ODNOSI I TRENDOVI U ENERGETSKOM SUSTAVU RH

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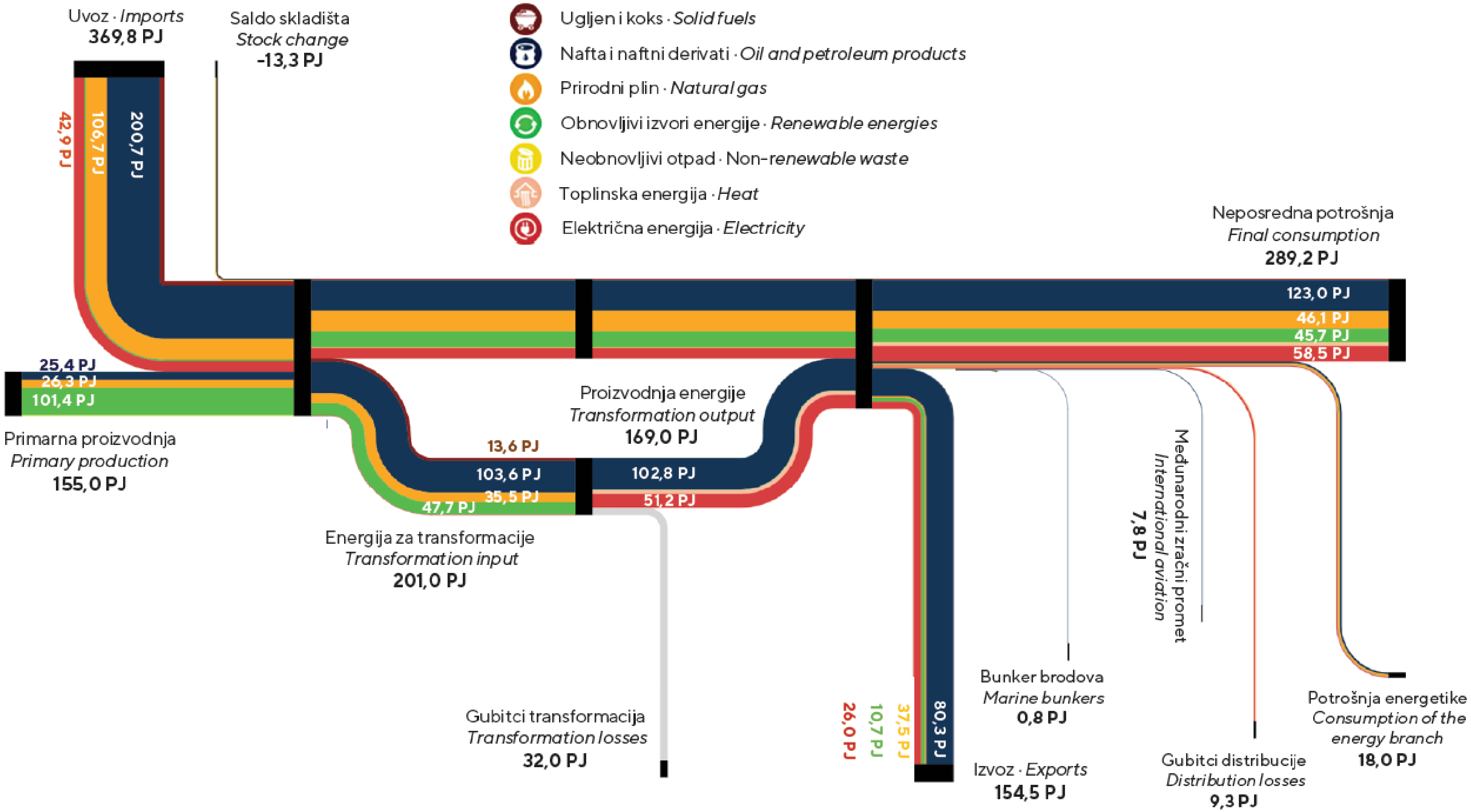
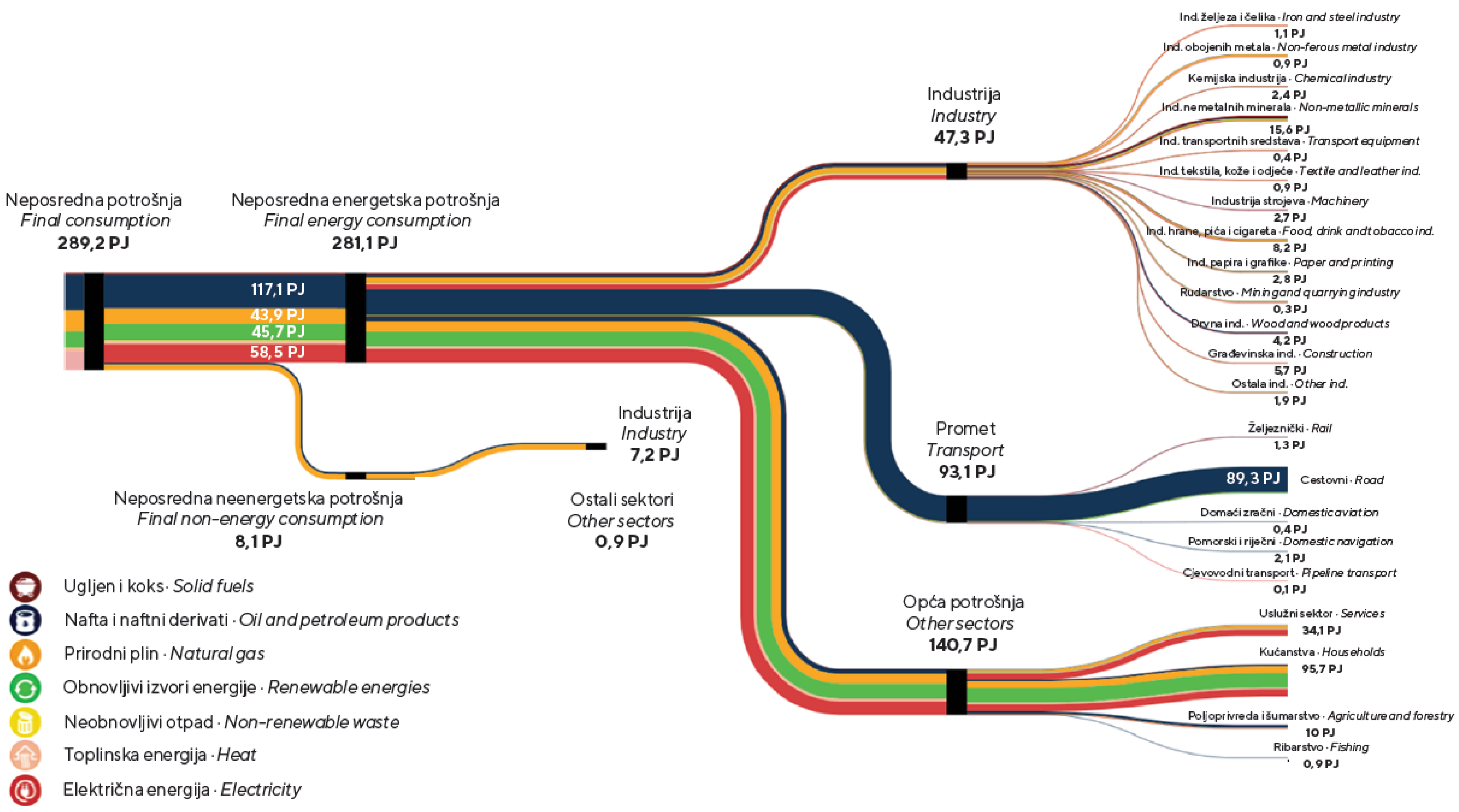
HAZU 17.6.2024.

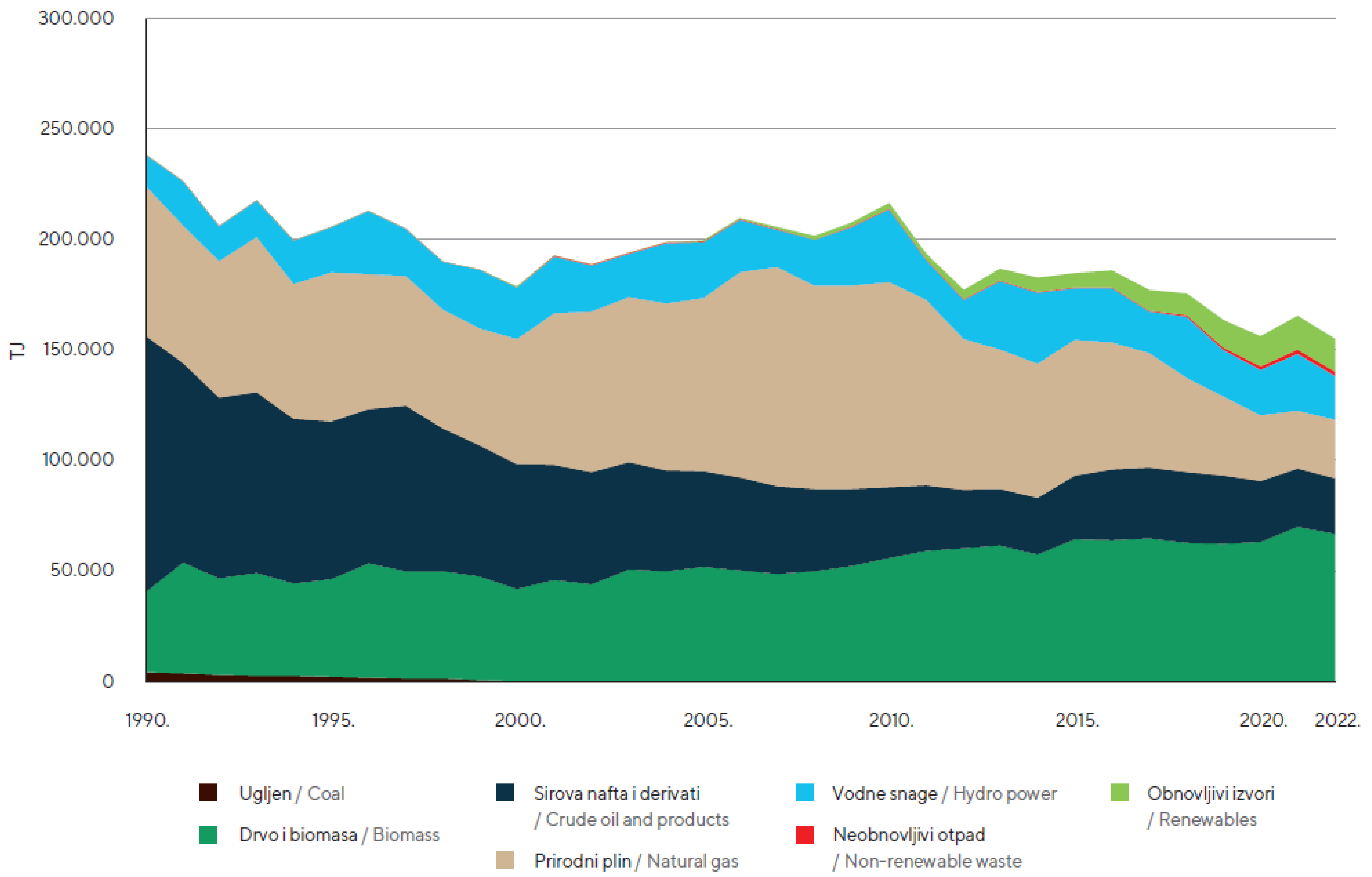
Energetska bilanca RH 2022.



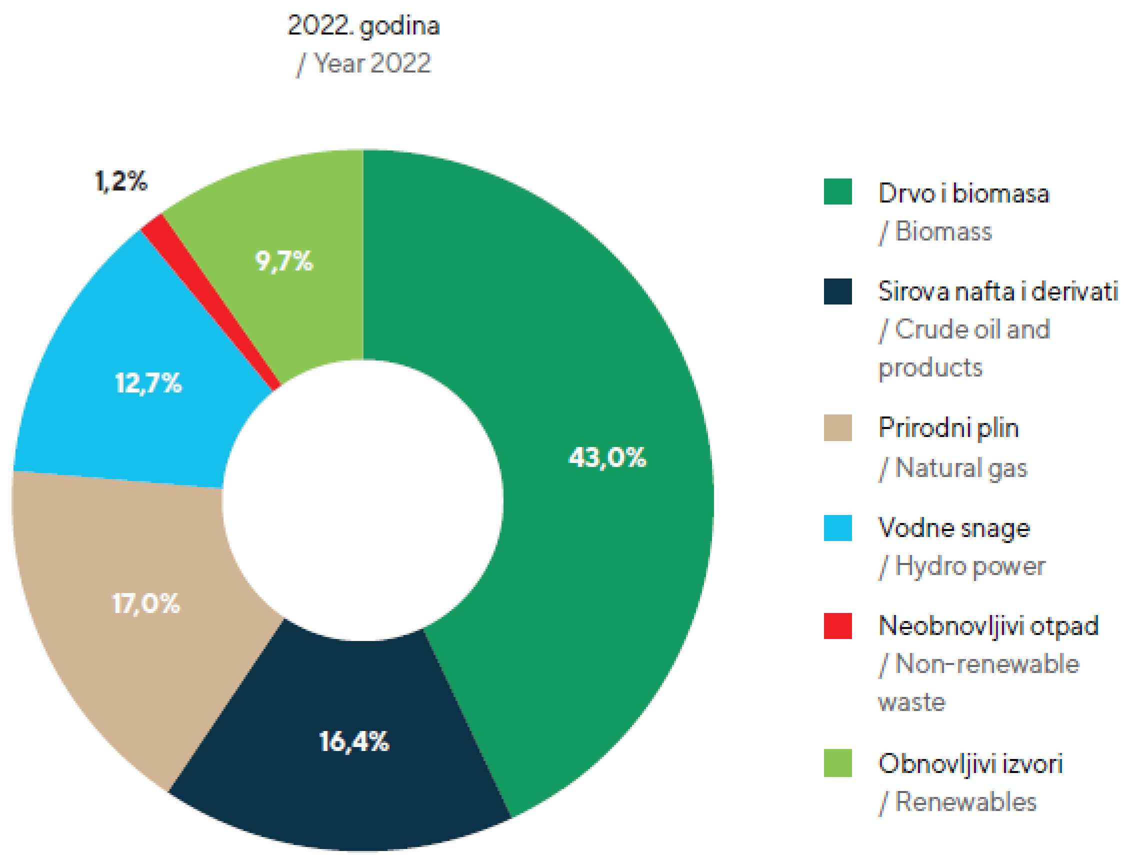
Energetska bilanca RH 2022.



