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Analysis of today
Assessment of tomorrow

By: Tomorrow's Affairs Staff

Is the EU's ambitious 2035 fossil fuel ban a realistic vision or a utopia?

Encouraging reports say that in the first half of this year, electricity from solar and wind has already surpassed that from fossil fuels, particularly coal, in half of the EU countries.

They are optimistic about the realisation of the EU's green goals of achieving net zero greenhouse gas emissions by 2050. However, a transition in the decarbonisation of road transport, one of the biggest contributors to pollution, lags behind this progress in generating electricity mainly from renewable sources.

The EU has set a deadline of 2035 as part of a wider strategy to decarbonise transport, which accounts for almost a quarter of total greenhouse gas emissions in the EU.

The European Union believes that switching to electric vehicles (EVs) from fossil fuel-powered vehicles is essential to cutting carbon emissions and lowering the EU's reliance on imported oil.

This commitment has influenced research and development of battery technology, investment in sustainable energy, and electric vehicle infrastructure. For example, the European Investment Bank has committed billions of dollars to fund the development of charging infrastructure for electric vehicles.

Slow expansion of infrastructure

Volkswagen and BMW have announced ambitious strategies to phase out internal combustion engine vehicles in line with EU targets. However, there are numerous obstacles to the transition from fossil-fuelled vehicles to EVs, so the timing of completion remains uncertain.

The biggest problem is the EV infrastructure. To date, the EU has installed about 750,000 public charging stations. However, there are predictions that the EU will need at least 3.5 million charging stations by 2030 to meet demand.

The infrastructure imbalance is particularly evident in Eastern European countries, where investment in electric vehicle infrastructure is significantly lower than in Western Europe.

“We are very concerned that infrastructure rollout has not kept pace with battery-electric car sales in recent years. What is more, this ‘infrastructure gap’ risks widening in the future – to a much greater extent than European Commission estimates,” stated ACEA’s Director General, Sigrid de Vries last April.

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Just over 150,000 public charging points were installed last year across the EU (less than 3,000 per week on average). However, reaching a target of 3.5 million would require nearly 8,000 installations per week.

Drivers of electric vehicles should also be aware that there are very few fast-charging stations in many countries. As a rule, you will find chargers with a lower capacity, which charge the batteries more slowly.

There is certainly room for the development of a network of charging stations for electric vehicles; the only question is whether it is too late.

EV's are taking over

On the EU market last year, as many as 40% of newly registered cars were EVs and hybrids, surpassing the sale of new gasoline and diesel vehicles.

In financial terms, this change is a significant obstacle. The cost of modernising infrastructure, subsidising the purchase of electric vehicles, and ensuring a steady supply of essential minerals for the batteries will be significant.

According to a report by the International Energy Agency (IEA), the global market for electric vehicles will require 1.2 trillion dollars by 2030. While the EU has offered significant investment, this may not be enough, especially given the economic difficulties faced by many EU member states.

Critics of the EU's 2035 ban claim that the environmental benefits of EVs are not as obvious as they appear. The production of batteries for electric vehicles, especially lithium-ion batteries, consumes significant energy resources and requires the mining of rare materials such as lithium, cobalt, and nickel.

> The carbon footprint of EVs depends heavily on the source of electricity used to charge the vehicles

Mining these minerals often causes environmental damage and has huge social and ethical consequences, especially in countries with poor labour conditions and low environmental standards.

In addition, the carbon footprint of EVs depends heavily on the source of electricity used to charge the vehicles. In countries where coal or natural gas dominate the energy mix, the reduction in emissions from switching to EVs is less pronounced.

A 2021 study by the University of Cambridge found that in Poland, where coal still accounts for a large proportion of electricity generation, the total lifetime emissions of an EV could be higher than those of a modern diesel vehicle.

Renowned voices from the scientific community have expressed concern about the EU's approach. Dr Guillaume Pitron, author of The Rare Metals War, argues that the switch to electric vehicles could merely replace one environmental problem with another. "We should be measuring the ecological cost of the entire lifecycle of green technologies — a cost that has been precisely calculated," said Pitron.

What to do with old cars?

One of the most pressing questions in relation to the EU ban of 2035 is what will happen to millions of fossil fuelled vehicles. The existing fleet of internal combustion engine vehicles (ICEVs) will remain in operation for many years, if not decades, despite the ban on the sale of new vehicles.

Given that these older vehicles will continue to produce emissions long after 2035, this raises concerns about the environmental benefits of the ban.

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Some EU countries, such as Germany and France, are already considering measures to phase out older vehicles through buy-back programmes, higher taxes on ICEVs, and incentives for scrapping.

However, these measures will be costly and could face public opposition, especially in regions where owning a car is a necessity rather than a choice.

Another challenge is the potential increase in the export of used fossil fuelled vehicles to developing countries, which could simply shift the environmental burden to other countries.

The African continent in particular has become a dumping ground for old, inefficient vehicles from Europe, contributing to severe air pollution in major cities. This raises ethical questions about the global impact of EU policies and the responsibility of wealthy nations regarding the environment.

Social challenges

The transition to electric vehicles will have a significant economic impact on the entire EU.

The automotive industry directly and indirectly employs millions of people. While the switch to EVs will create new jobs in sectors such as battery manufacturing and renewable energy, it will also lead to job losses in traditional car manufacturing, especially in regions dependent on fossil fuel production.

The economic impact will be uneven across the EU. Countries such as Germany, which have a strong automotive sector and advanced infrastructure, are likely to benefit from the transition.

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In contrast, countries in Eastern Europe, where the automotive industry is still developing and infrastructure investment is lagging behind, may struggle. With its Just Transition Fund, the EU has pledged to support regions at risk of economic disruption, but it remains uncertain whether this will be enough to mitigate the impact.

Ultimately, the question is whether the EU ban of 2035 will achieve the desired environmental goals. According to the European Environment Agency (EEA), following six years of steady growth in greenhouse gas emissions from the EU's transport sector, transport emissions dropped substantially in 2020 because of reduced activity during the COVID-19 pandemic. A complete switch to electric vehicles could theoretically reduce these emissions significantly, but the actual impact depends on several factors.

A 2022 report by Transport & Environment, a leading environmental NGO, estimated that the 2035 EU ban could reduce CO2 emissions from new cars by up to 50% by 2030, provided the electricity grid becomes significantly greener.

However, the report warned that without a massive expansion of renewable energy generation and other measures, this reduction alone would not be enough to meet the EU's climate targets.

The EU's decision to ban the production and sale of fossil fuelled vehicles by 2035 is ambitious and demonstrates a strong commitment to fighting climate change. However, the transition is fraught with practical and ethical challenges.

The success of this policy will depend on the EU's ability to meet these challenges, from building the necessary infrastructure to ensuring the sustainability of the entire electric vehicle lifecycle.

As the 2035 deadline approaches, the EU will need to be more vigilant about the unintended consequences of its policies, particularly the impact on vulnerable regions and communities.