

ELECTRON

Beyond planning

How to orchestrate the
full value of DERs

Agenda

1. Introducing the role of flexibility markets

1. Unlocking whole-system value

1. Operationalizing flexibility



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About Electron

Working with system operators to orchestrate the full value of distributed energy resources (DERs).



7+ GW / hr

Cumulative reserved flexibility **volume** on ElectronConnect

3 out of 6

UK DSOs working with Electron

79

Flexibility Service Providers **registered** on ElectronConnect

Trusted by
utilities worldwide

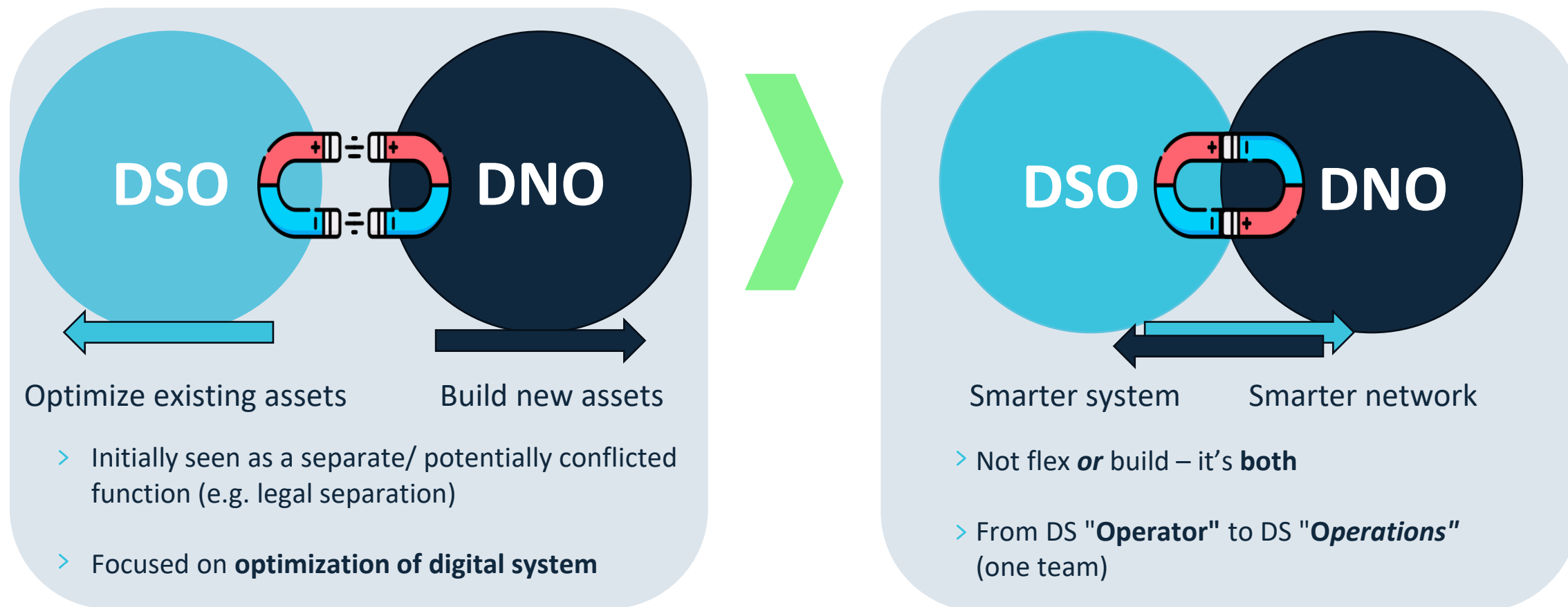


nationalgrid



Introduction to distribution system operation

UK distribution system operators (DSOs) have evolved from separate operators, to part of network operations



Introduction to flexibility markets

Flexibility markets enable DSOs to incentivize Distributed Energy Resources (DERs) to sell excess energy or adjust consumption, while increasing visibility into DERs that utilities don't directly control.

Improved network visibility and a more reliable grid

Where the value comes from



Preventing asset damage, reducing risk of faults and power cuts, and aiding in network planning .

