

Domestic Freight

In the future, China's freight vehicles will be powered by 5 kinds of engine; fuel oil internal combustion engines, hybrid powered engines, natural gas internal combustion engines, electric motors and fuel cell engines (please check all technical language!). Freight trains will be driven by fuel oil internal combustion engines and electric motors. As China puts its renewable energy strategy into practice, the proportion of freight vehicles powered by clean energy sources will also rise. In 2010, China's freight vehicle market was dominated by vehicles with fuel oil combustion engines which comprised 56% of the total market.

Trajectory 1

In this scenario, the cost of electric vehicles and fuel cell powered vehicles is too high, and they are barely even in an experimental

phase. Hybrid electric vehicles have also not replaced fuel oil vehicles, with fuel oil vehicles retaining a dominant market share. In 2050, vehicles with fuel oil internal combustion engines make up 60% of the market and hybrid vehicles make up 22%. Half of freight trains are powered by fuel oil engines and half are powered by electricity.

Trajectory 2

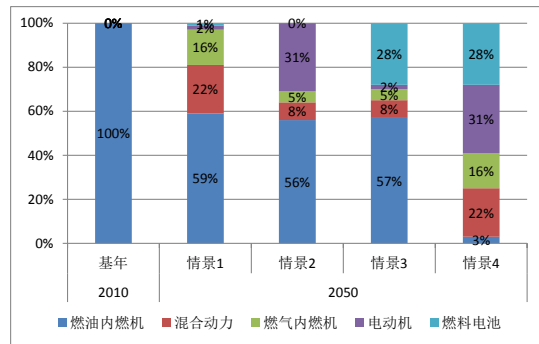
In this scenario, vehicles with fuel oil internal combustion engines still lead the freight vehicle market, but electric vehicles see high levels of development. In 2050, vehicles with fuel oil internal combustion engines make up 56% of the market and electric vehicles make up 31%. 65% of freight trains are powered by electricity and there is an improvement in the utilisation of clean energy.

Trajectory 3

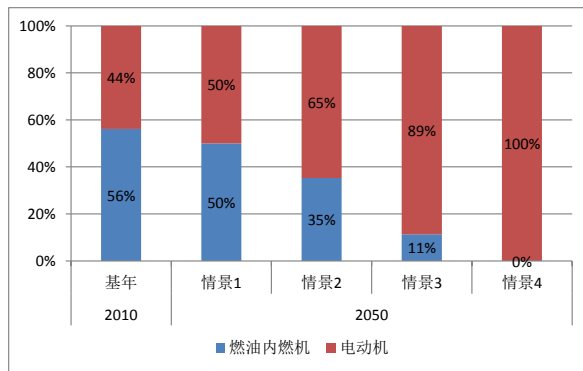
In this scenario, in 2050 the development of the fuel cell car industry succeeds in achieving technological innovations, and fuel cell vehicles approach a 30% market share. Vehicles with fuel oil internal combustion engines still have a dominant market share of 57%, and other kinds of new energy vehicles are barely present in the market. The proportion of freight trains powered by electricity reaches 90%, and fuel oil trains' market share withers up.

Trajectory 4

In this scenario, China's new energy vehicle industry sees a breakthrough. By 2050, the market share of fuel oil vehicles is completely negligible, and there is a sharp increase in the market share of all kinds of new energy vehicles, with each kind having an average of 25% of market share. The freight train industry is overhauled with 100% of freight trains being powered by electricity.



Percentages of Engines in Freight Vehicles



Percentages of Engines in Freight Trains