



NORDA ^{BETA}

NEAR REAL-TIME DATA ACCESS

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



Scottish & Southern
Electricity Networks



NeRDA : Agenda

- NeRDA Background and Overview
- Portal Overview
 - GSP/BSP
 - Primary
 - Secondary Substations
- TRANSITION Case study
- What next?
- Future Developments





WHO WE ARE: SSEN

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.

OUR DISTRIBUTION NETWORK AT A GLANCE

Over **3.9million** homes and businesses

More than **888,000** customers on our Priority Services Register

Over **128,000km** of overhead lines and underground cables

Over **460km** of subsea cables powering our island communities

Over **4,100** employees across the country

Figures as at October 2023



NeRDA : Overview



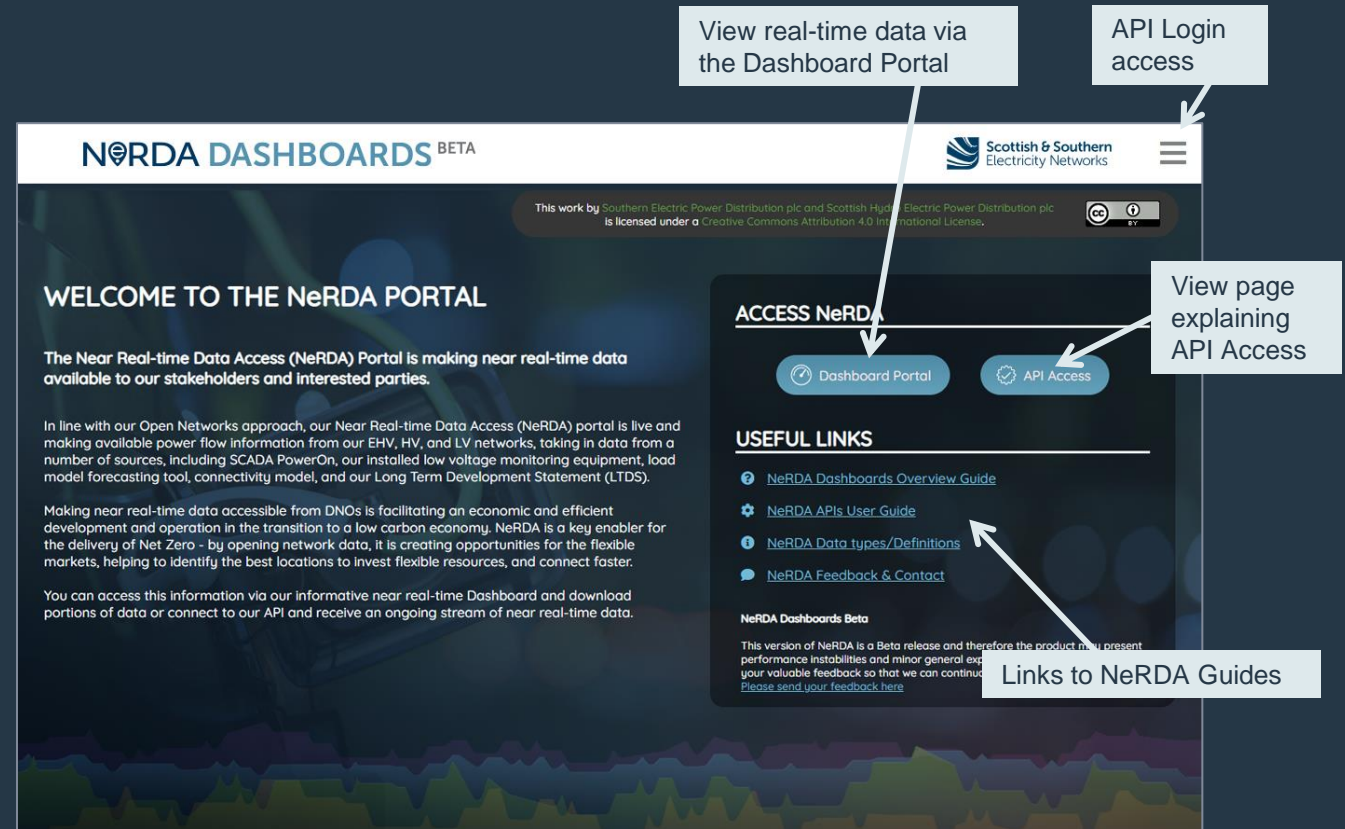
nerda.opengrid.com



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.

