

# Charging insights from the Norwegian EV market

Lars **Lund** Godbolt Special Advisor Norwegian EV Association





### Norwegian EV Association

- Non-profit NGO
- Over 120,000 members (EV drivers)
- 50 employees

Our goal: Electrify transport as fast as possible!



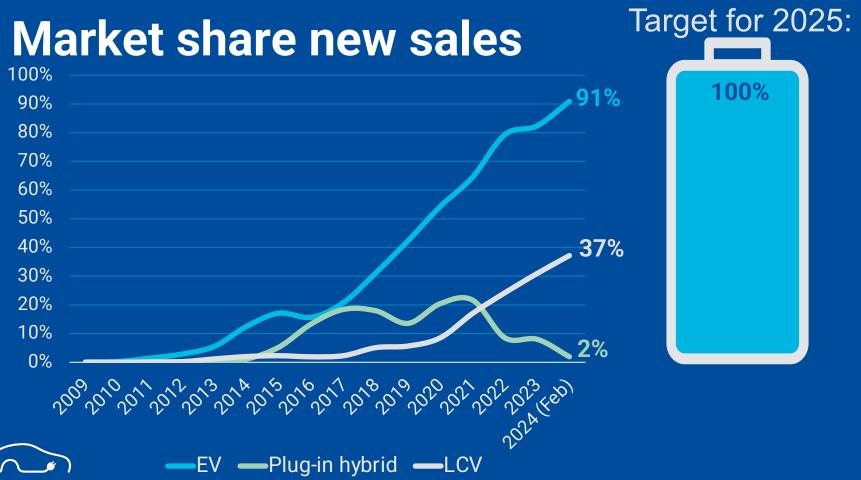




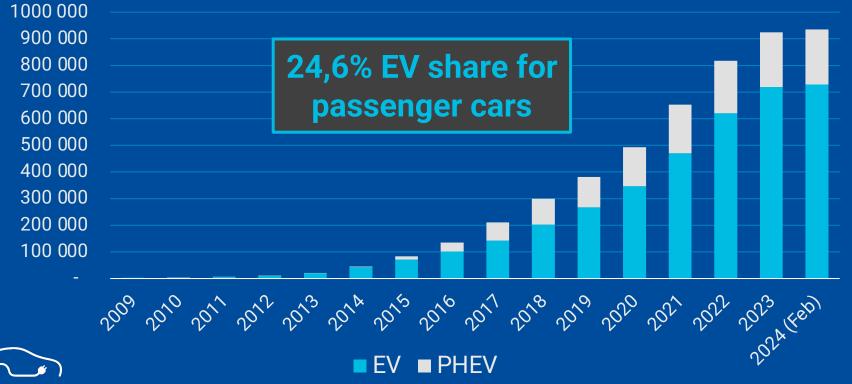
#### Agenda

- Norway's EV status and development
- Charging and challenges
- Looking ahead
- Questions

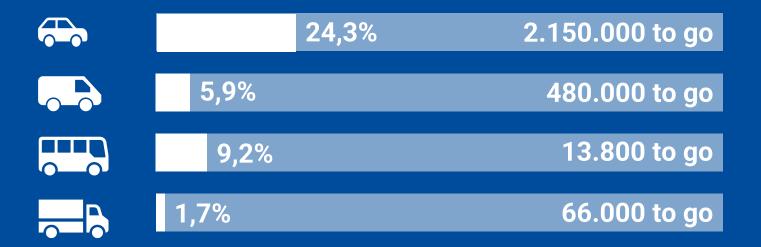




### 730 000 EVs in Norway (+205.000 PHEVs)



### Are we there yet?





Source: OFV, January 2024

### HDV

- 1059 vehicles
- 1,5% of all HDV
- 628 new in 2023
- 12% market share









<u>R</u> ...

PI



### 8000 fast chargers

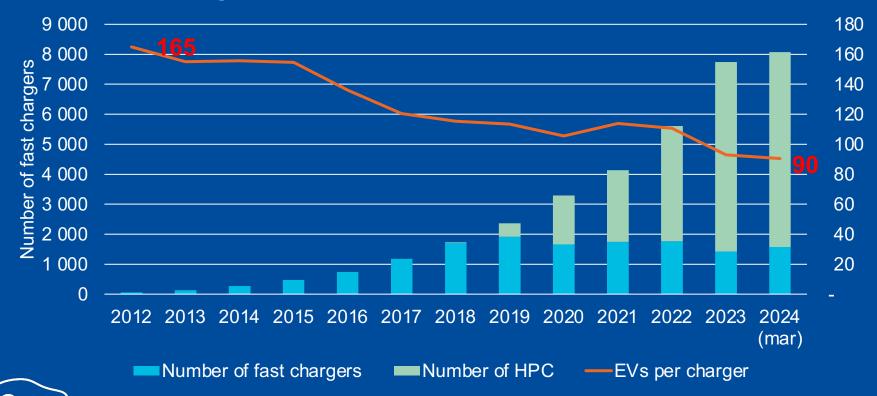
- 1500 new in 2022
- 2000 new 2023
- Estimate 2000 new this year





