

# The Danish Energy Efficiency Obligation System

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# Outline

Introduction

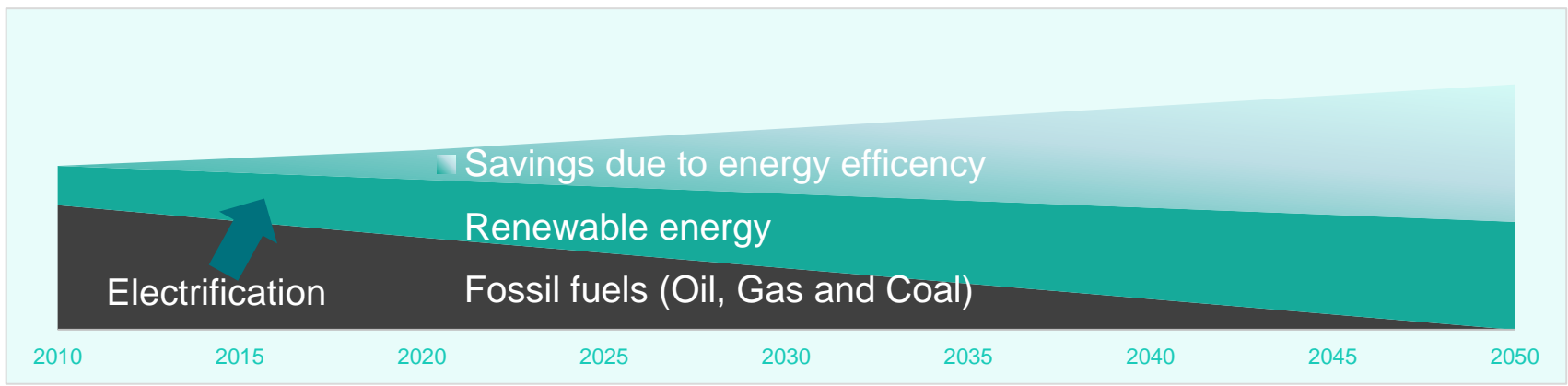
Main principles

Experiences

Looking forward

# Introduction of the Danish Energy Efficiency Obligation (EEO) scheme I

- Goal: Denmark independent of fossil fuels by 2050
- Introduced in 2005-2006
  - Evaluated every 3-4 years
- Implemented through a voluntary agreement between government and the cooperation organizations
  - Companies who leave the agreement are still covered by a legal Act and must still deliver savings



# Introduction of the Danish Energy Efficiency Obligation (EEO) scheme II

- Annual saving obligation target on branch level
    - Distributed among companies
  - Large freedom to deliver in the best way
    - Focus on cost efficiency
  - Responsible for documentation and verification of the saving
- There can be several links from the company to the end-user
    - Can be another company in the same group
    - Often a private engineering company or a plumber, construction company, ESCO, etc.
  - Additionality
    - Direct or indirect involvement
    - Agreement before beginning the implementation of the savings



# Main principles

- End-use savings in all sectors
- Savings based on final energy consumption
  - The first year savings, not cumulative
  - Difference between consumption before and after
  - Simple weighting factor was introduced from 2011
    - Reflect e.g. primarily lifetime and primary energy
- Exceptions e.g.
  - New installations and new buildings – compared to current standard for new installations instead
  - Increased production volume
  - Closure and merger of production sites and installations
  - Maintenance
  - Use of waste heat

