

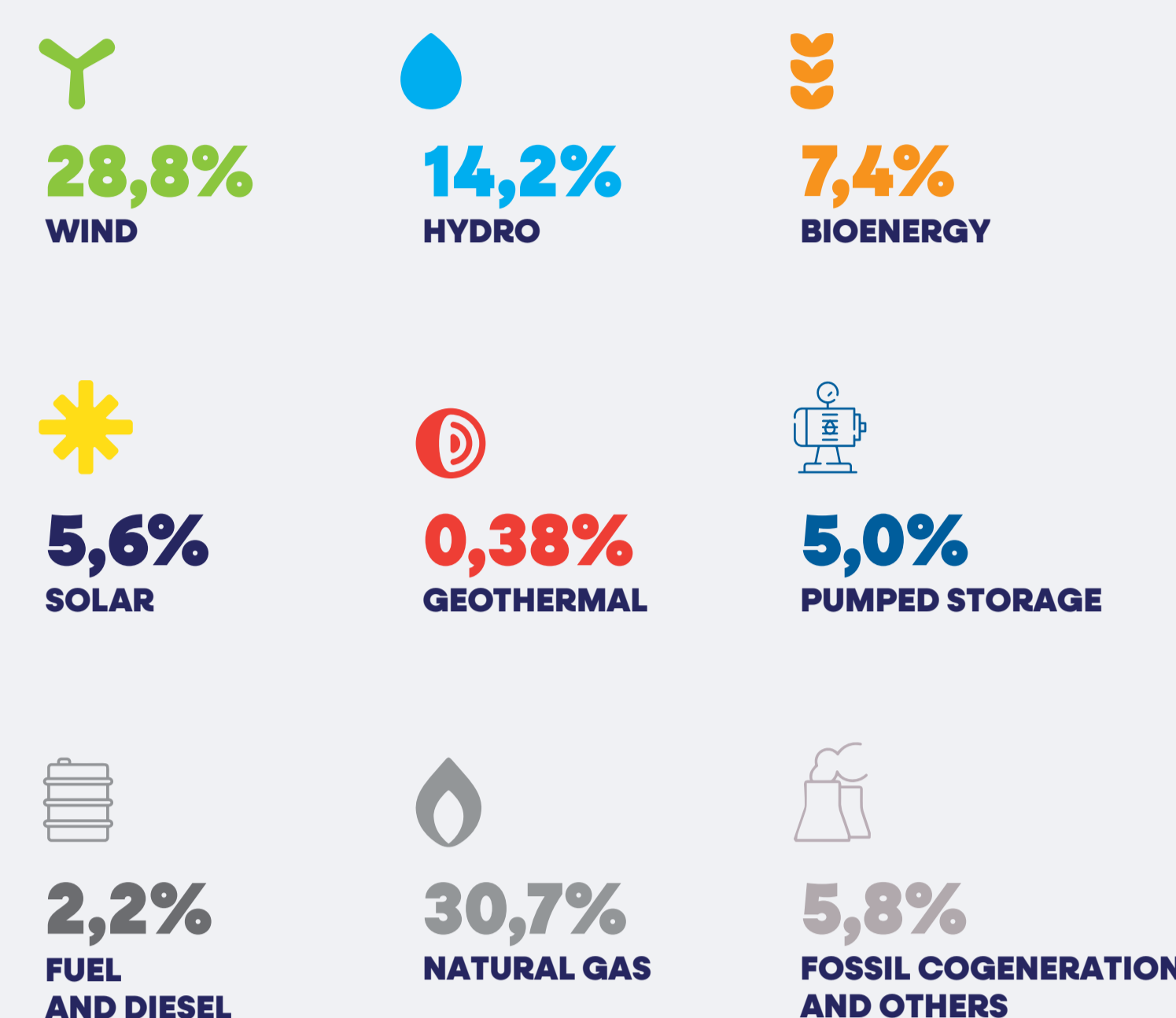
