MIDLANDS ENGINE OBSERVATORY ACADEMIC INSIGHTS
Britain is a net electricity exporter for first time in 44 years

This article summaries this article in The Conversation.

Theme:

Energy and the transition to a low-carbon economy.

Area of Focus:

The article focuses on Britain becoming a net electricity exporter for the first time in 44 years.

Key Findings:

With volatile princes in international energy markets sparking unrest throughout 2022, Britain saw a 4% drop in electricity demand from 2021 – the third largest year-on-year reduction after the 2008 financial crisis and pandemic-affected 2020. It takes Britain's overall electricity demand back to values last seen in the 1980s, a 18% reduction from its peak in 2005. The authors believe the main factors for this were the significant increase in prices, wider media attention and the wider cost of living crisis.

The earliest undersea high-voltage direct current cable (interconnector) from Britain to another country's power grid was laid in 1961 across the Strait of Dover to France. Since 1978, Britain used these cables to import more energy than it exported over a given year – with an average of 5% of the country's electricity being imported. However, net imports swung to net exports in 2022 for the first time in 44 years.

Looking at individual interconnectors, it was the link to France that caused this significant change when French nuclear power stations had many maintenance problems leading to reductions in output. 57% of the country's generation capacity was not being used – leading to more electricity being generated in Britain and neighbouring countries to satisfy demand. Without problems in France this could have been the first year in Britain where Britain's wind, solar and hydro combined generated more electricity than its fossil fuels – a milestone which will be reached anyway over the next couple of years.

Wind generation also recovered from its relatively poor output in 2021 to reach a record generation of 77 TWh, a 24% increase on the preceding year, when capacity increased by just 11%. Likewise, renewables contributed nearly 40% of Britain's total energy generation in 2022.

Midlands Engine Impact:

- This progress, along with lower demand for electricity in Britain, meant emissions from the power sector were broadly like previous years (although would have been lower if imports from France continued). Lower emissions in Britain mean an improvement of air quality and thus the improvement of the health of the Midlands population.
- Rising prices of electricity gas have contributed to a cost-of-living crisis, putting millions in fuel poverty. This is likely to reduce health outcomes for the Midlands population as one of the most affected areas for fuel poverty.
- Renewable and nuclear energy provided over half of Britain's electricity in 2022, reducing emissions and providing a future for clean growth. This coincides with the Midlands Engine plan of green innovation in the driving the UK economy forward to deliver 196,000 jobs, reduce CO_2 by 20.8m tonnes and produce more than £24.2bn in GVA in the Midlands.

For Further Information Contact:

Joseph Day, Geraint Phillipps, Grant Wilson

Article:
Britain is a net electricity exporter for first time in 44 years (theconversation.com)

UNIVERSITY OF BIRMINGHAM