



RES Law Croatia – Transposing REDII

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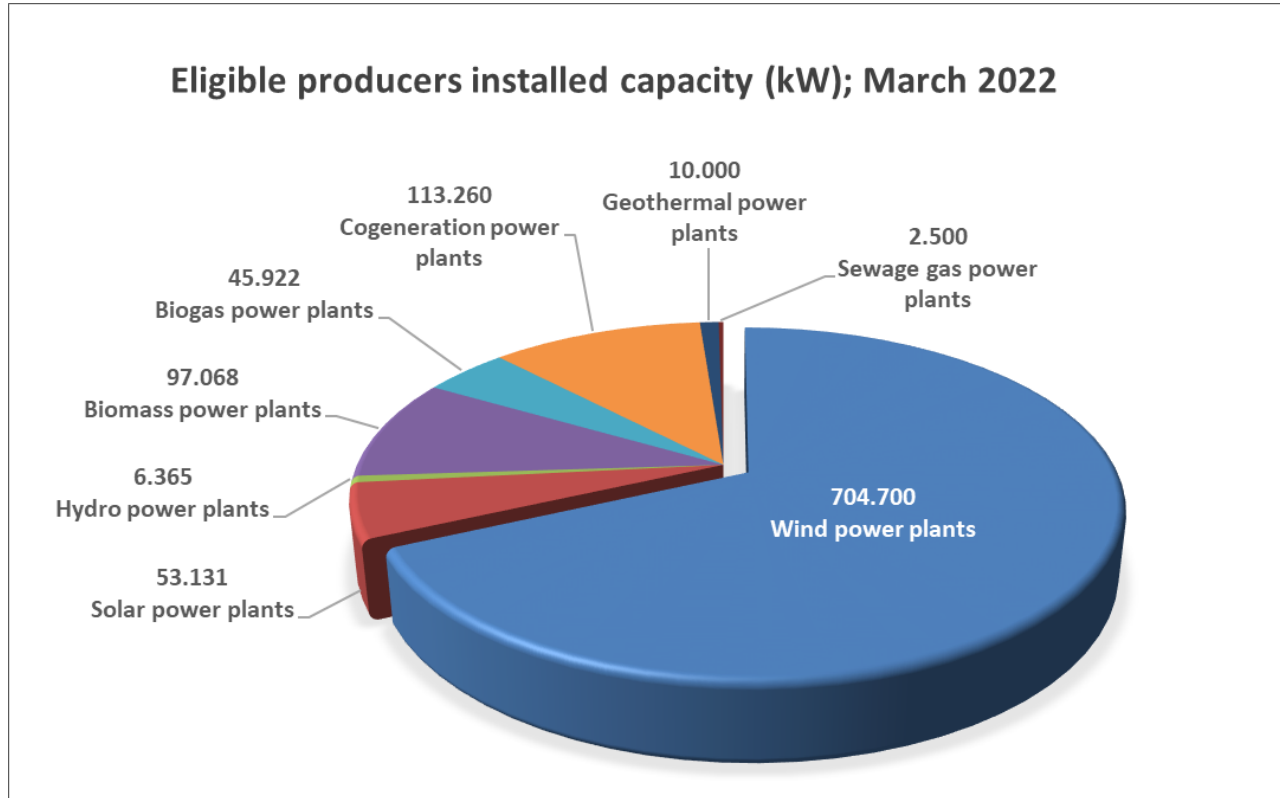
13th Renewable Energy Coordination Group meeting



