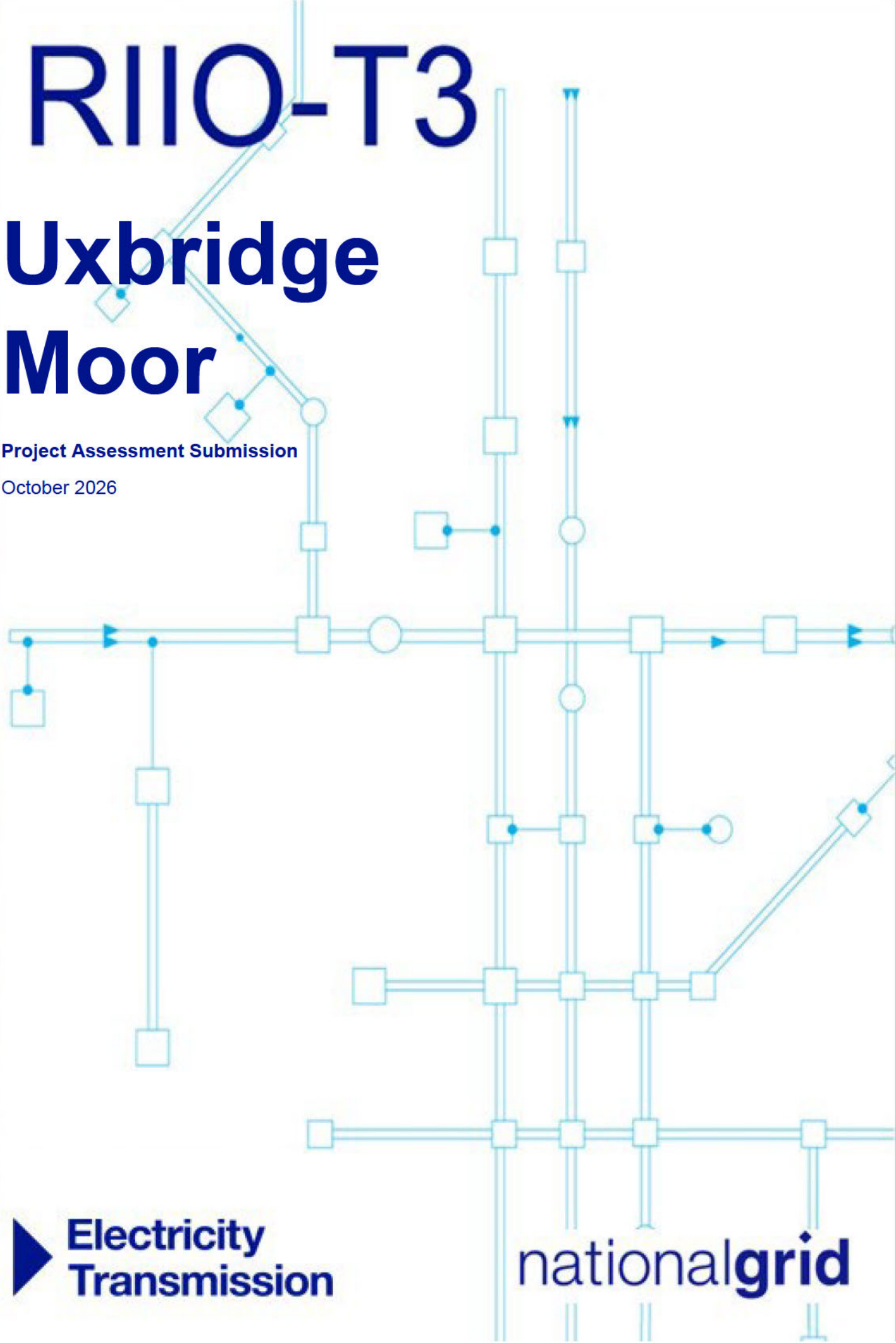
RIIO-T3

Uxbridge Moor

Project Assessment Submission

October 2026



Electricity Transmission

nationalgrid

Uxbridge Moor: Project Assessment

National Grid Electricity Transmission

Project Assessment

October 2026

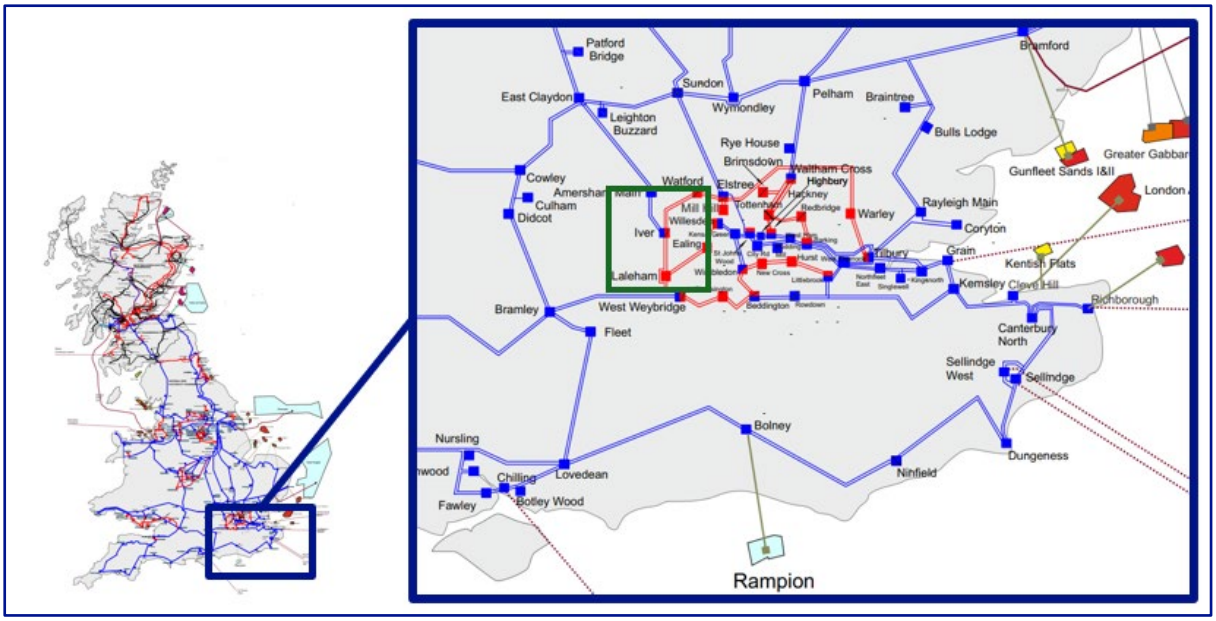
Project Assessment Summary

1. Background

The Uxbridge Moor project will deliver a new transmission substation in Buckinghamshire, next to the existing Iver substation, to connect a major cluster of demand serving the Slough and West London area. The investment is needed because the existing regional network does not have sufficient capacity to accommodate the contracted customer requirements.

The project will construct a new 400/132 kV SF_6-free transmission substation and the associated infrastructure needed to connect safely to the wider network.

Figure 1: Proposed location of investment on our network



We are seeking Ofgem's Project Assessment decision for the Uxbridge Moor investment under Special Licence Condition 3.18, Load Re-opener and Price Control Deliverable, including approval of the proposed funding allowance.

2. Investment drivers

Customer connections: The sole project driver is to facilitate the significant cluster of contracted demand connections in the Slough and West London area. The project responds to sustained customer demand and supports implementation of the reformed connections process.

Strategic network need: Uxbridge Moor will provide the network capacity required to support economic growth and investment across West London and the wider UK.

3. Options

The optioneering undertaken at Final Needs Case was not revisited. An updated cost benefit analysis (CBA) was completed as part of the Project Assessment using the shortlisted options presented at FNC:

- **Option E-1**: New 400kV AIS and 132kV AIS substation.
