

Agenda

Session I

- Background
 - The Swedish electricity system – production and use
 - Policy targets
- Challenges to achieve a 100% renewable power system in 2040

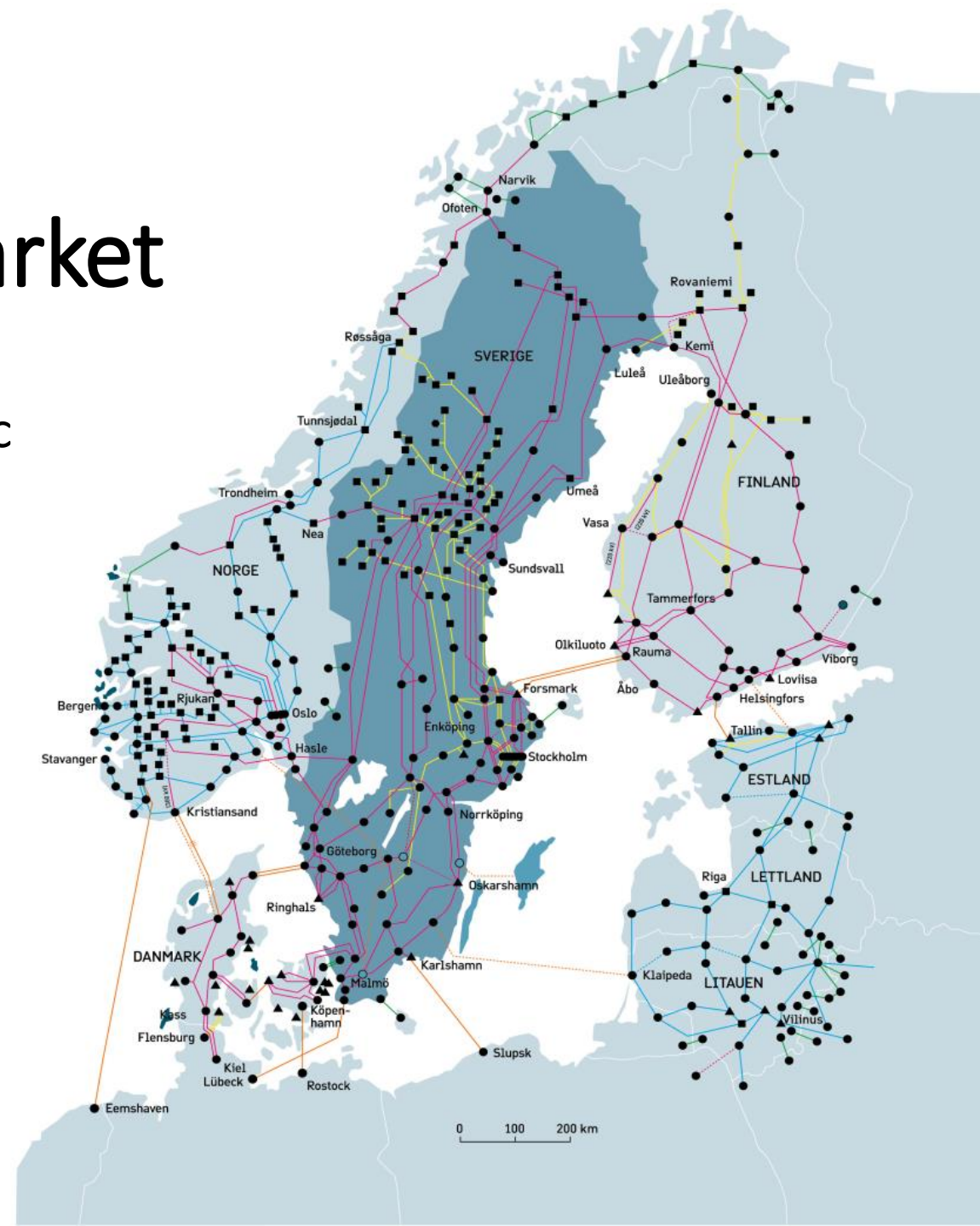
Session III

- How did we get here? - Showcase of experiences
 - Liberalised Energy Only Market
 - Carbon Tax
 - Electricity Certificates

