

Structure of the 2021 Electricity Ten Year Statement

Consultation

April 2021



Overview (Licence obligation C11)

The [Electricity Ten Year Statement \(ETYS\)](#), is an annual publication put together by the Electricity System Operator (ESO) to help inform future decisions in GB's 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 our ideas and seeking feedback to inform our plans for the future. We published the latest edition of ETYS in November 2020, incorporating stakeholder feedback from the 2019 document.

We are revising the structure of our 2021 Electricity Ten Year Statement (ETYS) and would like your views on our proposal.

This consultation on the proposed structure of the 2021 ETYS sets out how we think this document should evolve to better meet your needs. We will include any feedback on ETYS 2020 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 **5PM on Friday, 14 May 2021**.

Thank you in advance for your feedback.

How we improved ETYS 2020

Following the publication of the ETYS 2019, we engaged with all our stakeholders through surveys and emails on how we could improve the document and what is useful to our readers.

Listening to stakeholder feedback

Over the last few years, and in response to your feedback, we have expanded our suite of ESO publications to now include the [Operability Strategy Report](#) and focused the content of the [Network Options Assessment \(NOA\)](#). To improve the information we give you, and to help navigation through our documents, we want to have clear focus of discussion in each document. The Operability Strategy Report presents the future operability challenges and strategy, the ETYS presents the current National Electricity Transmission System (NETS) capability and its future requirements, and the NOA presents the network development options available together with our recommended options to meet reinforcement requirements of the NETS.

This is aligned with our [RIIO-2 Business Plan](#) where we made commitments to work with industry to increase the number of stakeholders engaging with this process, enhance our analytical capabilities to ensure we plan the right level of investment for an increasingly complex network, to identify the best ways to communicate transmission network needs, and to review how best to signal requirements for the whole electricity system.

From April 2021 we have entered the RIIO-2 period. This is our first price control period as a legally separate ESO. It provides an exciting opportunity for us to demonstrate how we can be more transparent, agile and innovative to enable the transition to a sustainable energy future. Ours is a stakeholder-led business plan, where by working together, we have made sure that what we will deliver reflects the priorities of our customers and stakeholders, to ultimately drive real benefits for consumers.

We used the feedback gathered on the 2019 publication and here were some of the improvements in the ETYS 2020:

Probabilistic Analysis

Included in the 2020 ETYS was a section covering the methodology for the probabilistic analysis that we are working on for future ETYS publications. The probabilistic modelling tool for the ETYS 2020 was improved by consider post fault action and tapping quadrature booster to optimise line loading.

Improved system requirements form (SRF)

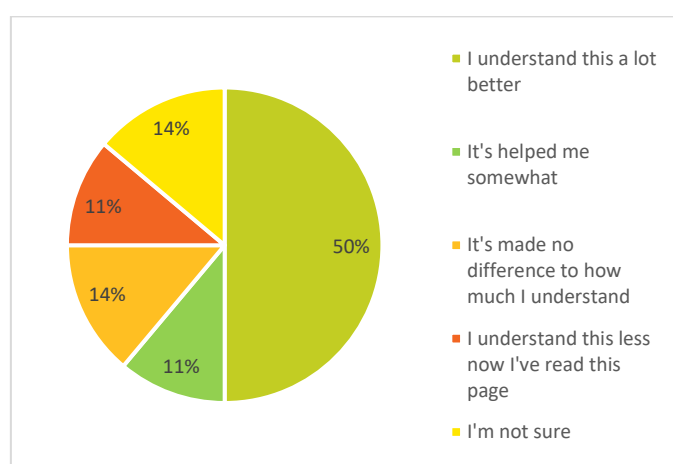
For ETYS 2020, we also published the SRF Part A publicly as a step in our pathway to facilitate options from a broader range of participants and increase transparency in our ETYS process.

Webpage Format

We published the ETYS using a webpage format rather than only having a printable PDF (PDF was still available), this allowed us to convey the information within ETYS in a more easily readable and engaging format.

For ETYS 2020, we developed the graphs in such a way where our readers could hover over the graph and get the values of the expected power flows and the boundary capabilities. This was an enhancement to make the graphics in the publication more interactive in comparison to previous years.

We are continuing to bring more interactive content this year by working on an interactive map of the transmission system. This will allow users to pan around the transmission network in a more creative manner enhancing the graphics published in the appendices.



We looked at the feedback provided from the mini-surveys on the web version of the ETYS 2020. We found that 61% of our readers had an improved understanding of ETYS in the new website format, whilst 11% were reported to have understood it less. We will continue to engage with everyone this way and learn what stakeholders found valuable in the ETYS, how we could improve it and make it more relevant in highlighting system need.

Survey

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

Question 1: What are your views on the purpose and proposed structure of the ETYS? Do they meet your needs, and do you think they cover all the areas that should be 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: ETYS 2020 was published in a print-ready web friendly format. What are your thoughts on the ETYS being communicated this way only, instead of the option for the portable document format (PDF) going forwards?

Question 4: In ETYS 2020, we presented updated methodology and analysis to the probabilistic section. Would you like to see this as a separate document with more information and results or see this in the ETYS?

Question 5: Do you think that our boundary transfer graphs are clear and easy to understand? How can we improve how we communicate future capability requirements?

Question 6: 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 7: How do you use the ETYS document and its contents - i.e. what is your purpose for reading it and what are you looking to learn from it?

How do we use your feedback?

This year we would also like to thank everyone who provided feedback on the website by filling out the mini surveys. We listened and responded to all the feedback that we received. This was particularly helpful on our launch day in the new web format as we were resolving any issues being reported as quickly as possible.

We will be using these responses, together with the feedback from this consultation survey, to shape the structure of ETYS 2021 and in the future.

Structure of the 2021 ETYS

The ETYS communicates the system needs by publishing the current boundary capabilities, future requirements, and power flows on each part of the national electricity transmission system for the next 10 years. With this focus in mind, we are proposing the structure of the 2021 ETYS as follows:

Introduction

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 Future of Energy documents. This section also discusses how the ETYS differs from the European Network of Transmission System Operators for Electricity (ENTSO-E) Ten Year Network Development Plan (TYNDP).

Input for the 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.

The Electricity transmission network capability and 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 will be used by the NOA process to develop and recommend network development options.

We also recognise that the most challenging system needs might no longer be just at winter peak, but that other periods such as at low demand in the summer may also give rise to demanding network conditions. We will continue to develop our probabilistic analysis tools and regional planning to identify year-round thermal and voltage requirements. For ETYS 2021 we are proposing to separate the probabilistic analysis chapter that was included in ETYS 2020 out of the ETYS and into its own methodology.

We have improved the SRF part A to contain more of the information that goes into the final ETYS, the new SRF part A contains boundary required transfers, flow distribution, and constraint heat maps.

We are working on improving the constraint boundary heatmaps that we produced in ETYS 2020 to provide more clarity on how these would be affected under different scenarios.

To achieve our ESO ambition to facilitate more competition, we will evolve how we communicate and present the system needs in ETYS to help provide a better understanding of these needs and foster wider participation in the ETYS/NOA process.

The Way Forward

This section provides an overview of what our annual stakeholder engagement and activity program will be, after publishing the 2021 ETYS. It will also provide information of the timeline to publish the 2022 NOA.

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 the 2021 ETYS:

- System schematics and geographic diagrams
- System technical data
- Fault level data
- Transmission losses
- We will also include further information on inputs and methodologies.