

One thing we have learnt this week – which source of power is cheapest?

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Which source of power is cheapest? That question was raised this week when the green MP Caroline Lucas claimed onshore wind (which is effectively banned in England) was the cheapest source of electricity. This got the BBC's fact check to examine the figures. It does in fact confirm she is right (just). Wind is cheaper than all the alternatives. This was in 2014 too so things should have improved. I decided to have a look and found data from the Department for Business, Energy and Industrial Strategy from 2016. This is shown below suggesting something slightly different. [power production costs different sources](#) [power-production-costs](#) [power-production-costs-figures-2014-2015](#) Firstly, the department gave a range of costs so I worked out the mean cost (shown as the blue column) and the standard error of the mean (SEM - shown as the bars). The SEM gives a range of the costs given. This data shows that wind is slightly more expensive than combined cycle gas turbines but cheaper than everything else. Please note nuclear costs are not shown currently but only going forward and so this data is for 2025. I assume new build, but the chances of this being at this cost or by this date are for the birds. Lots of different types of coal all with carbon capture and storage are listed. I took the cheapest, like nuclear there is very little chance of any of this being built and all the coal plants are shutting anyway. As I write this there is almost nothing coal powered on the grid and loads more wind than nuclear. Solar is large stuff in fields not that on your roof (the latter makes more sense to me but is not costed). Combined cycle gas plant varies from open cycle in that the heat from the exhaust gases are captured and used (there are other differences too). Which source of power is cheapest? It probably depends on when you ask the question. There is little difference between the gas and onshore wind costs and looking at the SEM bars the cheapest wind is still slightly cheaper than gas just not the mean. I suspect the change on 2014-6 was due to lower gas prices. Incidentally going forward both wind and solar are predicted to be cheaper than everything else, so its crazy not to invest in them. Neil

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