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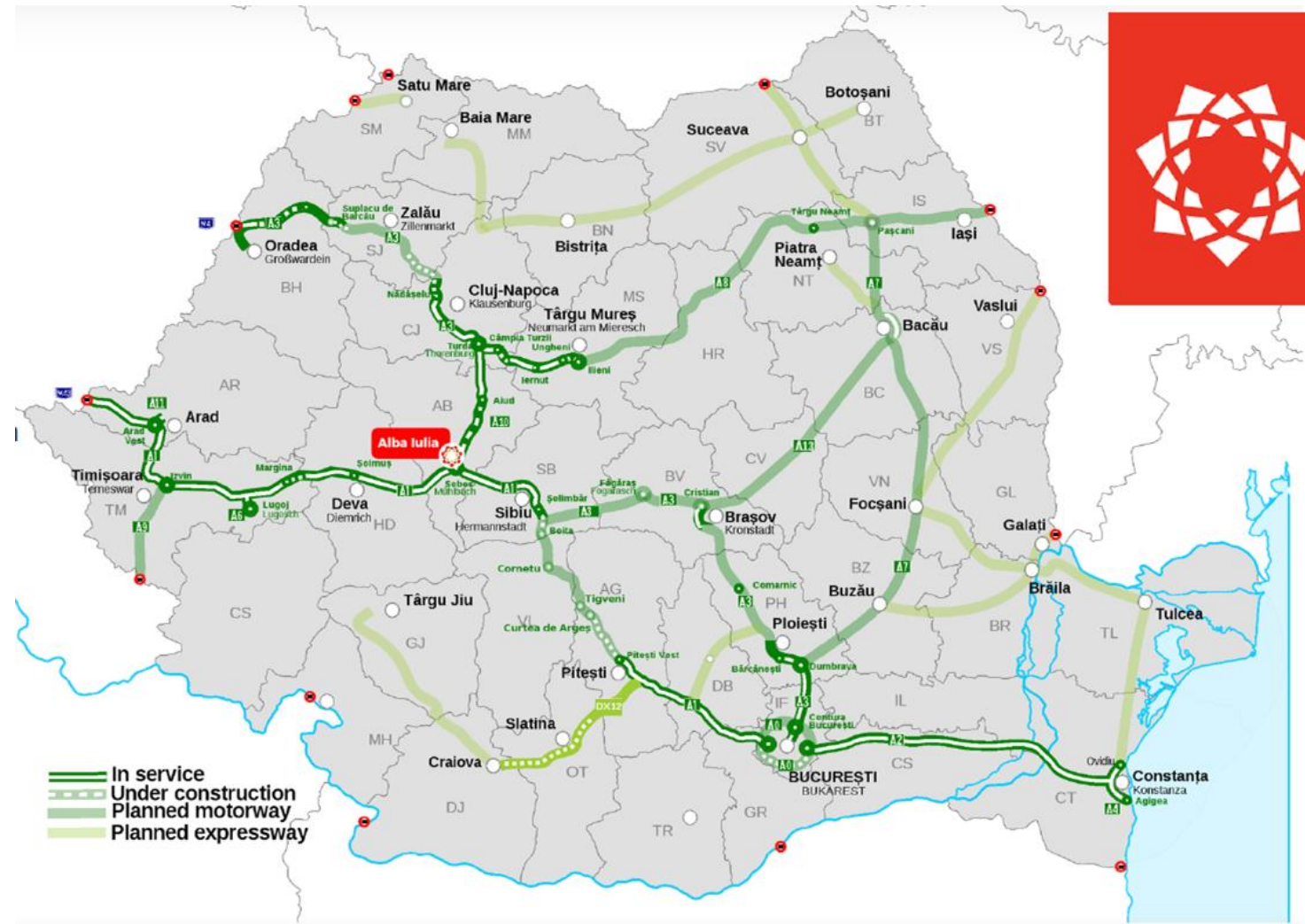
# Alba Iulia - wind and biomethane potential

