



## **Combined Shareholders' Meeting of May 23, 2024**

### **Answer to a written question sent by a shareholder**

In the context of its Combined Shareholders' Meeting of May 23, 2024, Valeo received a written question from a shareholder, pursuant to Articles L. 225-108 and R. 225-84 of the Commercial Code. This question was drafted in English.

This document, posted on the Company's internet website pursuant to applicable rules, includes the answer to this question. The answer is drafted in English.

#### *Question.*

*Why is it so difficult to turn electric cars into H2 cars saving 30 percent in batteries replaced by coil tanks for H2 and fuel cells? Calling for a legislation that certifies in green houses those that allow the installation of photovoltaic panels on the roofs, to produce electricity that in peaks produces H2 IN ELECTRIC POWER STATIONS to produce electricity in the shortage of renewables and for self-power. Are you developing a business plan for the development of hydrogen cars? Yes in which production sector: coil tanks to be installed instead of batteries? electric motors? fuel cells? electrolyzers?*

#### *Answer.*

Until now, regulations set targets for reducing pollutants and CO2 emissions, but left it up to the industry to determine the most appropriate technologies. There are currently many questions surrounding the European Commission's decision to ban internal combustion engines from 2035, particularly with the prospect of hydrogen and eFuel.

A carbon-neutral vehicle can be powered by an electric battery, hydrogen or eFuel. But the efficiency chains of these different energy sources vary: with 15kWh of electricity, you can drive 100km with an electric vehicle, 35km with a hydrogen vehicle and only 20km with eFuel.

In the case of hydrogen, instead of storing electrical energy directly in a battery and using it to power an electric motor, electrical energy is used to produce hydrogen, which is stored in a pressurized tank and then converted back into electricity to power an electric motor via a fuel cell. These different conversions generate losses, which explains hydrogen's low efficiency.

Producing eFuel with electricity is a complex, low-yield process, and recovering the energy stored in the eFuel to power a vehicle via an internal combustion engine also delivers low yield. According to the Shift Project, to convert all the oil consumed in France into eFuel, more than 50% of which is used for road transportation, we would need to multiply our electricity production by 2.5.

The electric vehicle therefore represents the best choice not only technology-wise, but also in terms of energy efficiency.

Valeo is nevertheless addressing all these applications, as eFuel engines will require Valeo's hybrid solutions, and hydrogen-powered vehicles require electric powertrains.