ENA Summit 2023
A Breakthrough Approach to Near Real-Time Energy Data Accessibility and its Role in the Transition to a Sustainable Future
1st November 2023
NeRDA: Agenda

• NeRDA Background and Overview
• Portal Overview
  • GSP/BSP
  • Primary
  • Secondary Substations
• TRANSITION Case study
• What next?
• Future Developments
Our electricity distribution networks carry electricity to over 3.8 million homes and businesses across the north of Scotland and central southern England.

Our skilled teams live and work in the communities they serve, supported by engineering and customer service teams in centres like Reading, Portsmouth, Perth and Inverness.

We provide a valued and trusted service for everyone in our communities: working 24-hours a day, 365 days a year, to ensure our networks are safe, reliable and responsive to customer needs.
NeRDA: Overview

Energy Data Taskforce – NIA Project

Initial in Oxford expanded to Green Recovery

Real-time data now available

Via API and Portal Dashboard
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.
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.
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

Dropdown includes all GSP/BSP dashboards

Real-time current measurements

Download readings as .csv

Click to show/hide feeder readings on graph

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

Connected BSPs/Primary Substations

Open Dashboards

Export site data as .xlsx

Share Dashboard

API for site (login required)
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

- Real-time current measurements
- Download readings as .csv
- Icons link to Secondary Substation dashboards with real-time LV Monitoring
- Blue dots are secondary substations without LV monitoring. Click to view Load forecast model data
- Click to show/hide feeder readings on graph
- Connected Secondary Substations (With LV Monitoring)
- Back up a level to BSP/GSP
- Connected Secondary Substations
- Individual feeder head readings
- View Substation LTDS Data
- Open Secondary Substation Dashboards
- Dropdown includes all Primary dashboards
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).
NeRDA : TRANSITION Case Study

NeRDA critical roll in TRASITION

130 flexibility contracts

1.6MW of flexibility contracts

1.6 Distributed Energy Resources (DER)

moving to a smart future
NeRDA: What Next?

- NeRDA is live and sharing real-time data from the SSEN distribution licence areas networks.
- A ED2 NIA project NeRDA 2 has been registered to improve the current NeRDA data offering based on stakeholder feedback.
- NeRDA 2 will make connectivity and load model data available alongside near real-time monitoring data to provide stakeholders with enhanced visibility of our network utilisation to allow them to make better informed decisions.

NeRDA : Future Developments

- Improved visualisations of network
- Real time power flow
- Supply information with improved connectivity data
- Insights into transformer utilisations
ANY QUESTIONS PLEASE?

NeRDA Portal:
nerda.opengrid.com

For general enquiries and API access please contact:
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NeRDA page on SSEN website:
ssen.co.uk/our-services/tools-and-maps/nerda-portal