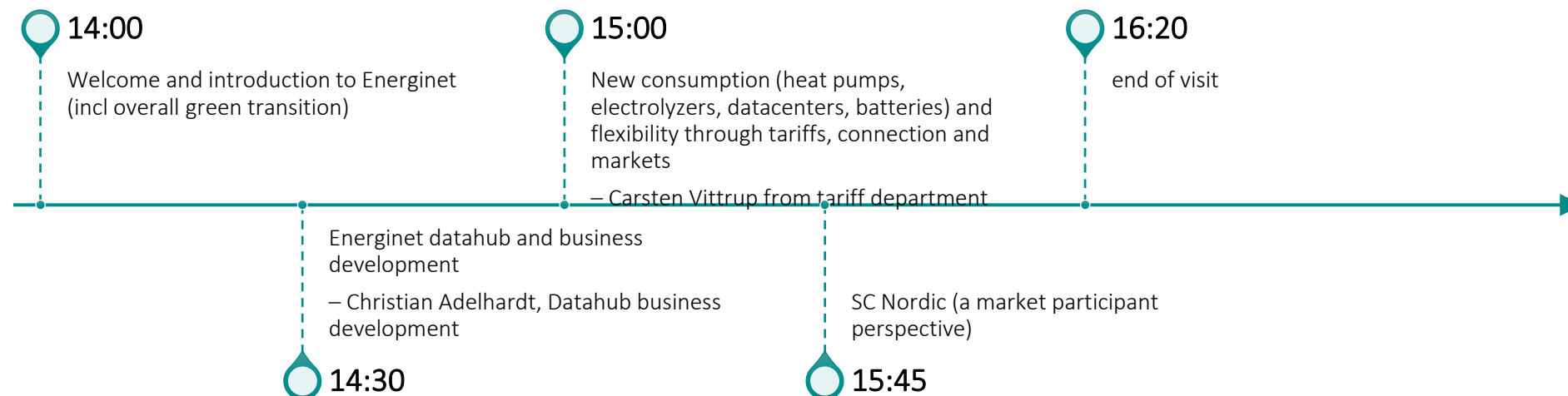


WELCOME TO ENERGINET

Agenda:



GREEN ENERGY FOR A BETTER WORLD

We safeguard the society's interests as we move to a 100% green energy system.

We are owned by the Danish Ministry of Climate, Energy and Utilities.

A workforce of around 2200 split between 7 locations.