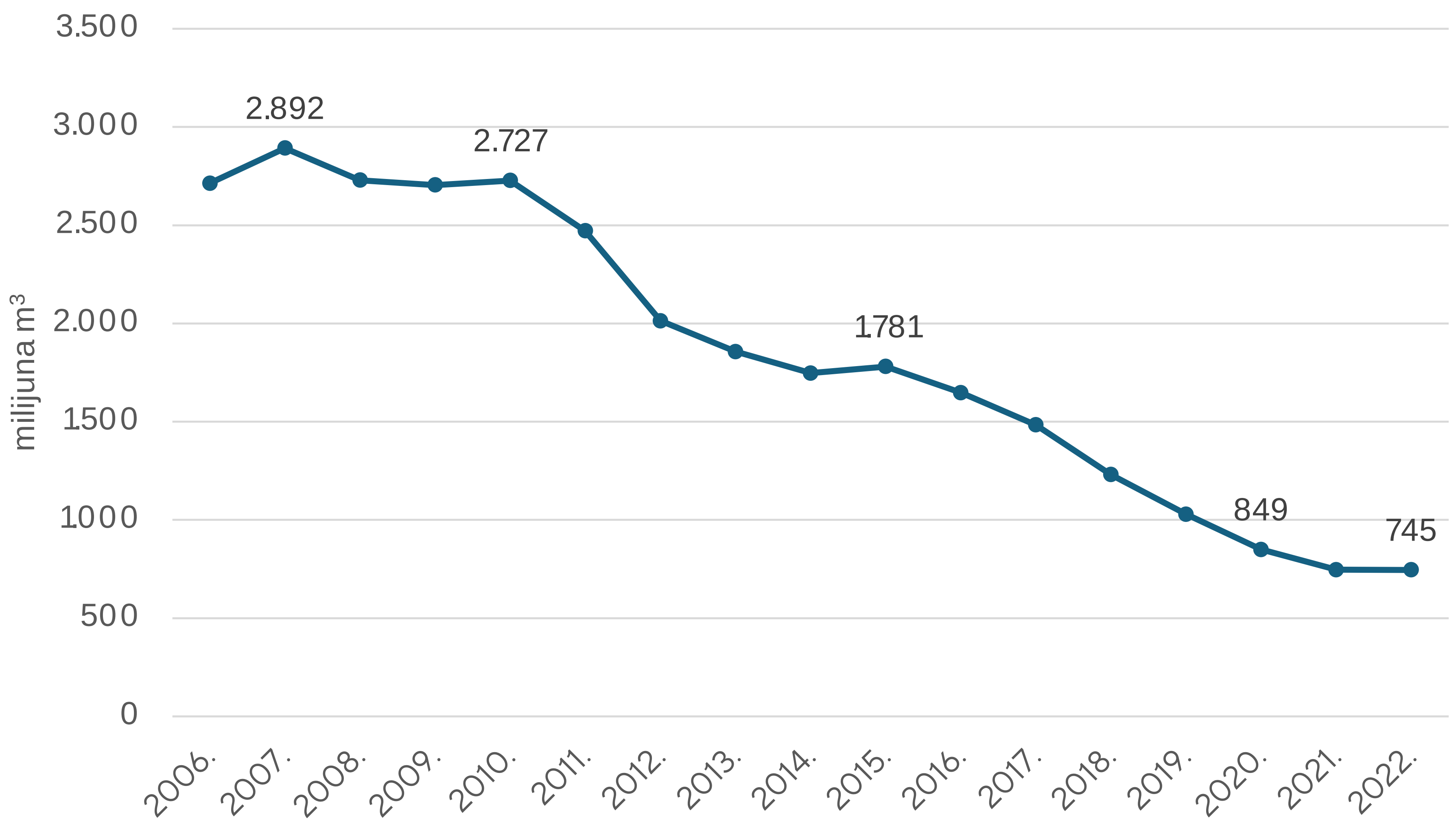
Proizvodnja primarne energije



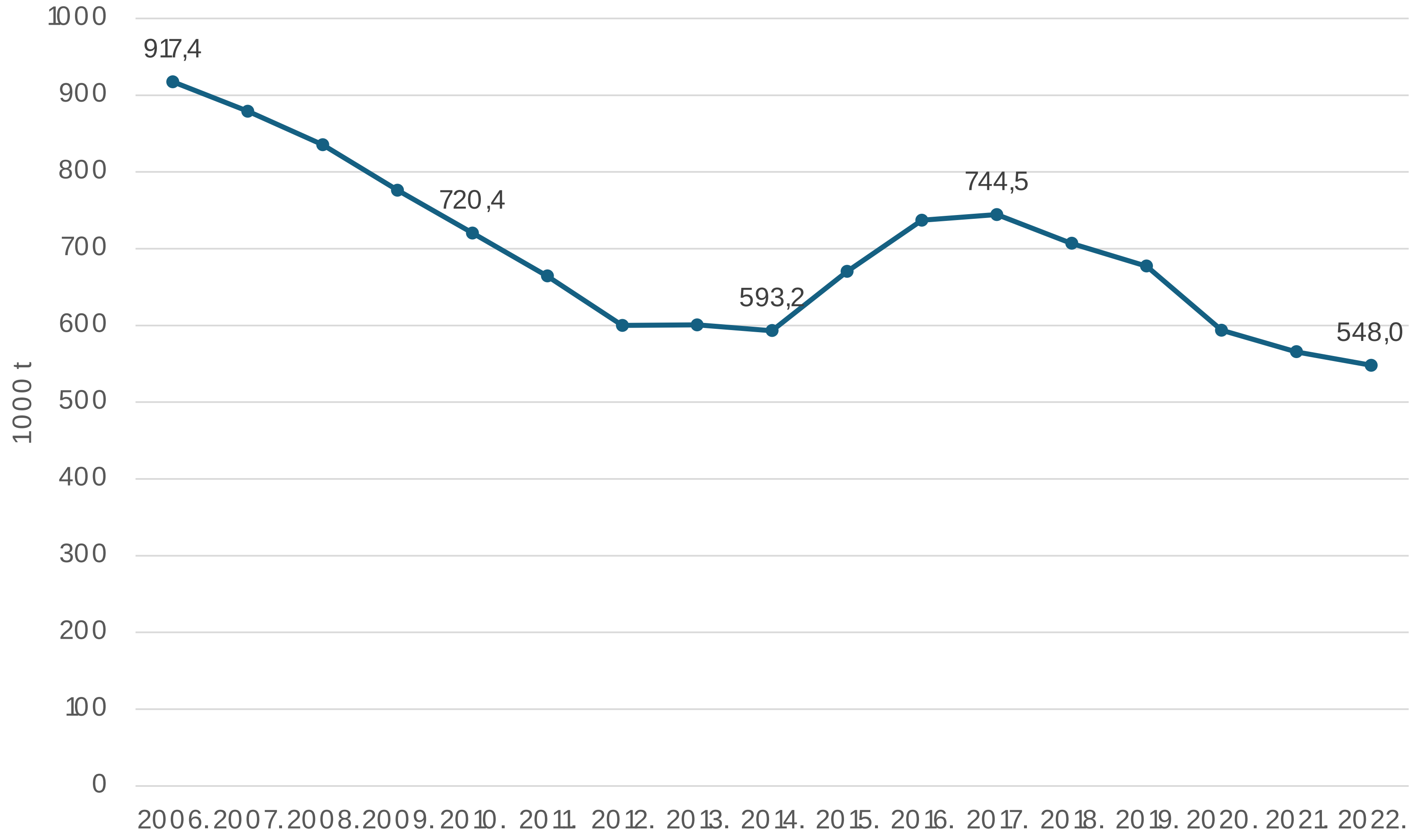
Proizvodnja primarne energije



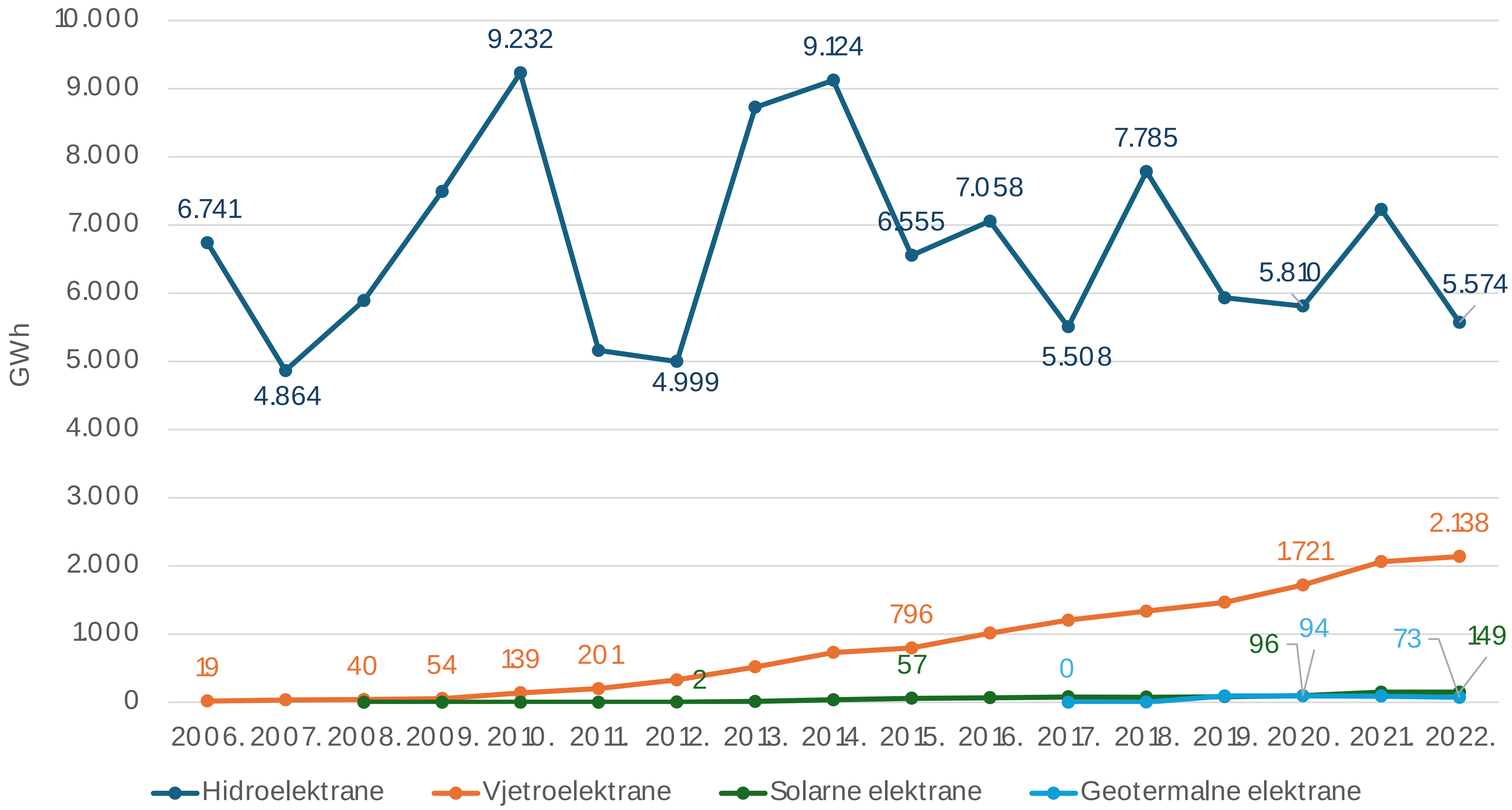
Proizvodnja prirodnog plina



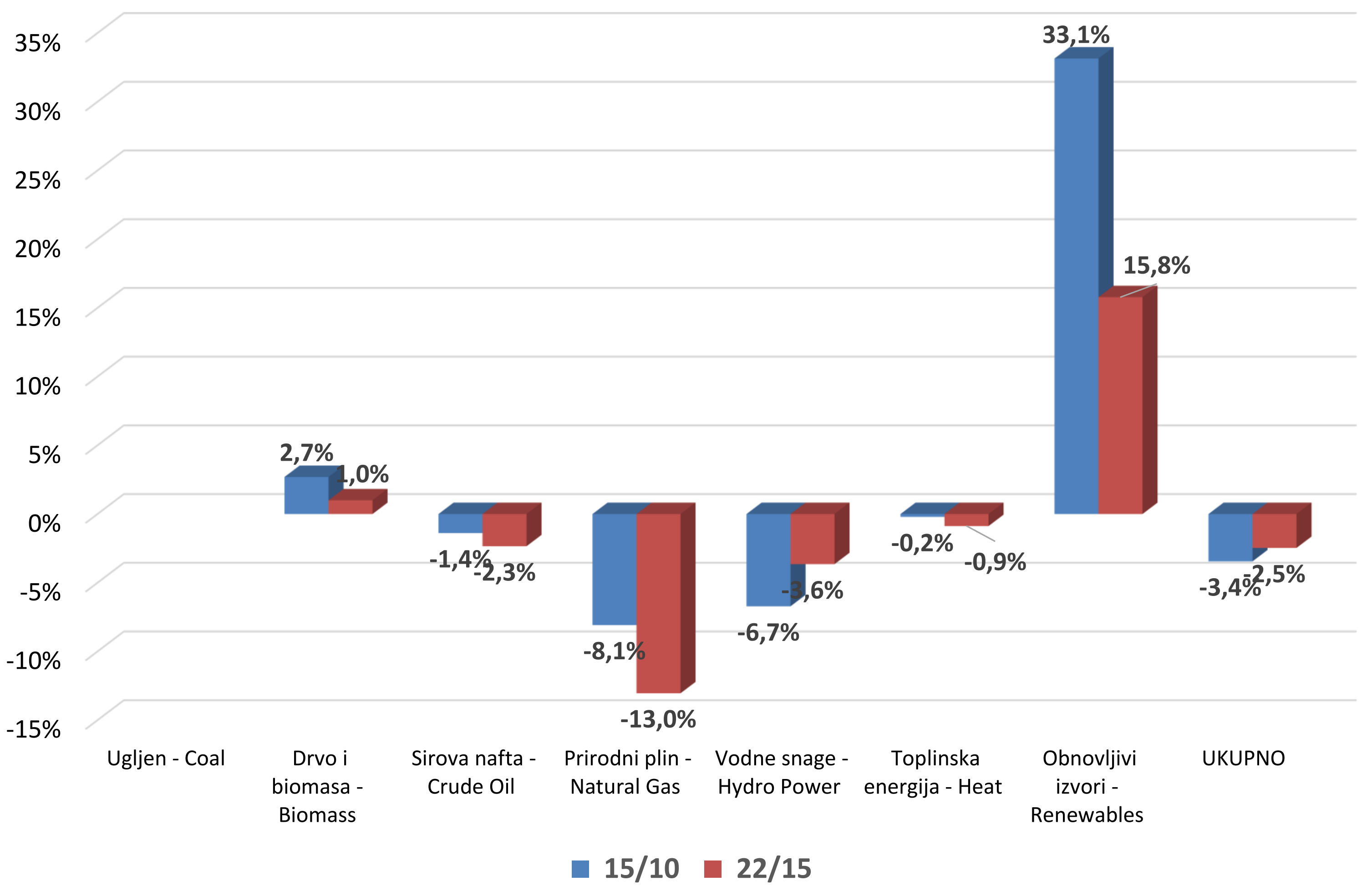
Proizvodnja sirove nafte



Proizvodnja električne energije iz OIE



Proizvodnja primarne energije



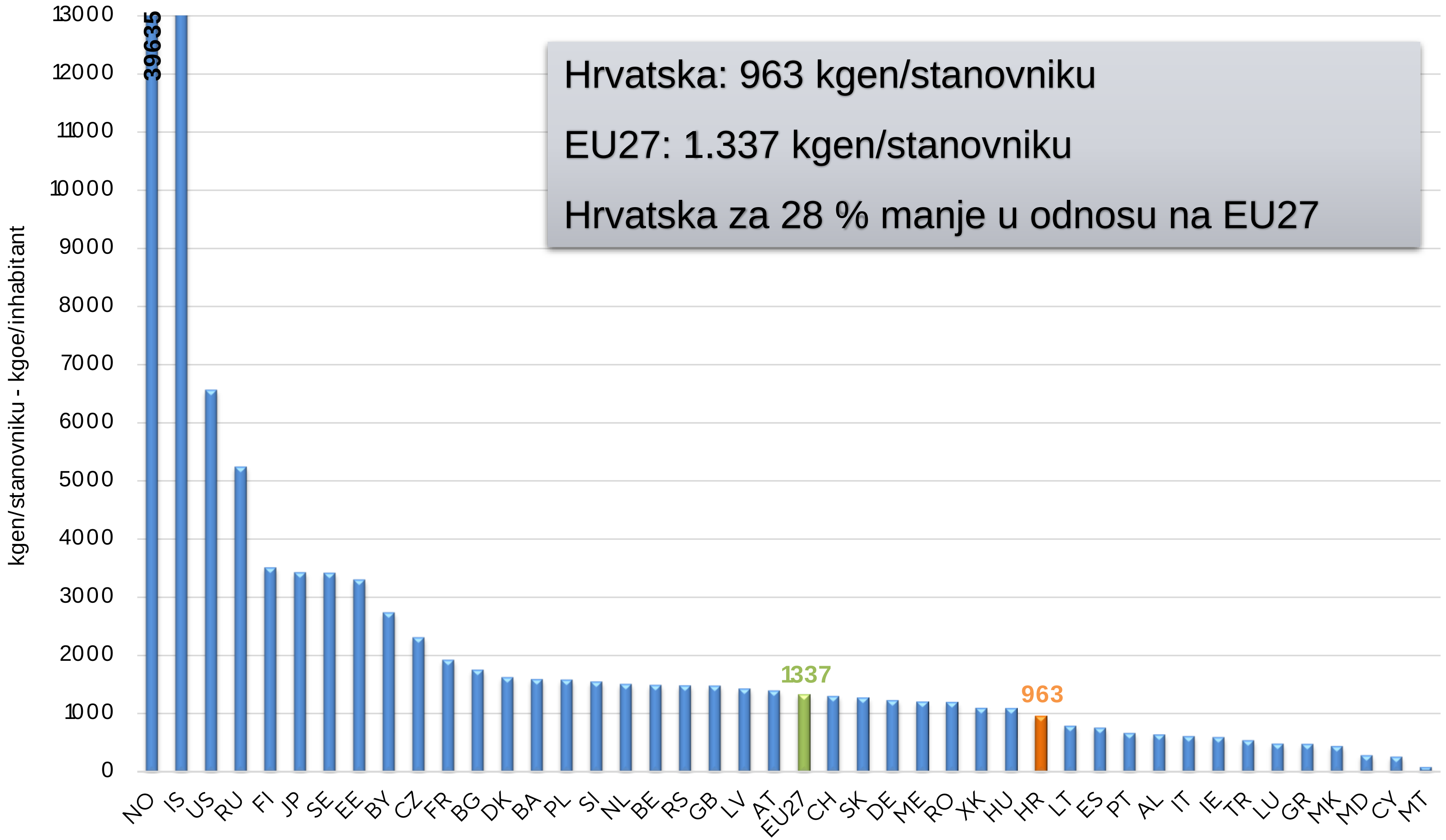
HAZU 17.6.2024.

Proizvodnja primarne energije po stanovniku

Hrvatska: 963 kgen/stanovniku

EU27: 1.337 kgen/stanovniku

Hrvatska za 28 % manje u odnosu na EU27



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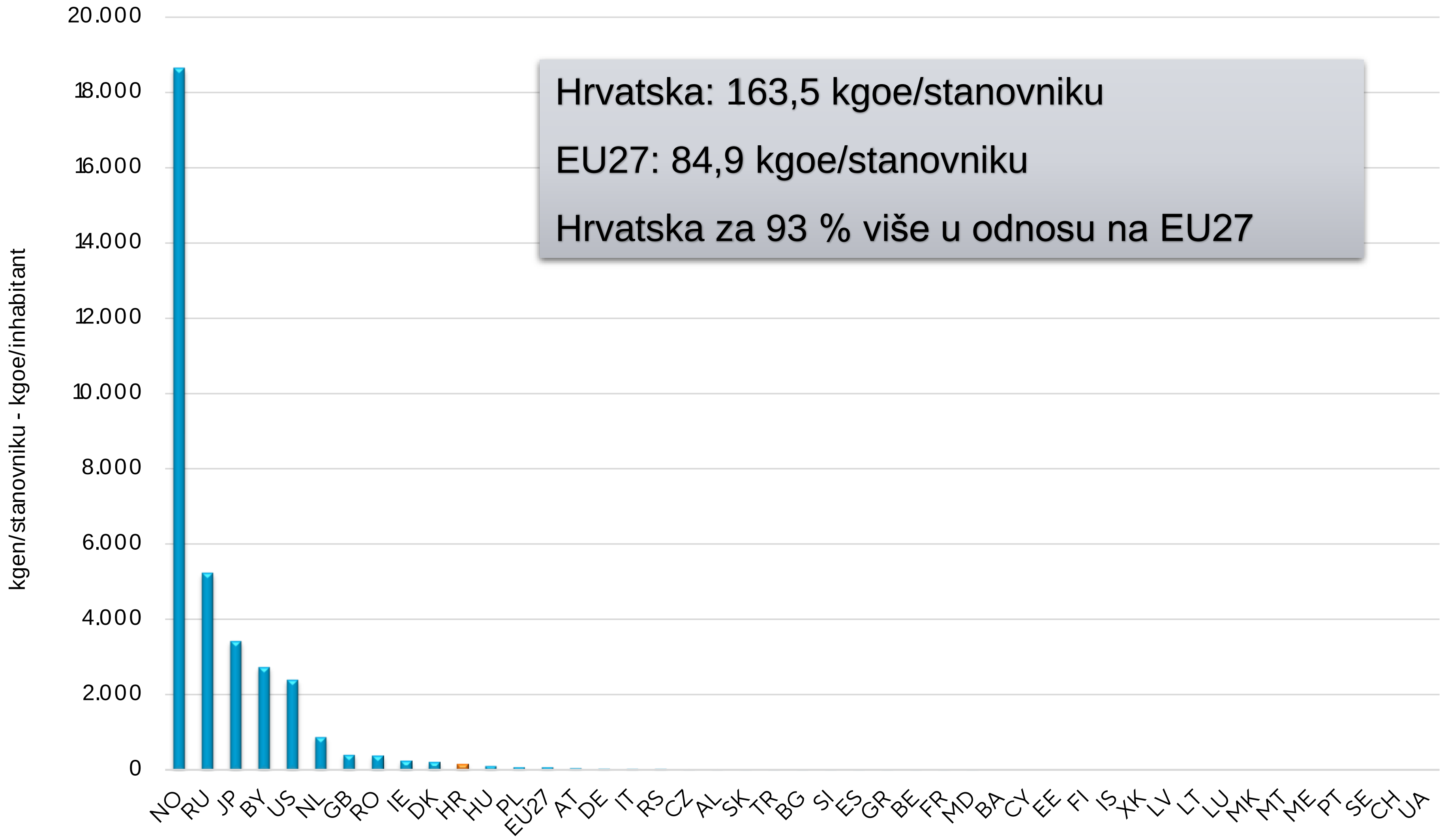
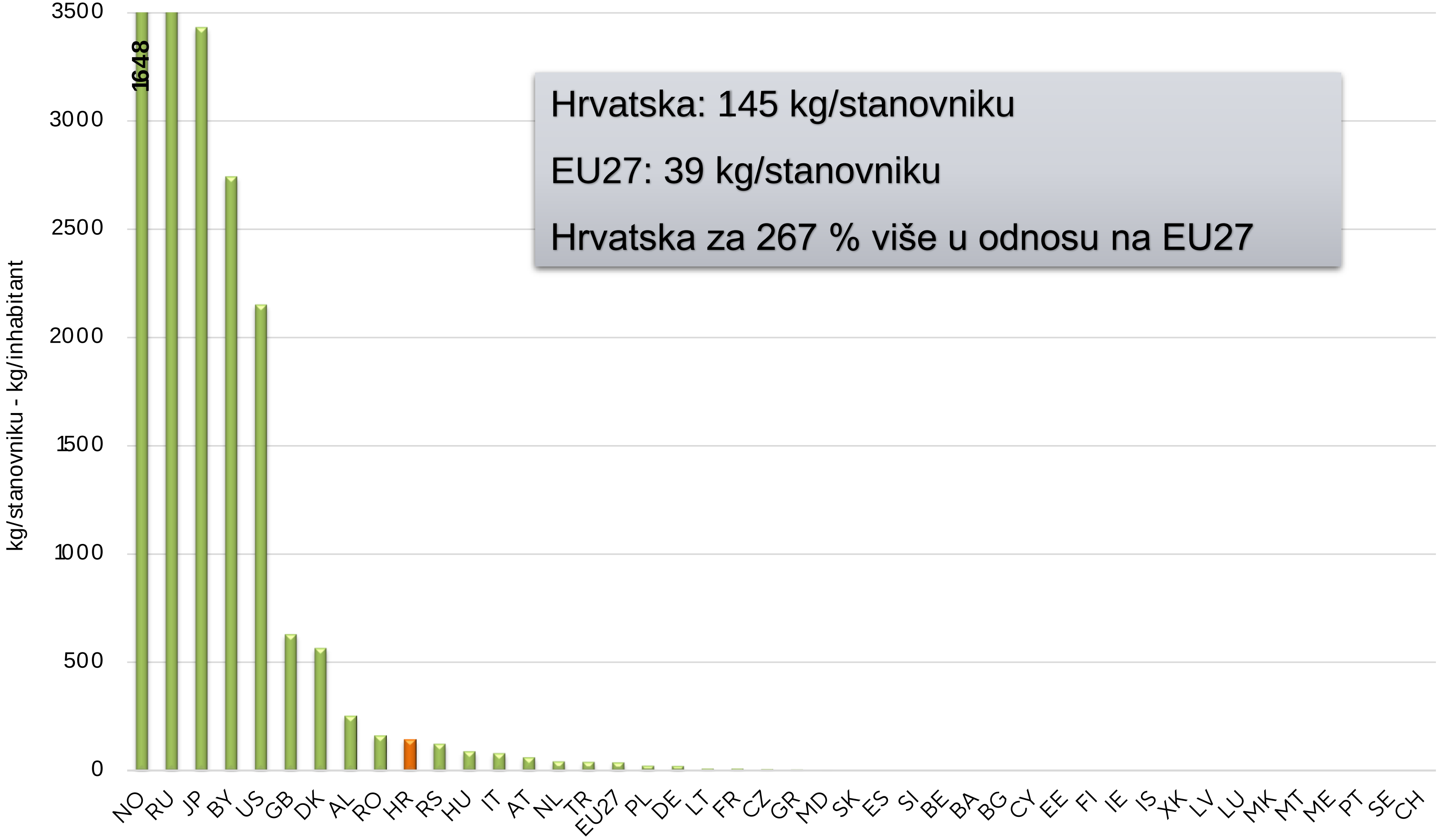
Proizvodnja prirodnog plina po stanovniku



