

The current state and future plans of the Czech district heating sector

Jiří Vecka

Association for District Heating of the Czech Republic

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District heating in the Czech Republic

Basic figures:

People connected to district heating: 4 million (40 % of population)

Total heat supply: 21 TWh

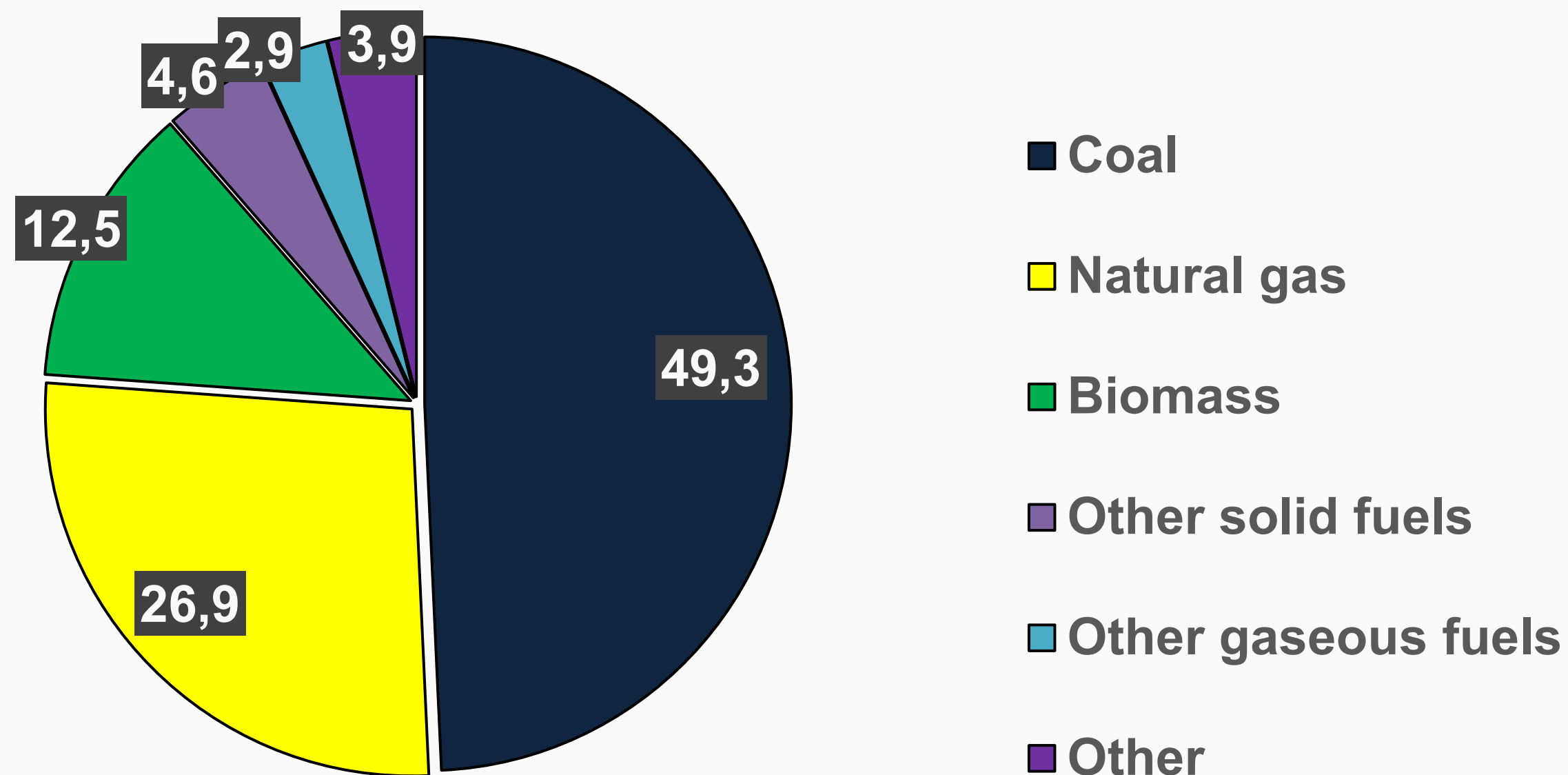
CHP electricity production 9,3 TWh

Length of heat networks: 7533 km

Hot water: 6248 km

Steam: 1285 km

Fuel mix of heat supply in 2024



Transformation of DH until 2030

Coal phase out until 2030

Replacement: biomass, waste to energy, gas CHP, heat pumps

