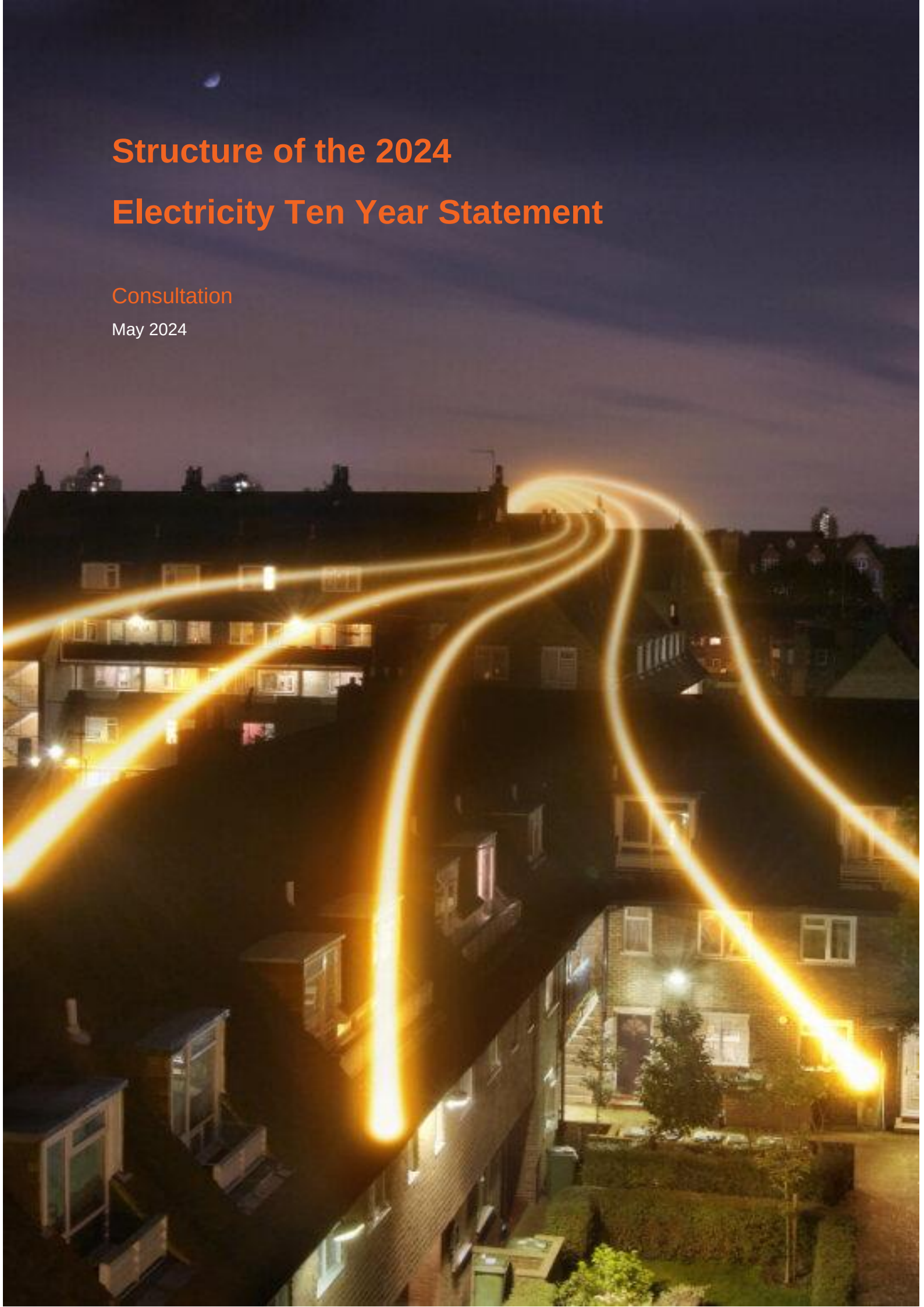
Structure of the 2024 Electricity Ten Year Statement

Consultation

May 2024



Overview

The Electricity Ten Year Statement (ETYS), is one of the Electricity System Operator's (ESO) annual publications which we produce to help inform future decisions on Great Britain's (GB) electricity networks. The ETYS aims to encourage innovation and inform developments that ensure a secure, sustainable, and affordable energy future.

