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Energy efficiency obligations for energy companies in Denmark

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Summary and key takeaways

Energy efficiency obligations for energy companies in Denmark Peter Bach, Consultant.

According to Peter Bach, the goal is to achieve cost-effective energy efficiency improvements. He highlighted that energy-efficient solutions and technologies are already available on the market. Bach emphasised that Energy Efficiency Obligations (EEOs), along with measures like subsidies and eco-design regulations, are essential policy tools for driving progress.

Bach ran through the history of the EEOs in Denmark from 2006 to 2020. The EEOs were initiated through a policy agreement and covered electricity grid companies, district heating, gas, and oil companies. They operated in 3-4 year cycles with independent evaluations. All sectors met their goals within the period, and the Danish model, according to Bach, has inspired the EU Energy Efficiency Directive (EED) from 2012.

A key feature of the Danish scheme was its mandatory energy savings targets. However, the scheme also allowed for flexibility, giving companies the freedom to determine how best to meet these targets. Bach especially pointed out the importance of energy service providers (independent consultants) that could assist the companies in the efforts. He also noted that the costs could be recovered through consumers and summarized the results by highlighting that the targets for energy savings were increased over time but still consistently met - although the registered a savings shift towards industrial sectors while households' savings decreased.

Of the key learnings from the Danish Scheme, Bach particularly addressed the importance of independent consultants, arguing that consulting-based savings proved more effective. According to his experience, traditional subsidy schemes have been less effective as they did not directly involve professional energy service providers to the same extent. Bach noted that Denmark once led the way in energy efficiency, inspiring EU policies. Today, however, the EU has taken the lead, driving efficiency measures across Europe.

Key takeaways:

- The EU is a key driver in promoting energy efficiency.
- Energy taxes and subsidies are insufficient as the only driver for change.
- EEO schemes provide a stable financing model through tariffs and are particularly effective in industry and commercial sectors.

The EU is now the driver for energy efficiency.

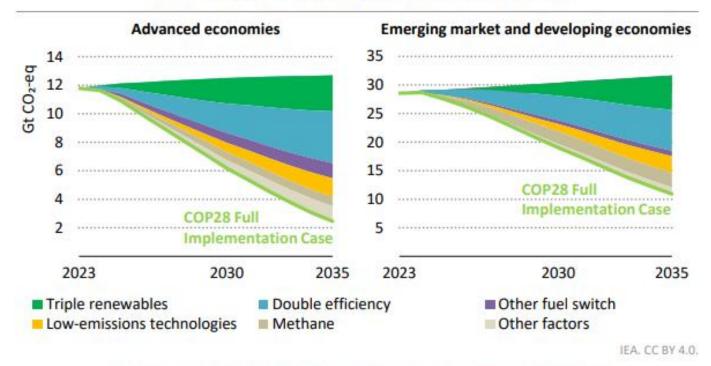
Peter Bach



The problem

- How do we best realize the cost-effective energy-efficiency improvements?
- Tax on CO2
- Regulation is the best solution in some areas
 - Ecodesign, building codes, etc.
- Help to the consumers important in other areas
 - In combination with subsidies
 - EEO schemes is one way to do this

Figure 3.1 ▷ Contribution of key elements to reduce energy-related emissions in the COP28 Full Implementation Case, 2023-2035



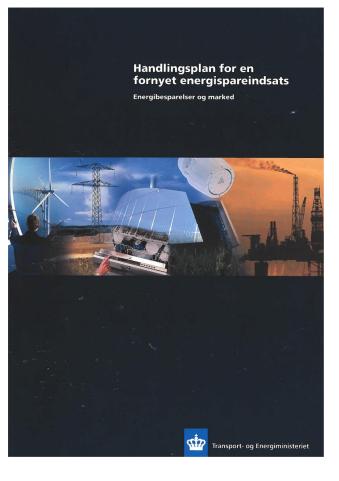
Implemented fully, the COP28 outcome energy goals put emissions into a steep decline, setting the stage for ambitious NDCs for 2035

Notes: Gt CO₂-eq = gigatonnes of carbon-dioxide equivalent. Energy-related GHG emissions include CO₂ and methane.