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CURRENT STATUS



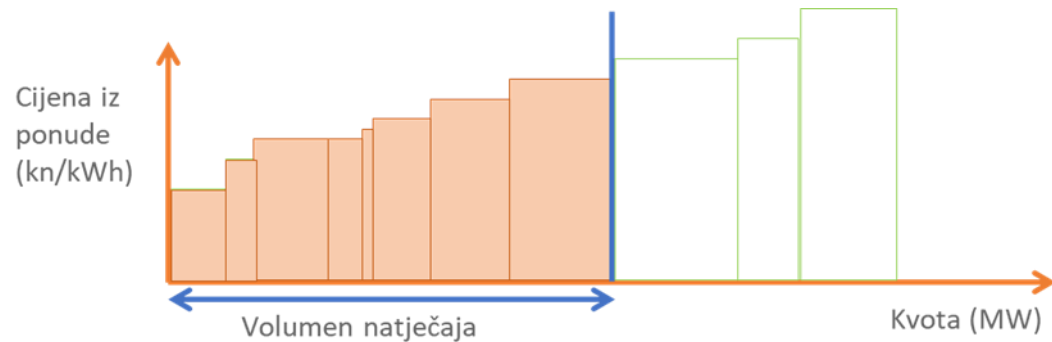
NEW PROVISIONS FROM THE LAW ON RENEWABLES AND HECHP

- Eligible producers sell electricity from installations with installed power \geq 500 kW on the electricity market
 - HROTE concludes premium agreement
 - premium = reference price determined by the premium contract - reference market price in the accounting period (1 month)
- Eligible producers sell electricity from production plants with installed power $<$ 500 kW to HROTE
 - HROTE enters into electricity purchase contract
 - The feed-in system is similar to the “feed-in system” — protecting small installations against market risk

“PAY-AS-BIDE” tender procedure of the premium system

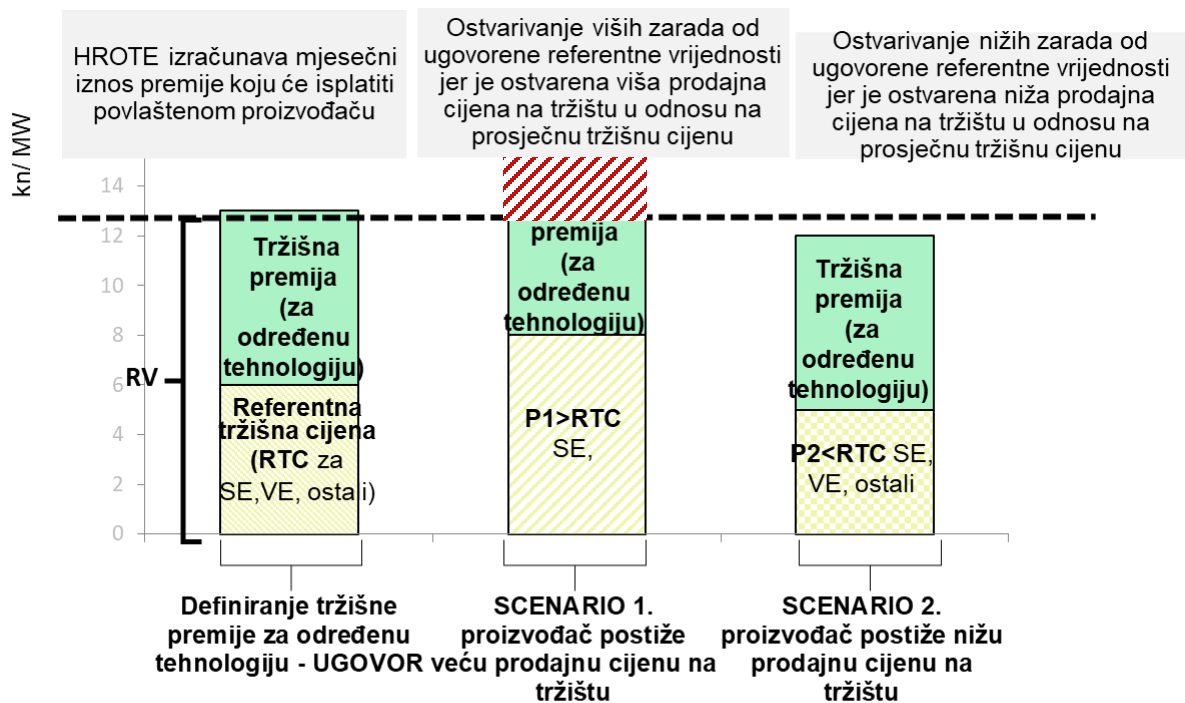
Based on the public tender conducted, the electricity market operator makes a decision on the selection of the most favorable bidders