Liberalised Energy Only Market

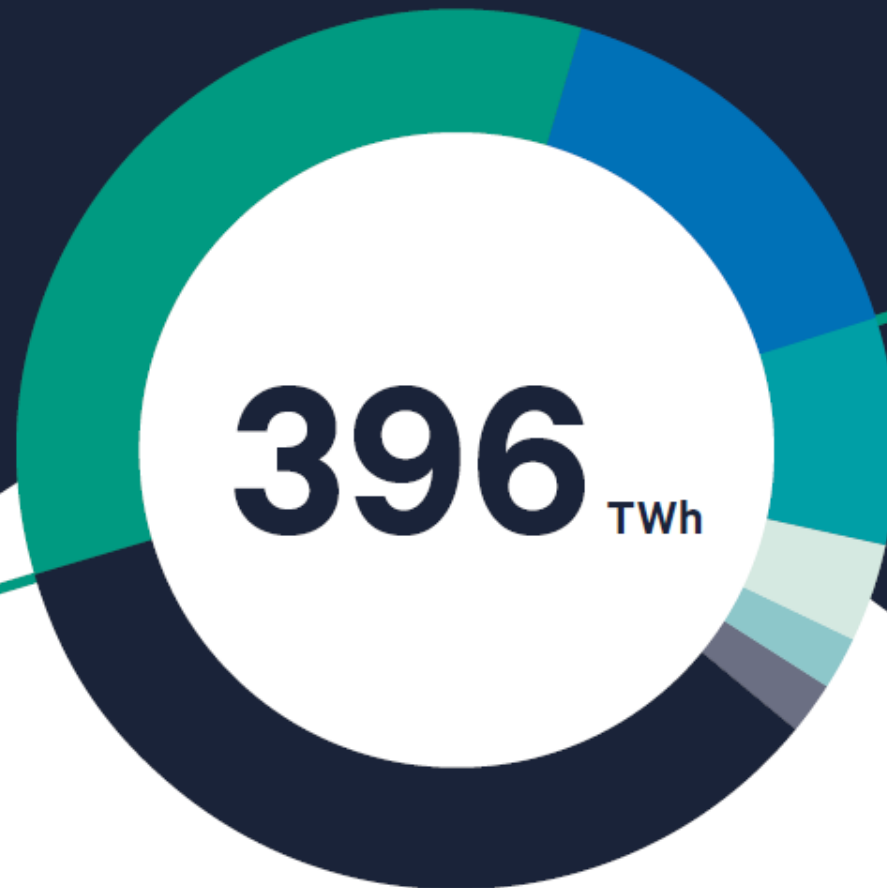
- Common power market with Nordic and Baltic countries - run by *Nord Pool*
- Day-ahead market
- Intraday market

This type of market can be a **key enabler** to increase the share of renewable energy



