

# ElectraLink removes the 'blind spot' in UK embedded electricity generation



## What is ElectraLink's Embedded Generation Dataset?



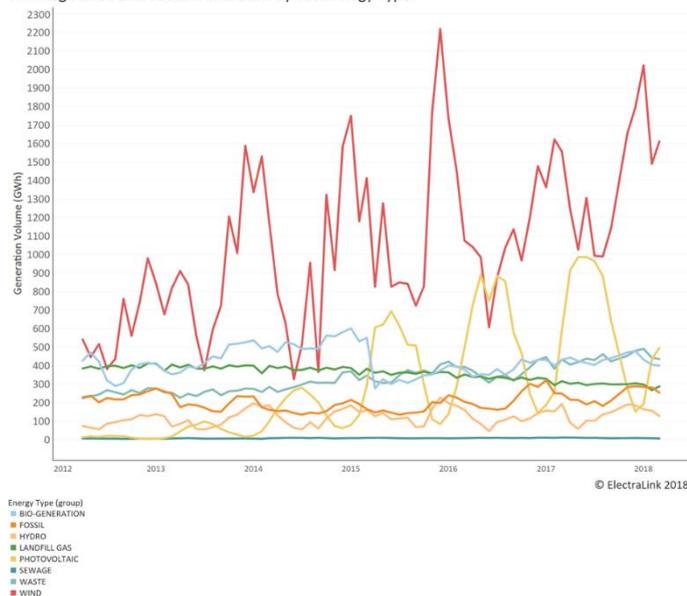
**Our Embedded Generation Dataset provides the energy market with visibility of regionally connected generation derived from settlement data flowing across the Data Transfer Service (DTS).**

### Why is this relevant?

Renewable energy sources now generate **over 25%** of the UK's electricity generation. The majority of this embedded electricity generation is produced using wind and solar technologies which is subject to prevailing weather conditions and difficult to predict without historical data for forecasting. Figure 1 highlights the growth in wind and solar electricity generation since 2012 – note the volatility and seasonality of wind and solar energy sources.

A significant proportion of renewable electricity is produced by generators connected to regional distribution networks rather than directly to the National Grid – and consequently, until now there has been no central data on this important and growing independent generation sector.

SVA-Registered Embedded Generation by Technology Type



**Figure 1: SVA registered Embedded Generation by Technology type.**

## How can this help the UK energy industry?

**The ElectraLink Embedded Generation Dataset is unique and gives the industry access to data that until now, has been unavailable at a national level.** The data can enable industry participants to forecast supply more effectively, identify where there may be bottlenecks in the distribution network, and make more informed decisions.

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## Overview of renewables challenges facing the industry today

Until now, this 'blind spot' in renewable electricity generation has made holistic forecasting and planning difficult. This can cause a problem for:

- **Network operators** who have difficulty in balancing **short-term** demand and supply, as well as planning long-term capacity requirements and making informed decisions about investing in new technologies, such as smart grid and storage, against installing traditional assets on the grid
- **Renewable energy generators and aggregators** realising reduced yields during periods of heavy wind or high sunshine as a result of constraints and bottlenecks in the distribution network
- **Suppliers** struggling to accurately forecast renewable generation and translate this into energy purchasing requirements by netting-off this renewable supply against projected demand
- **Investors and developers** without sufficient data to make fully informed decisions on alternative sites for renewable generation
- **Energy traders** who are unable to make optimal spot market buying and pricing decisions based on comprehensive and up-to-date generation data
- **Suppliers and government agencies** who spend time and effort accounting, accruing and reconciling renewable energy obligations.



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## ElectraLink’s Renewable Dataset: what to expect?

Multi-dimensional insight including location, generation type and historical output

Dimension	Description
Location	Data is held at MPAN level and aggregated to Postcode Sector, Grid Service Point (GSP) or GSP Group (DNO Region). MPAN level data can be provided subject to GDPR obligations.
Generation Type	Generation Type (Wind, Solar, Biomass, Biogas, Hydro, Landfill Gas or Sewage Gas) is assigned at MPAN level.
Time period	Data is held in half-hourly time periods and can be aggregated to hourly, daily, weekly and monthly levels.
History	Historical generation output is available back to April 2012.
Frequency	Latest generation data (including new sites) can be provided at frequencies from daily through to monthly. One off extracts for projects are also available.
File format	To meet your system requirements.
Delivery method	Encrypted delivery via File Transfer Service (FTP), e-mail or via API

## Examples of the insights that the renewable energy generation dataset can provide

Historic trends	Is generation from embedded generation sources increasing or declining vs. traditional forms?
	How does the renewable industry segment – large businesses vs. small independents?
	How volatile are the different types of generation – what is the seasonal, monthly, daily or hourly distribution?
Distribution-level analysis	Are there significant geographic “hotspots” for embedded generation in the network against demand? We can provide a visualisation tool showing net output down to postcode sector level.
	What is the regional distribution – are we missing opportunities to optimise regional distribution networks?
Advanced insights	Is renewable capacity being fully exploited – is there evidence of throttling or network constraints?
	Where should we be looking to invest in battery storage or smart grid technologies?

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## Who are ElectraLink?

ElectraLink operates the DTS on behalf of the UK energy industry. The DTS supports market processes including settlement. Analysis of this settlement data creates a unique and comprehensive half-hourly dataset that provides a nationwide view of over 90% of all regionally connected renewable electricity generation.

## Contact Details

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