

# Danish experiences with public and local ownership of district heating companies

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Danish Energy Agency, 11 May 2018.

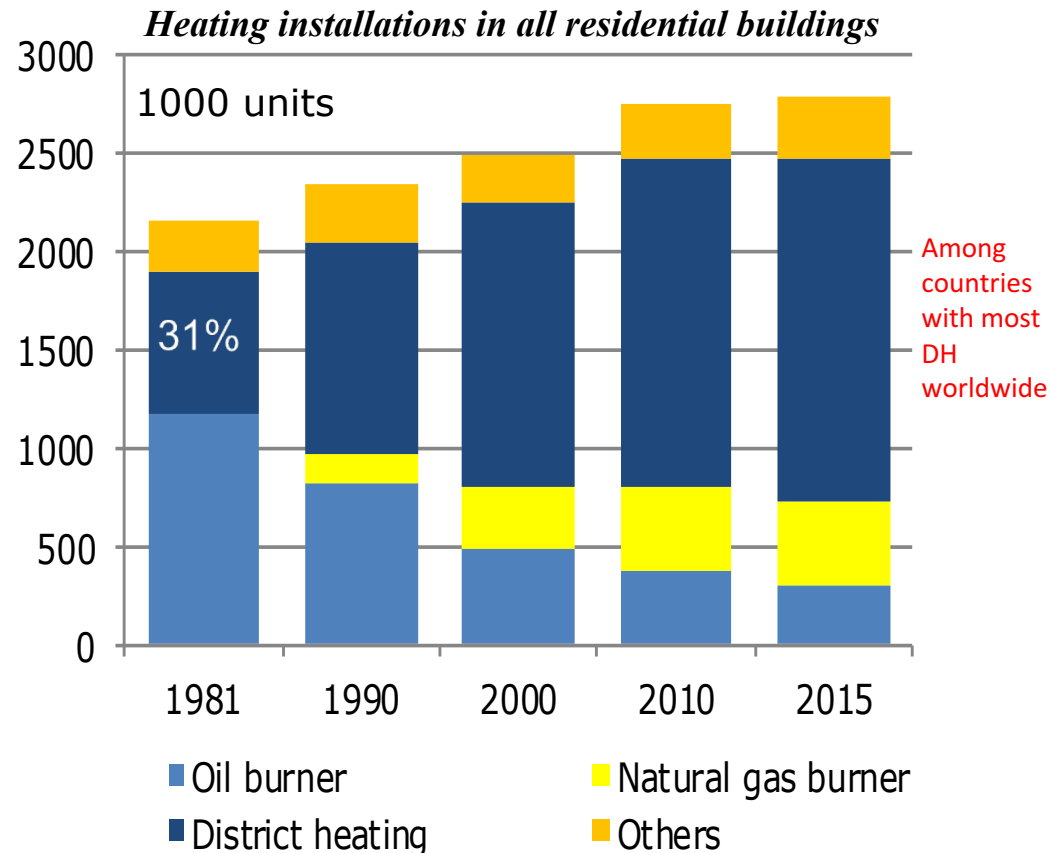
# Facts on Danish District Heating

- 5.6 million inhabitants
- 33,000 km. district heating pipes (trench) all over Denmark.
- 60% of all houses DH-heated
- Most industries receive DH for heating of buildings or as process heat. Also greenhouses if in close proximity to DH plants.
- District Heating = 17% of DK's final energy demand.

