



# Artificial Intelligence and Data Centres

## Introduction

The growth and use of Artificial Intelligence (AI) is rarely out of the news, with a debate over its merits and consequences. More recently, there has been an increase in proposals for huge data centres in Scotland to house the computing power and storage needs of this technology. In this briefing, we examine the case and impact of data centres.

## Artificial Intelligence

Artificial Intelligence (AI) is a branch of computer science focused on developing systems capable of performing tasks that typically require human intelligence. AI systems can learn from data, recognise patterns, understand language, solve problems, and make decisions. Applications range from domestic users conducting searches and generating images to scientific research and, more controversially, military targeting systems. By processing large amounts of information and improving through experience, AI can help people work more efficiently and support innovation across healthcare, education, business, and science.

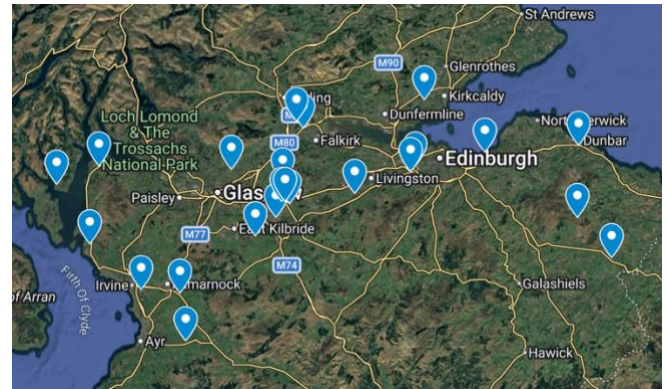
AI has faced criticism over concerns about its impact on society, employment, privacy, and decision-making. AI systems can also produce biased or unfair results if trained on inaccurate or unbalanced data. There are also concerns about the misuse of AI to spread misinformation, create deepfakes, or invade privacy. Critics emphasise the need for responsible development, transparency, and strong regulations to ensure that AI is used safely and ethically. This European Council [explainer](#) sets out the arguments for and against AI. Our director has picked up the latest concerns [here](#).

## AI Data Centres

Data centres come in [several forms](#) and are not all linked to AI. Companies and public bodies need data centres to house their own data. There are 15 smaller-scale data centres in Scotland. However, the current concern arises from hyperscale data centres.

It is unclear how many current applications there are, but [estimates](#) range from 26 to 33. Action to Protect Rural Scotland (APRS) has produced a map of proposed data centres in Scotland, which

currently lists 26 proposals, though it notes this may not be a comprehensive list.



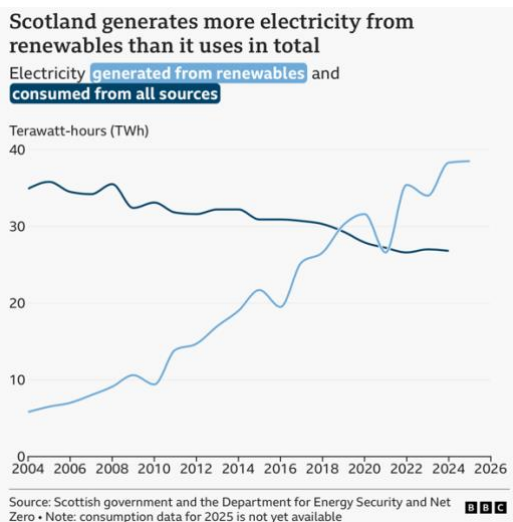
The footprint can be huge. For example, the proposed [Cato data centre](#) in Fife covers an area the equivalent of almost 40 football pitches. The buildings would be up to 35 metres high, equivalent to the height of a 12-storey block of flats.

At full power, Cato will use 4TWh of electricity, equivalent to 7.7% of all electricity generated in Scotland in 2024. The UK grid operator, NESO, is working on new regional energy plans (including Scotland), but these won't be completed until late next year. Oxford Economics [forecasts](#) that data centres could represent 30.4% of UK commercial electricity consumption in 2030.