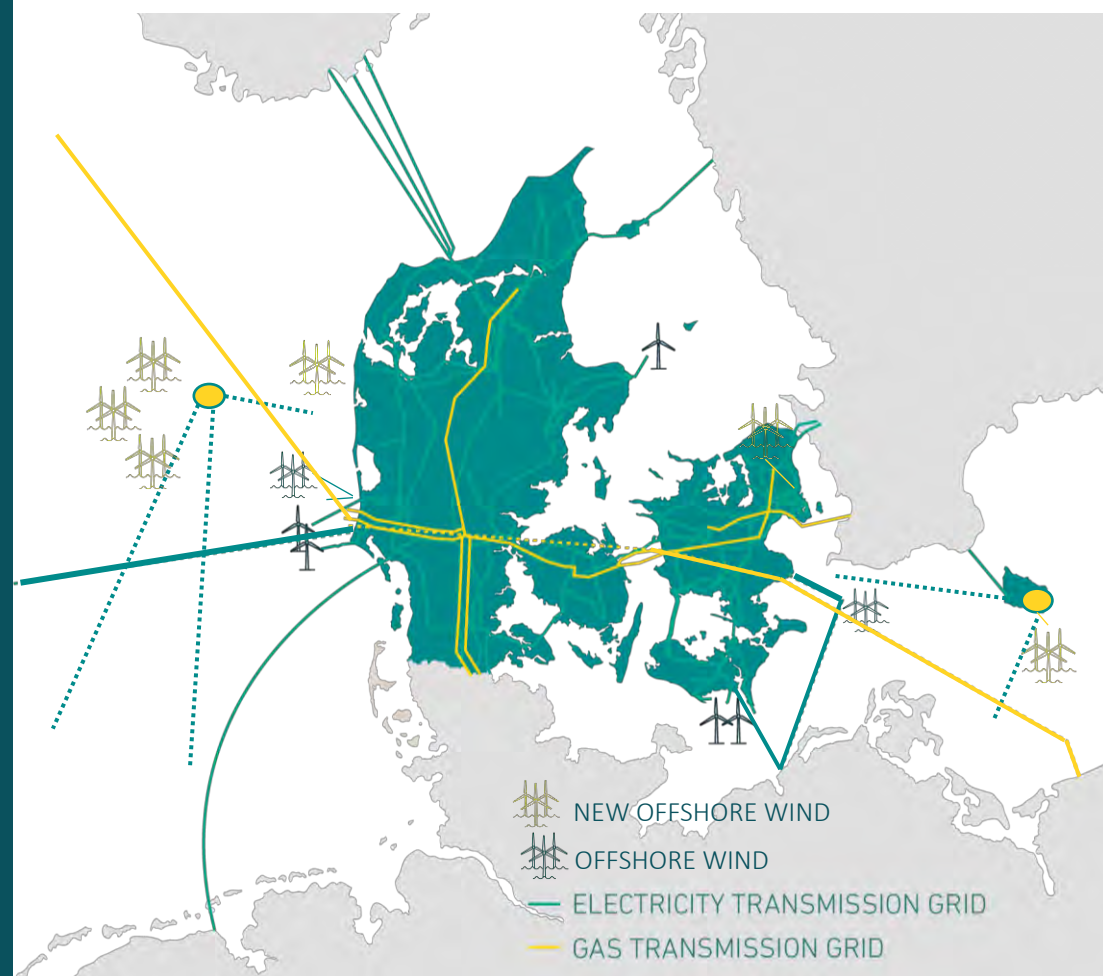
ENERGINET

THE ENERGY BACKBONE

We operate and develop the electricity transmission grids, gas pipelines and gas storage in Denmark and are also appointed to build future hydrogen infrastructure

ENSURE BALANCE

We have the day-to-day and long-term responsibility for the overall electricity and gas system in Denmark.



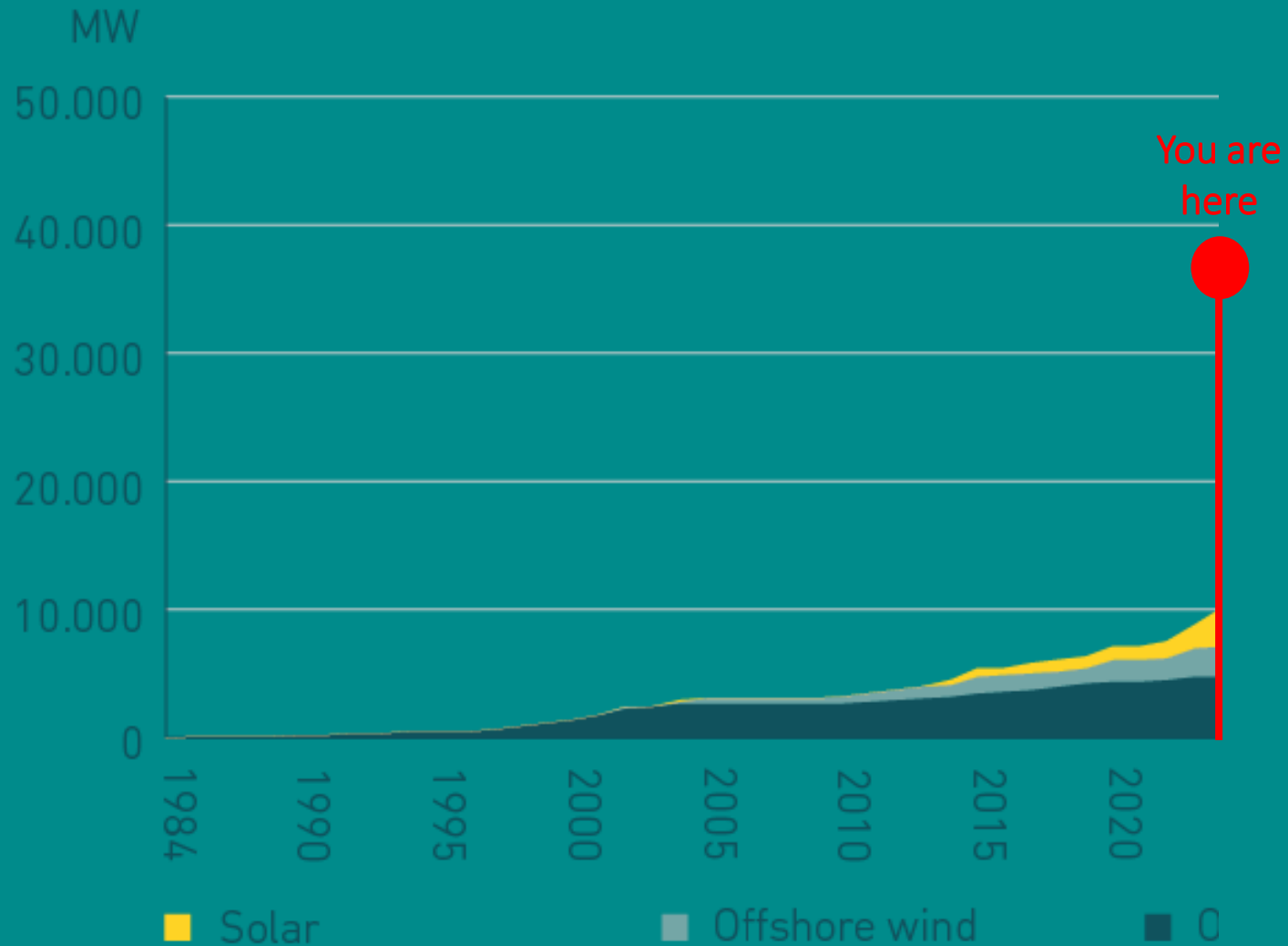
Energy island location, new OSW and connections only illustrative