Nordic / Baltic day-ahead volume turnover 2018

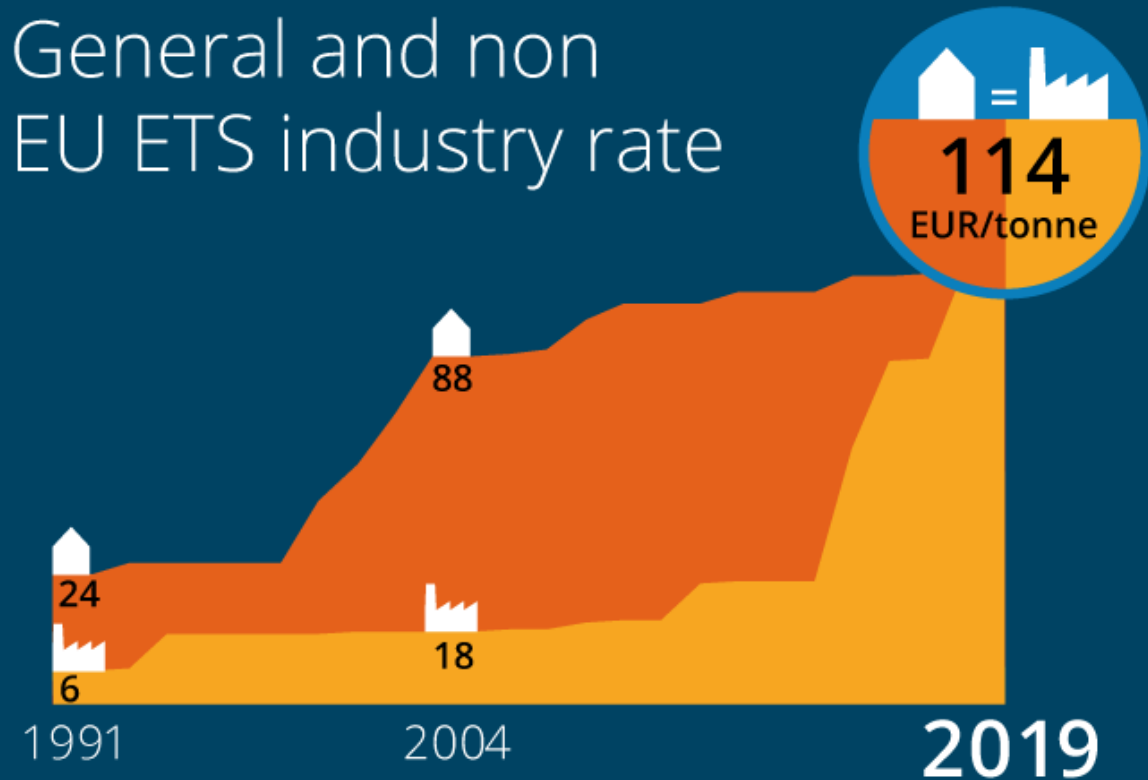
(per country in TWh)



Carbon Tax in Sweden

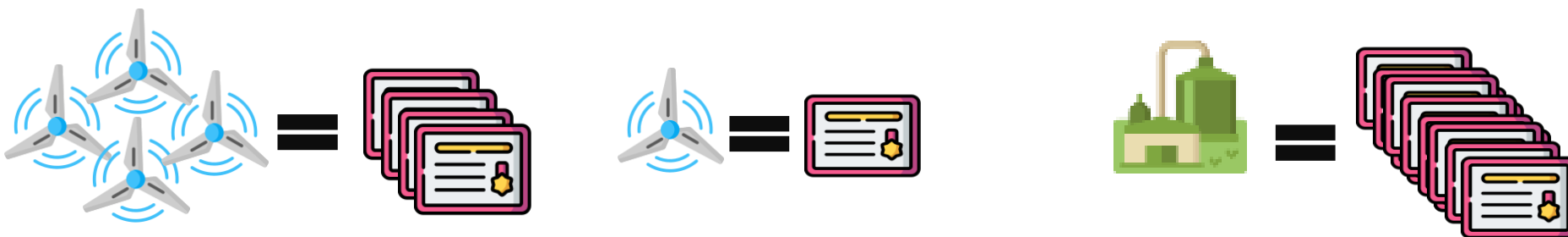
- Instituted in 1991
- Levied in proportion to their carbon content
- Provides Incentives to:
 - reduce energy consumption
 - improve energy efficiency
 - increase the use of renewable energy

