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# Electric Vehicles

## Policies and Status in Denmark

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DANSK  
ELBIL ALLIANCE

# Agenda

- Who is DEA
- Danish Energy Policy
- Danish policy for electric cars
- Status of electric cars
- Infrastructure Status
- Status of projects



# DANISH EV ALLIANCE

- ❑ Danish EV Alliance is a trade association
- ❑ We connect the whole value chain from energy companies to the automobile industry
- ❑ The aim is to create the best framework conditions for electric and plug-in hybrid vehicles as the future transport solution
- ❑ The goal is to reach 10 pct. of new sale in 2020, and ½ - 1 mio electric cars in 2030

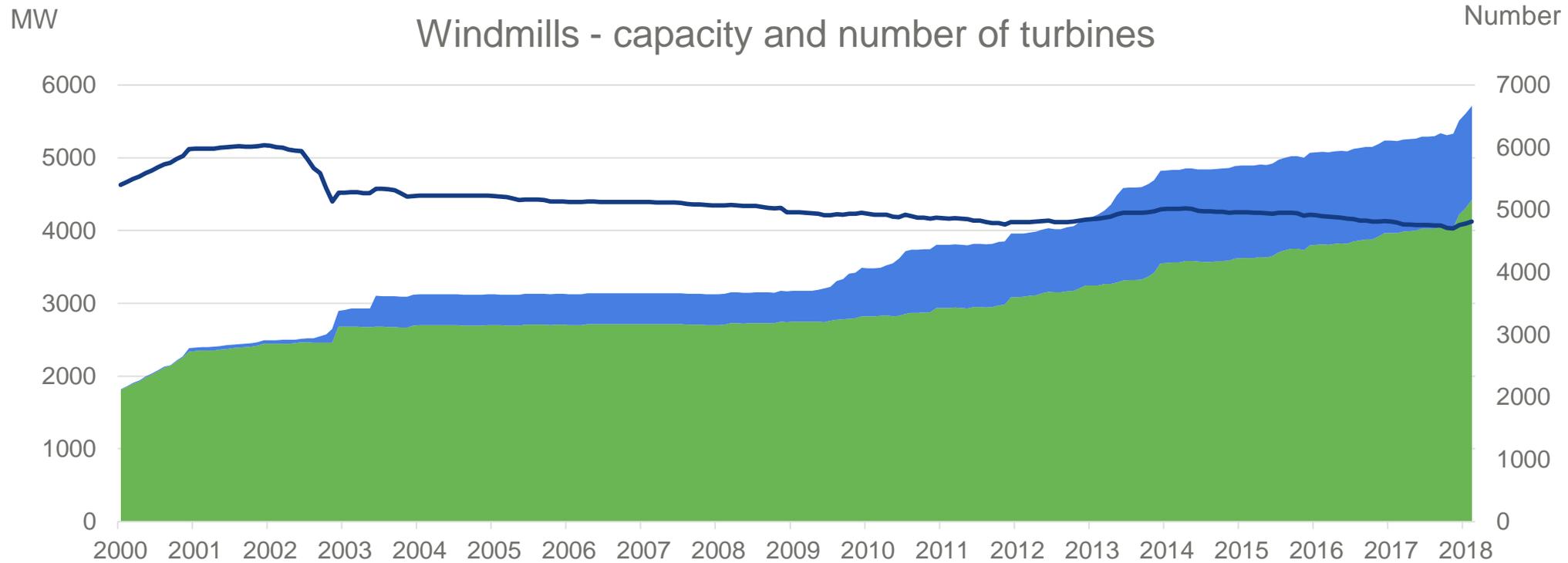


# Danish Energy policy



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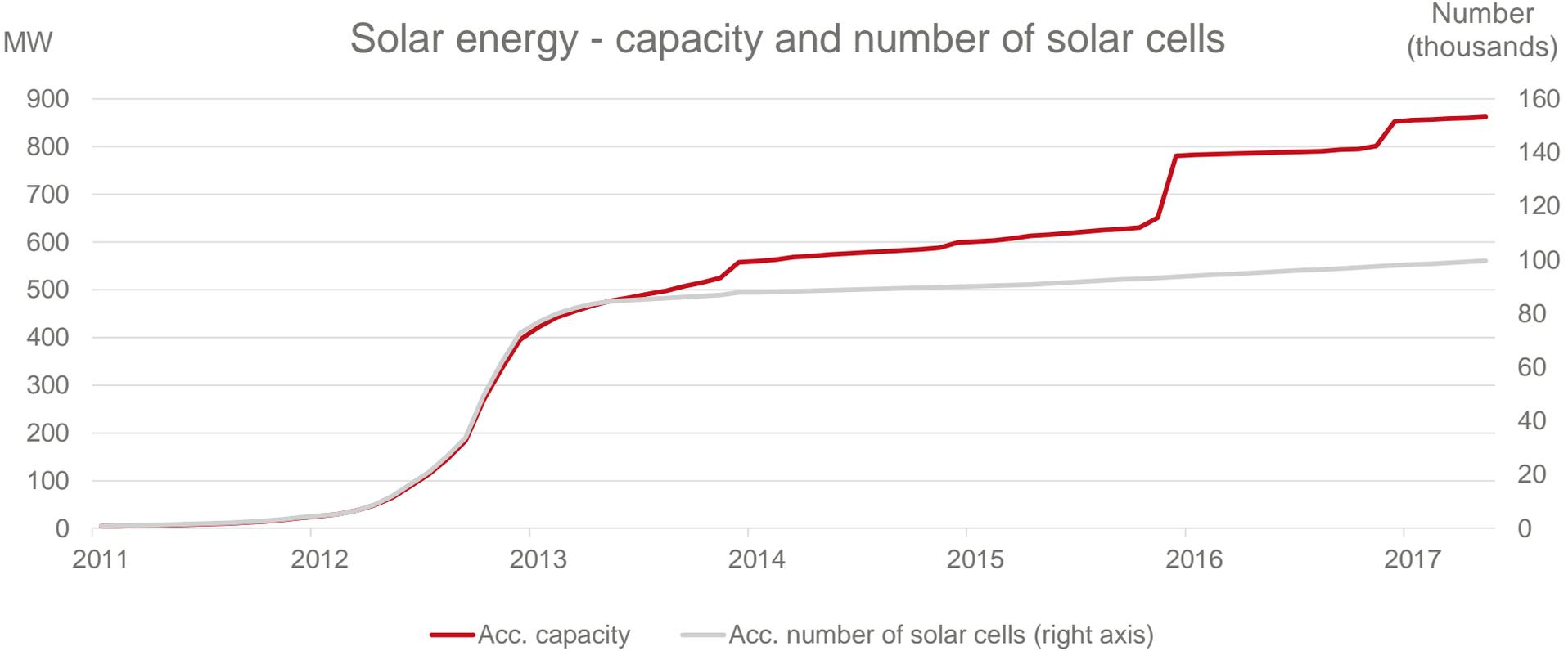
# Windenergy in Denmark



