Danish Energy Agency

Danish Goals for energy reductions – and how to reach them

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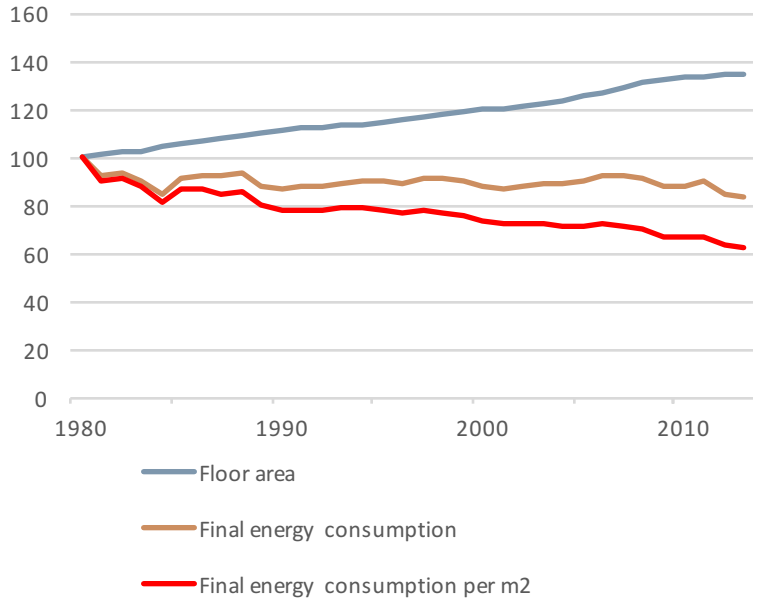
Renato Ezban
Danish Energy Agency

Residential energy consumption

- Long tradition for energy policy
- Energy consumption in residential sector has been constant since beginning of 80'ies
- Policy instruments:

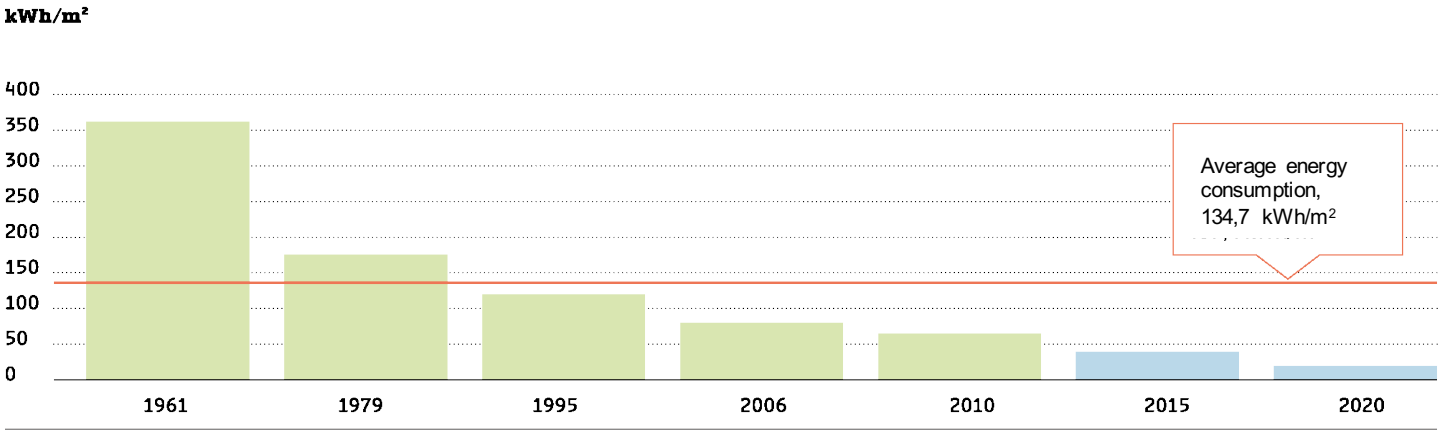
  - High energy prices, energy taxes
  - Regulation (building codes)
  - Subsidies/tax deductions (occasionally)
  - Stable investment framework
  - Information, awareness



Building code.

Energy performance requirements for *new* buildings.

Figur 2 Energikrav til nye bygninger



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- Since 2006 there has been requirements for existing buildings.

Investments in renovation and retrofits

- Stable investment framework
- Relatively easy to obtains loans at competitive interest rates
- Investments in renovation and retrofits in existing buildings has relatively been stable, 2.1 – 2.7% of total value of buildings stock per year.

Energy Renovation Strategy

National Strategy on energy renovation of existing buildings from 2014.