General and non
EU ETS industry rate



Electricity Certificates

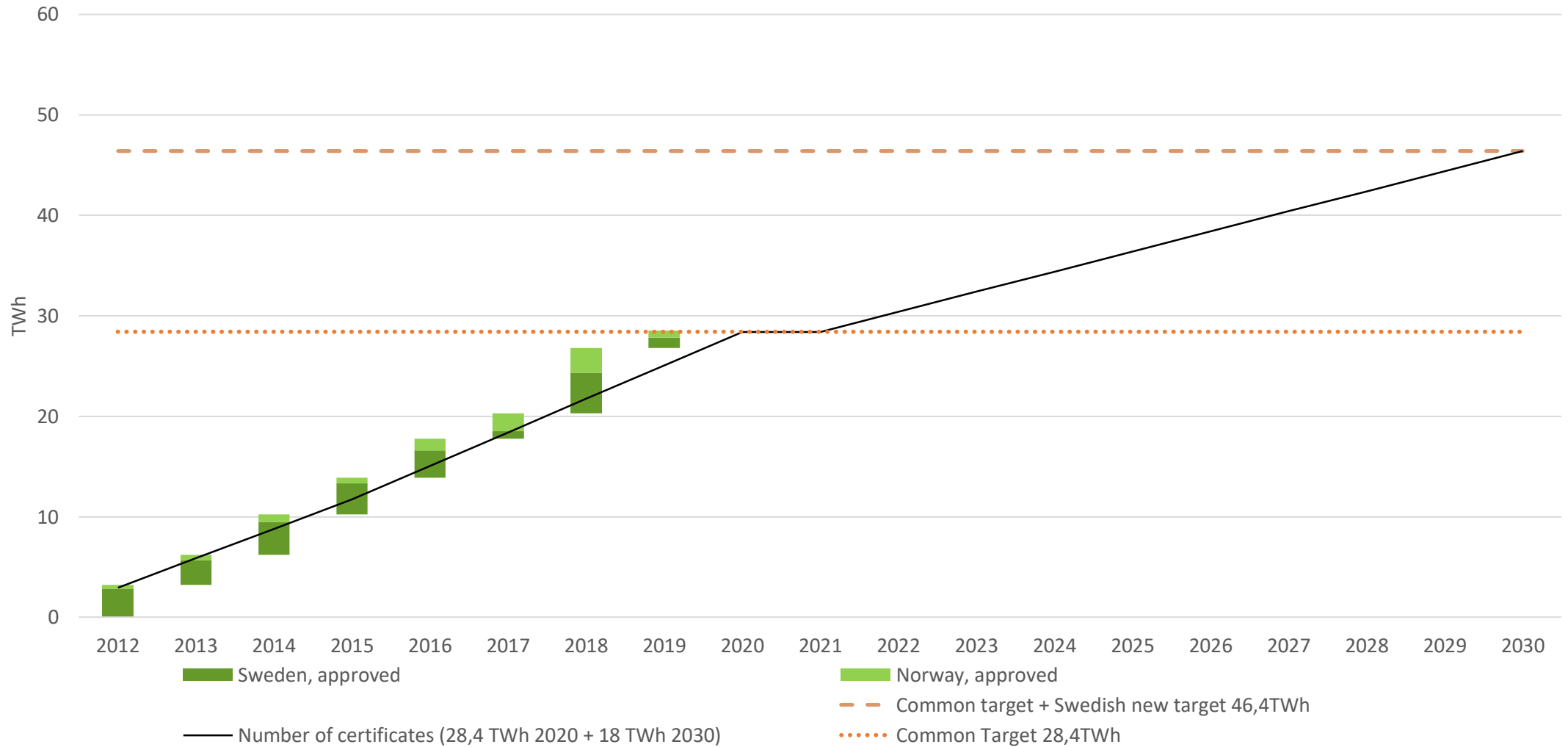
- A market based support scheme for renewable electricity
- Entitled production receives one certificate per MWh (all new units producing renewable electricity, except large-scale hydro power)
- Demand is created by a quota obligation
- Certificates are traded on the market
- Cost of certificates is passed on to end consumers