Source: Danish Energy Agency

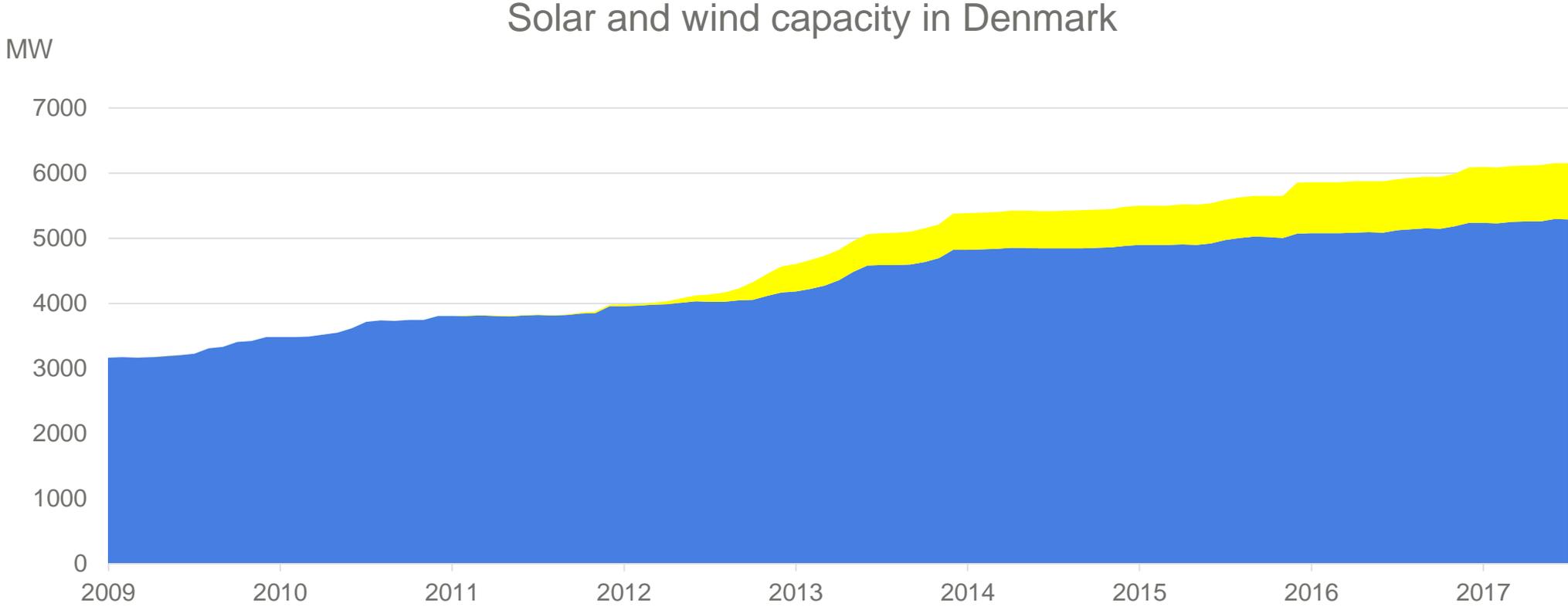
Onshore Offshore Number of turbines

# Solar energy in Denmark



Source: Danish Energy Agency

# Solar and wind capacity in Denmark

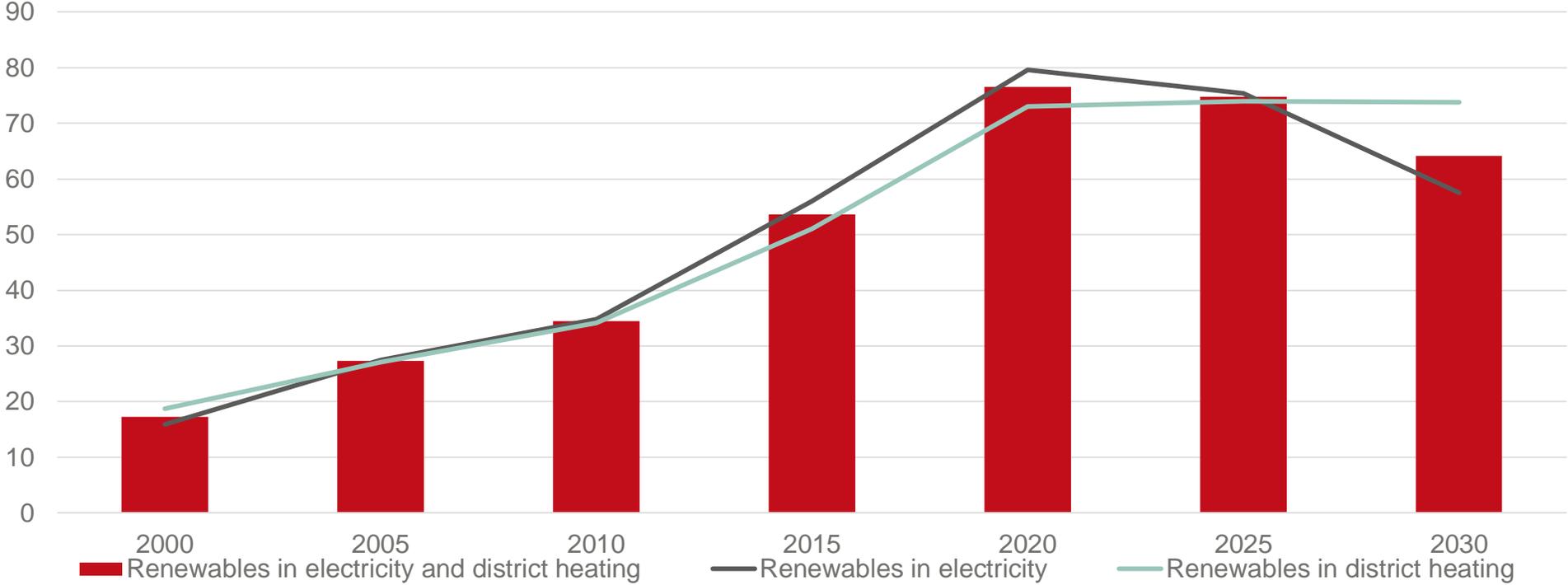


Source: Danish Energy Agency

■ Wind ■ Solar

# Share of renewable in consumption

Share of renewables