Installed capacity in new/retrofitted CHP plants: 3 GW

Total investment cost: EUR 8 billion

Main source of investment subsidies: Modernization fund

Operating support for CHP plants awarded in auctions

Key funding source – HEAT program

The most successful program within the Modernization Fund

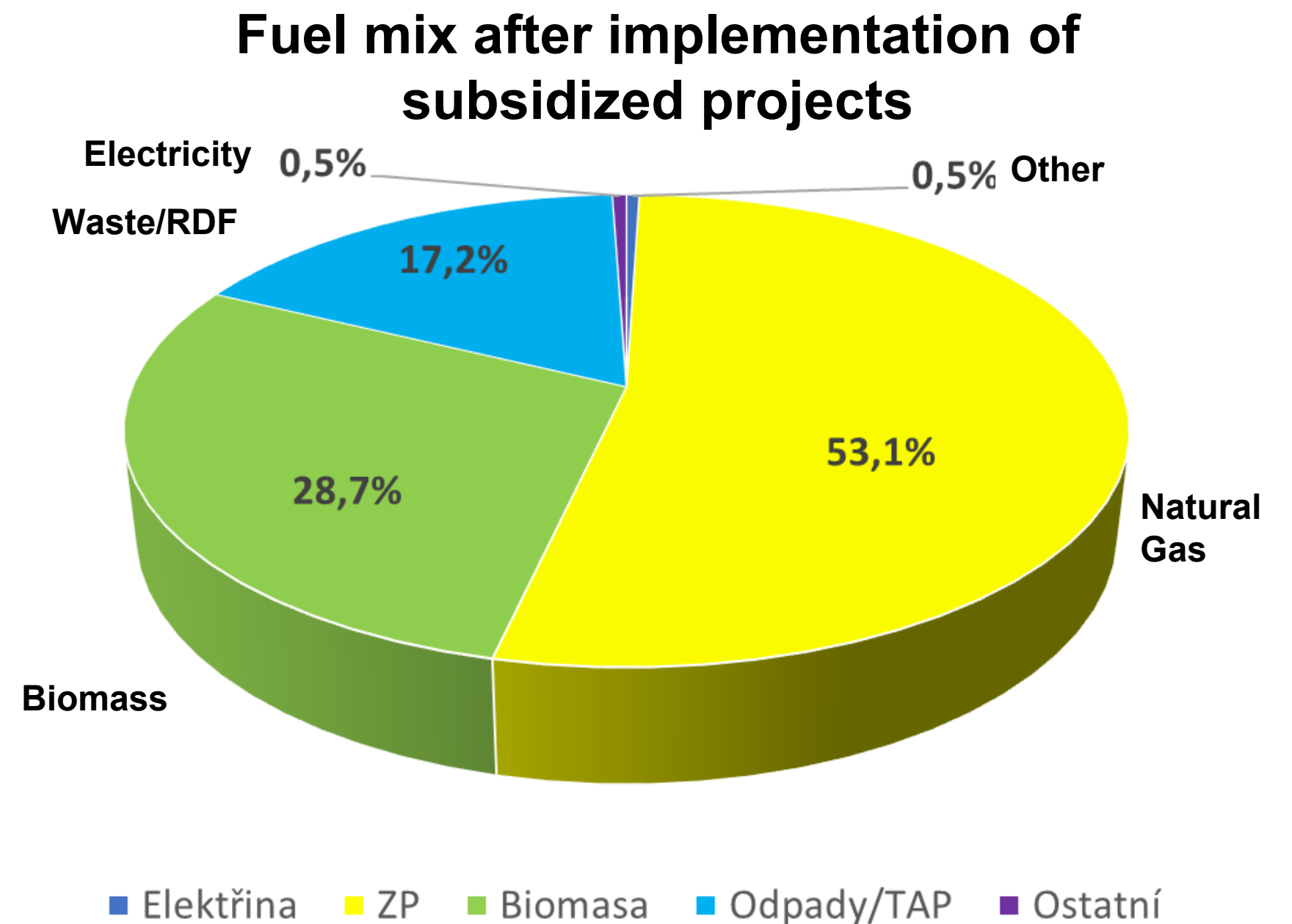
Allocation 92 billion CZK

101 projects submitted with a requested subsidy of 101 billion CZK

47 projects approved with a total subsidy of 75 billion CZK

Current HEAT call No. 1/2025

Start of receiving applications 7.7.2025,
end 28.11.2025, allocation 6 billion CZK
(240 mil. EUR)



