



## State aid: Commission approves €158 million Polish measure to support LOTOS Green H2 in the production of renewable hydrogen

Brussels, 12 April 2023

The European Commission has approved, under EU State aid rules, a €158 million Polish measure to support LOTOS Green H2 sp. z o.o, a special purpose vehicle ultimately owned by PKN Orlen SA, in the production of renewable hydrogen to be used in the refinery production processes. The measure will contribute to the achievement of the [EU Hydrogen Strategy](#) and the [European Green Deal](#) targets, while helping end dependence on Russian fossil fuels and fast forward the green transition in line with the [REPowerEU Plan](#).

### The Polish measure

Poland notified to the Commission its plan to support LOTOS's Green H2 project to produce renewable hydrogen through water electrolysis (i.e. a process of using electricity to decompose water into oxygen and hydrogen gas) instead of through steam methane reforming using natural gas. This renewable hydrogen will be used in the fuel production processes in PKN Orlen's refinery in Gdańsk.

The aid, which will take the form of a direct grant of €158 million, will support the installation of an electrolyser with a capacity of 100 MW, as well as the construction of 50 MW photovoltaic power plant and 20 MWh battery storage. The electrolyser is expected to start operating as of 2027 and to gradually increase its production up to 13,600 tonnes of renewable hydrogen per year.

Once completed, the project is expected to avoid the release of a total of 2.5 million tonnes of carbon dioxide over the project lifetime. In addition, to maximise the reduction of greenhouse gas emissions, hydrogen will be produced solely with electricity generated from renewable sources.

### The Commission's assessment

The Commission assessed the measure under EU State aid rules, in particular Article 107(3)(c) of the Treaty on the Functioning of the European Union ('TFEU'), which enables Member States to support the development of certain economic activities subject to certain conditions, and the [Guidelines on State aid for climate, environmental protection and energy 2022](#) ('CEEAG').

Poland selected the Green H2 project, in the context of an open call, to form part of an IPCEI on hydrogen technologies and systems. The Green H2 project intends to reduce greenhouse gas emissions in the energy-intensive and hard-to-abate refinery sector. As aid for the reduction of greenhouse gas emissions, including through support of decarbonisation projects, is one of the main categories of aid allowed by the CEEAG, the measure was best suited for assessment under these guidelines, rather than as part of said IPCEI.

The Commission found that:

- The measure facilitates the **development of an economic activity**, in particular the production of renewable hydrogen. At the same time, it supports the objectives of key EU policy initiatives such as the [European Green Deal](#), the [EU Hydrogen Strategy](#) and the [REPowerEU Plan](#).
- The aid has an '**incentive effect**', as the beneficiary would not carry out the investments in renewable hydrogen production without the public support.
- The measure has a **limited impact on competition and trade** within the EU. In particular, it is **necessary and appropriate** to promote the production of renewable hydrogen. In addition, it is **proportionate**, as the level of the aid corresponds to the effective financing needs.
- The measure has **sufficient safeguards** to ensure that undue distortions of competition are limited. If the project turns out to be very successful, generating extra net revenues, the beneficiary will return part of the aid received to Poland (claw-back mechanism). Furthermore, the beneficiary will share the technical know-how gained through the project with other European industry players. Finally, the project is subject to monitoring to verify its progress towards the objectives of CO<sub>2</sub> emission savings.

- The aid brings about **positive effects** that outweigh any potential distortion of competition and trade in the EU.

On this basis, the Commission approved the Polish measure under EU State aid rules.

## Background

The 2022 [CEEAG](#) provide guidance on how the Commission will assess the compatibility of aid measures for environmental protection, including climate protection, and energy which are subject to the notification requirement under Article 107(3)(c) TFEU.

The new guidelines, applicable as from January 2022, create a flexible, fit-for-purpose enabling framework to help Member States provide the necessary support to reach the Green Deal objectives in a targeted and cost-effective manner. The rules involve an alignment with the important EU's objectives and targets set out in the European Green Deal and with other recent regulatory changes in the energy and environmental areas and cater for the increased importance of climate protection. They include sections on aid for reduction of greenhouse gas emissions including through support for renewable energy, energy efficiency measures, aid for clean mobility, infrastructure, circular economy, pollution reduction, protection and restoration of biodiversity, as well as measures to ensure security of energy supply, subject to certain conditions.

The 2022 CEEAG aim to help Member States meet the EU's ambitious energy and climate targets at the least possible cost for taxpayers and without undue distortions of competition in the Single Market.

With the [European Green Deal Communication](#) in 2019, the Commission reinforced its climate ambitions, setting an objective of net zero emissions of greenhouse gases in 2050. The [European Climate Law](#) in force since July 2021, which enshrines the 2050 climate neutrality objective and introduces the intermediate target of reducing net greenhouse gas emissions by at least 55% by 2030, sets the ground for the 'Fit for 55' legislative proposals presented by the Commission on 14 July 2021. Among these proposals, the Commission has presented amendments of the [Renewable Energy Directive](#) and the [Energy Efficiency Directive](#) with more ambitious binding annual targets to increase the production of energy from renewable sources and reduce energy use at EU level.

In July 2020, the Commission published its [EU Hydrogen Strategy](#), setting ambitious goals for clean hydrogen production and use, and launched the European Clean Hydrogen Alliance, bringing together the [European hydrogen community](#) (industry, civil society, public authorities).

The non-confidential version of the decision will be made available under the case number SA.105006 in the [State aid register](#) on the Commission's [competition website](#) once any confidentiality issues have been resolved. New publications of State aid decisions on the internet and in the Official Journal are listed in the Competition Weekly e-News.

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## Quotes:

This €158 million measure enables Poland to help LOTOS Green H2 in the deployment of renewable hydrogen production and allows for a partial decarbonisation of refinery activities. This will contribute to the greening of a very energy-intensive sector, in line with our commitment to transition to a net zero economy. At the same time, it ensures that any potential competition distortions are kept to the minimum.

Margrethe Vestager, Executive Vice-President in charge of competition policy - 12/04/2023

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