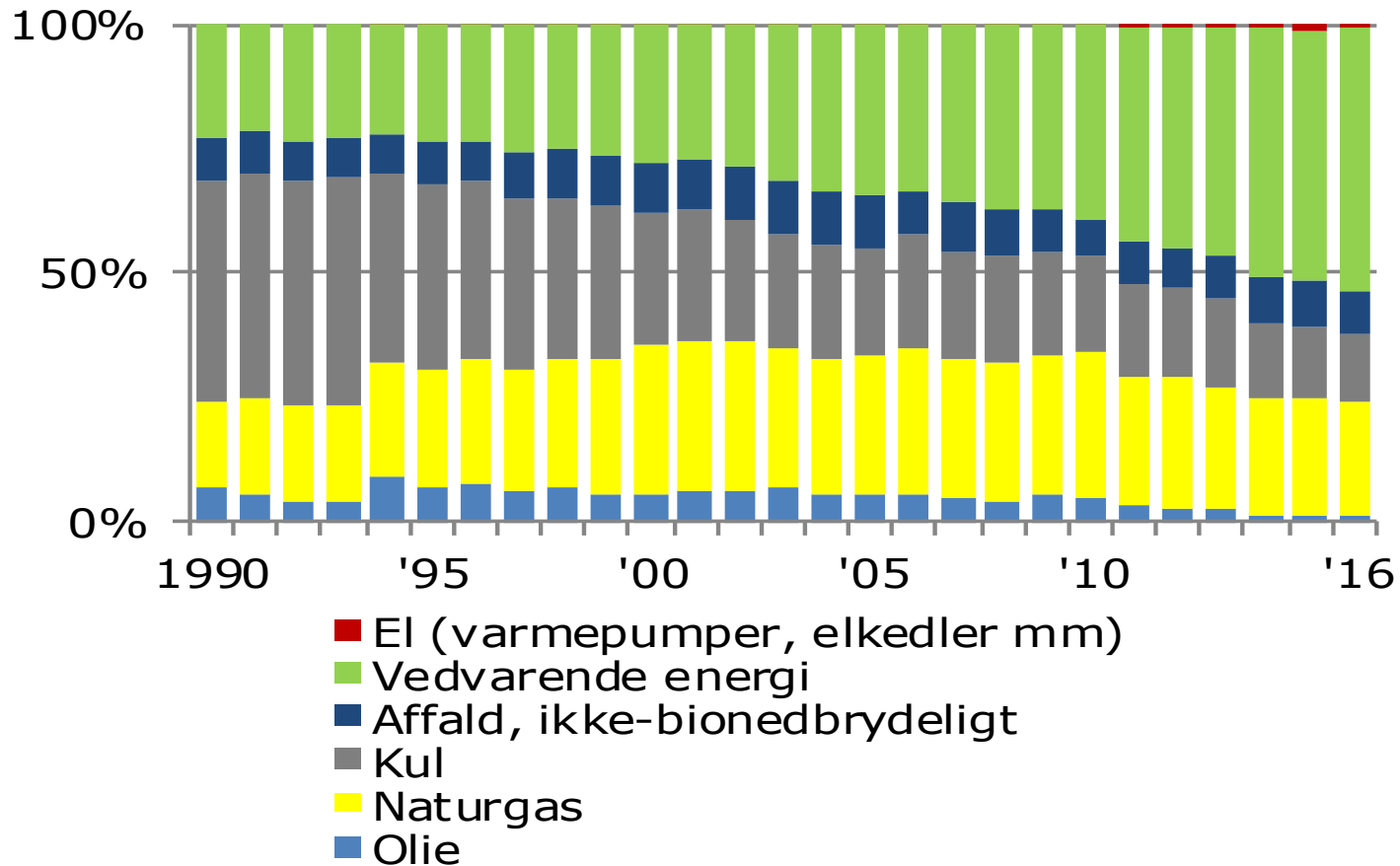


# Nationwide District Heating

- Till the 1980's most DH located around cities.
- In the 1980's-90's new DH established in rural towns. The share of DH doubled in 30 years.
- Low DH consumer prices: Averages 2.6% of a household income, incl. taxes and VAT.



