



Environment Center
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Czech energy system: Policy and Outlook

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Content

- Definitions and energy units
- State of the Czech energetics
- Sources, volumes, organisation
- Policy framework
- Electroenergetics
- Heating
- Energy outlooks

Energy: definitions and units

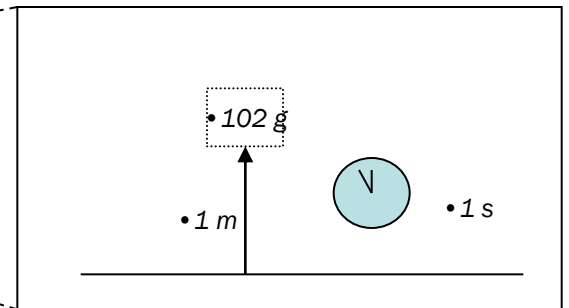
Joule (**J**)

$\text{N}\cdot\text{m}^{-1}$



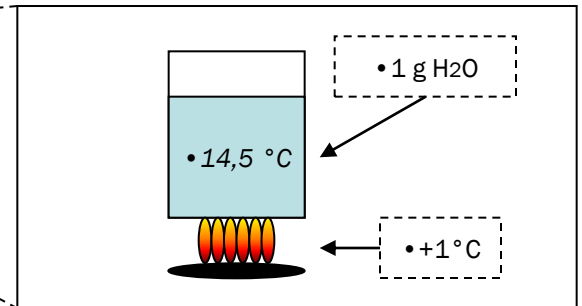
Watt (**W**)

$\text{J}\cdot\text{s}^{-1}$



Kalorie (**cal**)

4.1868 J



Energie: definice, jednotky II.

Barel of oil equivalent (**boe**)

~ 5,8E6 BTU

~ 6,1 GJ

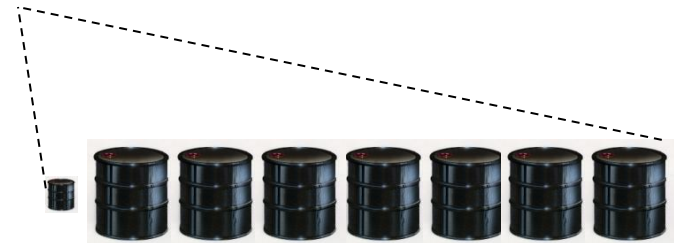


Ton of oil equivalent (**toe**)

~ 41,868 GJ (IEA/OECD)

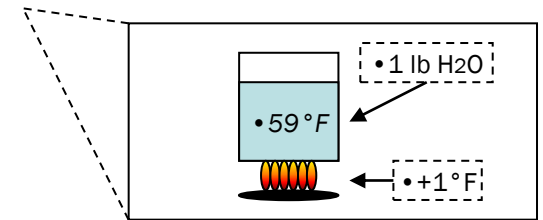
~ 42 GJ (BP)

~ 7,11 BOE



British Thermal Unit (**BTU**)

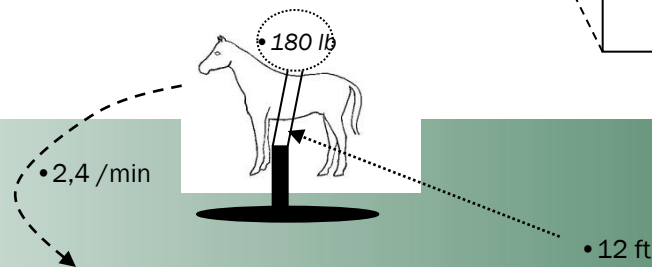
~ 1,054 – 1,060 kJ



Horse power (**hp**)

~ 746 W

~ 33 000 lbf.min⁻¹



Country specific condition

- Small landlock country
- History in machinery and heavy industry
- Limited renewables
- Dominant energy corporation as a major player
- Transition country for oil and gas
- Natural reserves of coal and uranium
- Significant coverage of population by central heating systems

How does the energy system of the country works?

- Main purpose of the ES is transformation of primary energy sources to usefull energy:
 - Light
 - Heat
 - Motion
 - Nutrition
 - Data processing

How does energy system of the country look like?