in consumption of electricity and district heating



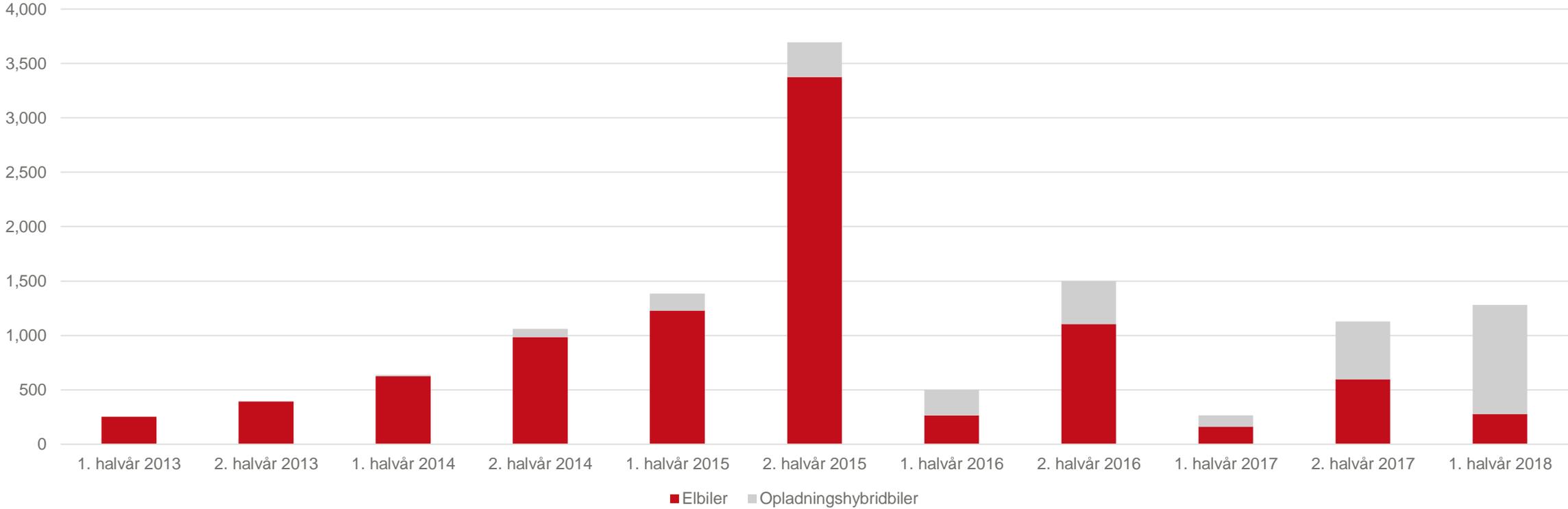
Source: Danish Energy Agency

# New Danish energy agreement in 2018 must provide at least three goals

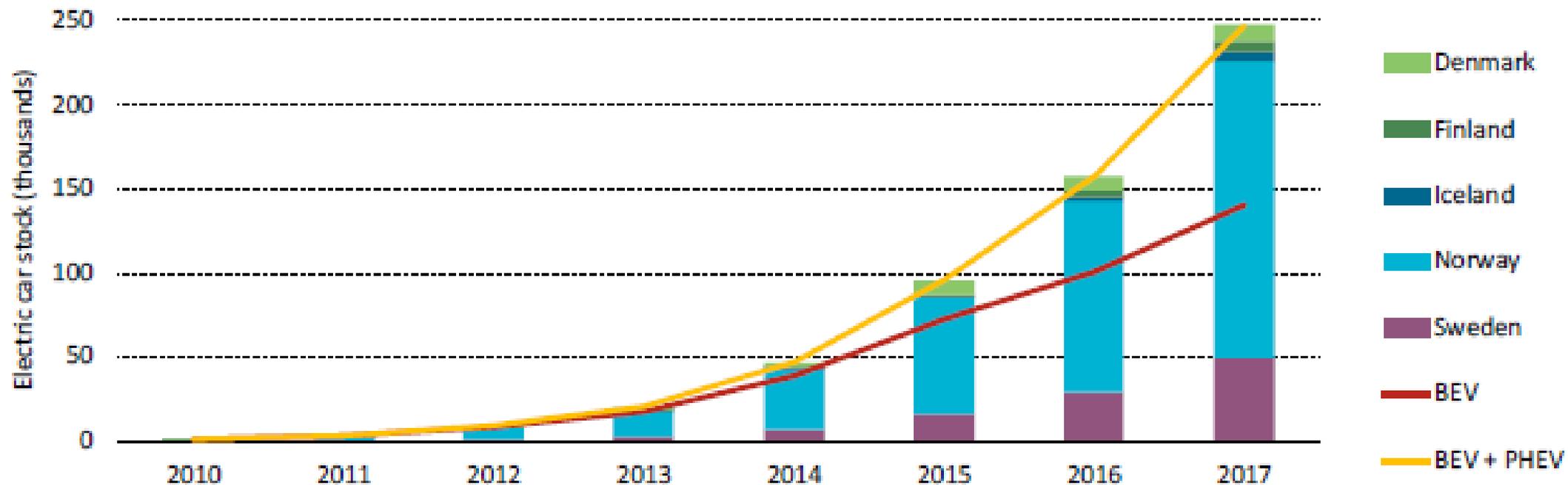
□ The energy agreement must meet three goals:

1. Government's goal that at least 50% of Denmark's total energy consumption comes from renewable energy in 2030.
2. The EU requirement that Denmark should reduce its greenhouse gas emissions by 39% in sectors not covered by the EU quota market in 2030 (ift. 2005), ie. in transport, agriculture and housing.
3. The EU's goal of annual efficiency of energy consumption, equivalent to 1.5% of total energy consumption.

