Distribution Future Energy Scenarios (SPEN_001)

Methodology

Method Statement Preparer:	Distribution Senior Engineer
Data Triage Representative:	Open Data Sharing Lead
Senior Manager Sign off:	Head of Distribution Network Planning
Dataset Title:	Distribution Future Energy Scenarios
Date of Method Statement:	January 2025
Refresh Date:	January 2026
Description of Dataset:	Our DFES provides information on potential customer demand and generation. It outlines how electricity generation and demand may evolve in our SP Distribution and SP Manweb regions over the next 30 years. Forecasts of Low Carbon Technologies, annual peak demand (with and without flexibility), and generation technologies across various scenarios out to 2050. Areas supplied by primary substations and GSPs included as GIS polygons. The data underpinning our DFES is available on our Open Data Portal under our Open Licence. It consists of 10 data tables, covering SPD and SPM, and is refreshed annually.

Production Timetable:

Provide info on: When does the process start; Key dates and milestones in the process.

This data is refreshed annually and published in May each year. The preparation for our DFES publication begins in approx. June each year. The key milestones:

1. Model development [June-October]
2. NESO FES published [July]
3. Interim results [October]
4. Stakeholder Engagement [October-November]
5. Incorporate stakeholder feedback [December]
6. Provide all the tabular appendices tables in agreed format.
7. Inform EN Communications and provide all documentation.
8. Complete data triage activities.
9. Complete DAG documentation (method statement, second person, senior manager review, and director sign off).
10. Update Open Data Portal and complete quality assurance check.
11. Publish on Open Data Portal.

A risk assessment and data triage review are conducted every six months.

Process to collate data and Source Systems:

Explain the process undertaken to collate data and detail names of systems and type of data that is extracted from each.

<u>Baseline</u> Demand:

1. Maximum group demand, firm capacities, and network group configurations from 'Load Index regulatory submission'.
2. EVs from 'DVLA dataset', processed to primary substation.
3. HPs from 'Licence Programmes register' and 'MCS' database.

<u>Baseline</u> Generation:

1. Embedded Capacity Register
2. Connected generation 1MW+ from SPD and SPM 'DGIS' trackers
3. <1MW connected generation aligns to 'M20' regulatory submission.
4. Connected 'G98' from 'Ofgem's FIT' data and 'MCS' database.
5. HH metered HV and LV generators.

<u>Forecasts:</u>

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1. Growth trends and assumptions from 'GB FES'. Where available, taken from the FES GSP view. 2. Electric vehicle uptake from 'EV-Up'. 3. 'Heat-Up' modelling used to allocate HPs. 4. SPEN pipeline of known projects taken from three sources: 'strategic project tracker', 'contracted connection in SPM + SPD DGIS tracker', and 'emerging requirements tracker'. 5. Understanding current housing stock as drivers for demand allocation and current I&C stock.
Assumptions: *Any interpretation of regulatory guidance; Any assumptions on the data source or its' application*
Our DFES assumptions are aligned with GB FES. This is based on four scenarios containing differing levels of speed of decarbonisation and levels of societal change. We have refined our assumptions and allocation methodology through extensive engagement to incorporate regional requirements.
Additional Calculations: *Any calculations applied to the data to arrive at the final data table.*
This publication includes a reconciliation to the FES building blocks at an overall licence level, for key building blocks. It also includes a regionalisation of 'CCC 6th carbon budget forecasts' for our distribution networks for the uptake of battery electric vehicles and heat pumps.
Dependencies - Information sources: *Information, if any, that comes from other sources/departments*
• RIIO-ED2 Business Plan. • Long Term Development Statement (LTDS). • District Low Carbon Technology tracker. • Load Index Tables. • Distribution Future Energy Scenarios (DFES) 2023. • Network Development Plan (NDP).
Control Points: *What checks are done during the process to confirm the accuracy of the content?*
• Internal challenge group sense check methodology/results, providing engineering insights. Full review of publication data including verification against previous publication and FES publication. • Results also verified against publications which include stakeholder strategic ambitions.