

ENERGINET

My Energy data, DataHubs and cross border data access

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ENERGINET

Public enterprise owned by the Danish Ministry of Energy, Utilities & Climate.

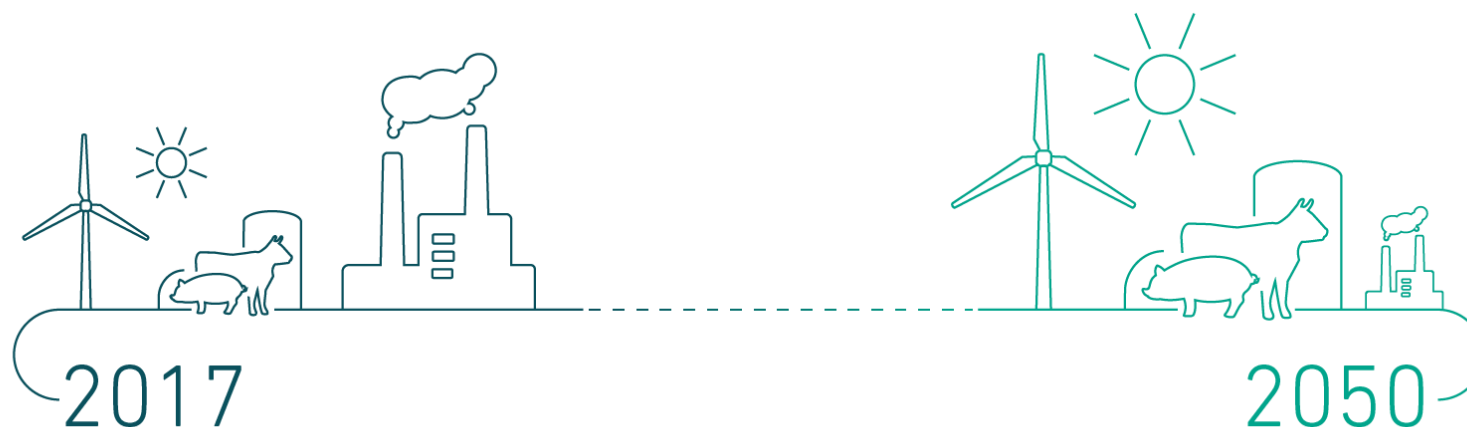
We own and operate the overall electricity and natural gas transmission system in Denmark.