Proizvodnja sirove nafte po stanovniku

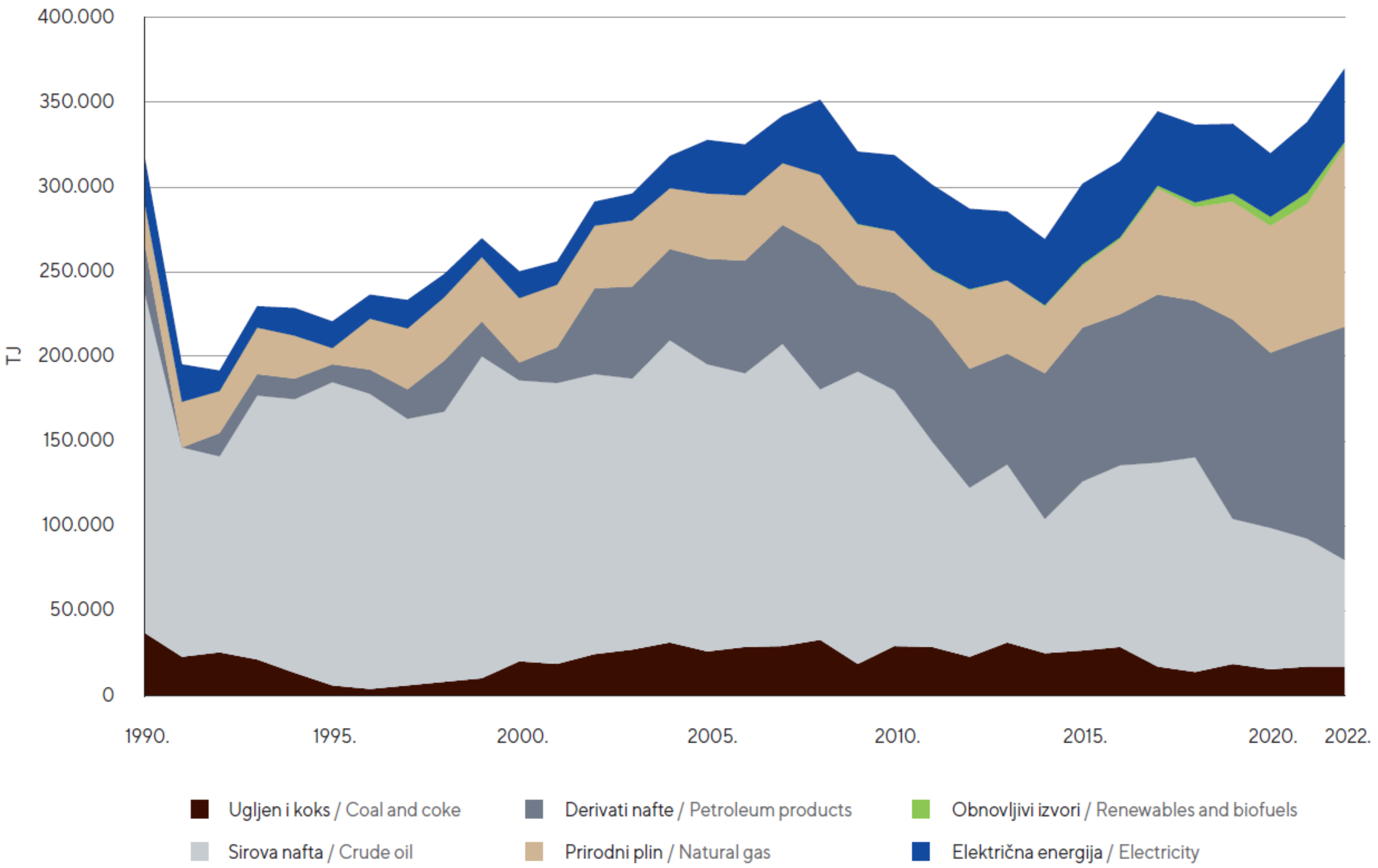


Hrvatska: 145 kg/stanovniku

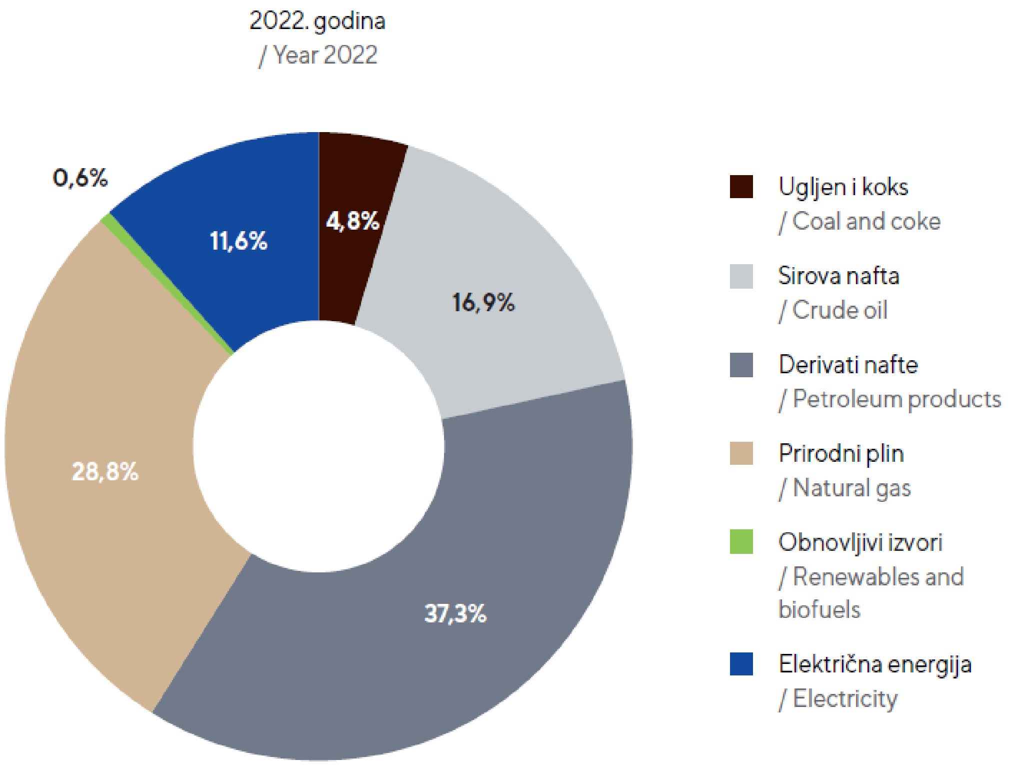
EU27: 39 kg/stanovniku

Hrvatska za 267 % više u odnosu na EU27

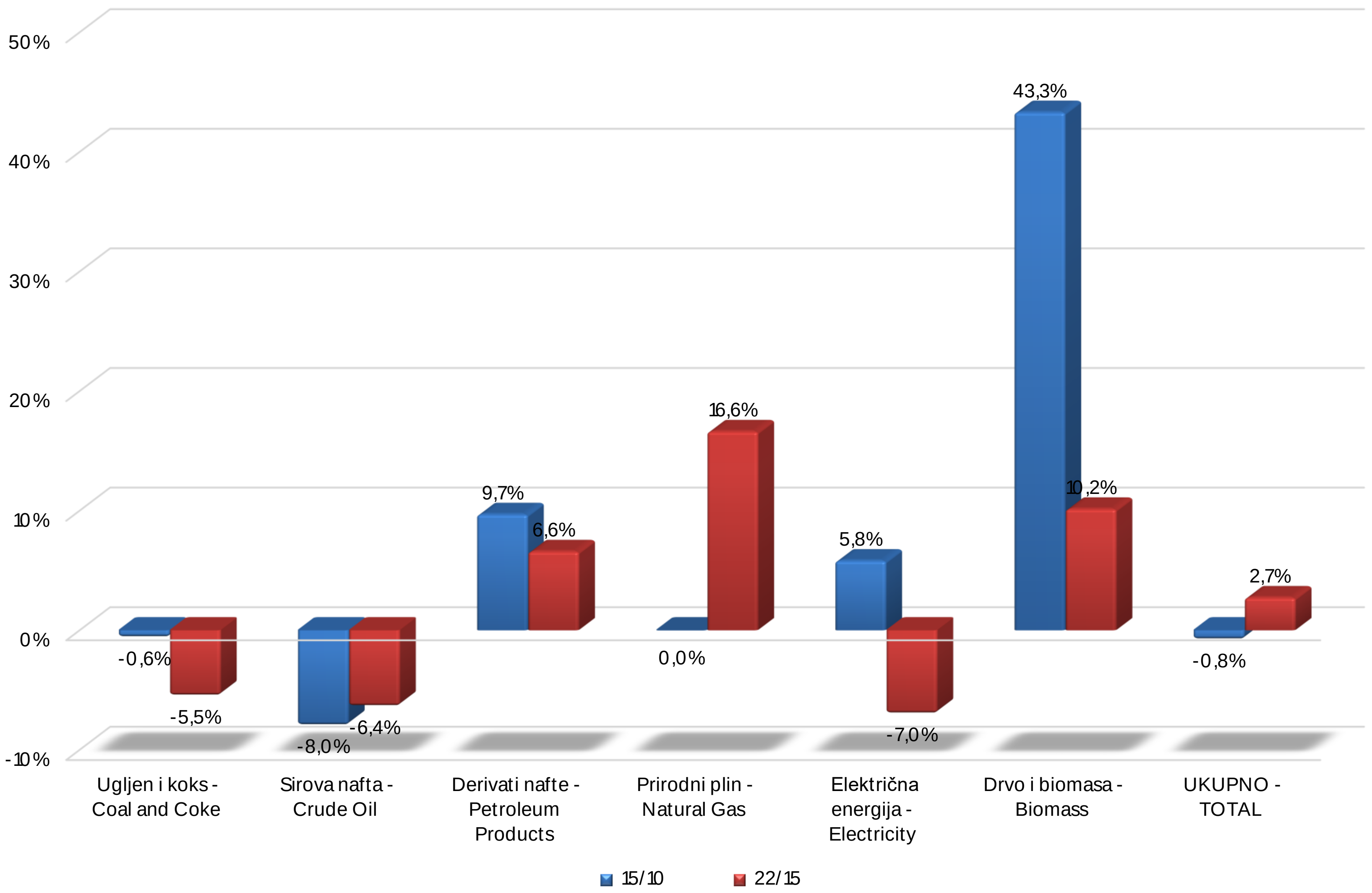
Uvoz energije u Hrvatsku



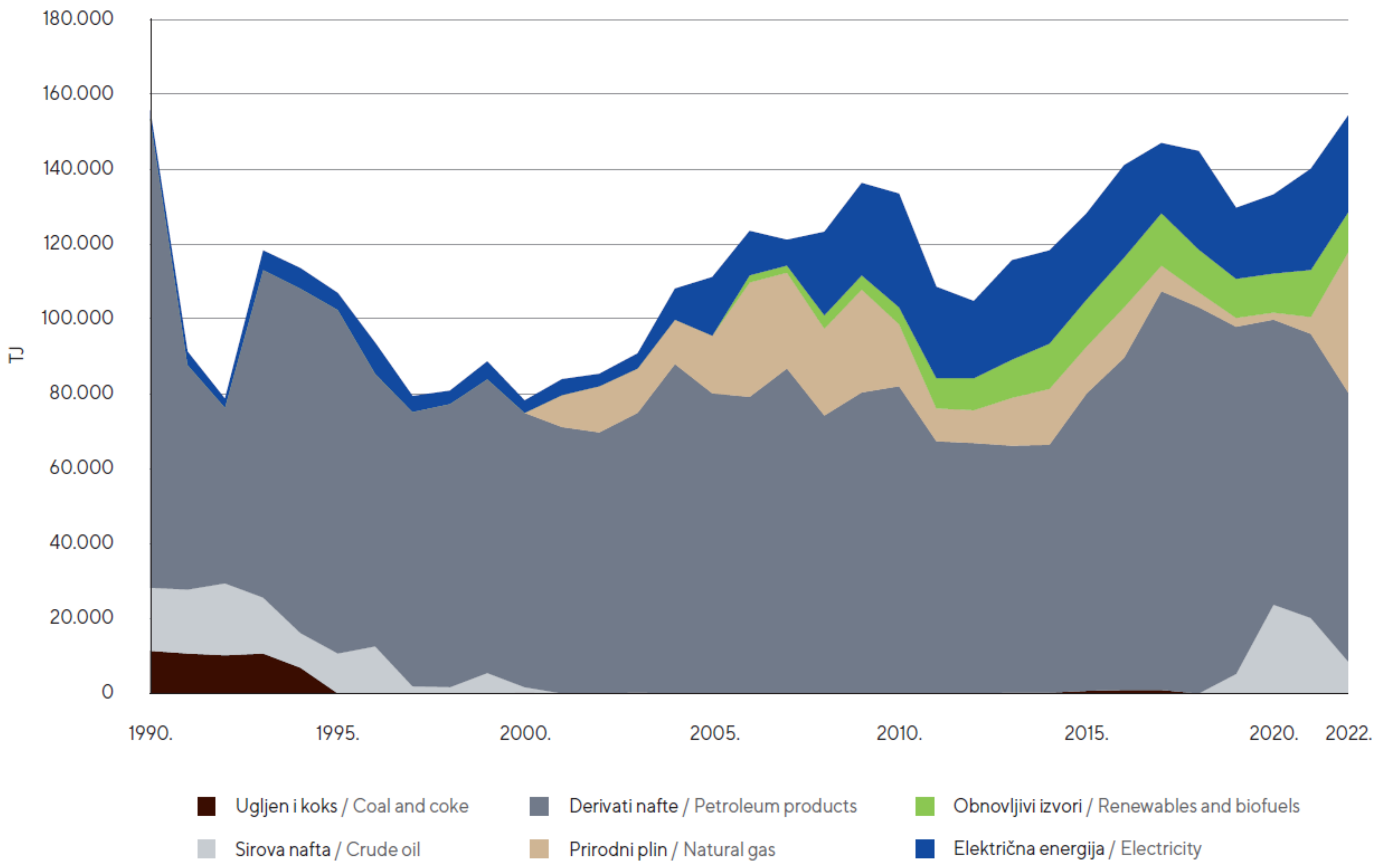
Uvoz energije u Hrvatsku



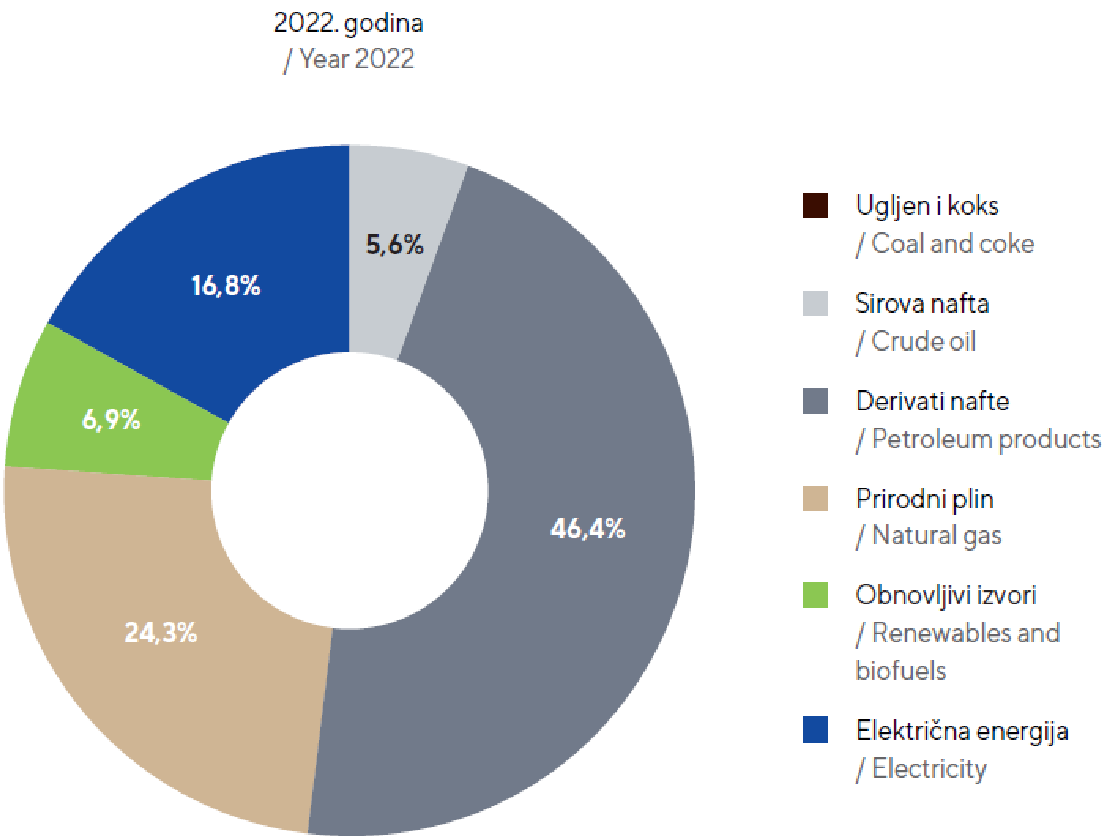
Uvoz energije u Hrvatsku



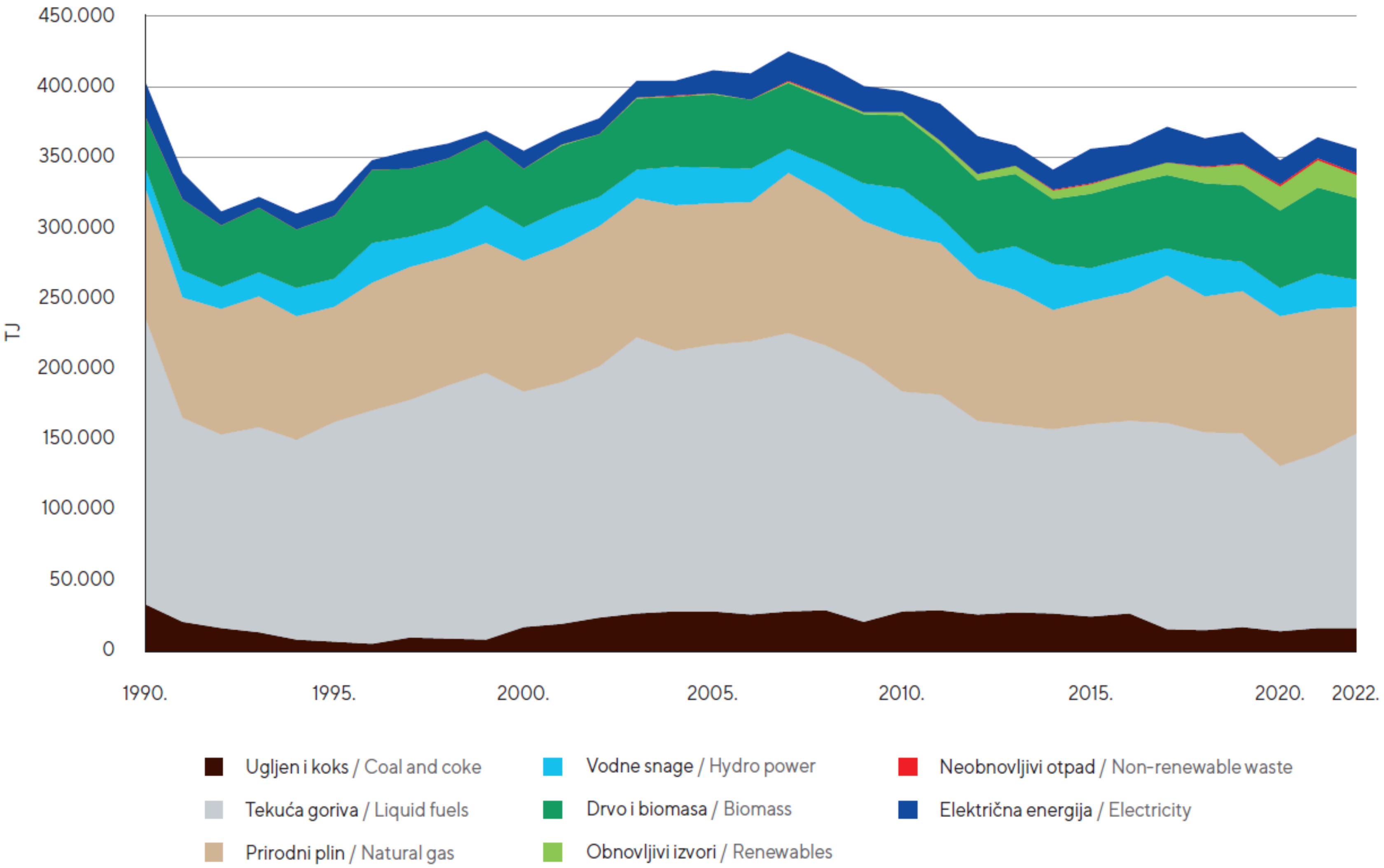
Izvoz energije iz Hrvatske



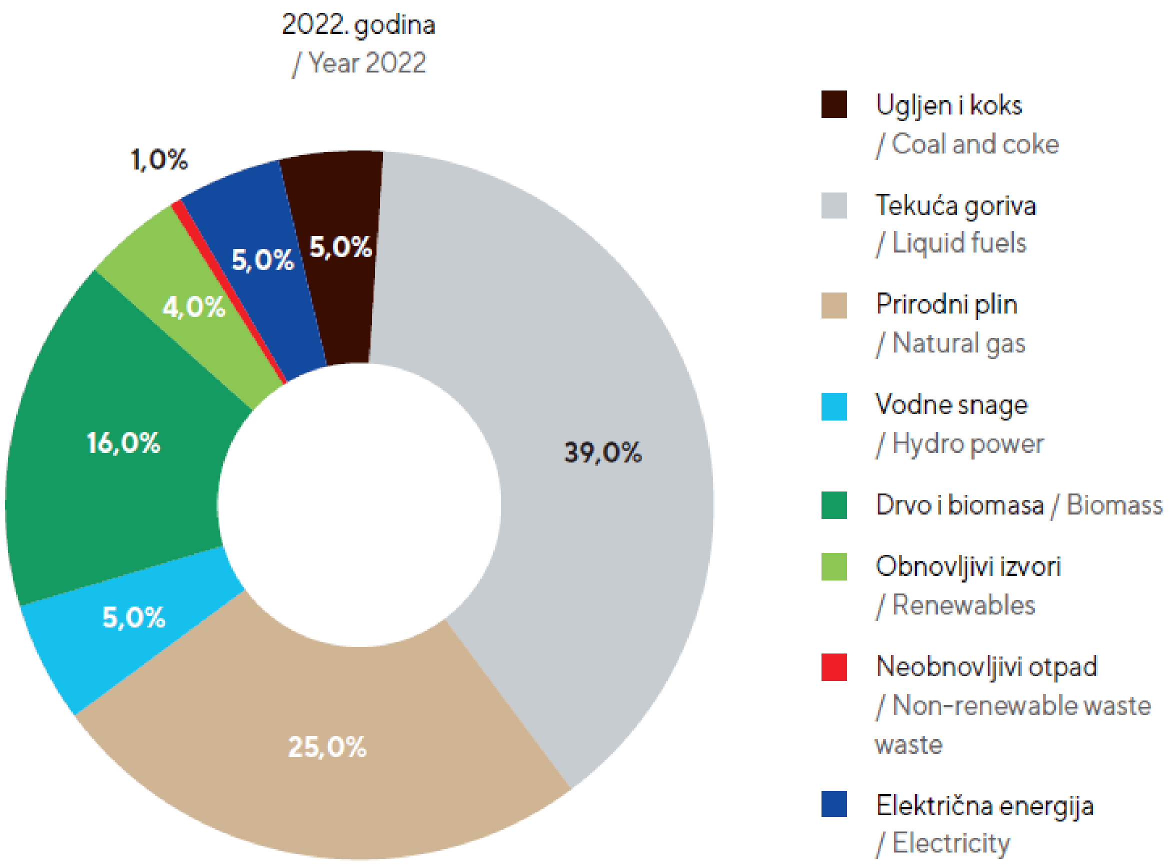
Izvoz energije iz Hrvatske



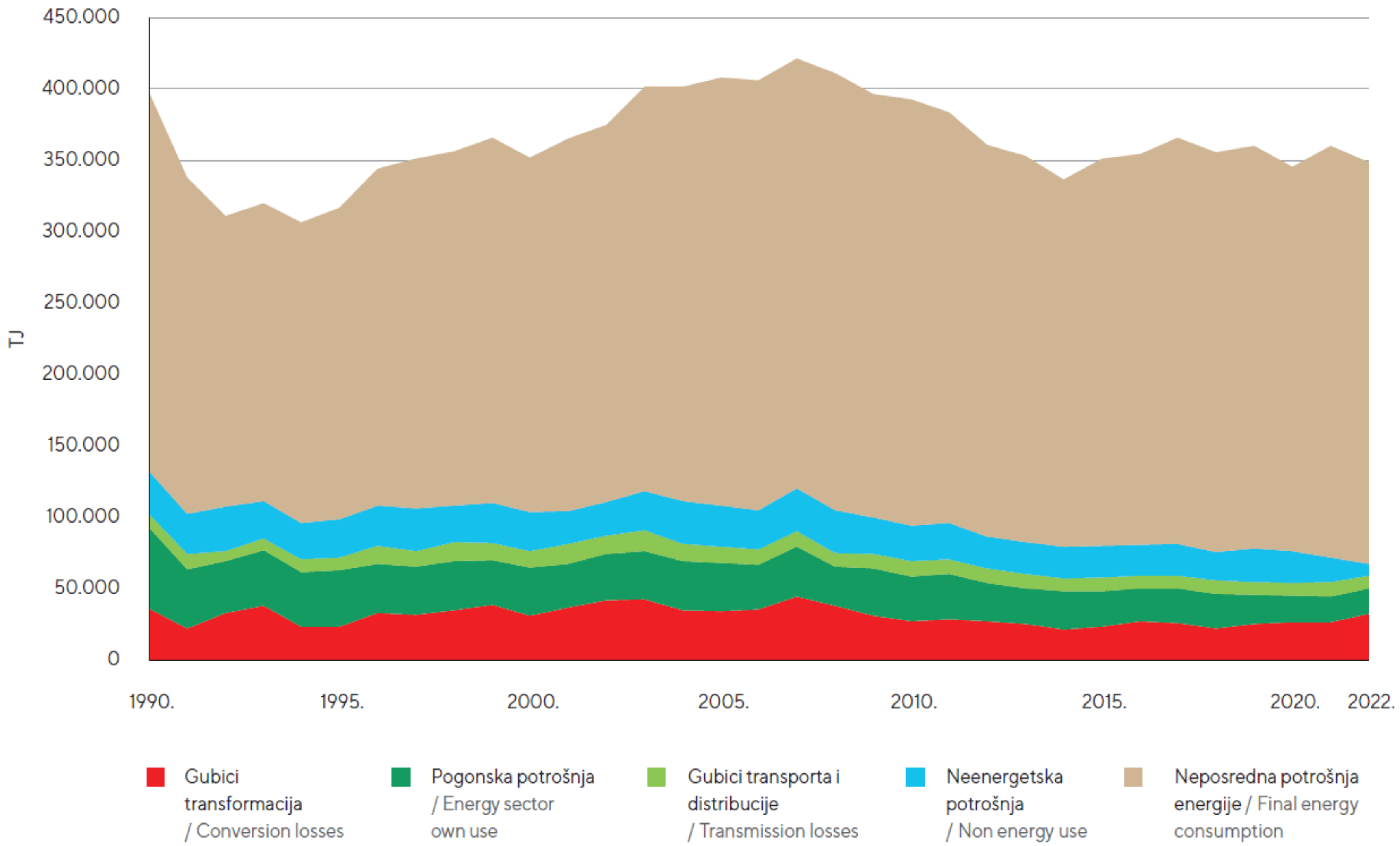
Ukupna potrošnja energije u Hrvatskoj



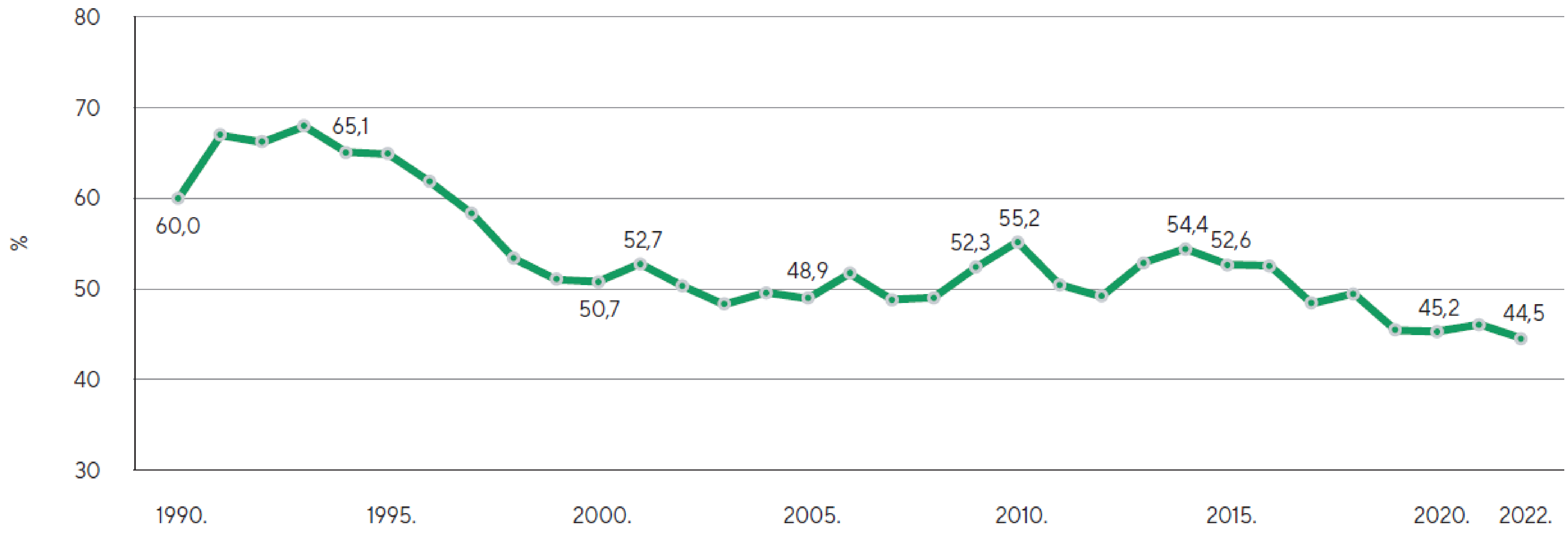
Ukupna potrošnja energije u Hrvatskoj



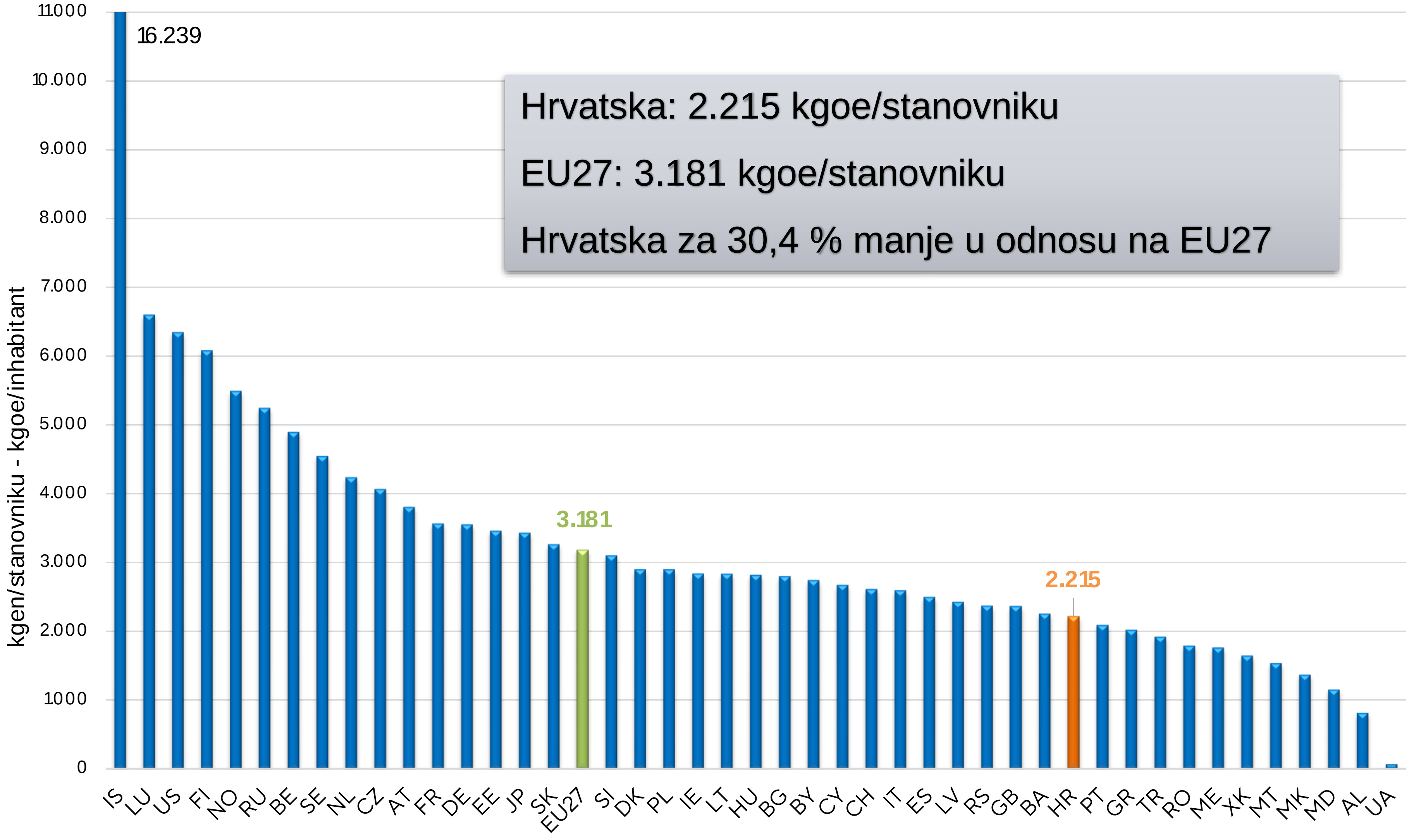
Struktura ukupne potrošnje energije



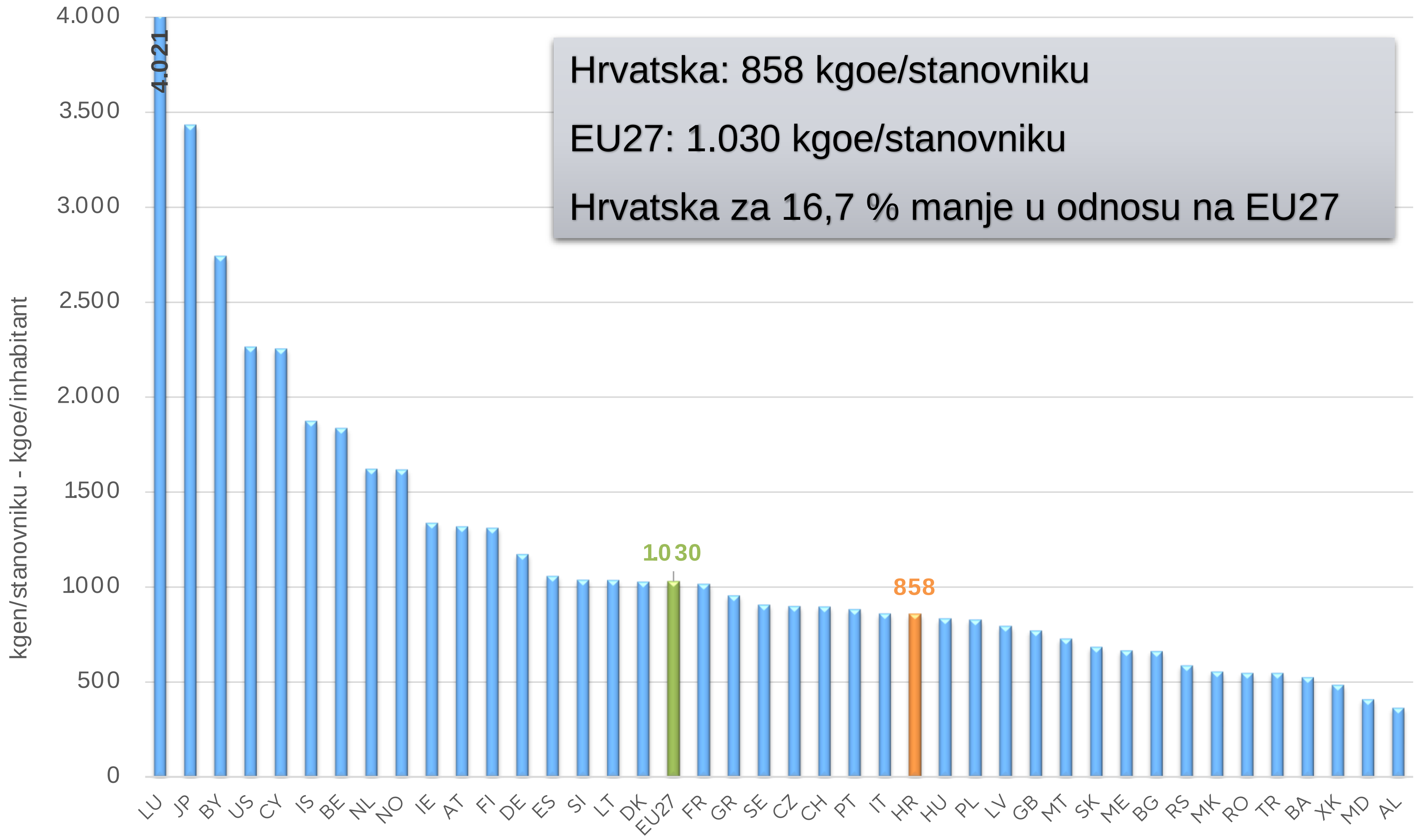
Vlastita opskrbljenost primarnom energijom



