

Hyperscale AI data centres

A briefing and recommendations from Stop Climate Chaos Scotland – May 2026

Summary

SCCS is calling on the Scottish Government to introduce an immediate moratorium on new hyperscale data centre developments while they do the following:

- Publish an analysis of the impact of hyperscale data centres on Scotland's power grid and route to achieving net zero by 2045.
- Publish a draft planning circular or planning guidance for consultation to stringently define what constitutes a 'green data centre'.
- Make Environmental Impact Assessments (EIAs) mandatory as part of the planning process for hyperscale data centres.

The key reasons for these recommendations are:

1. The substantial energy demand required by hyperscale data centres. For those applications either in planning or proposed this is estimated at between 4749MW and 5249MW – this would exceed Scotland's entire winter peak demand (4000MW).
2. Meeting Scotland's carbon budgets would be directly undermined by the approval of any project of this scale, yet the impact of hyperscale data centres are not included in the draft Climate Change Plan which sets out Scotland's pathway to net zero by 2045.
3. Consumer energy bills could rise significantly due to the cost of putting in place additional energy infrastructure, as shown by experience in Ireland and the US.
4. Data centres need to run 24/7, so cannot run on renewables alone. Their constant and very high energy demands are likely to make it almost impossible to decarbonise the grid. Due to their need for 99.999% uptime, they require backup generation which is usually diesel or gas generators. The project at the Gyle, recently unanimously rejected by City of Edinburgh Council, would have required backup diesel generation equivalent to over

100,000 diesel cars when in operation, with all the implications for climate emissions and air quality.

5. Data centres do not provide a route to the high-quality, secure and sustainable new jobs that must be at the heart of a just transition in Scotland. The employment associated with hyperscale data centres is extremely limited, compared to other projects of a similar scale, 20-50 jobs according to a survey by [APRS](#) of publicly available information from data centres across the world.
6. [APRS](#) has found that 12 of the 16 projects currently being proposed in Scotland are for greenfield and greenbelt sites, not brownfield projects.

Background

We acknowledge the potential of AI to bring societal benefits and that the speed of technological advance is stretching the ability of public policy to keep pace. However, it is essential that policymakers adopt a proactive and precautionary approach to prevent damaging, irreversible, environmental impacts. The significant energy demands of data centres and the knock-on consequences for Scotland's climate ambitions must be carefully scrutinised and managed.

It is important to distinguish hyperscale AI data centres from the legitimate data-handling facilities that power our modern world - university research, cloud computing, business, banking, and public data management. In June 2024, 11 data centres were in operation across Scotland, according to [Scottish Enterprise](#), consuming just 10MW of power between them, a 20th of the power required for even the smallest hyperscale project.

The rapid growth in hyperscale data centre demand is driven by the intensive computational and power requirements of training and operating AI large language models (LLMs).

There are currently plans for over [20 hyperscale data](#) centres across the country. Some 16 of these are already in the planning system. The largest of those proposed, a 'multi-gigawatt' facility proposed in Aberdeen, would require energy the equivalent of



a half of the entire peak demand of Scotland. Whitelees, the largest onshore wind farm in the UK, would take fourteen years of operation to generate the energy needed to power this site for just one year¹.

Current Scottish data centre policy

The individual and cumulative impact of data centres on Scotland's energy supplies, energy prices, and climate targets requires robust scrutiny. For example, Environmental Impact Assessments should be mandatory for all planning applications for data centres, including a thorough analysis of the energy and water usage and the impacts on local communities prior to any approval.

Several Scottish Government policy documents, including the National Planning Framework 4 (see [page 112](#)), make mention of 'green data centres', but provide no definition of what that means. Similarly, the draft Climate Change Plan does not take account of the considerable impacts such developments would have on emissions targets.

On 11 March 2021, the Scottish Government published [A Changing Nation: How Scotland Will Thrive In A Digital World](#), with one of its eight key actions being to "establish Scotland as an attractive location for green data centres" (see p20). The term 'green' in this context was again not defined.

In answer to [a written question](#), asking about this definition for the purposes of NPF4, the Scottish Government said: "*All green data centres of a major scale are designated as part of National Development 12: the Digital Fibre Network. This can include AI-focused data centres, provided they meet the criteria for major development and are considered 'green'.*"

Stringent minimum standards must be collaboratively developed and transparently met before any data centre is classified as 'green' in Scotland, including, but not limited to, being zero carbon, not relying on fossil fuel backup generation and not impacting upon Green Belts. Unless and until such standards are in place and fully met by applicants, no hyperscale data centres should be built in Scotland.

¹ Whitelees is 539MW and operates on a 0.2662 load factor.