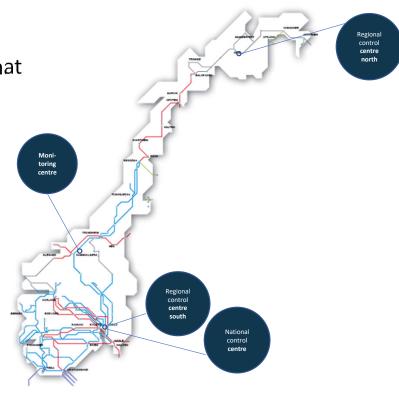


15 November 2023, H2 Value Chain Conference, Halvor Lie, Customer and Grid connection

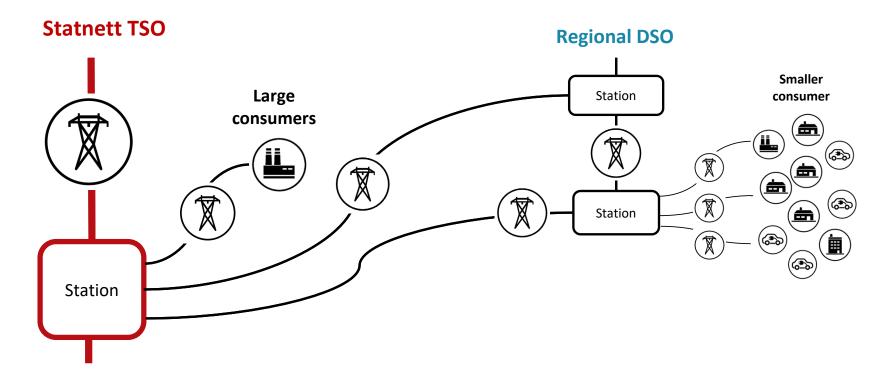
Statnett

• The **one** transmission system operator (TSO) in Norway that operates:

- **11,500** km of high-voltage power lines
- 2,500 km of subsea and land cables
- **170** substations
- National and Regional Control Centres with continuously monitoring to ensure stable power supply
- Responsible for interconnectors to Germany, United Kingdom, Denmark, Sweden, Finland, Denmark and the Netherlands

