# Current status of Danish energy taxes

***Modern Technologies for Optimized use of Energy and Resources***


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# Current status of Danish energy taxes

**Agenda for the next 35 minutes**

- Introduction to energy taxes
- The general rules for energy tax refunds
  - *With focus on the classification of refundable and non-refundable energy usage*
- New rules on electricity, applicable from January 1, 2021
- New rules on surplus heat, applicable from January 1, 2022
- Energy tax costs to use in business cases
- Green Tax reform – what can we expect?
- EU's Fit for 55 – what can we expect?
- Questions

# Introduction of speaker

**Who am I?**

- Bettina Mikkelsen, Senior Legal Business Advisor,  Hulgaard Advokater
- Specialist in energy taxes, environmental taxes and excise duties with more than 20 years of experience
- Experience from:
  - The tax authorities
  - The consulting industry (PWC, KPMG/EY, KPMG Acor Tax)
  - The dairy industry (Arla Foods amba)
- #afgiftsnørd

# Introduction to energy taxes

## Which elements are taxable?

- Electricity (only an energy tax)
- Fossil fuels, e.g. natural gas, oil, coal etc.
  - Energy tax
  - $CO_2$-tax
  - Other taxes, e.g. sulphur tax, tax on $NO_x$, tax on methane (natural gas)
- Biogas
  - Energy tax
  - Other taxes, e.g. tax on $NO_x$, tax on methane
- Biomass (e.g. straw and wood chips), as a main rule exempted from energy taxes, however other taxes as e.g. tax on $NO_x$ can be applicable

# The general rules for energy tax refunds

**3 conditions that must be met to be eligible for a energy tax refund**

1) VAT deduction
   - The energy tax refund can be obtained in the same extent as the VAT deduction

2) Consumption criteria
   - The company must be the right consumer of energy. This criteria is especially relevant in landlord/tenant situations

3) Payment criteria
   - The company must have paid for the energy, including the energy tax

# The use of energy is relevant for the refund

**Refundable vs. non-refundable use of energy**

As a main rule, it is possible to get an energy tax refund on energy used for production purposes. The refundable production purposes are classified directly in the legislation and legal practices in that regard

- Electricity (until January 1, 2021)
  - HR: 100% refund on electricity used for production purposes, except DKK 0.004 per kWh
  - U: partly refund on electricity used for space heating, hot water and comfort cooling

- Fossil fuels
  - HR: No refund on energy used for space heating and hot water
    - Same rule for motor fuels (= no refund)
  - U: partly refund on energy used for production purposes

# Classification of energy use (1)

**The most important element in the correct handling of energy taxes**

**Refundable use of energy**

- Energy used for the production of goods intended for sale, e.g.:
  - Washing, cleaning, heating, boiling, roasting, distilling, sterilizing, pasteurizing, steaming, drying, evaporating or condensing in special installations/plants
    - Temperature requirements (above 10° compared with the surrounding space or an operating temperature of at least 45°)
- CIP (Cleaning-in-place), e.g. cleaning of closed pipes or tanks
- Cleaning of slaughterhouses (certain conditions)
- Cleaning of packaging when used for transport or sale of goods, e.g. milk crates
- Wash and cleaning of textiles
- Certain space heatings, e.g. drying of building materials during the construction process

# Classification of energy use (2)

**The most important element in the correct handling of energy taxes**

**Non-refundable use of energy**

- Space heating (heating of all kinds of spaces)
  - The tax classification of spaces is *four walls and a ceiling*
    - Heating of offices, storage facilities, production areas etc.
    - Some purposes are classified as production, e.g. storage of cheeses (ripening) and wood drying rooms
- Hot water
  - For bath and hand washing
  - For cleaning purposes, also production-dependent cleaning
    - In dairies, including manuel cleaning and washing machines. Only CIP (Cleaning-in-place) is refundable.

# New rules from January 1, 2021

## Applicable for electricity

- The special rate for heating in households is lowered to DKK 0.008 per kWh
  - Is applicable for electricity use above 4,000 kWh
- The distinction between refundable and non-refundable electricity use is written out of the legislation
- For companies, that results in the same refund on all electricity use, no matter the classification. That means, 100% refund except DKK 0.004 per kWh
- Surplus heat utilized from electricity, e.g. from cooling systems or compressed air systems, is no longer taxable
  - Surplus heat utilized from fossil fuels is still taxable

# New rules from January 1, 2022

## Applicable for surplus heat utilized from fossil fuels

- The rate is lowered to DKK 25.8 per GJ in 2022
  - Applicable for both own use and for the sold surplus heat

- For own use: the calculation is changed from only taxable in 6 months of the year (January-March and October-December) to taxable in all months

- If the surplus heat is sold to a district heating company (or another company):
  - It is possible to lower the surplus heat tax to DKK 0, if the company enters into an energy efficiency agreement with the Danish Energy Agency. A special sets of requirements must be met.
  - The maximum price for the surplus heat is set at DKK 77 per GJ (approx. DKK 277 per MWh) for 2022. Every year a new maximum price will be published.