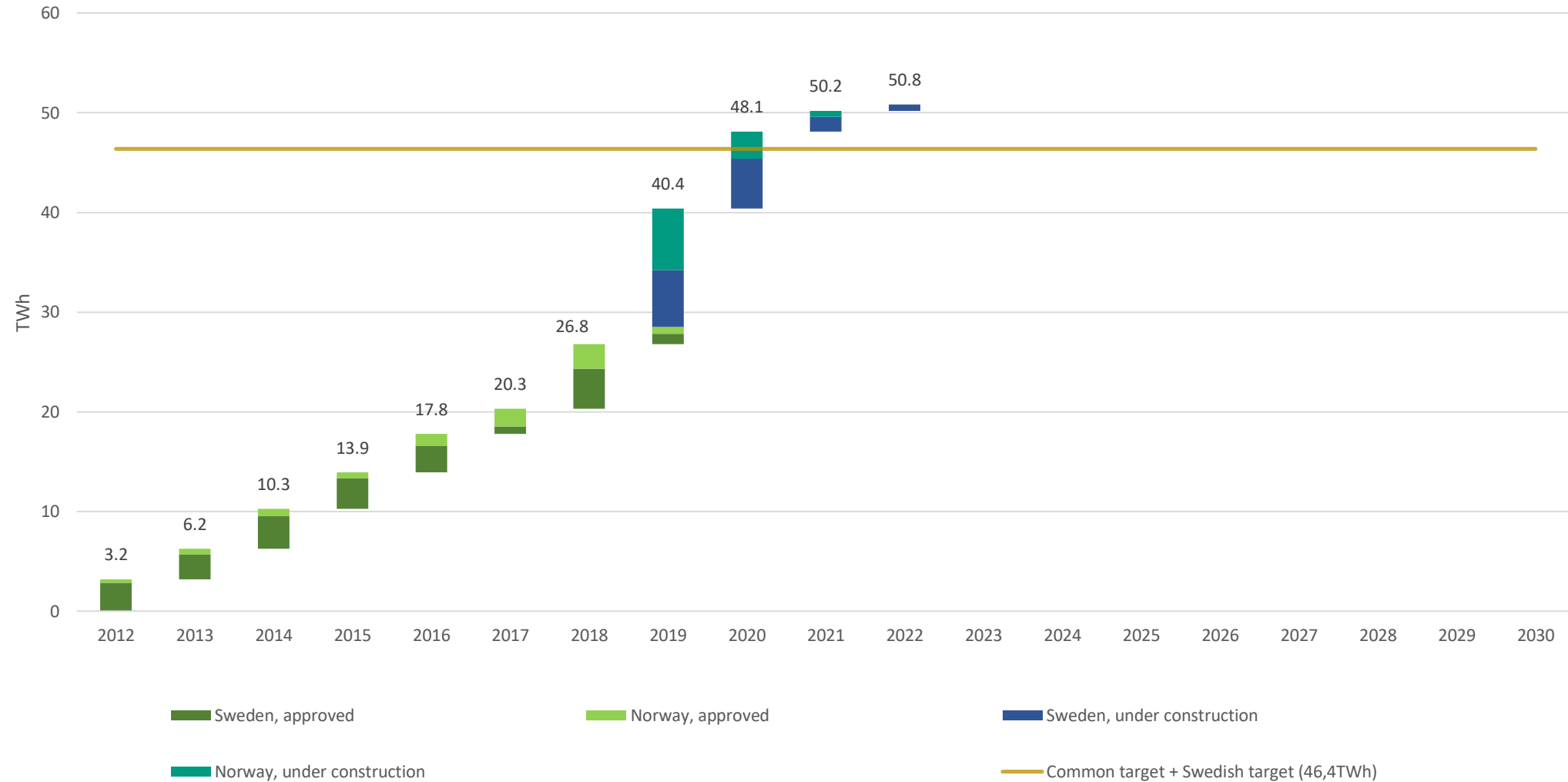
Electricity Certificates

- Started in 2003, common system with Norway since 2012
 - Common target of 28,4 TWh to 2020
 - Another 18 TWh to 2030, set as a Swedish target

