

**electricity
north west**

Bringing energy to your door



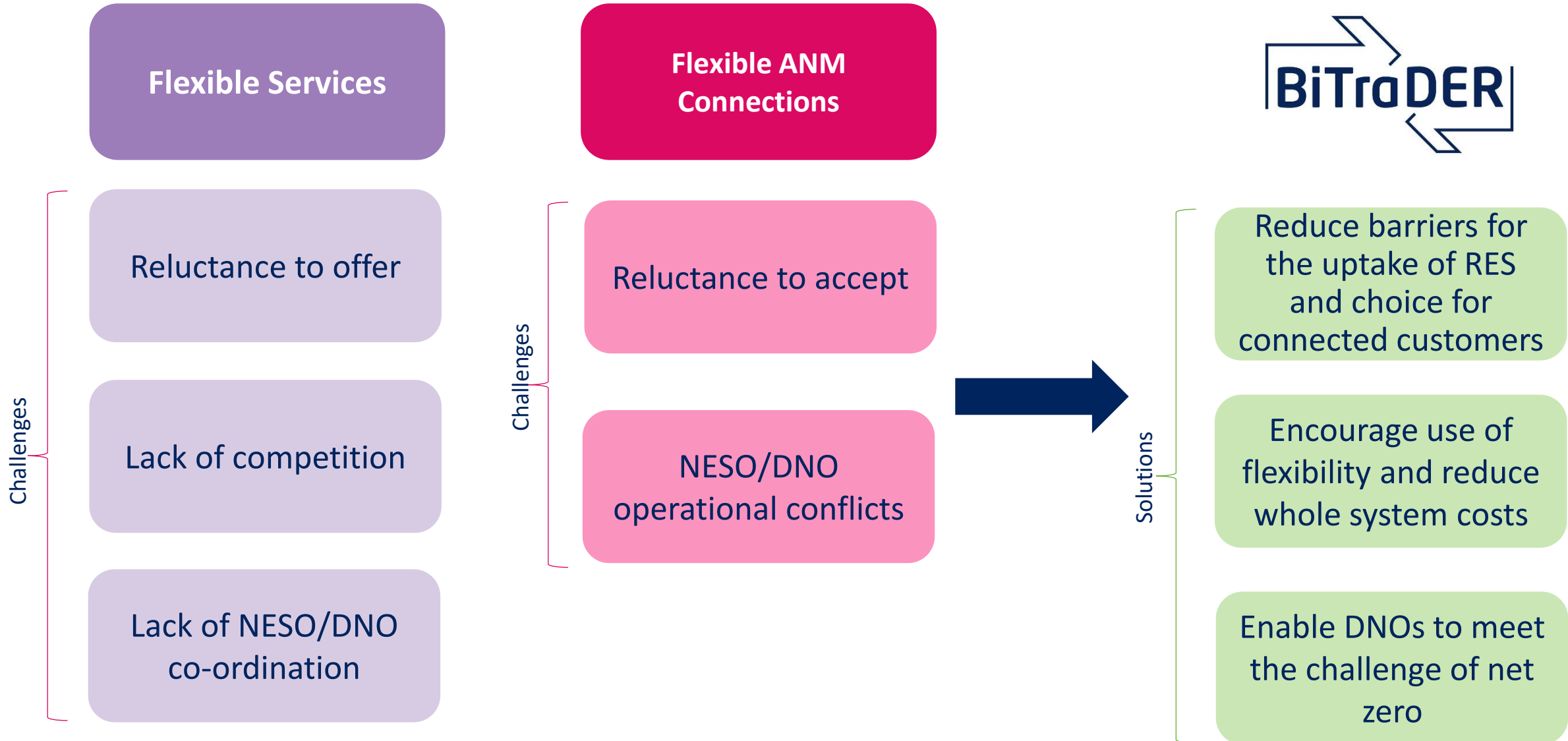
BiTraDER

Chris Greenfield – Project Manager

Stay connected...



www.enwl.co.uk



Project Benefits (at bid stage)