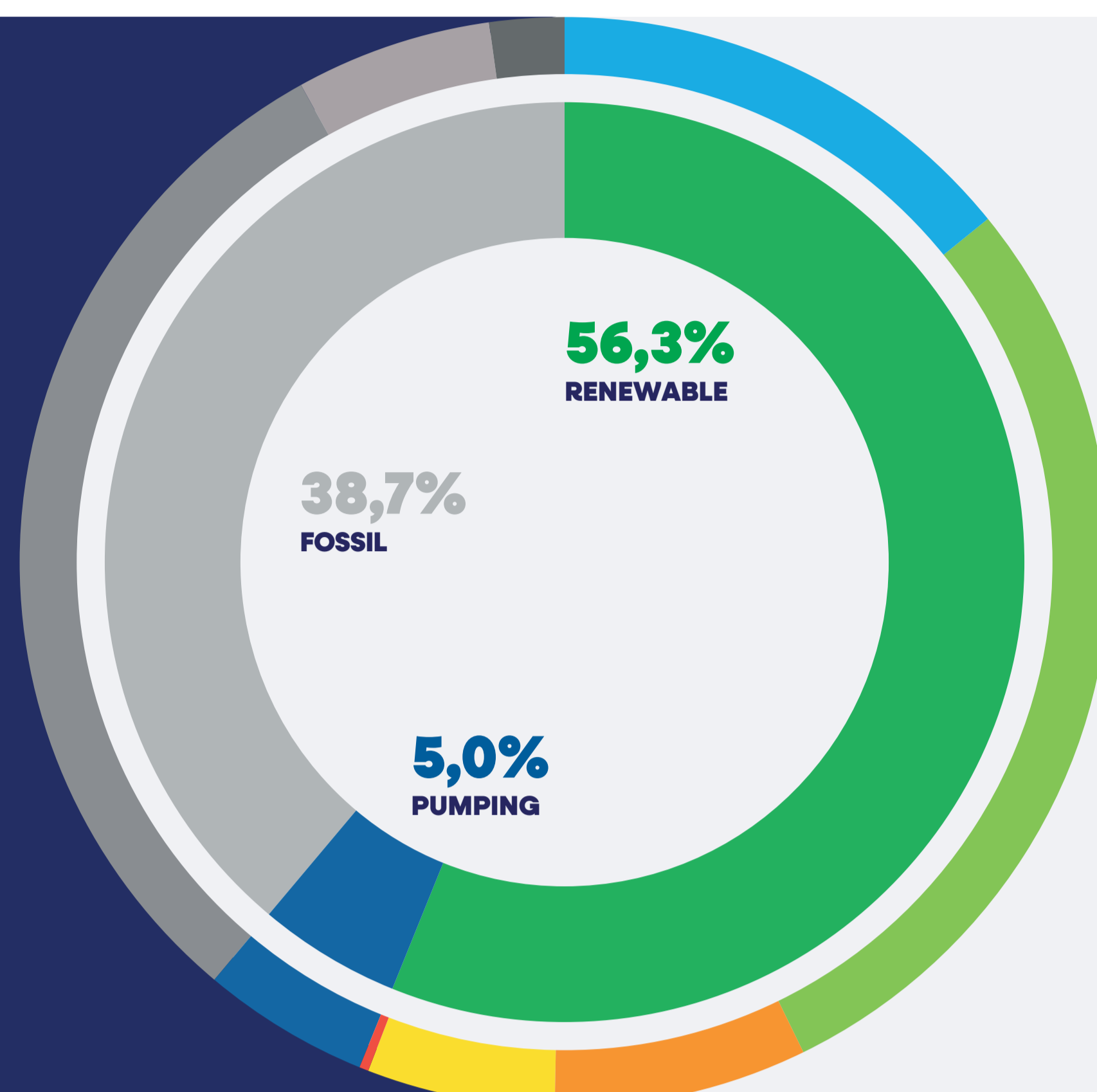
2023