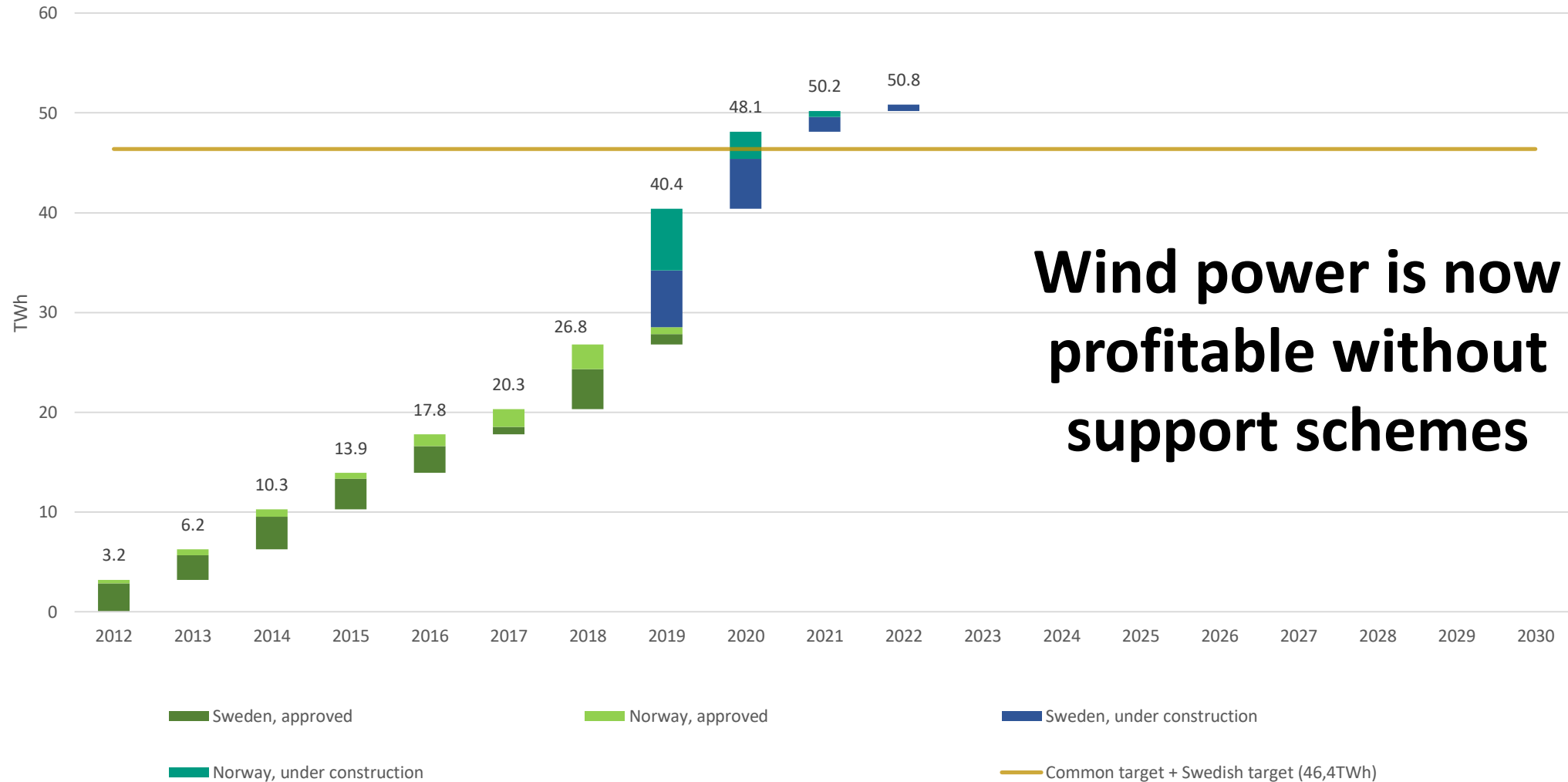
Target for 2020 is reached



Prognosis: Target for 2030 will be reached in 2020-2021

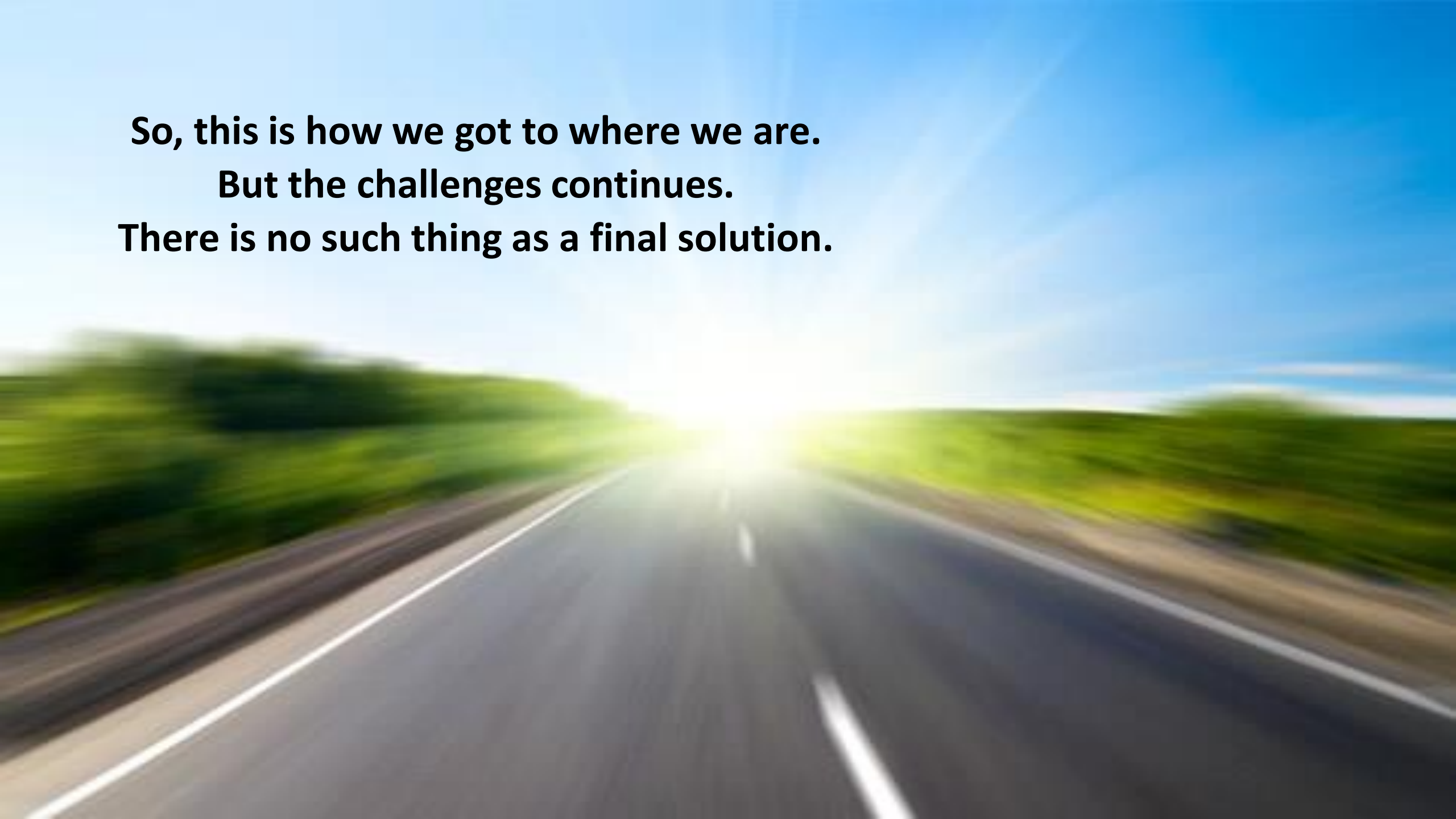


Prognosis: Target for 2030 will be reached in 2020-2021



Wind power is now profitable without support schemes

**So, this is how we got to where we are.
But the challenges continues.
There is no such thing as a final solution.**



Thank you for your attention!

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