The Outlook for Oil Demand during the Energy Transition

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IAEE webinar, 1 September 2021
Peak oil – this time for real

The ends of the oil age at 80, 92 and 100 million barrels/day respectively

In the decade between the financial crisis and the coronavirus, global oil demand growth surprised on the upside
Covid-19 uncertainties continue to weigh heavily on the aviation sector, but structural changes are most visible gasoline, which may never return to pre-crisis levels. Strong demand for plastics supports petrochemical feedstocks.
...and even more uneven across regions

Economic recovery in Asia – led by China – is pushing world oil demand higher, but the pace of vaccination is a key uncertainty for many developing economies.
Global electric car sales rose by 41% in 2020 despite falling overall car sales, but trends are heavily contingent on policy support. Europe became the largest electric car market for the first time, overtaking China.
Electrification targets are gaining traction

Higher electrification ambitions for transport are a key pillar of economy wide net-zero emissions pledges, but the pace of change in other parts of the world remains much less clear.
Road transport electrification is not just about cars

Sales of electric two-and three-wheelers are one order of magnitude higher than sales of electric cars. The electrification of other modes is lagging behind but is rising.
There are multiple pathways that energy transitions could follow...

The proliferation of new net-zero pledges, now covering more than 70% of today’s GDP and emissions, can shift the emissions curve down but, as things stand, the world is still a long way from a 1.5 degree stabilisation.
...creating a wide spectrum of possible trajectories for oil

The outlook is shaped by the pace of policy action and technology innovation: in our Net Zero by 2050 scenario there is still 25 mb/d of oil used by mid-century for non-energy purposes and in hard-to-abate sectors, notably aviation.
In the STEPS, oil demand reaches a plateau in the 2030s as transport fuels no longer provide a reliable engine for growth; however, a much stronger push for efficiency, electrification and recycling would be needed for oil use to fall.
Announced pledges: electrification starts to bite

Accelerated electrification in advanced economies and China leads to a peak in oil demand in the late 2020s but rising demand for mobility elsewhere keeps oil demand above 75 mb/d
Net zero by 2050: end of the oil age

Broad-based, rapid electrification and the rise of alternative low-carbon fuels drives oil out of the energy mix – leading to a reduction in overall transport demand: electric vehicles are three-times as efficient as conventional ICE vehicles.