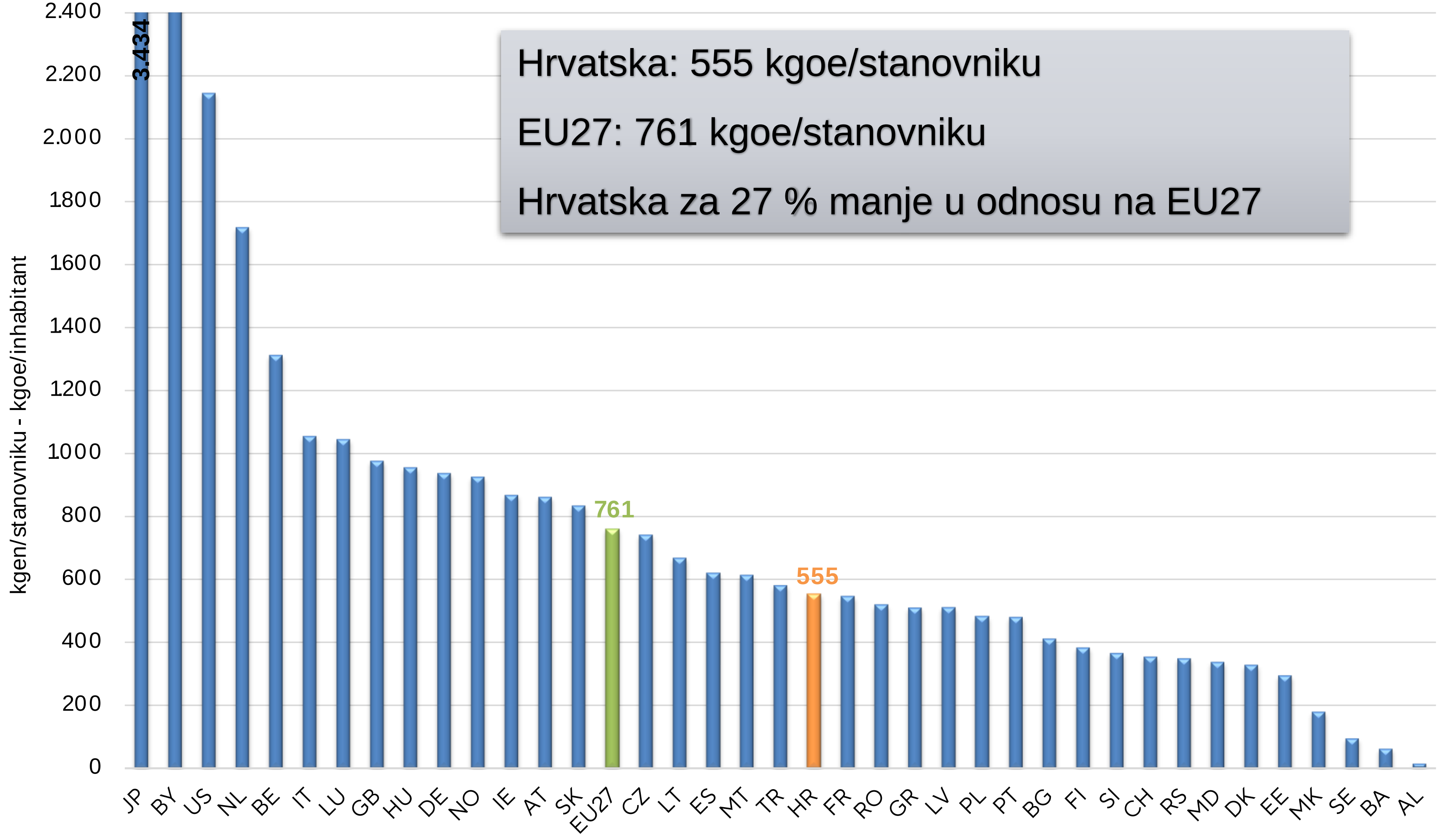
Ukupna potrošnja energije po stanovniku



Ukupna potrošnja tekućih goriva po stanovniku



Ukupna potrošnja prirodnog plina po stanovniku

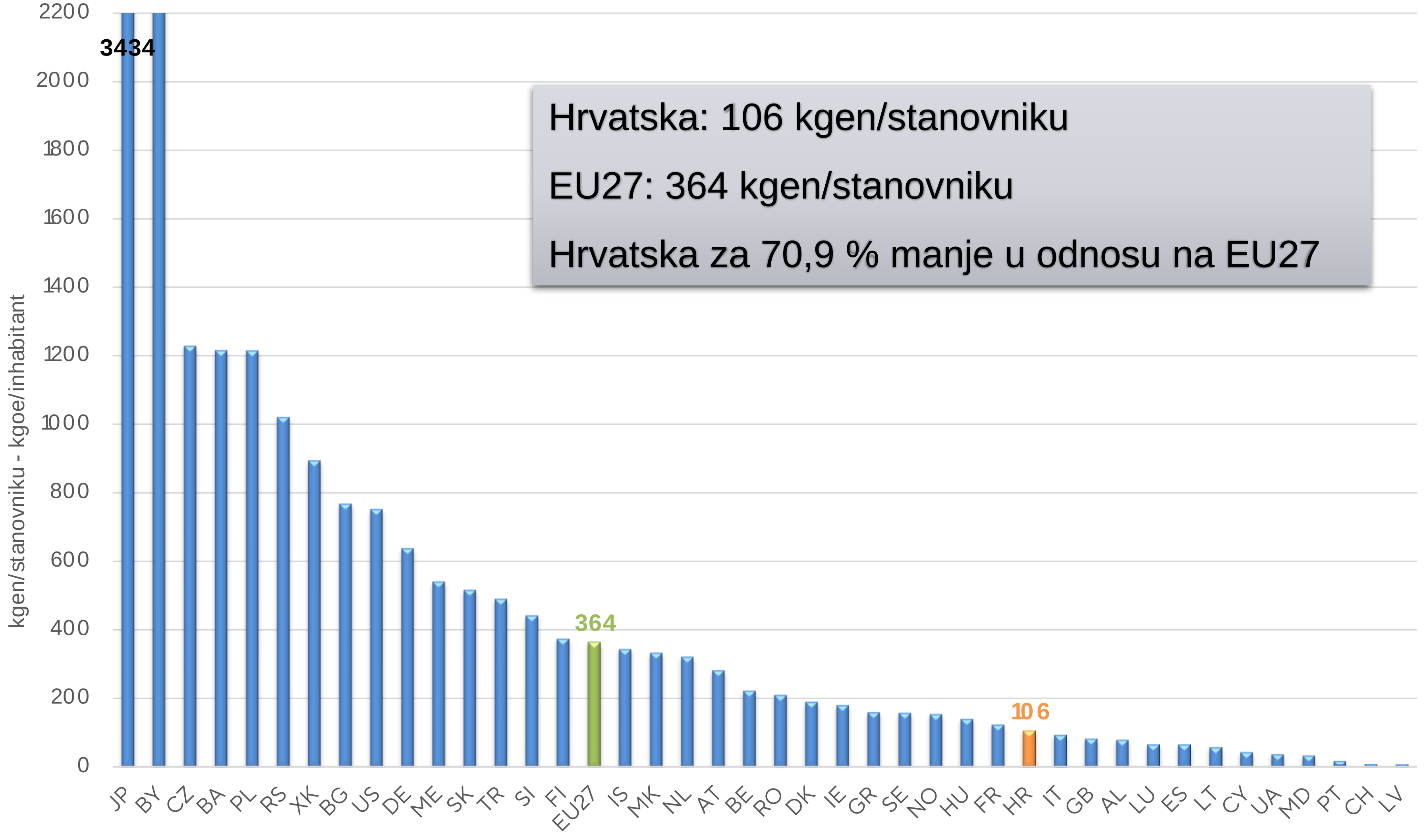


Hrvatska: 555 kgoe/stanovniku

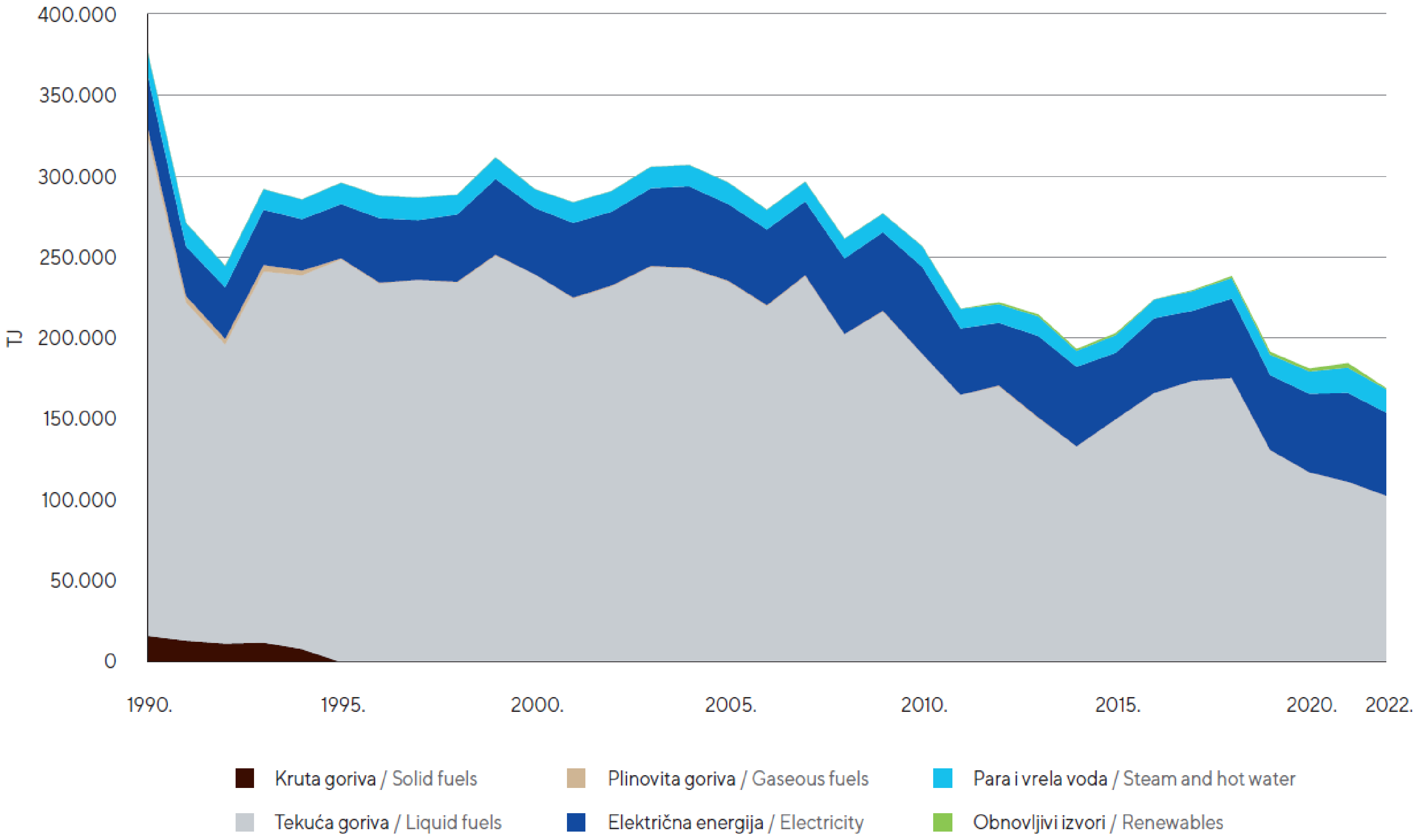
EU27: 761 kgoe/stanovniku

Hrvatska za 27 % manje u odnosu na EU27

Ukupna potrošnja ugljena po stanovniku



Proizvodnja transformiranih oblika energije



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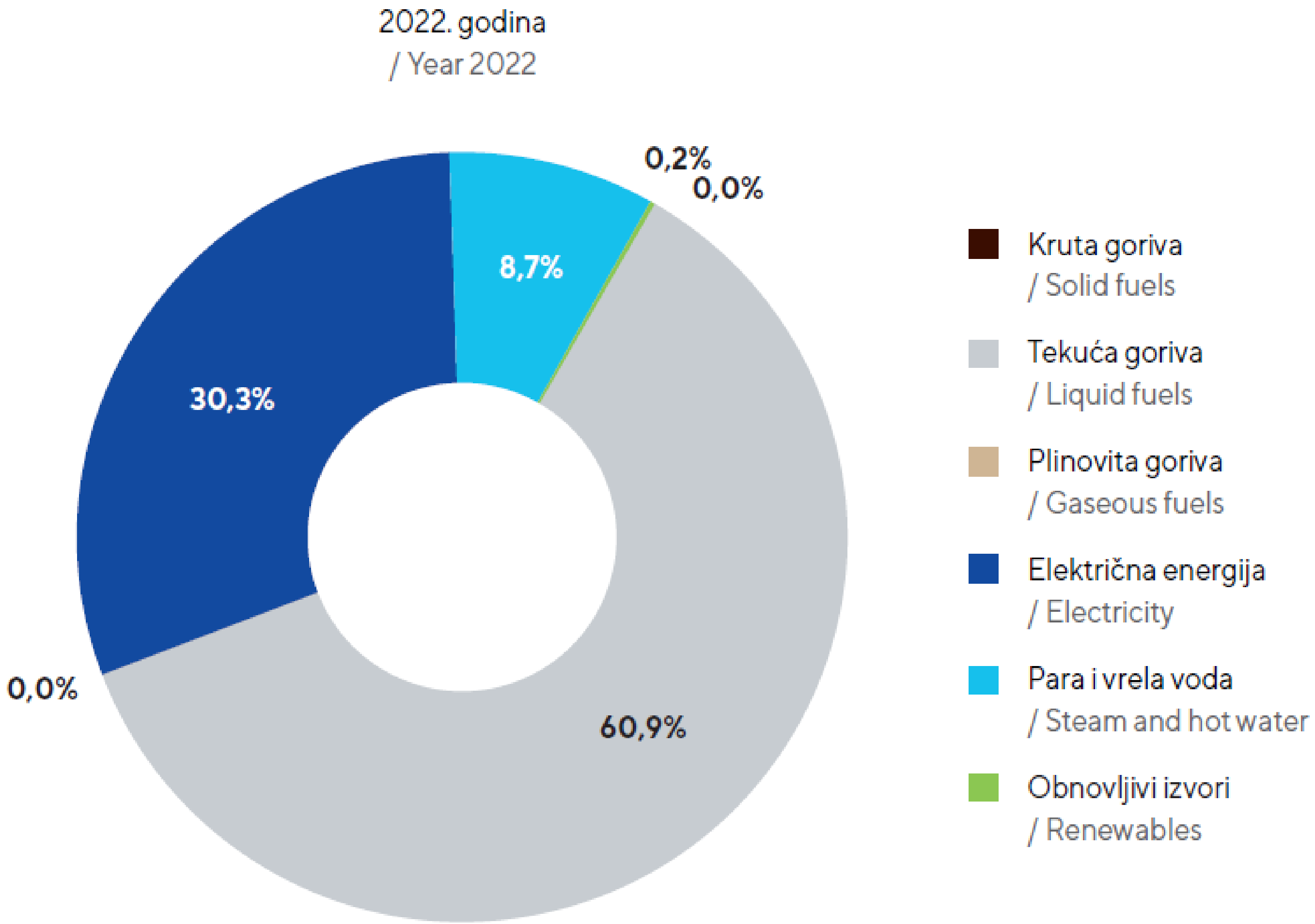
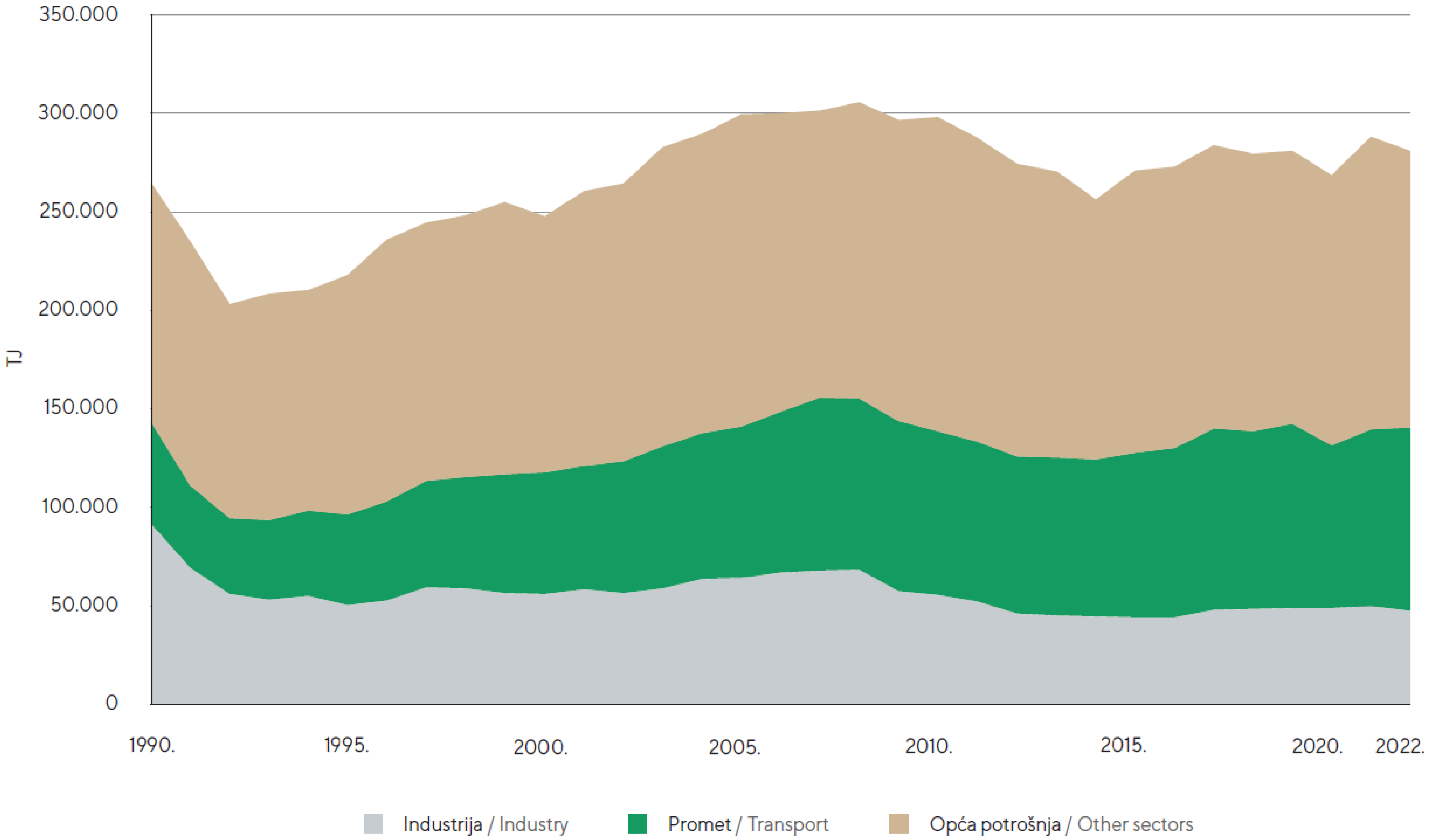
Proizvodnja transformiranih oblika energije

