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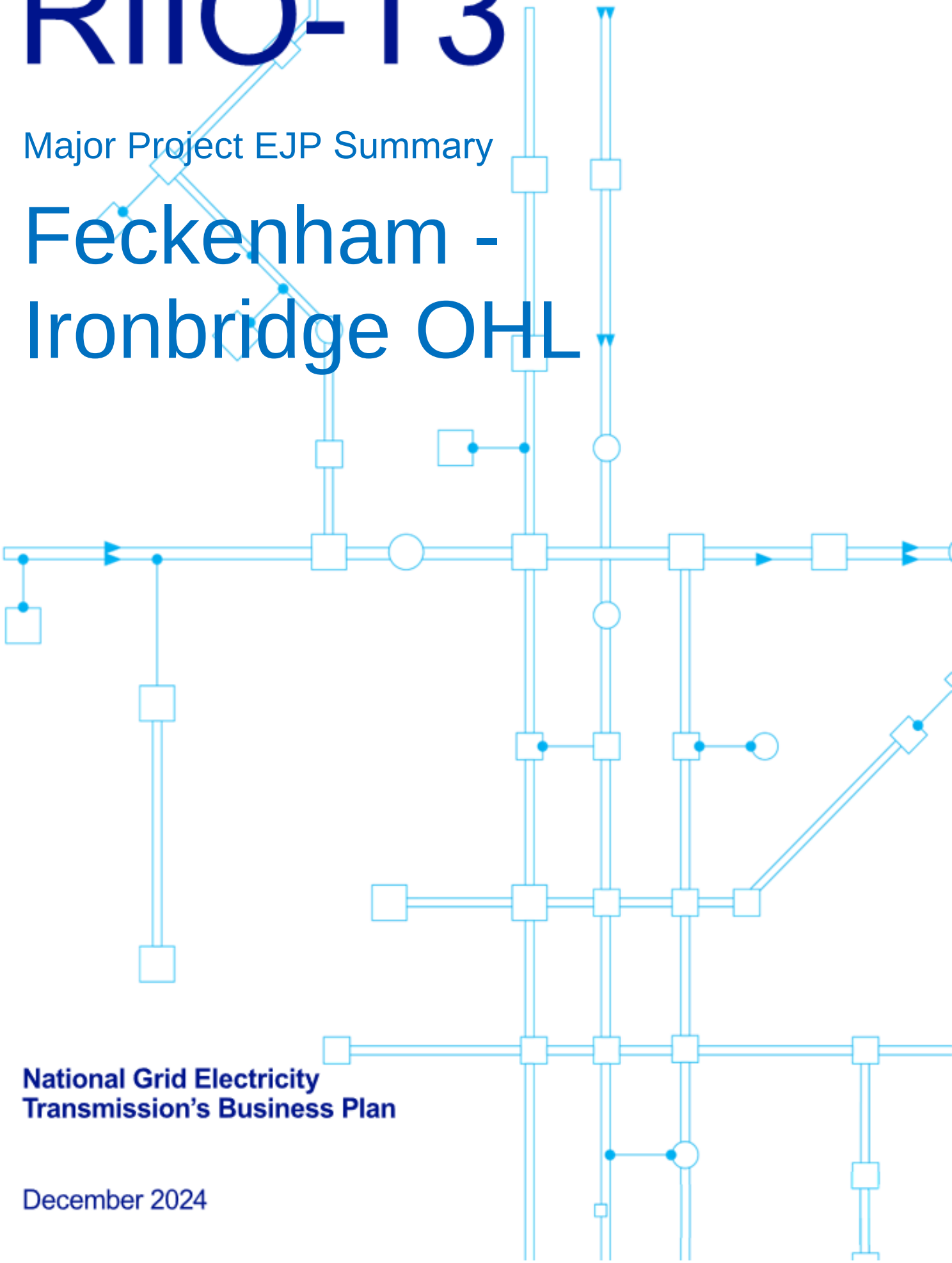
RIIO-T3

Major Project EJP Summary

Feckenham - Ironbridge OHL



National Grid Electricity Transmission's Business Plan

December 2024

Feckenham – Ironbridge OHL

Executive Summary

Background

The Feckenham-Ironbridge Overhead Line (OHL) reconductoring project, referred to as IFR1, is a significant initiative under the National Grid Electricity Transmission's (NGET) business plan for RIIO-ET3. The Feckenham-Ironbridge circuit is a vital link in the west-to-south power transfer corridor, which supports electricity transmission from high-generation areas in North Wales and Ironbridge, to the high-demand South Coast and interconnectors. This project aims to address the thermal limitations of the 400kV overhead line infrastructure, enhancing its capacity to cater to higher electrical loads and ensuring the reliability and security of the transmission network.

Investment Drivers

The primary driver for this investment is to contribute towards meeting power transfer requirements across the SC1Rev boundary. This requirement is highlighted in the Network Options Assessment (NOA7) refresh and supported by a Holistic Network Design (HND) essential signal. To contribute to this aim, it was identified that reconductoring this circuit would enhance the SC1Rev boundary capability by approximately 700MW. The project must be delivered by 2030 to meet strategic network demands. However, to align with customer connections and regional upgrades, the completion target is set for 2028.

Additionally, the project addresses growing customer demand and planned connections, as identified in the Transmission Works Review (TWR). The Feckenham-Ironbridge circuit faces significant thermal constraints due to increasing customer connections in the region, necessitating urgent reinforcement.

Options

An assessment of options was undertaken to formulate the investment proposal. Key outputs and benefits considered were:

- Achieve post-fault winter rating of 3100MVA as a minimum requirement to meet the boundary uplift triggered in the NOA7 report.
- To be deliverable by 2028 (to enable planned connections ahead of the 2030 NOA7 need).
- Address steelwork related condition on the Feckenham – Ironbridge circuit.
- Consider opportunity to provide further capacity to address potential future needs.

Preferred Solution

The preferred solution is to reconductor the entire Feckenham-Ironbridge circuit. This option was selected for its ability to deliver the required capacity increase, enhance network reliability, and future-proof the infrastructure for anticipated load growth. The reconductoring will increase the circuit's winter post-fault rating.

Timeline

The project timeline includes several key milestones including ecological surveys and Front-End Engineering Design (FEED) activities, pre-works and main works procurement and mobilisation. The project is proposed for completion by December 2028 as per the NOA signal.