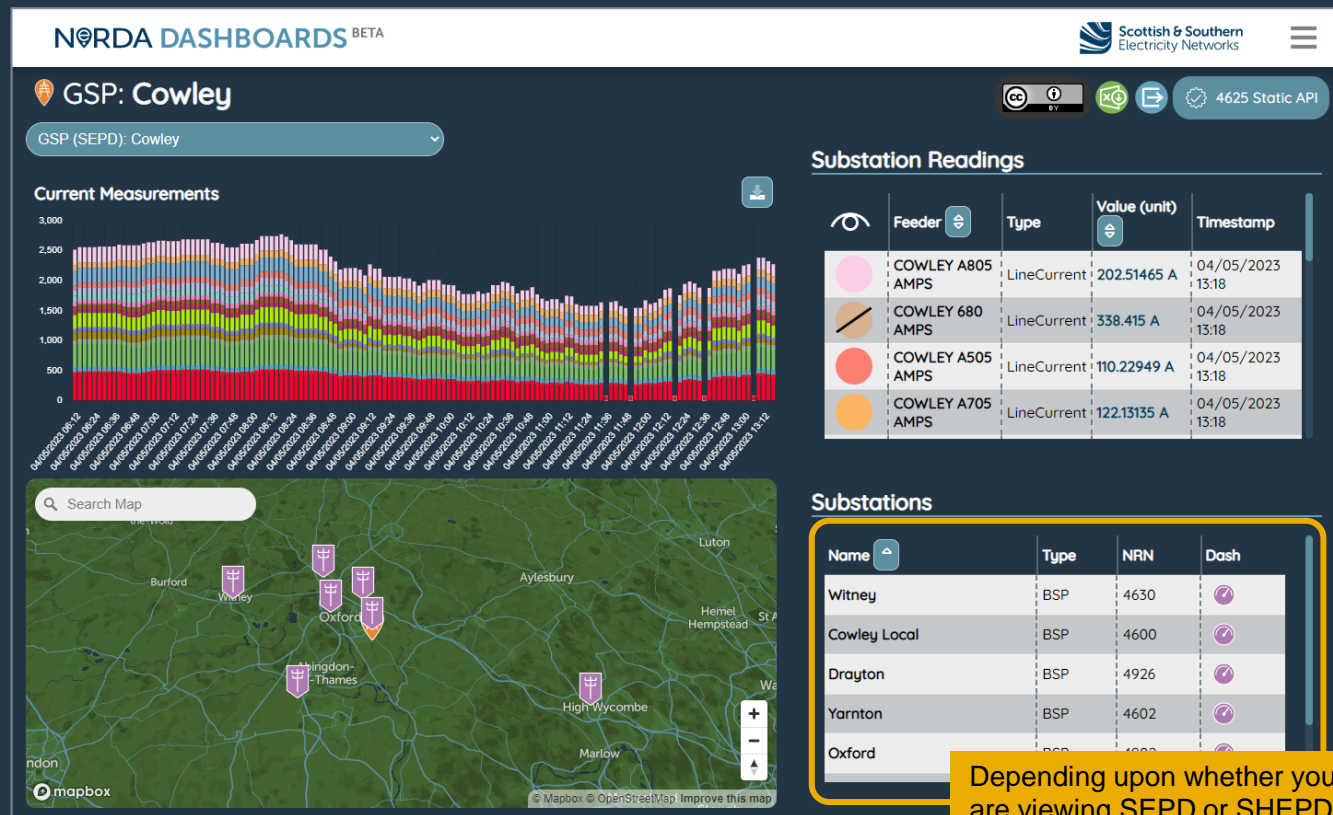
They can then navigate to a particular **GSP** (Grid Supply Point) or **BSP** (Bulk Supply Point) using the map or the drop down panels on the right hand side. The search panel also gives the ability to search directly for a substation.



