

REWIRING GREAT BRITAIN'S ELECTRICITY TRANSMISSION SECTOR

As RIIO-T3 gets under way, it is a good time to reflect on the state of the electricity transmission sector in the UK, and what lies ahead. The capital investment programme permitted for the three licensed transmission owners under RIIO-T3 dwarfs anything previously seen, but it is only one of the many changes contemplated for the wider sector: from introducing competitively-appointed transmission owners to potential schemes empowering customers to take control of their connection works and self-delivering transmission assets, there is potential for a significant rewiring of the electricity transmission sector across Great Britain.

RIIO-T3: Unlocking massive investment under the existing framework

1 April 2026 marks the start of RIIO-T3, the new price control period which will regulate the three licensed transmission owners (TOs) across Great Britain for the next five years. It is difficult to understate the scale of changes which RIIO-T3 brings for National Grid Electricity Transmission (NGET), Scottish Power Transmission (SPT) and Scottish Hydro Electric Transmission (SSEN Transmission).

Indeed, RIIO-T3 represents by far the largest permitted capital investment programme for the TOs in a single price control period. Ofgem has already signed off on a cumulative capital investment programme of c. £29 billion. If fully utilised by the TOs, wider reopeners and gated approval processes could bring this to more than £90 billion before the end of the control period. In nominal terms, NGET has been allocated the lion's share of this capital investment programme, but each of the three TOs could see their regulated asset base (RAB) grow by more than 50% in real terms over the period (with SSEN Transmission potentially seeing its RAB almost doubling in real terms in a full utilisation scenario).

This colossal investment programme is a great opportunity, but it also represents an enormous challenge for the TOs and their already strained supply chains. It remains to be seen whether they will be able to navigate the new RIIO-T3 framework and deliver the changes which are needed for Clean Power 2030, alleviate the strains on the existing system, and simultaneously resolve the connection issues which have plagued generation, hybrid and demand projects across Great Britain.

New pathways for investment across electricity transmission

Beyond RIIO-T3 and the licensed TOs, DESNZ, Ofgem and NESO are exploring other means of unlocking investment across Great Britain's electricity transmission system. The hope is that these alternative paths could both alleviate the strain on the licensed TOs and reduce the overall cost to consumers. Two areas in particular merit further spotlighting:

- the proposals for the appointment of onshore Competitively Appointed Transmission Owners (CATOs); and
- the contemplated changes to the transmission licensing regime itself, which could enable greater self-delivery of transmission works for large demand projects and the emergence of a new class of private networks.

CATOs and the emergence of a broader pipeline

Proposals for the introduction of CATOs in Great Britain's electricity transmission sector are not new. On the contrary, progress has been slow since Ofgem's initial consultations in 2021 and the subsequent passing of the Energy Act 2023, which set out the necessary legislative framework for the introduction of CATOs. Nevertheless, NESO's recent [expression of interest](#) and market sounding exercise (which investors have been invited to respond to by 30 April 2026) may be a sign that the first concrete CATO schemes could emerge later this year.

The CATO regime is intended to introduce competitive tendering for the design, construction, financing, ownership and operation of new, separable, high-value onshore electricity transmission assets in Great Britain – which would otherwise fall to be delivered by the TOs.

Under an "early competition" model, NESO would identify qualifying projects and run competitive tender processes

in conjunction with Ofgem. Successful bidders would be appointed as CATOs to deliver the relevant projects, in exchange for which they would receive a 35-year, CPI-indexed, availability-based Tender Revenue Stream. This revenue model would insulate the CATO from wholesale electricity price volatility and provide the stable, long-term cash flows typically sought by infrastructure investors.

Ofgem and NESO hope for this regime to drive innovation, reduce costs, attract new sources of capital into the sector, and provide useful cost benchmarks for Ofgem's regulation of the TOs. With c. £58 billion of required transmission investment identified in NESO's "Beyond 2030" network design recommendations, the potential market for infrastructure investors is very significant.