Deferred grid build out for a more affordable grid

Where the value comes from



Reducing load-related expenditure and saving costs for consumers.

Granting flexible connections and deploying smart solutions

Where the value comes from



Accelerating the rate at which low-carbon assets are connected to the grid.

US utilities are uniquely positioned to realize the whole-system value of flexibility

The Value/Volume thesis

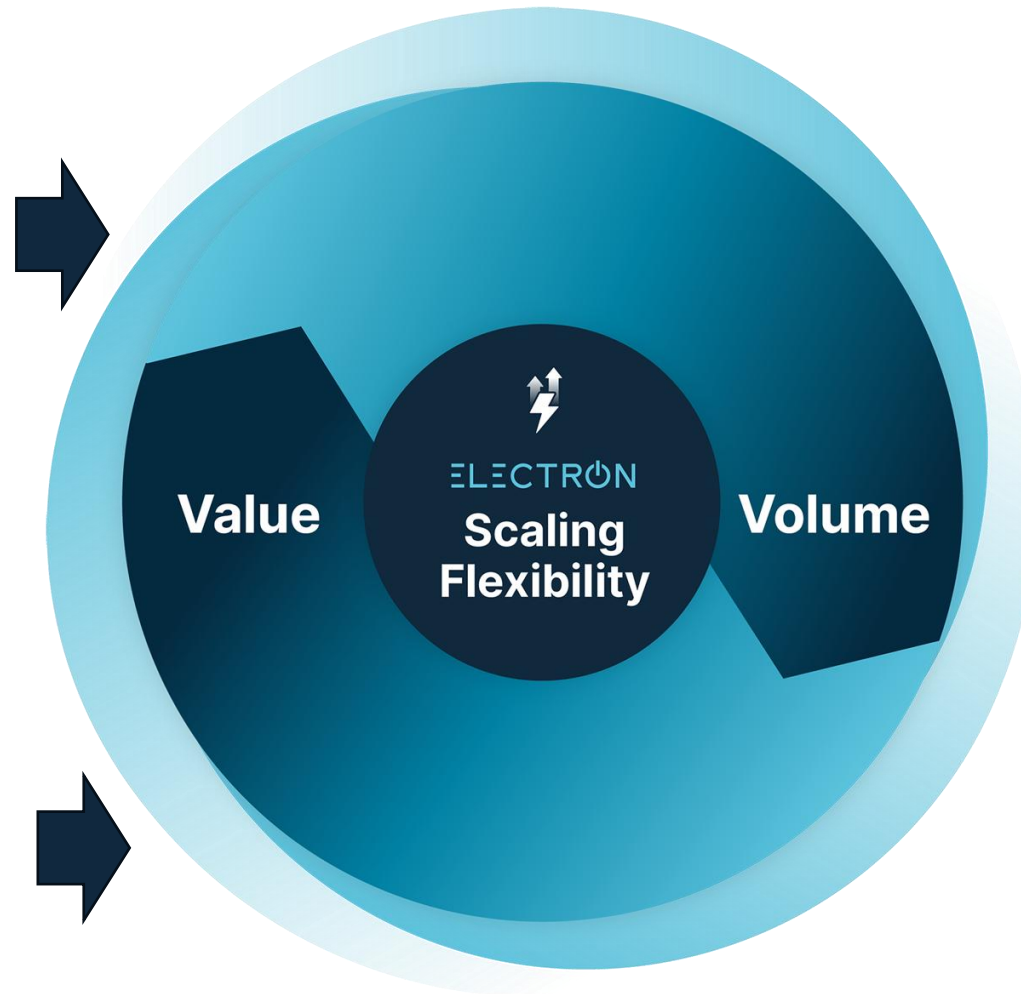
Accelerant 1: More Markets

Meeting the differing needs of system operators and flexibility service providers with multiple products and services



Accelerant 3: More Often

Facilitating day-ahead and integrated near real-time trading, to offer flexibility service providers more options when they participate.