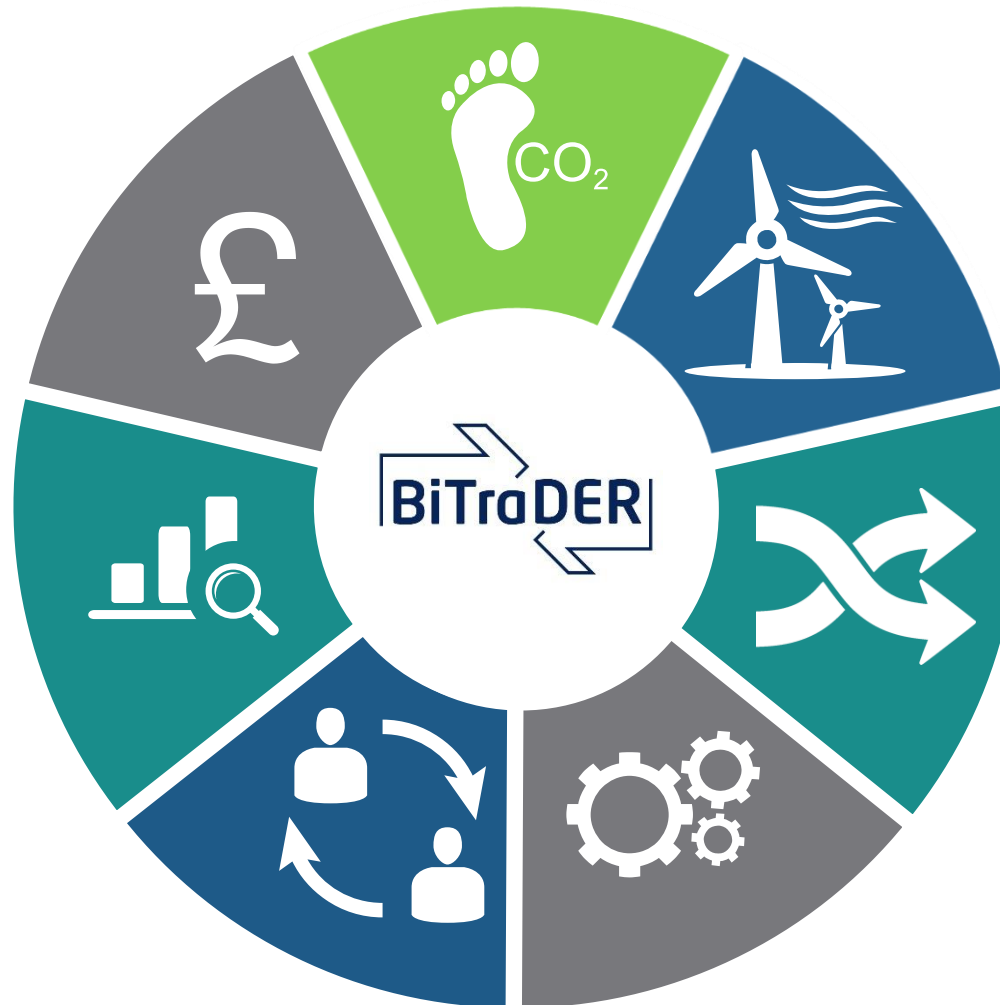


Carbon savings of 7,649tCO₂e across ENWL by 2050,
and 92,114tCO₂e across GB by 2050

Financial benefit of £35.5m
across ENWL 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

Project Partners



ELECTRON

AFRY
AF PÖYRY

+LCPDelta

Description

Energy technology firm which specialises in digitally optimised energy marketplaces.

