

# An electric revolution needs electricity

The government's forecasts for electricity generation in the UK are curious. They show an increase of under one percent in the first half of the current decade, and an increase of just 8.6% for the decade as a whole. This is odd because the government is very clear it wants an electric revolution. It wants many householders to switch from gas to electricity for their heating systems. It wants many drivers to switch from diesel and petrol cars to electric vehicles. Indeed, it wishes to ban new petrol and diesel cars in 2030. It wants process industry to seek to replace gas based heat systems with electric ones. All this implies you would have thought a substantial increase in the need for electricity.

The government's figures only makes sense if one of the following three outcomes happens. The low requirement for electricity may imply that the government is not expecting much by way of take up of electric cars and electric heating systems this decade after all. The main target is for 2050, though the intermediate targets are meant to be getting tougher.

The figures may imply that the government plans for us to import many more of the things that generate a lot of carbon dioxide, allowing the UK to hit tougher national targets for CO2 reduction whilst not reducing the CO2 for the world, as we will be importing them instead. The more products needing high energy content that we import the less we need power here for the factories. If we import more electricity that is also not in the figures.

The third possibility is that the forecasts are wrong, and we will need considerably more electricity than is allowed for in these figures and plan.

The government figures allow for the closure of all but one of our existing nuclear plants by 2030, with the addition of one new large plant that only offsets part of the loss of capacity. The government still plans for the closure of the three remaining coal power stations, so presumably this is allowed for in these figures. The government is also supporting substantial increases in wind power which will add to capacity, though not when there is no wind. There needs to be some averaging of the figures and some back up capacity available.

It would be interesting to hear comments on the likely speed of customer take up of the new electrical technologies, and comment on what this will mean for electricity demand.