

# EPHA Annual International Conference

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## Green Energy

The road to a Danish Energy System without Fossil Fuels

Future energy solutions in Baltic states

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**KLIMAKOMMISSIONEN**  
DANISH COMMISSION ON CLIMATE CHANGE POLICY

# Green energy

– the road to a Danish  
energy system without  
fossil fuels

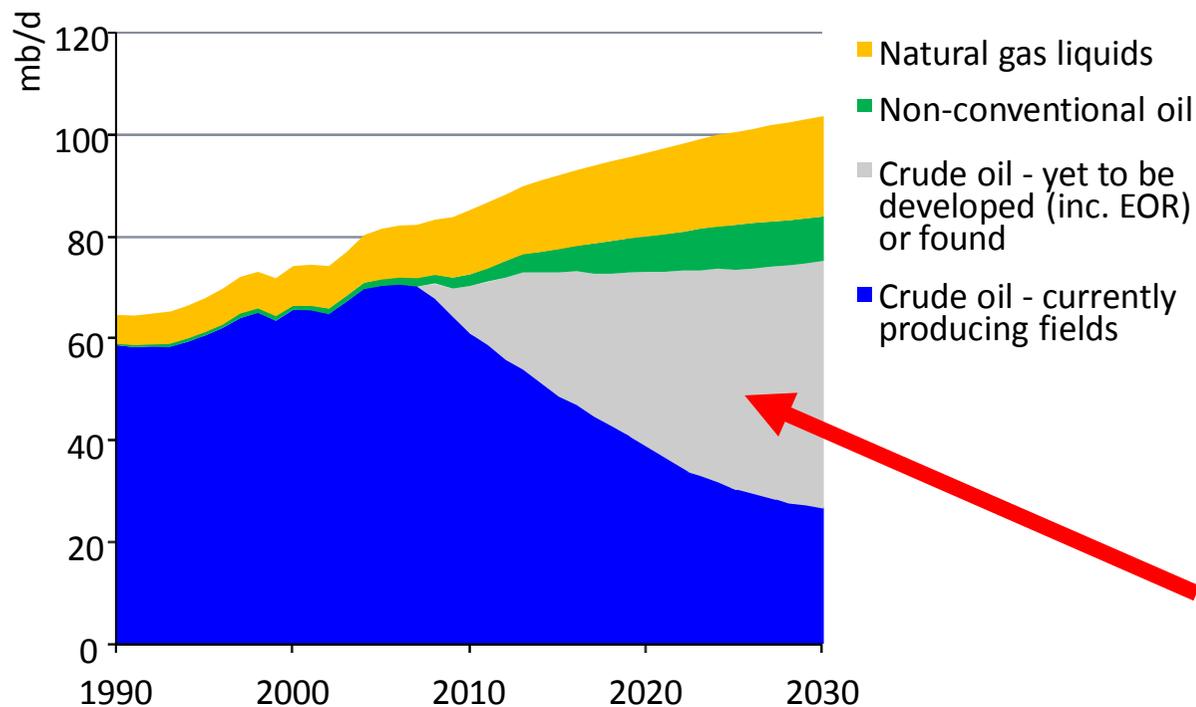
# The Commission's terms of reference

- The Danish Commission on Climate Change Policy:
  - Examine how Denmark can reduce and ultimately eliminate dependency on fossil fuels in the long term.
  - Describe how to implement this long-term vision.



# Challenge

Great pressure on resources of oil and natural gas



**Half of the world's demand for oil in 2030 is yet to be developed or found.**

- Rising prices
- Great uncertainty
- Oil and natural gas limited to few sources

## Two goals for the Commission

Independence from oil,  
coal and natural gas

**Renewable energy  
can cover  
Denmark's energy  
needs.**

Ambitious climate goal

**Derived from EU's  
target of 80-95 %  
reduction of  
emissions by 2050**

# The Commission's Results

- Denmark can become independent of fossil fuels by 2050.
- Even as our energy demand doubles.
- The technology is available today, but more will become available.
- Small additional cost as continued dependence on fossil fuels will become an expensive habit.