Research consultancy with expertise in engineering and design

Energy research and consultancy service with a background in emerging distributed energy markets

Role on project

Technical input including supporting customer engagement, development of the market trading platform and trial management

Technical input including development of the market trading rules and assessment of the business case

Technical input including management of the customer engagement and supporting the development of the market trading rules

Experience

Extensive experience in trading platform development and configuration and have worked on innovation projects such as TraDER

Well respected, highly competent and credible organisation with extensive experience in development/design of flexibility markets and rules

Extensive experience working with distributed energy markets who will form the trial participants

Project timescales and deliverables



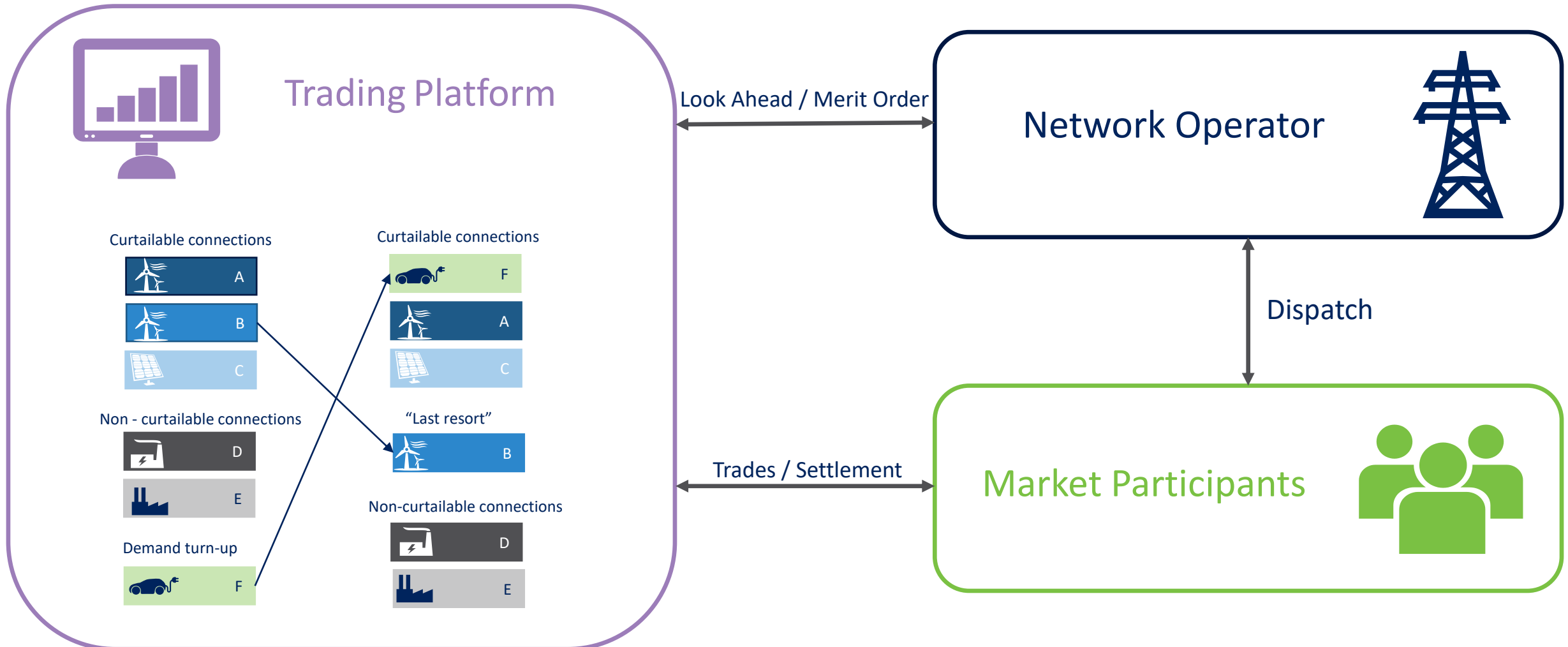
Workstream	Tasks	2021	2022	2023	2024	2025	2026				
Project Mobilisation			■								
Customer	Customer Impact		■								
	Customer Engagement		■								
Design	Scenario Planning		■								
	Trading Rules R&D		■								
	Trading Rules Platform Design		■								
	Site Selection & Trial Design		■								
	Data Model				■						
	Interface to ENWL System		■								
Build	Application Development				■						
	Interface to ENWL System				■						
	Application Integration				■						
Trials & Analysis	Mini Trials	■	■	■	■	■	■				
	Simulation Trials				■						
	Network Trials					■					
Closedown & BAU transition	Functional Specification for BiTraDER					■					
	Closedown						■				
	BaU Transition					■					
Deliverables			①	②	③	④	⑤	⑥	⑦	⑧	
Learning & Dissemination				■	■	■	■	■	■	■	⑨