NeRDA: GSP / BSP Overview

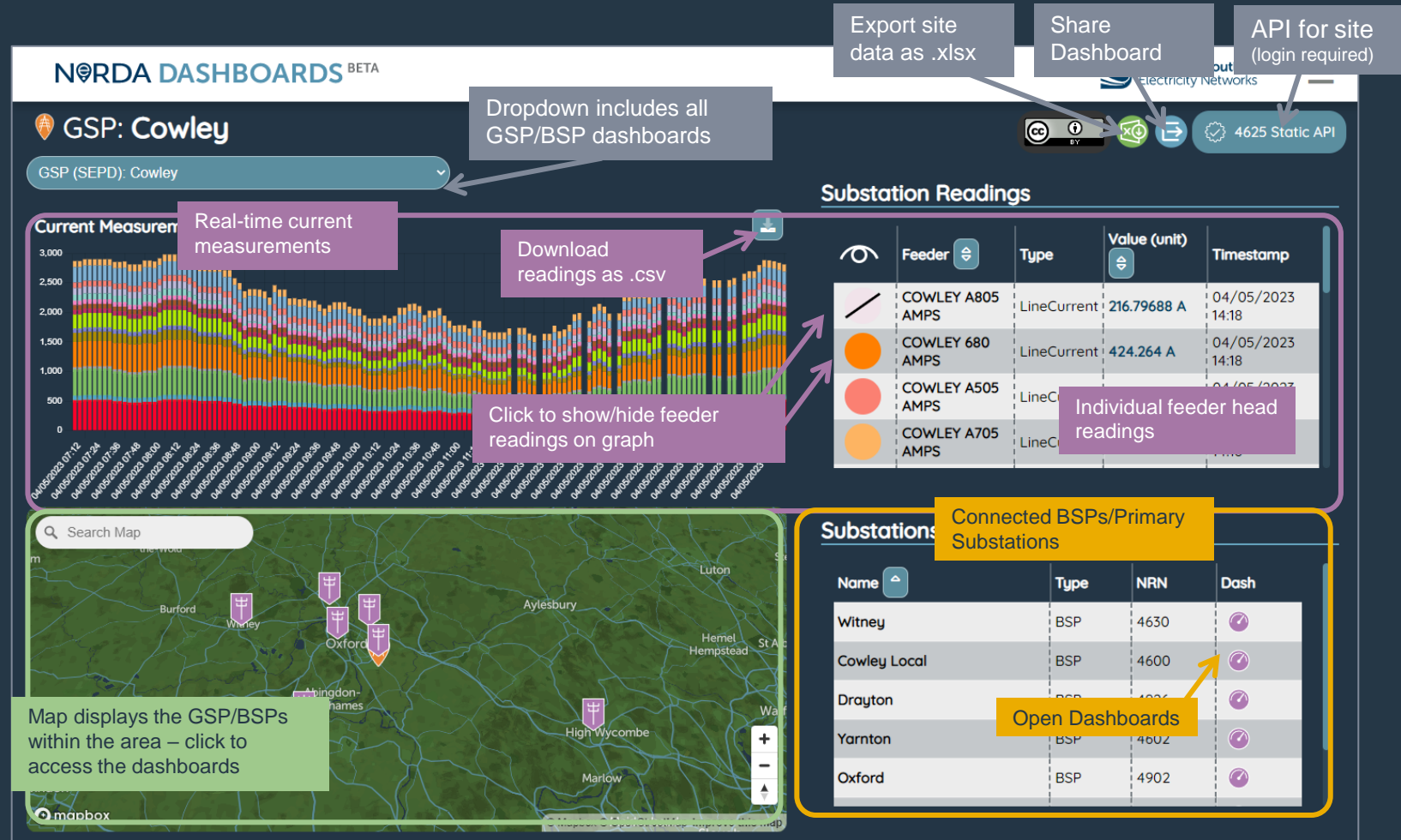
Once a GSP has been selected the user will be presented with this visual dashboard which provides;

