

# DSO

DISTRIBUTION SYSTEM OPERATOR

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## Indian Delegation – UCL

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25 Oct 2024





# DERMS & Smart Technology



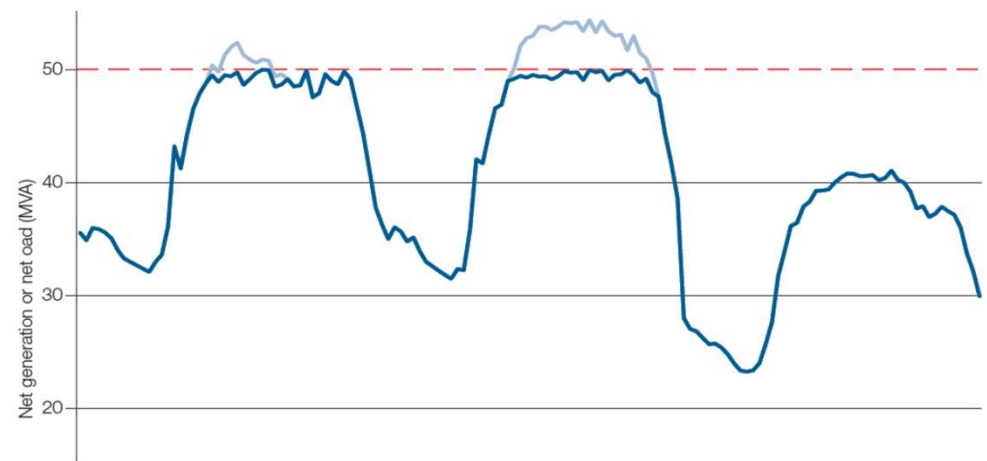
## Flexible Connections

The growth in Distributed Generation (DG) installations across distribution networks resulted in **very limited unconstrained generation capacity** being available for new customers. This has traditionally been managed by specifying reinforcement into customers offers, which usually expensive and associated to long lead times.

Flexible Connections is a **technical and commercial agreement** allow to connect DERs in constrained network areas, **without the need for conventional network reinforcement**, subject to DERs accepting to have their output curtailed when the network is congested. **This enables cheaper and faster connection**

The aim of Flexible Connections is to maximise the utilisation of the distribution network by actively and autonomously managing DER power output while ensuring the network assets are kept within their operational limits.

Connected Generation (>1MVA)	8.9 GW
Accepted to connect generation (>1MVA)	24GW
Of which Flexible	13.4 GW