- Pay-as-bid tender system where project holders offer prices justifying the costs of their project and list them in their offer. It is precisely these prices that will be agreed upon if their offer is accepted
- Project holders will try to maximize the price, but competition pressure corrects this
- Determination of real production and operating costs
- Market-defined level of incentives



CfD model

Where the market price at a monthly level exceeds the amount of the reference price set out in the market premium agreement, the eligible producer pays the energy market operator the difference between the market price and the reference price by 25 next month for the production in preceding month.



RTC SE,VE, ostali - referentna tržišna cijena – referentna cijena električne energije za mjesečni obračunski interval za koji se vrši obračun [kn/MWh] – po tehnologijama

RV se korigira u odnosu na prethodnu godinu primjenom Prosječnog godišnjeg indeksa potrošačkih

Joint support schemes for renewable electricity

The Republic of Croatia may voluntarily decide to pool or partially harmonize its national support programs with other EU Member States.

In the case of the pooling of national support schemes or their partial harmonization, a certain amount of renewable energy produced in the territory of one participating Member State may be considered as a part of the renewable energy content of another participating Member State where those Member States:

- carry out a statistical transfer of certain amounts of renewable energy from one Member State to another Member State; or
- establish the distribution rule agreed between the participating Member States and according to which the amount of renewable energy is allocated to those Member States.

Administrative procedures and information

The Ministry shall be designated as a contact point which, at the investor's request, provides guidance throughout the entire licensing process.

HROTE in cooperation with the Ministry, the Agency and the transmission and distribution system operator, and the ministry responsible for physical planning and construction, shall develop a manual as a guide providing complete information on the procedures for obtaining permits for the construction of a production facility from renewable energy.

The manual contains:

- description of existing simplified and accelerated procedures established through special regulations governing the area of electricity market, regulations governing the area of physical planning and construction, regulations governing connection to the power grid at the appropriate administrative level, etc.
- description of the procedures in place for authorization, including notification procedures, for decentralized devices, and for the production and storage of energy from renewable sources
- existing technical specifications to be met by renewable energy equipment and systems

Collection and calculation of funds for payment of incentives

New assigned funds for the payment of incentives are collected from the special account of the energy market operator from:

- funds collected from the CO2 emissions trading in the manner established by the *Plan for the use of financial resources from the sale of emission allowances through an auction in the Republic of Croatia*
- compensation for imported electricity produced in third countries from production plants using fossil fuels (CBAM)
- fees for issuing an energy authorization in accordance with the Regulation of the electricity market
- funds collected through statistical transfers between the Republic of Croatia and the Member States of the European Union

Renewable energy communities

Final customers, in particular household customers, are entitled to participate in the renewable energy community while retaining the rights or obligations they have as end users and are not subject to unjustified or discriminatory conditions or procedures which would prevent their participation in the renewable energy community, and in the case of private enterprises, provided that their participation is not their primary commercial or professional activity.

Renewable energy communities shall have the right to:

1. produce, consume, store and sell renewable energy, including through contracts for the purchase of renewable energy
2. share, within the renewable energy community, renewable energy produced in production units owned by that renewable energy community and retain the rights and obligations of members of the renewable energy community as users
3. access the electricity markets directly or through aggregation in a non-discriminatory manner.