A BALANCING ACT

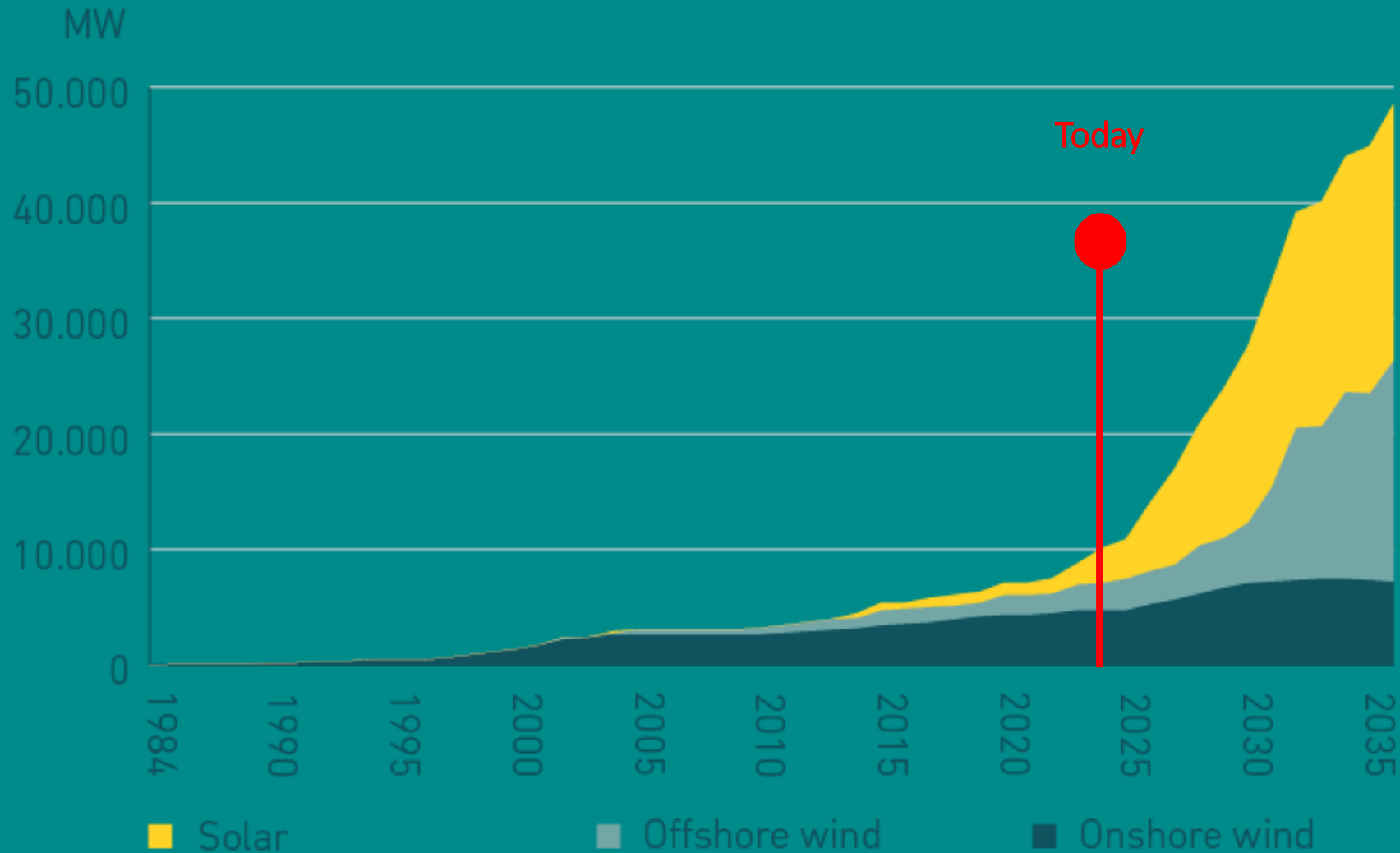
We work to make sure that the green transition is carried out in an economically responsible way without compromising on Denmark's already very high security of supply.



