

# NORDA BETA

NEAR REAL-TIME DATA ACCESS

## PORTAL OVERVIEW GUIDE

May 2023



Scottish & Southern  
Electricity Networks



# NeRDA : Overview

- Recommendations from the Energy Data Taskforce<sup>1</sup>, that making near **real-time data** accessible from distribution networks is essential to help facilitate economic and efficient development and operations in the transition to a low carbon economy.
- NeRDA is focused on providing access to near **real-time** data to our stakeholders.
- The original demonstration project focused on sharing data from **Oxfordshire** and **Green Recovery** areas in the north of Scotland.
- NeRDA has now been **expanded** to include near real-time data from **across our entire network** in both SEPD and SHEPD regions.
- Real time data is **now available** through the NeRDA API and Dashboard.

1. Energy Data Taskforce (2022) [A Strategy for a Modern Digitalised Energy System: Energy Data Taskforce Report](#)

# NeRDA : Overview

NeRDA users have two options to view data:

- Navigating directly through the Dashboard portal which does not require login.
- Accessing real-time data via APIs which requires registering for a login.

The screenshot shows the NeRDA DASHBOARDS BETA website. At the top, there is a header with the logo and the text "NeRDA DASHBOARDS BETA" and "Scottish & Southern Electricity Networks". Below the header, there is a main content area with the heading "WELCOME TO THE NeRDA PORTAL". The main content area contains several paragraphs of text and a section titled "ACCESS NeRDA" with two buttons: "Dashboard Portal" and "API Access". Below this is a "USEFUL LINKS" section with four links: "NeRDA Dashboards Overview Guide", "NeRDA APIs User Guide", "NeRDA Data types/Definitions", and "NeRDA Feedback & Contact". At the bottom, there is a "NeRDA Dashboards Beta" section with a disclaimer and a link to "Please send your feedback here".

Callouts in the image:

- "View real-time data via the Dashboard Portal" points to the "Dashboard Portal" button.
- "API Login access" points to the "API Access" button.
- "View page explaining API Access" points to the "API Access" button.
- "Links to NeRDA Guides" points to the "NeRDA APIs User Guide" link.

# NeRDA : Portal Overview

On accessing the portal users will be presented with a geographic view of our network.

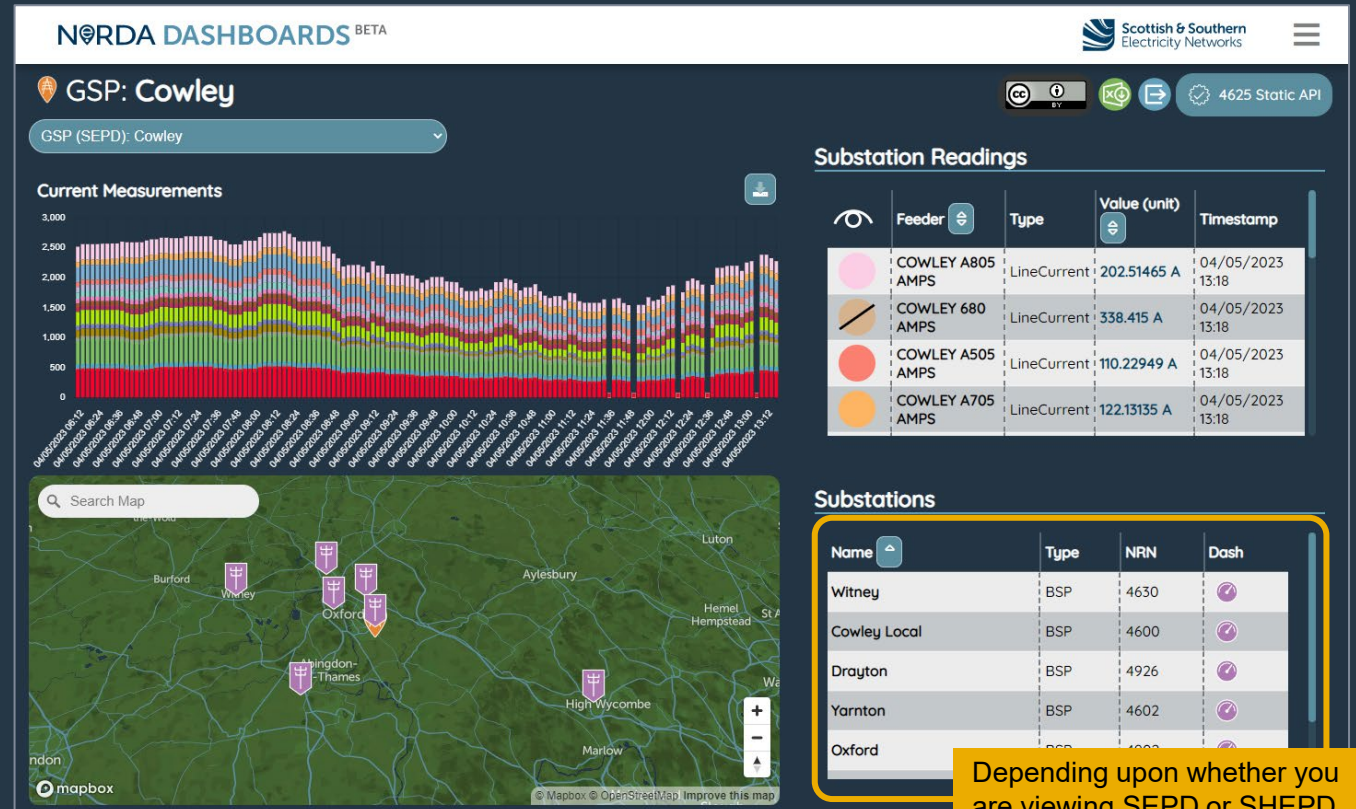
They can then navigate to a particular **GSP** (Grid Supply Point) or **BSP** (Bulk Supply Point) using the map or the drop down panels on the right hand side. The search panel also gives the ability to search directly for a substation.