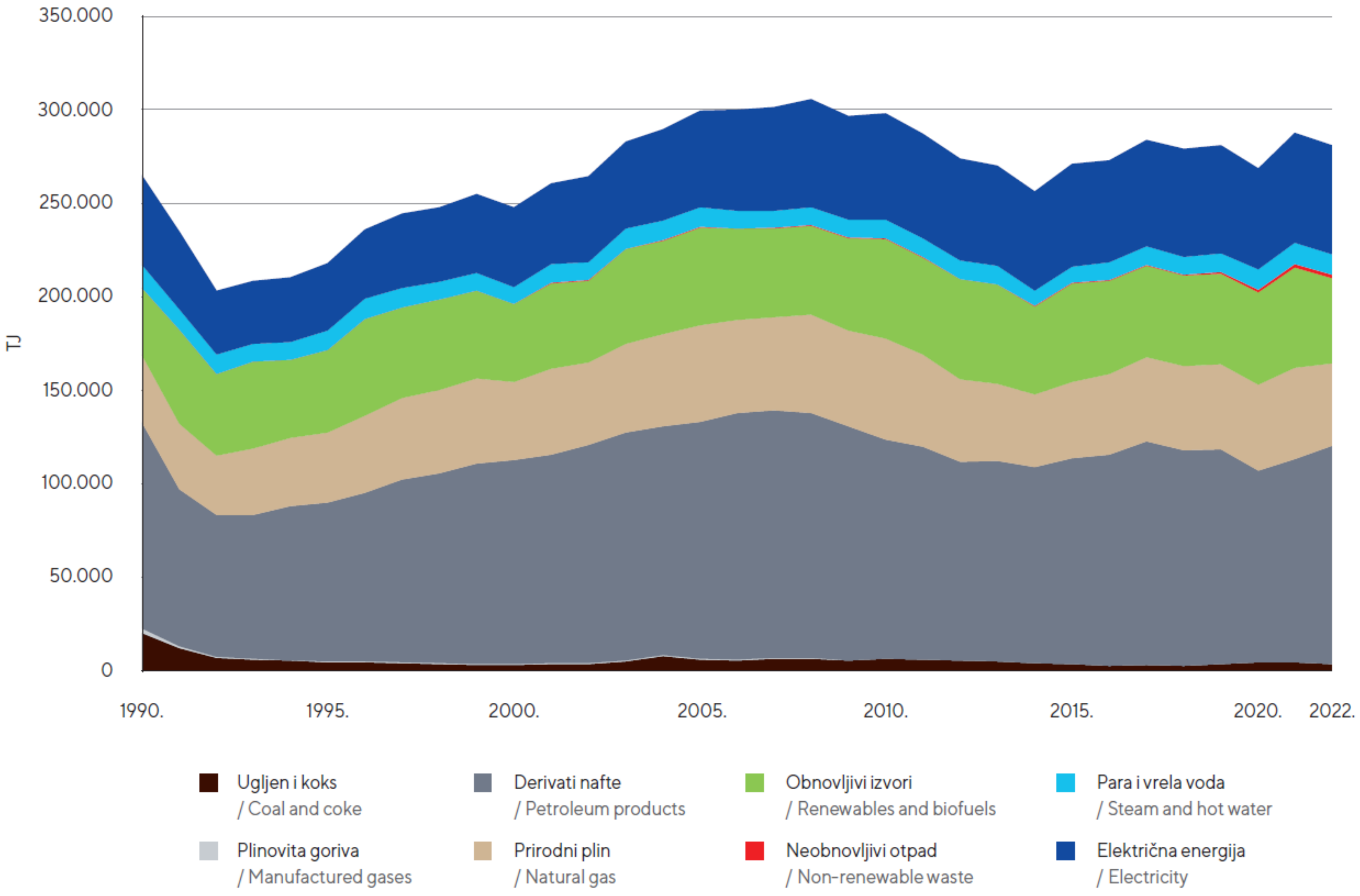


Neposredna potrošnja energije

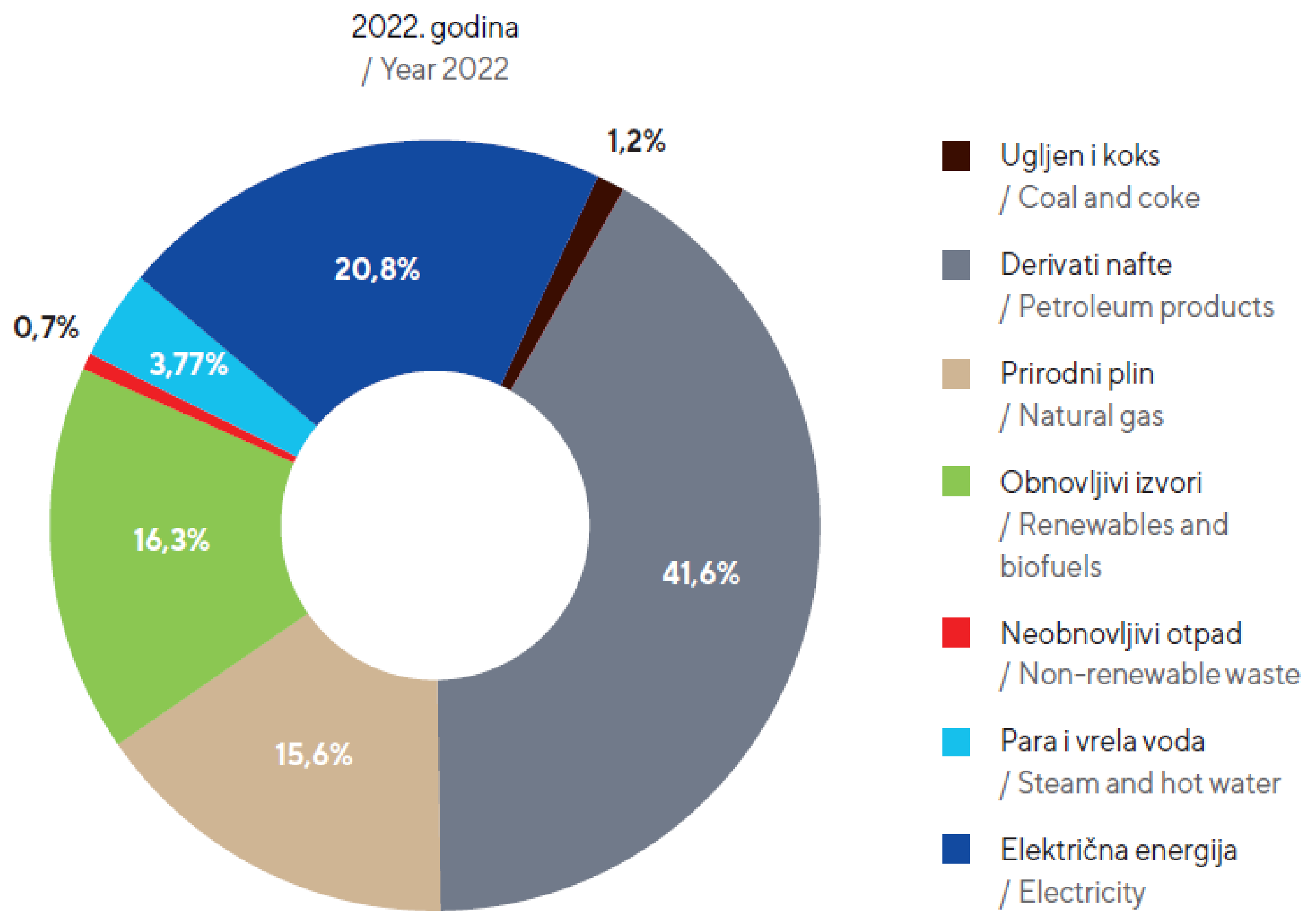


HAZU 17.6.2024.

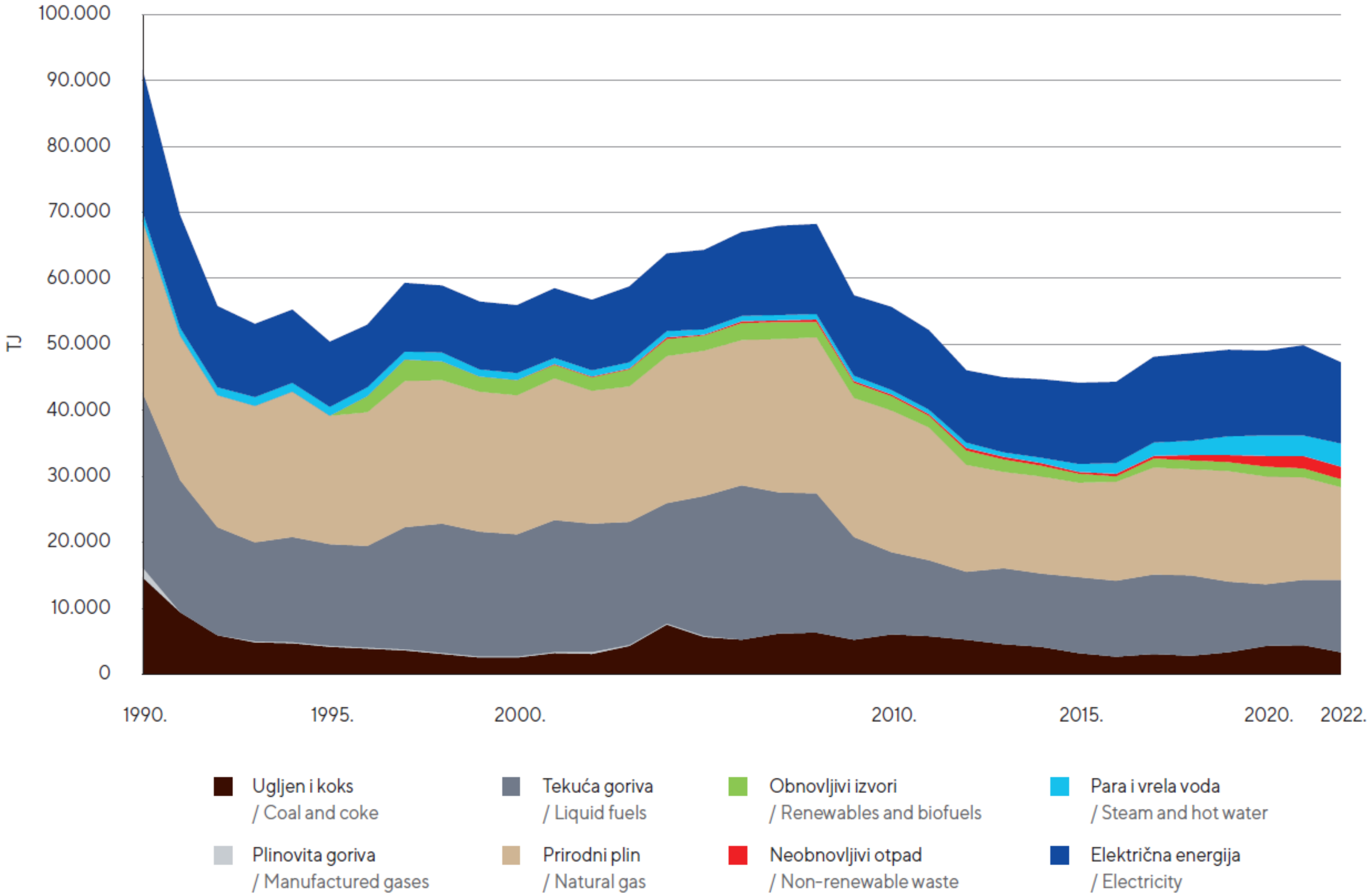
Neposredna potrošnja energije



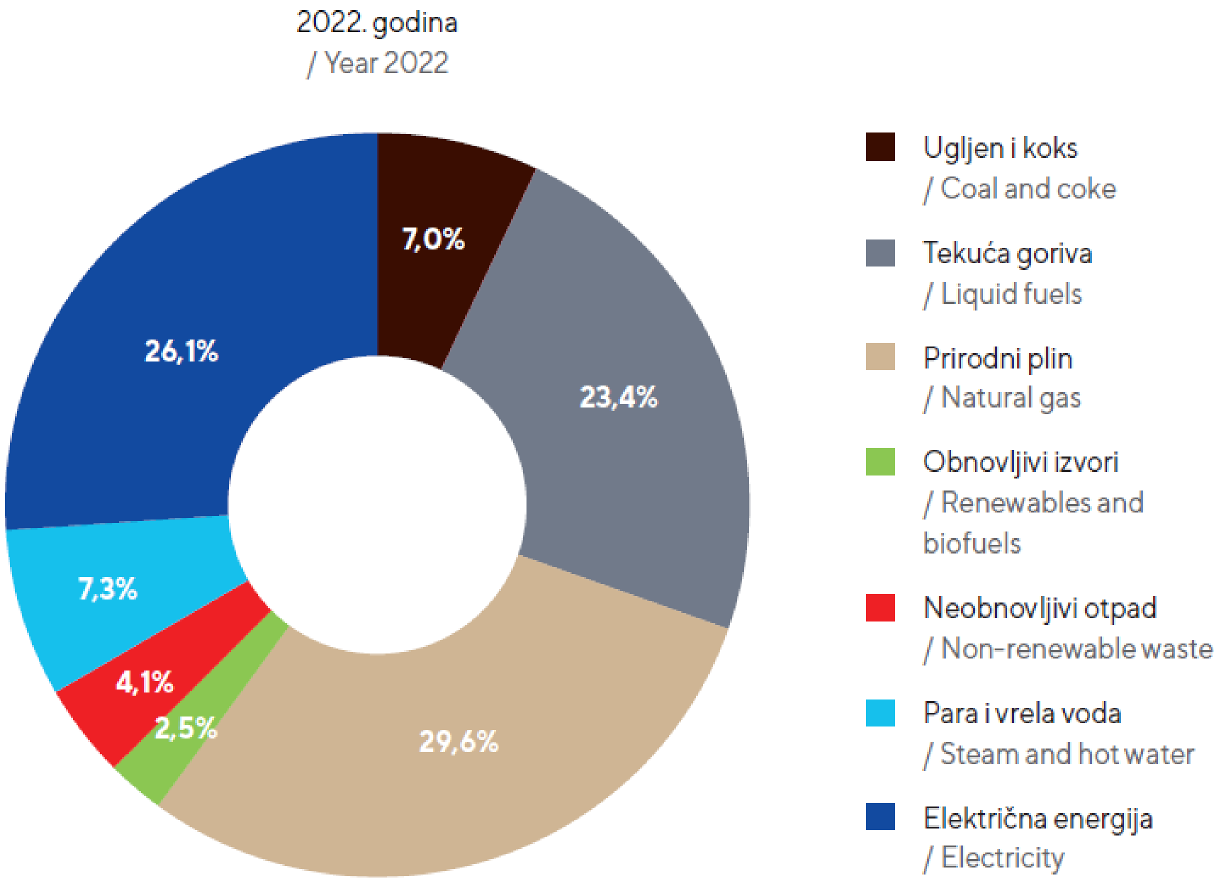
Neposredna potrošnja energije



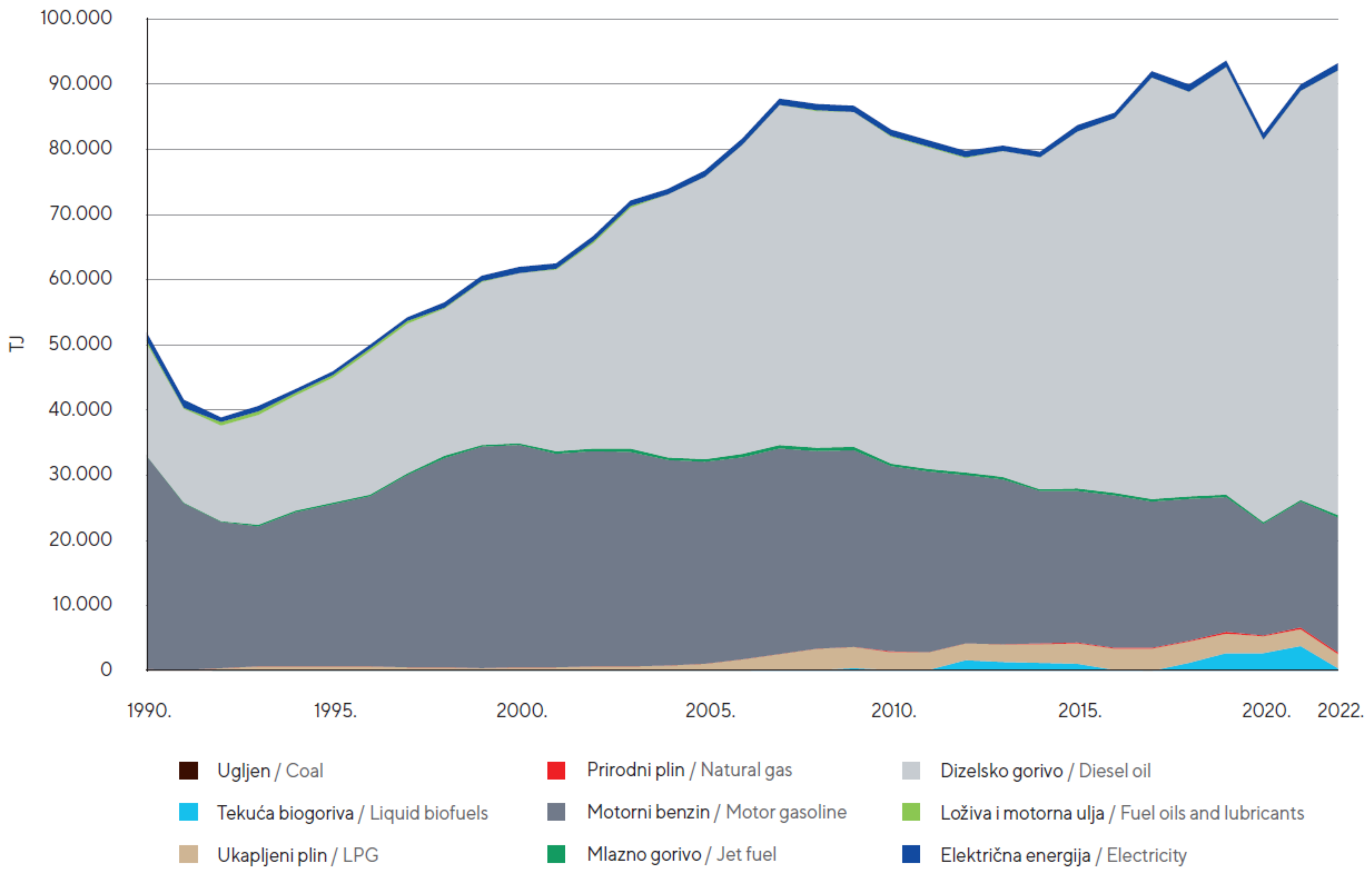
Neposredna potrošnja energije u industriji



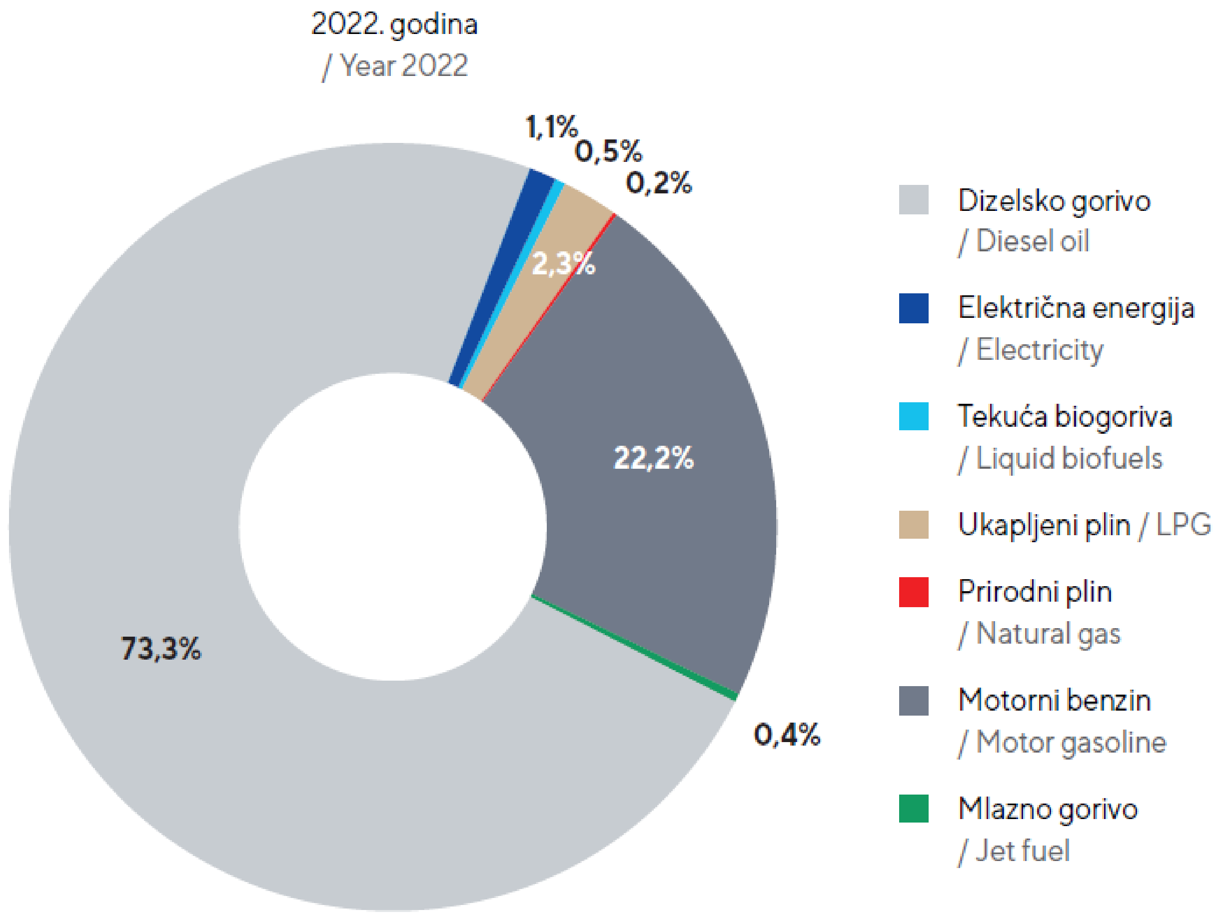
Neposredna potrošnja energije u industriji