Auction of support for electricity from CHP

Plants over 1 MWe, new and modernisation

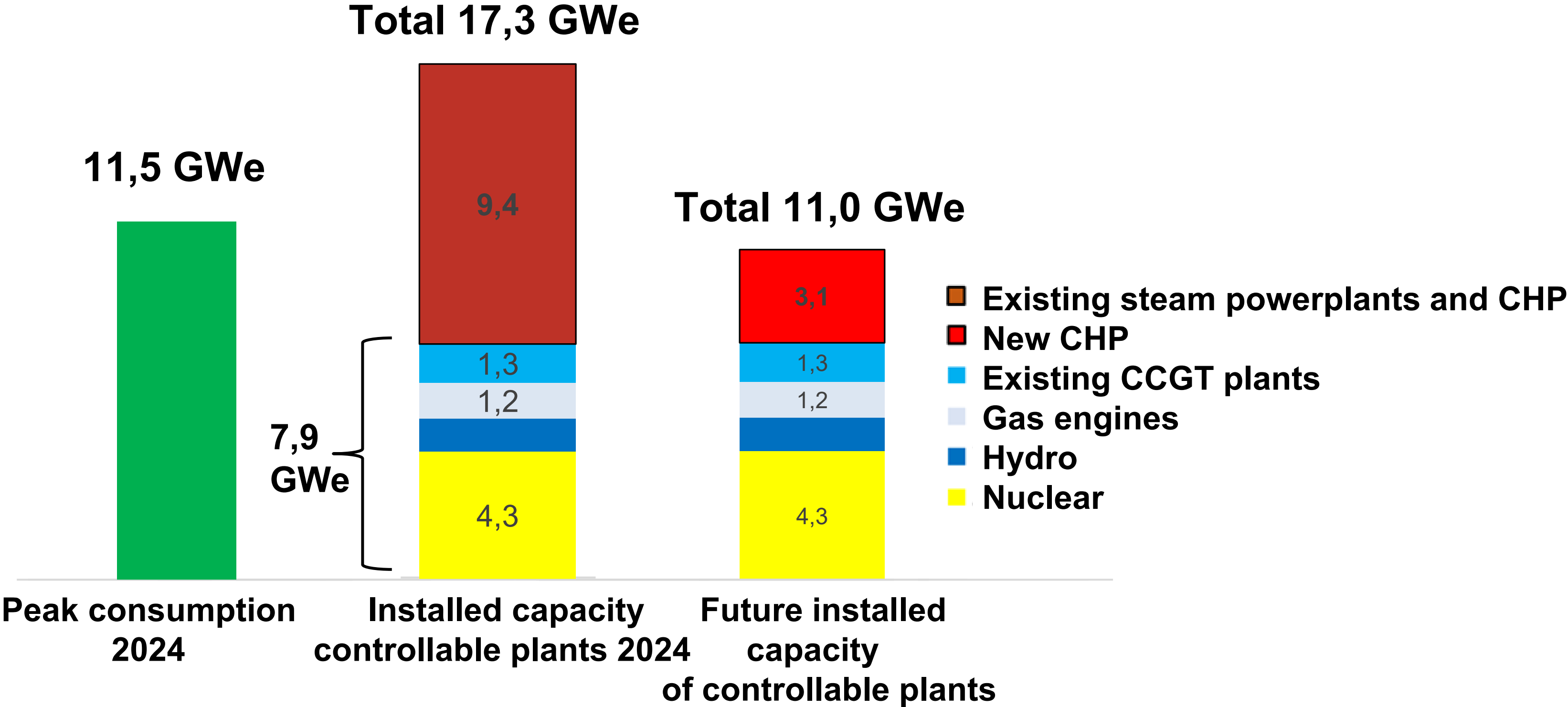
1st auction ended 30.9.2024	1267 MWe tendered
2nd auction ended 17.3.2025	13 MWe tendered
3rd auction ended 13.8.2025	899 MWe tendered
Total	2179 MWe

By the end of November 2025, the last auction of 911 MWe will be announced
Total 3090 Mwe