Accelerant 2: More Connected
Integrating with multiple asset datasets, markets, and sign-up portals to lower barriers to entry and enable whole system value stacking & system wide co-ordination



How a UK DSO is encouraging DER participation

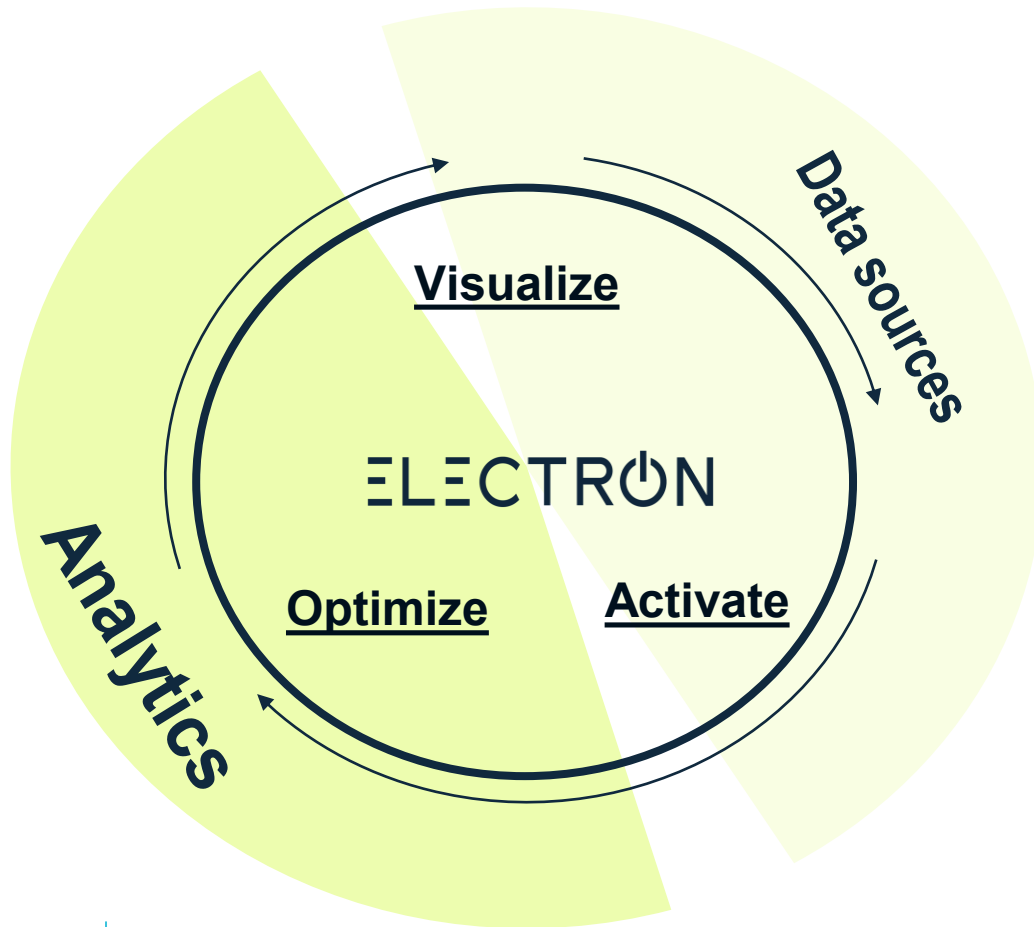
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Unlocking the lowest cost, reliable network

A data-driven intelligence cycle



- **Visualize:** Map network needs and DER locations
- **Activate:** Test flexibility through market mechanisms
- **Optimize:** Refine operations and planning based on learnings

How a UK DSO is improving investment decisions and network management with DER data