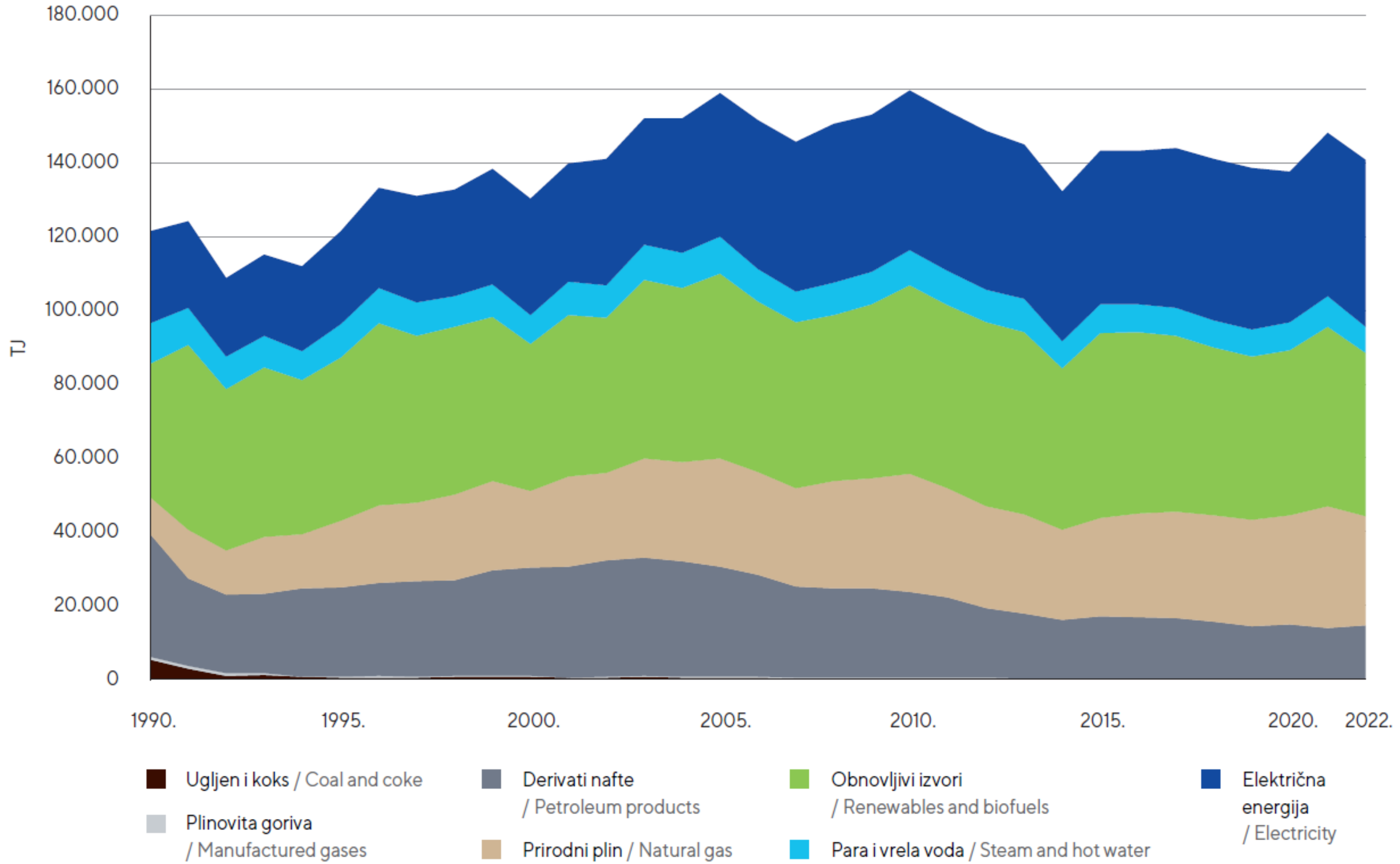
Neposredna potrošnja energije u prometu



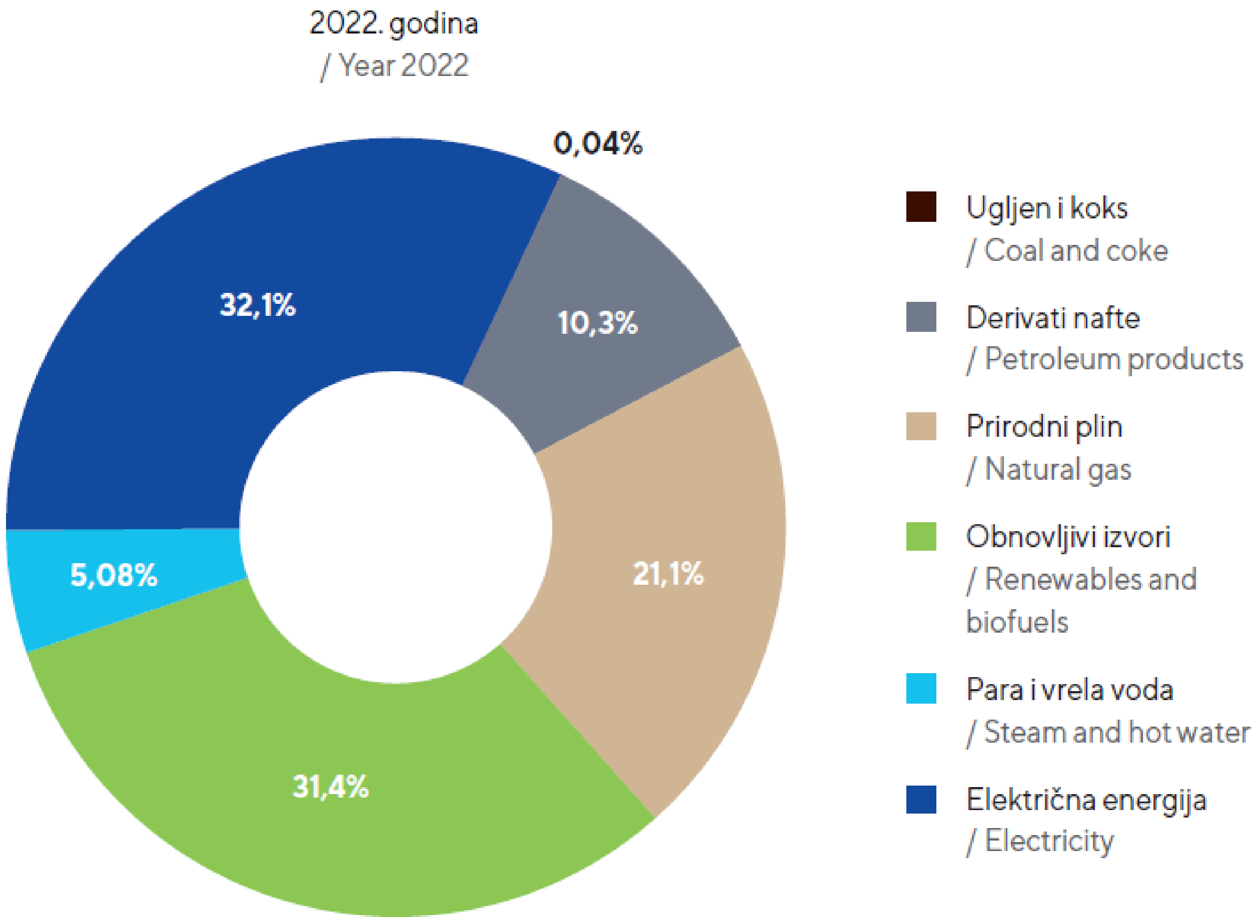
Neposredna potrošnja energije u prometu



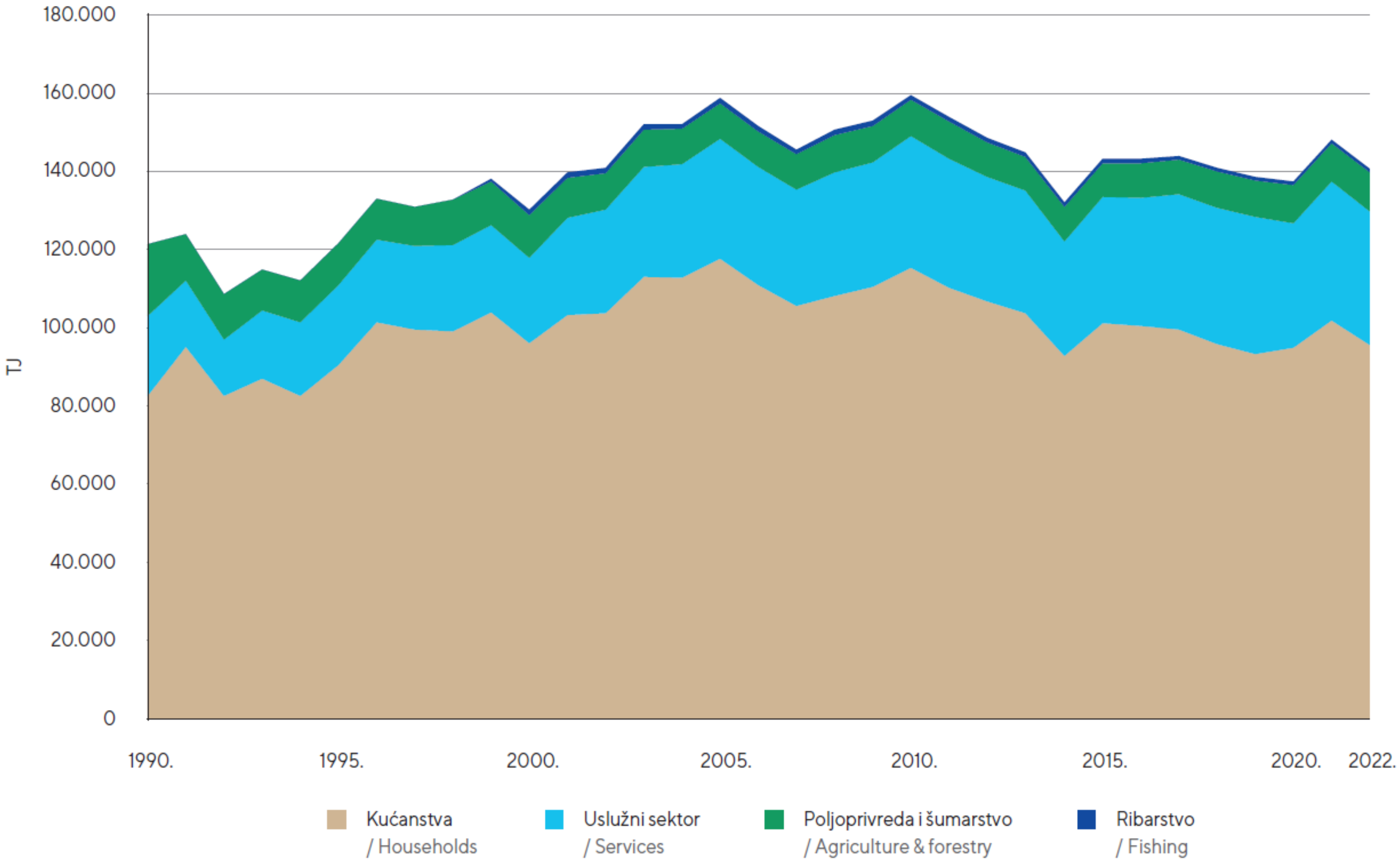
Neposredna potrošnja energije u sektoru opće potrošnje



Neposredna potrošnja energije u sektoru opće potrošnje



Neposredna potrošnja energije u sektoru opće potrošnje



Što se očekuje do 2030. na klimatskom planu EU?

Smanjenje neto emisija za -55% u odnosu na 2005.

Smanjenje emisija za ETS sektor -62% u odnosu na 2005.

Smanjenje emisija za ne-ETS sektor na razini EU -40% u odnosu na 2005.

Nacionalni cilj: dekarbonizacija

	EU cilj za 2030. u odnosu na 2005.	HRV cilj za 2030. u odnosu na 2005. (WAM)
ETS sektor	-62 % (cilj za cijelu EU)	-62 %
Sektori izvan ETS-a	-40 % (cilj za cijelu EU) -16,7 % (cilj za RH)	-16,7 %
Vrijednost neto uklanjanja ktCO_2eq 2030.	-310.000 kt CO_2eq (cilj za cijelu EU) – 5.527kt CO_2eq (cilj za RH)	– 4.240kt CO_2eq

Nacionalni cilj: dekarbonizacija

Udio OIE, %	Ostvareno 2022.	Ciljevi 2030.		
		NECP (2019)	Ažurirani NECP	RED III
U bruto neposrednoj potrošnji energije	29,4	36,6	42,5	44,0
U bruto neposrednoj potrošnji električne energije	55,5	63,8	73,6	
U bruto neposrednoj potrošnji energije za grijanje i hlađenje	37,2	36,6	47,1	1,3 p.p./god.
U neposrednoj potrošnji energije u prometu	2,4	14,0	21,6	29,0

Nacionalni cilj: energetska učinkovitost

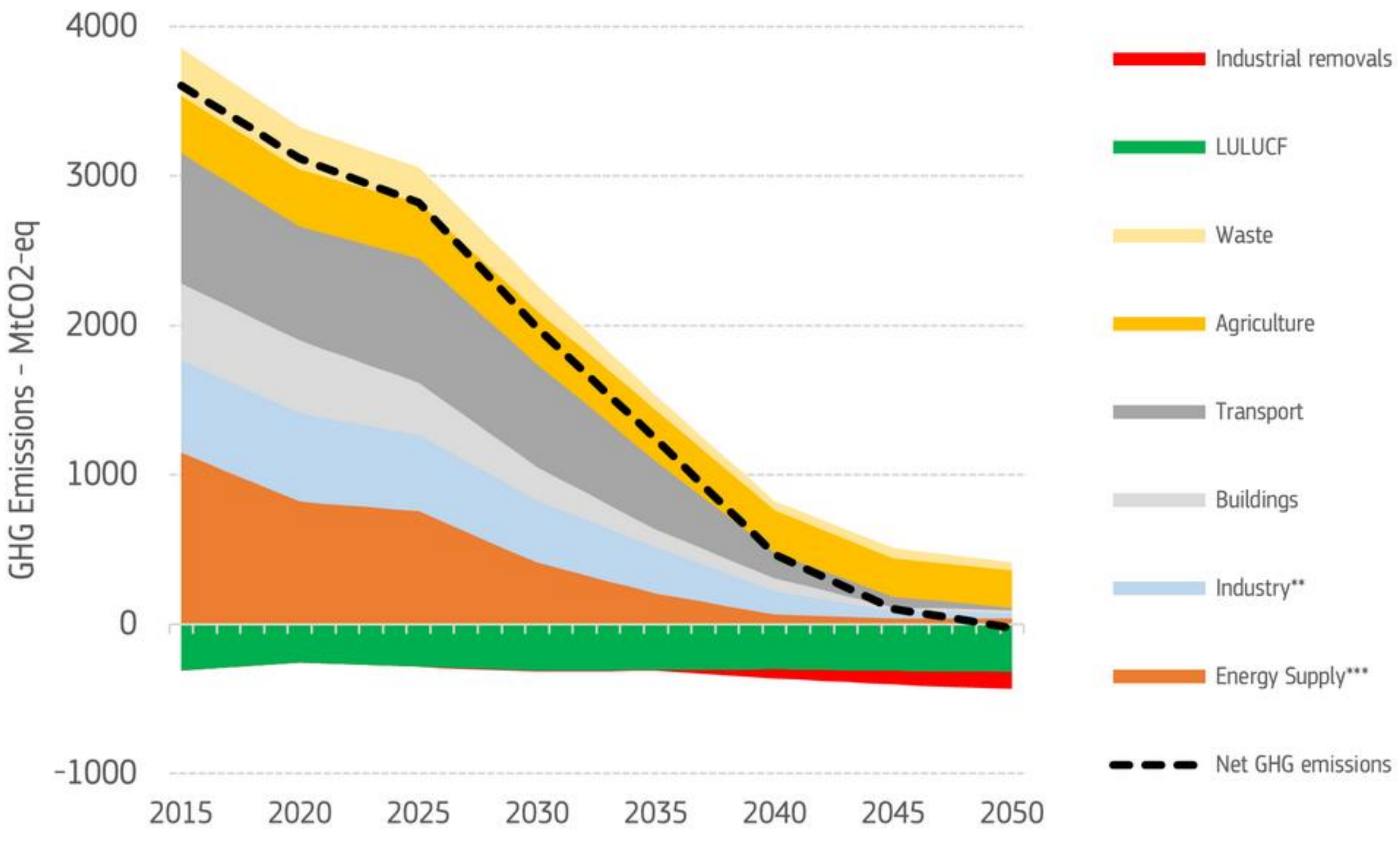
	Cilj za 2030.	
	NECP (2019.)	Ažurirani NECP (2023.)
Potrošnja primarne energije	344,4 PJ	340,9 PJ (8,14 Mtoe)
Neposredna potrošnja energije	286,9 PJ	274,2 PJ (6,55 Mtoe)

Preporuke Europske komisije

Croatia's key objectives, targets and contributions

	2030 value submitted in the draft updated NECP	2030 target under EU legislation	Assessment of 2030 ambition level
GHG emissions in ESR sectors (compared to 2005)	-17.1%	-16.7%*	Croatia reaches its target based on projections.
GHG removals in LULUCF (Mt CO2 eq. net greenhouse gas removals)	-4.24	-0.593 (additional removal target) -5.527 (total net removals)**	Not reaching its target based on projections.
Energy Efficiency (Final energy consumption)	6.6 Mtoe	5.9 Mtoe***	Croatia's final energy consumption is above the indicated target resulting from EU legislation.
Renewable Energy (Share of renewable energy in gross final consumption)	42.5%	44%****	Croatia's contribution to the EU target is slightly below the one resulting from EU legislation.

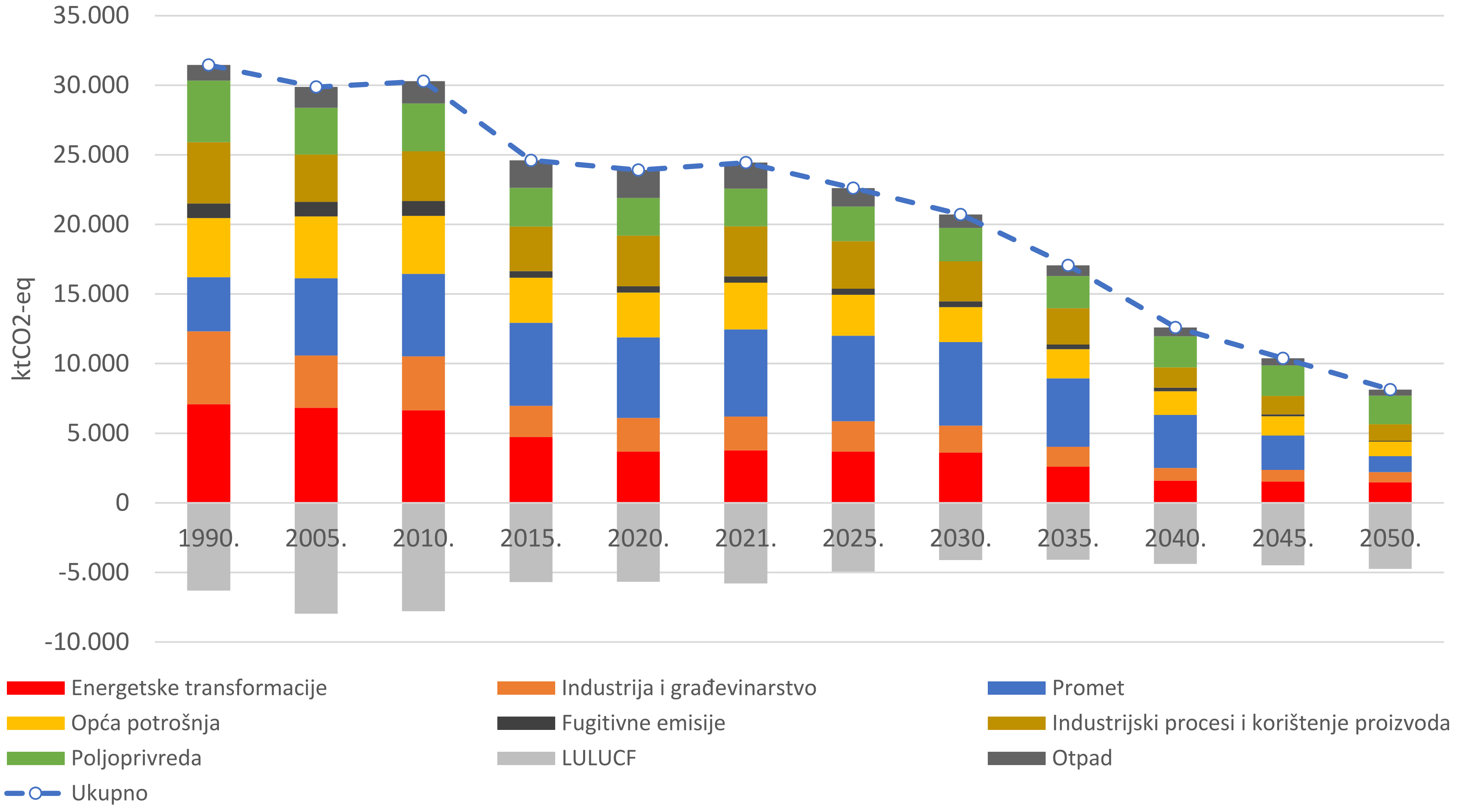
Klimatski ciljevi EU za 2040. (prijedlog)



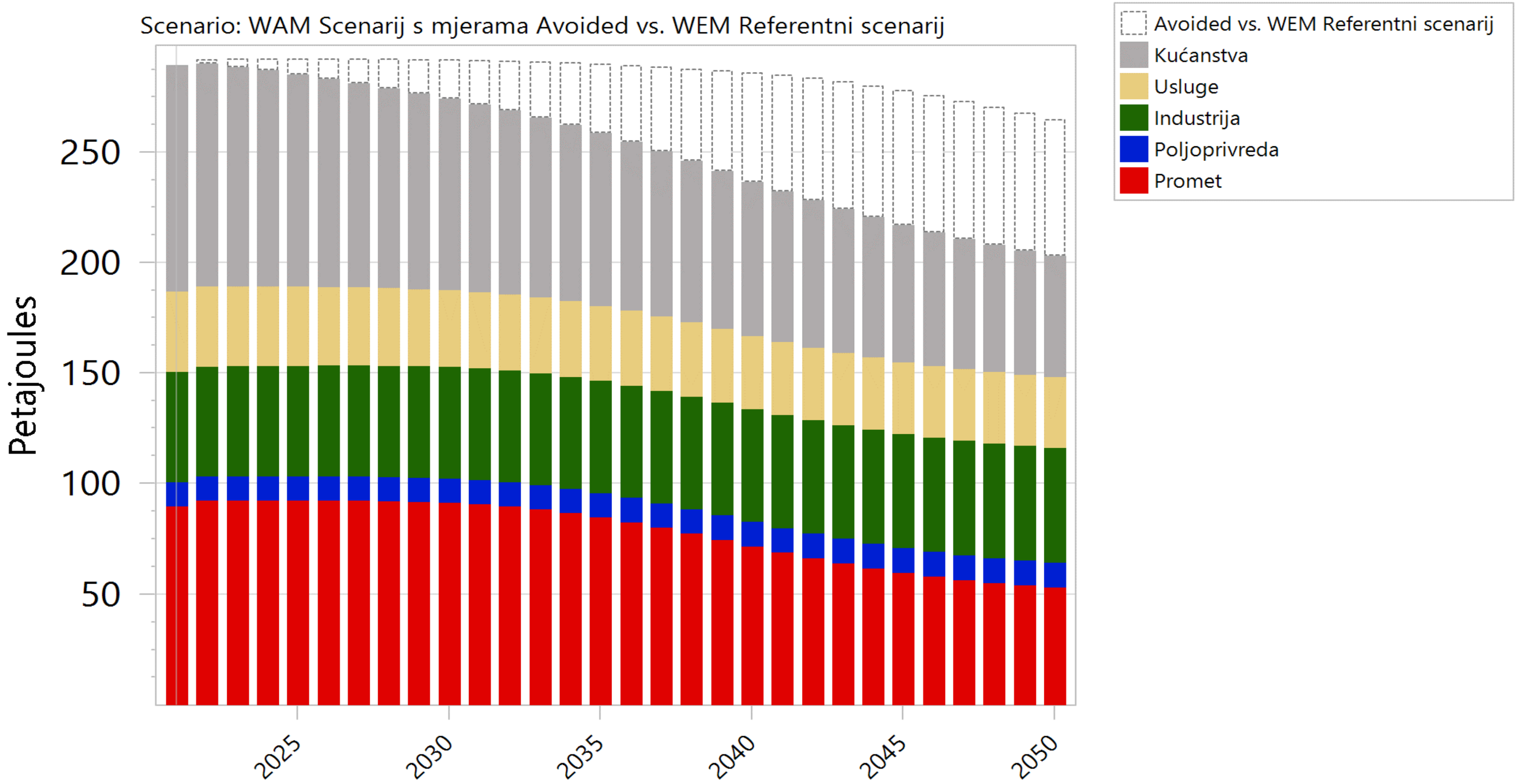
*Source: PRIMES, GAINS, GLOBIOM
**Excluding non-BECCS industrial removals
***Including Bioenergy with carbon capture and storage (BECCS)

Izvor: https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2040-climate-target_en#documents

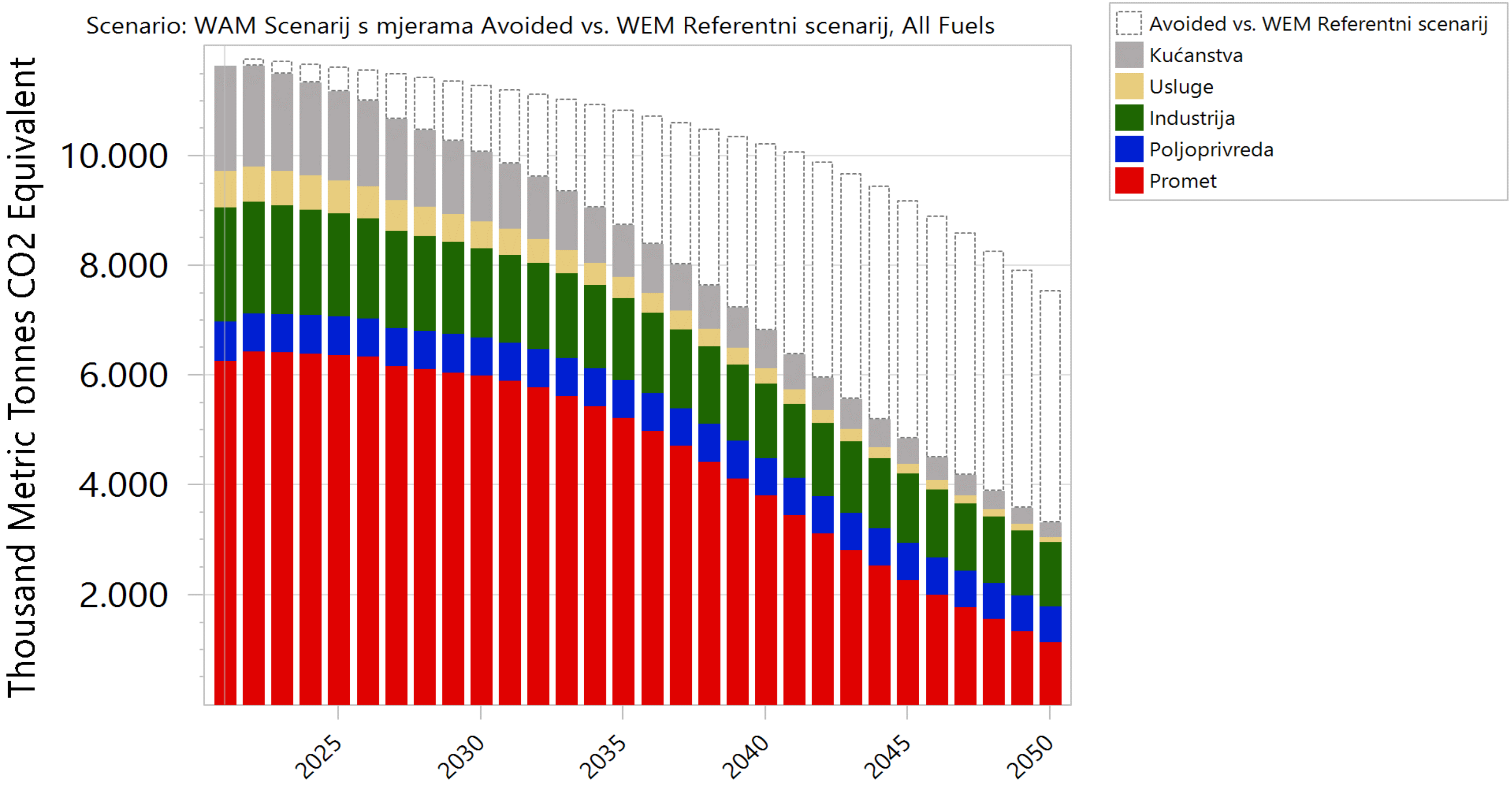
Projekcija emisija stakleničkih plinova (NECP)



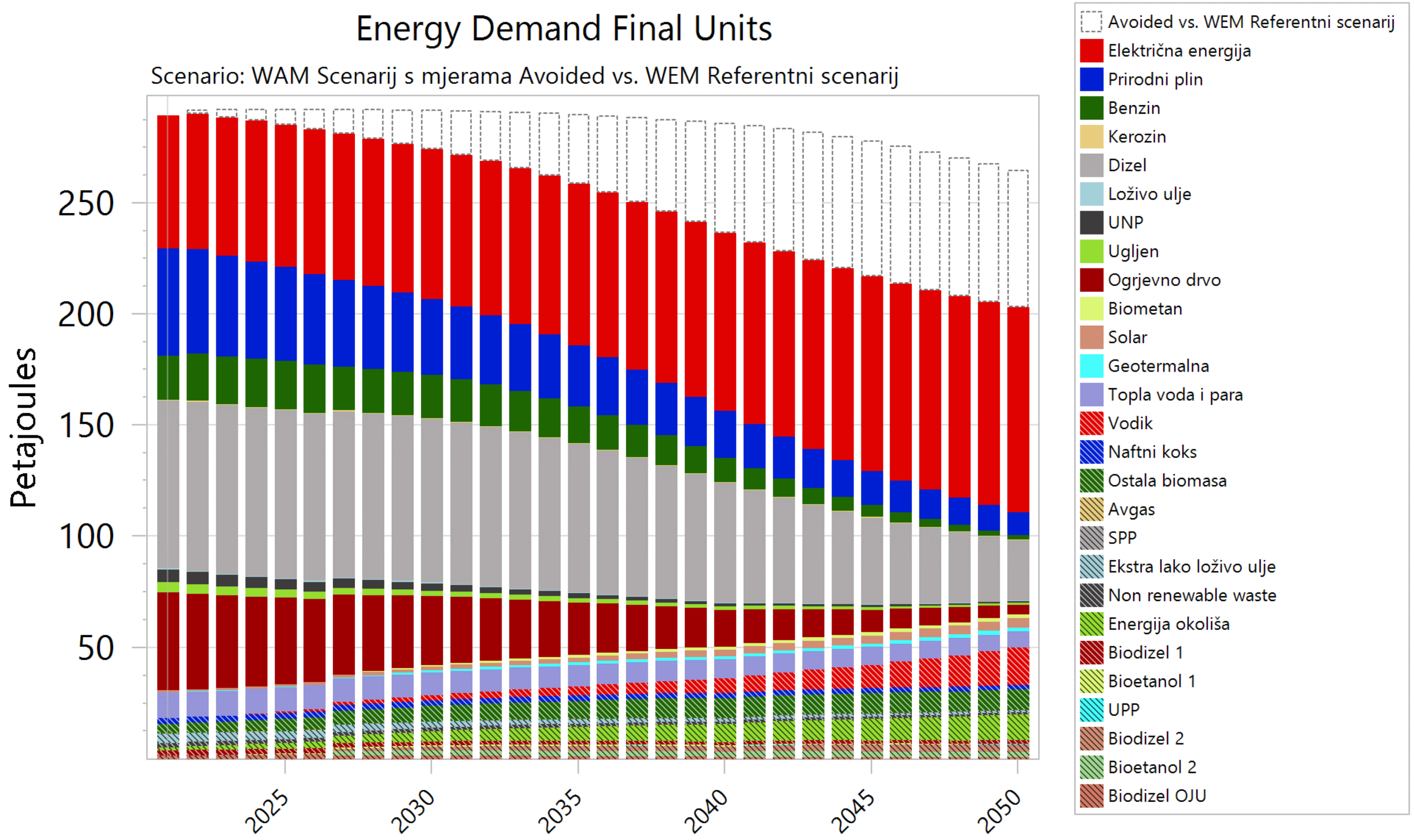
Projekcija finalne potrošnje energije po sektorima