# Energy tax costs to use in business cases

**Comparison between electricity and natural gas (1 MWh)**

| *DKK* | For production purposes | For space heating and hot water |
|---|---|---|
| Electricity | 4.0 | 4.0 |
| Natural gas* | 58.91 | 293.03 |

A potential tax saving at DKK 54.91 per 1 MWh energy use

A potential tax saving at DKK 289.03 per 1 MWh energy use

** Only energy tax and CO2-tax is included in the calculation. Be aware of other taxes such as tax on NOx and tax on methane*

** 1 MWh = approx. 101 $Nm^3$*

# Energy tax costs to use in business cases

**Comparison between natural gas and biogas (1 MWh)**

| *DKK* | For production purposes | For space heating and hot water |
|---|---|---|
| Natural gas* | 58.91 | 293.03 |
| Biogas | 4.95 | 9.90 |

A potential tax saving at DKK 53.96 per 1 MWh energy use

A potential tax saving at DKK 283.13 per 1 MWh energy use

** Only energy tax and CO2-tax is included in the calculation. Be aware of other taxes such as tax on NOx and tax on methane*

** 1 MWh = approx. 101 $Nm^3$ (also used regarding biogas, where the tax rate is DKK 0.098 per Nm3)*

# Energy tax costs to use in business cases

**Comparison between natural gas and surplus heat (1 MWh)**

| *DKK* | For production purposes | For space heating and hot water |
|---|---|---|
| Natural gas* | 58.91 | 293.03 |
| Surplus heat | 0.00 | 92.88 |

A potential tax saving at DKK 58.91 per 1 MWh energy use

A potential tax saving at DKK 200.15 per 1 MWh energy use

** Only energy tax and CO2-tax is included in the calculation. Be aware of other taxes such as tax on NOx and tax on methane*

** 1 MWh = approx. 101 $Nm^3$*

# Green tax reform

## What can we expect?

- Political agreement from December 2020
  - Change in the rate of the tax refund
  - In 2022 the non-refundable part of the energy tax is DKK 4.5 per GJ, equal to 7.14% of the energy tax
  - The non-refundable part of the energy tax will be increased to DKK 10.5 per GJ, equal to approx. 16.66% of the energy tax
  - For natural gas – an increase of the non-refundable part from DKK 0.178 per $Nm^3$ to DKK 0.416 per $Nm^3$ (an increase of DKK 0.238 per $Nm^3$)

- A new tax
  - A new tax based on $CO_2e$, including nitrous oxide and methane
  - Different levels of tax rate has been suggested, depending on the sender (Klimarådet, Dansk Industri, Dansk Erhverv etc.)
  - We expect the current non-refundable part of the energy tax to be converted to an CO2-based tax. The expert group will present their report and suggestion on February 8, 2022

# EU's Fit for 55 (1)

**What can we expect?**

- **Changes in the energy tax directive (ETD)**
  - New structure for energy taxes
    - Tax based on energy contents and not amount as the structure is today
    - A ranking of the rates based on their environmental performance
  - New taxable products
  - Fewer tax exemptions

→ Higher taxes on fossil fuels

→ Lower taxes on sustainable fuels

→ Larger tax base

→ We can expect big changes in the current Danish legislation, if the changes in ETD is adopted in the proposed form!

# EU's Fit for 55 (2)

## What can we expect?

- **Changes in the directive regarding $CO_2$ quotas**
  - Fewer quotas for the current companies included in the system
  - New companies and sectors in the system
  - A new system for buildings etc.

  → The consequences will be fewer quotas available in the system, we must therefore expect an increase in the quota price

- **A new climate tax regime called CBAM (*Carbon Border Adjustment Mechanism)***
  - Initially implemented only for selected products, e.g. fertilizers, electricity and cement

  → The new climate tax regime can lead to increase in the prices on the covered products, and the climate tax regime may have a contagious effect on other prices

# Questions