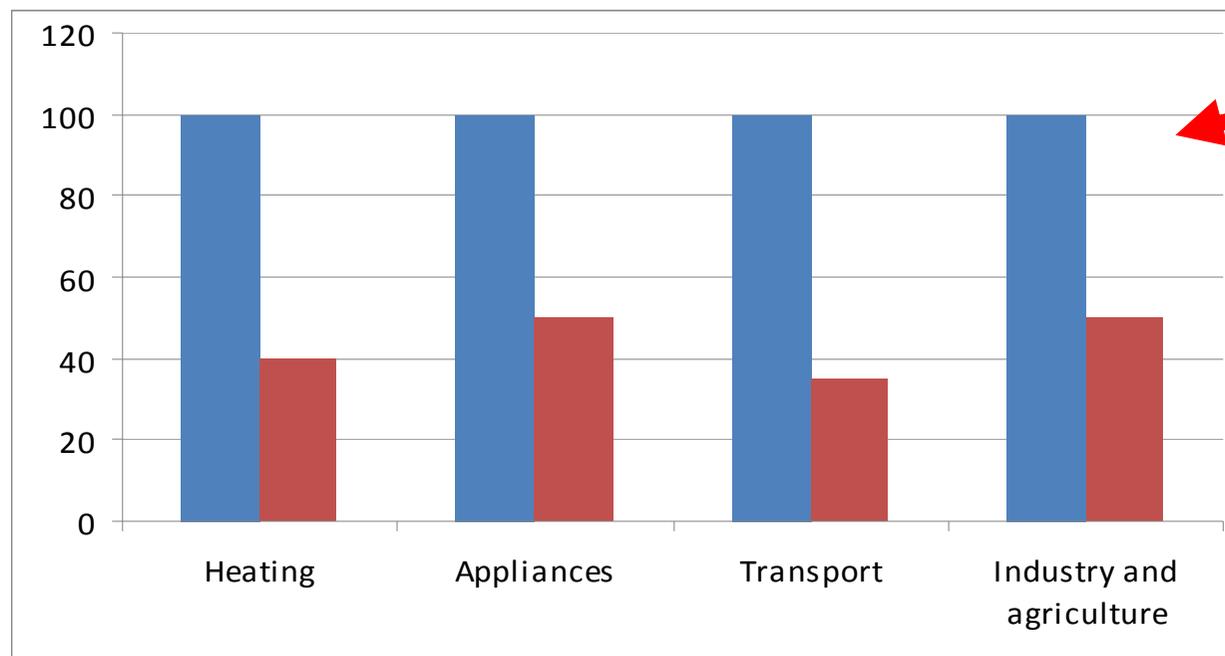


# Strategy with two elements

*We need to use energy more effectively.*

Technological solutions and investments have a large potential