- 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)

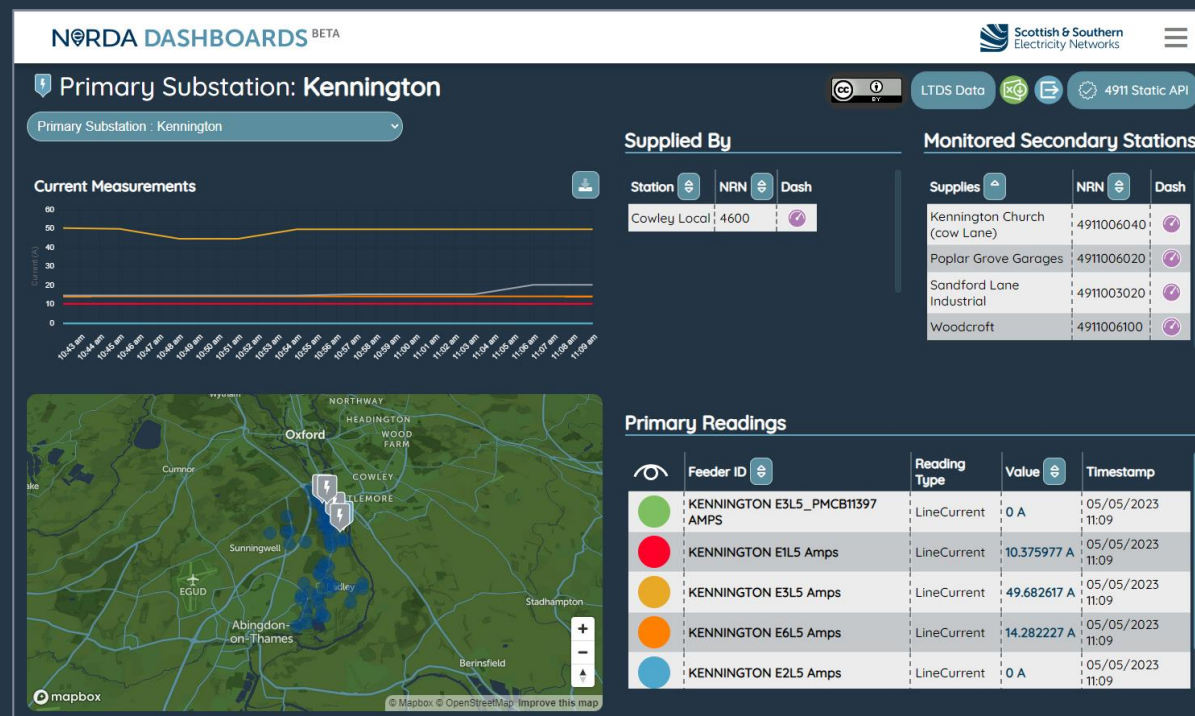
NeRDA : GSP / BSP Overview