In line with our ambition to be a trusted partner, we work collaboratively with stakeholders on the ETYS – sharing ideas and seeking feedback to inform our plans for the future. We published the latest edition of ETYS in August 2023 incorporating stakeholder feedback from the 2022 document.

The Beyond 2030 report was released in mid-March and builds on top of the Holistic Network Design (HND). This report makes a set of network recommendations throughout the 2030s and facilitates the connection of an extra 21GW of offshore wind, as well as a breadth of other low carbon generation across Britain.

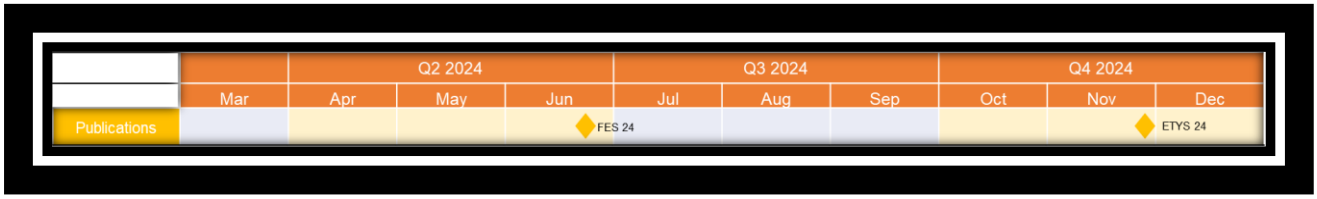
This transitional plan was a stepping-stone before we develop the fully Centralised Strategic Network Plan which is planned to be published in 2026.

This may be the final publication of the ETYS. The CSNP will be expected to take over in showing the transmission network requirements, meaning that any information contained in ETYS will move to the CSNP. Further information on the development of the CSNP methodology will follow over Summer and Autumn 2024.

We would like your views on our proposed structure of the ETYS.

We intend on making **minimal revision** to the structure of the next ETYS in expectation of significant changes in the following CSNP.

This consultation on the proposed structure of the 2024 ETYS sets out how we think this document should evolve to better meet your needs. We will include any feedback on ETYS 2023 already given to us.



How can you get involved?

Your views are incredibly important to help us shape the document. We hope you find this consultation useful in letting us know your area of interest and how we can continue to make improvements to the ETYS. You can participate in the survey by clicking here which will be open until the **20th May 2024**.

Thank you in advance for your feedback.

How we improved ETYS 2023

What's new?

Following the publication of the ETYS 2022, we engaged with all of our stakeholders through surveys and emails, on both how we can improve the document and what content is useful to our readers.

Our ETYS analysis – Boundary study methodology

After consulting internally, it was agreed that there was some difficulty in stakeholders understanding the way we undertake our boundary study methodology.

To tackle this issue, we decided to introduce a new chapter called *our ETYS analysis*, which is a variation of *ETYS and our future network planning process*. Like previous publications, we gave a backdrop of where we are - in terms of structure of the document and information we are showing. At the end of the chapter, we explain in more detail how we have completed our thermal and voltage analysis.

Voltage screening – Regional Drivers

Our ambition consulting last year, was to communicate a long-term view of year-round voltage needs in ETYS with more specific procurement needs communicated through our reactive markets, which are still under development.

Voltage screening was presented for the first time in the ETYS 2023 publication and was shown from a regional perspective (Regional voltage drivers.) Highlighted areas on our NETS regional diagrams showed areas identified through our voltage screening process that could face voltage needs over the next 10 years.

These areas have been identified through our annual voltage screening process outlined in the new "Our ETYS analysis" section and is included in our NOA Methodology. These charts were accompanied by a general commentary surrounding voltage behaviour in the regional area.

Our year-round system needs – further examples.

We have continued to develop our year-round thermal tool, POUYA (Power Uncertainty Year-round Analyser). It allows us to capture the power transfer limitations on the GB NETS not only during the Winter but also across the other seasons during the year, driven by the seasonal characteristics of generation, demand and considering circuit ratings appropriate for the different seasons.

