Demand Flexibility Service

DFS Evolution Update

25th July 2025

NESO
National Energy System Operator

Agenda

- DFS History
- DNO Feedback
- Negative Margin Forecast
- DFS Initial Service Design Proposals
- Timelines and What's Next

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DFS History

Year 1

- DFS go live November 2022 as an enhanced action
- 1.6 million households and businesses registered shifting demand by over 3.3GWh.
- Total spend of £11.1m

Year 2

- DFS continued as an enhanced action service.
- Participation increased to over 2.6 million households and business – saving over 3.7GWh.
- Total spend of £11.9m

Year 3

- Updated Winter Outlook position
- Transitioned to merit-based margin tool
- Numerous changes to support competitive environment.
- *Winter 24/25 report now live on the DFS website*

DFS Now

- Service is currently ongoing
- DFS will continue as a merit-based margin tool for Winter 25/26 – from clock change on 26 October 2025

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DNO Engagement

DNO Engagement

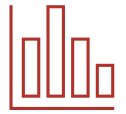
Recent survey sent out, following up with one-to-one meetings

Positive response to ongoing engagement and collaboration

Demand turn down generally less concerning, see risk increasing with rising uptake in flexibility

Demand turn up likely to pose more challenges

Transparent data sharing and coordinated scheduling of NESO and DNO services is vital



Sharing of a Risk of Conflict Report on a regular basis to help mitigate any challenges

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Negative Margin Forecast

Understanding Negative Margin

Negative margin is the difference between NESO's expected operating position, and the absolute minimum supply that NESO can achieve. It will sometimes be referred to as "footroom" or "downward/negative flexibility".

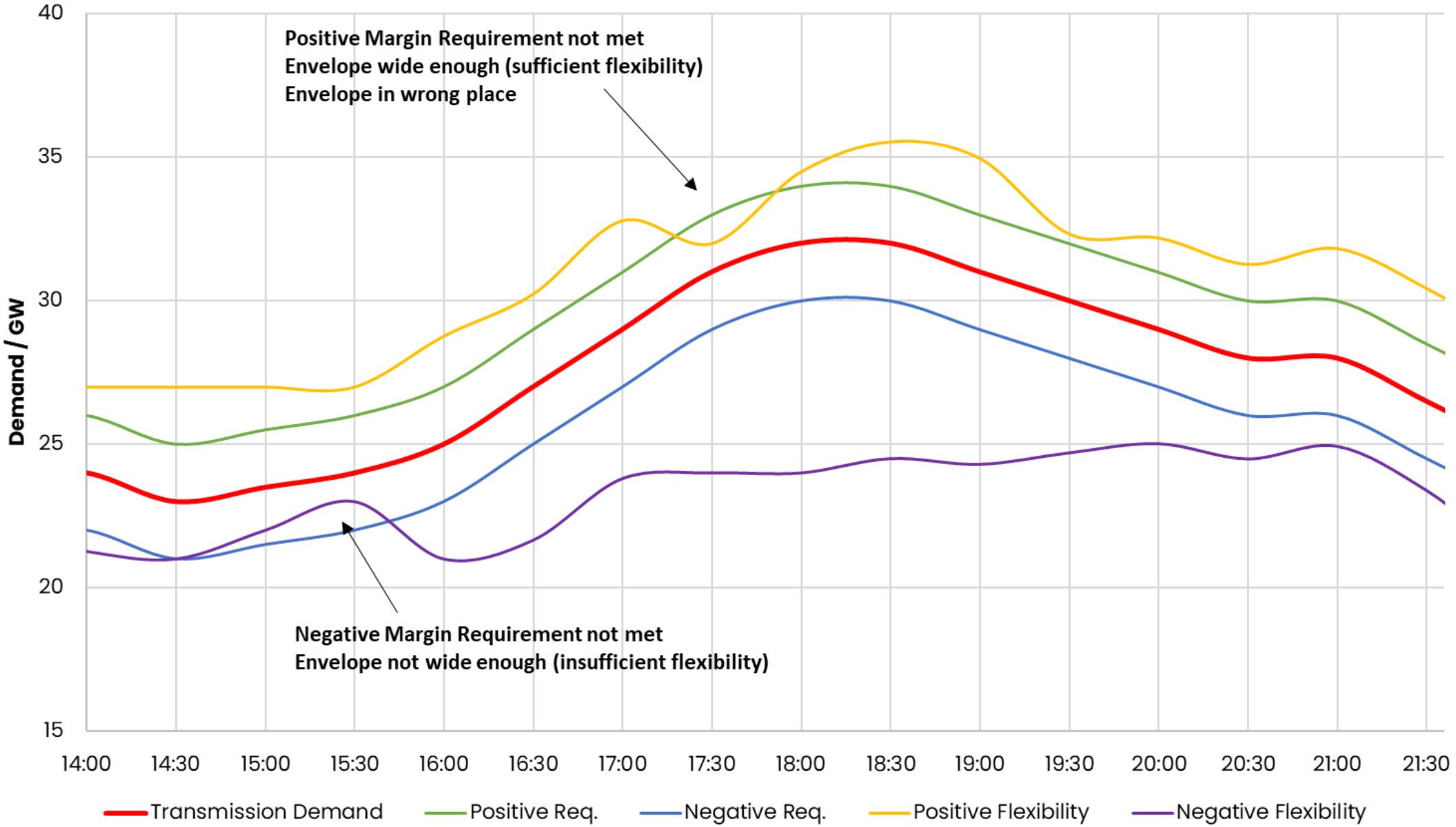
Why do we need it?