Prosumers and self-consumption

Consumers are entitled to become consumers of their own renewable energy, either individually or through aggregators, and are entitled to:

1. produce energy from renewable sources, including those for own consumption, store and sell surplus such electricity produced from renewable sources, including through contracts for the purchase of renewable energy, electricity suppliers and reciprocal trade arrangements.
2. install and use electrical energy storage systems in combination with installations producing electricity from renewable sources for own consumption without paying any double fees, including network charges for stored electricity remaining in their facilities
3. retain their rights and obligations as end users
4. receive compensation, including, where applicable, through support schemes for electricity from renewable sources produced and brought into the grid themselves, reflecting the market value of that electricity and including its long-term value for the network, the environment and society.

Simplified notification procedure for grid connection

The Ministry shall establish a simple notification procedure for grid connection whereby production facilities or integrated production units of self-consumers from renewable sources and demonstration projects with a connection power equal to or less than 10.8 kW, or equivalent to non-three-phase connections, are connected to the power grid upon notification to the distribution system operator.

After notification, the distribution system operator may, within 30 days, refuse the requested connection to the network or propose an alternative connection point for legitimate security reasons or technical incompatibilities between the components of the system.

In case of a positive decision by the operator of the distribution system or in the absence of a decision by the operator of the distribution system within one month after notification, the production facility or the consolidated production unit may be connected to the power grid.

Sustainability criterion for biomass power plants

The tender focuses support on wood processing industry that needs large amounts of heat – this sector is ideal for applying CHP biomass solutions.

Wood-processing plant must have enough wood residue from its primary activity because biomass plants are required to use min 30% of raw material that is wood residue for CHP.

A technical description showing the intention to use wood residue should be provided.

It is calculated that 50% of the input raw material into pre-industrial wood processing is wood residue, so it is necessary to provide evidence of input raw into primary processing in order to verify that the size of the elevation on biomass is well dimensioned considering the available quantity of wood residue.

Once the contracts enter into force, the fulfilment of this condition will be controlled on the basis of the project holder's annual reports.

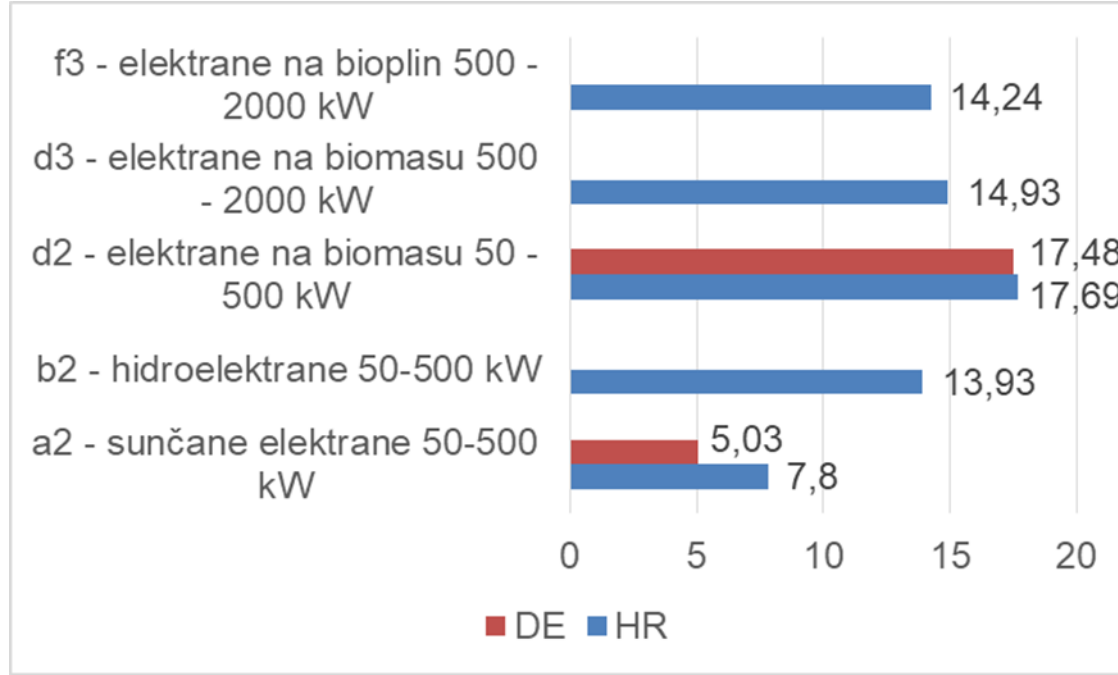
Greenhouse gas emission savings criterion for biogas power plants

