

METHANE EMISSIONS REDUCTION- MAIN GOAL OF JSW ENVIRONMENTAL STRATEGY

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The JSW Group is the largest producer of high quality hard coking coal in the European Union and one of the leading producers of coke used for smelting steel. Production and sale of coking coal and production and sale of coke and hydrocarbons constitute JSW Group's core business.

In 2023 the JSW Group's mines produced:

- 13.51 mt of coal,
- 3.2 mt of coke.



The European Commission listed coking coal on the list of Critical Raw Materials for the EU.

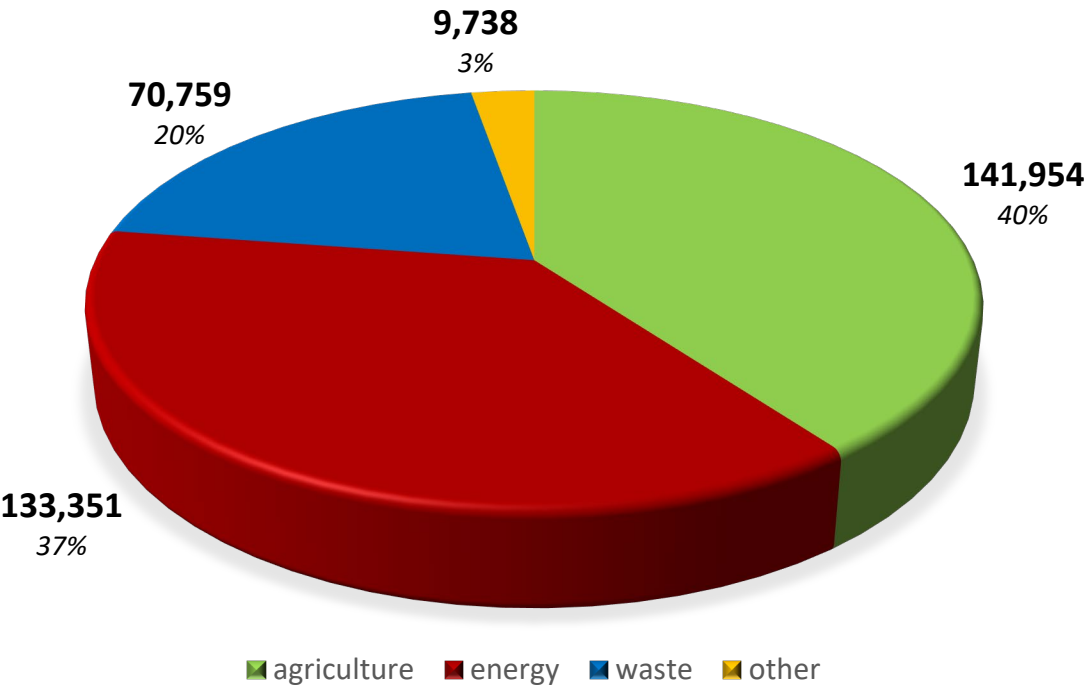
2023 CRITICAL RAW MATERIALS (30)			
ANTIMONY	COKING COAL	LITHIUM	COPPER
ARSENIC	FELDSPAR	LIGHT RARE EARTH ELEMENTS	SCANDIUM
BAUXITE	FLUORSPAR	MAGNESIUM	SILICON METAL
BARYTE	GALLIUM	MANGANESE	TANTALUM
BERYLLIUM	GERMANIUM	NATURAL GRAPHITE	TITANIUM METAL
BISMUTH	HAFNIUM	NIOBIUM	VANADIUM
BORON	HELIUM	PLATINUM METALS	GROUP TUNGSTEN
COBALT	HEAVY RARE EARTH ELEMENTS	PHOSPHATE ROCK	STRONTIUM
PHOSPHORUS	NICKEL		

