National Grid DSO response to new report on the *Future of Security of Supply*

We are proud to publish the report Future of Security of Supply: Initial Research for National Grid DSO**.** It was written by the University of Bath as part of Network Innovation Allowance project NIA084. The project was sponsored by our Managing Director of DSO, Cathy McClay, who comments:

> *"This report gives a clear "call to action" for the electricity distribution industry to update its security of supply framework ready for the energy transition. This work will help give customers confidence that electricity can charge their cars, heat their homes, and build the businesses of tomorrow."*

We started this project because we believe that multiple factors make it time to reassess security of supply for electricity distribution:

- The decarbonisation by electrification of transport, heating & manufacturing
- The move from passive to actively operated electricity distribution systems
- The adoption of home electricity storage, both fixed and vehicle-to-grid

The National Infrastructure Commission[1] report on Electricity Distribution (February 2025) recognized that *"maintaining security of supply will remain a key objective"*. It recommended a full review of security of supply standards by the end of 2028.

Future of Security of Supply: Initial Research for National Grid DSO recommends five next steps which are listed below but not necessarily in the order of implementation:

- *Short-term Improvements to Deterministic Planning Standards*
- *Deeper Understanding of Customer Needs*
- *Option Development and Engagement*
- *Introducing Operating Standards*
- *Greater Alignment with Transmission Standards*

Our position on each of these is given below.

Short-term Improvements to Deterministic Planning Standards

The report recommends:

> *Making Short-term Improvements to Deterministic Planning Standards by reassessing the dominance test that restricts the contribution from DG, energy storage and DSR; requiring that network capacity under intact conditions is sufficient; and expressing demand groups in terms of customer numbers rather than peak demand.*

We support this recommendation. The main deterministic planning standard for electricity distribution is Engineering Recommendation P2 (*Security of Supply*), which is governed as part of the Distribution Code. There is an ongoing Distribution Code modification to update Engineering Recommendation P2 so that

[1] The National Infrastructure Commission (NIC) was replaced by the National Infrastructure and Service Transformation Authority (NISTA) in April 2025

distributed generators including electricity storage are not secured as if [2]. We believe that work can start on this recommendation once that modification is approved and implemented. Distribution Code modifications should be raised to:

- Reassess the dominance test to make best use of contributions from distributed generation and flexibility services; and
- Introduce a requirement to secure supplies when the network is intact, taking into account existing customer expectations and the developing framework for NESO access to distributed energy resources.

While we recognise the potential benefits of expressing demand groups in terms of customer numbers rather than peak demand, different methods of weighting customer classes could significantly skew security of supply. We believe that choosing a method requires *Deeper Understanding of Customer Needs*, so should be deferred until after that work.

Deeper Understanding of Customer Needs

The report recommends:

> *Gaining a Deeper Understanding of Customer Needs by analysis of the stakeholder engagement that network companies already undertake. This may need additional stakeholder engagement to cover any missing stakeholder segments.*

We support this recommendation and are keen to collaborate with industry partners to implement it. This project could lead to major changes to security of supply, which shouldn't be made before understanding what customers want and need. We are already using learning from this project to help shape the stakeholder engagement we do as part of planning for regulatory period ED3 (2028 to 2033); National Grid Electricity Distribution are holding regional ED3 stakeholder events throughout April 2026.

Option Development and Engagement

The report recommends:

> *Carrying out Option Development and Engagement using the customer needs to build on the options identified in this report.*

For context, the options identified in the report include output standards, planning standards, operating standards, and whole system alignment.

We support this recommendation and are keen to collaborate with industry partners to implement it. It depends on the outputs of *Deeper Understanding of Customer Needs*, so should wait until after that work. Implementing the options developed in this recommendation would require further code modifications.

[2] DCRP/23/04/PC, *Modification to three Security of Supply related documents - EREC P2/9, EREP 130/5 & EREP 131/4*, at https://dcode.org.uk/consultations/open-consultations/

Introducing Operating Standards

The report recommends:

> *Introducing Operating Standards to deliver safe and efficient network operating envelopes under year-round conditions.*

We wholeheartedly support this recommendation. We have already started a project with our DNO to co-develop an operational security of supply standard for NGED; a trial is scheduled to start later this year.

We propose that an industry-wide operational security of supply standard for electricity distribution is developed under code governance. This should build on learning from our internal trial and the outputs of *Deeper Understanding of Customer Needs*.

Greater Alignment with Transmission Standards

The report recommends:

> *Developing Greater Alignment with Transmission Standards at distribution in planning, operating and performance standards. This should simplify the treatment of flexibility.*

While the main planning standard for electricity distribution is Engineering Recommendation P2, electricity transmission follows the separate Security & Quality of Supply Standard (SQSS). We note that similar work has already started:

- There is an ongoing SQSS modification GSR029 to align SQSS section 3 to Engineering Recommendation P2.
- As part of Ofgem's ongoing Code Reform programme[3], the Distribution Code (to which Engineering Recommendation P2 is annexed) and SQSS are due to be consolidated into an electricity technical code along with the Grid Code and STC.

To avoid duplicating these, we propose this recommendation should wait until *Deeper Understanding of Customer Needs* is complete.

[3] https://www.ofgem.gov.uk/sites/default/files/2024-08/Implementation_of_energy_code_reform_consultation_decision.pdf