22 November 2023 | Kilkenny



# Alba Iulia, Romania

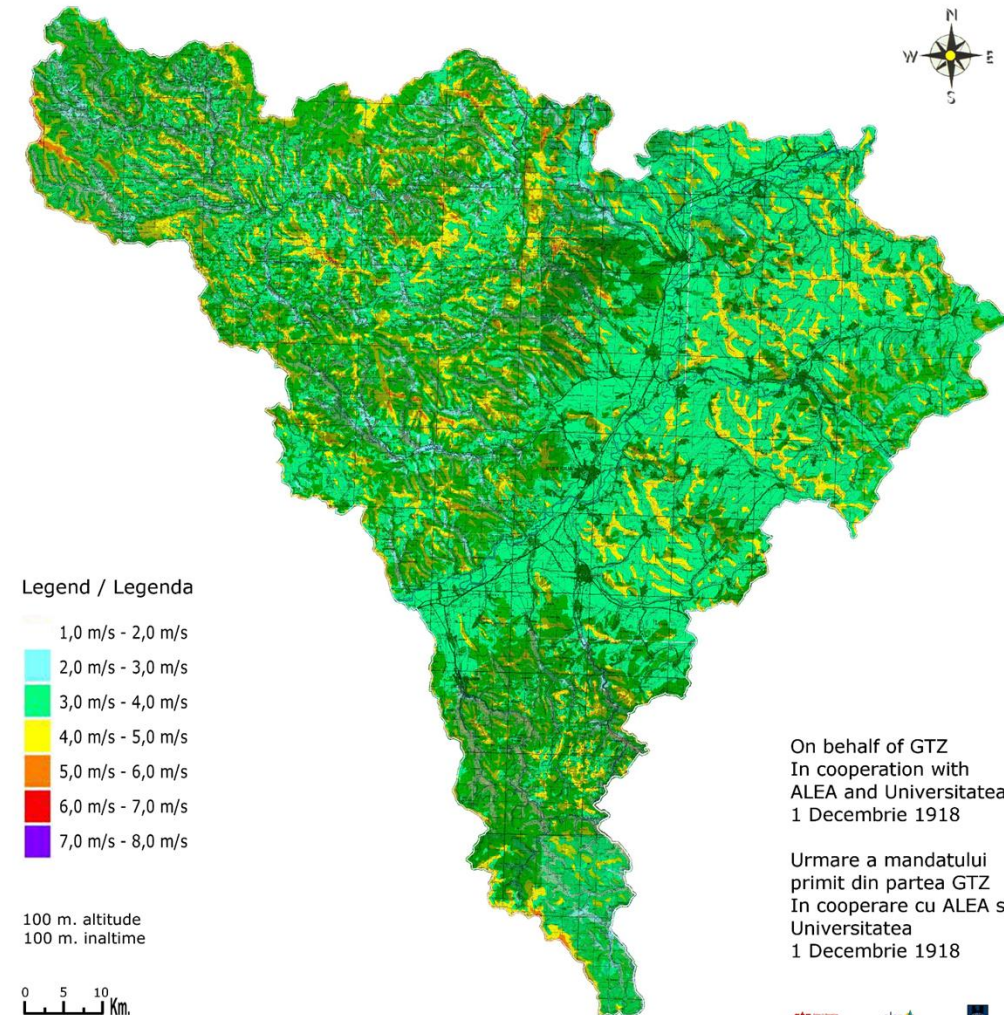
- On October 1, 2022, according to ANRE, wind energy production in Romania was in 3rd place, after hydro and coal.
- 16.5% of the total energy production, i.e. over 3000 MW comes from Wind Energy produced in Romania on October 1, 2022



# Wind potential Alba County

- Alba County is the first county in Romania to have a wind map
- The map was created after eight months of measurements by ALEA – Local Energy Agency Alba
- The results have been correlated with historical data from existing weather stations for the Alba county area
- The Apuseni and Southern Carpathians shield large areas of the county and the valleys produce the wind channeling effect.

Wind Potential Map Alba County, Romania  
Harta de potential a vinturilor din judetul Alba, Romania  
Windspeed / viteza vintului (m/s)



# Fântânele-Cogealac Wind Farm

- The largest wind farm in Romania and the third largest onshore wind farm in Europe
  - Fântânele Vest – 262,5 MW (Tomis Team SA)
  - Cogealac – 252 MW (Ovidiu Development SRL)
  - Fântânele Est – 85 MW (Tomis Team SA)
- In total, the Fântânele-Cogealac wind farm, located on the territory of the two localities in Constanța county, has an installed power of 600 MW.
- The is owned by investor CEZ Group, a conglomerate of companies (most of them from the Czech Republic) active in the field of electricity and thermal energy production and distribution.
- The wind farm was built between 2008 and 2012, with the total investment amounting to over 1 billion euros.
- 240 General Electric 2.5xl wind turbines were installed at Fântânele-Cogealac.



# Biomethane

- In Romania, biogas production was discouraged by the fact that our country had abundant and cheap energy from conventional sources, while biogas production is complex, translates into higher costs and requires good regulatory alignment.
- The Modernization Fund - two support schemes appeared in public debate in which, for biogas and biomass, approximately 150 million euros are allocated, cumulatively, for investment projects.
- In some cases, the production of biogas is used exclusively by producers, for their own technological consumption, or is transferred directly to other users. For example, the biogas station in Filipeștii de Pădure (Prahova county), shares production with a meat processing company, located nearby

## Alba Iulia's wastewater treatment plant - cogeneration plant

The project, including the CHP plant, has an estimated value of 10 million euro and part of the funds were provided by the European Union under the Operational Programme "Environment".

The cogeneration plant has an installed electric power capacity of 150 kW and an installed thermal power capacity of 204 kW.

By using the biogas obtained from wastewater treatment, the facility produces energy used both for heating purposes and in internal operations requiring electric power, being designed to generate up to 3.6 MWh daily given a 24/7 functioning.



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