Methane emissions 2022, IEA estimate



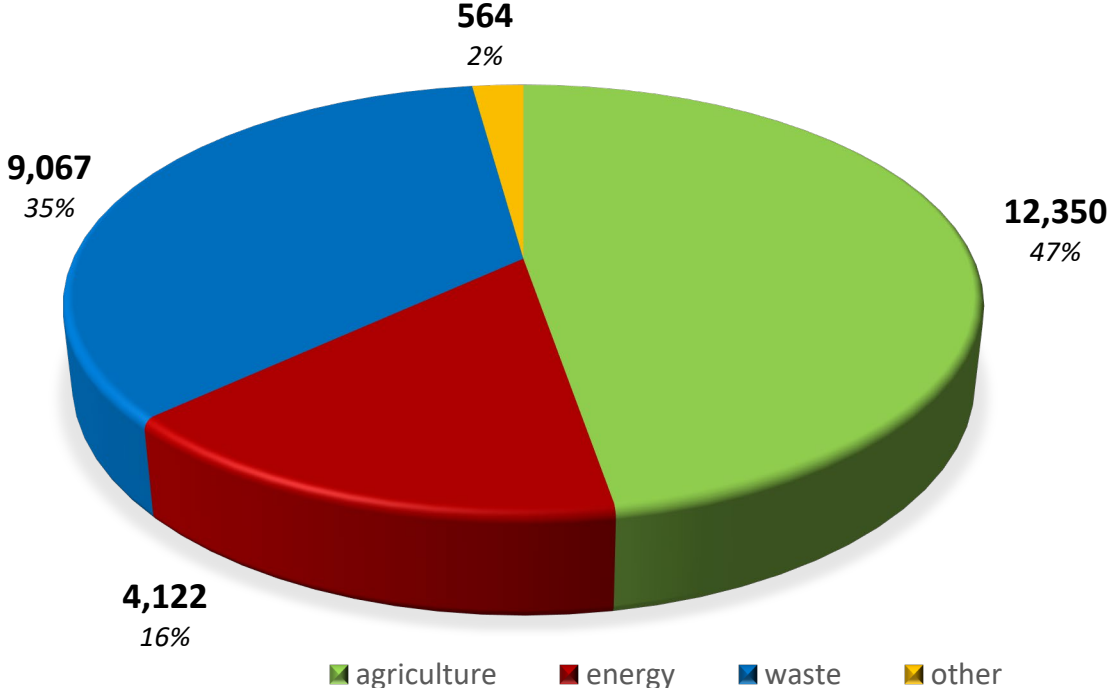
World methane emissions from all anthropogenic sources

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Europe methane emissions from all anthropogenic sources

