

# Biowaste as a resource during the energy crisis with an owerwiev in the biogas sector in Croatia

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## **Current situation in biogas plants in Croatia**

- ➢There are currently 41 biogas plants operating in Croatia, with a total capacity of 46 MW while in feed in tariff are just biogas plants that are producing 11,1 MW
- Currently, 23 of the 41 plants have left the feed-in tariff system, due to limiting the selling price of electricity to 180 €/MW

Source: CONSULTARE research and HUPB August 2023, HROTE-June 2023 report



## **Current situation in biogas plants in Croatia**

➤The price of corn silage, which is used by 98% of the plants, has increased by 115% compared to previous years

Some of the owners of biogas plant are planning to close business by the end of this year because Goverment of the Republic of Croatia has no understanding for biogas sector-statement by Marijan Cengerpresident od Croatian Biogas Association

Source: CONSULTARE research and HUPB August 2023, HROTE-June 2023 report



### **Biowaste**



Source: CONSULTARE pictures August 2023



### How to use biowaste as a raw material?





## Out of date food as raw material for biogas plant









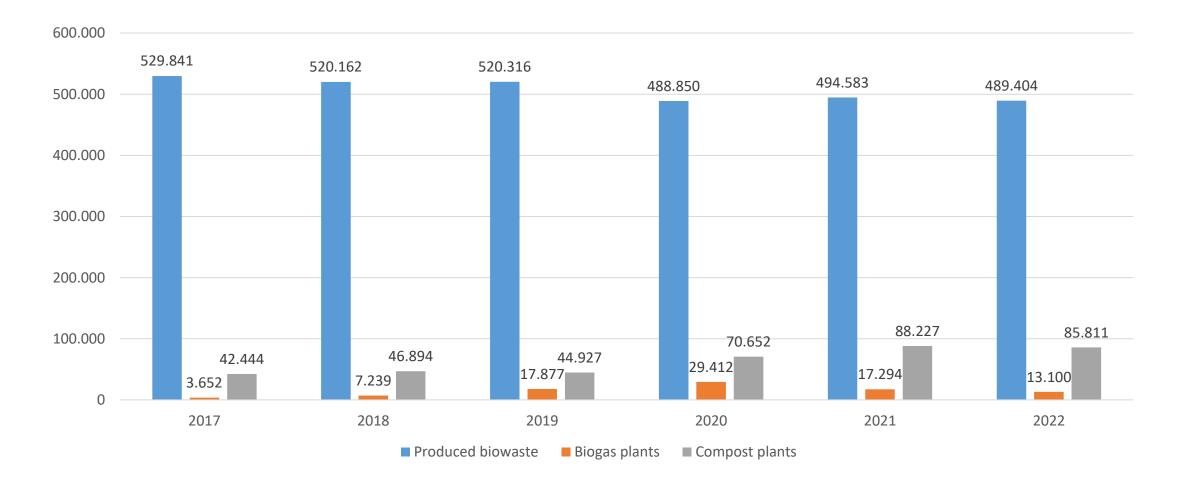


## State of the art technology to use biowaste in biogas





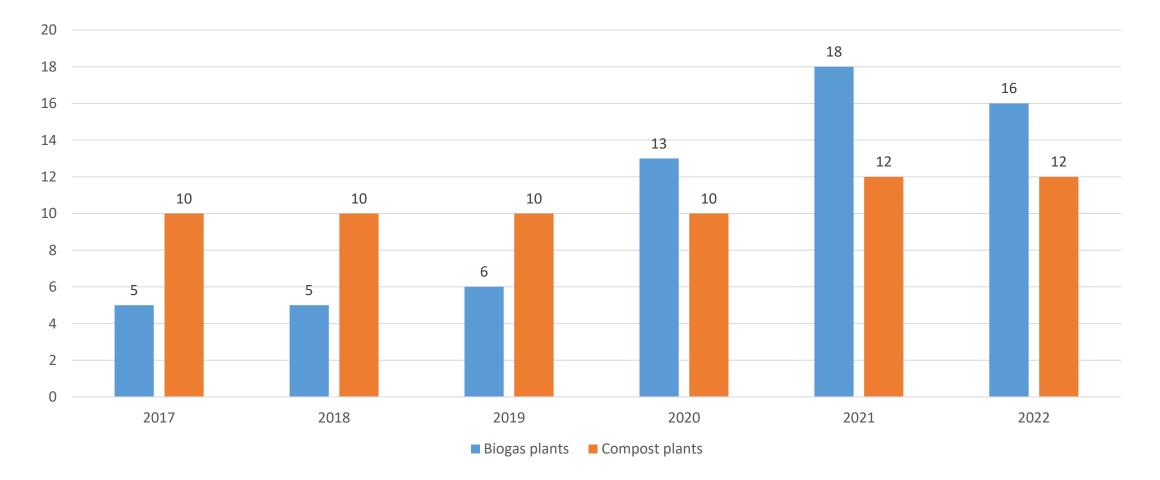
### Amount of produced and recovered biowaste in compost and biogas plants for the period from 2017 to 2022. (tons)