Utilization of 3300 hours

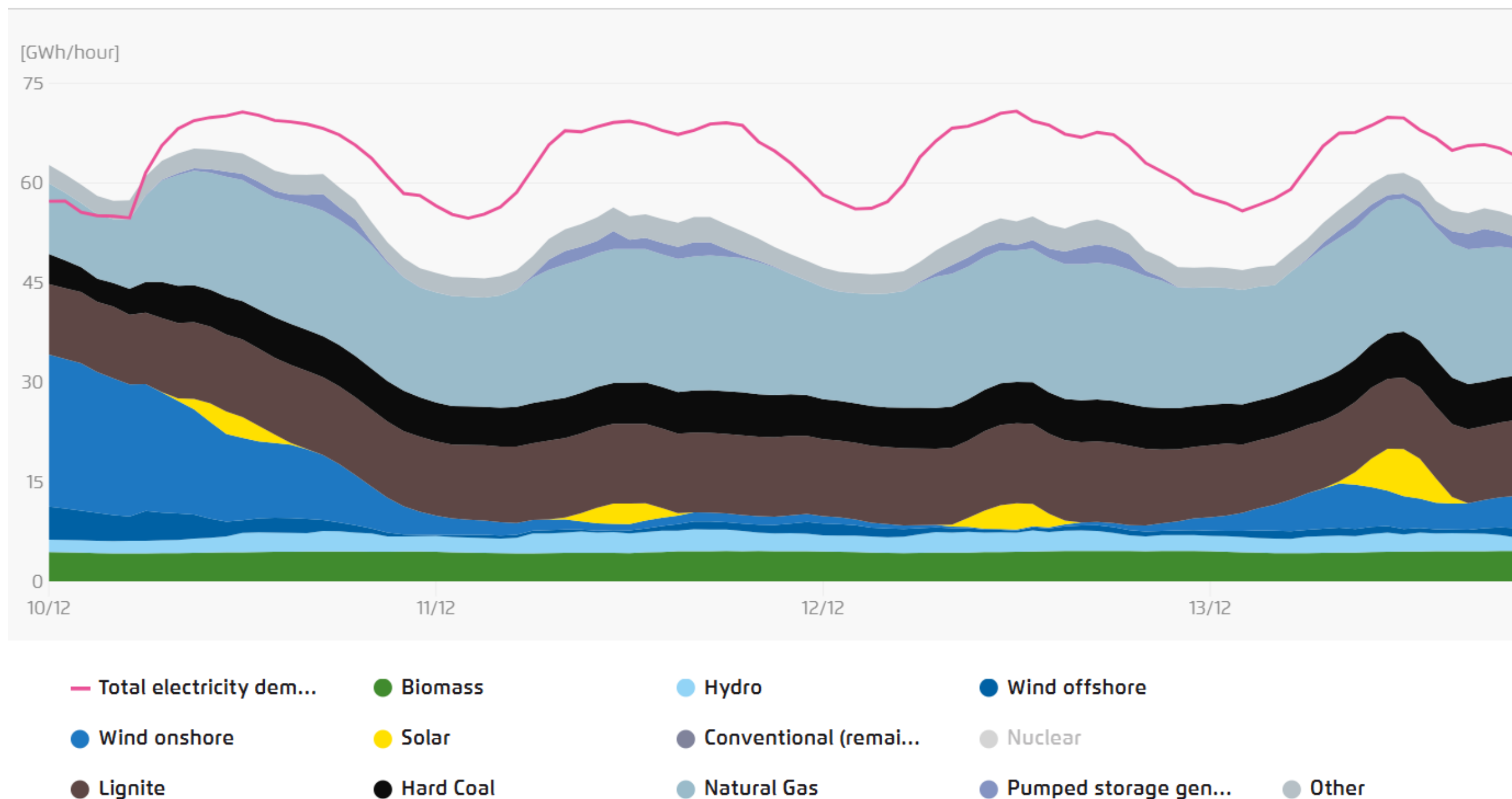
2179 MWe means production of 7.2 TWh of electricity and consumption of approx. 16 TWh of gas
3090 MWe would mean production of 10.2 TWh and consumption of approx. 23 TWh of gas

The role of CHP plants in ensuring resource adequacy



Dunkelflaute in Dec 2024

Power generation and consumption



Utilization of heat from nuclear plants

Since 1998, heat supplies from Temelín to Týn nad Vltavou (180 thousand GJ per year)

Temelín – České Budějovice pipeline

26 km main feeder, max temperature 140 °C, investment 2.4 billion CZK (96 mil. EUR)

commencement of operation October 2023

in the second year of operation, supplied 781 thousand GJ, saving 80+ thousand tons of CO₂

Dukovany – Brno pipeline

42 km main feeder DN 700, investment 19 billion CZK (760 mil. EUR)

heat supply 2 million GJ per year

saving 77 million m³ of gas per year (135 thousand tons of CO₂)

expected commissioning 2031

A few notes on the implementation of EU ETS2

A total of 1,739 thousand households already pay ETS 1 allowances in their heating costs, which represents 39% of households in the Czech Republic.