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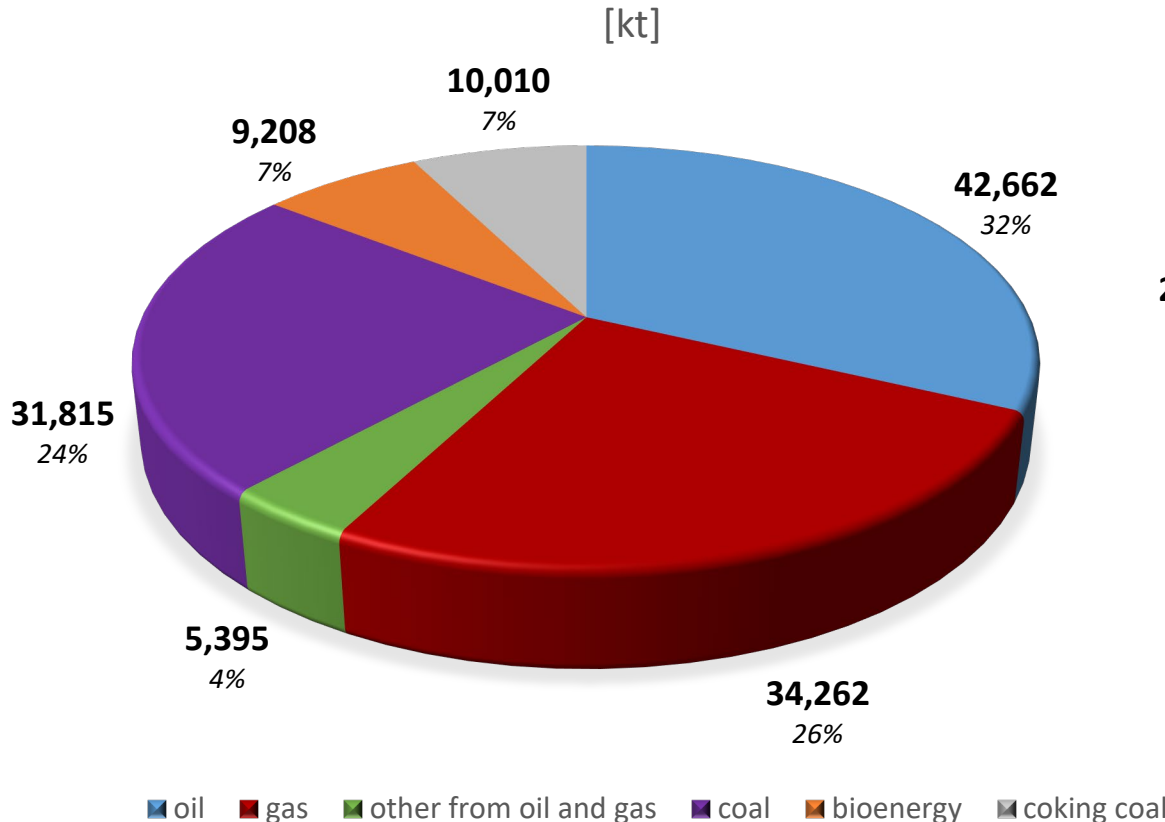


