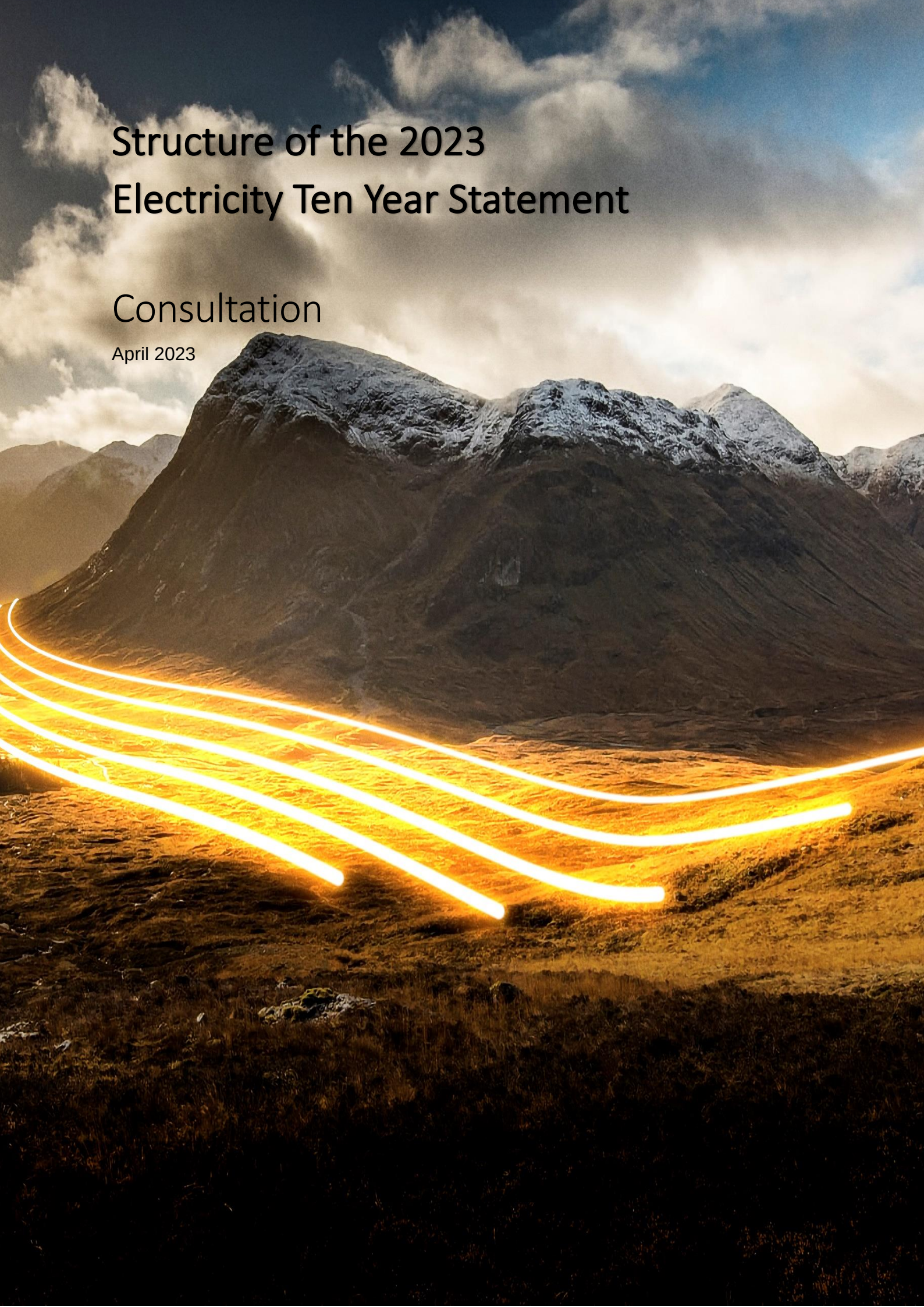


Structure of the 2023 Electricity Ten Year Statement

Consultation

April 2023

Contents

Overview

The Electricity Ten Year Statement (ETYS), is the Electricity System Operator's (ESO) view of future transmission requirements and the capability of Great Britain's National Electricity Transmission System (NETS) over the next 10 to 20 years. The ETYS is important in helping us to understand where investment and development is needed to help us achieve our zero-carbon ambition.