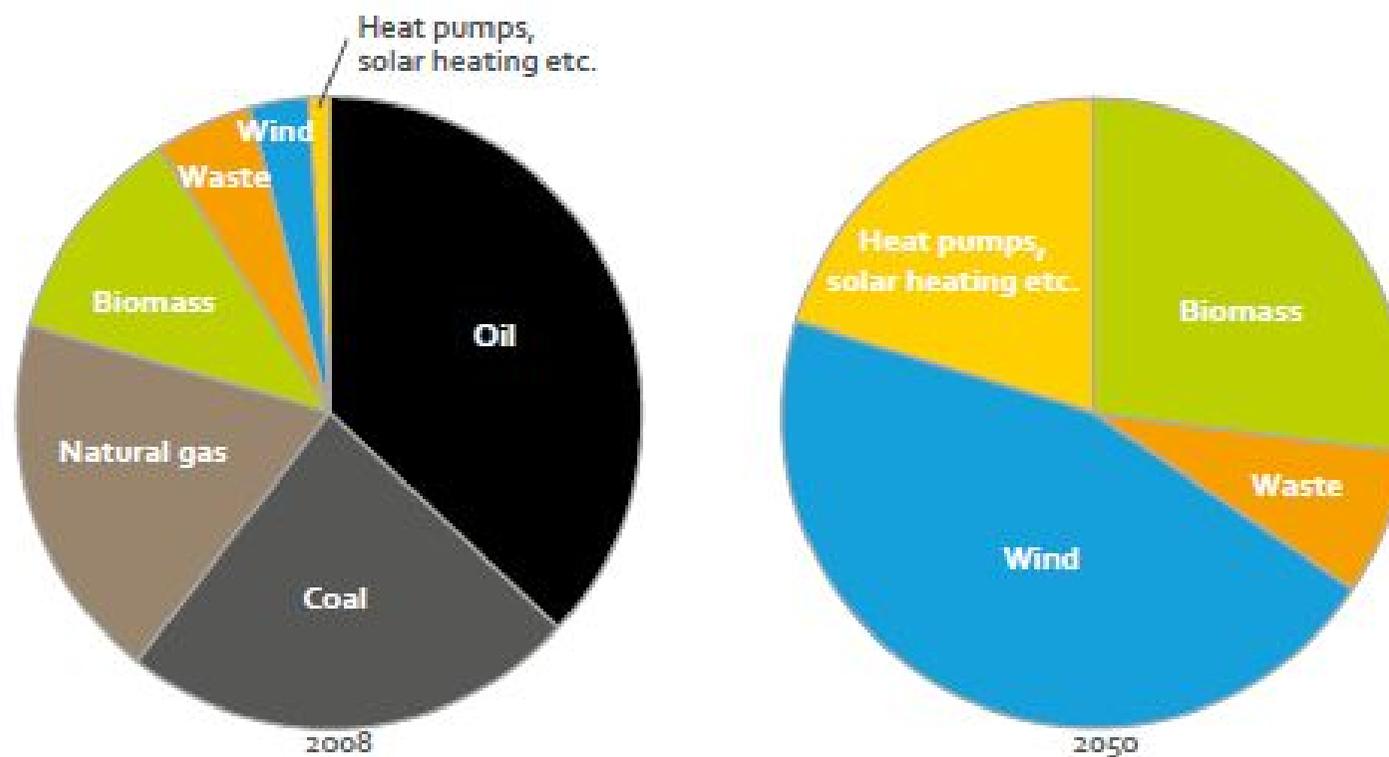
More effective energy use by **2050** relative to **today**



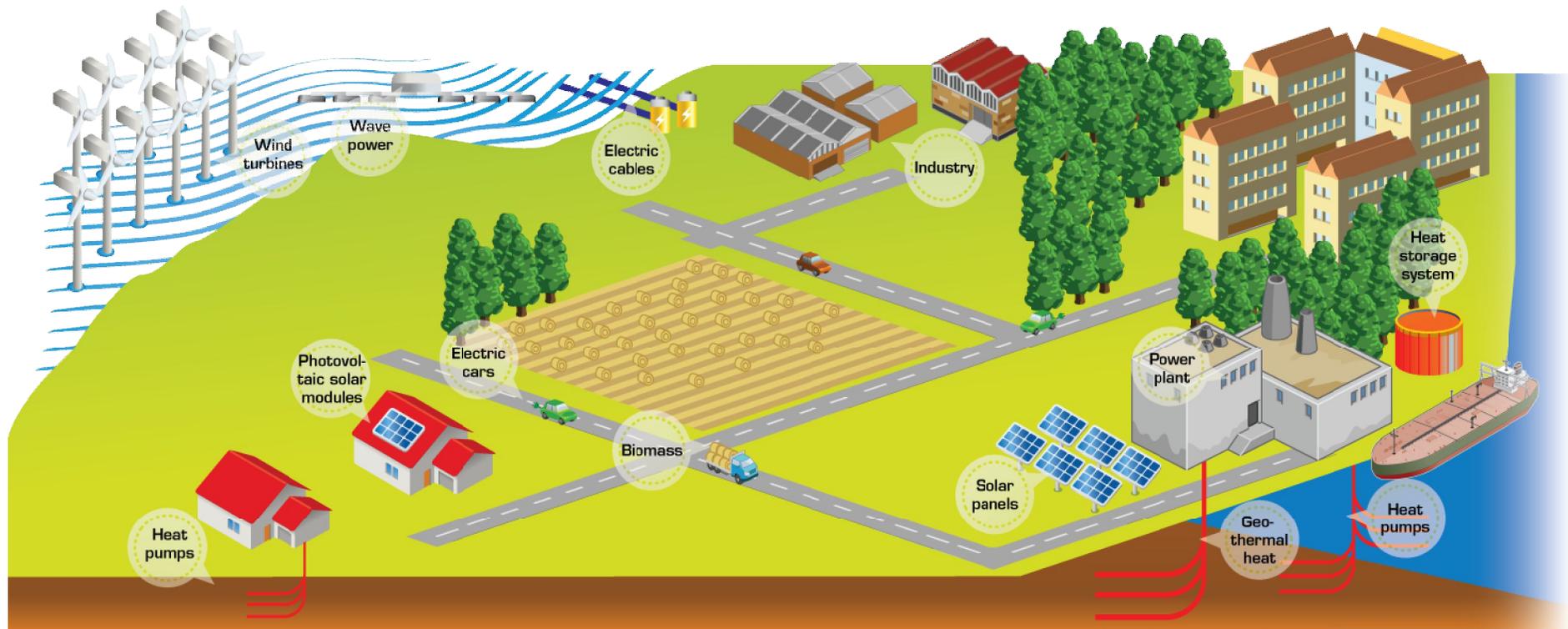
We can halve the amount of energy that we use for heating etc.