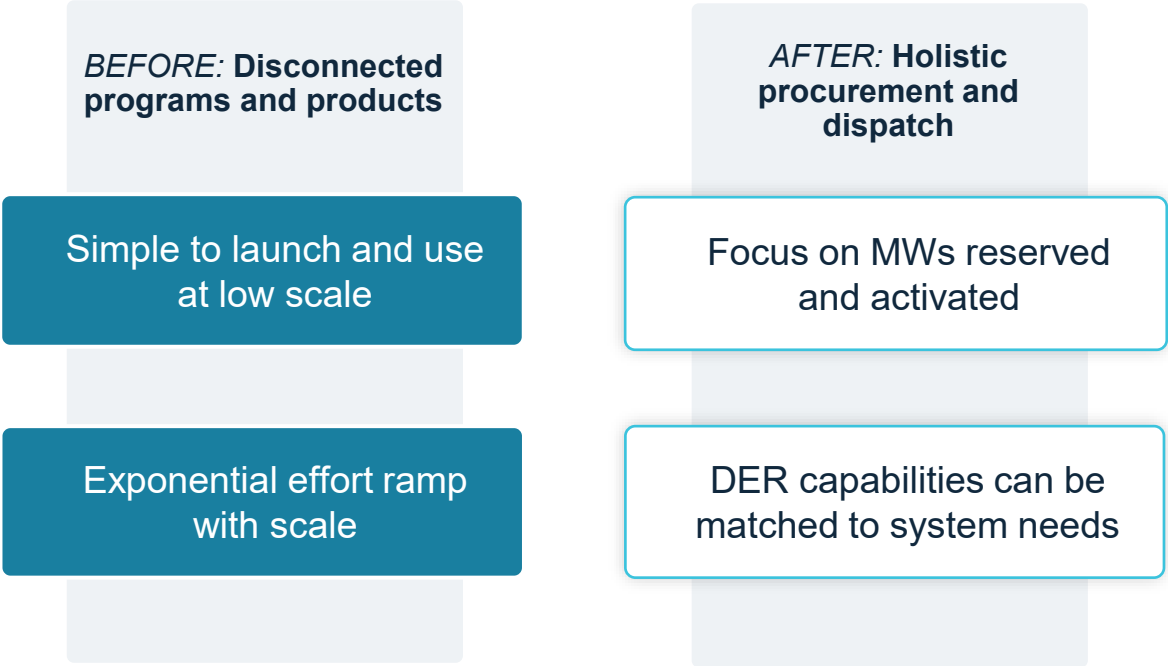
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SP ENW operational dispatch: Simplifying real-time operations

Real-time management of grid congestion with operational dispatch from the control room.