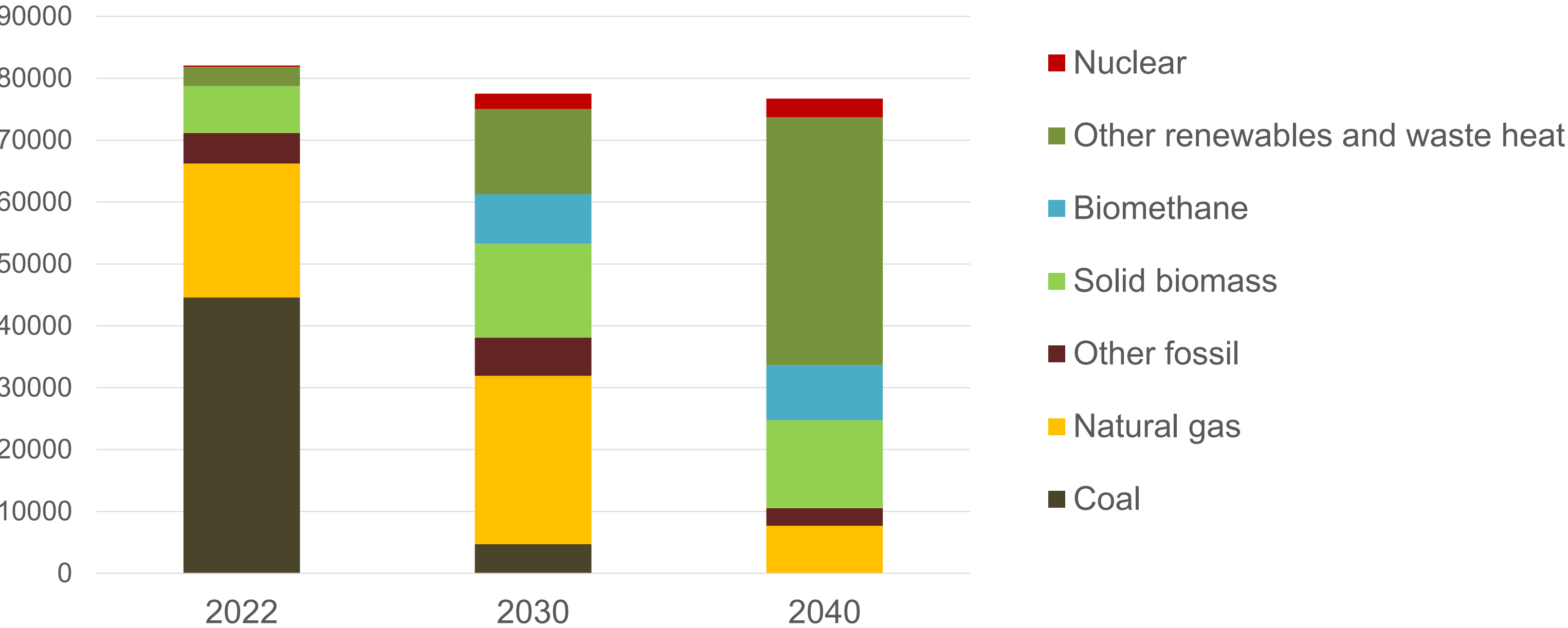
- Households connected to heat supply systems with sources in ETS 1 and households that use electric storage and direct heating or heat pumps. Another 9% use biomass.**
- In the case of heat supplies from coal, the costs of ETS1 allowances in the price of heat for households account for 25%, in the case of heat supplies from gas, it is 11%.**
- In the years 2020 to 2024, operators of heating plants in ETS1 paid more than CZK 71 billion for allowances.**