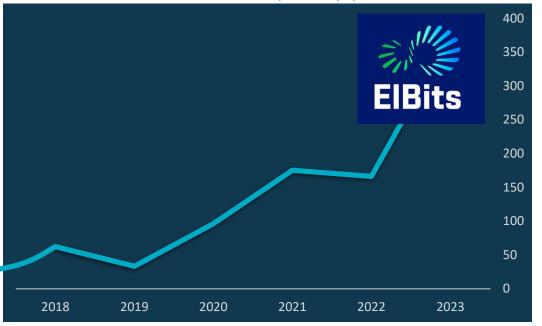


Grid structure in Norway – all marked players connected



Dramatic increase in demand

INQUIRIES received year by year*

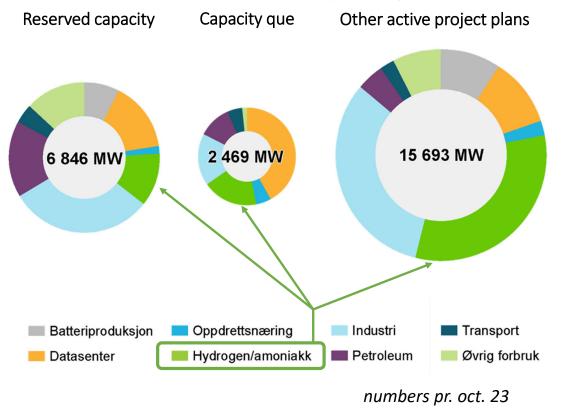


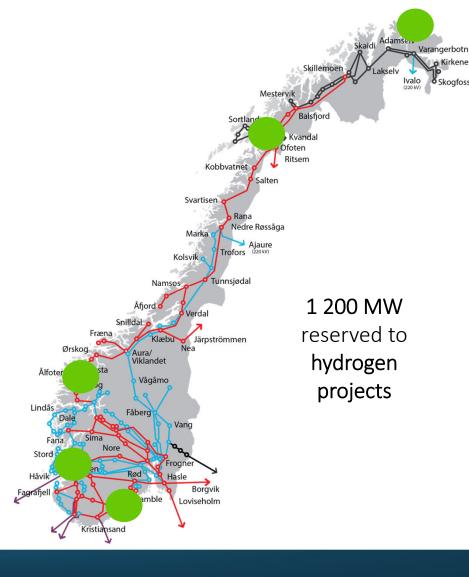


Statnett

Det **grønne** taktskiftet

Capacity to the hydrogen industry

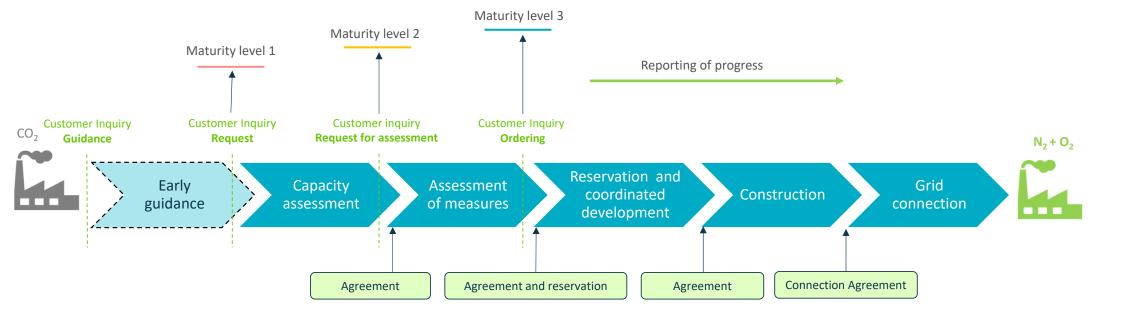




Statnett

Det **grønne** taktskiftet

The Grid Connection Process



Details available at Statnett.no: Tilgang til strømnettet | Statnett

Increasing requirements for maturity towards reservation

Maturity level 2

<u>Power requirement</u> and <u>location</u> must be reasonably clarified

Customer can be a facilitator

Sketching drawings and plan of the facility

The plan for the project is available at a general level with annual milestones

Overview of significant government permits and agreements

Maturity level 3

<u>Fixed end customer</u>, counterpart in the connection agreement

Description of the purpose with documented need for capacity

Detailed **drawings** and **effect requirements** for the project

Overview and status of **significant government permits** and **agreements**

Project plan with annual milestones

Basic funding and financing plan available

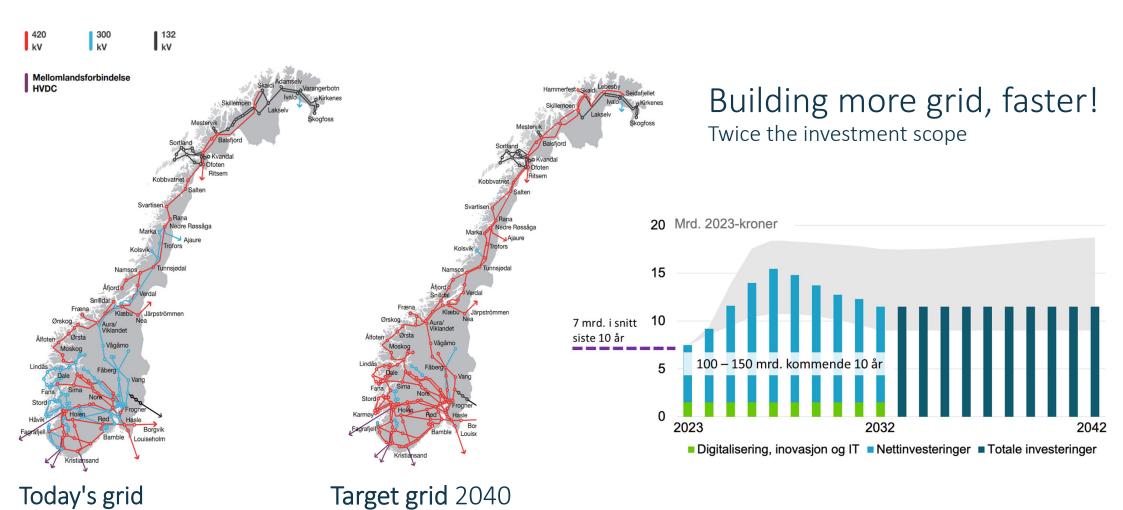
Capacity is to be **used within 10 years** from the reservation being given