<https://www.iea.org/data-and-statistics/data-tools/methane-tracker>

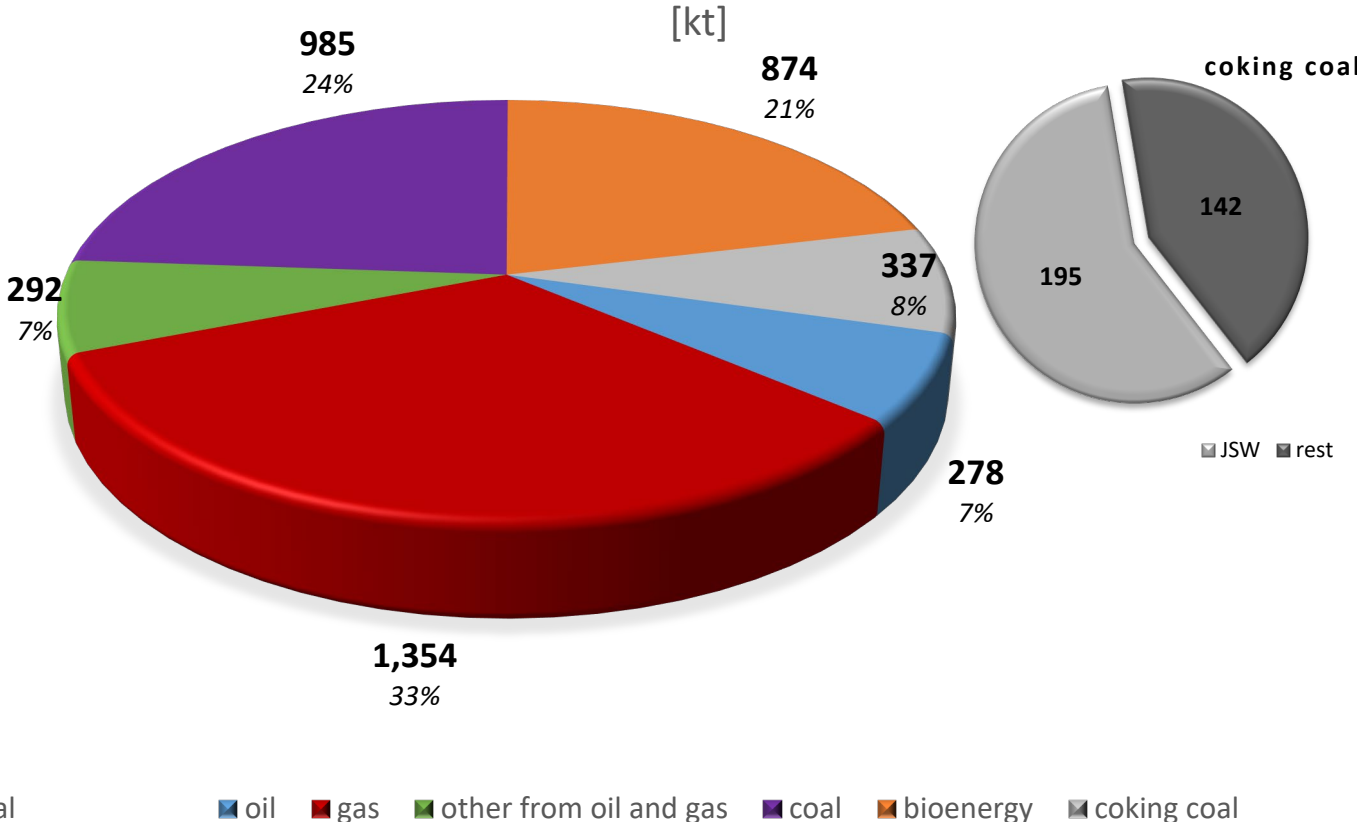
Methane emissions 2022, IEA estimate



World methane emissions from energy sources

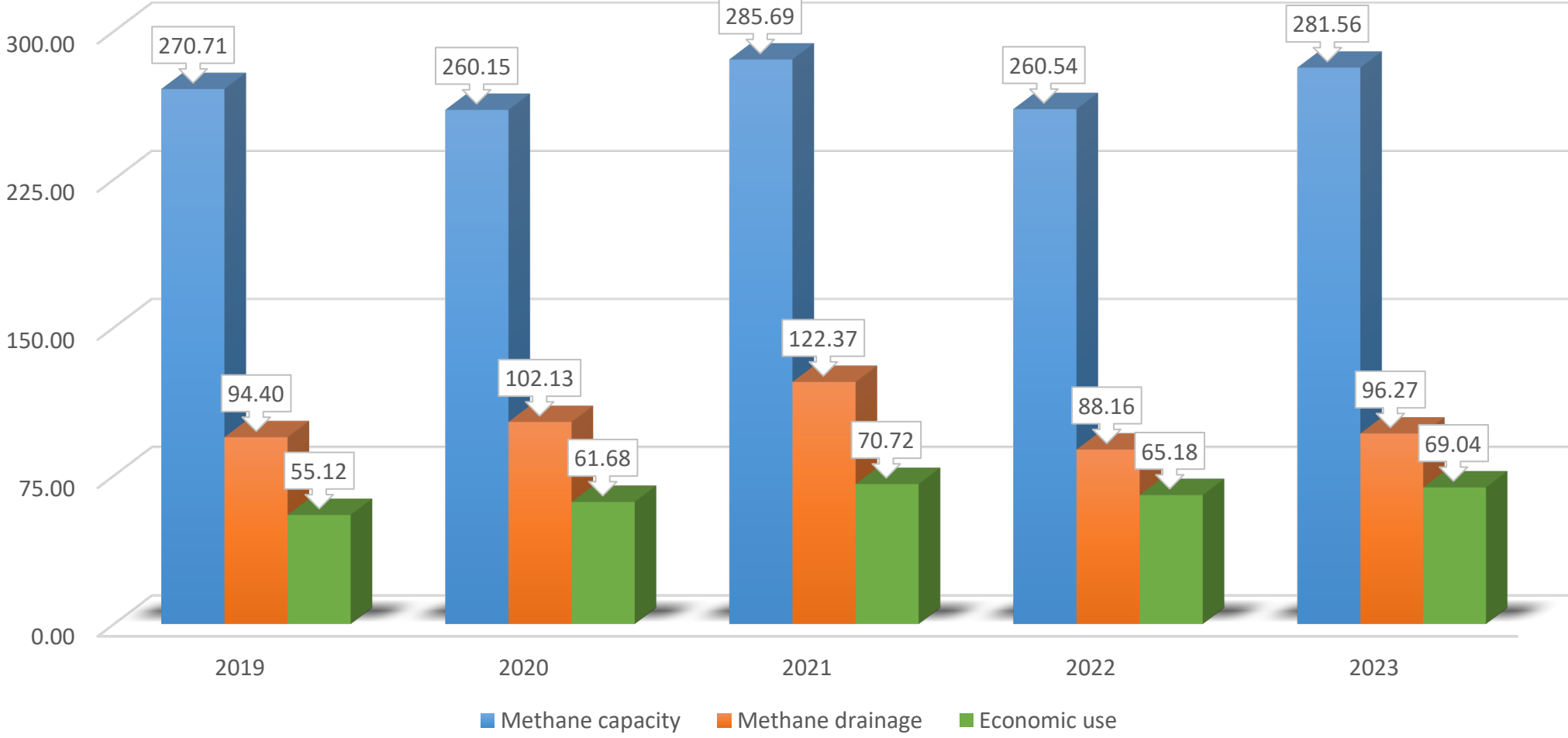


Europe methane emissions from energy sources 2022



<https://www.iea.org/data-and-statistics/data-tools/methane-tracker>

JSW methane 2019-2023 [kt]