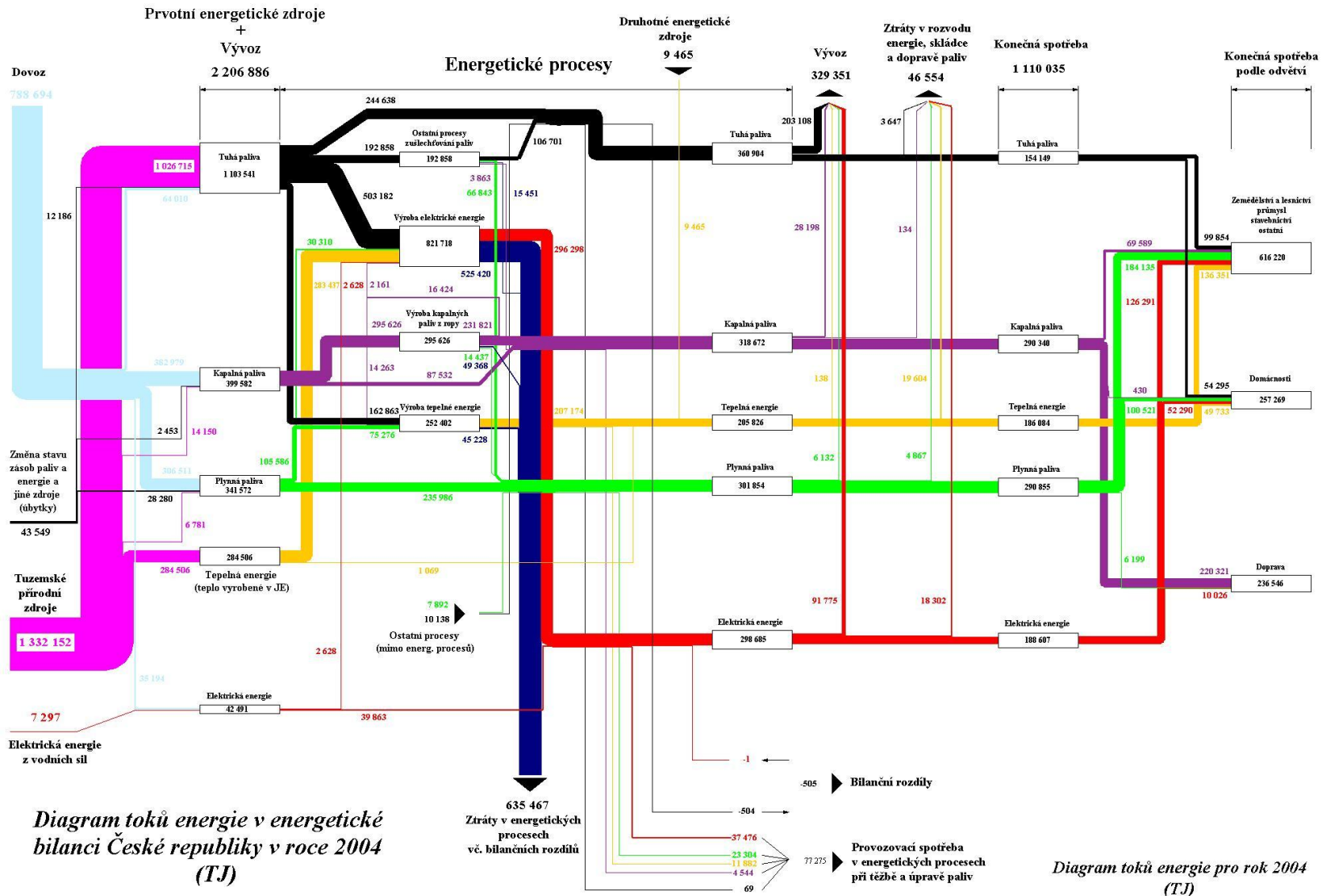