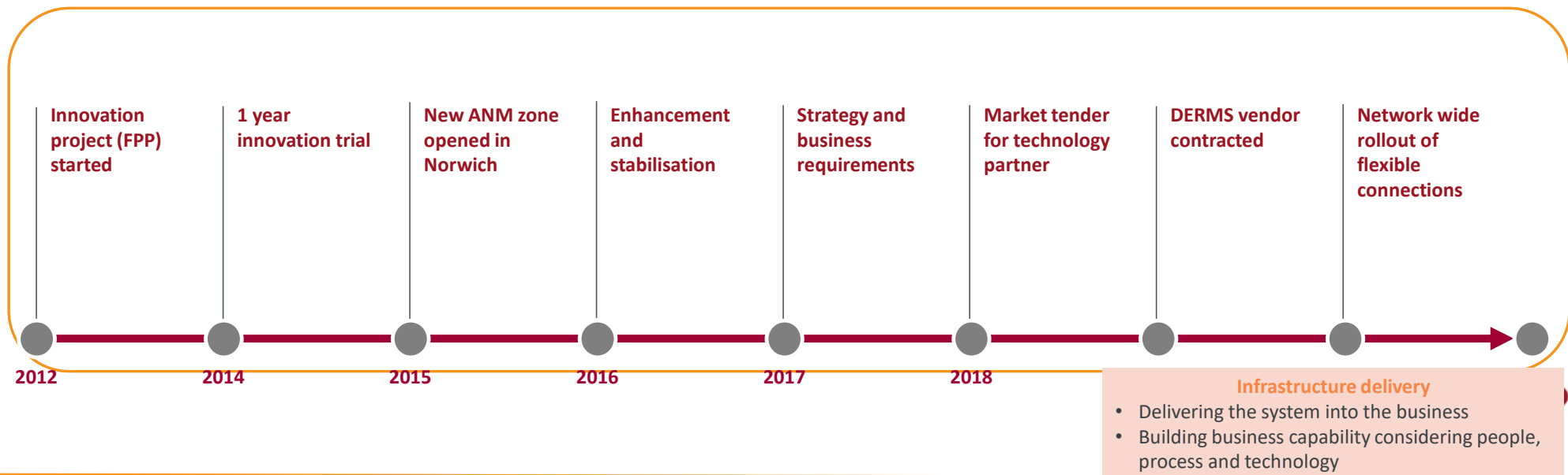


# UK Power Networks journey with Flexible Connections

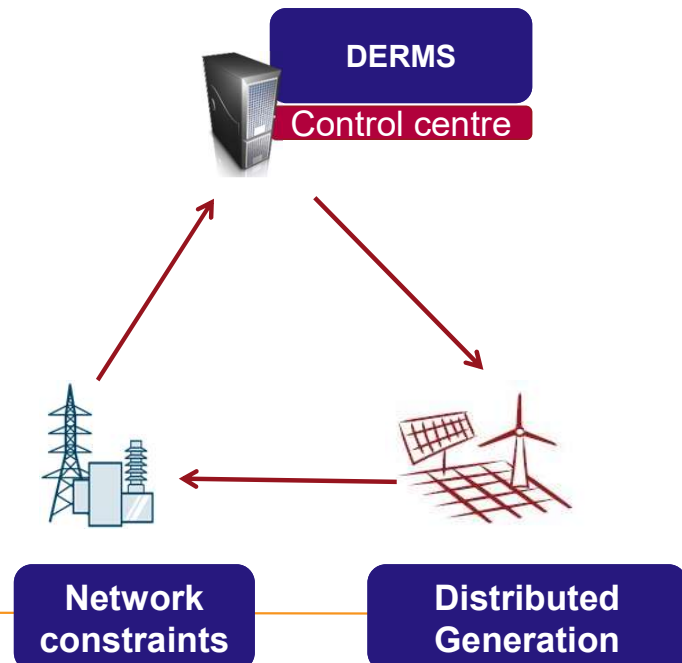
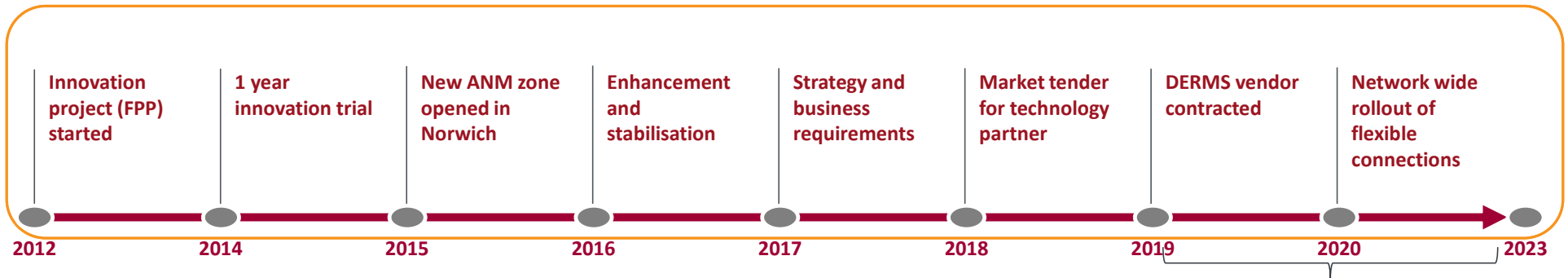
Flexible Connection started as an innovation project, Flexible Plug and Play (FPP), which run from 2012 to 2015, which was trialed in Peterborough / March area. One of the outcomes of this project was “Flexible Distributed Generation” (FDG) technical and commercial solution.

