BiTraDER

How Do We Encourage More Customers to use Flexible Services?

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Flexibility Challenges

SP Electricity North West

Challenges	Barriers
Reluctance to offer flexible services	Limited market participation; Lack of competition
Lack of NESO/DNO co-ordination	NESO/DNO operational conflicts
Reluctance to accept flexible connections	Reduced uptake of renewables

What's the Solution?

BiTraDER

Creating a transparent real time flexibility market for trading curtailment obligations

Project Benefits (at bid stage)

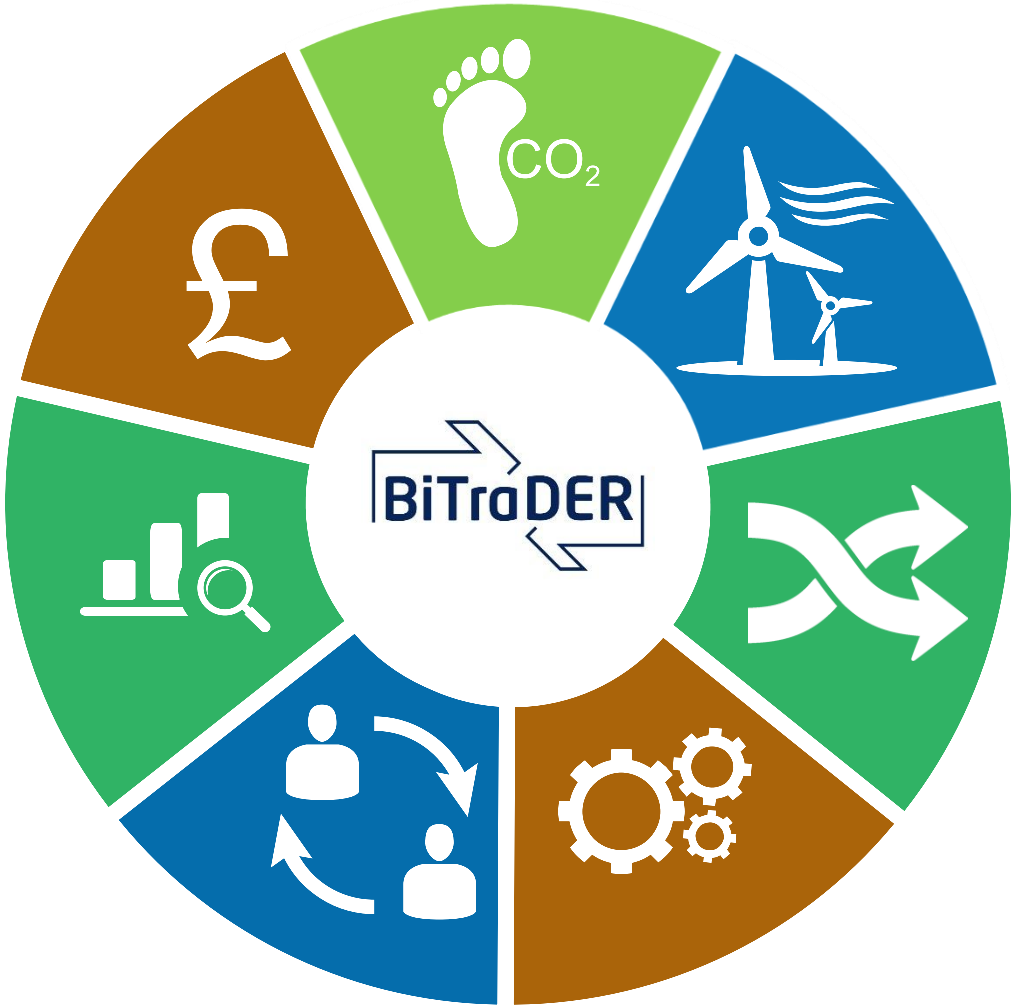
SP Electricity North West

Carbon savings of 7,649tCO_2e across SP Electricity North West by 2050, and 92,114tCO_2e across GB by 2050

Financial benefit of £35.5m across SP Electricity North West and £581m across GB by 2050.

Enables increased competition through a transparent, neutral market

Provides greater opportunities for connected customers



Encourages connection of low carbon technologies by increasing value proposition

Increases available flexibility driving down whole system costs

Improves efficiency of the network

Financial Benefits (updated)

As part of a recent stage gate review the financial benefits of BiTraDER were reassessed and we are pleased to announce that the anticipated financial benefits of the project to GB consumers have increased

Bid stage

	2030 (£m)	2040 (£m)	2050 (£m)
SP Electricity North West	-0.9	17.3	**35.5**
GB	62.1	325.7	**581.4**

Stage gate review

	2030 (£m)	2040 (£m)	2050 (£m)
SP Electricity North West	1.0	22.7	**43.3**
GB	79.5	391.6	**681.9**

Financial benefit of £43.3m across SP Electricity North West and £681.9m across GB by 2050.