PORTUGAL NEEDS OUR ENERGY

ELECTRICITY GENERATION IN 2022

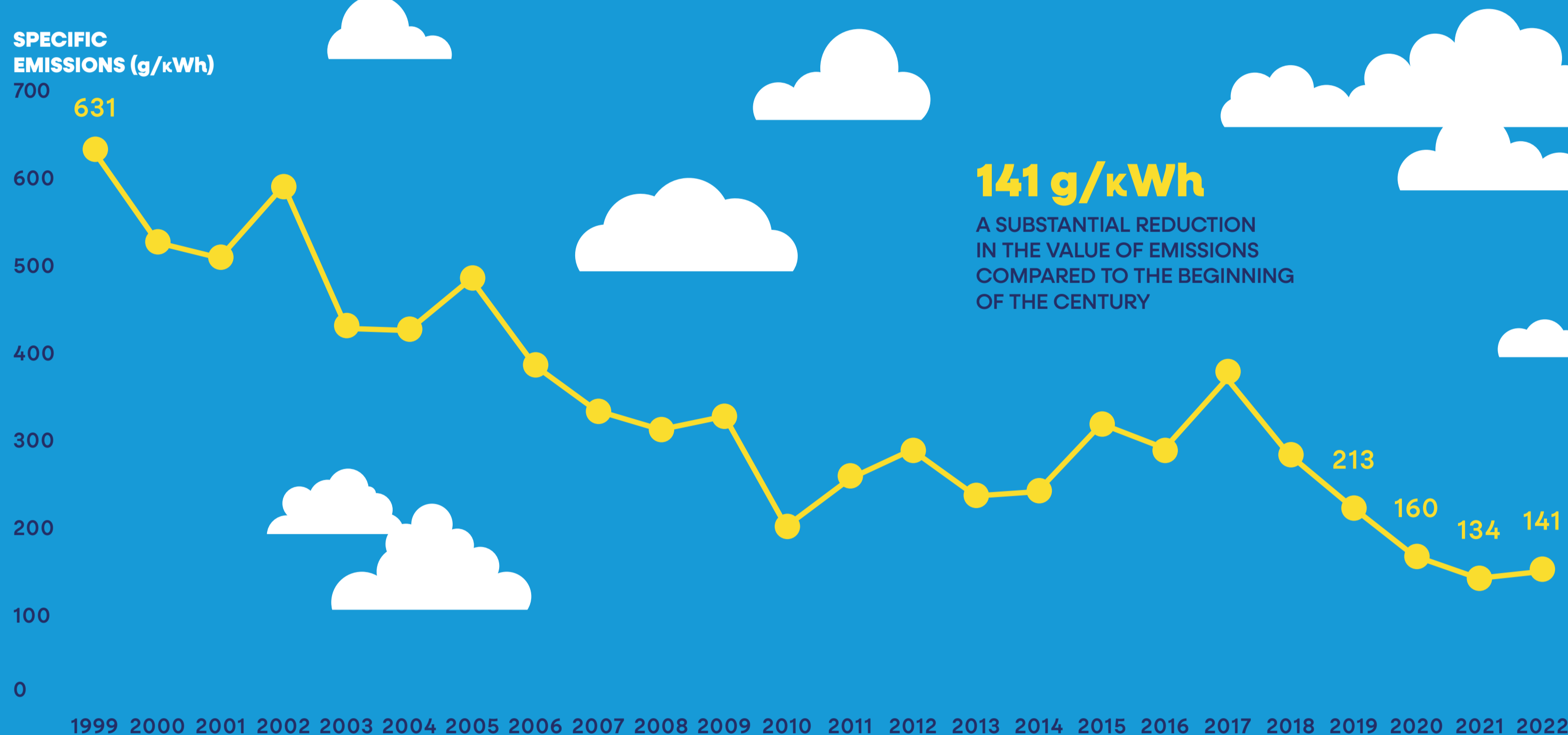
In 2022, renewable electricity generation in Portugal accounted for 56.3% of the total electricity generated. Wind (28.8%), hydro (14.2%) and bioenergy (7.4%), together were responsible for more than half of the generated electricity (50.4%). The remaining renewable energy technologies accounted for a total of 6%, broken down by: solar PV (5.6%) and geothermal (0.4%).



Source: REN, EDA, EEM; Analysis APREN

EFFICIENCY AND DECARBONISATION

Renewable generation has made it possible to reduce the specific emissions of the national electricity generation sector, with the value for 2022 at 141gCO₂/kWh, a substantial reduction compared to the beginning of the century. The increase in emissions that occurred between 2014 and 2017 was due to an increase in consumption and the more intensive use of coal to the detriment of natural gas. However, with the increase in the ambition for decarbonization and the rise in the price of CO₂, the installed fossil power has been showing a reduction that was accentuated in 2021 with the decommissioning of the Sines and Pego coal power stations.