The screenshot displays the NeRDA DASHBOARDS BETA interface. At the top, it features the title 'NeRDA DASHBOARDS BETA' and the 'Scottish & Southern Electricity Networks' logo. The main content area is titled 'GSPs and BSPs' and includes a 'Search Map' input field. A map of the United Kingdom and surrounding regions is shown, with orange icons representing Grid Supply Points (GSPs) and purple icons representing Bulk Supply Points (BSPs). A 'Key' legend identifies these icons. On the right side, there is a 'Search Panel' with a search input field and a list of substation names, including Abernethy, Alness, Arbroath, Beauly, Boat Of Garten, Braco West, Bridge Of Dun, Broadford, Brora, Burghmuir, and Carradale. A 'Map controls' box provides instructions: 'Use mouse scroll wheel to zoom' and 'Hold left click to grab and move'. Three callout boxes provide additional information: 'Icons link to GSP/BSP dashboards' points to the map icons; 'Expand to reveal GSP/BSPs' points to the expandable search panel; and 'Search GSP/BSP names' points to the search input field. The bottom of the map shows '© mapbox' and '© Mapbox © OpenStreetMap. Improve this map'.

# NeRDA: GSP / BSP Overview

Once a GSP has been selected the user will be presented with this visual dashboard which provides;

- Real-time current measurements.
- Geo reference
- Connected primary substations
- Ability to download data as .csv and .xlsx
- API link for site (login required)



Depending upon whether you are viewing SEPD or SHEPD you will see, either a list of the supplied BSPs (SEPD) or Primaries (SHEPD)

# NeRDA : GSP / BSP Overview

Export site data as .xlsx    Share Dashboard    API for site (login required)

**NeRDA DASHBOARDS BETA**

**GSP: Cowley**

Dropdown includes all GSP/BSP dashboards

GSP (SEPD): Cowley

Real-time current measurements

Download readings as .csv

Click to show/hide feeder readings on graph

Substation Readings

Feeder	Type	Value (unit)	Timestamp
COWLEY A805 AMPS	LineCurrent	216.79688 A	04/05/2023 14:18
COWLEY 680 AMPS	LineCurrent	424.264 A	04/05/2023 14:18
COWLEY A505 AMPS	LineC		04/05/2023
COWLEY A705 AMPS	LineC		