## Strategy with two elements

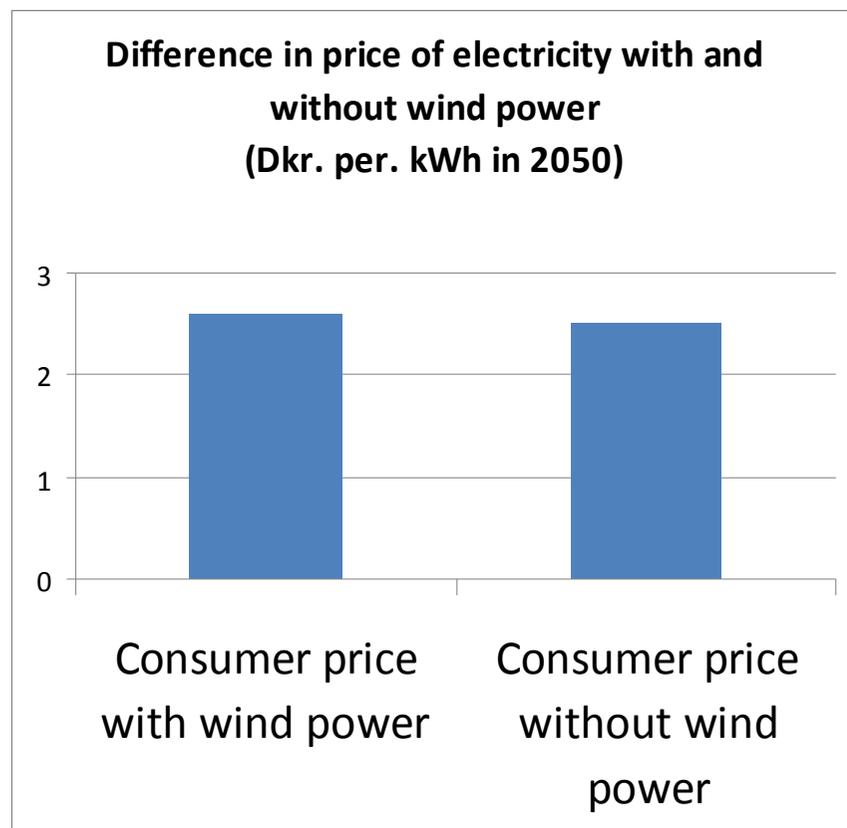
*The energy of the future will come from renewable sources*



# The Energy System of the Future



## Consumers will pay about the same



Despite our energy needs doubling by 2050 the total cost for heating, transport and energy will remain the same as today.

Primarily due to gains from energy efficiency.

# Conversion can create growth



- Denmark is in a position of strength within the fields of green energy and energy efficiency. But the world is on the move.
- Rising investment can increase growth.
- Total energy costs are expected to fall as a share of the total costs of doing business by 2050

# The road to independence must start now

- The conversion represents a revolution of our energy system.
- It takes time to reshape our energy system.
- If we wait the cost may well rise.





Thank you

Further information:

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*ENERGI TIL DIG PÅ VESTEGNEN*