Project timescales and deliverables

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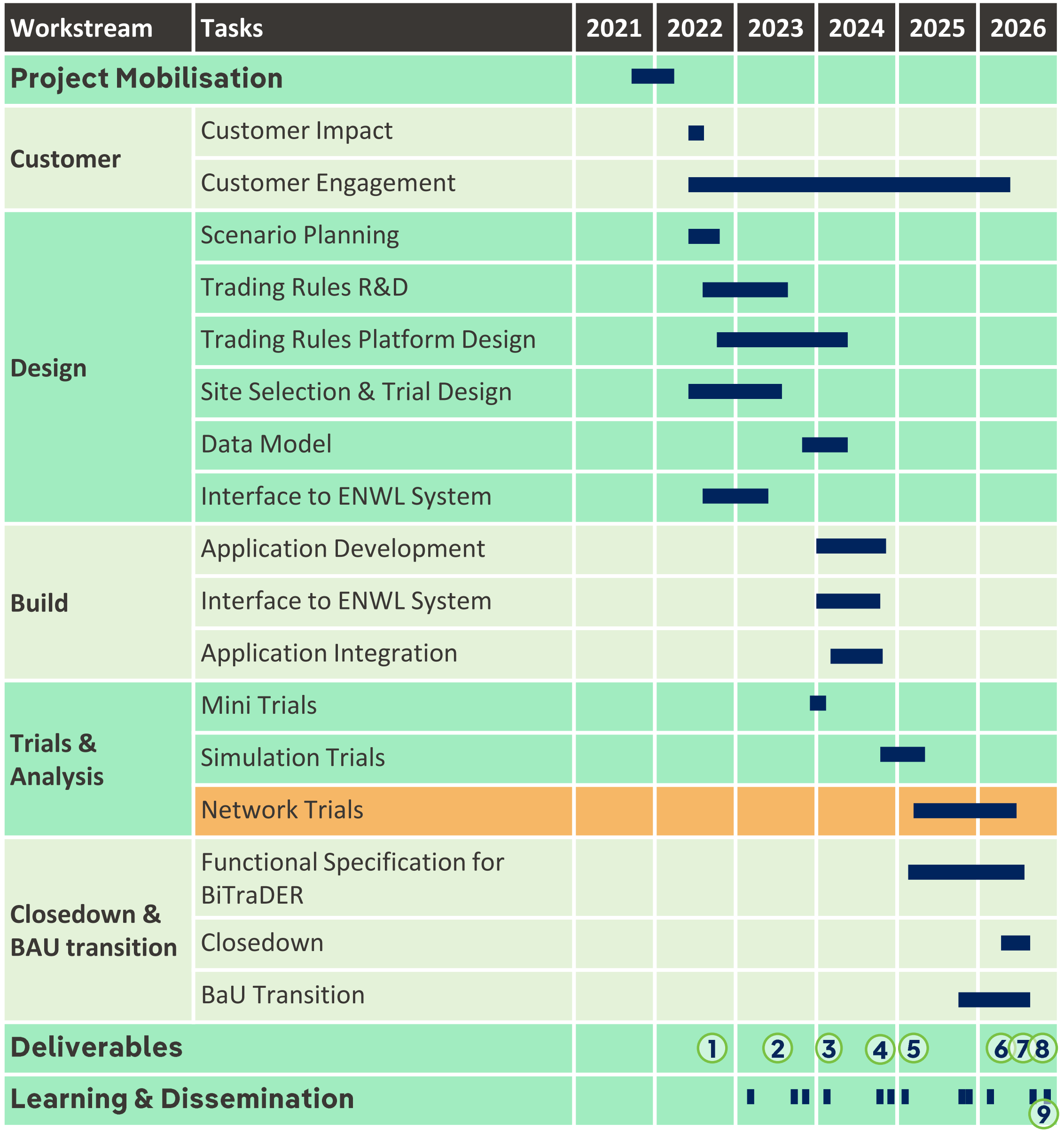
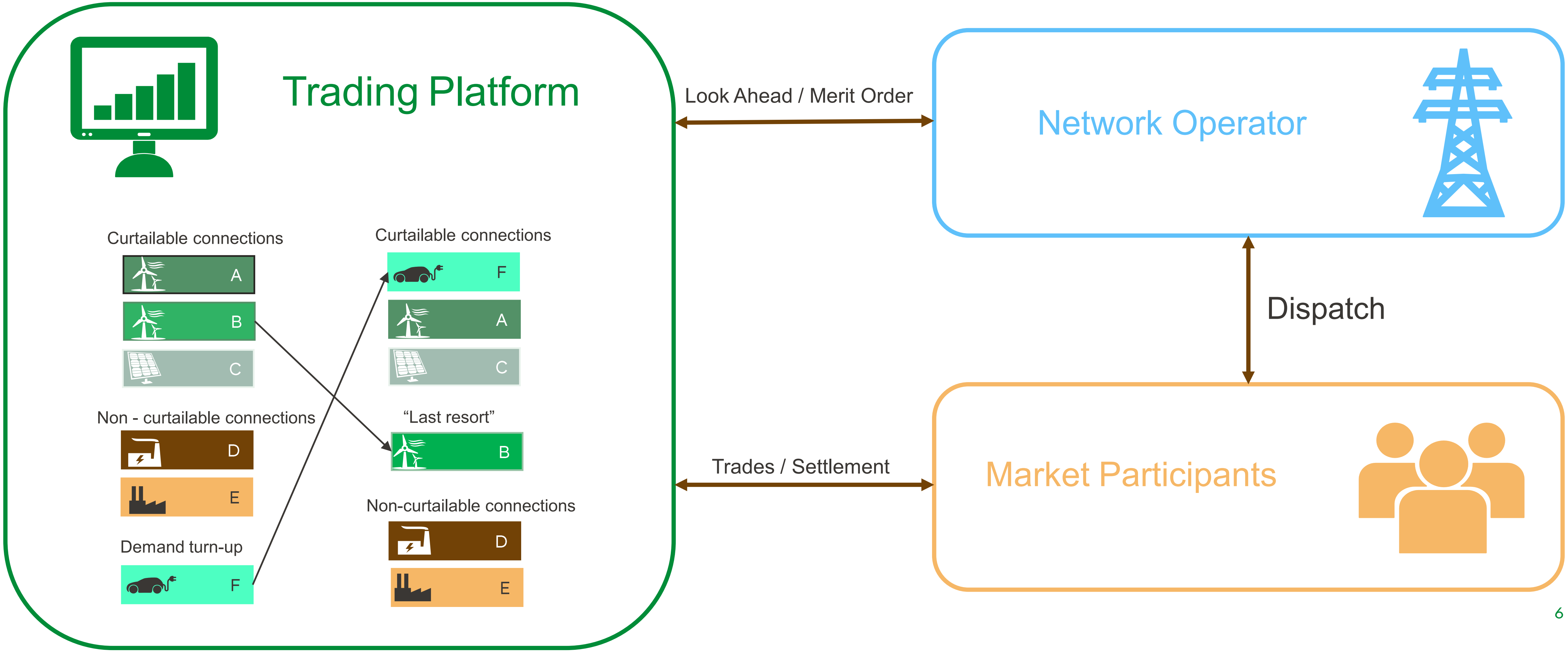