It was noted that subsidies for biogas power plants do not necessarily lead to expected savings in greenhouse gas emissions (aim and policy of incentives). RED II very strictly defines that aid is allowed only if the savings are at least 70% compared to the comparator (fossil power plant) for all projects put into operation after 1.1.2021.

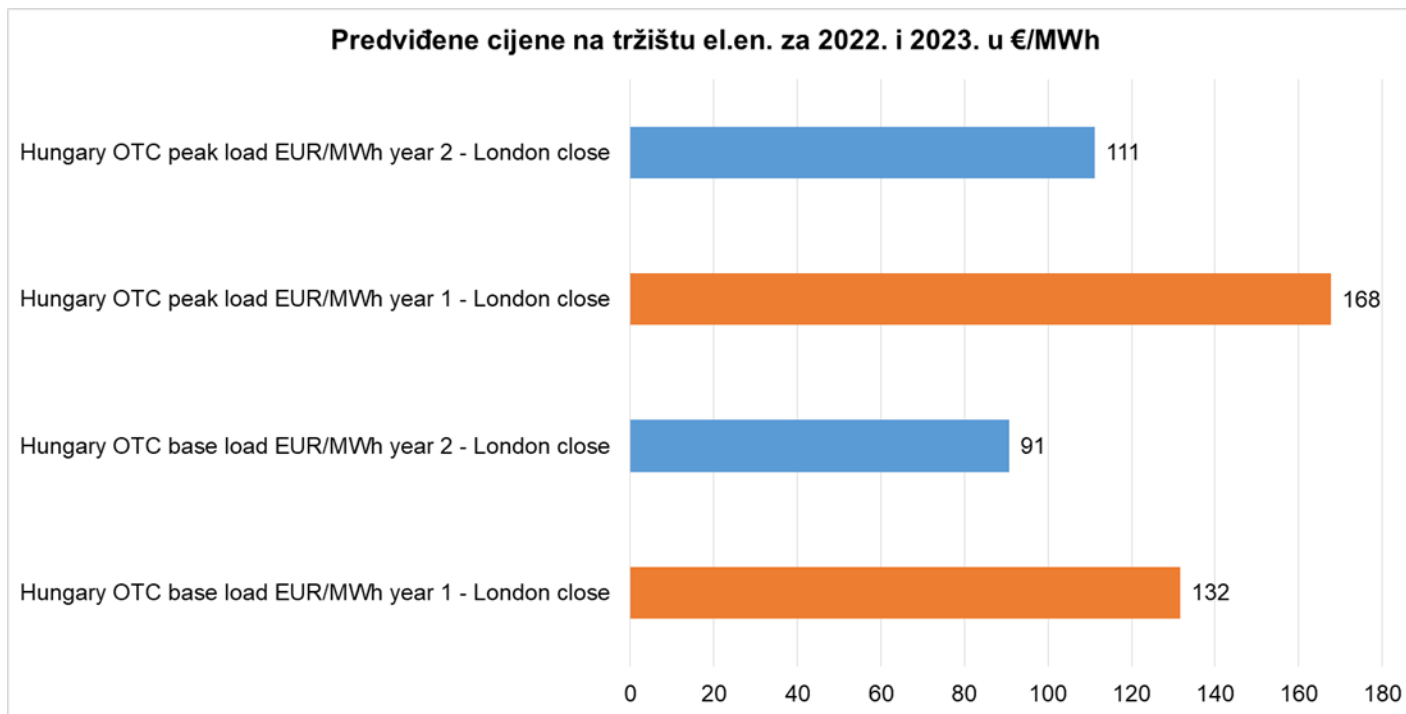
Although RED II has not yet been fully transposed, HROTE put this condition in the tender. The offers prove that the criteria for savings for planned use of raw material are met (technical analysis giving the planned composition of substrate (min. 70% or 100% of manure))

