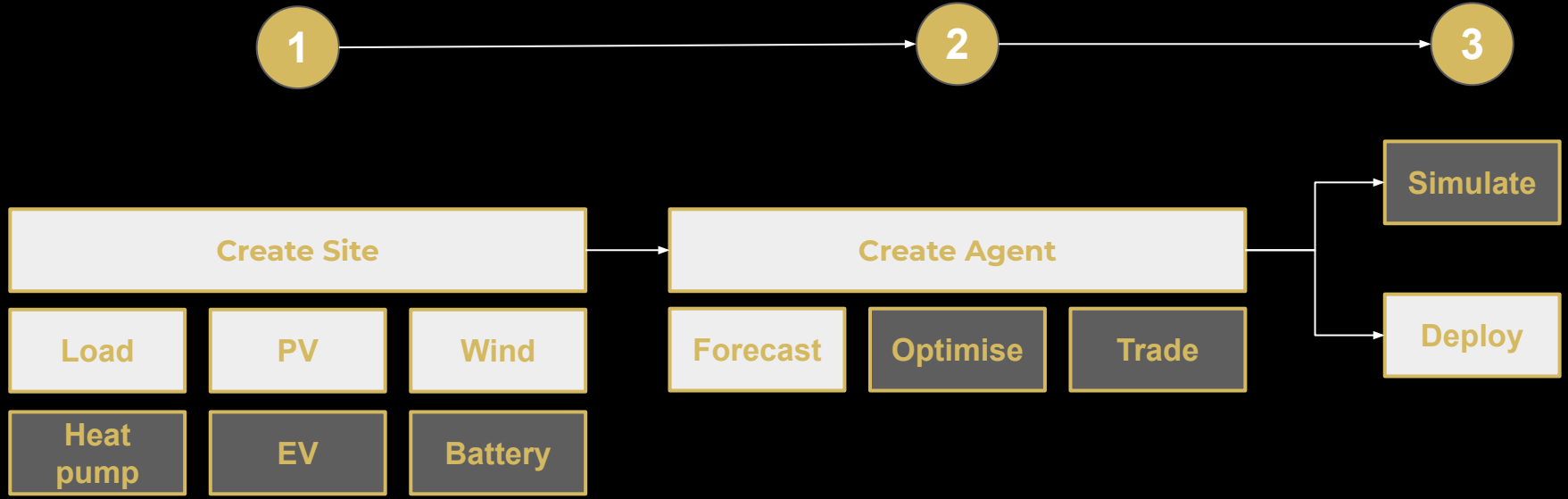
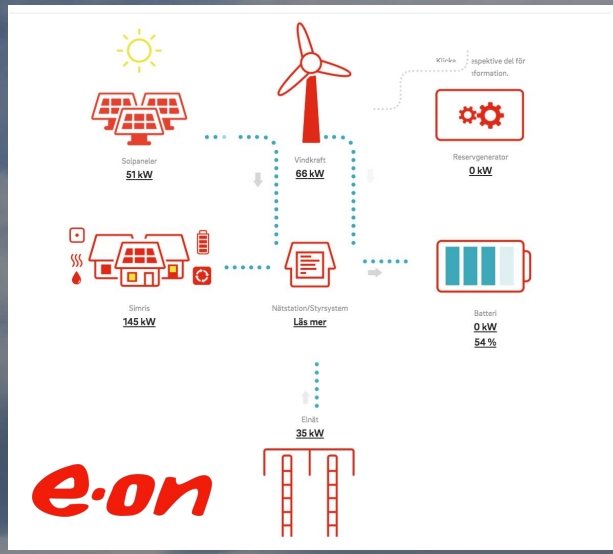
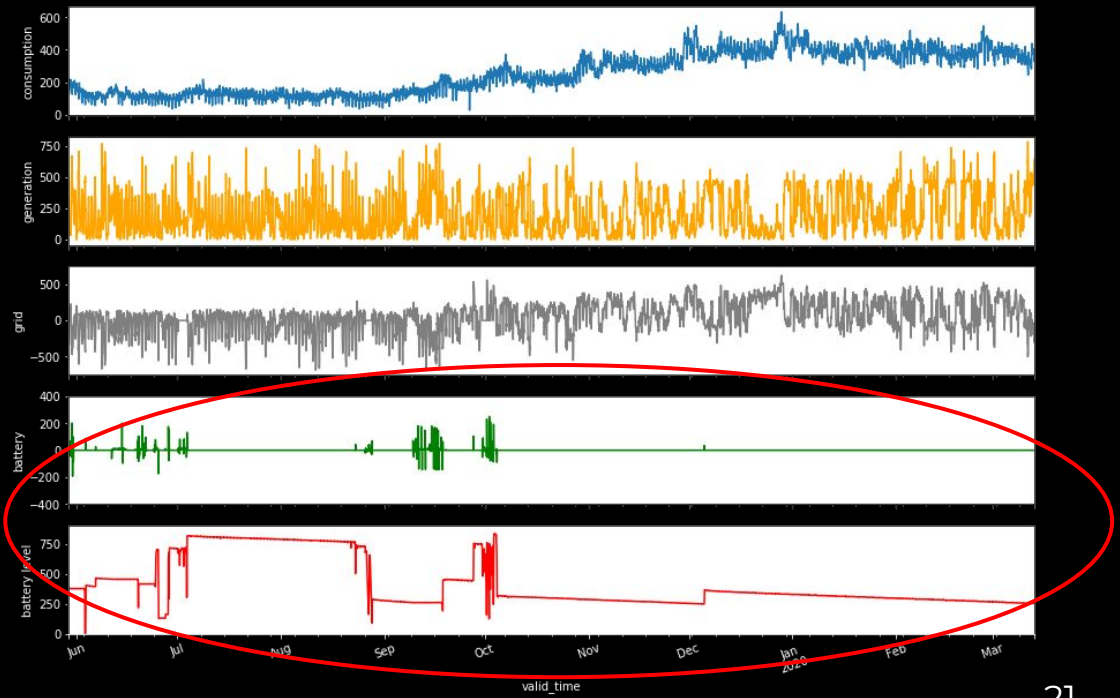