# BEV market in Denmark



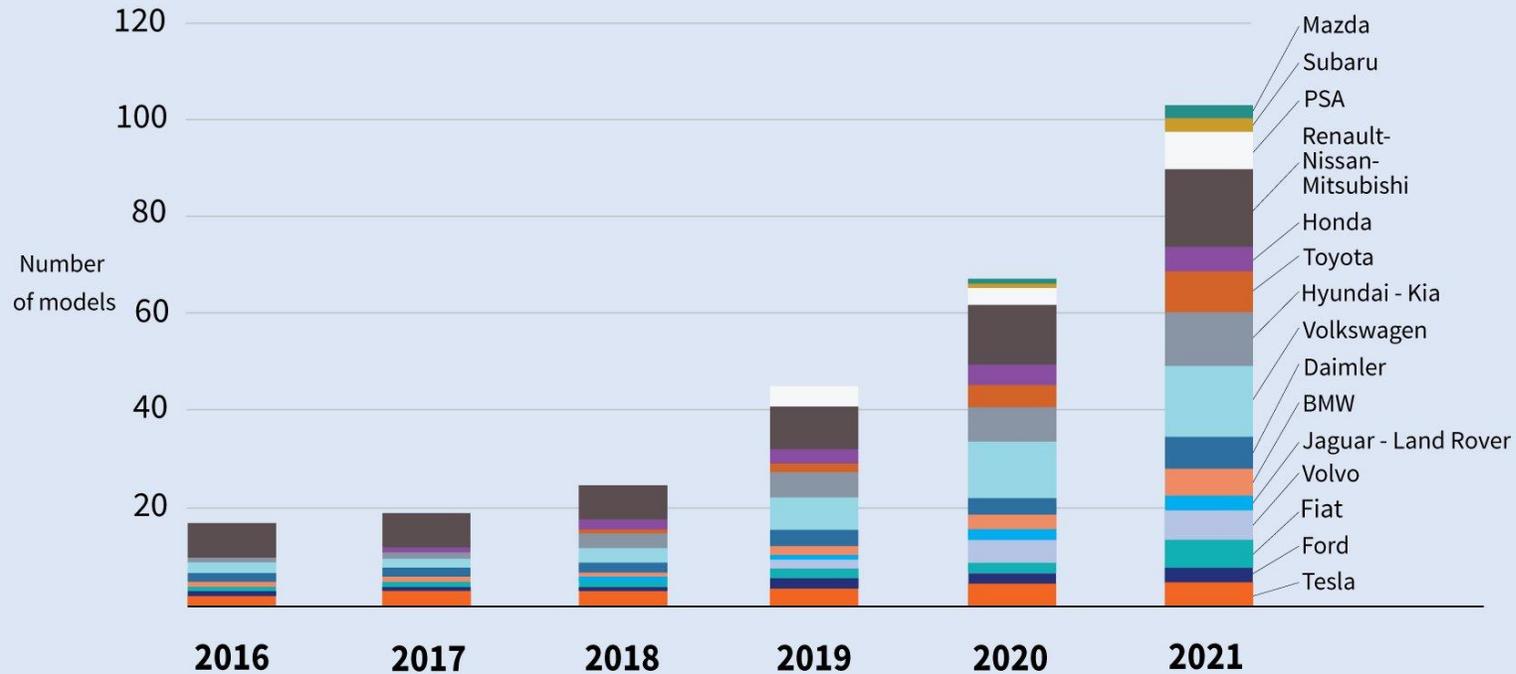
# Stock of electric cars and charging hybrid cars close to 250,000 in the north



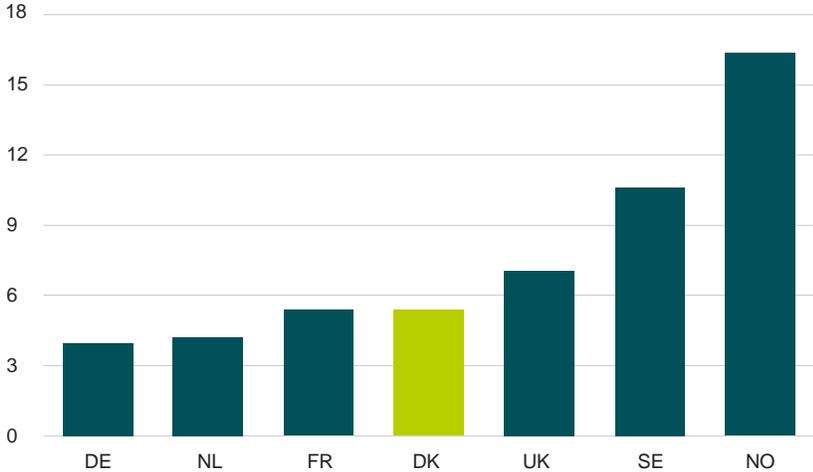
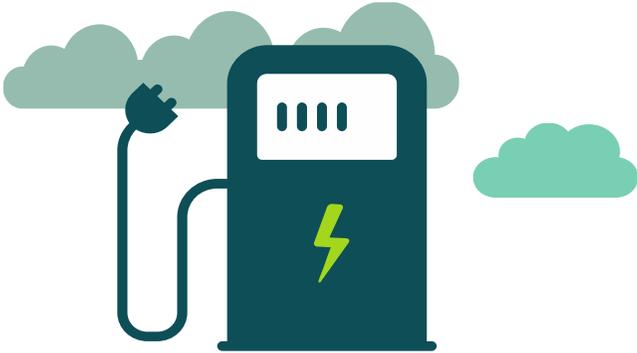
Kilde: IEA, Nordic EV Outlook 2018