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Auctions results c€/kWh in HR (12.2021) i DE (3.2021)



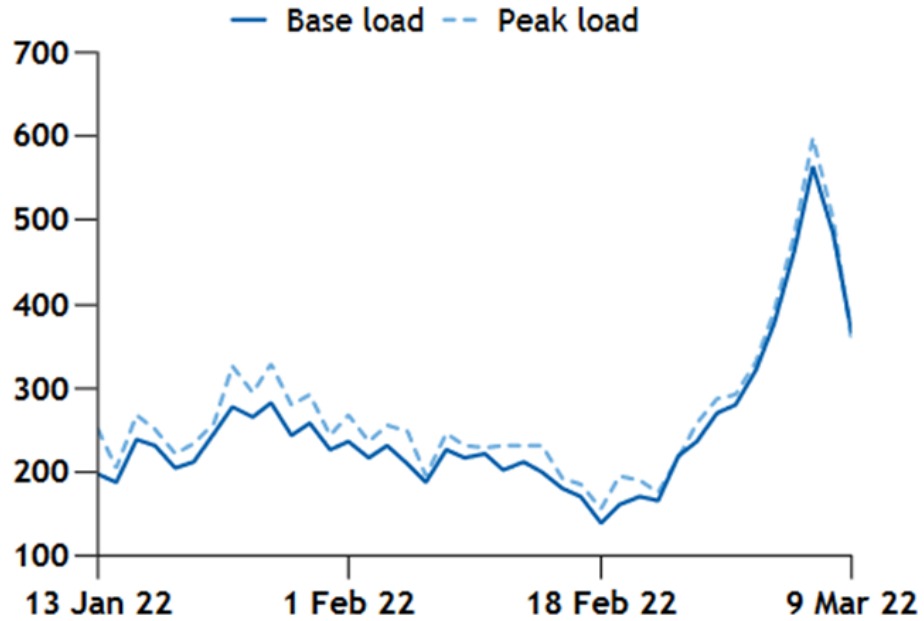
Electricity prices forecast on HUDEX 2022 and 2023