Klicka
aspektive del för
formation.
Solpaneler
51 kW
Vindkraft
66 kW
Reservgenerator
0 kW
Simris
145 kW
Nätstation/Styrsystem
Läs mer
Batteri
0 kW
54 %
Elnät
35 kW
e·on

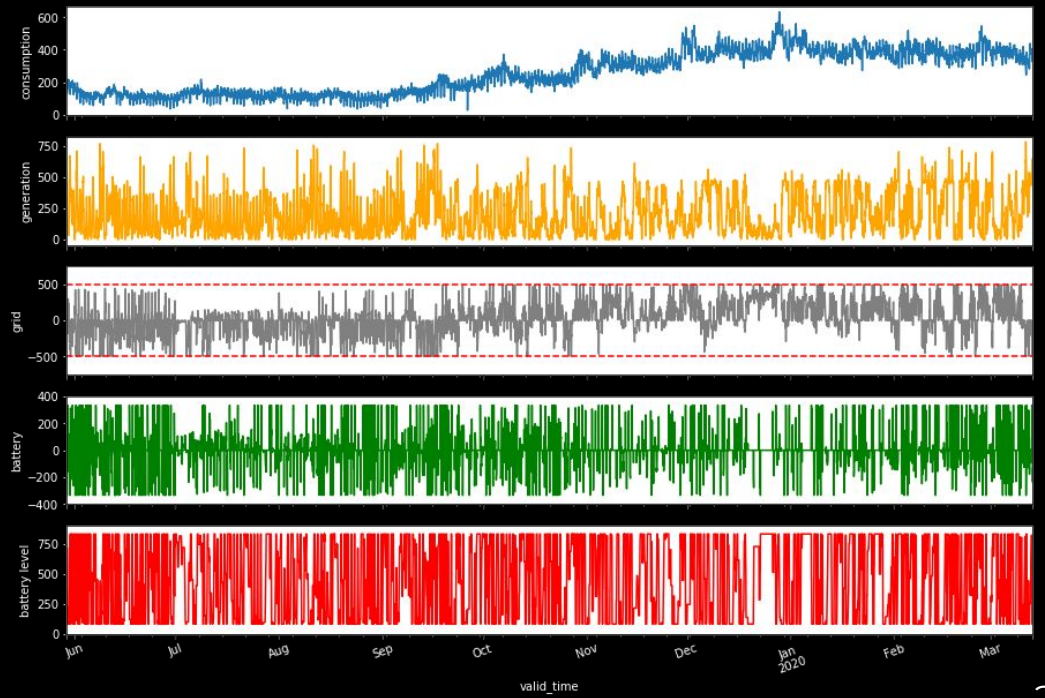
SIMRIS ENERGY COMMUNITY - RAW DATA

We downloaded the Simris microgrid data from June 2019 to Mars 2020. From inspecting the data, we realised that the on-site battery is not used that much.