Data centres usually use water to cool their systems. Typically, drinking-quality water is used because it can be reliably sourced from existing water infrastructure and prevents clogging and contamination of components. Open-loop systems require a constant mains supply, but those proposed in [Scotland](#) appear to be mainly closed-loop systems that reuse water with top-ups for evaporation. Future demand will place further pressure on water scarcity in Scotland, particularly in the East, as we highlighted in a recent [briefing](#).

The Scottish Government's [guidance](#) supports the development of 'green' data centres, with a vision of "Scotland as a leading zero-carbon, cost competitive green data hosting location." These centres maximise the use of renewable energy sources, employ energy-efficient technologies, seek to minimise water consumption, and support the re-use of excess heat. However, even those

labelled as 'green' still place significant demands on land use, water consumption, and energy. The Lanarkshire data centre has already been [questioned](#). The challenge will be to ensure that data centres in Scotland use excess renewable energy, currently lost due to grid [constraints](#), and have a minimal impact on water supplies. However, in the USA, experts are [questioning](#) whether intermittent energy is suitable for data centres, though this may be driven by fossil-fuel ideology.



In planning terms, the Scottish Government has [designated](#) 'green data centres' as having national development status. This is not an award of planning permission, but it means that the principle of the development cannot be challenged during the planning application process. Planning authorities must decide what constitutes a green data centre on a case-by-case basis, although the First Minister recently [indicated](#) that further guidance or national-level decisions are being considered. There is no requirement for data centre planning applications to undertake an Environmental Impact Assessment. The 200MW [data centre](#) proposed for the Gogar area of Edinburgh was deemed not to need an EIA by the council.

The Scottish Greens have [called](#) for a moratorium on new data centres. As has the [campaign](#) group Action for Protecting Rural Scotland and [others](#) gathering outside the Scottish Parliament. The Scottish Government could do this using planning powers, as it does for new nuclear power. However, it is unlikely to do so given the current policy.

There are several local campaigns. Brian Leishman MP [is calling](#) on Falkirk Council's planning committee to reject proposals for a 300MW AI data centre in Larbert.

## USA Experience

Hyperscale data centres began in the USA, where regulation is generally weaker. Yet even here resistance is growing. A Meta data centre in Ohio will use an entire gigawatt of power (enough to power one million homes, or the output of a large nuclear reactor) for artificial intelligence. Utah [approved](#) a centre twice the size of Manhattan. The investment is staggering. An estimated \$3trn will be invested in AI data centres globally between 2026 and 2030. The famous contaminated-water [campaigner](#) Erin Brockovich is back, opposing data centres worldwide.

Surveys suggest that Americans would sooner live next to a nuclear plant than a data centre, and Americans were more [pessimistic](#) about AI than people in any of the 24 other countries surveyed. At least 20 data-centre projects worth \$42bn, which would have used 3.5gw of power, were [cancelled](#) in the first three months of 2026 after local pushback. Even in areas that have them, moratoriums on new developments are being passed. By 2030, one-third of data centres will generate all their power on-site, reflecting a lack of grid capacity to meet demand. Coal-fired power stations are being prevented from closing. Opposition to data centres has achieved the remarkable – a consensus between Democratic and Republican politicians.

## Conclusion

For some people, this is a story about AI's impact on jobs and society. There is no shortage of doomsayers and advocates. However, others, like Erin Brockovich, say, "That genie is out of the bottle: it's here, it's an effective tool, you can use it or not."

However, others are focused on the massive structures being built to house the vast computing facilities AI requires and the wider concerns about AI. It remains to be seen whether you can separate the two issues, or whether the Scottish Government can convince the public that green data centres will alleviate their concerns.

### Jimmy Reid Foundation

The Jimmy Reid Foundation is a think tank which brings together different voices from across Scotland to make the case for economic, environmental, political and social equity and justice in Scotland and further afield.

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