Source: ARGUS; 22-10-2021

Hungary day-ahead base and peak load

€/MWh



Source: ARGUS; 8-3-2022

Source: EEX

24-9-2021

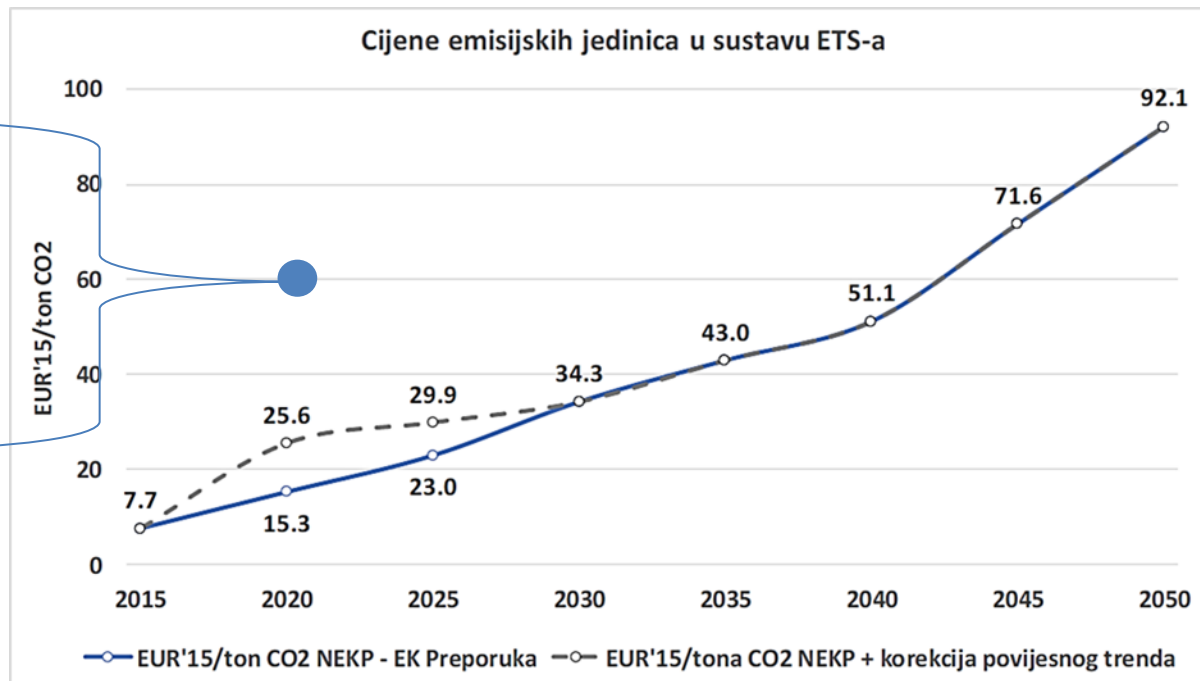
Dec-21 63.55 €/tCO₂

Dec-22 62.51 €/tCO₂

25-10-2021

Dec-21 58.75 €/tCO₂

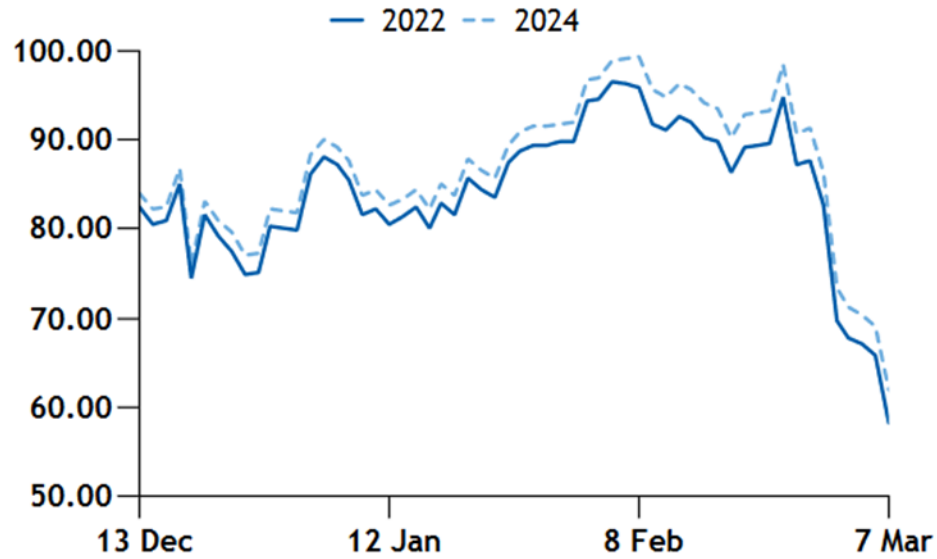
Dec-22 59.47 €/tCO₂



Source: EIHP, Vizija razvoja OIE u sektoru električne energije u razdoblju 2020. – 2030. godine, veljača 2019.

