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Why bioethanol is not the tidal wave that one might think

Impossible, in France, to escape the subject of bioethanol in the media. Faced with rising gasoline prices, this source of energy would be the ideal solution to lower the cost of refueling. However, behind the media hype, cars running on bioethanol are not so numerous. And, surprisingly, they are even less in many European countries. Let's take a look at the reasons for this very timid association between biofuel and the automotive world.

With a price of 0.75 € cents per liter at the pump in France, against 1.68 € for diesel or 1.76 € for SP85, it is easy to understand why all eyes are on bioethanol (E85). However, the media frenzy on this subject does not seem to reflect a real craze on the part of motorists.

It is true that the number of conversion units installed has increased, reaching 30,000 last year in France. The consumption of bioethanol too: +33% over the period. And with 30% of service

stations equipped with bioethanol and the possibility of also filling conventional gasoline in the tank, this solution has a clear advantage over electric cars in terms of autonomy.

However, E85 represents only 4% of the gasoline market in France, according to figures from the SNPAA (national union of agricultural alcohol producers). Above all, in Europe, bioethanol is hardly promoted in the same way as electric or hybrid vehicles. A strategic choice whose reasons are to be found both on the side of States and manufacturers.

A limited range of vehicles

To run a car on bioethanol, there are three solutions: buying a new FlexFuel vehicle, converting your vehicle with a box or reprogramming it with a specialist. The first explanation for the low penetration of FlexFuel vehicles on the market is primarily to be found on the supply side.

To find a new vehicle today, you have to rely on the Ford and Jaguar-Land Rover catalogs. On the used car market, the offer is a little more extensive, Renault having, for example, developed a fairly wide range of models in the early 2000s, both for Renault and Dacia. A few models for Volkswagen, rather one for Peugeot, Citroën or Volvo are also traded on the second-hand market. In short, it is difficult to find an original FlexFuel city car or mid-range sedan today, especially a new one. In Europe, carmakers have resolutely chosen hybrid and electric vehicles, but not bioethanol. They also do little to encourage the conversion of their existing fleet. Indeed, installing a conversion box, even homologated, leads to the loss of the manufacturer's warranty.

Strategic governments' choices

Manufacturers are not the only ones to blame for the low penetration of bioethanol on the market. In Europe, although France, Germany, Sweden and Finland stand out in terms of bioethanol consumption in transport, the continent is still lagging behind Latin America. In addition to the reluctance of manufacturers to offer specific car models, there is also a brake that could be described as ecological and regulatory.

In addition to the debates on the actual CO₂ emissions linked to the manufacture and use of this biofuel, its production is also problematic. Indeed, the share of biofuels from food crops is limited to 7% by the European Union. In 2019, France already reached 6.8%. "*Within the European framework, biofuels produced from materials with a high risk of impact on land use change will be capped and then reduced until they reach zero,*" can even be read in the Summary of the French Climate Strategy 2019-2023, 2023-2028, published by the Ministry of Ecological Transition.

Added to this is uncertainty about prices. Upward pressure on commodity prices involved in the manufacture of bioethanol (wheat, corn, beet), and prices could rise. Not to mention the possibility of a reversal of fiscal policy from the State.

Neither electric nor bioethanol: when manufacturers innovate

If bioethanol has not conquered car manufacturers, this does not mean that conventional engines have said their last word. Faced with new regulations requiring the reduction of CO2 emissions and the financial penalties that threaten large engines, manufacturers are vying for innovation ... and each in different directions.

Determined to favor drivers and collectors of all its models, Porsche has taken up the challenge of developing an energy based on CO2 and water. It has already invested 20 million euros in a production unit based in Chile. The particularity of this synthetic methanol is that it could be used in all Porsche models, including the oldest. The brand is aiming for a production of 55 million liters within two years.

Among Japanese carmakers, some are looking at other biofuels. Mazda, for example, is conducting research on a biodiesel made from used cooking oils and micro-algae, thus banking on third-generation biofuels. A path that also tempts Subaru. For their part, Toyota, Kawasaki and Yamaha are interested in hydrogen, to which we have devoted an article. Initiatives that demonstrate that all-electric vehicles will not necessarily be the only way to "green" the automotive world.



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