# Fuel consumption DH



# DH ownership discourse

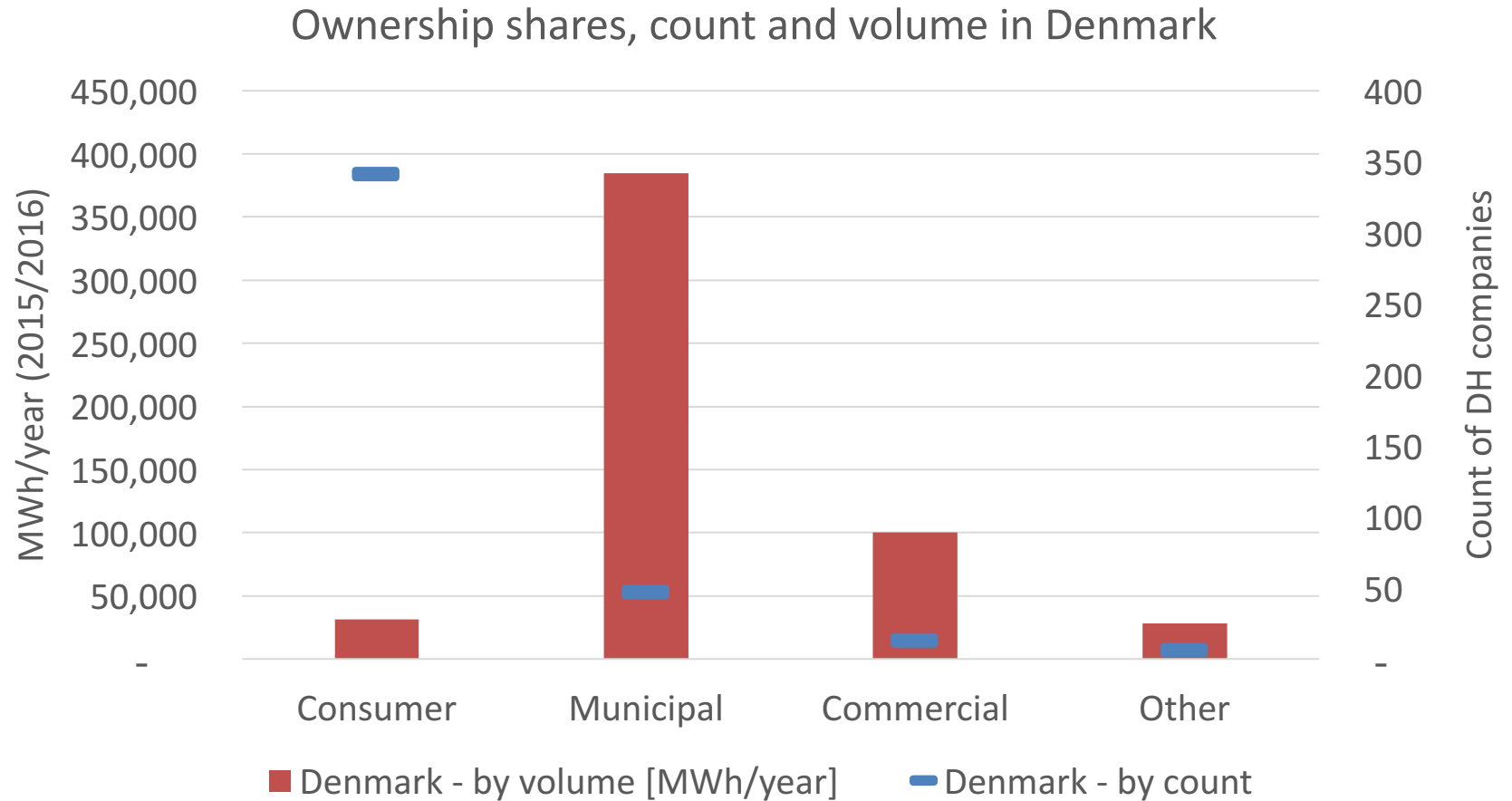
- Heating is a welfare right equal to clean water
- Public responsibility – Political control
- Public monopolies are often viewed as better than private monopolies



# DH ownership

- Municipally owned:
  - Before 2002: DH Integrated in municipalities
  - After 2002: new rules separated accounting between municipalities and DH companies. Most municipalities separated energy companies entirely but kept ownership
- Consumer owned companies
- Few commercial companies