- To manage uncertainty – for example a higher than expected wind output, or lower than expected demand out-turn.
- To manage demand losses (e.g. an exporting interconnector). Losing a source of demand leaves the system with excess energy, and we need to rebalance by reducing supply or increasing demand.

How does this link with Negative Reserve?

- Holding Reserve (either as a service or through the BM) is a way of creating margin.

Available Flexibility - relative to Demand Forecast and Margin Requirements



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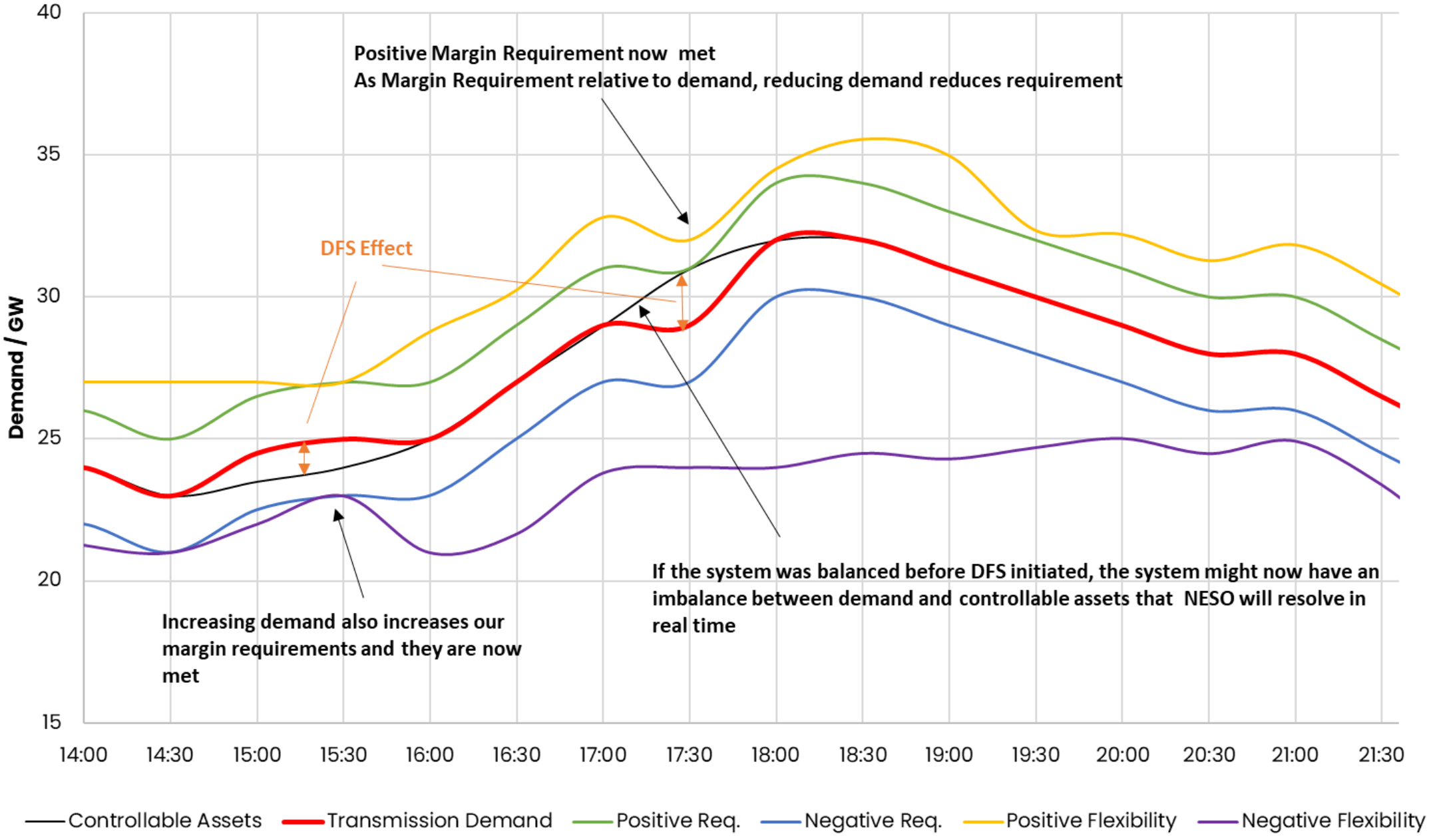
DFS effect, the envelope now covers the requirements



