

The Carbon Capture Illusion: Why £40 Billion on CCS Misses the Real Net Zero Opportunity

The carbon capture illusion

The UK Government's decision to channel between £40-50 billion into carbon capture and storage (CCS) as a combination of public/private investment is being heralded as a cornerstone of industrial decarbonisation. Ministers describe it as a "once-in-a-generation investment" that will secure jobs, anchor heavy industry, and cement the UK's role as a climate leader.

But behind the rhetoric lies a more uncomfortable truth: CCS is a high-cost, high-risk bet that delivers little for the communities actually tasked with achieving net zero on the ground. The government has no coherent framework enabling local authorities - the delivery agents of climate policy - to act, access private finance, or build investable pipelines of local net zero projects (emission reductions across sectors within a local economy, predominantly buildings, energy and transport),

The result is a widening gap between national-scale industrial subsidies and the reality of local climate delivery.

The big question - what will investment actually deliver?

Despite its price tag, CCS will not remove carbon at scale for decades. Most planned projects target capture of industrial process emissions from clusters like Teesside and the Humber - important, yes, but narrow in reach and heavily dependent on public subsidy for viability.

Even by the mid-2030s, government projections suggest CCS might capture 20-30 million tonnes of CO₂ annually - roughly 5-8 % of current UK emissions. Meanwhile, emissions from homes, transport, and local infrastructure — the areas where councils hold real influence - account for over a third of total UK emissions, yet remain largely unfunded and structurally blocked.

So while Westminster spends billions on experimental industrial carbon removal, councils are told to "do more with less," with no statutory duty to act, no project development funding, and no access to affordable borrowing outside restrictive fiscal rules.

It's the policy equivalent of funding a luxury yacht while the lifeboats sink.

The delivery paradox: national ambition, local paralysis

Local authorities have shown remarkable commitment despite limited tools. From retrofitting social housing and decarbonising schools, to expanding active travel and heat networks, they are uniquely positioned to integrate net zero with local economic development. Yet the current system continues to treat them as bidders for sporadic grants, not strategic delivery partners.



The barriers are structural:

- **No statutory duty to deliver net zero locally** - meaning climate action competes with statutory services already under financial strain.
- **Fragmented funding** - short-term, competitive pots that make strategic planning impossible.
- **Lack of development finance** - most councils can't fund the £250 k-£500 k typically needed to bring a capital project to investment grade.
- **Fiscal constraints** - borrowing rules prevent councils from leveraging private capital even when projects would generate stable returns.
- **No consistent pipeline mechanism** linking local projects to investors, unlike national infrastructure.

What does this mean in practice? In short, the UK has industrial-scale ambition but municipal-scale impotence.

The alternative: invest in enabling local delivery

Redirecting even a fraction of the £40 billion CCS budget could revolutionise local climate action. Consider what £2 billion could achieve if structured as a revolving Local Net Zero Development Fund:

- Fund 1,000 place-based project development units across UK councils to bring retrofit, solar, EV, and heat projects to market.
- Establish local net zero investment platforms to aggregate smaller projects and attract institutional capital.
- Provide seed funding for Energy Services Companies (ESCOs) or local green banks that can recycle returns into further decarbonisation.
- De-risk private finance through limited guarantees and performance insurance rather than perpetual subsidy.

This would unlock tens of billions in private capital — far exceeding the likely leverage from CCS — while delivering immediate economic and social benefits: warmer homes, lower bills, cleaner air, and skilled local jobs.

The enablers that actually matter

If the Government is really serious about delivering net zero across the UK's cities and towns then this money could be better directed at enabling them to scale-up the delivery and financing of local net zero projects.

- A statutory duty on local authorities to plan and deliver net zero, backed by multi-year funding settlements - giving clarity, accountability and confidence to investors.
- Reform of fiscal rules so local authorities can borrow against net zero assets and revenue streams without breaching debt limits. This could unlock up £ billions in private finance, whilst delivering local economic, social and environmental benefits!
- Creation of a Regional Climate Infrastructure Agency - a technical and financial hub that aggregates projects, standardises documentation, and connects councils to private investors, lenders and financial institutions!



These measures are not radical; they are standard practice in countries delivering climate investment at scale. The Netherlands, Germany and Denmark already operate similar devolved investment mechanisms, blending public and private capital to achieve faster, cheaper decarbonisation.

CCS as a symbol of policy distortion

The UK's fixation on CCS reveals a deeper problem: a policy culture that confuses capital spending with strategic delivery. Large national projects are politically visible - ribbon-cutting, industrial symbolism, and headlines about "world-leading innovation." But they are not necessarily effective at systemic decarbonisation.

Local projects, by contrast, are dispersed, complex and unglamorous - yet they deliver the bulk of real emissions reduction. Home insulation, renewable heat, grid reinforcement, local renewables, and public transport upgrades all yield faster returns per pound spent.

Every pound funnelled into CCS represents an opportunity cost - funding that could have enabled councils to retrofit homes, electrify fleets, or repurpose brownfield sites into renewable hubs. The irony is that these local investments would reduce emissions immediately, cutting the very need for carbon capture in the first place.

A call for strategic realism

Carbon capture may well have a role in tackling residual industrial emissions, but it cannot be the cornerstone of a credible climate strategy. The UK doesn't face a technology deficit; it faces an institutional deficit - a lack of empowered, financed local delivery bodies. The government's current approach treats decarbonisation as an engineering problem when it is, in truth, a governance and finance problem. Without empowered local delivery, the £40 billion CCS investment risks becoming a monument to misplaced priorities.

If even 5 % of that sum were redirected to build a functioning local net zero delivery system - statutory powers, development finance, and fiscal flexibility - the UK could mobilise hundreds of billions in private investment, generate millions of skilled jobs, and achieve real emissions reductions this decade.

That is not just smarter economics. It is strategic common sense - turning net zero from a centralised promise into a locally delivered reality. Until that shift occurs, the UK will remain a country investing in carbon capture because it has failed to capture the power of its own places.