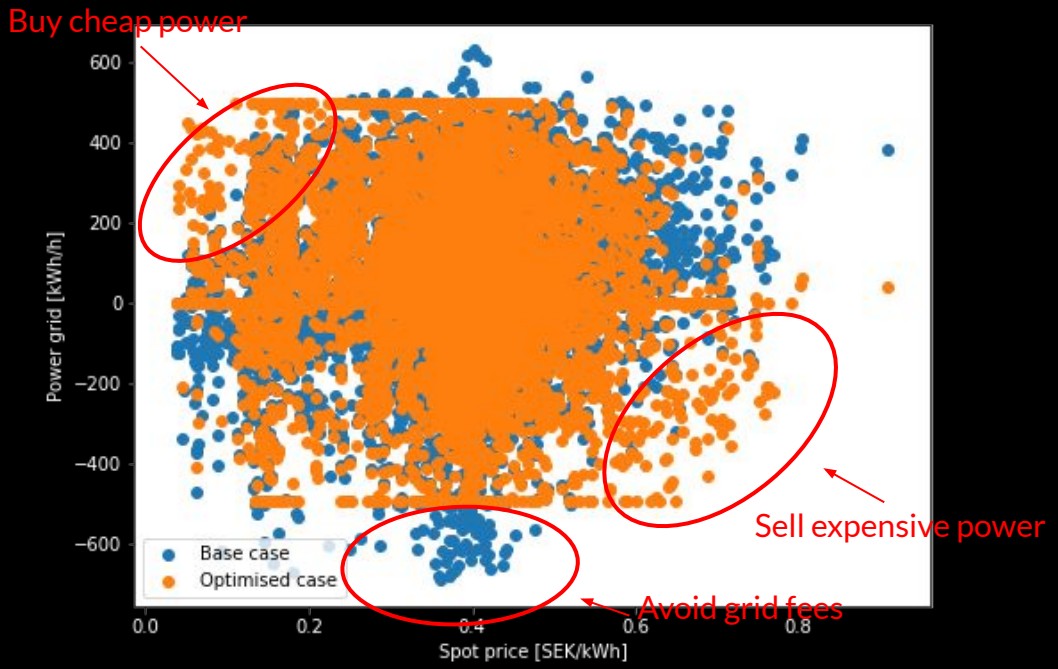
SIMRIS ENERGY COMMUNITY - OPTIMISED

By more frequent use of the battery, we can avoid grid fees as well as buy and sell electricity in a more timely manner with respect to spot prices.



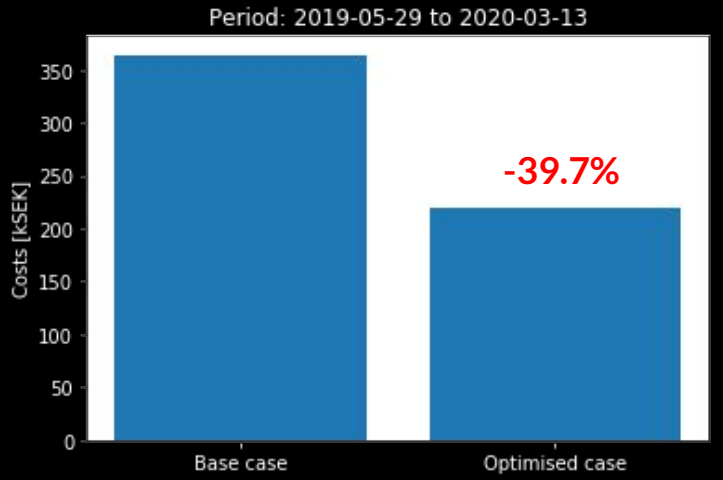
CLOSER LOOK AT THE OPTIMISATION

By closer inspecting the power exchange with the grid as function of the spot price. We get a detailed view of the optimisation.



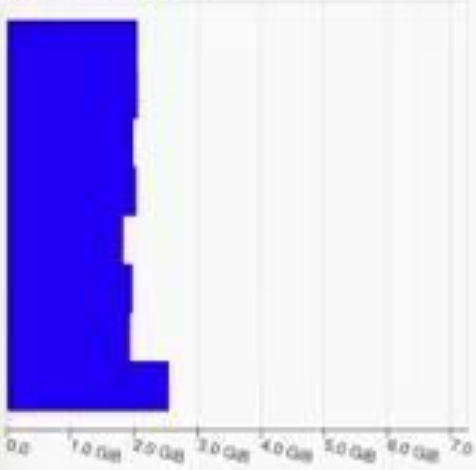
VALUE OF OPTIMISATION

With the optimisation of the battery. Simris would be able to reduce costs with 39.7% or 144 kSEK over a 8.5 months period.