Charge My Street
Public EV charging and V2G

Axle Energy
Aggregated residential EV charging

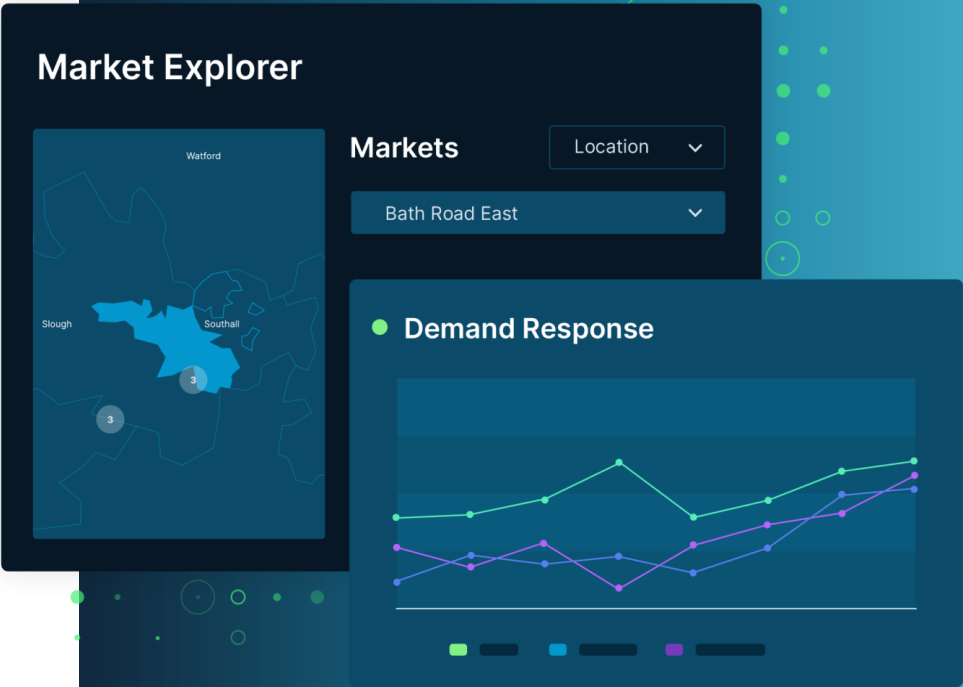
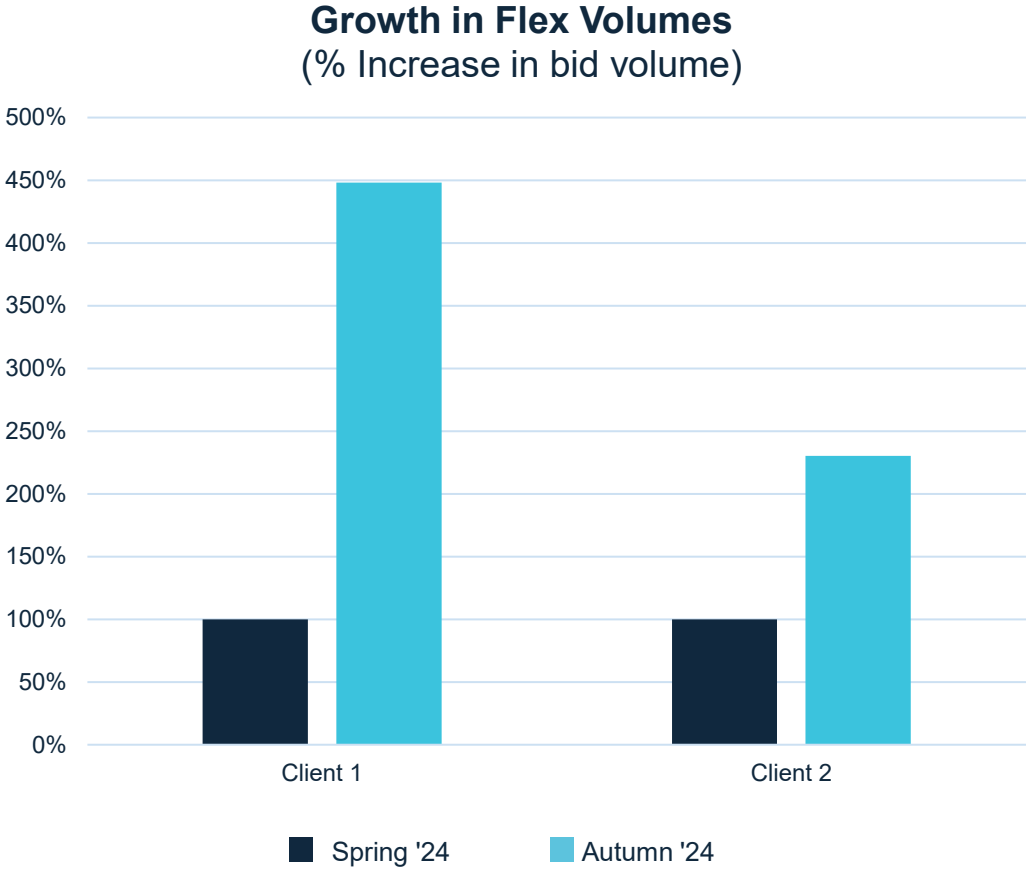
Uenergy
C&I batteries

How a UK DSO is operationalizing flexibility

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Growth in flexibility volumes on ElectronConnect



How a UK DSO is recognizing whole-system benefits with flexible DERs

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Start where you are:

Leverage your existing infrastructure and programs

- **You already have the foundation**
 - Markets simply help reveal what's already available but not visible
- **The opportunity is integration**
 - Better coordination unlocks value without major new investment
- **Start small, scale gradually**
 - Start small and scale up your operational cadence as you go

Q&A

Thank you for listening

Get in touch if you have any questions



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