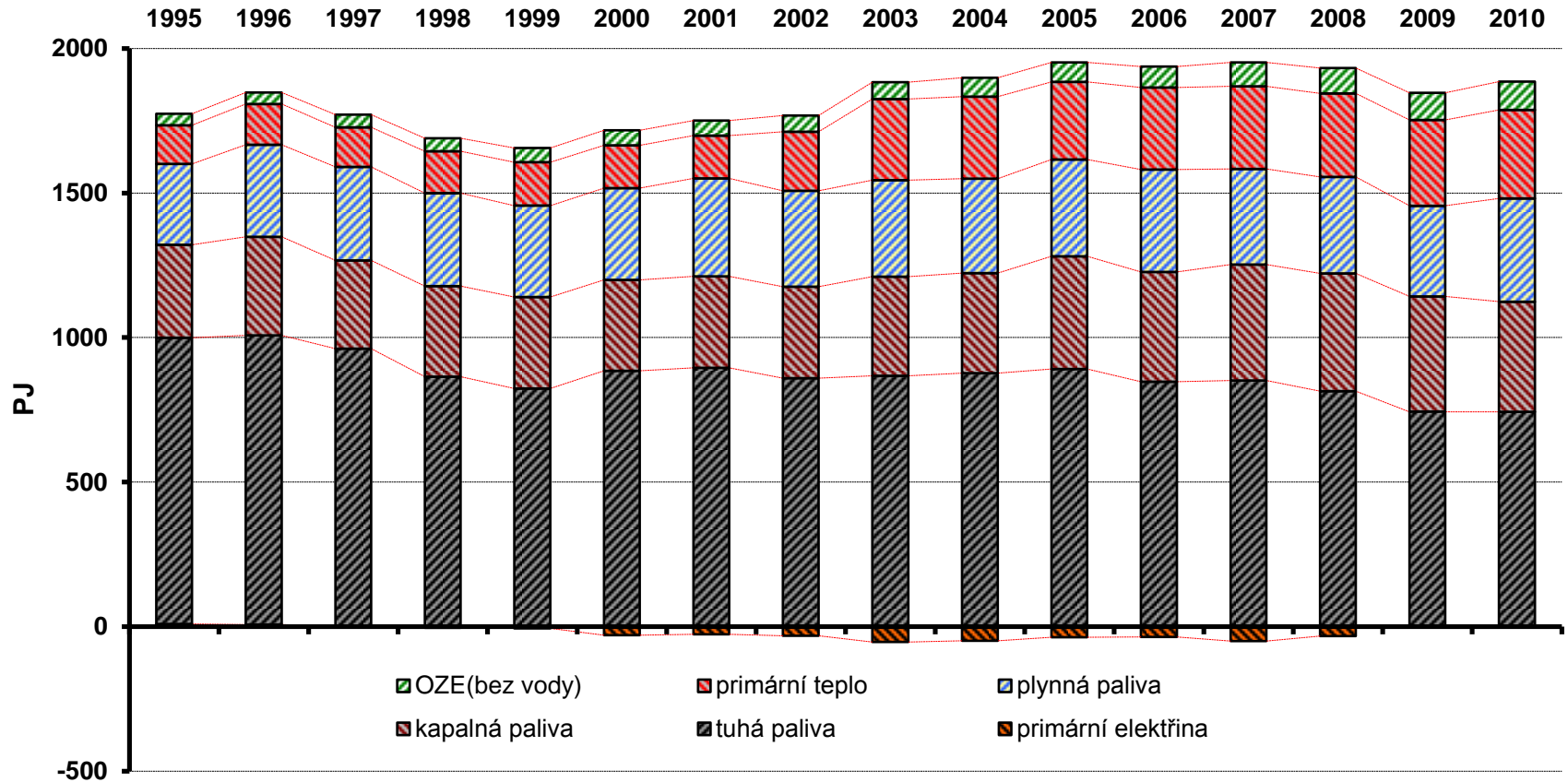