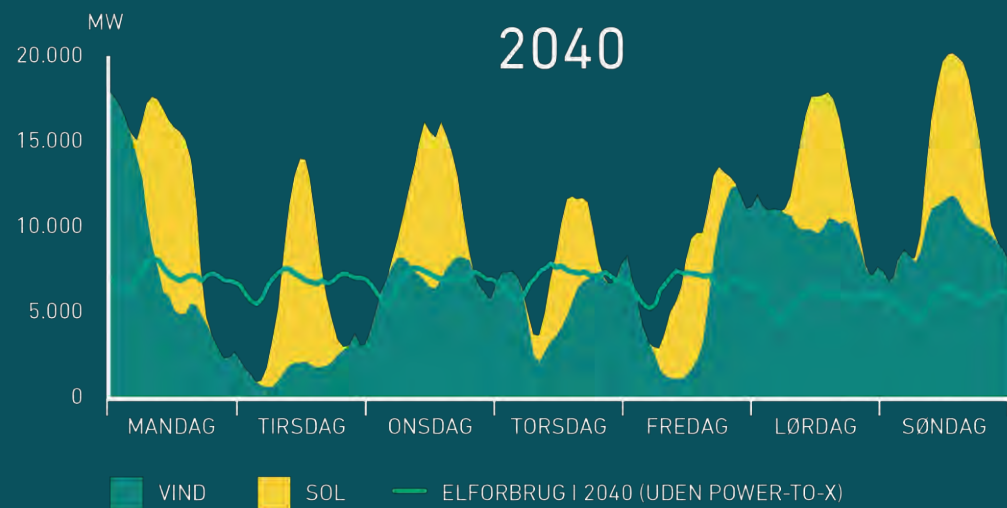
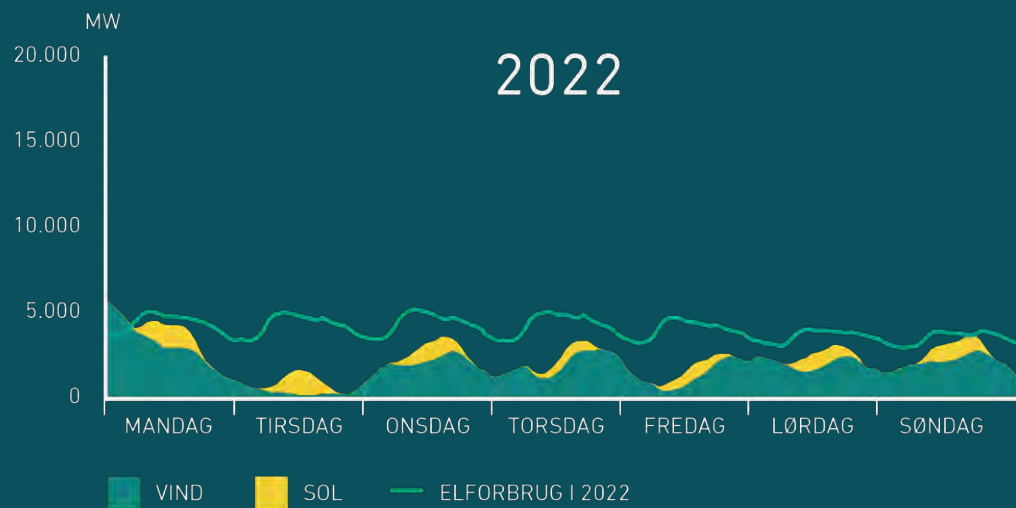
NEW GOALS – HIGHER PACE



NEW GOALS – HIGHER PACE



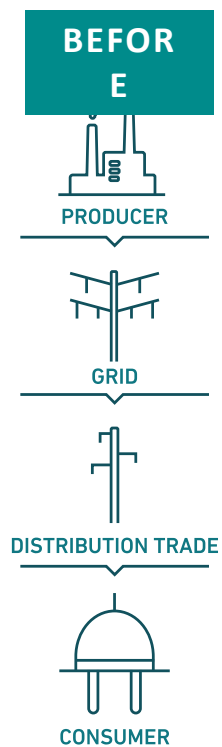
PRODUCTION VS COMSUMPTION



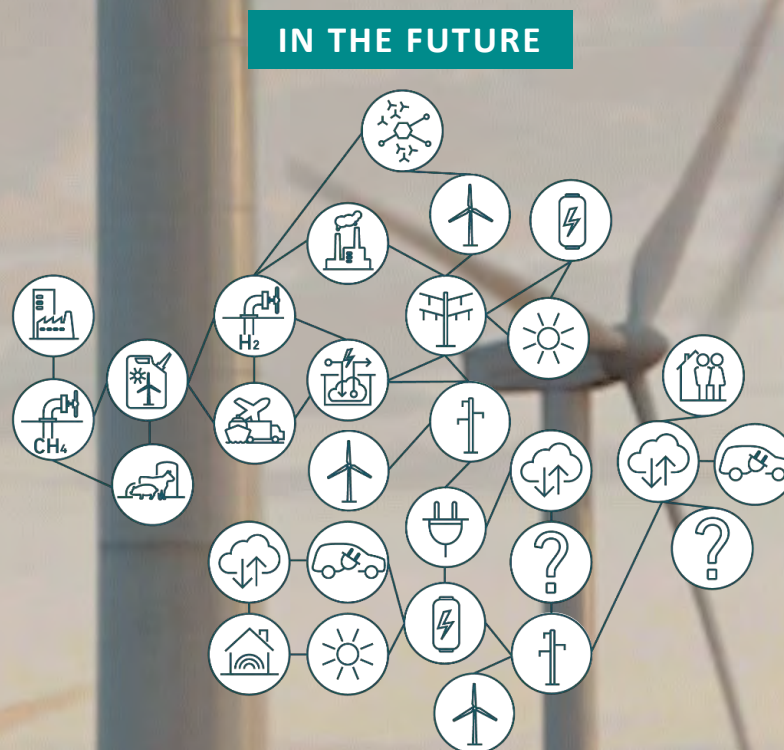
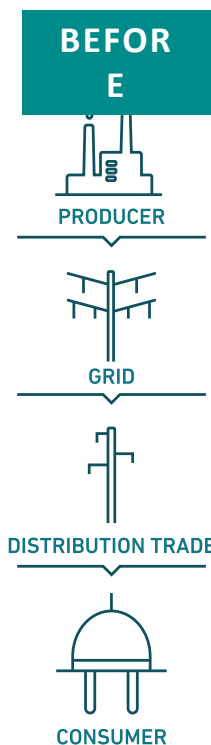