# Rising range of car models

**Battery electric models on the market are expected to increase five-fold by 2021**



# Charging infrastructure



# **NEW political incentives on BEV on the way**



# BEV and the challenges for the grid



# New project on large scale electrical vehicle integration - ACES



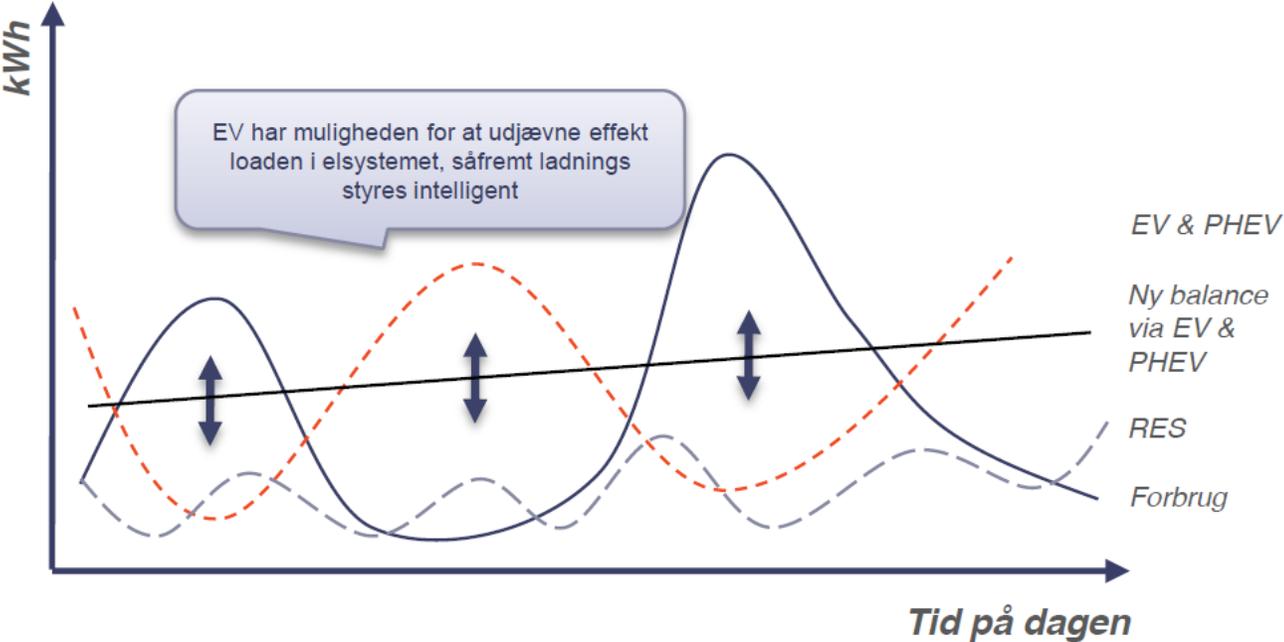
# PARKER project – V2G



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# Consumption curves by V-2-G

- Balancering af forbrug vha. EV & PHEV-



# GREAT project – large scale market for alternative fuels



**Thank you for  
your attention**