We value the feedback we receive from our stakeholders and every year we work collaboratively with you, sharing ideas and seeking feedback to inform our plans for the ETYS. Thank you for all the feedback provided which we incorporated as we developed our latest edition of ETYS 2022.

Our network planning process is changing as we are transitioning to a new Centralised Strategic Network Plan (CSNP). We are working in collaboration with Ofgem on the Electricity Transmission Network Planning Review (ETNPR) to review our network planning processes, ensuring that the network design and investment processes in Great Britain are fit for the future. During this transition there will be some iterations of a transitional CSNP (tCSNP) to continue informing network planning and investment decision whist we develop the enduring CSNP process. The second iteration of the tCSNP - tCSNP2 is being published at the end of December 2023 and we plan to integrate our ETYS process into this.

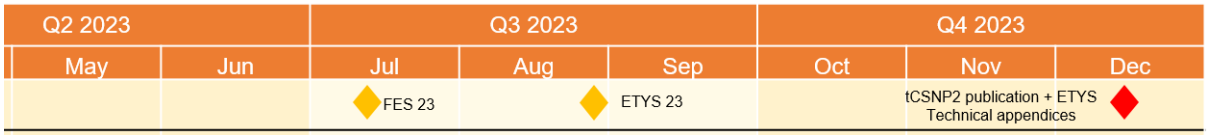
We welcome your views for ETYS 2023

We are consulting on the proposed structure of the ETYS 2023 and how we would like the ETYS publication to evolve to better meet your needs. We will include any feedback on ETYS 2022 already given to us.

ETYS 2023 will form part of the second Transitional Centralised Strategic Network Plan (tCSNP2). We are proposing an early ETYS 2023 publication released at the end of August 2023, with all technical appendices published alongside the tCSNP2 final document in December 2023 (subject to Ofgem derogation).

Early publication of ETYS will allow for more time between the communication of system requirements in the ETYS, and the Network Options Assessment process (Traditionally the NOA.) Publishing the technical appendices alongside tCSNP2 allows us to tell a coherent story that considers the latest investment decisions made in tCSNP2. We will be seeking a derogation from Ofgem to allow us to publish the technical appendices alongside the tCSNP2 in December rather than by the end of November as required by our license.

Please see the proposed timeline below:



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 **thoughts on the changes we are making to ETYS** and how we can continue to make improvements to the ETYS. You can participate in the survey by **clicking here**. **The survey will close at** 5PM on Monday, 15 May 2023.

Thank you in advance for your feedback.

How we improved ETYS 2022

What was new in ETYS 2022

We are continuing to develop our tools to allow us to expand our view of system needs. This year, we showcased some examples of how year-round thermal system needs could be communicated. Traditionally, the ETYS looks at a single snapshot for the winter peak against which we look to secure the network. Using our in-house year-round thermal probabilistic tool, we can analyse year-round system needs by assessing the network against a range of snapshots across all seasons and subsequently identify a wider range of system needs.

We provided updates on ongoing tool development to expand our long-term view of year-round voltage needs that will support our future reactive markets. We also highlighted ongoing work and innovation project to develop tools and techniques to allow year-round long-term stability analysis. Once our tools and processes mature, we will integrate a long-term view of stability needs within ETYS.

We highlighted the outcomes of our review on whether needs at Transmission/Distribution interface could be communicated in ETYS. This was progressed as part of ENA Open Networks group, where we agreed for the Transmission Owners to provide a view of Earliest in Service Dates (EISDs) for all Grid Supply Points (GSPs) at the Transmission/Distribution Interface to be included within the DNO Network Scenario Headroom Reports which will be published in May 2023. For more information on this, please see the Form of Statement of Network Development Plans - 2022 Update published by ENA Open networks in December 2022.

An update on our Transitional Centralised Strategic Network Plan

Our network planning process is undergoing major transformation as we transition to the Centralised Strategic Network Plan.

The ESO is working in collaboration with Ofgem on the Electricity Transmission Network Planning Review (ETNPR) to review our network planning processes to ensure that the network design and investment processes in Great Britain are fit for the future. To meet our ambitious decarbonisation targets, the pace and scale of our Electricity Network planning processes must change.