Deliverables

1. BiTraDER Initial Report – Customer Engagement and Scenarios
2. BiTraDER Trials Plan, Trading Rules and Initial Specification Report
3. BiTraDER Interim Report – Trading Platform Design
4. BiTraDER Architecture Build Lessons Learned Report
5. BiTraDER Simulation Trials Report
6. BiTraDER Network Trials Report
7. BiTraDER Functional Specification
8. BiTraDER Final Report
9. Knowledge Transfer

BiTraDER Designed Solution

BiTraDER will deliver a transparent, near real-time secondary flexibility market to allow customers on curtailable contracts to trade their obligations bilaterally with customers on non-curtailable contracts



Mini Trials

The mini trials workshop, held in January 2024, tested the market design through interactive role play and paper-based trading exercises, replicating real network scenarios in a controlled setting

Scenarios tested

- Normal constraint
- Constraint bigger than expected
- Constraint smaller than expected
- Constraint not occurring
- Network topology changes

Profile ID card assigned

- Buyer / seller
- Asset type
- Trade value
- Position in merit order list (if buyer)
- Service offered (if seller)

Trade notification cards handed out

- Time of constraint
- Size of constraint
- Type of constraint
- Sum of MWs ahead in merit order list (if buyer)
- Sum of buyers MWs (if seller)

Bids / offers submitted

- Time of constraint
- Asset type
- Trade volume
- Forecast volume (if seller)
- Utilisation price
- Availability price (if applicable)

"Pricing structure with availability payment"

"Concerns around liquidity"

"Day ahead trading difficult with some asset types"

5/6 respondents to our post workshop survey said they would be interested to participate in BiTraDER