- Why reduce energy consumption in buildings
- How to do it
- What policy measures are in place
- How much can we achieve

Why a national Energy Renovation Strategy?

- Successesive Governments have adopted the long term aim of making the country independent of fossile fuels by 2050
- To achieve this in the most cost effective way, it is necessary to reduce energy consumption across all sectors
- 35% of all energy is consumed in buildings for heating, ventilation and hot water
- Buildings have have a long life time. Most buildings in use in 2050 exist today. 80-85% of energy consumed in buildings in 2050 will take place in buildings which exist now.
- **Reducing energy consumption in existing buildings is a priority in energy policy**
- **The National Energy Policy Agreement in 2012 therefore gave the Government the obligation of publishing a national energy renovation strategy**

The underlying assumptions

- Retrofits and renovations in buildings are already taking place
- (Almost) all major building components will be replaced or renovated before 2050
- The most cost efficient way of reducing energy consumption in building is to improve efficiency whenever retrofits and renovations are taking place.

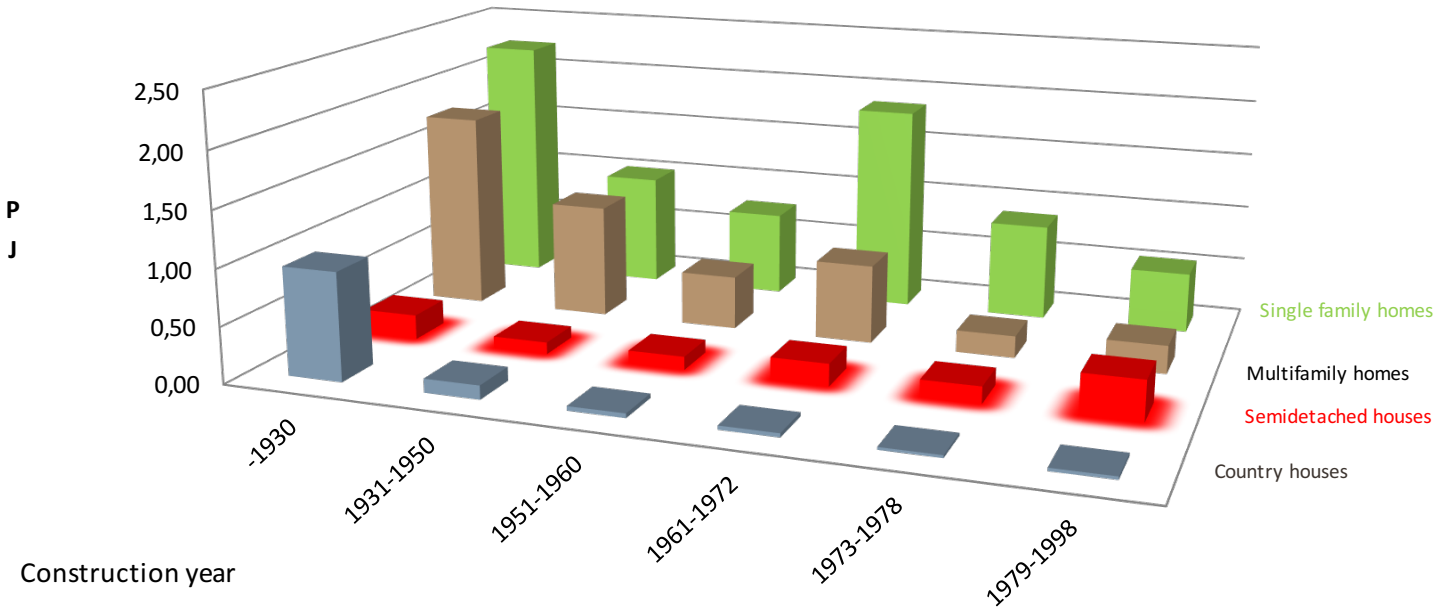
The aim of the strategy is

- To ensure that efficiency improvements take place in conjunction with retrofits and renovations
- To ensure the highest possible level of energy improvements

Potential for reducing energy consumption in buildings

- BUSINESS AS USUAL: 28 % REDUCTION
- THE STRATEGY: 35 % REDUCTION
- OPTION: 47 % REDUCTION

Efficiency potentials in residential sector



Policy measures

- The strategy contains 21 policy measures addressing the following:
  - Regulation
  - Transparency in renovation market
  - Making it easier for home owners to renovate
  - Raising awareness, information on benefits (economy, non energy, etc)
  - Improving skills in industry
  - Removing barriers (Split incentive)
  - R & D