Reporting of progress

Progress as planned

Maturity level 1

<u>Power requirement</u> and <u>location</u> must be reasonably clarified



Statnett Det grønne taktskiftet



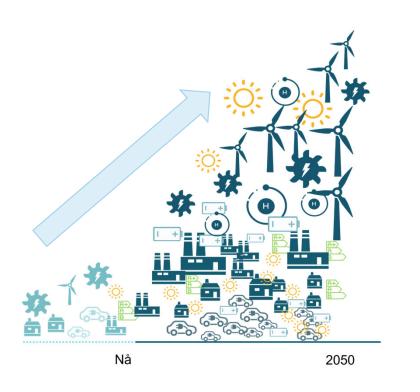
We will do our part of the job

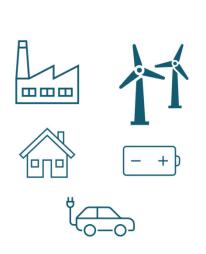
- Mer nett raskere
- 2. Økt kapasitet til kundene
- 3. Høyere utnyttelse av dagens kraftsystem
- 4. Automatisert systemdrift
- 5. Stabilitet i et kraftsystem i endring
- 6. Tilrettelegging for havvind

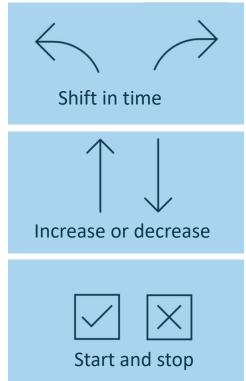
Everyone must contribute

- 7. Myndighetene må gi tydelig retning og gode rammer
- 8. Norge trenger mer kraftproduksjon
- 9. Mer av forbruket må bli fleksibelt
- 10.Kraftmarkedet gir viktige signaler

The need for flexibility and flexible market players is increasing

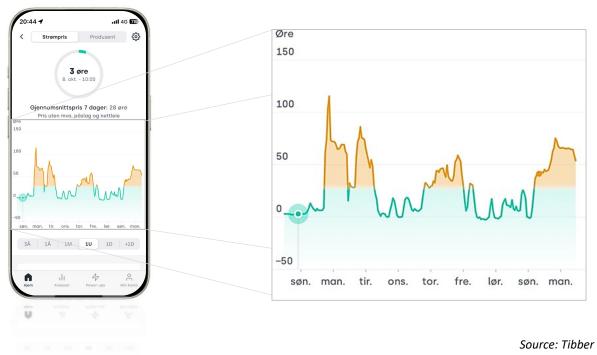








The power market is giving important signals





Thank you

- Reservation to projects **first in line** with **sufficiently matured project**.
- Uphold of reservation requires **progress**
- Understand the power situation and build in as much **flexibility** as possible into the design of your industry plant

Statnett

MENY =

SISTE NYTT ♦

For aktører i kraftbransjen / Nettkapasitet til produksjon og forbruk

How to connect to the powergrid



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Det grønne taktskiftet