WE ENSURE BALANCE
MINUTE BY MINUTE

DIGITALIZATION IS KEY FOR THE FUTURE INTEGRATED ENERGY SYSTEM



DIGITALIZATION IS KEY FOR THE FUTURE INTEGRATED ENERGY SYSTEM



Electricity and gas consumers are ~~passive (inflexible)~~ active and flexible

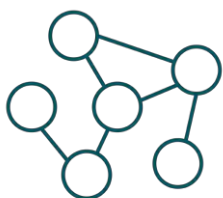
Electricity ~~cannot~~ can easily be stored economically

Green energy needs no subsidies to survive

Not everyone receives or wants ~~Everyone receives~~ the same product in terms of security of supply

WHERE IT ALL STARTED

In 2003, the Danish electricity market was liberalized, so that all consumers in Denmark could freely choose their own electricity supplier. Over the following years, several further changes were implemented, all of which aimed to promote competition in the electricity market.



Liberalization
2003

DataHub
2013

The wholesale model
2016

Hour by hour
2020

DataHub 3.0
202?

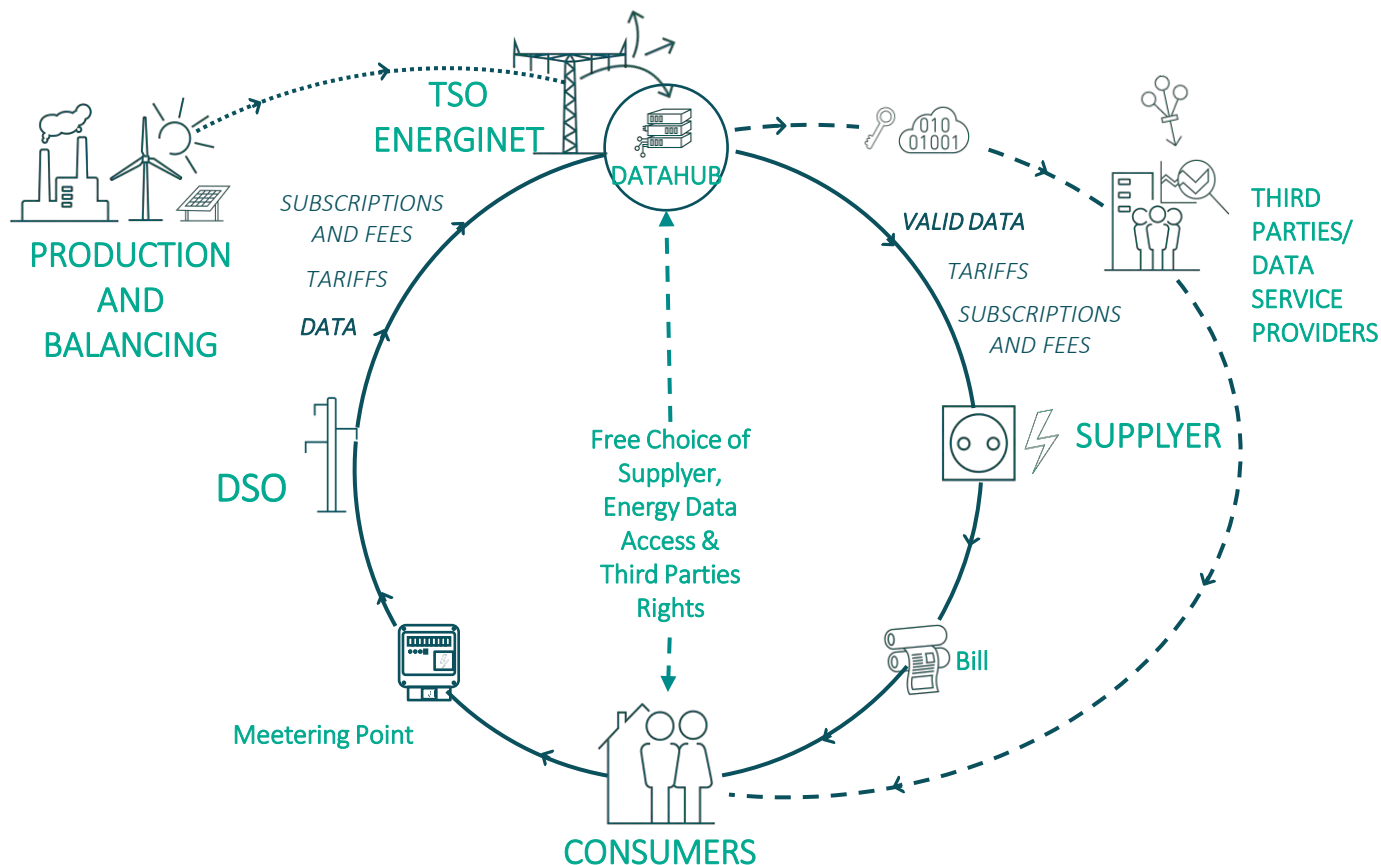
DATAHUB – BILLING AND DATA ACCESS

The customer settlement is created based on the data flow in DataHub between the players:

1. The network company submits measurement data, tariffs and other price elements to DataHub.
2. Energinet submits the TSO tariffs and rates for electricity tax to DataHub.
3. DataHub continuously sends measurement data as well as tariffs and fees for each measurement point to the electricity supplier. The electricity supplier only receives data for its own measuring points.
4. The electricity supplier makes one total bill for the customer.