If Ofgem's recent announcement on [24 March 2026](#) of the Enhanced Pre-Qualification shortlist for OFTO Tender Round 13 is anything to go by, there is clearly renewed interest from investors in these assets. This was Ofgem's biggest shortlist of bidders since 2019, with five bidders named (Diamond Transmission Partners, Equitix, the Gravis Sosteneo Consortium, John Laing, and Transmission Capital Partners). This field comprises both established participants and bidders returning after a prolonged absence, which Ofgem said underlines growing investor interest in the OFTO regime and the enduring appeal of its long-term, inflation-linked revenue model.

Whilst the CATO regime has notable differences from the OFTO regime, it shares much of the same economic fundamentals, and we would anticipate renewed investor appetite in the OFTO market to translate into significant interest in CATO projects, if and when they emerge.

Breaking the gridlock on demand-side transmission connections

Against the background of the ongoing connections reform process, one relatively recent development of note is the increased focus of the UK government, Ofgem and NESO on demand-side connections, and what measures (if any) can be taken to unblock the gridlock which is causing multi-year delays to connections and investment decisions. In its [February 2026 consultation](#), Ofgem raised the question whether changes should be made to the existing ownership and licensing framework for transmission network assets.

As we have discussed [previously](#), Ofgem is considering whether more efficient connection routes could be delivered by third parties through a number of mechanisms as part of their "Connect" pillar, including:

- **Clarifying the current interpretation of the Electricity Act 1989:** Ofgem is considering whether it should signal that the prevailing market interpretation of the Electricity Act 1989 is incorrect, and that a customer holding a small amount of transmission-level assets is not prohibited (without a licence) under the Act;

- **Introducing an independent Transmission Owner (iTO) licensing framework:** Ofgem is considering building on the successful introduction of the iDNO licensing framework and extending this at the transmission level to a new iTO model, which could introduce market competition for connection and asset-level works; and
- **Expanding self-build and self-delivery at the transmission level:** Ofgem is considering whether to enable customers to design, deliver and own a limited set of high-voltage connection assets as part of their connection works, increasing the number of physical grid connections that can be delivered while maintaining a secure and operable system.

Are exemptions from licensing requirements on the cards for demand projects?

If Ofgem is uncomfortable with clarifying the meaning of the Electricity Act 1989, one possible change which Ofgem is not currently considering explicitly but which could provide additional optionality would be the introduction of a new Class Exemption under The Electricity (Class Exemptions from the Requirement for a Licence) Order 2001, specifically permitting customers to deliver certain transmission-connected private networks if they meet the Class Exemption requirements.

Such a Class Exemption already exists at the distribution level, and has permitted the emergence of very successful private networks in large industrial parks or for large multi-tenant distribution projects (including the Slough Trading Estate), and there seems little reason to doubt that they could be successful at the transmission level too.

In our view, there is significant opportunity here for the UK government, Ofgem and NESO to take a fresh look at the licensing regime and consider a range of pragmatic approaches enabling greater self-delivery by customers of a limited set of transmission-level electrical assets as part of their connection works, speeding up overall connection processes whilst providing customers greater agency over their connection works.

When the UK Government introduced a class exemption on [16 August 2024](#) for high voltage array systems connecting offshore generating stations to offshore substations, it did so [expressly](#) to address the risk that the scale of modern offshore wind developments was outgrowing legacy voltage assumptions, with increasingly high-capacity generation being constrained by regulatory frameworks that discouraged the deployment of higher-voltage assets.

A comparable dynamic is now emerging onshore, particularly in relation to large demand projects such as data centres, where rapidly increasing capacity requirements risk being forced to design connection works using connection solutions that were not designed with assets of this scale in mind. A targeted exemption could

help ensure that regulatory boundaries do not inadvertently constrain more efficient, higher-capacity connection solutions, while maintaining appropriate regulatory oversight.

Changing Currents in Transmission

Overall, these developments signal that Great Britain's transmission sector is evolving rapidly, and could become progressively more open, more liberalised and more investable. Opportunities no longer seem confined to a narrow set of licensed monopoly parties or fixed delivery models, but instead span a range of approaches – from

competitively tendered OFTO and CATO projects to demand-led private network solutions – with further reforms continuing to push in this direction.

For investors and developers, there is a clear opportunity to engage early and help shape a framework that is still evolving. The challenge now is execution, but the direction of travel is clear: transmission is no longer treated as an untouchable natural monopoly, but as critical infrastructure that can be delivered, financed and owned in a multiplicity of ways.

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