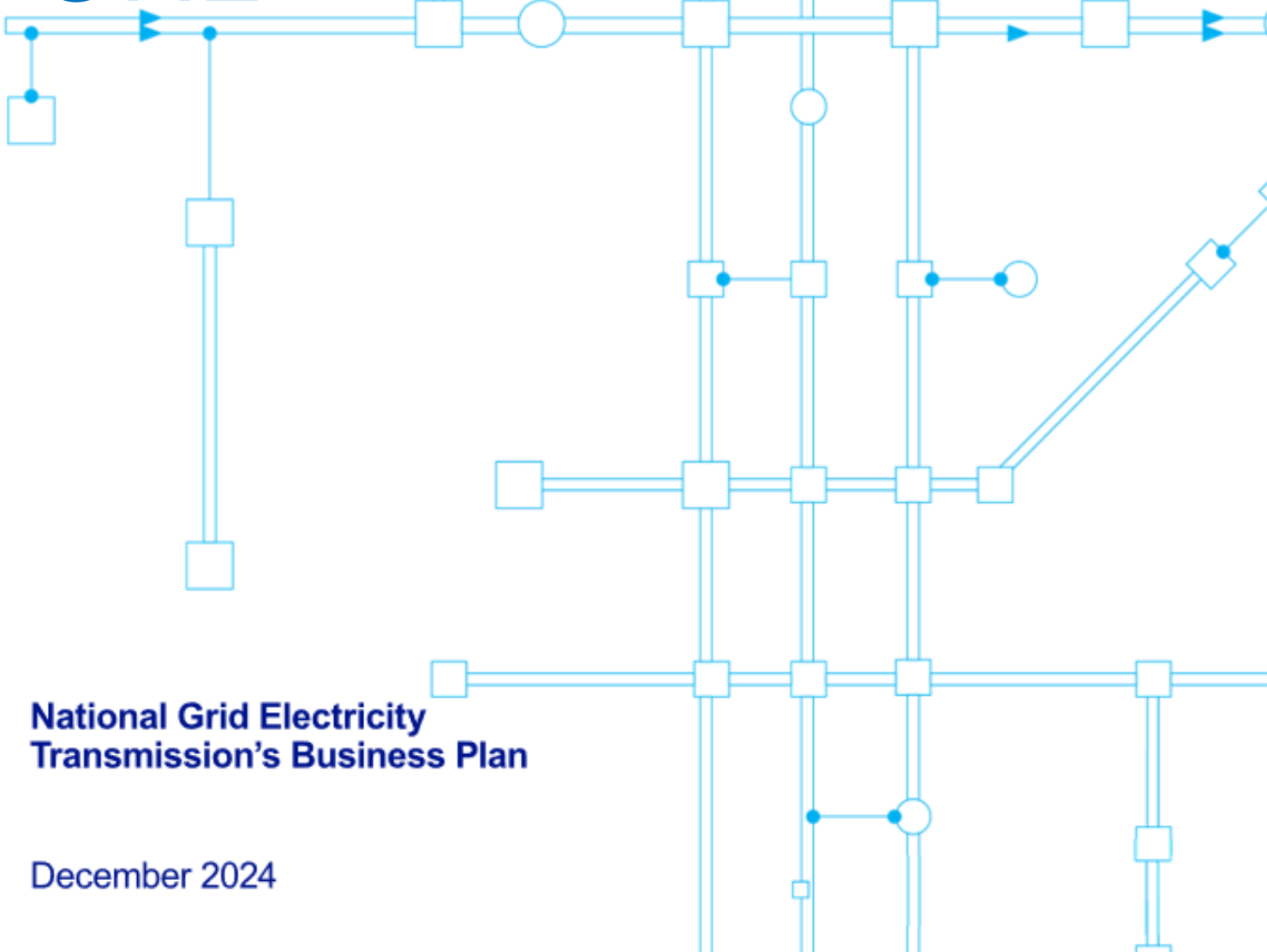


RIIO-T3

Major Projects EJP Summary

SCRE (COTT4 - STAY4) and WRRE (WBUR4 - RATS4) OHL



SCRE (COTT4 – STAY4) and WRRE (WBUR4 – RATS4) OHL

Executive Summary

Background

The SCRE (COTT4 - STAY4) and WRRE (WBUR4 - RATS4) OHL projects involve uprating existing 400kV overhead line (OHL) single circuits to relieve network constraints due to the forecasted increase in new generation. The WRRE project aims to upgrade the West Burton to High Marnham, High Marnham to Stoke Bardolph, and Ratcliffe-on-Soar to Stoke Bardolph circuits, while the SCRE project focuses on the Cottam to Staythorpe circuit. Together, these projects support the EDEU (Brinsworth to High Marnham Uprating project) by providing essential power flow routes out of the High Marnham area.

Investment Drivers

The primary driver for these investments is to enhance the B8 and B7a system boundaries, alleviating constraints due to new generation. In combination with EDEU, the projects will provide a 1075MW uplift for the B8 boundary and a 1739MW uplift for the B7a boundary. Secondary drivers include enabling works for customer connections and addressing asset health requirements.

Options

An assessment of options was undertaken, underpinned by a core assumption that reduction of forecast north-south power flow constraints is “essential” to achieving the pathway to 2030 in the UK electricity network. The key outputs and benefits considered included achieving a post-fault winter rating of 3110 MVA for SCRE and 3030 MVA for WRRE, addressing steelwork-related conditions, and providing additional capacity to meet future needs.

Preferred Solution

The preferred option is to reconductor these circuits with uprated conductors. This solution will:

- Increase thermal capacity, enabling power flow out of High Marnham substation, which will enhance the capability of the B8 and B7a system boundaries.
- Provide over 2.5GW of additional customer connection capacity
- Support our RIIO-ET3 ambition pillars to:
 - Deliver the grid of tomorrow by integrating new renewable generation and addressing transmission system constraints.
 - Do the right thing for consumers, communities, and the environment by minimizing environmental impact and stakeholder disruption.

Timeline

The projects are proposed to be completed by the end of December 2028. Development steps include underground cable studies, selecting underground cable solutions by December 2024, and carrying out development in Q1 2025. The projects will be delivered via the Great Grid Partnership to seek opportunities for accelerated delivery.