JSW CG environmental strategy in response to the challenges of today's world

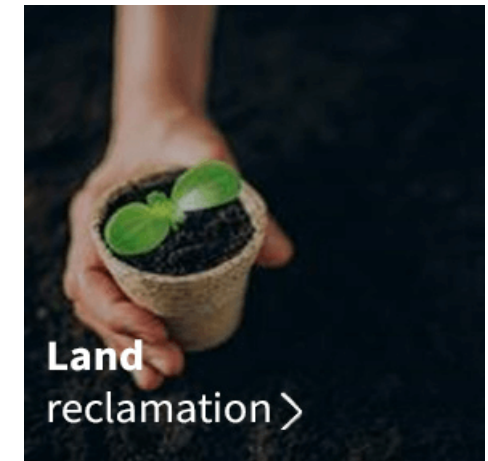
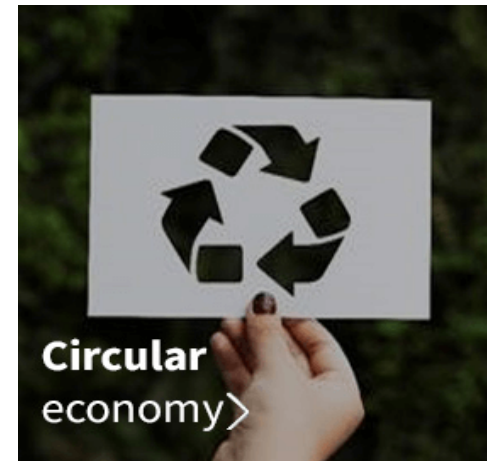
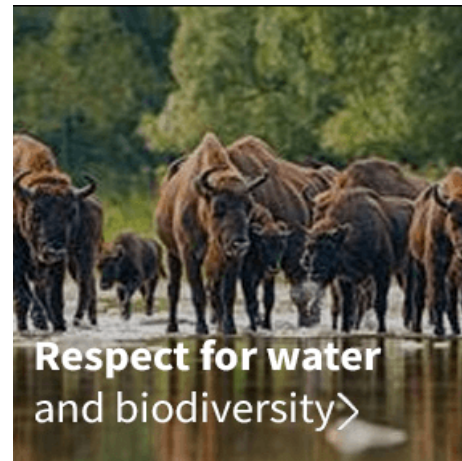
The basis of the Environmental Strategy is to clarify the role of JSW CG in the environmental and energy-climate transformation of Poland and the European Union as a response to changes in the external environment – regulatory, technological and market environment.