# DH ownership

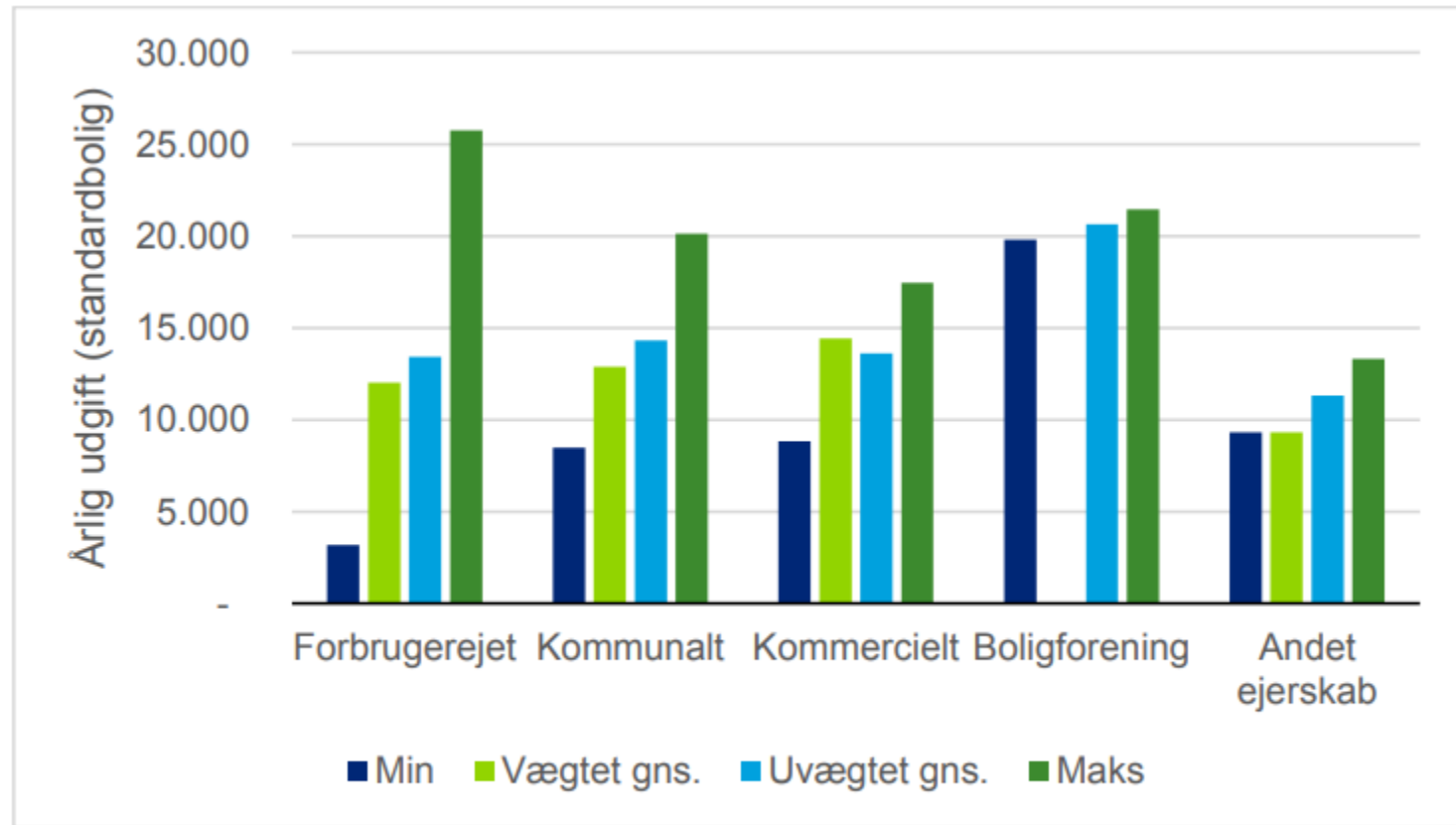


# Current regulation – principals derived from municipal ownership

- Same regulation for all types of ownership:
  - Cheap loans
  - Socio-economic viable investments
  - Transparent pricing
  - Possible compulsory connection
  - Only necessary costs are allowed + certain profit allowed by regulator