This includes the Danish DataHub that holds all danish electricity meter data



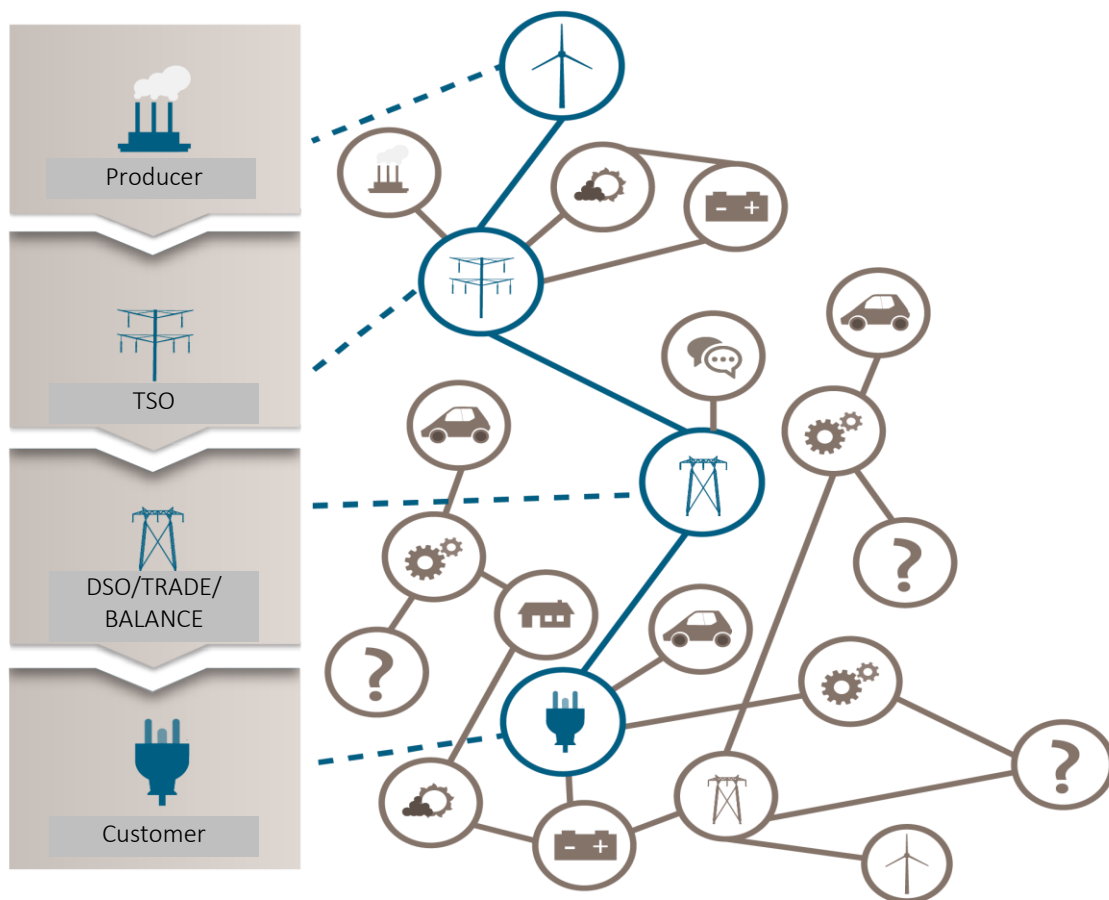
WHAT'S IN IT FOR US?

- Only part of our goal of a green energy transition can be reached by investing in renewables
- An electricity system based on wind, solar and hydro is volatile
- Utilising data access to enable easy activation of demand response can offset this volatility



