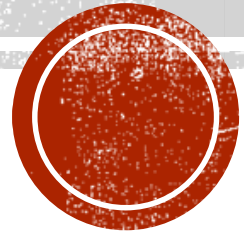
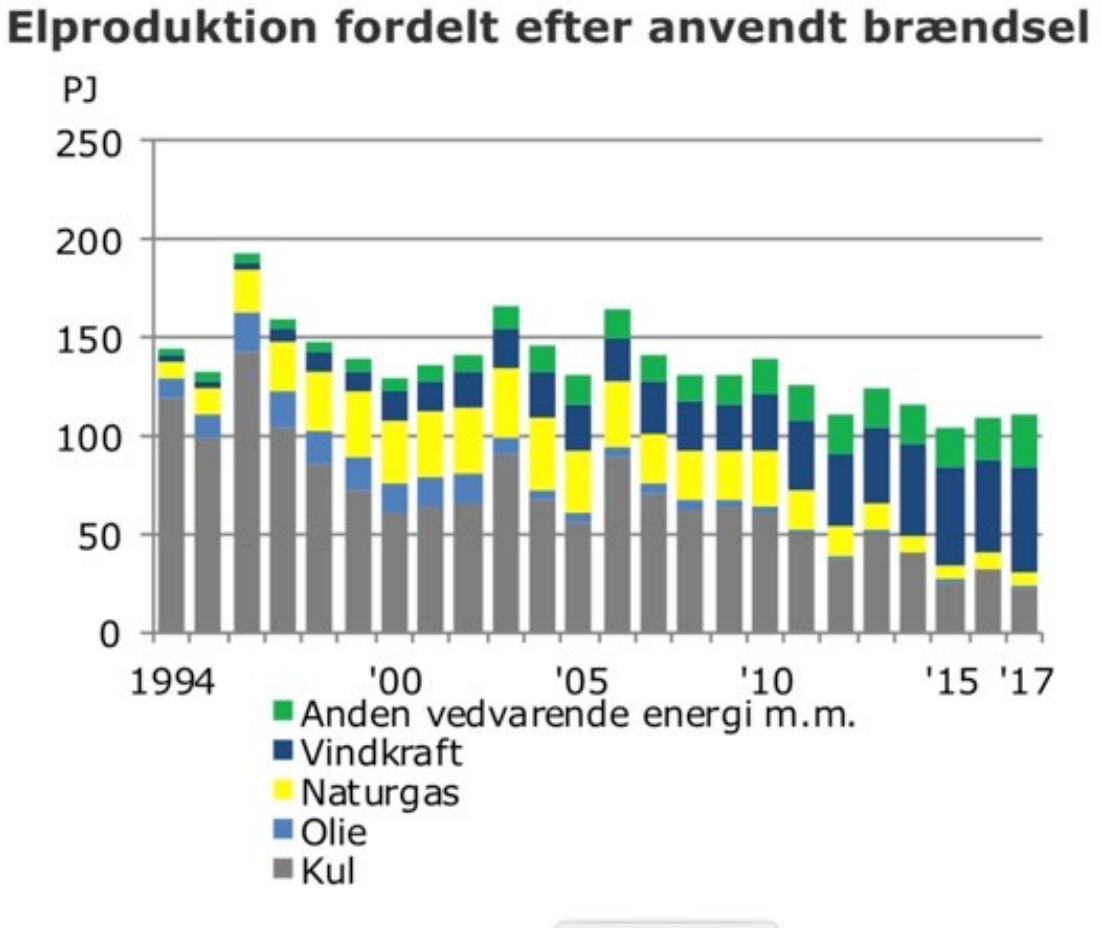
CHARGING INFRASTRUCTURE IN AARHUS



Susanne Krawack

IMPORTANT CONDITION FOR PROMOTING EV'S

- Renewabel Energy in power production
- Taxation of Electric Vehicles



CONSUMERS BARRIERS

- Uncertainty of value of EV's after 3-5 years
- Uncertainty of life time of battery
- Range
- Options for charging and charging time

ROLE OF ELECTRICITY PROVIDER

- Must meet the demand for electricity anywhere
- Should facilitate the supply of electricity to cars
- (the petrol companies do it for petrol and diesel)

- EVs buy electricity at a lower price (like industries)

FACTS ON CHARGING IN AARHUS

- There are 585 EV's in Arhus - 0,5% of car fleet
- The municipality has 9,5% EV's in their car fleet
- 3% of new cars are EV's in Denmark
- There are 120 parking lots with acces to charging
- Up until 2019: 33 parking lots were reserved for EVs – a new decision, june 2019 increased to 53 reserved for EVs
- Major challenge is conventional cars parking at the lots reserved for EVs
- In 2018, 680 fines were given to conventional cars

PROCEDURE FOR NEW CHARGING STATION

- If you parkat your home – you buy a separate charging station or use normal plugs
- If you live in the central areas with no ‘private’ parking:
  - You apply for a charging station
  - The municipality says YES and decide with the electricity provider, where to place it - close to your dwelling
  - One parking lot will be reserved for EV’s

BUSSES AND TRUCKS

- All busses will be electric by 2030
  - Charging stations is a heavy economic burdon on the budget for bustransport
  - A long introduction period is important to keep cost down

- City logistics, with last mile delivery on EV's has been evaluated:
  - The transport companies were reluctant
  - The political level would not put pressure on shops and hauliers

OPTIONS FOR FURTHER PROMOTING EVS

- From 2019 the cities can provide free parking for EVs
- In Aarhus Parking licences will be free og charge
  - (The price for an annual licence is 500 DKK)
- EV's in buslanes?
- Charging stations in future urban development
  - Strategic Energy planning with the electricity providers
  - Need for empty pipes in future parking areas

RECOMENDATIONS

- Consider how to reduce CO2 emissions from transport most efficiently (EV's or other technologies, pricing scheemes?)
- Start with initiatives which are the competence of the city
- Make a clear policy – consider to have an exit plan on initiatives