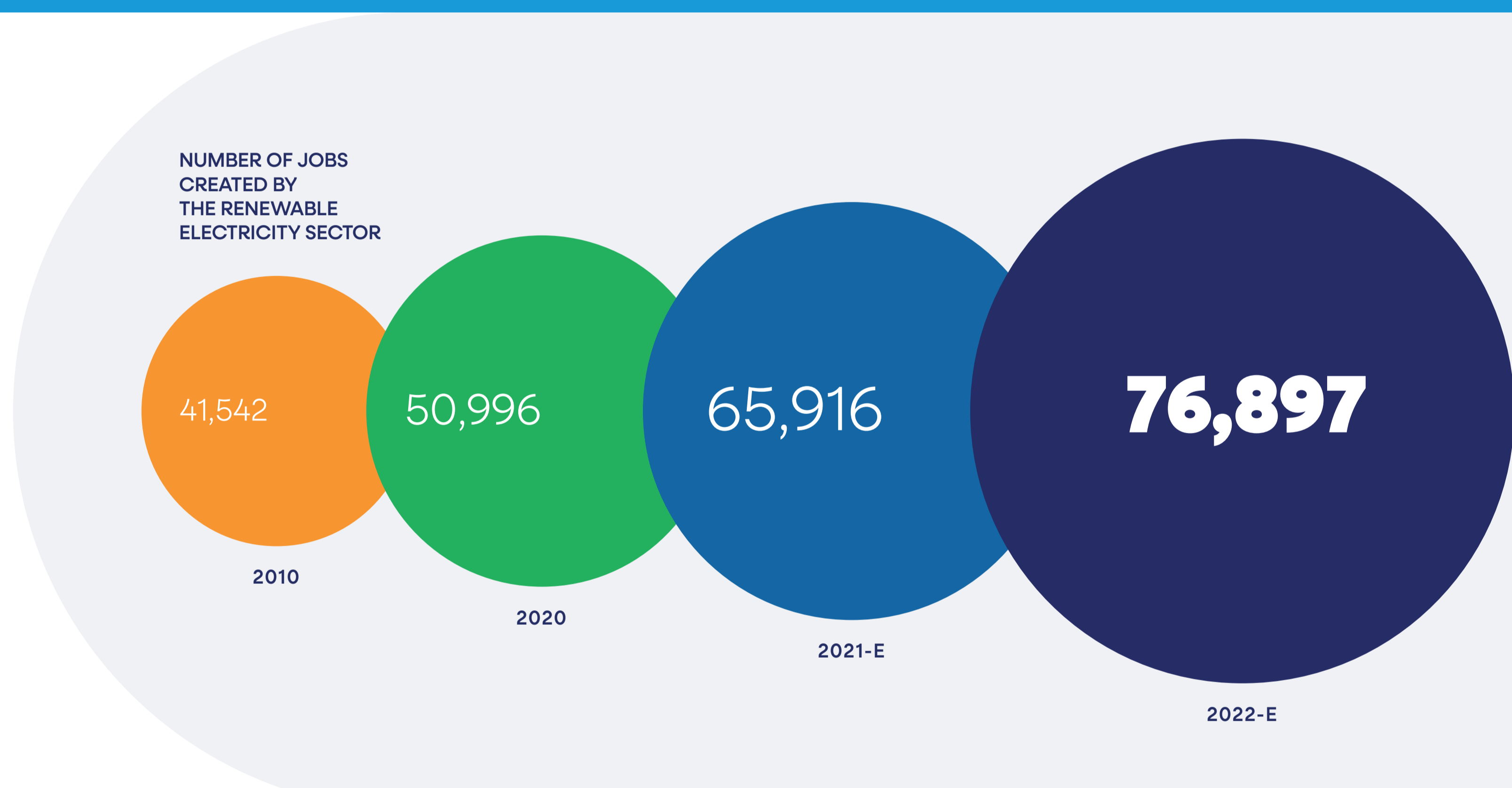
Source: REN; Analysis APREN

JOB CREATION

In 2022, it is estimated that the electricity sector from renewable sources incorporated around 77 thousand jobs (direct and indirect) in Portugal.



