

Iceland  
Liechtenstein  
Norway grants



Ministerstvo financí  
České republiky

**TOPIC: Energy use in the Czech Republic**

**NAME: Rostislav Vrzák**

**PROJECT: Comparison of energy potencial of Iceland and the  
Czech Republic**

**DATE: 1/ 8/2021 – 31/ 8/ 2022**



# Energy production

- In 2018, 88 TWh were produced in the Czech Republic
- Imported 11.6 TWh
- That gives us an electricity balance of 99.6 TWh



# Consumption

- Gross energy consumption was 74.1 TWh
- 25.5 TWh went to export
- Net energy consumption was 61 TWh
- And losses 12.9 TWh

# Import/Export

- The resulting net export is the difference between exports (25.5TWh) and imports (11.6TWh), which is 13.9 TWh
- The countries from which we import the most are Germany and Poland
- The countries to which we import the most are Austria and Slovakia

# Losses

- Transmission losses are losses incurred in the transport of electricity through the transmission system
- Transmission losses are divided into technical losses and non-technical (commercial) losses
- Losses are the difference between the energy supplied to the grid and the energy consumed

# Technical losses

## **Technical losses are divided into:**

- losses by leakage currents
- dielectric losses - for cables
- Joule losses on lines and not transformers
- consumption of measuring, control and connecting elements

## **Depending on the place of origin, technical losses are divided into:**

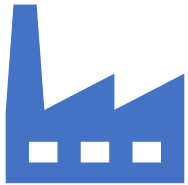
- losses due to transformation
- losses in conductors
- potential losses (through compensation, imperfect insulation, etc.)



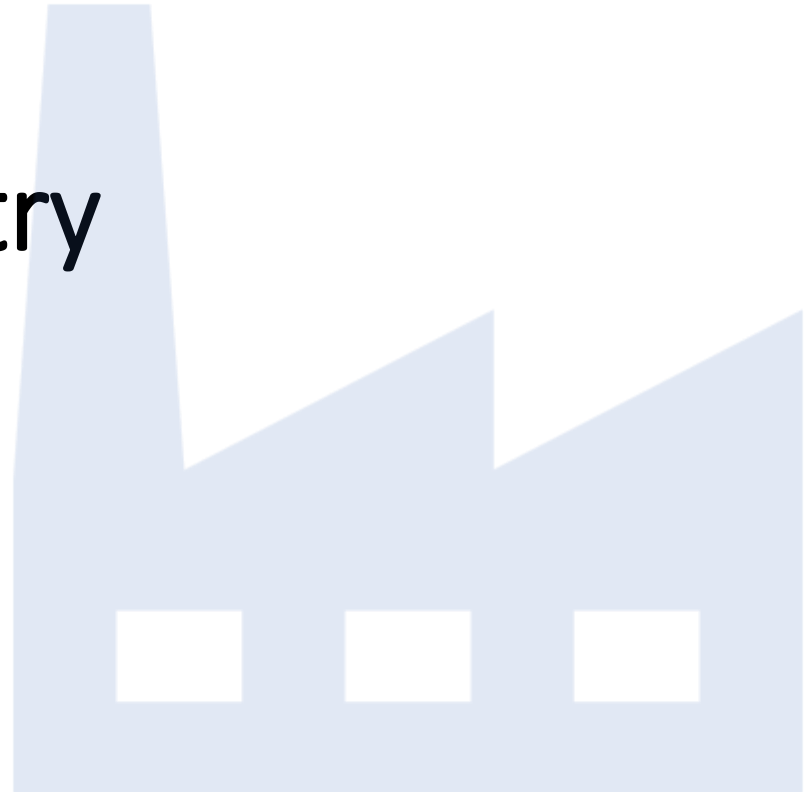
# Non-technical losses

- **Non-technical (business) losses are e.g.:**
- unmeasured lump-sum withdrawals
- measurement errors
- faulty wiring of measuring instruments
- withdrawals below the sensitivity limit of electricity meters
- accounting or record-keeping errors
- unauthorised withdrawals

# Consumption in industry



- industry consumed a total of 18.7 TWh
- chemical industry - 3TWh
- production from non-metallic minerals - 3.2 TWh
- Engineering - 2 TWh
- Paper production, printing - 1.7 TWh
- Metallurgy - 2.8 TWh
- other sectors - 6TWh





# Use of electrical energy



Energy sector- 4.6 TWh



Transportation 0.6 TWh



Construction sector 0.5 TWh



Agriculture and forestry 0.9 TWh

# Other applications



Households 15 TWh



Trade, services, education,  
health 12.5 TWh



Other - 8 TWh



Thank you for your  
attention