Individual feeder head readings

Map displays the GSP/BSPs within the area – click to access the dashboards

Substations

Connected BSPs/Primary Substations

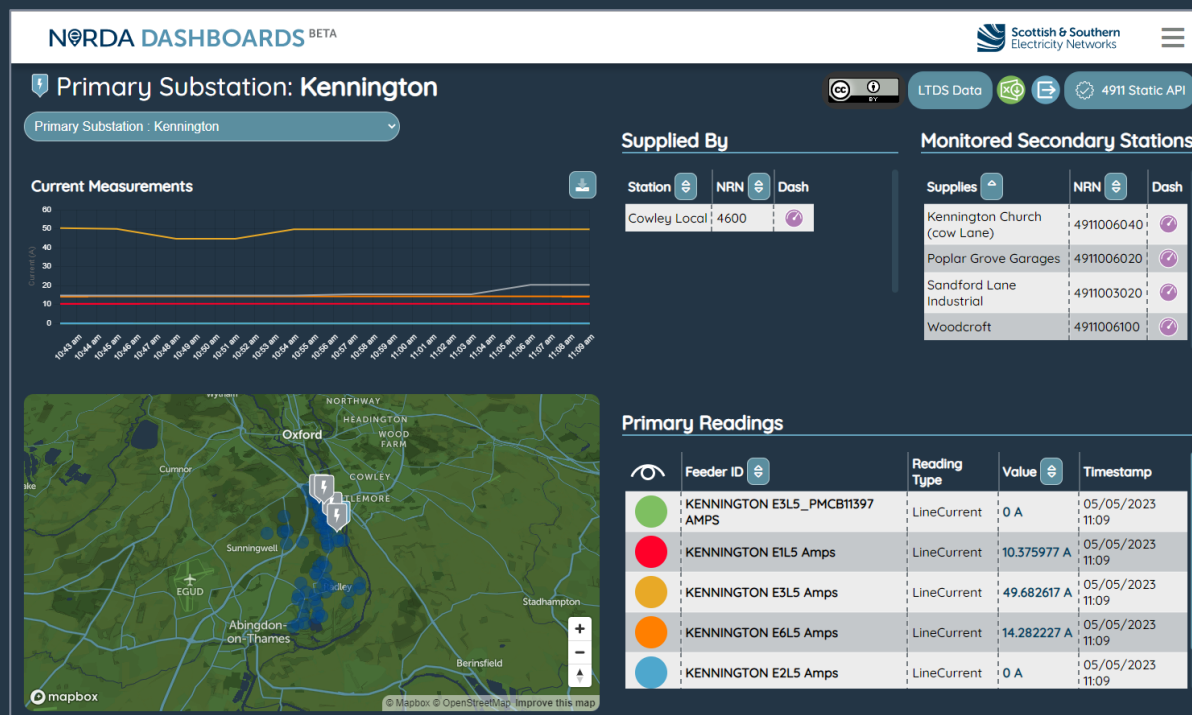
Name	Type	NRN	Dash
Witney	BSP	4630	✓
Cowley Local	BSP	4600	✓
Drayton	BSP	4601	✓
Yarnton	BSP	4602	✓
Oxford	BSP	4902	✓

Open Dashboards

# NeRDA : Primary Substation Overview

The **Primary Substation** dashboards present the same data and features as the GSP/BSP dashboards – however, users will also be able to view any secondary substations where LV monitoring is installed. Wherever LV monitoring is not available, this is supplemented with Load Model data (accessed via the blue dots on the map).

Additionally, our Long Term Development Statement (LTDS) for each primary substation is also available here.



# NeRDA : Primary Substation Overview

NeRDA DASHBOARDS BETA
Scottish & Southern Electricity Networks

## Primary Substation: Kennington

Primary Substation : Kennington

LTDS Data

4911 Static API

### Current Measurements

Real-time current measurements

Download readings as .csv

### Supplied By

Station	NRN	Dash
Cowley Local	4600	

Back up a level to BSP/GSP

### Monitored Secondary Stations

Supplies	NRN	Dash
Kennington Church (cow Lane)	4911006040	
Poplar Grove Garages	4911006020	

Connected Secondary Substations (With LV Monitoring)

### Primary Readings

Feeder ID	Reading Type	Value	Timestamp
KENNINGTON E3L5_PMCB11597 AMP			05/05/2023 11:09
KENNINGTON E1L5 AMP			05/05/2023 11:09
KENNINGTON E3L5 Amps	LineCurrent	49.682617 A	05/05/2023 11:09
KENNINGTON E6L5 Amps	LineCurrent	14.282227 A	05/05/2023 11:09
KENNINGTON E2L5 Amps	LineCurrent		

Individual feeder head readings

### Map

Icons link to Secondary Substation dashboards with real-time LV Monitoring

### Load Forecast

Blue dots are secondary substations without LV monitoring. Click to view Load forecast model data

View Substation LTDS Data

#### LTDS Details: Kennington

LTDS Data: Cowley Local

What is LTDS?  
Our long term development estimates (LTDS) are prepared in accordance with standard licence condition 25 of the Distribution Code.  
The purpose of the Long Term Development estimates is to provide information for people connecting to our distribution system at extra high voltage (EHV) level (existing LV system of primary substations). It is designed to help to identify and evaluate opportunities for improving the development of LV systems to meet the demand for connection. Our estimates include the following:  
• Network state  
• The likely development of our distribution system.