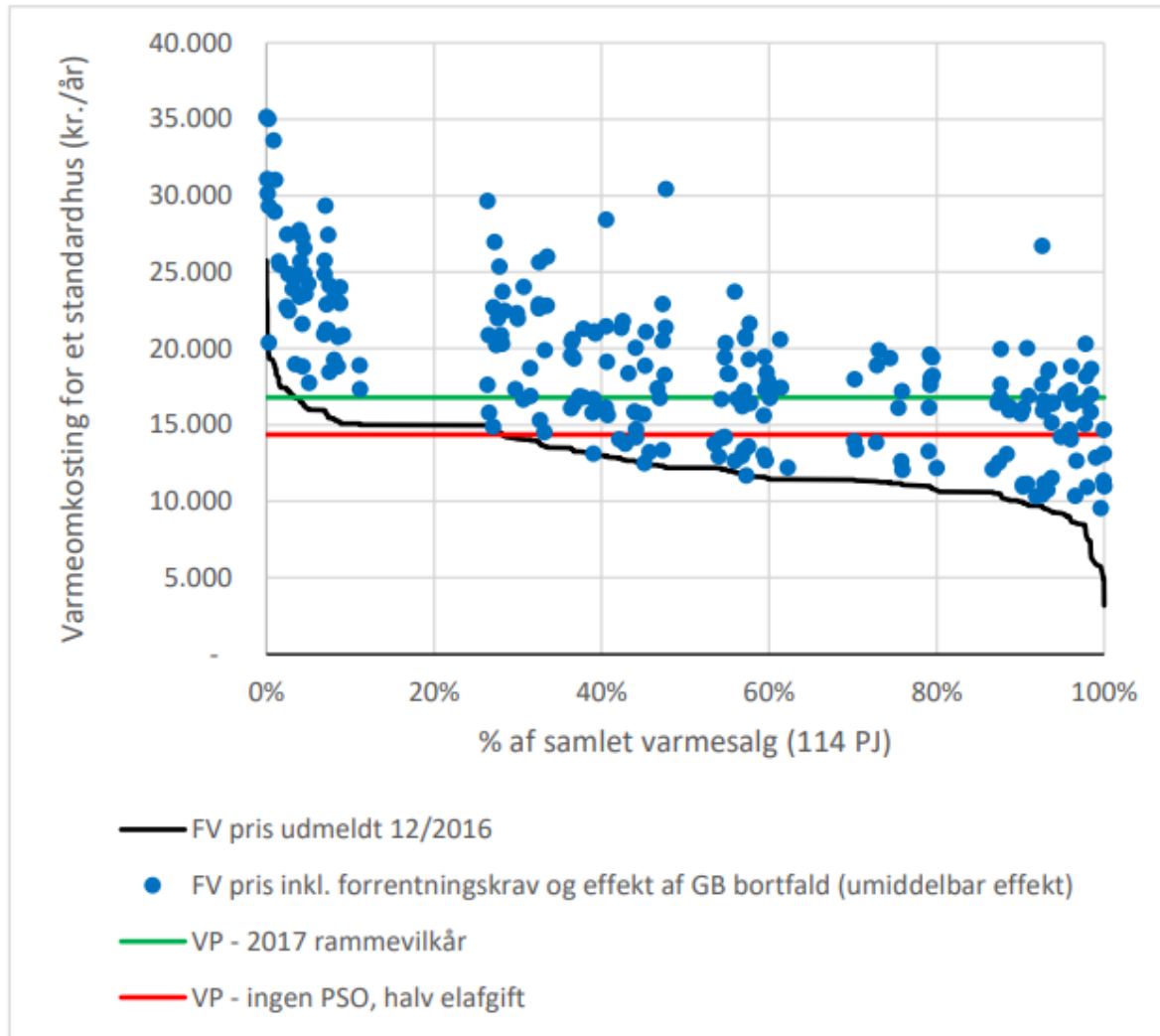


# Prices



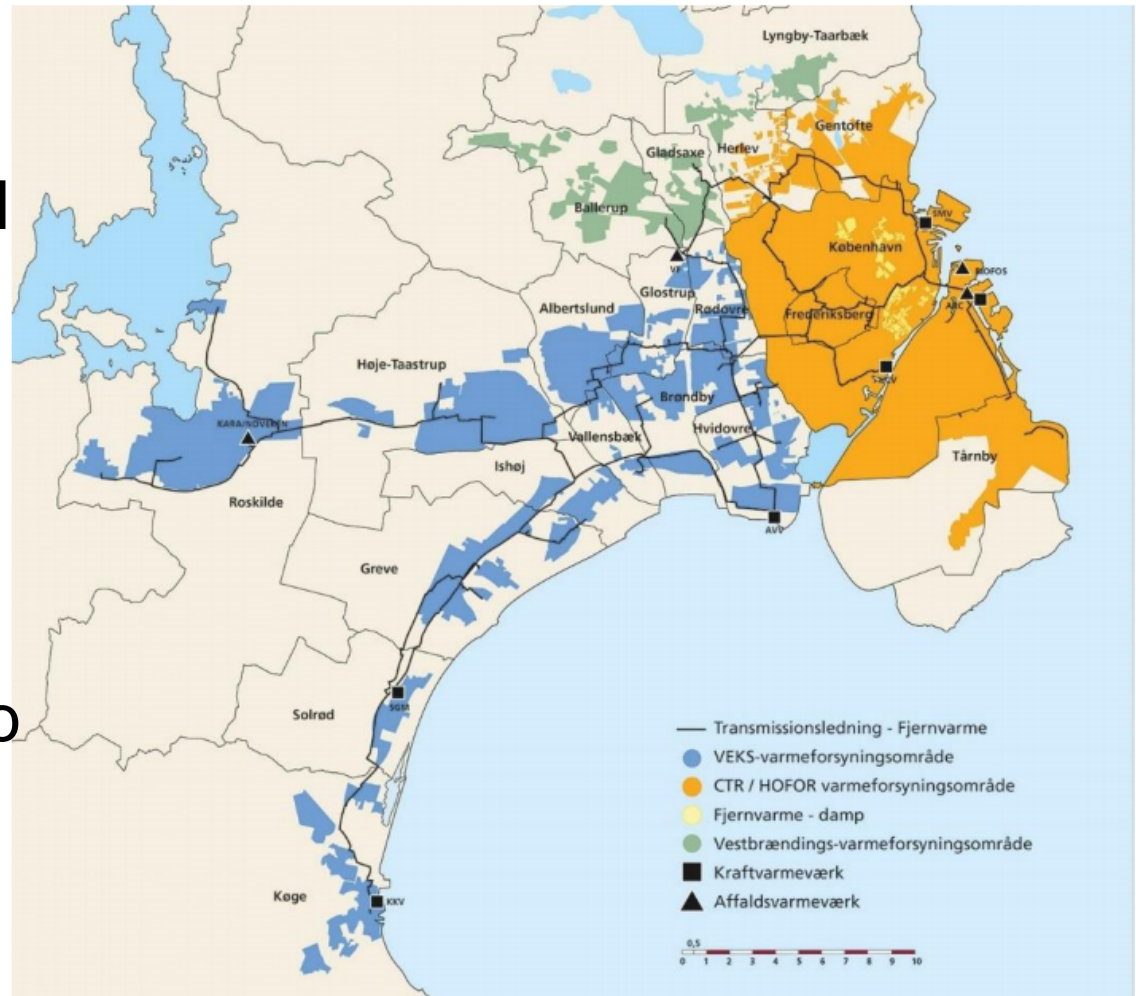
Figur 22: Fjernvarmepriser fordelt på selskaber ift. ejerskab. Anm.: n= 336 (forbrugerejet), 47 (kommunalt), 10 (kommercielt), 2 (boligforening), 2 (andet ejerskab). Kilde: Egne beregninger

# DH price spread



# Example of political influence: Greater Copenhagen

- 1980: DH transmission lines established
- Target: Carbon neutral by 2025
- Need to adapt to climate change



# Climate targets

- Greater Copenhagen Utility Company HOFOR is building wind farms, new biomass CHP, and testing alternative heat sources



# Changing discourse?

- Calculated savings potential 0,3 billion Euro/year
- Liberalisation and more competition
- Recommendations:
  - Price cap replacing not for profit
  - Less restrictions and less privileges



## MODERNISERET REGULERING I FJERN- VARMESEKTOREN

Til gavn for forbrugere og virksomheder

Oktober 2015

# Proposed legislation April 2018

- Not yet adopted!
- Less restrictions and less privileges
  - No more compulsory connection
  - No more restrictions on fuel
  - No compulsory CHP



Thank you!

Questions?