- **Option E-2**: New 400kV AIS and 132kV SF_6-free GIS substation.
- **Option E-3:** New 400kV SF_6-free GIS and 132kV SF_6-free GIS substation **(Preferred option)**.

We reached the same conclusions as at FNC. While Option E-2 delivered a marginally higher monetised NPV due to its lower forecast cost, our assessment concluded that Option E-3 provides the best overall outcome for consumers, reflecting its reduced planning and delivery risk, lower environmental impact and greater confidence in achieving the required customer connection programme.

4. Preferred solution

The preferred solution being delivered is Option E-3: a new 400kV and 132kV SF_6-free GIS substation at Uxbridge Moor.

Key benefits of this solution include:

- Its compact design minimises the land required within the Green Belt, reducing planning and consenting impacts on the delivery programme compared with the larger alternative options.
- By reducing these planning and consenting impacts, the solution provides greater confidence in maintaining the programme and achieving the required network access arrangements.
- It deploys SF_6-free GIS technology, supporting alignment with net-zero objectives.

5. Cost and consumer value

The project's cost position has been established through design development, market evidence, commercial challenge and independent assurance. Our Benchmarking assessment indicates that the project's costs are generally within or below relevant internal and external comparator ranges, providing confidence that the proposed investment represents value for consumers.

6. Delivery

The delivery programme is supported by the maturity of the design, progress with enabling works and early procurement of critical equipment. Established delivery arrangements with our delivery partners, together with structured governance and risk management processes, provide confidence in the delivery programme.