Outcome of the ENV Council on 5th Nov 2025

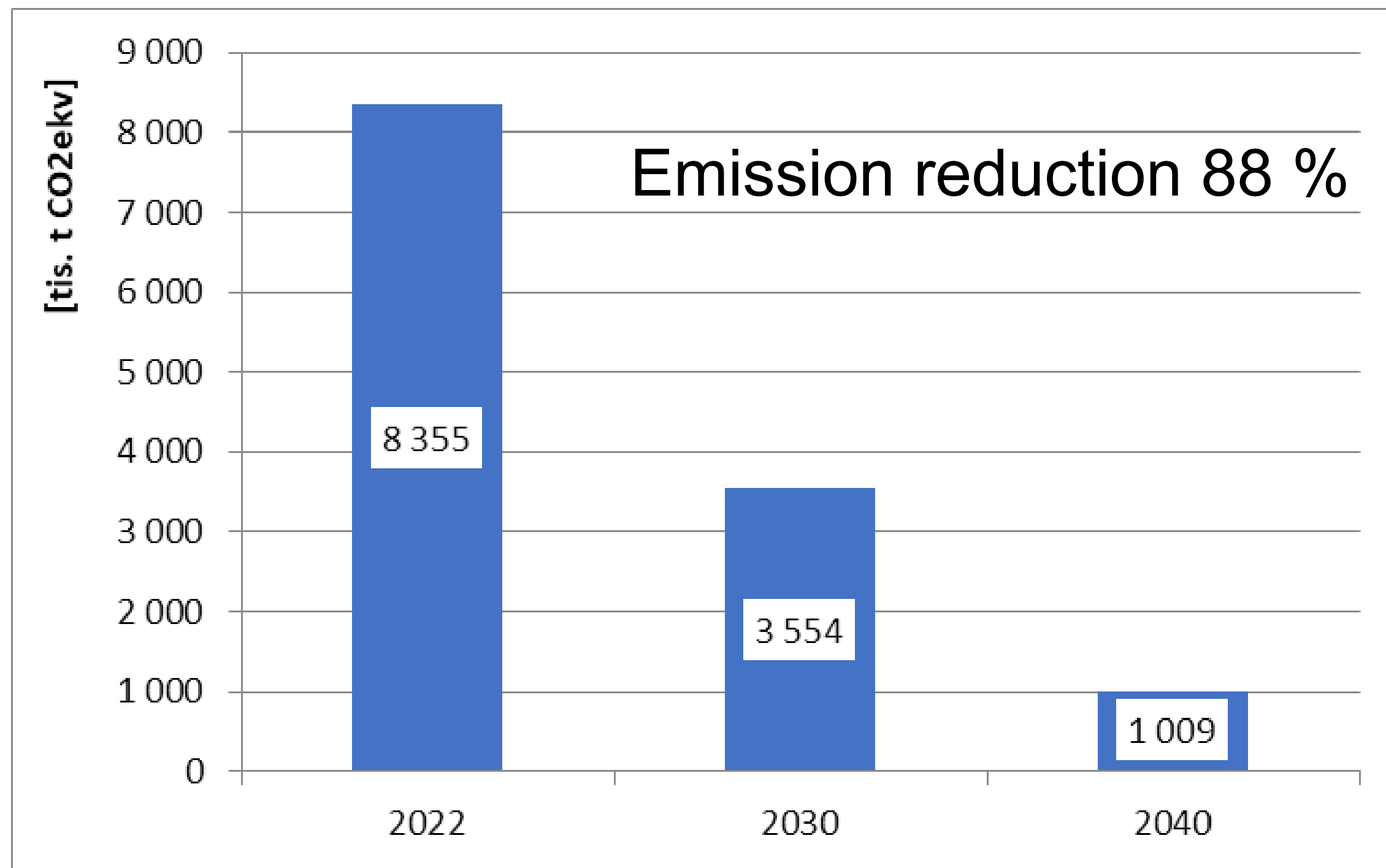
- Postpone implementation of ETS2 from 1st Jan 2027 to 1st Jan 2028**
- This prolongs the completely illogical advantage of households that produce their own heat from fossil fuels over households connected to district heating plants, which will invest over EUR 8 billion in decarbonization over the next five years.**

Shift happens

Fuel mix for district heating (TJ)