### **Fast chargers and EVs**

Norwegian EV Association



Source: OFV, Nobil and Norwegian EV Association

## **Initial network**

#### 2011-2014

- About 5 million euro public financial support
- Up to 100 % of installation cost
- No support for use or maintenance

#### Location

- Mainly decided by the private market
- Some areas were prioritized





### 2015: A national plan

- Public tenders for initial network
- Fast charging stations every 50 km on all main roads (7 500 km)
- Small stations (50 kW\*2+AC)
- Mostly finished by end of 2017

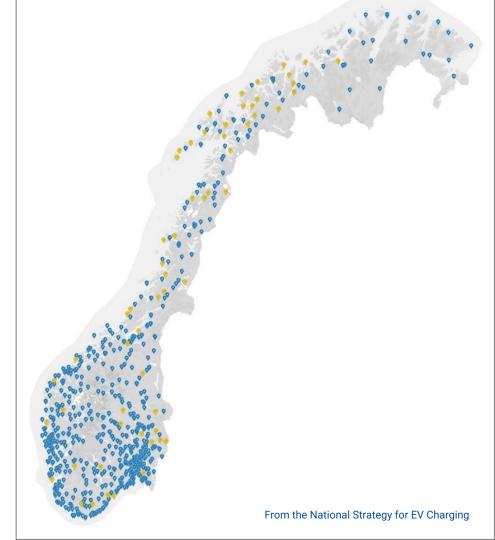




**Further support** 

• Finnmark i 2020

• Rural areas 2022





- In total about 35 million Euros
- Estimate : around 5 % of fast chargers
- E.g mainly private sector







### Still need more

- With expected EV growth we need
  9000 fast chargers
  by end of 2025
- And 10-14 000 by 2030





### Charging for HDV

- Target for new sales: 100 % in 2030
- 1500-2500 HPCs before 2030
- Today we only have a handful of stations..





# Let's do it again..

- HDV charging:
- Support for both depot charging and public fast charging location (on predefined areas)





# **Other challenges**

- Charging too difficult
- Universal design
- Charging at home for everyone
- Grid connections
- Area





### Solved

- «Charging law» for apartment associations / condominiums
- New buildings must be «charging ready»
- ✓ Mandatory card payment

### **Partly solved**

- New standard on universal design (on it's way)
- (Minor) adjustments to grid regulation
- Area partly solved itself mainly due to economic interests





### Looking ahead





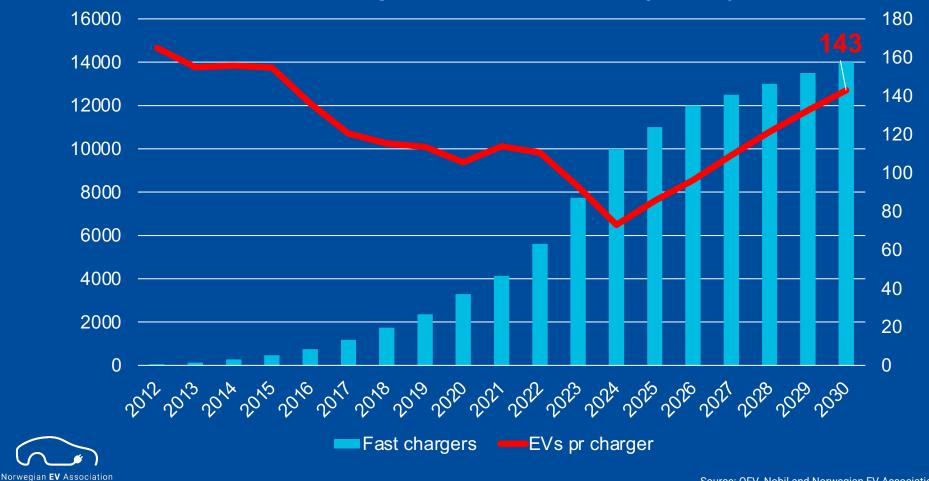
#### Cities..

- Charging on street level + Fast charging hubs
- Oslo municipality offers support for chargers for taxi, company cars and HDV





#### Fast chargers and EVs – projectory



Source: OFV, Nobil and Norwegian EV Association

### We expect more EVs pr charger due to..

- Larger batteries
- Higher charging speed
- Better user interface / payment methods
- Better hardware (less faulty)







### **Questions?**

#### lars@elbil.no