Building on the examples set in ETYS 2022 with boundary B6, we completed a year 1, year-round analysis on four boundaries, B4, B6, B7a and LE1.

Further work is still ongoing to develop tools and techniques to allow year-round long-term stability analysis (via automation). While we develop our analytical capabilities, we will continue to communicate stability needs via our dedicated stability pathfinder page. As our tools and processes mature, we will integrate a long-term view of stability needs within ETYS.

An update following the Beyond 2030 report

Future boundary capabilities

For ETYS 2023, we added to the ETYS boundary charts, an indicative boundary transfer capability based on the 2021/22 NOA refresh optimal path. The NOA future capability lines on our boundary charts were updated following the beyond 2030 report offering a much clearer indicative view of the NETS capability, when accounting for recommended options.

Webpage Format/PDF Publication

ETYS 2023 was the fourth web-based publication of the ETYS, we utilised all the feedback we received on ETYS 2022 to shape ETYS 2023 and have continued to make improvements so that our web version is easier to use for our readers.

Proposed structure of the ETYS 2024

The way we communicate our system requirements is changing to align with the Centralised Strategic Network Plan (CSNP.) We will release our ETYS publication by **30th November 2024.**

The ETYS communicates the system needs by publishing boundary capabilities, future requirements, and power flows on each part of the NETS for the next 10 years. With this focus in mind, we are proposing the structure of the 2024 ETYS as follows:

Introduction + Key messages

This section provides an overview of the background to the document, defines the purpose of the ETYS, and how the ETYS fits into the suite of our Future of Energy documents.

Our ETYS Analysis

This section describes the information and data we use in our analysis. We build our analysis on the GB Future Energy Scenarios (FES) data. Using this data and the NETS Security and Quality of Supply Standard (SQSS) criteria, we produce credible generation and demand backgrounds against which to assess the capability of the NETS. We will communicate on a high level how our base capabilities for each boundary across the NETS is studied, while appropriately referring to the SQSS.

Electricity Transmission Network Requirements

Regional Thermal drivers

These sections break up the country into different key areas while explaining the current and future Generation and Demand backgrounds as predicted by our Future Energy Scenarios (FES.) These charts were accompanied by a general commentary surrounding Thermal needs in the area.

Regional Voltage Drivers

Highlighted areas on our NETS regional diagrams showed areas identified through our voltage screening process on the NETS that could face voltage needs over the next 10 years. These areas have been identified through our annual voltage screening process outlined in the “Our ETYS analysis” section and is included in our NOA Methodology. These charts were accompanied by a general commentary surrounding voltage behaviour in the regional area.

Calculated requirements from FES 24

Based on the FES and NETS SQSS, this section describes the current winter peak capability of the NETS, and what we think the projected future requirements on the system will be for the next decade and beyond. The system requirements from this chapter will be used by the CSNP process to develop and recommend future network development options.

We will communicate projected boundary capabilities from the Beyond 2030 report, for each boundary with updated Power flow diagrams per FES 2024.

We will double-check with all appropriate TO’s regarding any major infrastructure changes ahead of publication release (November.)

Further information

Traditional format e.g... meet the team/Glossary of terms.

ETYS Technical appendices

Here we publish the data in line with our license requirement and use the criteria below to decide what information we should provide as appendices of the ETYS:

- we can share the information permitted in our role as System Operator,
- the information is not already available from other System Operator or network owners/operators' publications, and
- information that you have told us that is useful and valuable to you.

With the above criteria in mind, we will continue to include the following appendices in ETYS 2024:

- System schematics and geographic diagrams
- System technical data
- Fault level data

Survey

Your feedback is at the heart of improvements made to ETYS every year. This year we are asking the questions below in our survey:

Question 1: Does the proposed structure of the ETYS meet your needs, and do you think that it covers all of the areas that you would expect to find in the ETYS?

Question 2: Are there any topics relating to the national electricity transmission system (NETS) capability requirements that you would like us to further explore?

Question 3: What are your views on the proposed ETYS appendices? Do they meet your needs, and do you think they cover all the areas that should be in the ETYS?

Question 4: As the ETYS evolves into part of our wider CSNP - we are moving towards providing information on year-round thermal requirements on the NETS, will this be useful for you? What kind of information or data would be most useful to you?