Diagram toků energie v energetické bilanci České republiky v roce 2004 (TJ)

Diagram toků energie pro rok 2004 (TJ)

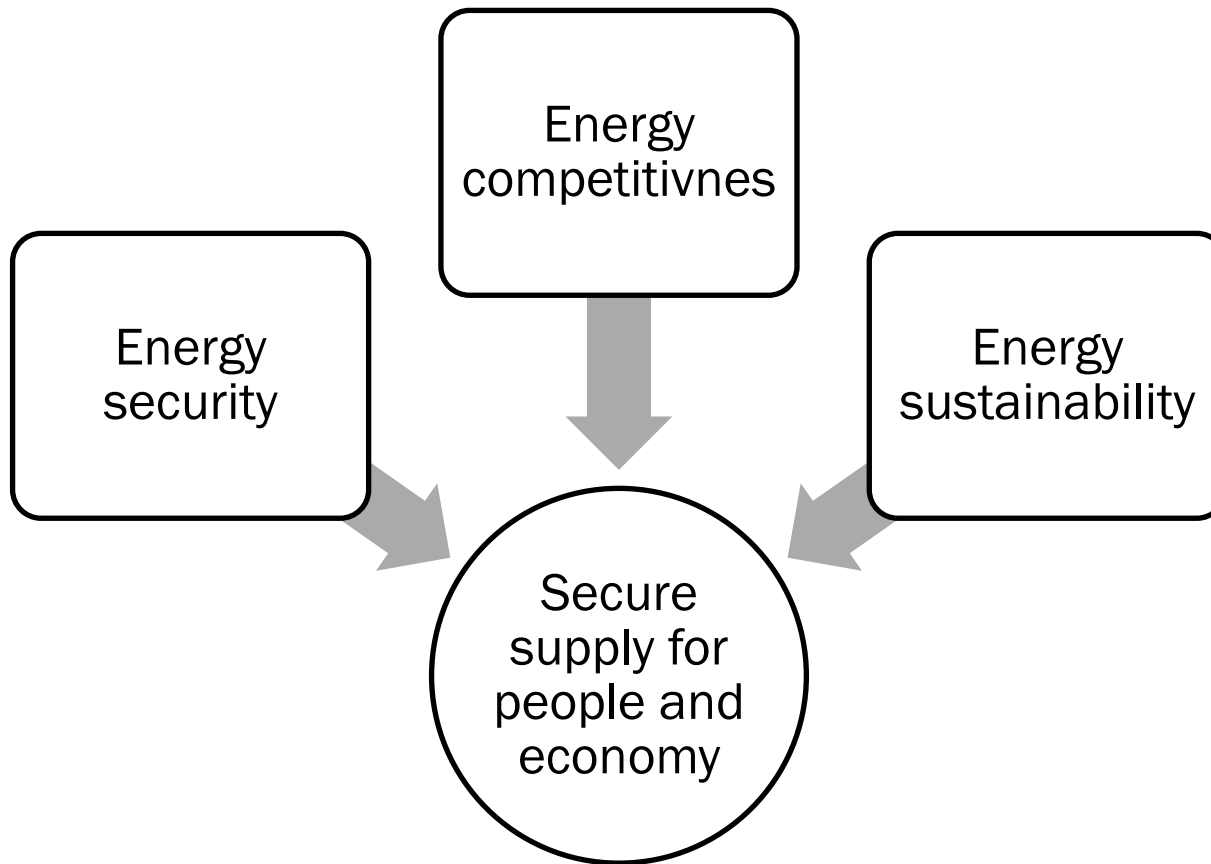
How does past development of energy system of the country look like?



Policy framework

- Ministry of Trade and Industry
- Ministry of Environment
- Ministry of Transport
- State energy policy 2004
- State energy policy 2012 (upcomming)