Simulation Trials

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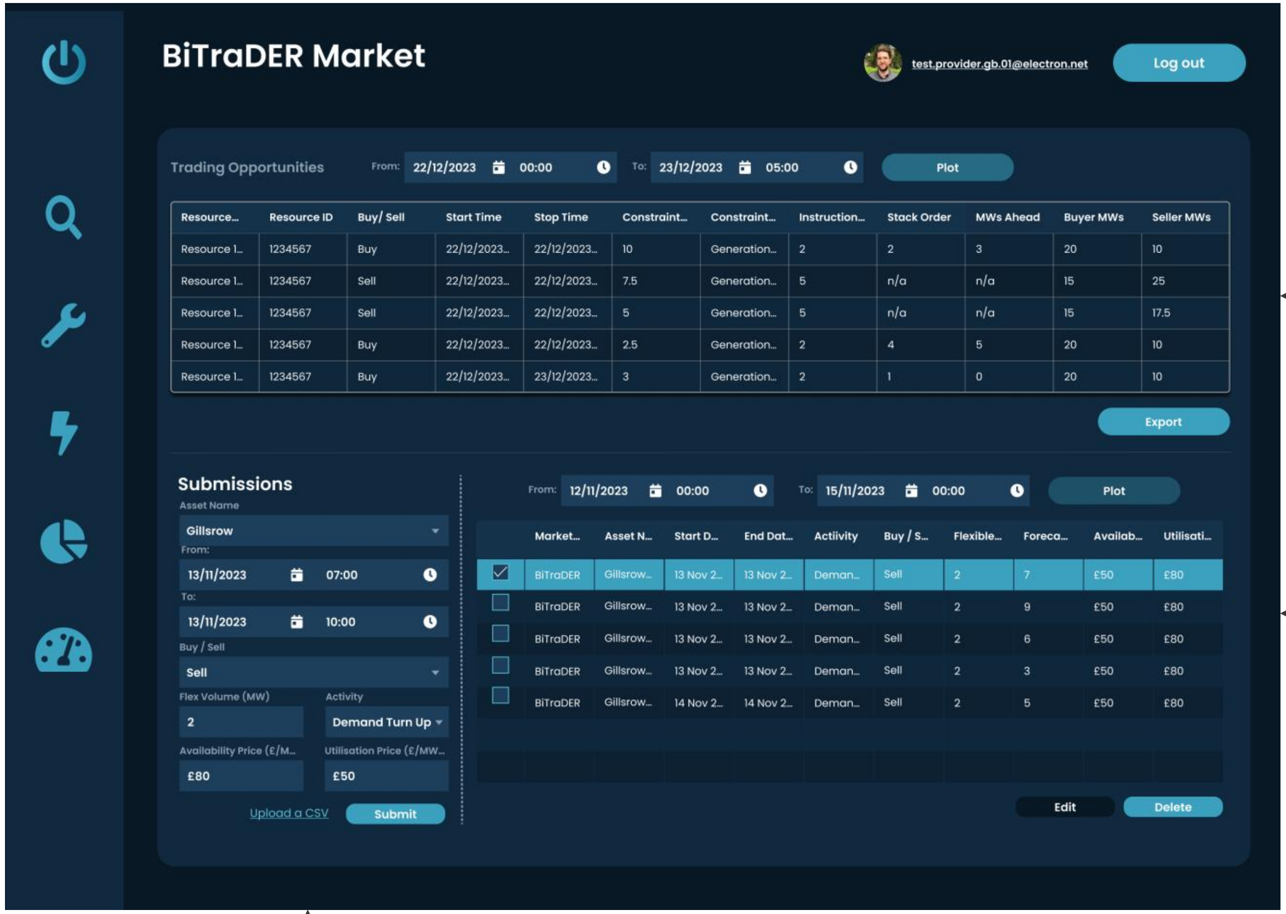
The simulation trials, conducted from October 2024 to May 2025, built on the mini trials workshop by running similar controlled, scenarios, but this time with a direct interface to the BiTraDER trading platform



"The platform was intuitive and easy to use"

Trade notifications

Historical trades

Bid / offer submissions

Live Trials

One of the drawbacks of the previous trial phases was that participants struggled to understand the value of a trade given that they were simulated without context of the external markets

The live trials will seek to answer this and test the BiTraDER market under real network conditions with real money changing hands

To enable the full end-to-end live trials, certain conditions need to be met:

- *Live network constraints*
- *Existing demand and generation assets connected within a local constraint specific management zone*
- *Willingness for assets to trade*

Meeting some of these conditions have at this time proved quite challenging

The project team are working to run a version of the trials to gain an understanding of how the market would operate in BaU

Live trial outcomes will be evaluated through a cost-benefit analysis to guide the recommendation for BaU implementation

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