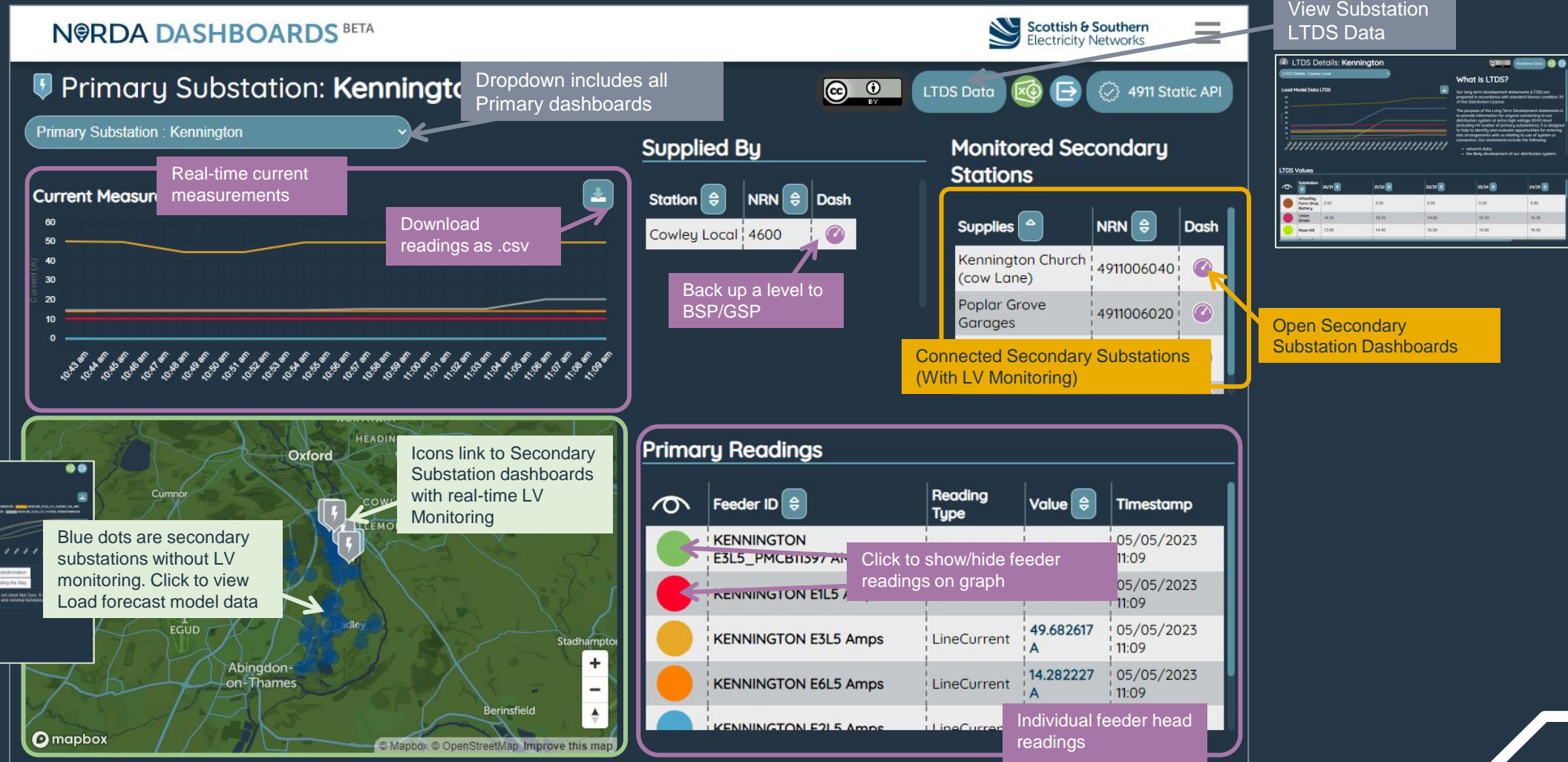
NeRDA : Primary Substation Overview

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.