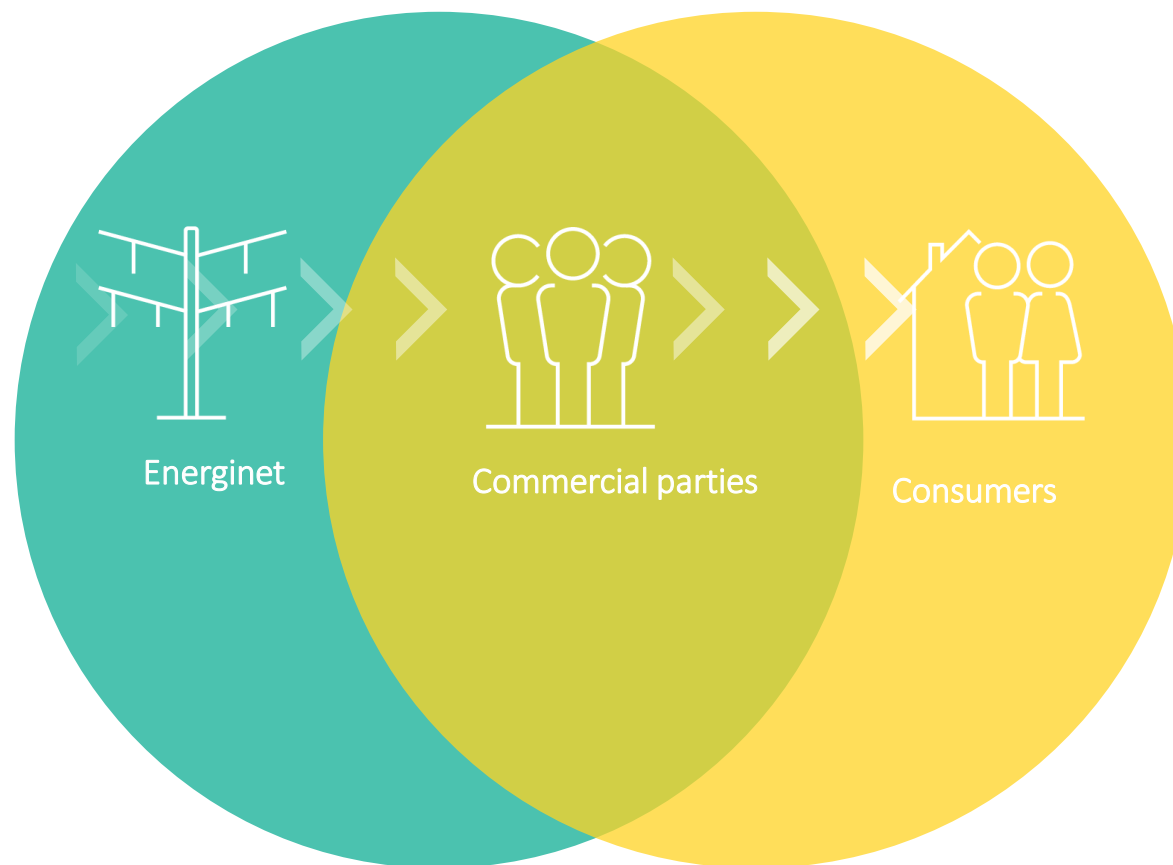
- GDPR compliance is also nice

THE ENERGY VALUE CHAIN IS TRANSFORMING



- Security of supply will be ensured, not just by infrastructure, but by managing the energy system as a digital platform
- The classical value chain will co-exist with an abundance of distributed, data driven services and applications
- Micro transactions of energy consumption and production will be an added layer to the existing market and infrastructure

WE RELY DATA DELEGATION TO ENABLE THIS DEVELOPMENT





MY DATA ACCESS ELOVERBLIK

- Energinet launched its first data access portal in 2013 where consumers can access own consumption data
- In 2016 we launched our delegated access to data for third parties, based on a national digital signature
- Features API's for machine to machine communication
- My Data Access 2.0 is going to be implemented in 2019

OUR EXPERIENCE FROM 2 YEARS OF DELEGATED ACCESS TO ELECTRICITY DATA

- 140 commercial parties requesting consumers for access and downloading data via API
- Interest from corporate consumers is higher than that of private households
- Cumbersome delegation process and access to data delegation per datahub or country limits service availability



ENERGINET-ELERING PILOT:

Cross border data access



ENERGINET

Helsinki – August 30th 2018

elering
ÜHENDAME ENERGIAD

THE BUSINESS CASE OF CROSS BORDER

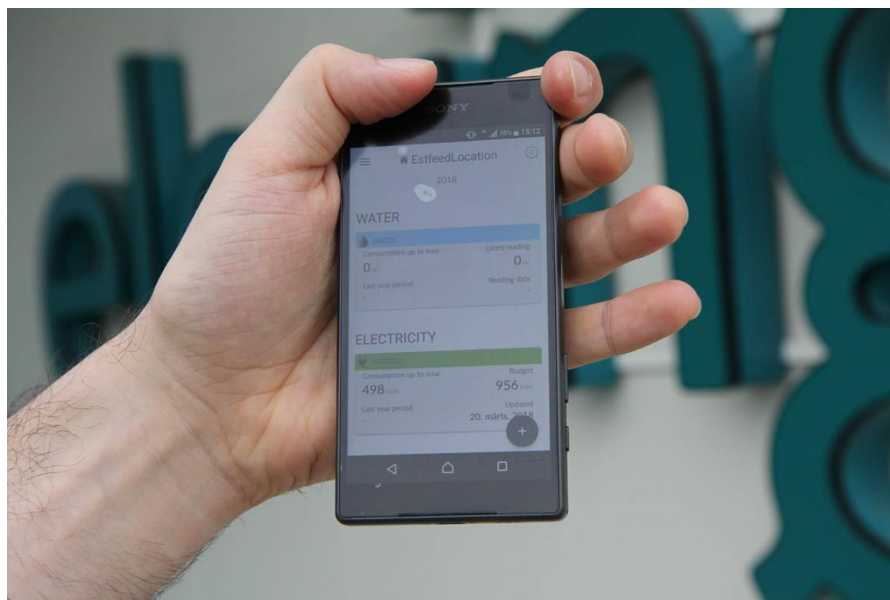
It takes more than just access to enable the utilisation of data

