Secondary Network Data (SPEN_015)

Methodology

Method Statement Preparer:	Distribution Lead Engineer / Data Transformation and Analytics Lead GIS Analyst
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Dataset Title:	Secondary Network Data
Date of Method Statement:	March 2025
Refresh Date:	March 2026
Description of Dataset:	Secondary Network Data comprises of four data tables: 1. **SPEN Secondary Transformer Rating** - provides the rating for all secondary substations within our SP Distribution (SPD) and SP Manweb (SPM) licence areas based on any transformers associated with those secondary sites. 2. **SPEN Secondary Transformer Expected Utilisation** - Provides the expected peak utilisation of secondary transformers within our SP Distribution (SPD) and SP Manweb (SPM) licence areas. 3. **SPEN Secondary Substation Customers Connected** - Provides the number of customers supplied by each secondary substation within our SP Distribution (SPD) and SP Manweb (SPM) licence areas. 4. **SPEN Secondary Substation Upstream Primary** – Provides the linked upstream primary network group for all secondary substations within our SP Distribution (SPD) and SP Manweb (SPM) licence areas. The data underpinning our Secondary Network data is available on our Open Data Portal under our Shared Licence. It consists of 4 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 published on our Open Data Portal under the Shared Licence. It was first made available in May 2023 following a request from an external stakeholder.

Primary data table quarterly for publication. The key milestones for **data tables 1-3** are:

1. Data sourced from relevant internal systems [April].
2. Relevant processing, analysis and preparation of the data undertaken ahead of publication.
3. Provide all the tables in agreed format.
4. Complete data triage activities.
5. Update Open Data Portal and complete quality assurance check.
6. Publish on Open Data Portal.

The key milestones for **data table 4** are:

1. SPEN SPD and SPM licence area boundaries are reviewed against existing published boundaries (quarterly – third Monday of each quarter (March, June, September & December)).
2. Revised boundary files are generated.
3. Revised files are quality assured.
4. Provide all the tables in agreed format.
5. Complete data triage activities.
6. Publish on Open Data Portal.

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

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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.*

Secondary Transformer Rating of the ground mounted transformers (GMTs) and pole mounted transformers (PMTs) is obtained from SAP. If there are missing values in the current year's dataset, previous year's data are used, where applicable.

SPEN Secondary Transformer Expected Utilisation for GMTs is calculated using the following data sources: The most recent 12-month 'LV monitoring data'. 'Maximum Demand Indicator (MDI) measurements' from the most recent five years. Previous year 'utilisation values'.

SPEN Secondary Substation Customers Connected data for our GMTs / PMTs obtained.

SPEN Secondary Substation Upstream Primary data table: Data sourced from 'GIS Database'. Boundary data extracted into standalone GIS files covering our secondary network, distribution transformers and primary substations. Extracted data processed to include relevant information / attributes.

Assumptions: *Any interpretation of regulatory guidance; Any assumptions on the data source or its' application*

SPEN Secondary Transformer Expected Utilisation data preparation is in accordance with the ENA Engineering Report 142 on Secondary Transformer Utilisation Industry Methodology.

Additional Calculations: *Any calculations applied to the data to arrive at the final data table.*

- **Secondary Transformer Expected Utilisation** (in per unit) is calculated by dividing the estimated peak loading of the transformer (in kVA) by the nameplate rating of that transformer (in kVA).
- **SPEN Secondary Transformer Expected Utilisation** for PMTs is calculated based on after diversity maximum demand (ADMD) values, as these sites are not monitored.
- **SPEN Secondary Substation Upstream Primary**: the number of distribution transformers associated with each secondary substation is calculated based on predefined relationships between the two source datasets, and this count is included in the output file.

Dependencies - Information sources:
Information, if any, that comes from other sources/departments

1. 'LV monitoring data'.
2. 'MDI measurements, customer numbers and transformer rating'.
3. Validation of customer numbers to source.

Control Points:
What checks are done during the process to confirm the accuracy of the content?

- The data is compared against previous submission, to check for any significant deviations that require verification on a site-by-site basis. Output files are checked to ensure they contain all relevant assets, and that they contain the agreed attribute information.