Source: IEA: "From Taking Stock to Taking Action How to implement the COP28 energy goals"

The history of EEO in Denmark 2006-2020

- Introduction om saving obligations for energy companies was decides in a policy agreement in 2005
- A legal basis was established but it was implemented by agreements with the different sectors (electricity, DH, gas, oil)
- Was running in 3-4 year cycles
 - Independent evaluations of each period
- The Danish EEO-scheme was a inspiration for energy saving obligation in EED from 2012
 - Many EU countries have today a EEO-scheme

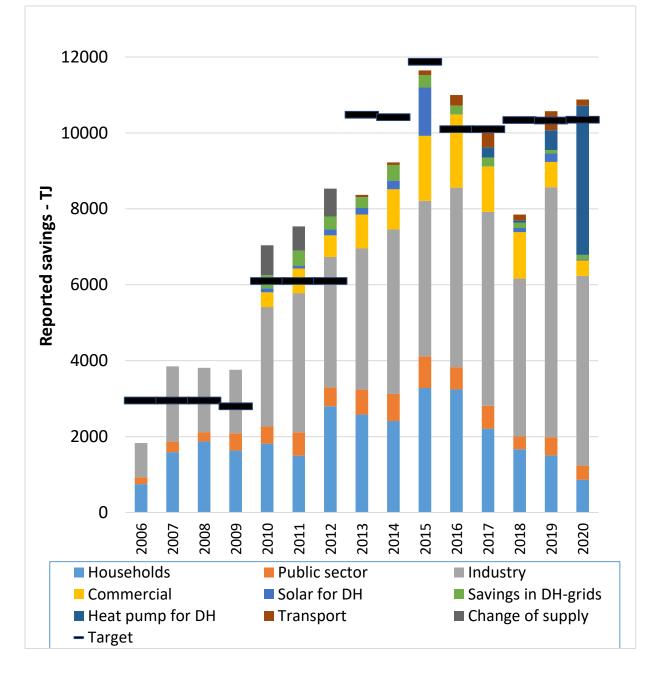


Main elements

- Obligation for distribution companies from 2006 to 2020
 - Electricity, gas, district heating (and oil)
 - All companies have an annual saving target
 - There costs was recovered over the tariffs
- The companies have freedom to deliver the saving
 - They could not do all the work themselves
 - An increased share was delivered by energy service providers
- Several independent evaluations of the scheme
 - Cost-effective especial for saving in industry
 - The end-users and involved actors where very satisfied

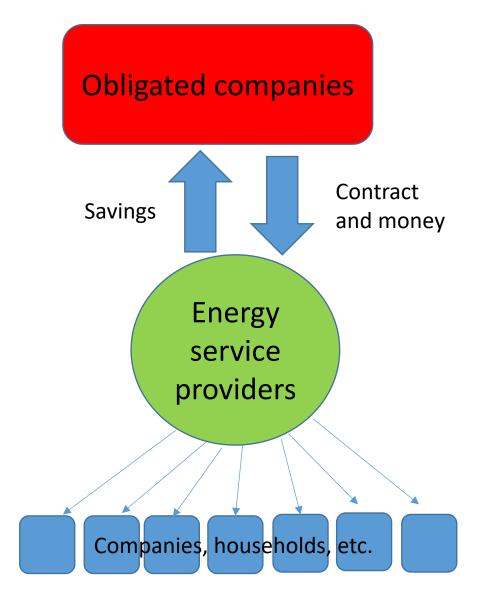
Targets and distribution of savings

- The targets was increased over time
 - It was meet by all sectors over the period
- An increased share of the saving was in industry
- Savings in household decreased
- A part of the savings came from DH supply and distribution



Learnings

- Development of qualified "energy service providers" very important
 - Deliver help to identify and implement savings
 - Many models for the organization
 - They shall see this as a business opportunity
- The share of savings delivered by "energy service providers" increased over time
- Evaluation shows that savings based on consulting have a higher additionality
- Subsidy schemes where the end-user apply do normally not give room for providers



Conclusions

- Necessary with policy measures help to implementation
- EU the driver for energy efficiency
- Important to involve qualified energy service providers
 - Tax on energy can not stand alone
- An energy efficiency obligations scheme is one god option
 - Can be efficient special in relation to savings in industry and commercial sectors
 - Can secure a stable financing by the tariffs



• Thank you for your attention