Primary objective: **achieve climate neutrality by 2050**

Intermediate objective: **reduction of carbon footprint by 30% by 2030 compared to 2018**

72% of JSW CG's carbon footprint is **METHANE => Methane Emissions Reduction Programme till 2025**
methane capture of approximately 50% and its economic use of up to 95%

4 key areas of pro-environmental and pro-climate action:



Methane Emissions Reduction Program



In 2022 Jastrzębska Spółka Węglowa has presented the new Strategy including the Group's Subsidiaries until 2030. Important part of the business strategy is the Environment Strategy. One of the significant elements of the adopted Strategy is counteracting climate change by reducing the carbon footprint by 30% by 2030 and achieving climate neutrality in 2050.

The main source of greenhouse gas emissions resulting from the Group's operations is methane, which accounts for approximately 72% of the carbon footprint.

The Methane Emissions Reduction Program developed by the Methane Drainage and Management Office is the answer to this challenge.

95%

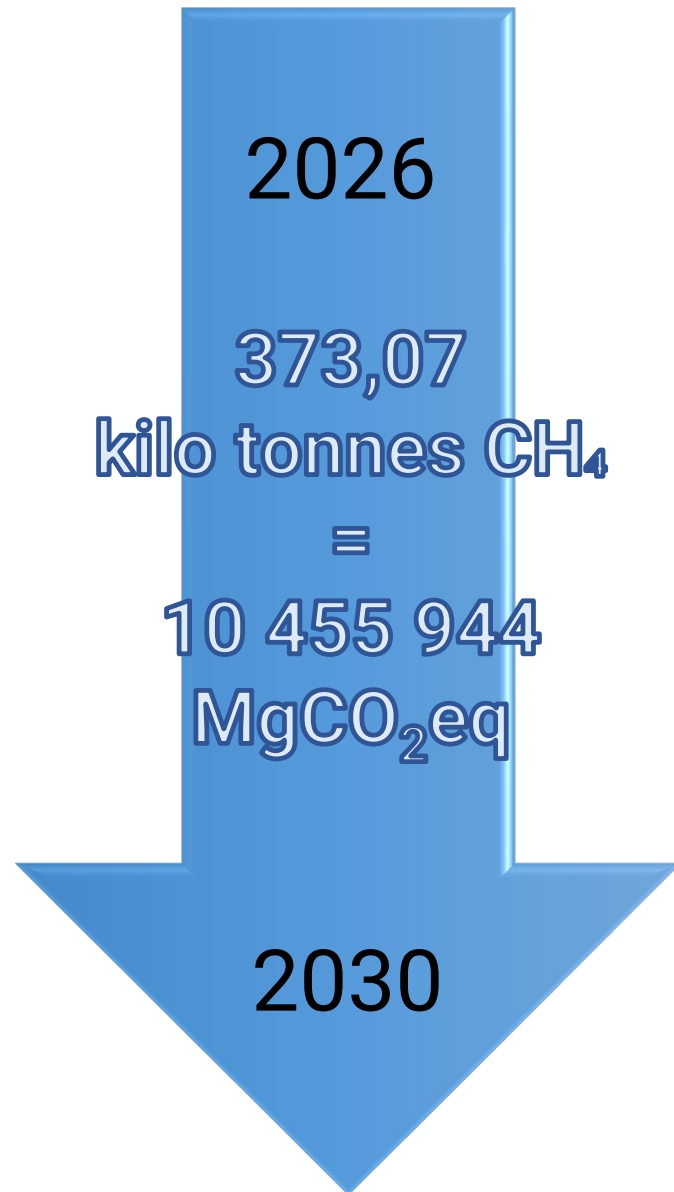
Planned energy use of
captured methane in 2025

