



Over its lifetime a nuclear power station's carbon footprint is the same as wind power

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The UK power sector is responsible for around 12% of the UK's annual greenhouse gas emissions. As the nation continues to develop a broader energy mix a range of new technologies, including new nuclear, will help Britain achieve Net Zero.

Independent analysis of the carbon emissions associated with new nuclear plants have demonstrated they have smaller lifetime greenhouse gas footprint than that created by solar power and about the same as wind



for nuclear's lifecycle emissions, or less, per kilowatt hour of energy to be low carbon.

Over the past 45 years the UK's nuclear fleet has been the nation's biggest source of zero carbon electricity. At its peak nuclear was providing more than 20% of the UK's electricity and because it is zero carbon at the point of generation it was helping the UK avoid using fossil fuels which would have led to the emission of millions of tonnes of carbon dioxide emissions for many years.

Now fresh analysis has considered the carbon impacts of some of our existing nuclear plants. Independent analysts looked at the complete lifecycle of the Torness and Sizewell nuclear plants. They considered every possible aspect of construction, operating, fuel and fuelling, defueling and decommissioning and then calculated the carbon emissions compared to the energy generated by the stations. This comparison is the way most lifetime carbon footprints are calculated for energy generation sources.

This comparison has revealed that over the course of their lives the two plants will produce about 10grams of CO₂ per kilowatt hour of electricity that is smaller than solar power and a number directly comparable to wind power.

To find out more about our calculations have a look at our report on [Sizewell](#) and [Torness](#).

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