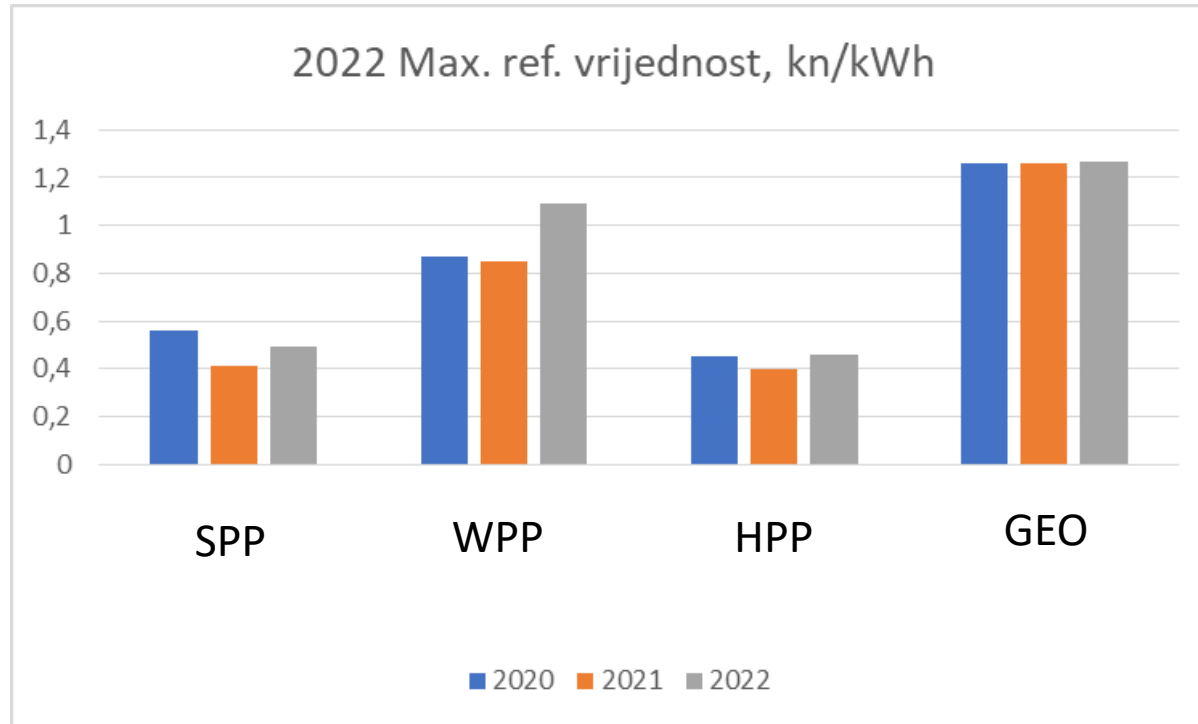
EU ETS Dec 2022 and 2024 allowances

€/t CO₂e



Source: ARGUS; 8-3-2022

NEW TENDER FOR THE ALLOCATION OF PREMIUMS IN 2022



Guarantees of Origin

Issuing the GOs for other energy carriers:

- hydrogen
- biomethan

The Registry for Croatian Domain should implement those changes.

LESSONS LEARNED

- ✓ Joint support schemes offer the possibility of building renewable projects on the pan-European market at lower costs than on the domestic market.
- ✓ The obligation to establish a contact point (REDII) has been implemented in such a way as to be an independent body (Ministry, not HROTE, as it was the first proposal of the Act).
- ✓ The manual intended to provide all necessary information is well accepted and designed and should connect institutions (cross-sectoral communication).
- ✓ Renewable energy communities and aggregators are positive changes, but remain unknown as the practice will be.
- ✓ Due to high inflation and changes in all markets, some CAPEX costs have been increased when calculating the maximum reference prices.
- ✓ If EU legislation (REDII) guidelines are followed and not regulated by national legislation, it is necessary to communicate with project holders (investors).
- ✓ Prices are set in line with trends in the volatile energy market and emission permits.



Thank you!



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