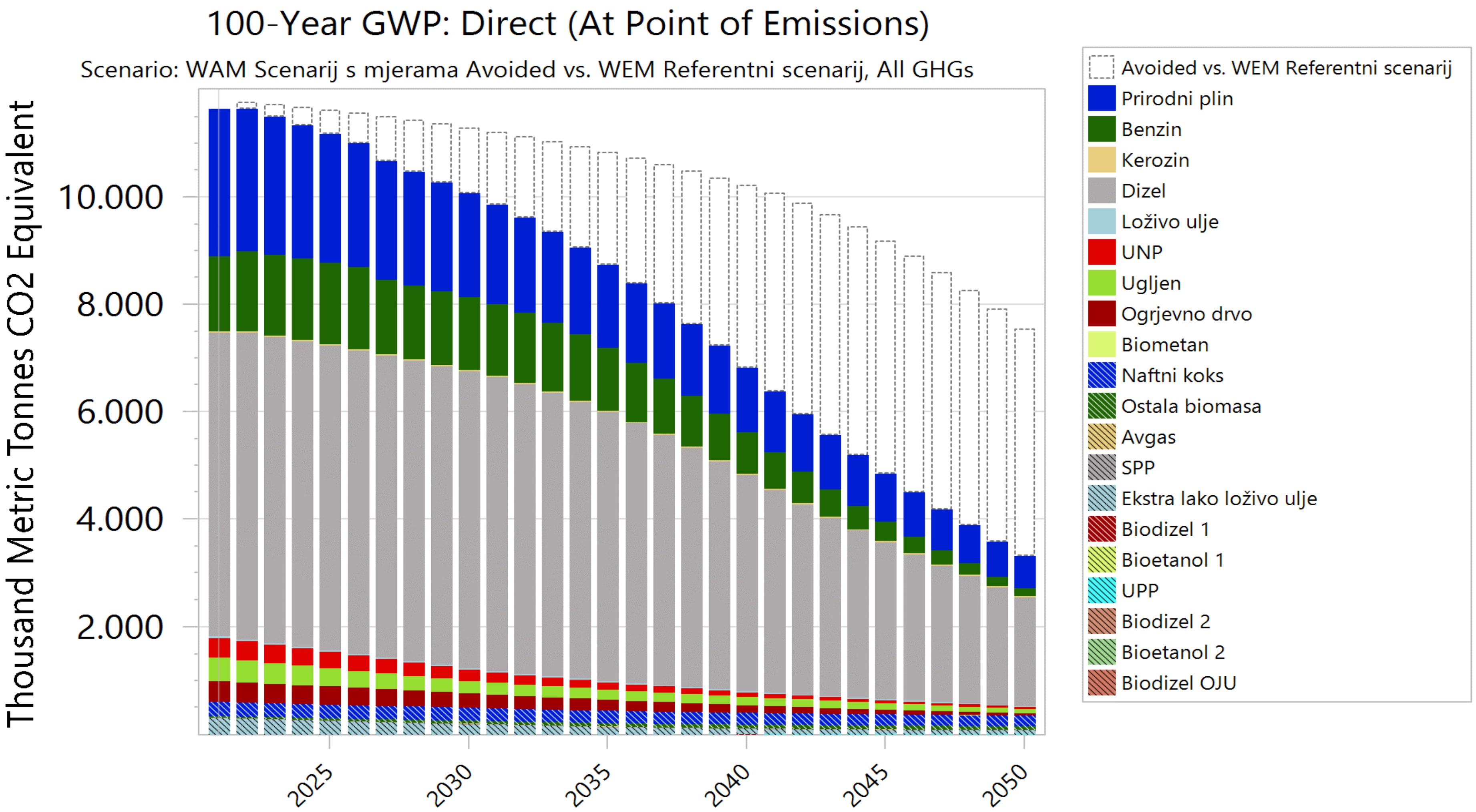
Projekcija emisija stakleničkih plinova po sektorima



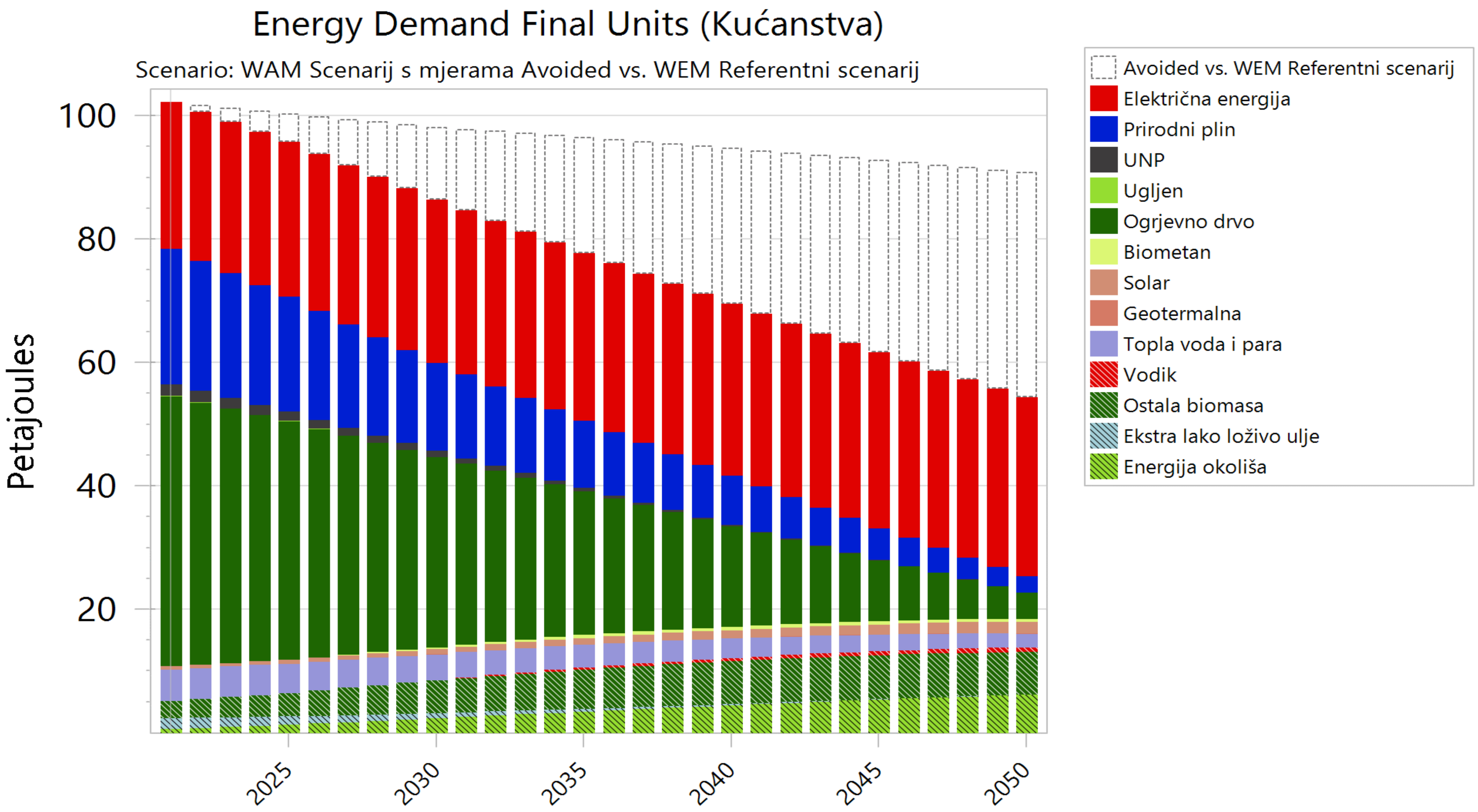
Projekcija finalne potrošnje energije po energentima



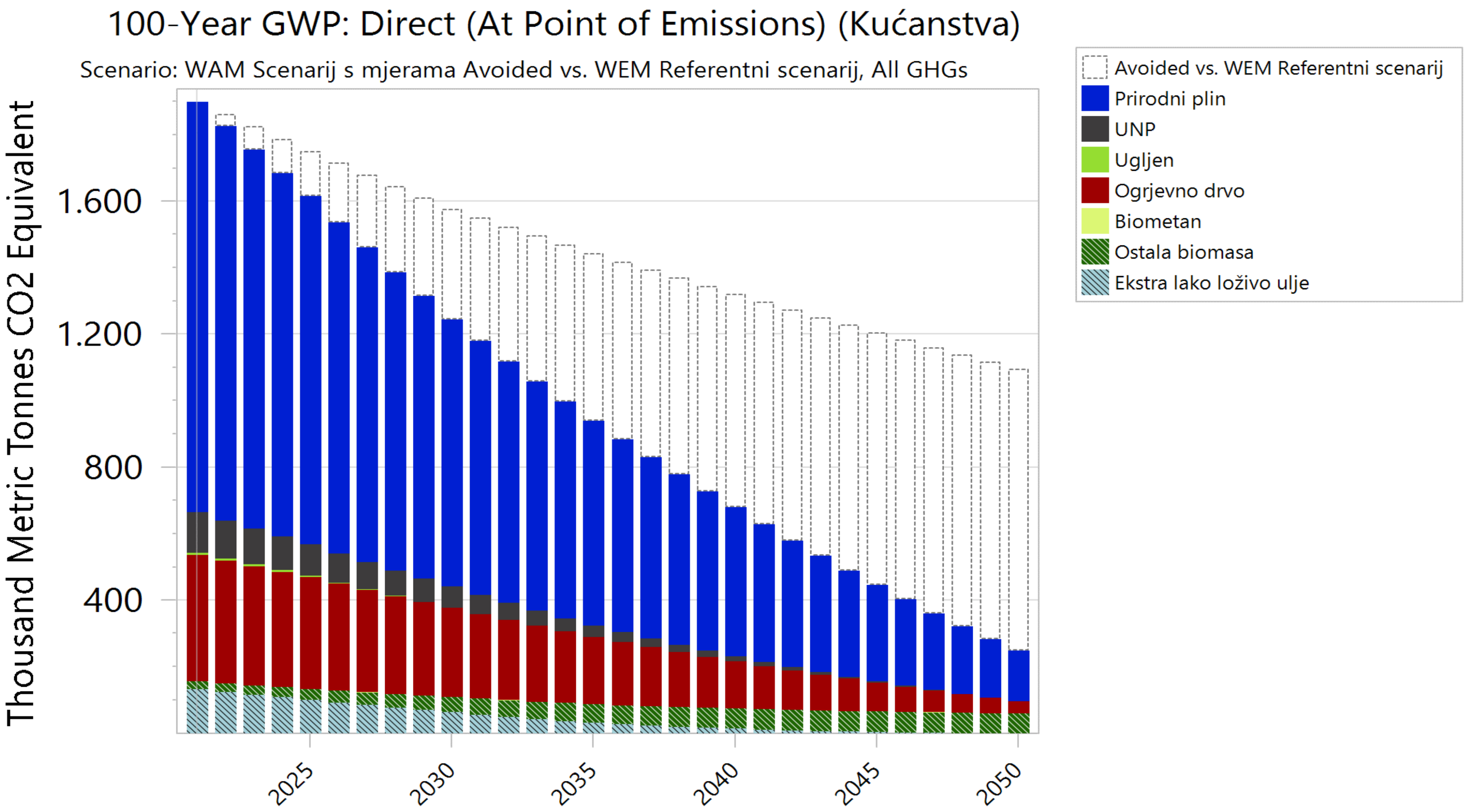
Projekcija emisija stakleničkih plinova po energentima



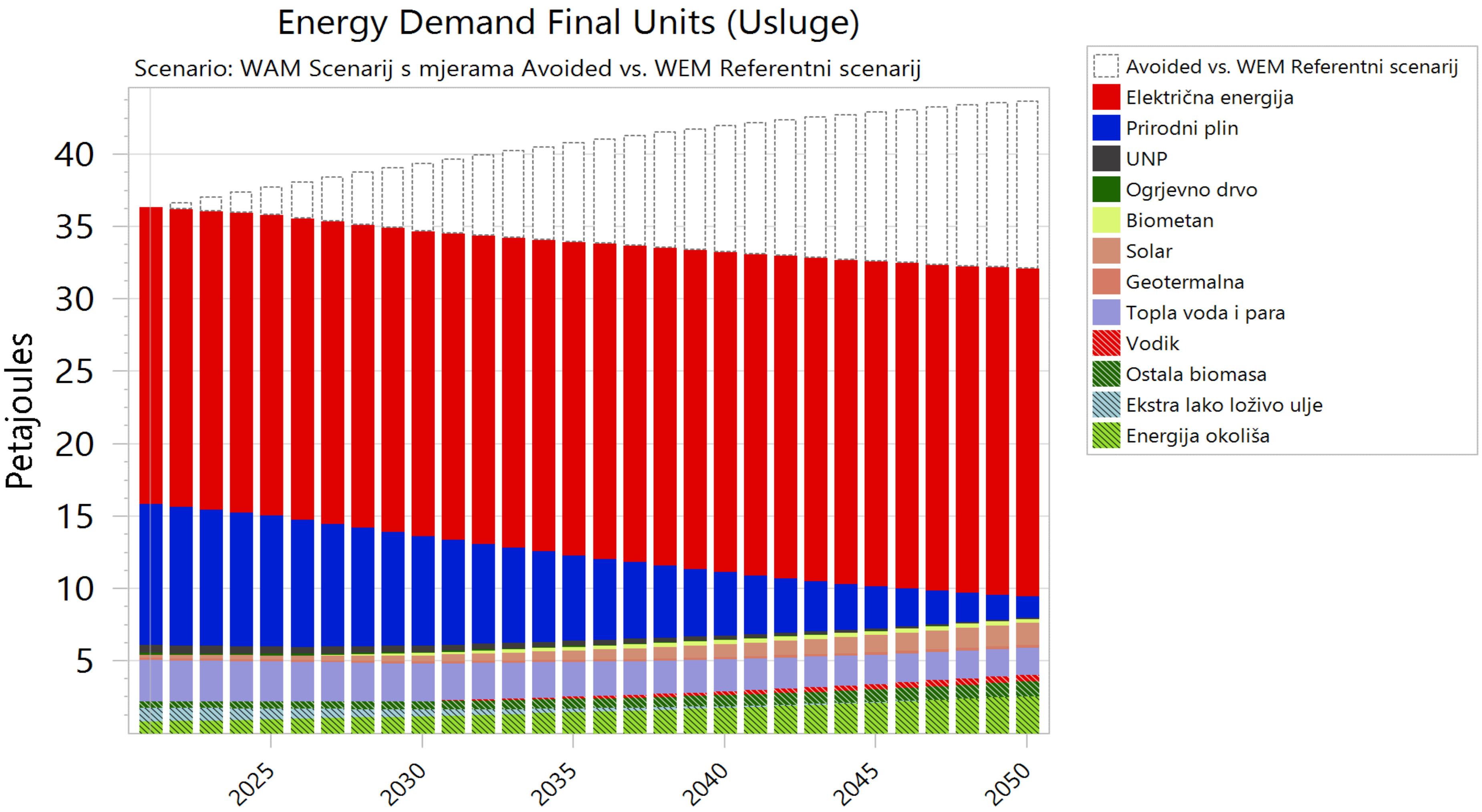
Projekcija potrošnje energije u kućanstvima



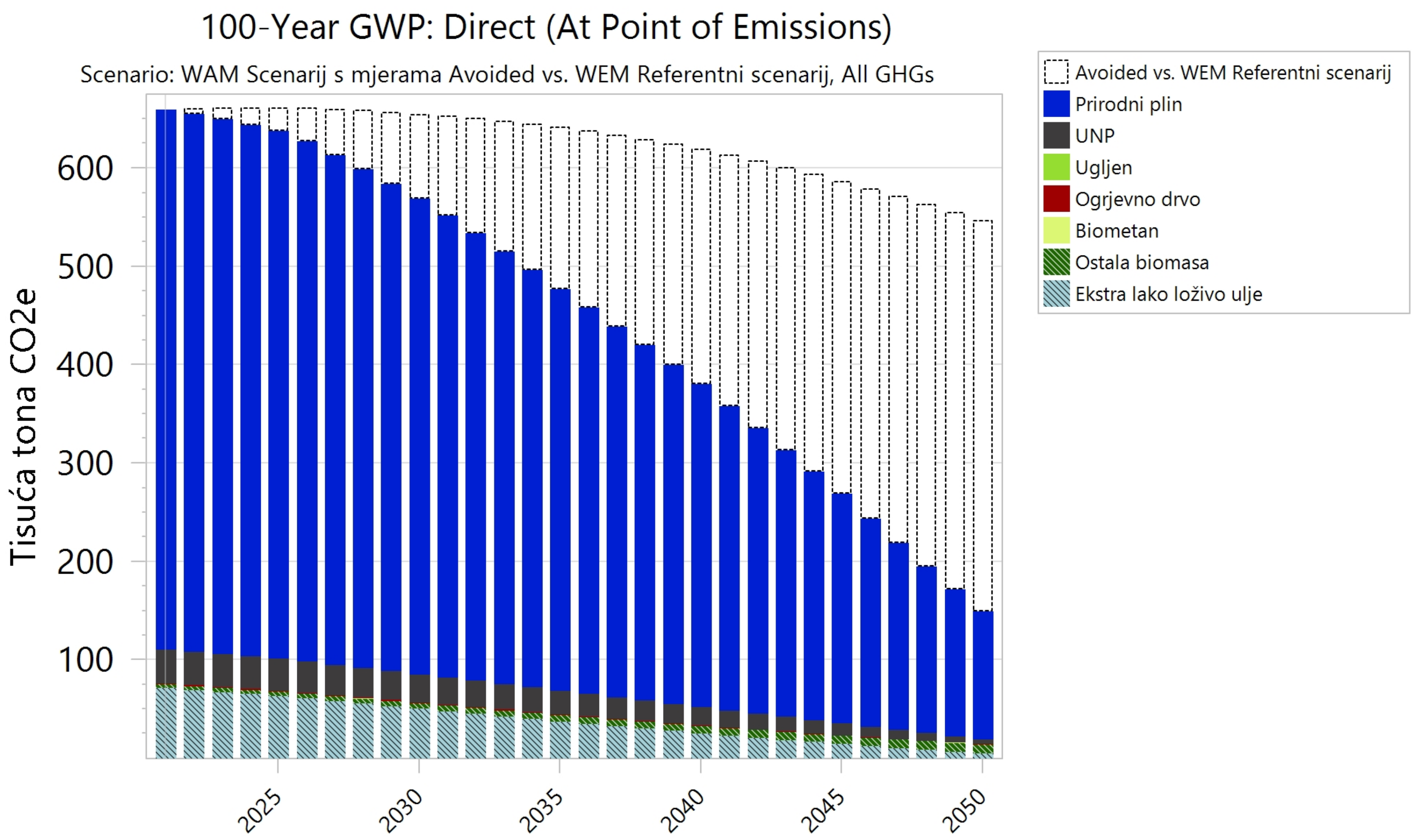
Projekcija emisija u sektoru kućanstva



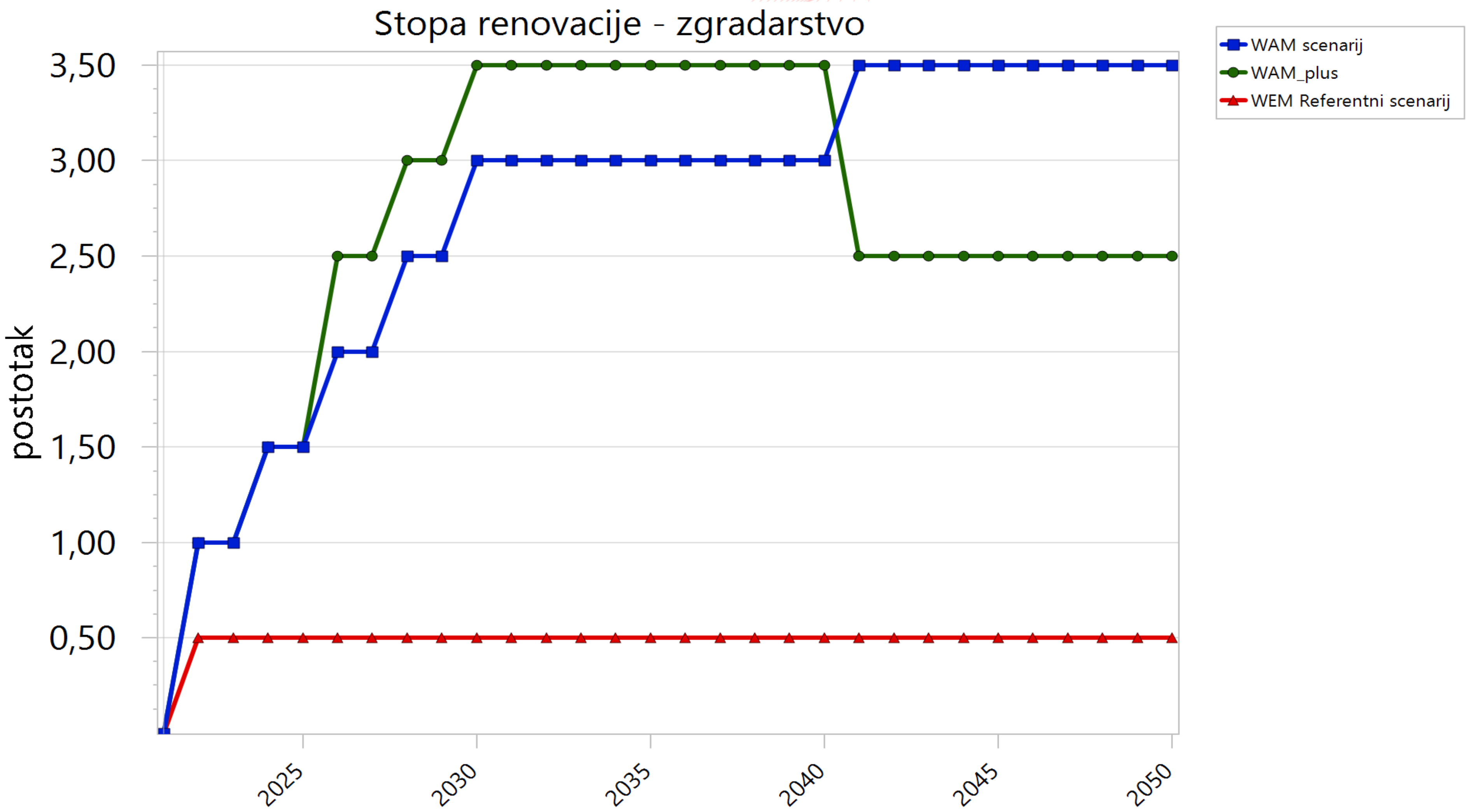
Projekcija potrošnje energije u sektoru usluga



