Carmakers and fuel producers' wishful thinking on transport's climate challenge

T&E response to the Roland Berger study

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Summary

A consortium of car makers, oil companies and biofuels producers (Auto Fuel Coalition[1]) have wrongly claimed existing policies are almost sufficient to tackle transport emissions. The coalition report[2] produced by German consultancy Roland Berger examined the measures needed to achieve CO2 reductions in the transport sector by 2030. It makes a number of grossly incorrect assumptions that lead to hugely exaggerated estimates of the effectiveness of current rules.

1. Exaggerated estimates

The study shows that under business as usual (only existing policies), direct transport emissions would decrease by 29% by 2030 compared to 2005. This is very close to the non-ETS target of 30% that transport is a part of. The findings are in direct contradiction to other authoritative studies as shown below.

Road emissions in 2030 reference level (Mt CO2eq)	
European Commission 2013 Reference scenario[3]	~760
EEA Trends and projections[4]	~720
Ricardo Energy & Environment SULTAN 2030[5]	747
New Study for the Auto Fuel Coalition	639

The Roland Berger study also puts forward suggestions to further reduce emissions including producing more biofuels, continuing to bias the market for diesel cars through cheap fuel and tax breaks and including transport in the ETS (which, it has been shown, will deliver virtually no reduction in transport emissions).

2. Incorrect assumptions

Key incorrect assumptions in the report that lead to the exaggerated claims include:

- Massively underestimating the gap between laboratory test results for CO2 and fuel economy and real-world performance. The study assumes a difference of 15%, while a recent study shows on average the gap is 40%[6] and is projected to grow to 50% by 2020[7]
- Assuming average annual mileage from passenger cars in the EU will fall from 2015 to 2030 by 650km per year against a current trend of consistently rising mileage since 1995
- Overestimating the impact of the new WLTP test in closing the real-world gap. This is since the authors ignore that company targets are being relaxed to maintain the stringency of the existing regulation when the new test is introduced

- Assuming that the efficiency of cars continues to improve at 0.9% per year even in the absence of regulation. This ignores the trend towards larger, crossover and more powerful vehicles

- Claiming that truck CO2 emissions have fallen by 20% since 1995 and will continue to decline at a rate of above 1% per year. Studies show emissions have been unchanged,[8] one of them being authored by Shell, which commissioned this new study.[9]

Other grossly incorrect assumptions grossly inflate the report conclusions including:

- Inflating costs of new technology to €1,700 to achieve 95g/km based on a discredited IKA study. The Commission estimated costs of €1,000 but the likely figure is expected to be around half of this level

- ILUC emissions are ignored. The study looks both at tank-to-wheel emissions (direct emissions), but also at emissions upstream (well-to-tank). However, when looking into upstream emissions, it completely denies the existence of indirect land-use change emissions (ILUC). The recent release of the European Commission's Globiom study[10] that shows biodiesel emissions can be three times worse than the fossil alternative

- Other technologies are biased against electrification: several assumptions considered in the study translate into a very small uptake of electric vehicles compared to other technologies. Among them, they assume that more than 5 million public recharging points will be needed in urban areas, explicitly excluding home charging by public users. It also assumes that there is no appetite by consumers to buy electric vehicles, and that that trend will continue. However, the reality is the opposite. Tesla recently opened a reservation process for its new Model 3, which will start to be delivered by the end of 2017. In just a few days, they received more than 400,000 reservations.[11] Finally, they also assumed that an increase in the percentage of electricity being produced from renewables will translate into more expensive electricity. However, there are several examples where the trend is actually the opposite: in the UK, the percentage of renewables is increasing while electricity prices are falling

- Abatement cost is an oversimplification of reality: as explained above, there are figures to calculate the abatement cost to reduce emissions from new vehicles. But it fails to consider many important factors. Transport solutions deliver more than just GHG emission reductions. Electric vehicles: reduce air pollutants and noise pollution; improve energy security and economic resilience; and also generate jobs.[12] T&E will publish a blog in the coming days on why transport reductions are not expensive

- Including transport in the ETS is a bad idea: the study calls for the inclusion of transport in a market-based mechanism, mainly in the EU Emission Trading System. However, no evidence is provided. Several[13] studies[14] have shown that this would not lead to reductions in the transport sector. The carbon price would need to be way above €100 to produce any reduction, postponing action in the transport sector. It undermines other sectorial policies, causing higher oil imports, and weakens the ETS itself, shifting the effort from a sheltered sector to non-sheltered ones.

3. Conclusions

In summary, the study tries to persuade EU policy makers from undertaking many of the so badly needed actions in the transport sector, such as fuel-efficiency standards for cars, vans and trucks or a strong push for electric vehicles. If we miss the opportunity that the transport decarbonisation strategy gives us, the

EU will not achieve its greenhouse gas targets and we will be left behind in the race for the mobility solutions of the future.

Further information

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Endnotes

[1] Comprised by BMW, Daimler, Honda, Toyota, Volkswagen, Shell, Neste, NEOT/St1 and OMV.
[2] Roland Berger, 2016. Integrated Fuels and Vehicles Roadmap to 2030+.
[3] European Commission, 2014. Trends to 2050. Reference scenario 2013.
[4] European Environment Agency, 2015. Trends and projections in Europe 2015.
[5] Ricardo Energy & Environment, 2016. SULTAN modelling to explore the wider potential impacts of transport GHG reduction policies in 2030.
[6] Transport & Environment, 2015. Mind the Gap 2015.
[7] International Council for Clean Transportation, 2015. Quantifying the impact of real-world driving on total CO_2 emissions from UK cars and vans, for UK Committee on Climate Change
[8] International Council for Clean Transportation, 2015. Overview of the heavy-duty vehicle market and CO2 emissions in the European Union
[9] Shell, 2010. LKW Studie. Fakten, Trends und Perspektiven im Straßengüterverkehr bis 2030
[10] Ecofys, IIASA and E4tech, 2015. The land use change impact of biofuels consumed in the EU. Quantification of area and greenhouse gas impacts.
[11] Fortune magazine (published 15/04/2016). Tesla's Model 3 Reservations Rise to Almost 400,000.
[12] Cambridge Econometrics, 2013. Fuelling Europe's Future
[13] Öko-Institut, 2015. Policy mix in the transport sector: What role can the EU ETS play for road transport?
[14] Cambridge Econometrics, 2014. The Impact of Including the Road Transport Sector in the EU ETS