- Customers don't ask for data access, they want services that help them reduce their carbon footprint and save money on their energy bill
- Commercial actors utilising data to help customers is not defined by geography, but by the service they provide
- To enable these services we need to:
 - 1: Reduce transaction costs and
 - 2: Enable large amounts of transactions

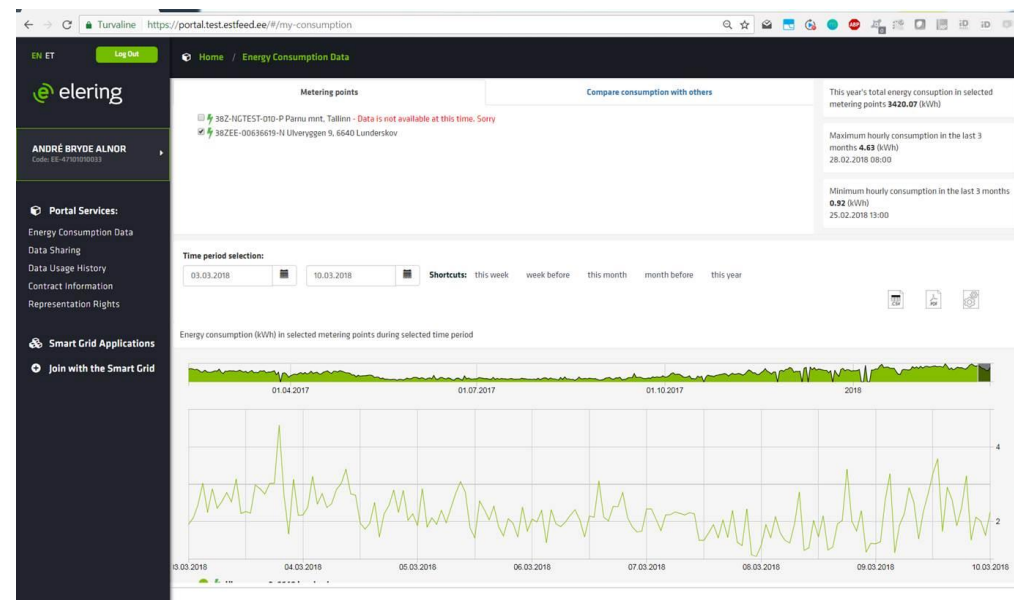
This is why we collaborate on cross border data access, delegation and identity management in a European rather than national context enabling access to 415 million citizens rather than 7 million.

WE BUILD A PROTO TYPE BASED ON SOVRIN AND OAUTH2.0

Estonian data in a Danish application



Danish data in an Estonian application



IT WORKS! ALMOST!

What worked:

- We designed a cross border architecture based based on the distributed ledger, Sovrin to enable identification and used OAuth2.0 for data exchange.
- We built a prototype, proving the design

What needs doing:

- Sovrin setup could work, but need further development to support continuous data delegation
- Trust framework and data exchange between platforms
- Support from other TSO's and DSO's to open access to data across borders

WHAT WE ARE TRYING TO ACHIEVE

The case in a customer perspective



WHAT WE ARE TRYING TO ACHIEVE

An enterprise architecture is too cumbersome. Hence we are looking for a distributed ledger approach. Sovrin almost covers the full process, but has its limits

Piggybacked Authz(user) Proof?