Principles of energy policy

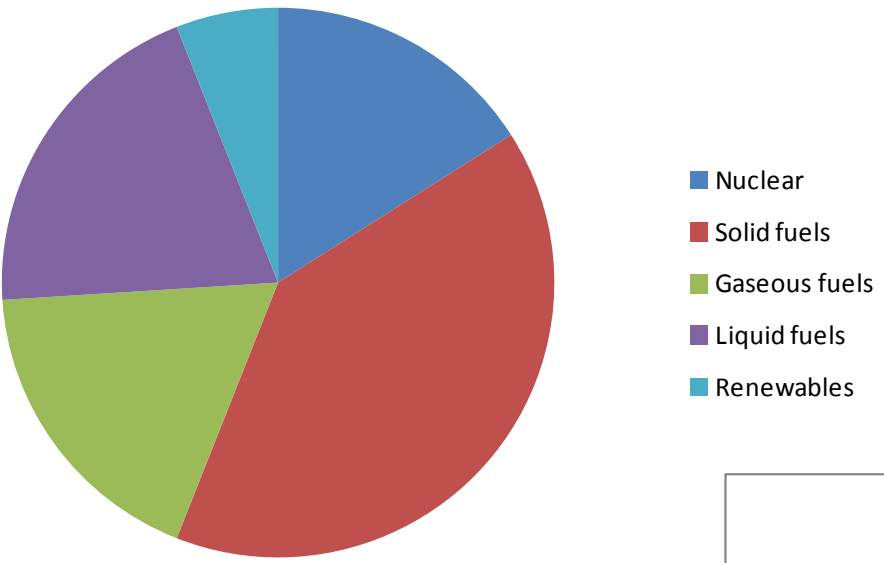


What is in new energy policy

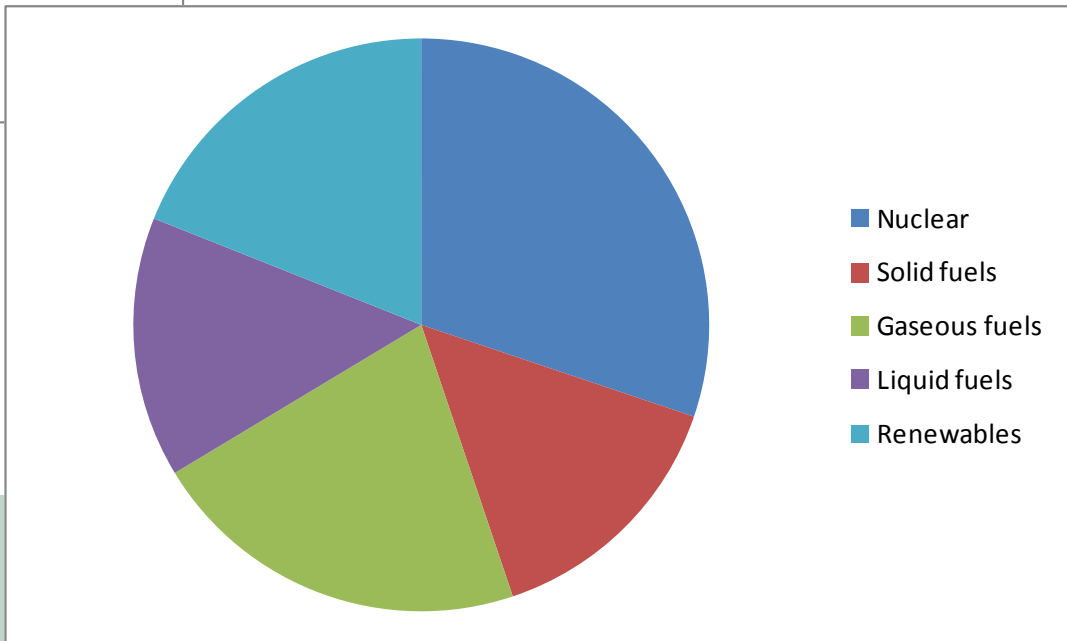
- Stop support of RES by financial mechanisms and use of non-financial
- Energy price regulations for households
- Priority for usage of domestic energy sources
- Changes in primary energy sources mixture
- Stagnation of Primary Energy Sources consumption
- New nuclear source
- Do not increase central heating systems
- Growth of fotovoltaics on roofs and houses to 6-7GWe
- Slightly higher prices of electricity

Energy outlook 2040

2010



2040



What is not in new energy policy

- Breaching of regional ecological limits
 - Assumption is that Czech energy system can live till 2035 without coal under these limits
 - There will be need to reopen this question 2018-2020
 - Commodity policy takes limits as given

What is not in new energy policy

- What tools will be used to promote energy savings
 - General description without any analytical basis
- Will be nuclear energy competitive?
 - One article actually talking about subvenceng NE
 - Ministry of finances was strongly against

Discussion