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





The mini trials workshop was held in January and enabled the project team to test out the market rules developed during the design phase

Scenarios tested

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

Profile ID 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)



Mini Trials

Pricing structure
with availability
payment

Baselining using ENA
measurement tool

Concerns around
liquidity in BaU

NESO/DNO Integration

Primacy Rules

Project Fusion
learnings (STOR vs
DNO ANM)

Risk of Conflict
reports

Appendix G

Technical Limits

Creating headroom
for part 3 & part 4
customers



The next trial phase will be the simulation trials due to run from early Autumn to May 2025

BiTraDER Market test.provider.gb.01@electron.net Log out

Trading Opportunities From: 22/12/2023 00:00 To: 23/12/2023 05:00 Plot

Resource...	Resource ID	Buy/ Sell	Start Time	Stop Time	Constraint...	Constraint...	Instruction...	Stack Order	MWs Ahead	Buyer MWs	Seller MWs
Resource L...	1234567	Buy	22/12/2023...	22/12/2023...	10	Generation...	2	2	3	20	10
Resource L...	1234567	Sell	22/12/2023...	22/12/2023...	7.5	Generation...	5	n/a	n/a	15	25
Resource L...	1234567	Sell	22/12/2023...	22/12/2023...	5	Generation...	5	n/a	n/a	15	17.5
Resource L...	1234567	Buy	22/12/2023...	22/12/2023...	2.5	Generation...	2	4	5	20	10
Resource L...	1234567	Buy	22/12/2023...	23/12/2023...	3	Generation...	2	1	0	20	10

Export

Submissions
Asset Name: Gillsrow

From: 13/11/2023 07:00 To: 13/11/2023 10:00

Buy / Sell: **Sell**

Flex Volume (MW): 2 Activity: Demand Turn Up

Availability Price (£/M...): £80 Utilisation Price (£/MW...): £50

Upload a CSV Submit

From: 12/11/2023 00:00 To: 15/11/2023 00:00 Plot

Market...	Asset N...	Start D...	End Dat...	Activity	Buy / S...	Flexible...	Foreca...	Availab...	Utilisatl...	
<input checked="" type="checkbox"/>	BITraDER	Gillsrow...	13 Nov 2...	13 Nov 2...	Deman...	Sell	2	7	£50	£80
<input type="checkbox"/>	BITraDER	Gillsrow...	13 Nov 2...	13 Nov 2...	Deman...	Sell	2	9	£50	£80
<input type="checkbox"/>	BITraDER	Gillsrow...	13 Nov 2...	13 Nov 2...	Deman...	Sell	2	6	£50	£80
<input type="checkbox"/>	BITraDER	Gillsrow...	13 Nov 2...	13 Nov 2...	Deman...	Sell	2	3	£50	£80
<input type="checkbox"/>	BITraDER	Gillsrow...	14 Nov 2...	14 Nov 2...	Deman...	Sell	2	5	£50	£80

Edit Delete

- Our key project partner Electron has developed the BiTraDER marketplace within their ElectronConnect flexibility market platform
- We will send participants a trading opportunity approximately twice a month
- The day after trading we will have a meeting to discuss the trade outcomes
- Volume traded will be calculated manually

QUESTIONS & ANSWERS



innovation@enwl.co.uk



www.enwl.co.uk/innovation-strategy



0800 195 4141



[@ElecNW_News](https://twitter.com/ElecNW_News)



[linkedin.com/company/electricity-north-west](https://www.linkedin.com/company/electricity-north-west)



[facebook.com/ElectricityNorthWest](https://www.facebook.com/ElectricityNorthWest)



[youtube.com/ElectricityNorthWest](https://www.youtube.com/ElectricityNorthWest)

Please contact us if you have any questions or would like to arrange a one-to-one briefing about our innovation projects