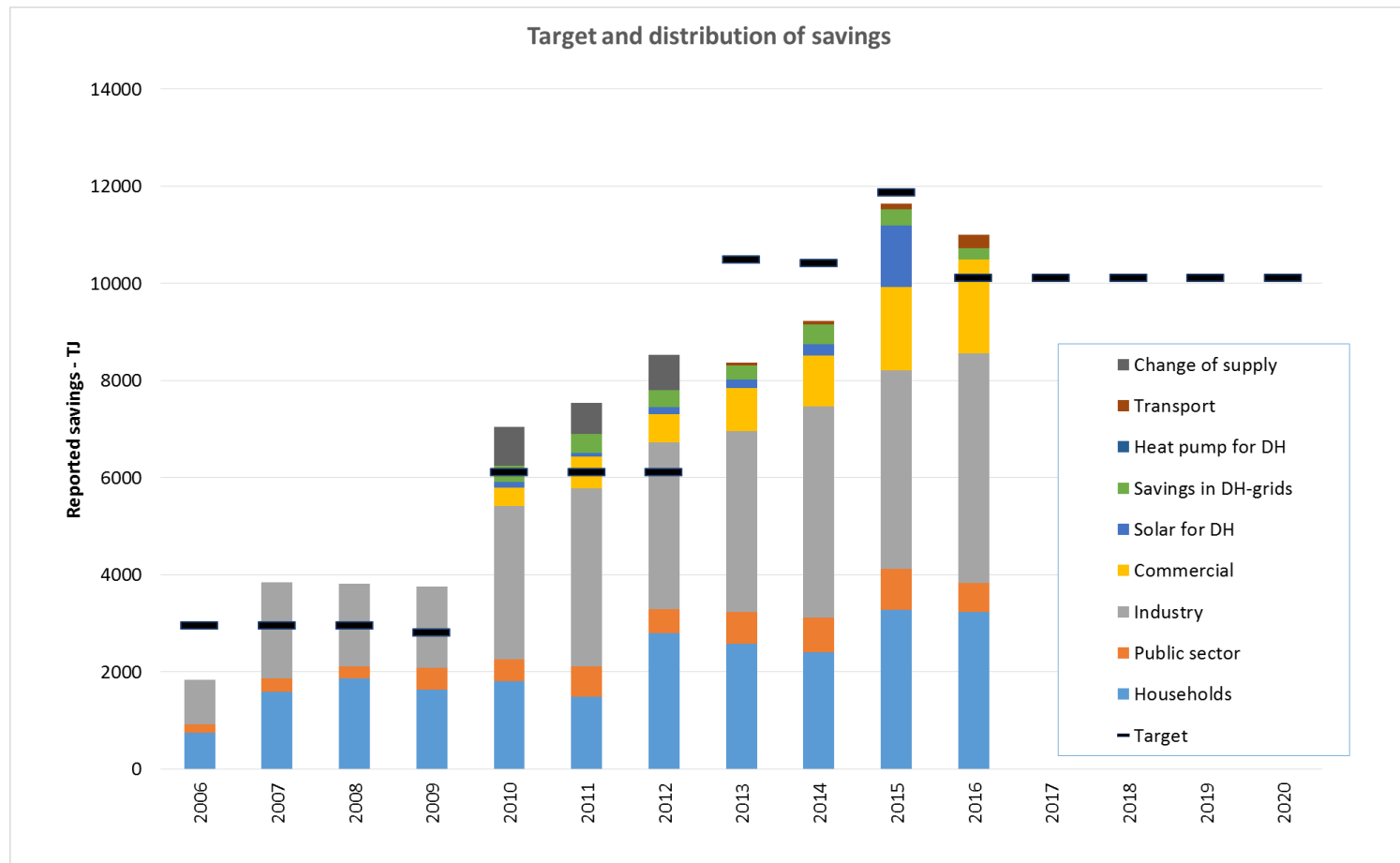


# Methods

- Standard values – deemed savings
  - Average saving for standard activities
  - Developed by experts. Approved by DEA
  - Used for small projects, often in private households
- Specific calculation – scaled savings
  - Used for all big projects, especially industries, public sector etc.
  - Utilities are responsible for specific calculations

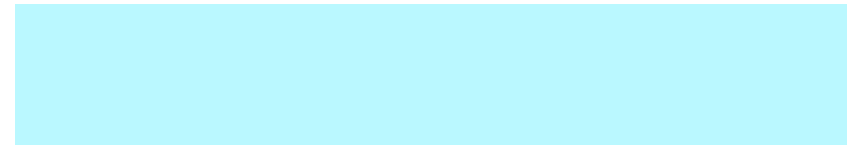


# Reported savings



# The positive and the negative

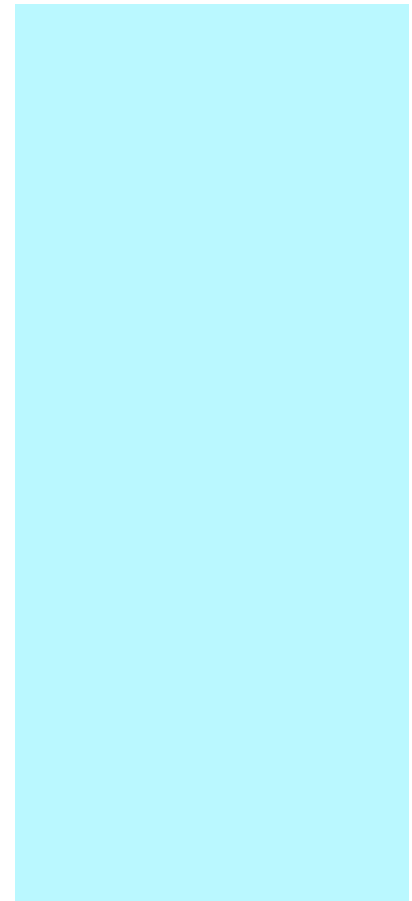
- All branches have fulfilled their target by the end of every year
  - The utility cost have not increased very much
  - In general cost-effective
  - A lot of actors and energy services providers have been involved
  - The evaluations shows that the end-users and involved actors are very satisfied with the system
- The organisations representing the obligated companies are very negative
  - Strong critique
    - Cheating and lack of monitoring
    - Cross-subsidising between consumer groups, households and industry
    - Profits in affiliated companies (transfer prizing)
    - Not strong incentives to reduce the cost





# Current status in Denmark

- The actual agreements are running until the end of 2020
  - Very few want to continue with EEO after this
- Strong support for a tendering scheme
  - Main focus on industry and commercial
  - Special conditions if households/buildings are included
- The government are preparing their proposal to an energy policy agreement for 2021-2030



# Guidance for new EEO

- Distributors or retail sales companies?
  - All companies or threshold? Involvement of all fuels?
- Obligations/White certificates
  - Will a market for trading work well? Higher cost for verification?
- Integrated approach with consulting
  - Subsidies alone will not deliver enough
- Clear rules for monitoring and verification
  - What do you want to monitor? Focus on documentation and quality control
- Maybe not same metric for industry and buildings



# Thank you for your attention