Substation	2021	2022	2023	2024	2025
Substation	0.00	0.00	0.00	0.00	0.00
Form Shop	14.30	14.70	14.90	15.10	15.30
Street	15.00	14.40	15.00	15.00	15.00

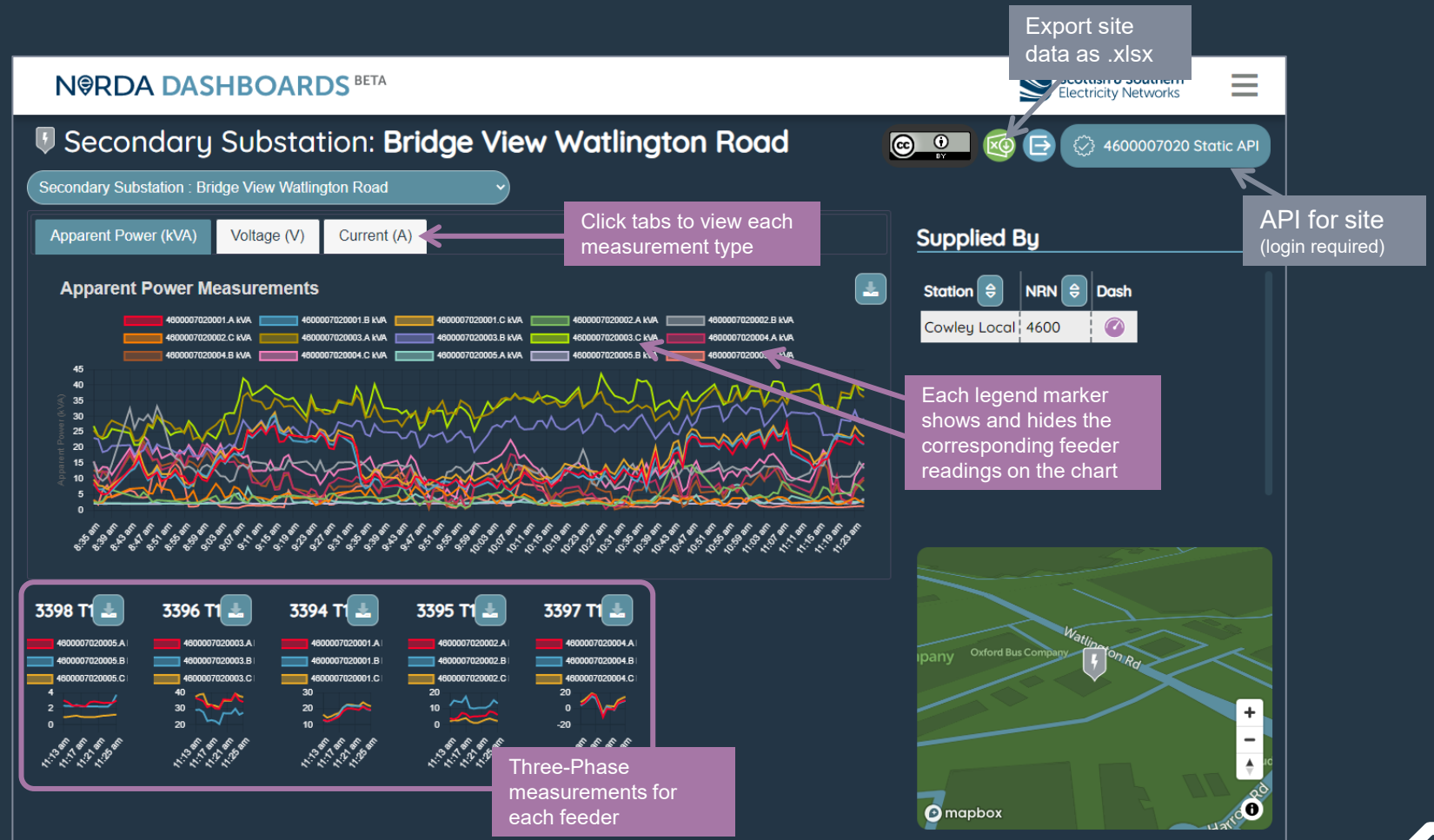
Open Secondary Substation Dashboards



# NeRDA : Secondary Substation Overview

Secondary Substation data is viewed via LV monitoring. Apparent Power (kVA), Voltage (V) and Current (A) are on the screen. The user will also see displayed the phase measurements for each feeder.

All the dashboard readings can be downloaded as Excel workbook (.xlsx). Other measurements are available via the API (login required).



# CONTACT AND LINKS



NeRDA Portal:  
[nerda.opengrid.com](https://nerda.opengrid.com)



For general enquiries and API access please contact:  
[SSENSmart@sse.com](mailto:SSENSmart@sse.com)



NeRDA page on SSEN website:  
[ssen.co.uk/our-services/tools-and-maps/nerda-portal](https://ssen.co.uk/our-services/tools-and-maps/nerda-portal)



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