Source: National Report, July 2023, Ministry of Environmental Protection Republic of Croatia



# Number of biogas and compost plants who are using biowaste from 2017.-2022.

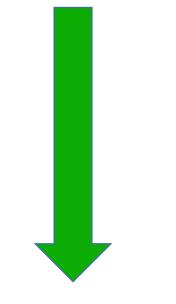


Source: National Report, July 2023, Ministry of Environmental Protection Republic of Croatia



# The potential of Croatia's biowaste in the economic sense at the time of the energy crisis

**390.000 tons of biowaste** 



#### 100 GW/h electric energy

Source: National Report, July 2023, Ministry of Environmental Protection Republic of Croatia

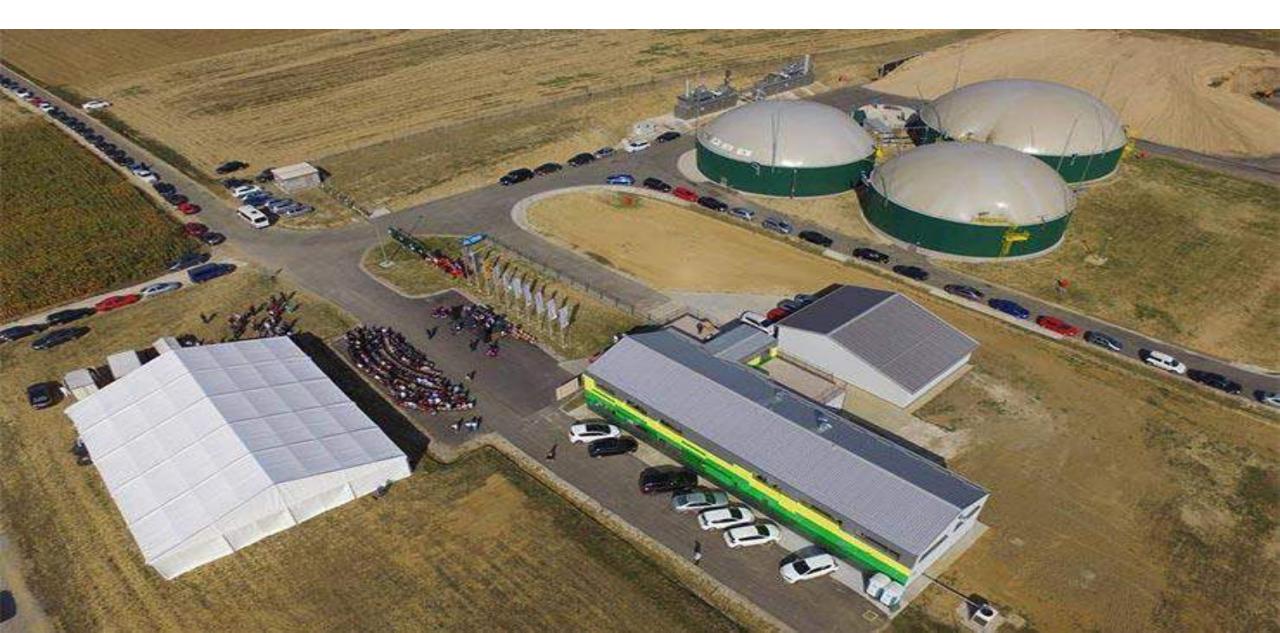


### Dairy farm-biogas plant-greenhouse Belje, Baranja region





### **Biogas plant Gregurovec, Central region**





### **Biogas plant Hercegovac, Slavonia region**





# CONCLUSION

The economic potential is huge, unfortunately still insufficiently recognized, it should be noted that awareness of the potential is slowly starting to arise, especially in private companies!

In times of energy crisis, when the whole of Europe is turning even more towards green transformation and RES, it would be a great shame not to use the energy potential of bio-waste that ends up in the landfill!



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