FPP was then opened in Norwich in 2015

BAU roll of Flexible Connection since 2020



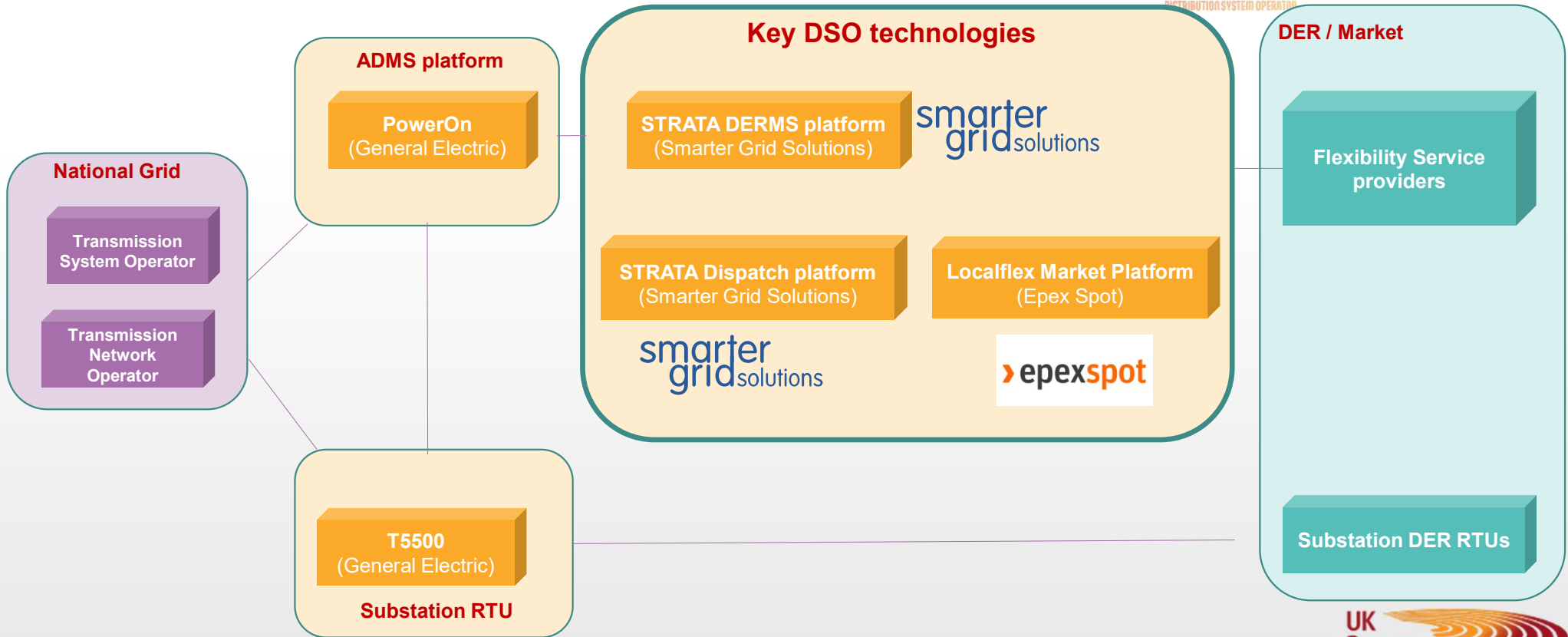
# DERMS solution



# DSO Technology capability

DSO  
DISTRIBUTION SYSTEM OPERATOR

UK Power Networks  
Delivering your electricity



UK Power Networks  
Delivering your electricity



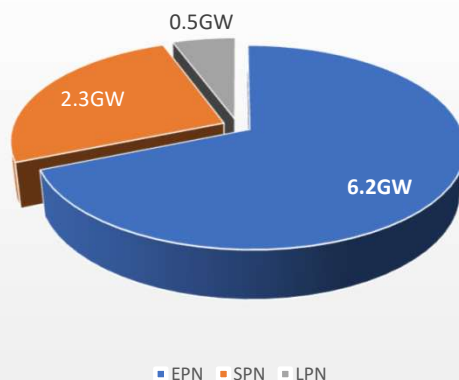
# Our operational Distributed Energy Resource (DER) customers



In 2024 we have over 671 generation and battery sites connected at over 1MW across all technology types, total of 9GW. They are associated with over 400 different companies that manage/own them.

No. of Sites	Type
91	Biogas
271	Fossil Fuel
214	Solar
34	Storage
61	Wind
<b>Total</b>	<b>671</b>

GW Connected per Region (1MW and above)



## Flexibly (ANM) Connected Sites

- 37 connected sites
- 41 different companies associated with these sites.
- 235MW under ANM control
- Companies associated with ANM own another 142 sites and 1GW of generation

An increasingly important segment for UK's security of supply  
We operate 1/3 of the UK's distributed generation