NOT AS GREEN AS THEY ARE PAINTED

Dear Reader,

To make one thing clear from the start: Electrification of the powertrain is an important means of reducing CO₂ and emissions. Electric support for the internal combustion engine, either as a 48-V system, an HEV or a PHEV depending on the vehicle category, certainly makes sense, and even fully battery-electric vehicles will find their niche. Engineers and companies in Germany will therefore be well-advised to continue researching and developing in this field if they are to remain among the leaders in cutting-edge BEV technology and to supply the leading global markets accordingly.

However, this begs the question of what the leading markets are and above all whether BEVs really do help to cut CO₂ and emissions. There is no doubt that, particularly in political debates, electric vehicles are made to seem greener than they actually are, and this view also determines public opinion. There is a deliberate effort to turn a blind eye to the true environmental impact of electric vehicles.

The fact is that electricity from coal made up almost 45 % of the electricity mix in Germany in 2013. The proportion from brown coal plants was almost 26 % – and this is even set to rise as more lignite-fired power plants are planned or already being built. In 2012, carbon emissions from electricity generation in Germany were 576 g/kWh, 46 g more than in 2010. This is equivalent, for example, to the carbon footprint of a Smart Fortwo, which emits 128 g/km from its 0.8-l diesel engine – undercutting the 135 g/km of an identical E-Smart. It seems highly illogical to reduce CO₂ locally while at the same time achieving exactly the opposite on a national and global level. Considering

such environmental costs, it is clear that at least Germany is not – and is not about to become – a leading market for electric mobility.

At both the ATZlive conference on “The Powertrain of Tomorrow” and the “International Engine Congress”, the latter one is organised by ATZlive together with VDI Wissensforum, renowned speakers and those attending the conference were in agreement that the electrification of the powertrain does indeed represent an important technological development, but its actual ecological footprint needs to be acknowledged, assessed and communicated. The political drivers of electric mobility might learn a thing or two from them: More technical insight and objective communication instead of propaganda would certainly be to their credit.

Best regards,

DR. ALEXANDER HEINTZEL, Editor in Chief
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