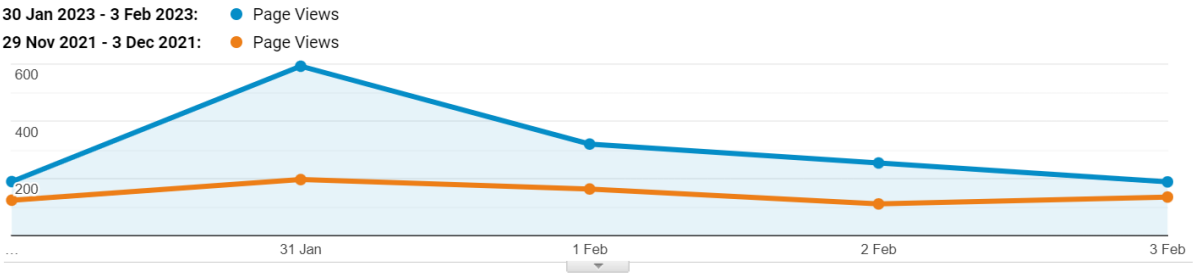
We are moving away from an annual network planning assessment cycle to a new Centralised Strategic Network Plan (CSNP). The CSNP will proactively identify, design and progress investments in the network and will ensure that the transmission network is planned holistically, onshore and offshore as the country continues its transition towards Net Zero.

Webpage Format/PDF Publication

ETYS 2022 was the third web-based publication of the ETYS, we utilised all the feedback we received on ETYS 2021 to shape ETYS 2022 and have continued to make improvements so that our web version of ETYS 2022 is easier to use for our readers.

This year, on our website we provided updates on our future network planning process as we transition to the Centralised Strategic Network Plan, and how we are improving ETYS to integrate a wider range of system needs.

Communicating ETYS as webpage content as well as in the downloadable PDF document has helped to boost our readership. Within the first week after launching ETYS 2022, each of the webpages saw roughly double the traffic that they did following the launch of ETYS 2021. Views of the ETYS publication web page were up 111.66% (1,543 for ETYS 2022 vs 729 for ETYS 2021) while views of the regional boundary web pages were up 157.38% (610 for ETYS 2022 vs 237 for ETYS 2021.)



To date, for ETYS 2022 there has been over 1200 downloads of the PDF publication and over 5200 website page views to date since the release of ETYS 2022, Showing the success of our website-based publication in helping the ETYS to reach a wider audience.

Structure of the ETYS 2023

The way we communicate our system requirements is changing to align with the transitional Centralised Strategic Network Plan (tCSNP2). We will release our ETYS publication by end of August 2023 and subject to a derogation from Ofgem, will look to align our technical appendices and model data to the tCSNP2 publication in December 2023.

The ETYS communicates the system needs by publishing the current boundary capabilities, future requirements, and power flows on each part of the transmission system for the next 10 to 20 years. With this focus in mind, we are proposing the structure of the 2023 ETYS as follows:

Introduction and 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 network planning documents. We will also provide readers with an update on the wider tCSNP2 process including expected timelines and key deliverables.

Summary of ETYS methodology

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 are studied, while appropriately referring to the SQSS.

Electricity Transmission Network Requirements

Future requirements

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 inform the tCSNP2 process to develop and recommend network development options. We will communicate traditional base capabilities for each boundary with updated Power flow diagrams based on FES 2023.

Year-round system needs

The most challenging system needs may not only arise at winter peak, other periods such as at low demand in the summer may also give rise to demanding network conditions. Building upon our work in ETYS 2022, we will include year-round thermal needs in the 2023 publication.

Voltage Screening

Voltage screening has traditionally been published as a separate report however this year we will integrate our voltage analysis into the ETYS publication. Voltage Screening is undertaken on a regional basis, so results and key aspects of the screening process will be published in ETYS this year.

Ongoing Development

We will provide updates on our ongoing tools development work for:

- Stability
- Voltage

Further information

Further information section will be structured the same as historic ETYS publications e.g., with a “Meet the team” section and glossary.

ETYS content in the tCSNP2 publication – December 2023

ETYS Technical appendices

We will be seeking a derogation from Ofgem to allow us to delay the publication of the ETYS technical appendices from end of November to December 2023. This will apply to all the ETYS technical appendices A to I. Publishing the technical appendices alongside tCSNP2 allows us to tell a coherent story that considers the latest investment decisions made in tCSNP2.

The technical appendices are published in line with our license requirement and we 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 information in our technical appendices:

- System schematics and geographic maps
- System technical data
- Fault level data
- Transmission losses

Survey

Your feedback is at the heart of improvements made to ETYS every year. We encourage you to participate in the survey by **clicking here.** **The survey will close at** 5PM on Monday, 15 May 2023.