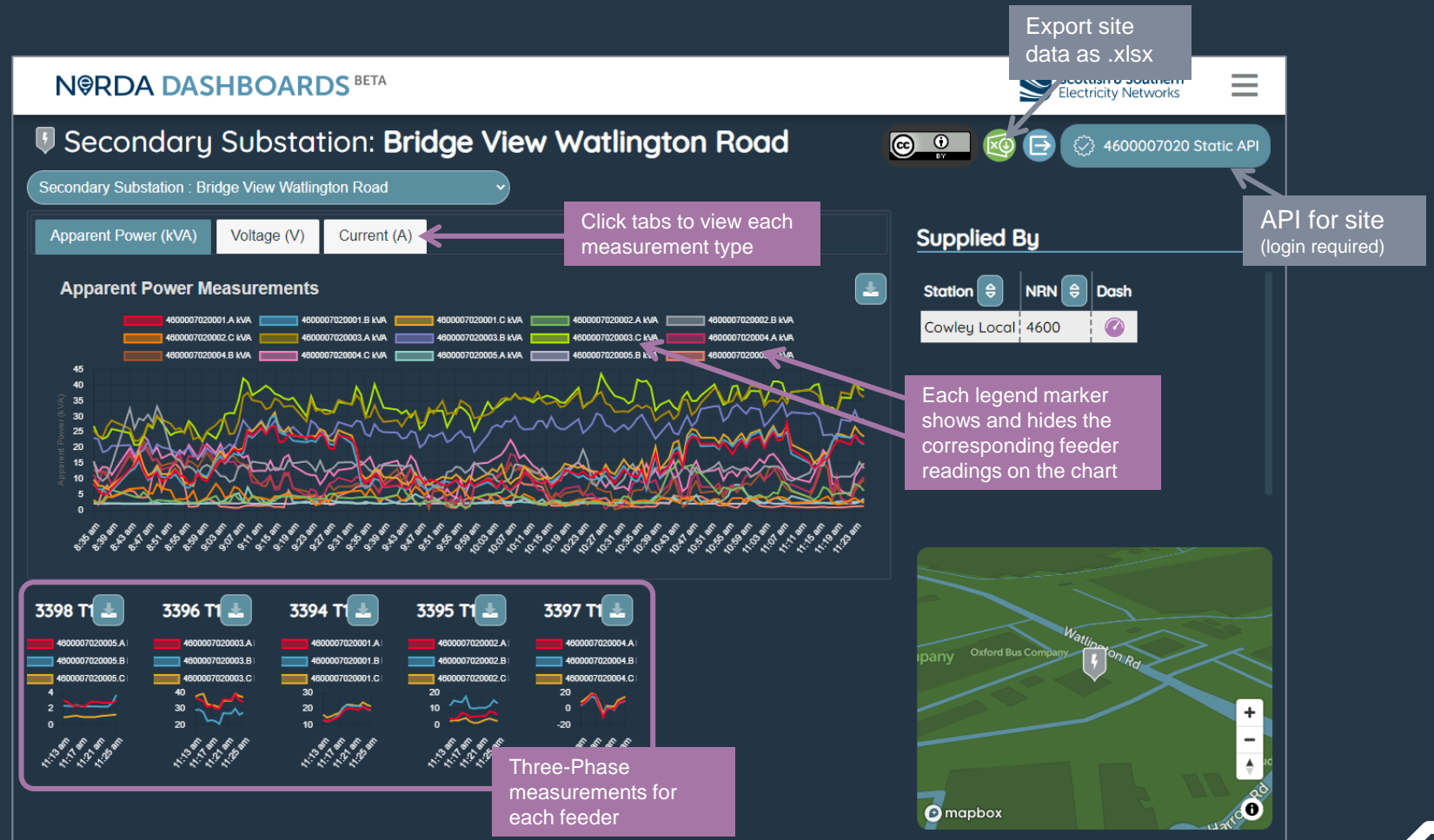
NeRDA : Primary Substation Overview



NeRDA : 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).