50%

Methane drainage
effectiveness in 2025

Jastrzębska Spółka Węglowa SA

Environmental Strategy implementation effect



The implementation of the Environmental Strategy in the years 2026-2030 will allow

to reduce methane emissions by

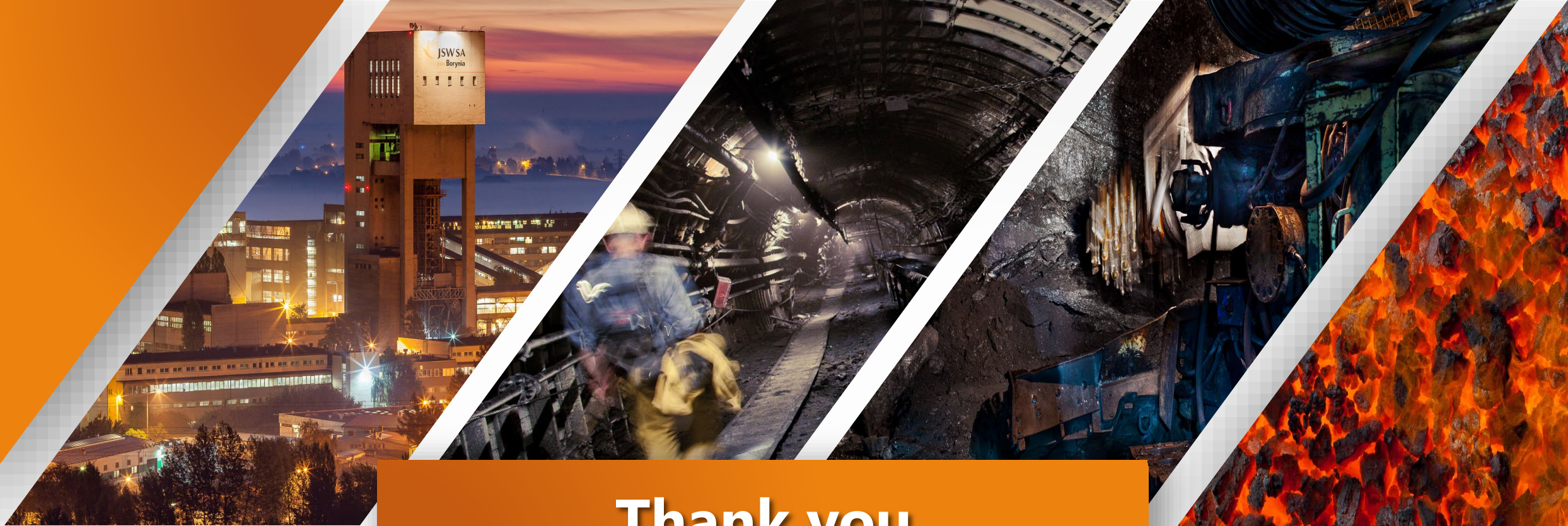
373,07 kilo tonnes CH₄

IPCC respectively

10 455 944 MgCO₂eq.

Proposal for REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942:

- Flaring with a destruction and removal design efficiency below 99% and venting of methane from drainage systems shall be prohibited from 1 January 2025 (...)
- Venting of methane through ventilation shafts in coal mines emitting more than five tonnes of per kilotonne of coal mined, other than coking coalmines, shall be prohibited from 1 January 2027 (...) Venting of methane through ventilation shafts in coal mines emitting more than three tonnes of methane per kilotonne of coal mined, other than coking coal mines, shall be prohibited from 1 January 2031 (...)
- By ... [three years after the entry into force of this Regulation] the Commission shall adopt a delegated act in accordance with Article 34 to supplement this Regulation by introducing restrictions on the release of methane into the atmosphere from ventilation shafts for coking coal mines.



Thank you

 **Jastrzębska Spółka Węglowa SA**

www.jsw.pl