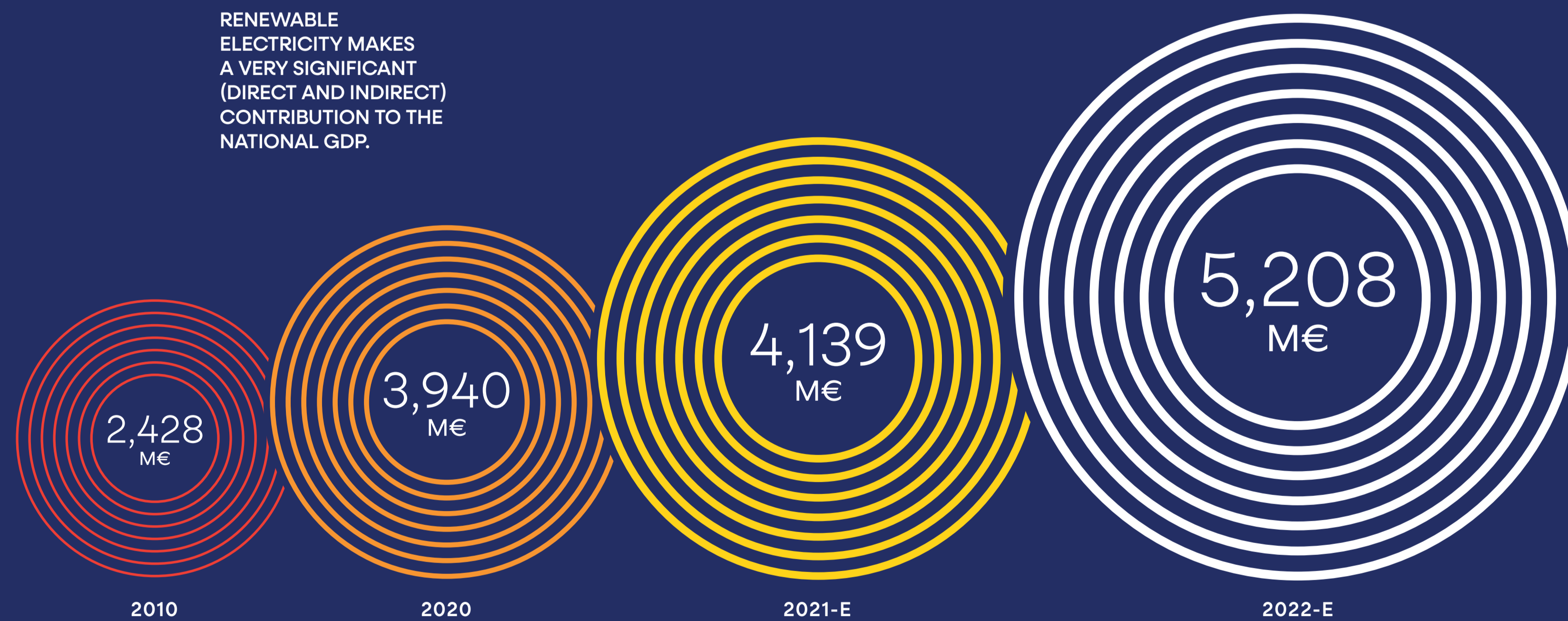
Source: Deloitte, 2014, 2020; Analysis APREN.
Observation: The estimate for 2021 and 2022 does not take into account the effect of the COVID-19 pandemic, so it is expected that the actual value will be lower than that identified above.



CONTRIBUTION TO GDP

Investment in generating electricity from renewable sources has resulted in a significant contribution from the sector in generating wealth for the country. In the period between 2010 and 2022, it is estimated that the renewable electricity sector contributed to GDP with a total of 44.4 billion euros. It is estimated that in 2022, the contribution of the sector to the GDP will have been close to 5.2 billion euros, representing 2% of the National GDP.

RENEWABLE ELECTRICITY MAKES A VERY SIGNIFICANT (DIRECT AND INDIRECT) CONTRIBUTION TO THE NATIONAL GDP.



Source: Deloitte 2020; Analysis APREN.
Observation: The estimate for 2020 and 2021 does not take into account the effect of the COVID-19 pandemic, so it is expected that the actual value will be lower than that identified above.

SOCIAL SECURITY, IRC AND MUNICIPAL SURCHARGE

Employment generated by the renewable electricity sector and taxes paid by renewable power plants have been reflected in the payment of significant amounts in contributions to Municipal Surcharge, IRC, Social Security, IRS and VAT.



Source: Deloitte, 2020; Analysis APREN.
Observation: The estimate for 2020 and 2021 does not take into account the effect of the COVID-19 pandemic, so it is expected that the actual value will be lower than that identified above.

