# The future of biomass generation in the UK: challenges and pathways to 2031



The process of winding down biomass generation in the UK is progressing, with significant focus now shifting towards the year 2031. As the first stage of this transition unfolds, it is crucial that the post-2031 settlement orchestrates a framework that prioritises cost-effective, locally-sourced energy solutions. The aim is to secure energy supply benefits arising from any forthcoming investments.

Central to this discussion is the delayed implementation of bioenergy with carbon capture and storage (BECCS) technology at Drax, which has been identified as a necessary source of ‘negative emissions’ needed to offset remaining aviation emissions as the UK strives towards net-zero targets. The Climate Change Committee (CCC) has been evaluating the feasibility of BECCS and has reported it to be one of the more expensive carbon abatement technologies. In its 7th Carbon Budget report, the CCC reduced the expected scale of BECCS, following indications that wood pellet imports would approach zero by 2050, although current forecasts predict an increase in these imports in the near future.

Delays have plagued UK BECCS projects, raising concerns about the potential overreliance on such technologies. Initially scheduled to commence in 2027, the project at Drax has been postponed to 2030 and now faces further delays into the early 2030s. Following the announcement of a subsidy package for the period from 2027 to 2031, Drax has indicated they may scale back BECCS investments without additional policy support and are exploring alternative business models, including the sale of waste ash. This evolution has heightened political risks surrounding BECCS, as doubts persist regarding its effective implementation and the associated consumer costs.

Moving ahead, several vital steps will determine the future trajectory of BECCS and Drax's role in the energy landscape before 2031. It is imperative to ensure that resilient and low-cost alternatives take precedence, facilitating continued progress in the biomass phase-out. Notably, advancements towards a cleaner power system are likely to diminish Drax’s significance leading up to 2031, while participation in the carbon capture, utilisation, and storage (CCUS) cluster sequencing process is critical for Drax’s BECCS development. However, government policy support for BECCS at Drax remains unconfirmed, and the technology’s cost-effectiveness and its capacity for substantial emissions reductions are yet to be validated.

Drax faces a myriad of process and budgetary challenges en route to implementing BECCS. Notably, it was not included in the initial Track-1 funding for the first two CCUS clusters. Recent funding rounds have continued to support existing Track-1 projects but have yet to incorporate Drax, meaning inclusion may necessitate a considerable budget increase due to the power station's size. In December 2024, the government indicated that its ambitious carbon storage targets were unattainable, with no revised goals set as of yet. A new Carbon Budget Delivery Plan, expected in spring 2025, aims to outline the immediate policies and timelines required for CCUS delivery, but until clarity is achieved, the long-term wind-down of biomass remains mired in uncertainty, possibly delaying progress if support for BECCS continues to falter.

In the meantime, attention may be directed towards smaller pilot projects and innovation sites within the two CCUS clusters, enabling progress without the need to commit to the larger, time-consuming BECCS initiative at Drax.

Source: [Noah Wire Services](https://www.noahwire.com)

## References

* <https://www.gov.uk/government/consultations/transitional-support-mechanism-for-large-scale-biomass-electricity-generators/outcome/transitional-support-mechanism-for-large-scale-biomass-generators-government-response-html> - This URL supports the discussion on the UK's strategy for large-scale biomass generators as they transition towards cost-effective and locally-sourced energy solutions, including BECCS technology.
* <https://questions-statements.parliament.uk/written-statements/detail/2025-02-10/hcws424> - This source outlines the UK government's considerations for maintaining Drax power station as part of energy security until 2031, emphasizing the role of BECCS in long-term decarbonization plans.
* <https://www.enerdata.net/publications/daily-energy-news/uk-agrees-extend-subsidies-draxs-26-gw-biomass-plant-until-2031.html> - This article provides details on the agreement to extend subsidies for Drax’s biomass plant until 2031, which includes conditions to increase sustainability and reduce operational load.
* <https://www.thechemicalengineer.com/news/subsidies-for-drax-to-halve-as-uk-government-sees-more-limited-role-for-power-station/> - This article discusses the reduced role of Drax in the UK's energy mix and the changes in subsidy policies aiming to ensure a more sustainable biomass sourcing.
* <https://www.yorkshirepost.co.uk/business/large-scale-biomass-must-end-after-2027-to-help-uk-reach-net-zero-5007457> - This article highlights the need for large-scale biomass to end after 2027 as part of reaching net-zero goals, while also detailing Drax's future plans for BECCS integration.