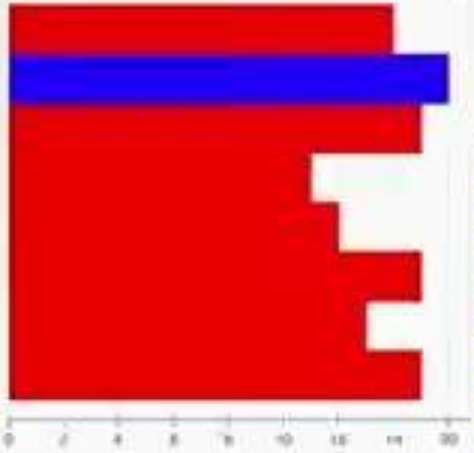


Status Workers Tasks System Profile Graph Info

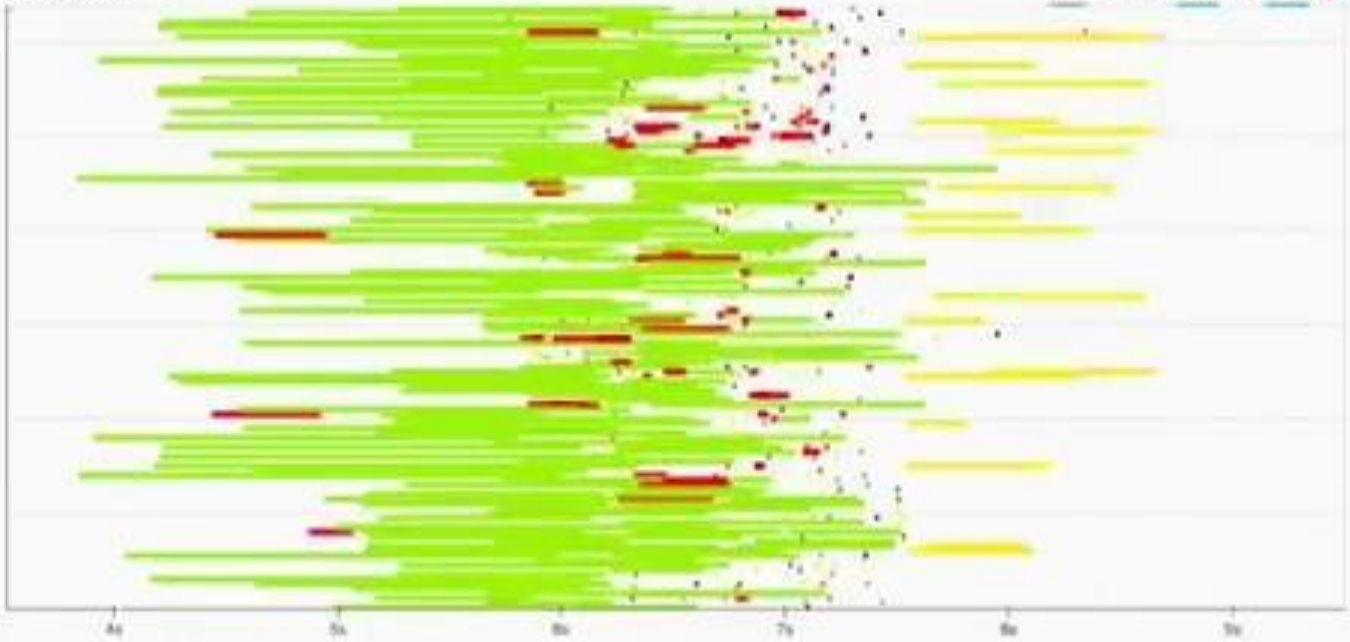
Bytes stored: 17.58 GB



Tasks Processing



Task Stream



Progress -- total: 795, in-memory: 99, processing: 124, waiting: 19, erred: 0

getitem	128 / 128
xarray-T	128 / 128
concatenate	128 / 128
xarray-T-get...	128 / 128
query_single...	2 / 119
broadcast_to...	63 / 64
[illegible]	8 / 16
[illegible]	8 / 14
array	3 / 3
_finalize_store	0 / 2
[illegible]	1 / 1

REBASE ENERGY UNIQUENESS

Scalable Technology

Our technology is a scalable top-of-funnel tool supporting simultaneous simulation of 10000's of PV/battery/EV systems.

Open source

We empower our customers through open APIs and open source Toolkits instead of enforcing lock-in.

Energy Datahub

A unique and petabyte scale geospatial datahub with real-time and historical weather, market, energy and emission data.

Partner Network

A unique partner network with solution providers for hardware and software to optimise energy production and consumption.

QUESTIONS?

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