→ The network company is responsible for transferring all the customer's electricity tax payment, which is collected via the electricity supplier, to Tax.

→ Consumers/prosumers can delegate data-access to thirdpart-data service providers.



BEFORE

Marked communication

TODAY

DataHub as is

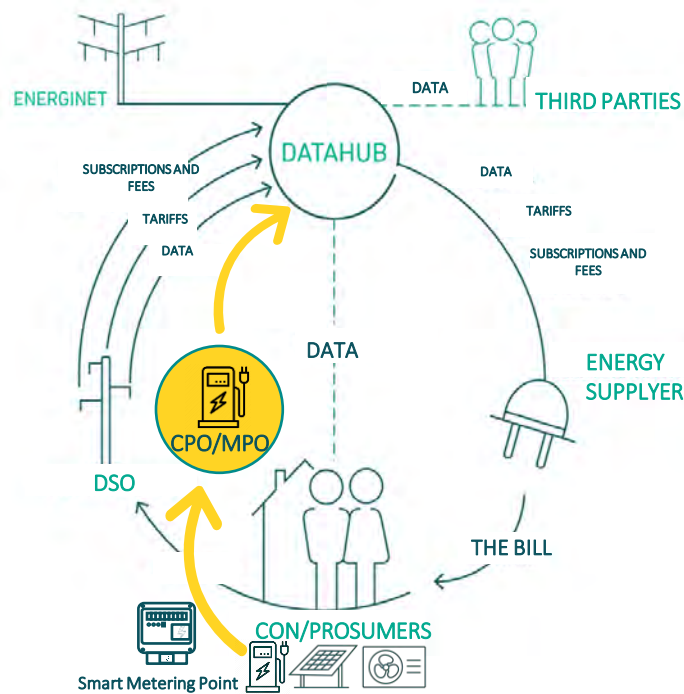
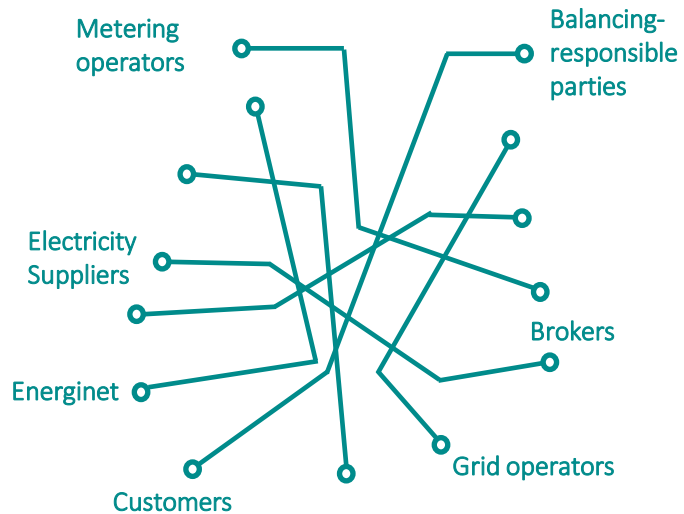
TOMORROW

Current add-ons:
Imbedded metering

BEYOND

SELF-SOVEREIGN IDENTITY?