NeRDA : TRANSITION Case Study



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NeRDA critical roll in TRANSITION



130 flexibility contracts



1.6MW of flexibility contracts



16 Distributed Energy Resources (DER)



transition
Moving to a smart future

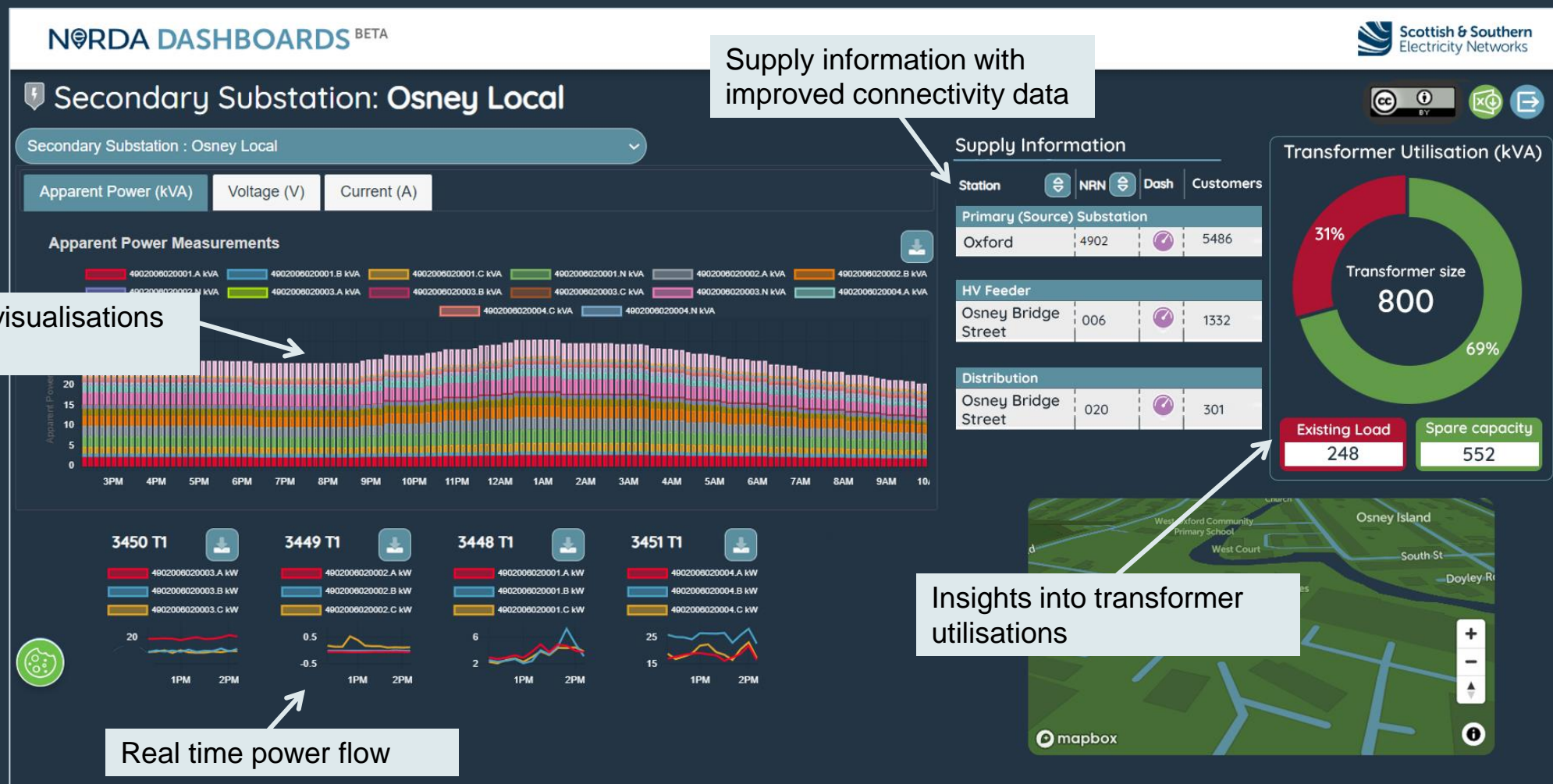




NeRDA : What Next?

- 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



ANY QUESTIONS PLEASE?



NeRDA Portal:
nerda.opengrid.com



For general enquiries and API access please contact:
SSENSmart@sse.com



NeRDA page on SSEN website:
ssen.co.uk/our-services/tools-and-maps/nerda-portal



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