CO₂ emissions from heat production



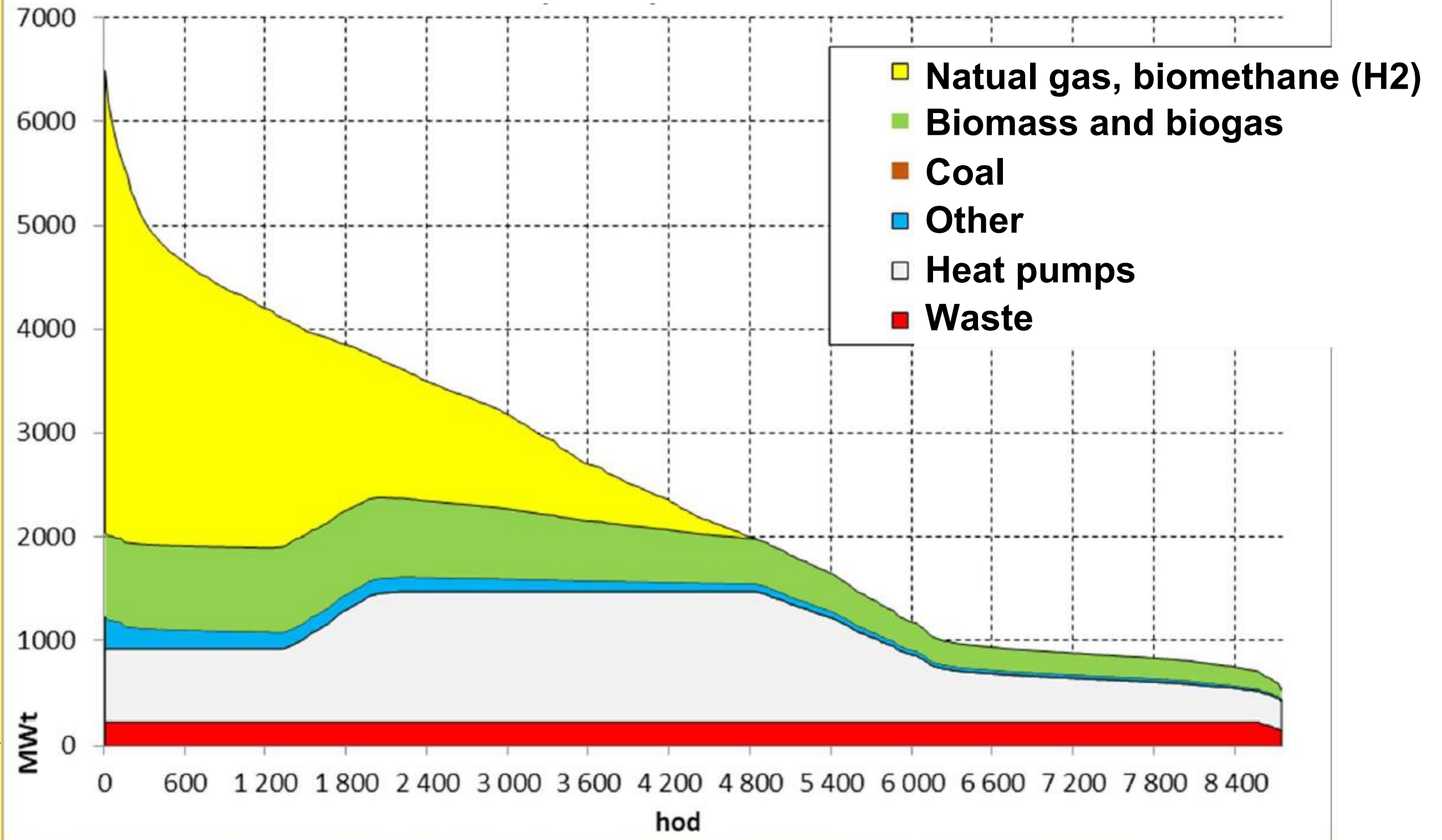
The role of (low-emission) gases in district heating

[TJ]	2022	2030	2040
Natural gas	21 607	27 214	7 688
Biogas	603	667	1 333
Hydrogen	0	200	2 604
Biomethane	0	8 013	8 910
Total gaseous fuels	22 210	36 094	20 535
Share on heat deliveries	27,1%	46,6%	26,8%

Ministry of Industry and Trade, Assessment of the decarbonization of district heating in the Czech Republic, September 2024

Seasonal nature of gas consumption 2040

Utilisation of thermal output to district heating networks



Conditions for successful transformation

Government:

Finish approval process of projects in Modernization fund

Finish auctions of operating support for CHP plants

Implement ETS 2

Energy regulatory office:

Introduce tariff reform in electricity distribution rewarding flexibility

Technology suppliers:

Deliver on time and at reasonable price

Thank you for your attention