

## C5 – Electricity Markets & Regulation

PS 3 / Working with innovation and disruption – preparing for the future

10947\_2022

### DEVELOPMENT OF GUARANTEES OF ORIGIN TRADING IN CROATIA WITHIN THE EUROPEAN CONTEXT

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#### Motivation

- GoO is an electronic document for the purpose of proving the origin of energy to the customer
- Croatian Registry of GoOs was established in 2014
- CROPEX is the central contracting party that enables the sale of GoOs by matching the bids of the auction participants with the offer of HROTE for the sale of GoOs through the auction system
- HROTE sells GoOs on CROPEX platform since 2019
- Collected funds are transferred to the incentive system fund
- HROTE determines the minimum price of the GoO offered at the auction for each individual auction

#### Setup

- Each GO should contain information:
  - Energy source
  - Start and end dates of production
  - Generator identity, location, type, date of operation, and capacity
  - Whether the GoO relates to electricity or heating or cooling
  - Whether the installation benefits from state support
  - Date and country of issue
  - Unique identification number

#### CROPEX GoO Auctions in 2021

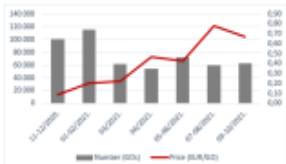


Figure 5. Wind - commissioning date 2019-2014

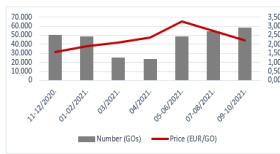


Figure 7. Biomass - installed capacity <=5MW; commissioning date 2015-2021

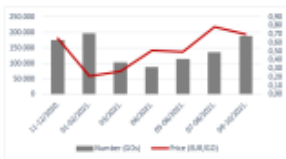


Figure 6. Wind - commissioning date 2019-2020

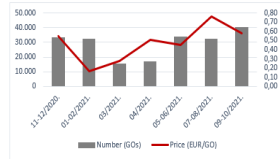


Figure 8. Biomass - installed capacity >=5MW; commissioning date 2015-2021

#### Discussion

- In 2019 sold was 899,199 GoOs
- In 2020 sold was 2,030,603 GoOs
- In 2021 sold was 2,033,177 GoOs
- In H1 2022 sold was 1,200,186 GoOs



#### Objects of investigation

- EC stated that, due to BREXIT, from 1.1.2021, UK GoOs (REGOs) is no longer recognized by the EU Member States
- The UK government is proposing to cease recognition of GoOs issued in the EU from either October 2022 or April 2023
- Given that the participants in the auctions of GoOs organized by HROTE and CROPEX come from different EU countries, this explains that the price movement of GoOs at CROPEX was closely related to the price movement in the UK

#### Conclusion

- Since the supply of RES has tended to exceeds demand, average prices for European GoOs have been relatively low, compared to power prices
- During the summer of 2021, prices were around 0.45 EUR/GoO for energy generated in 2021
- Strong market activity in September 2021 has seen these prices almost double; growth trends can also be seen in 2022
- In general, GoO prices will rise in Europe as renewable energy demand meets with GoO supply

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#### CROPEX GoO Auctions in 2022