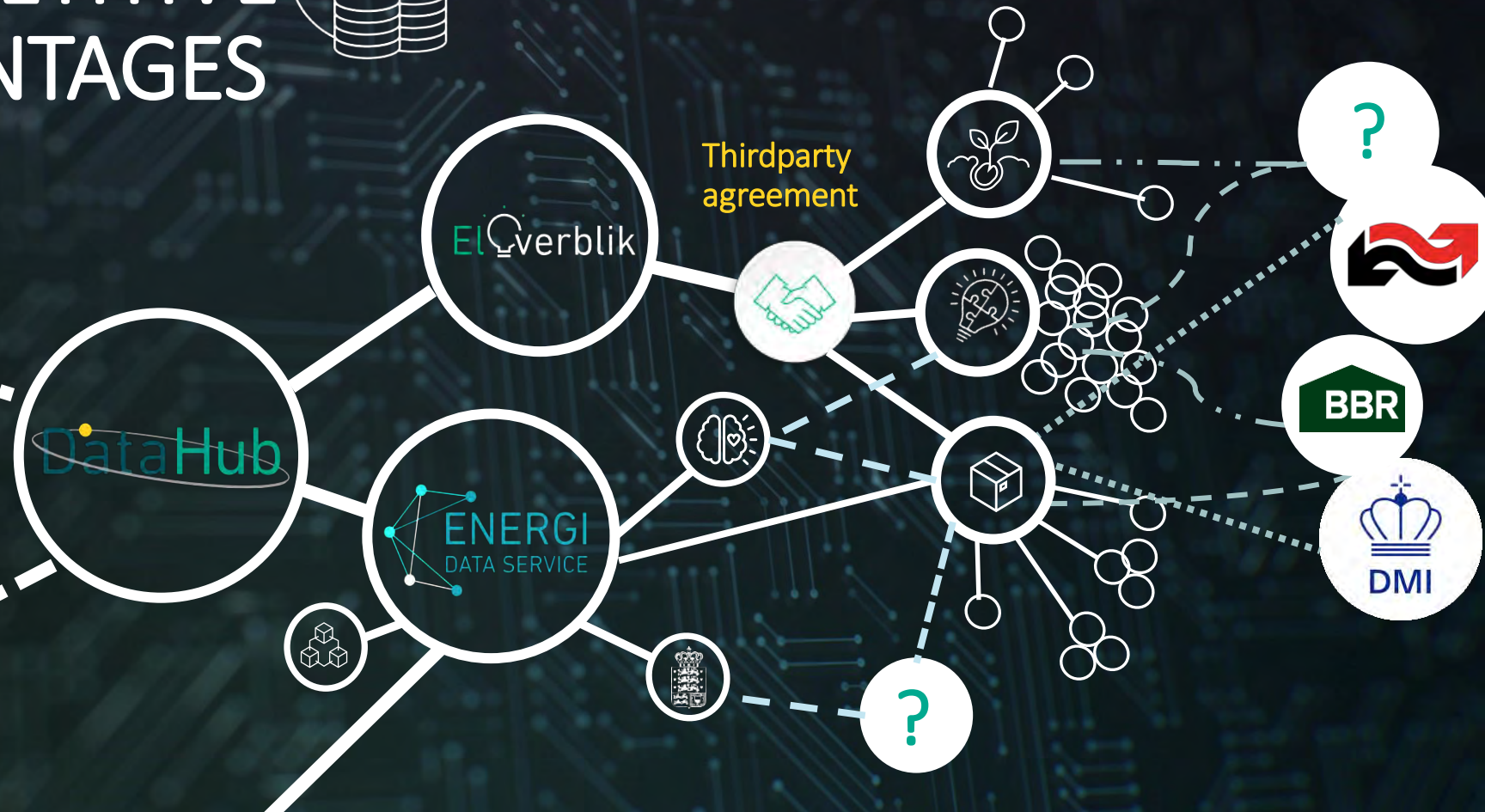
Identification, authorization, and delegation