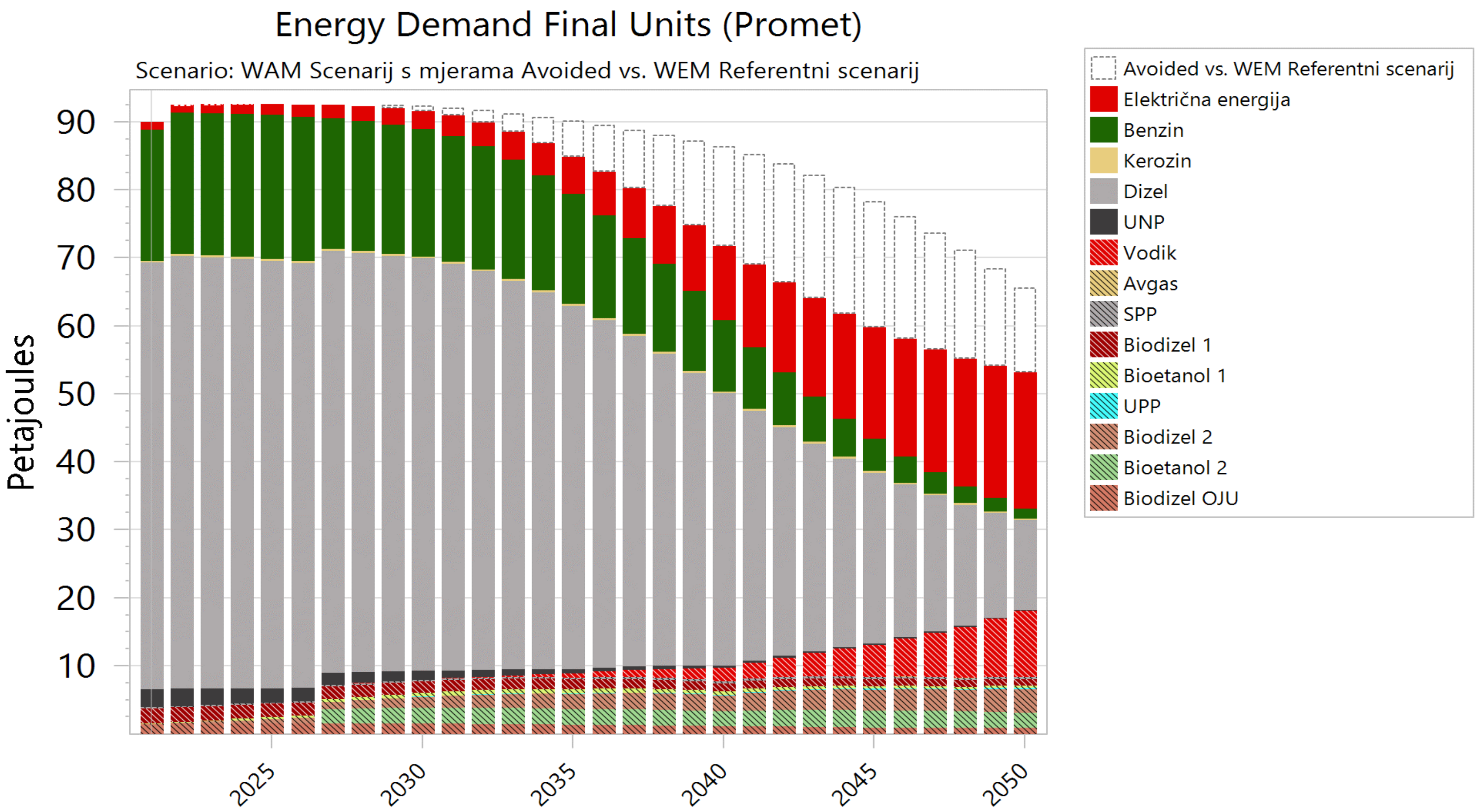
Projekcija emisija u sektoru usluga



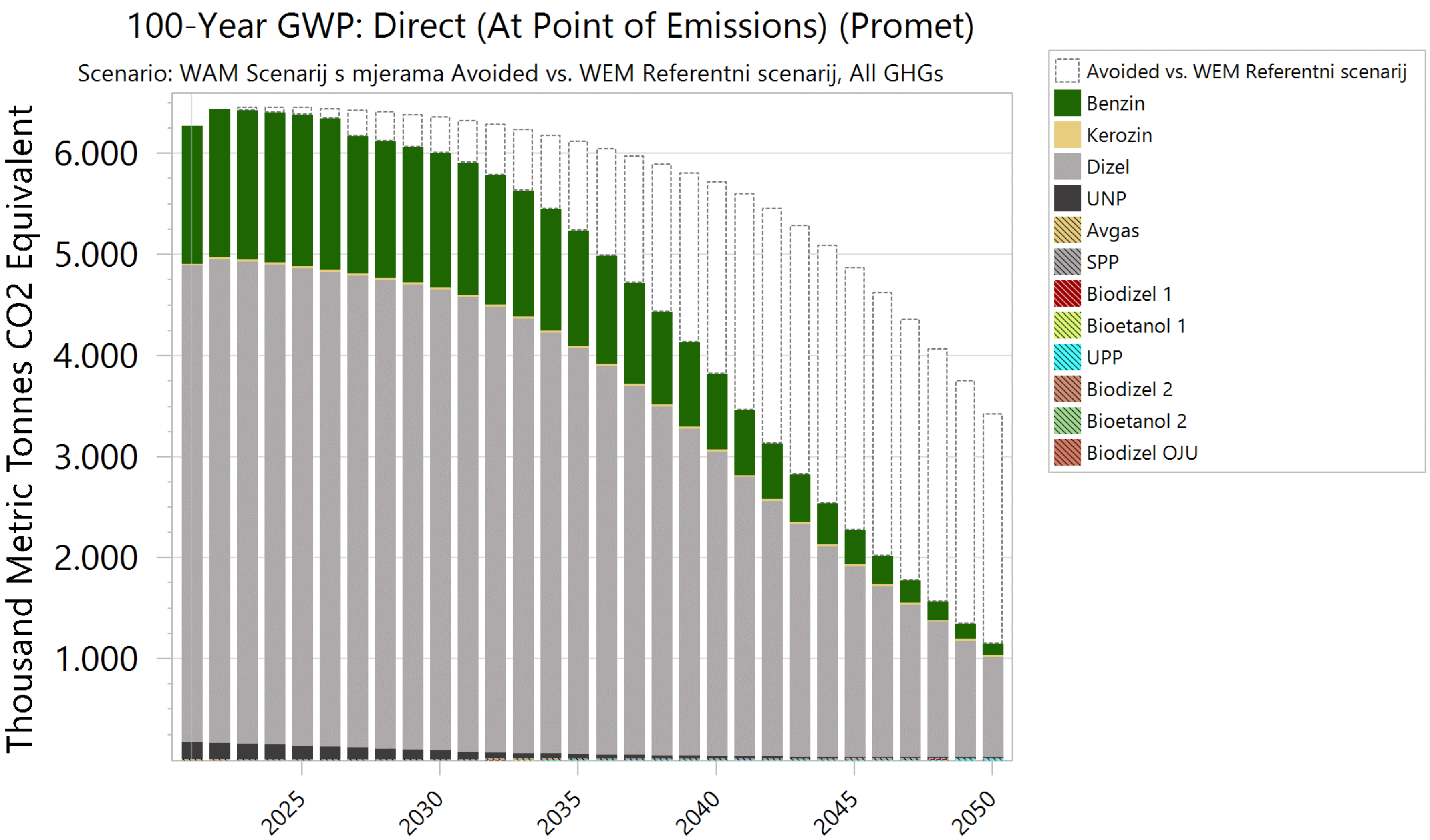
Energetska učinkovitost u zgradarstvu



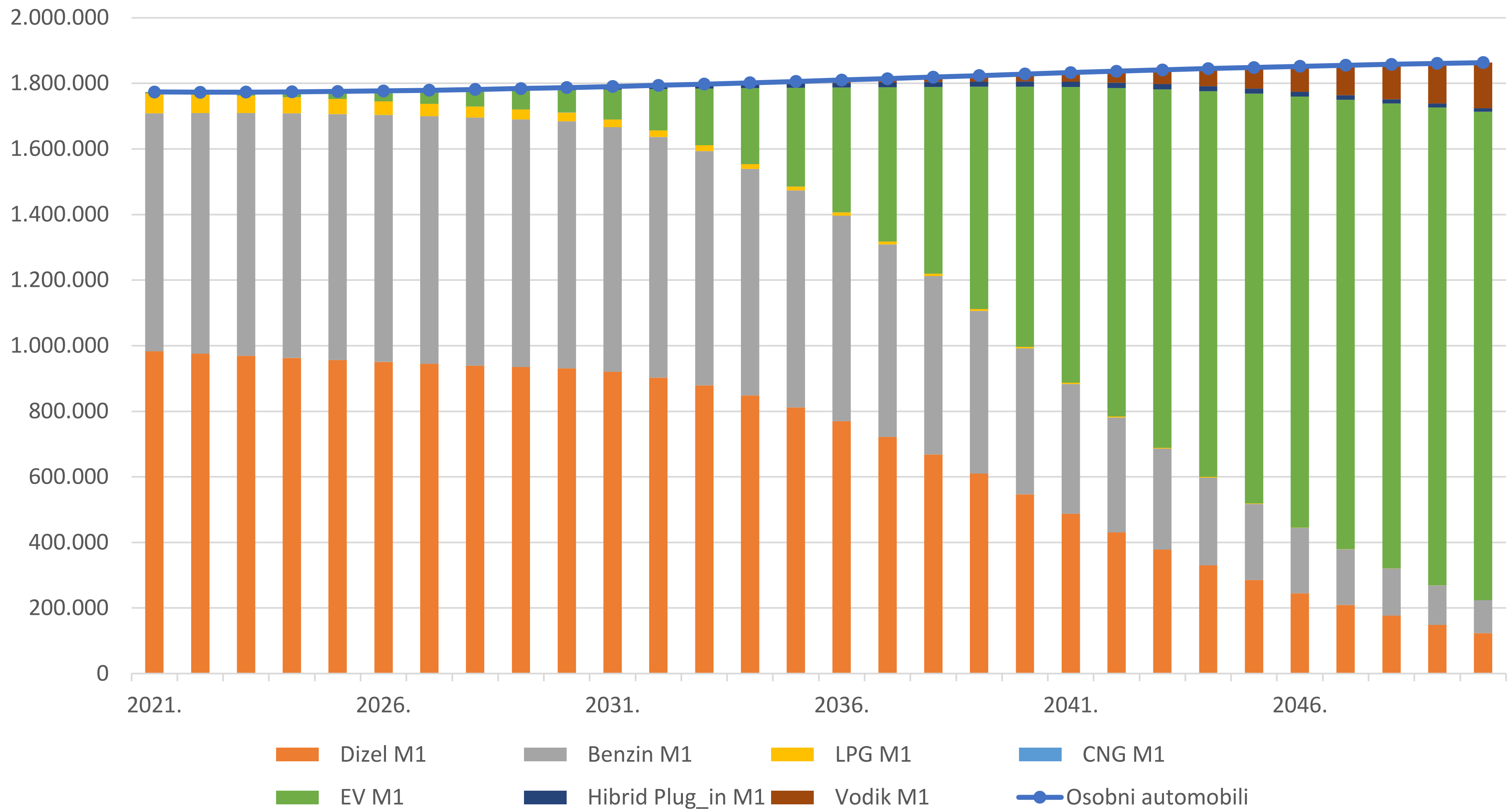
Projekcija potrošnje energije u prometu



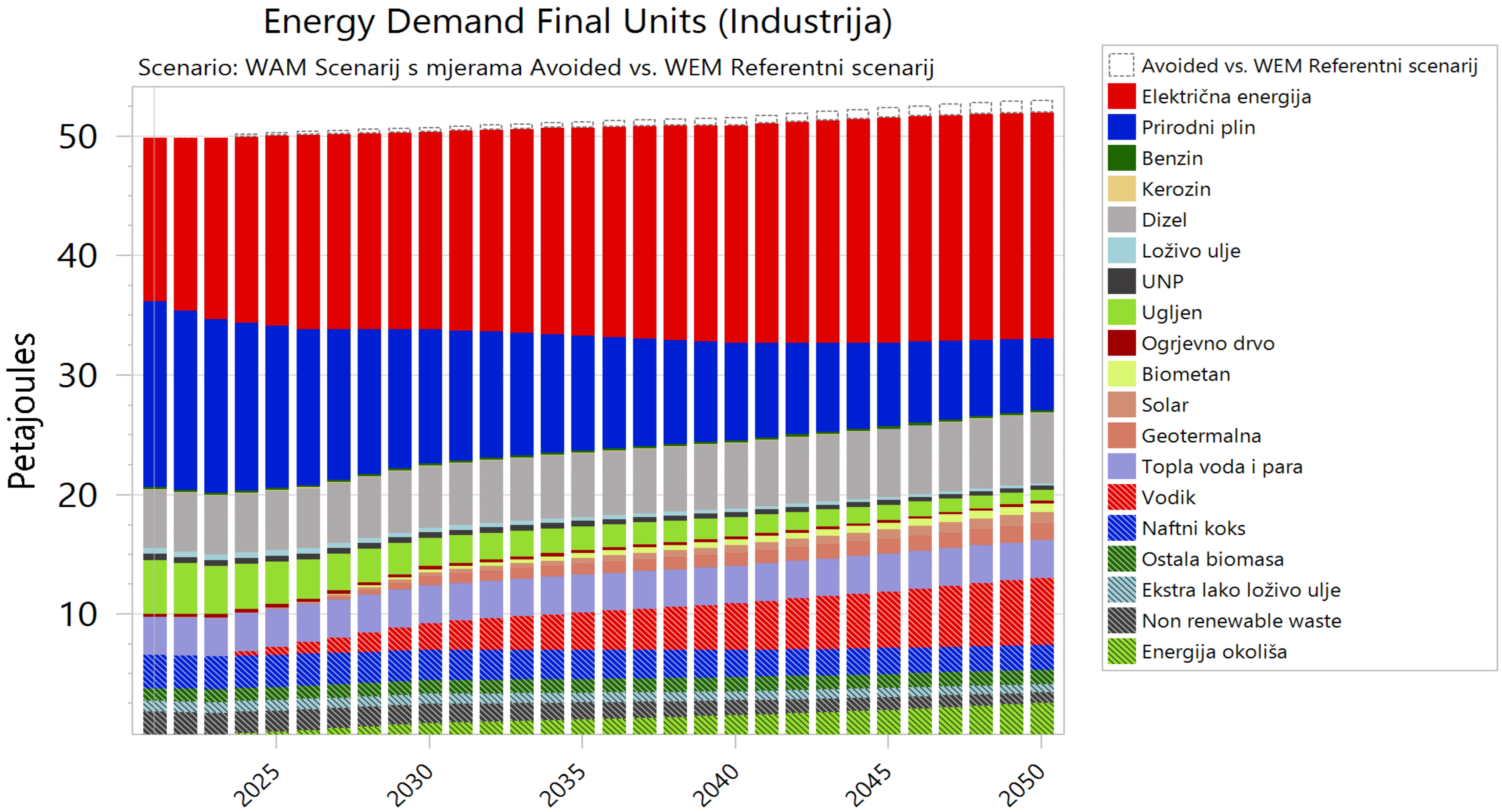
Projekcija emisija u prometu



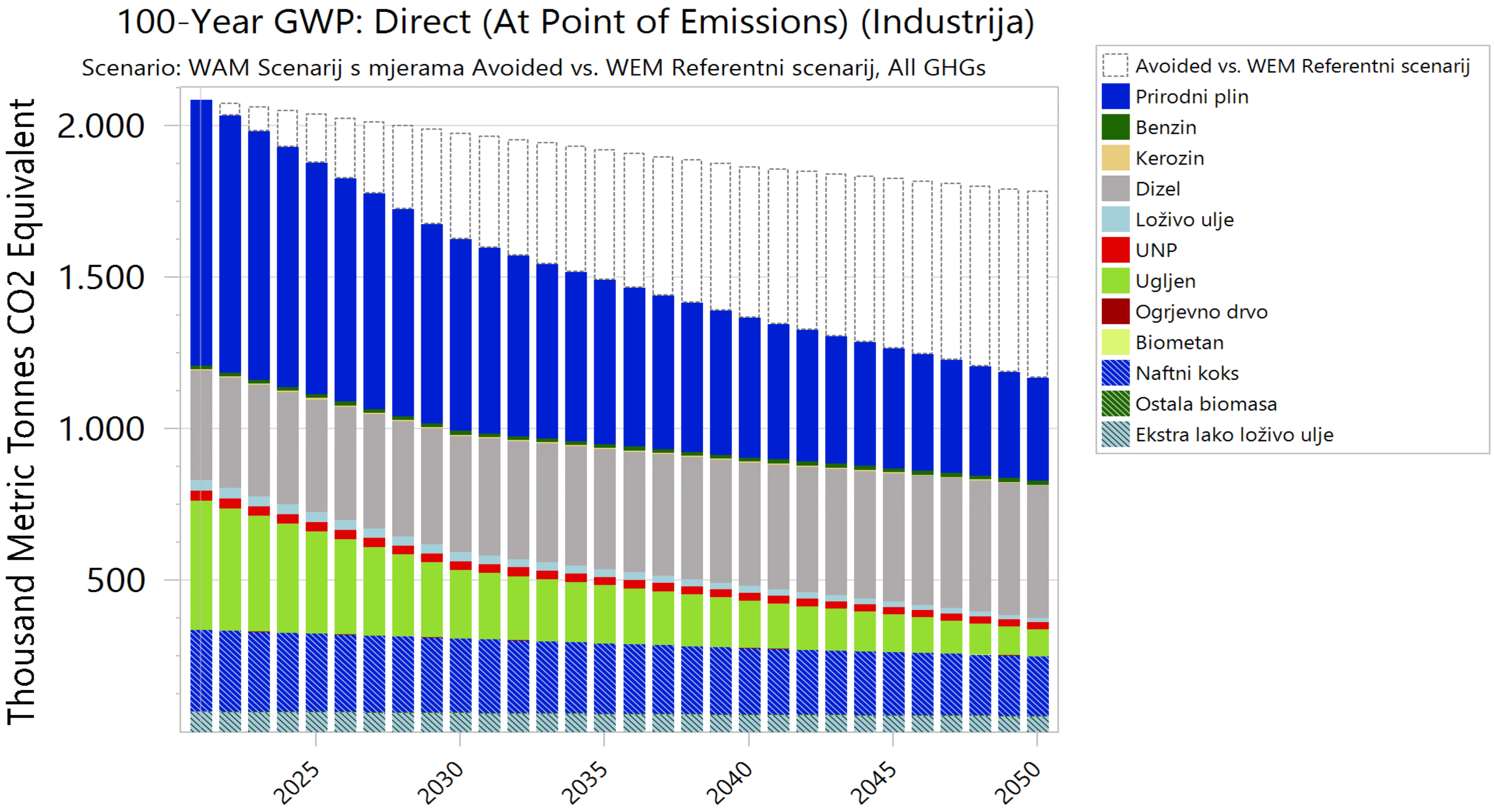
Projekcija strukture osobnih vozila



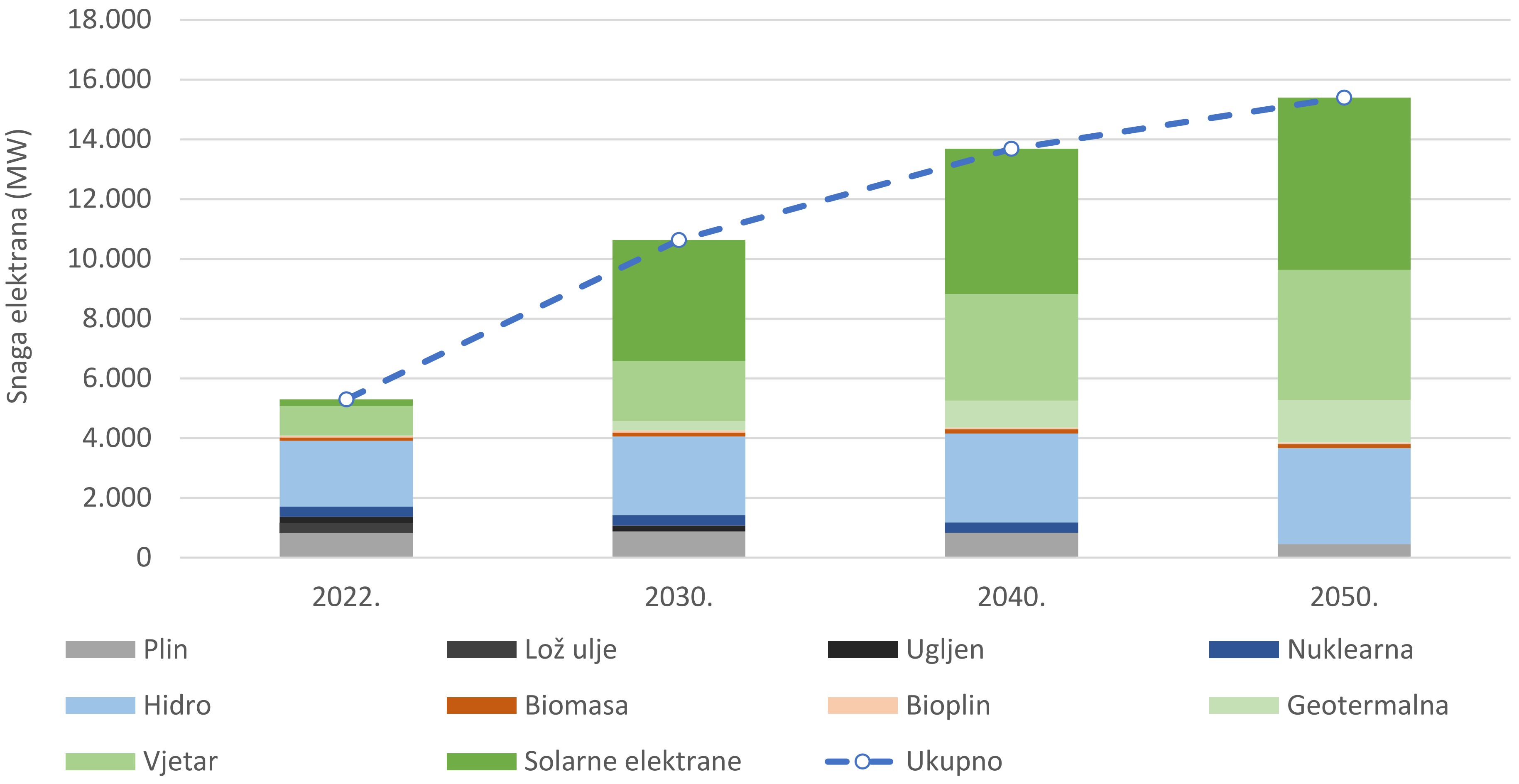
Projekcija potrošnje energije u industriji



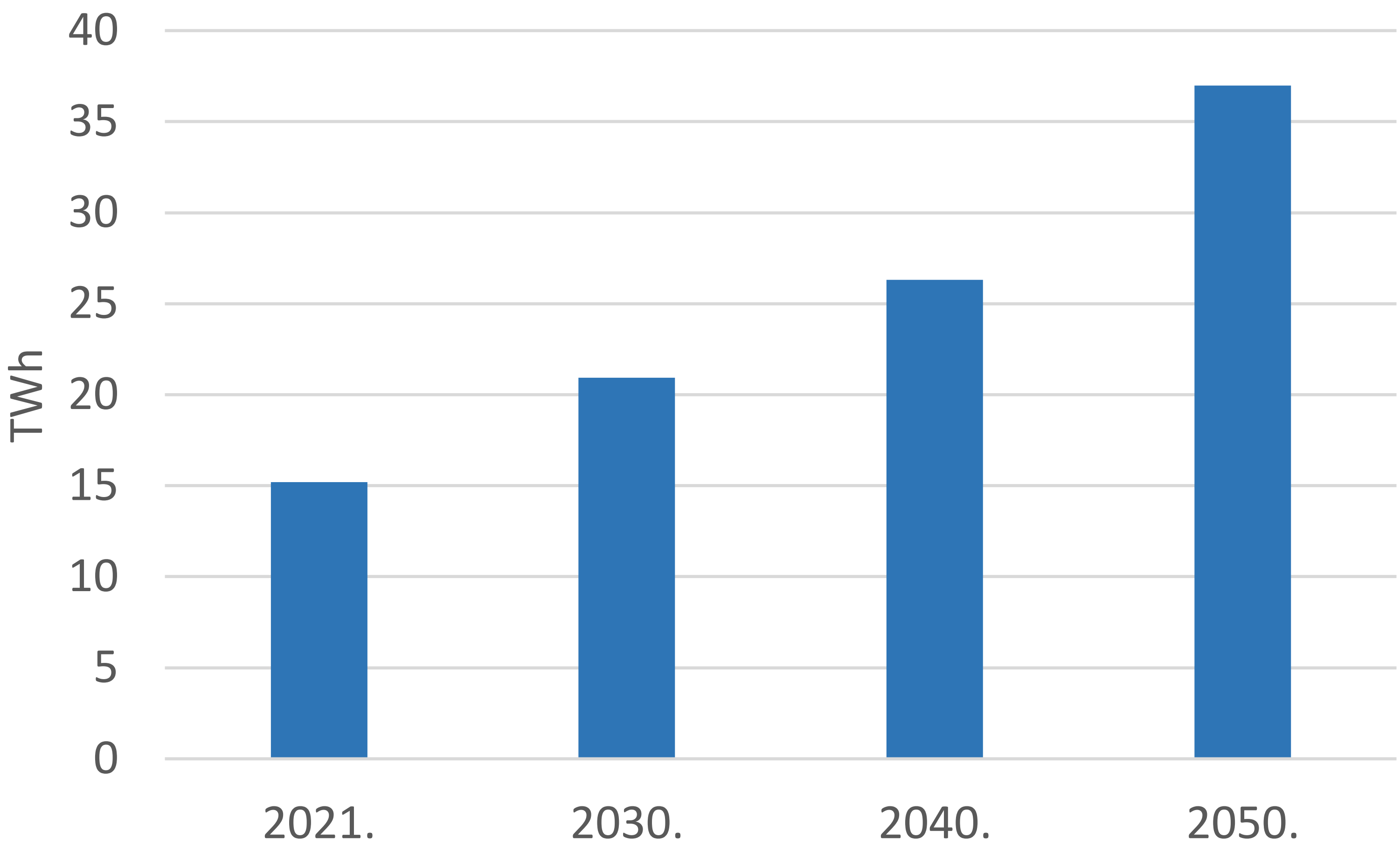
Projekcija emisija u industriji



Očekivani kapaciteti elektrana (NECP)



Očekivana proizvodnja električne energije (NECP)



Zaključak

- Hrvatska prati ciljeve (izazove) energetske tranzicije EU
- Postoje dobri preduvjeti za njihovo ostvarenje
- Postojeći ciljevi su vrlo ambiciozni uz očekivanje za dodatno povećanje ambicioznosti
- Najveće emisije (i izazovi) u sektoru prometa i zgradarstvu

Hvala na pažnji!

rfabek@eihp.hr