QUESTIONS

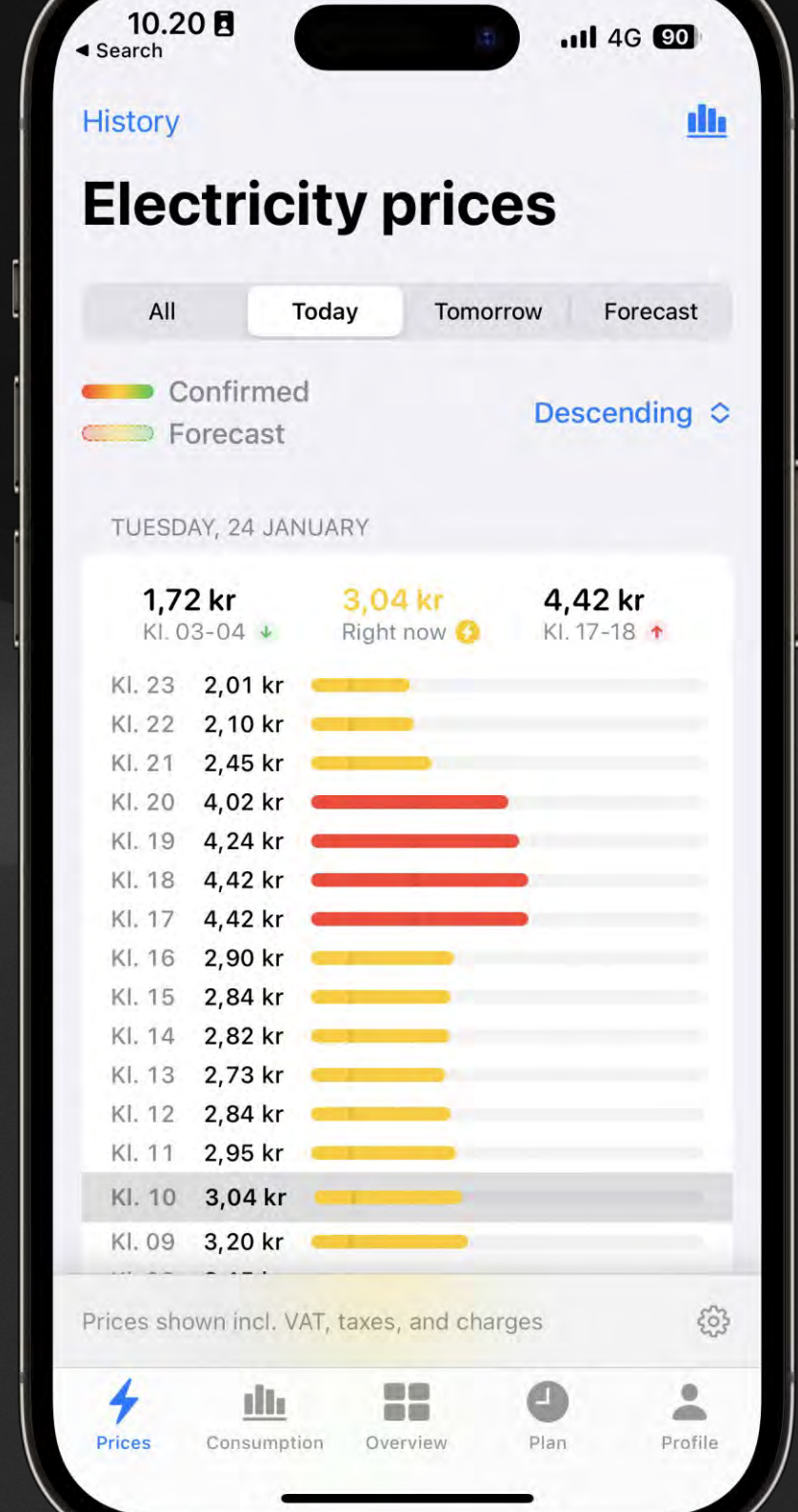


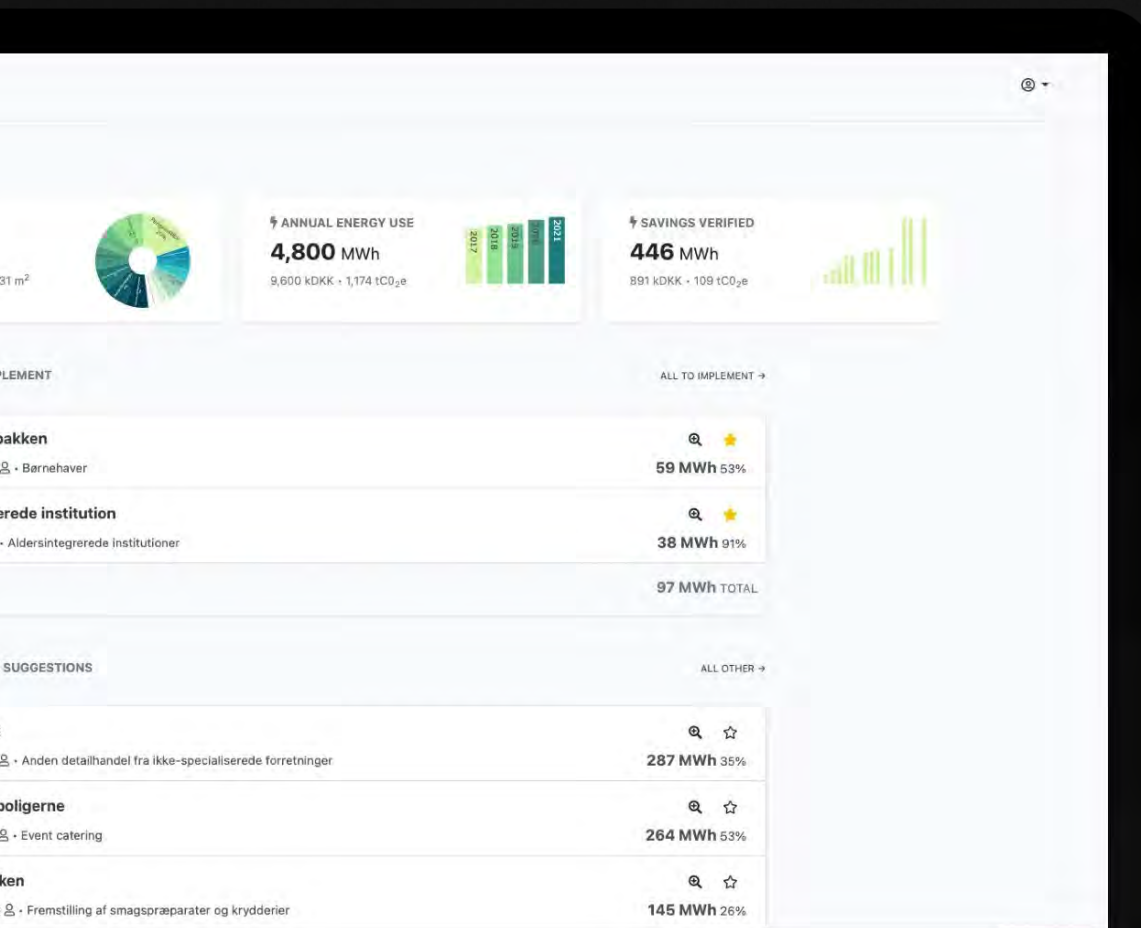
DATA CREATES COMPETITIVE ADVANTAGES



CASE: MINSTRØM

- ▶ Start-up founded in March 2022 offering a freemium app
- ▶ Users track electricity prices, enabled by EDS API
- ▶ Users track individual consumption, enabled by EIOverblik API
- ▶ 125.000 have connected their smart meter to MinStrøm and use the app to plan their electricity usage (washer, dishwasher, dryer)





CASE: ENTO LABS

15.000 BUILDINGS CONNECTED
(6% OF DANISH ELECTRICITY CONSUMPTION)

- ▶ Start-up founded in 2019 offering digital tools for professionals
- ▶ Users connect their buildings through EOverblik API to their pre-trained machine learning platform
- ▶ Building owners get 5-20% annual savings
- ▶ Fully automated, no manual setup