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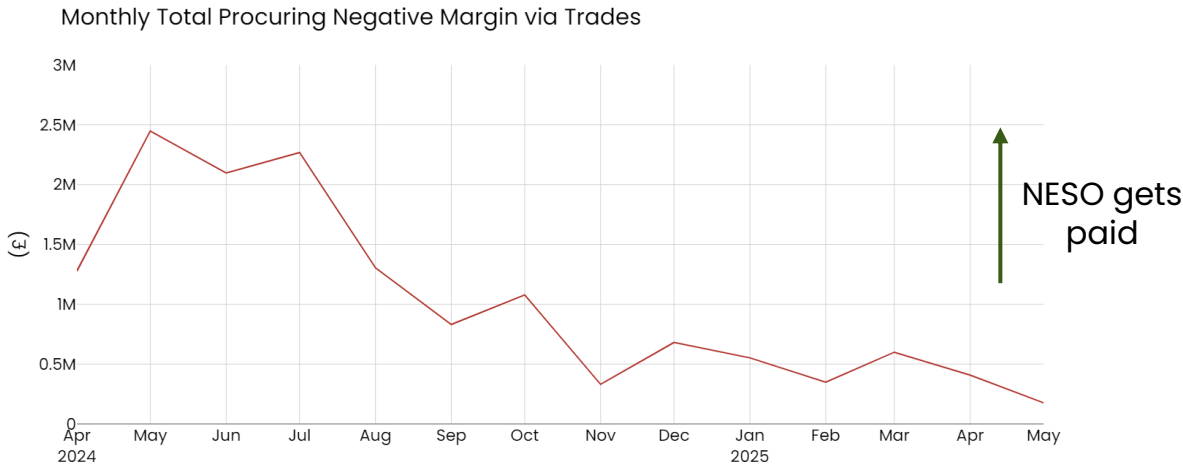
Current Market

- In general NESO is **paid** for negative margin actions
- This reflects electricity being sold to providers – so some generators save fuel and storage assets get charged.
- Our core services (BM and reserve) will be the biggest markets for this and if capable providers should aim for these.
- But there are increasingly times where assets such as wind and solar lose subsidies by turning down and so charge NESO to turn down.



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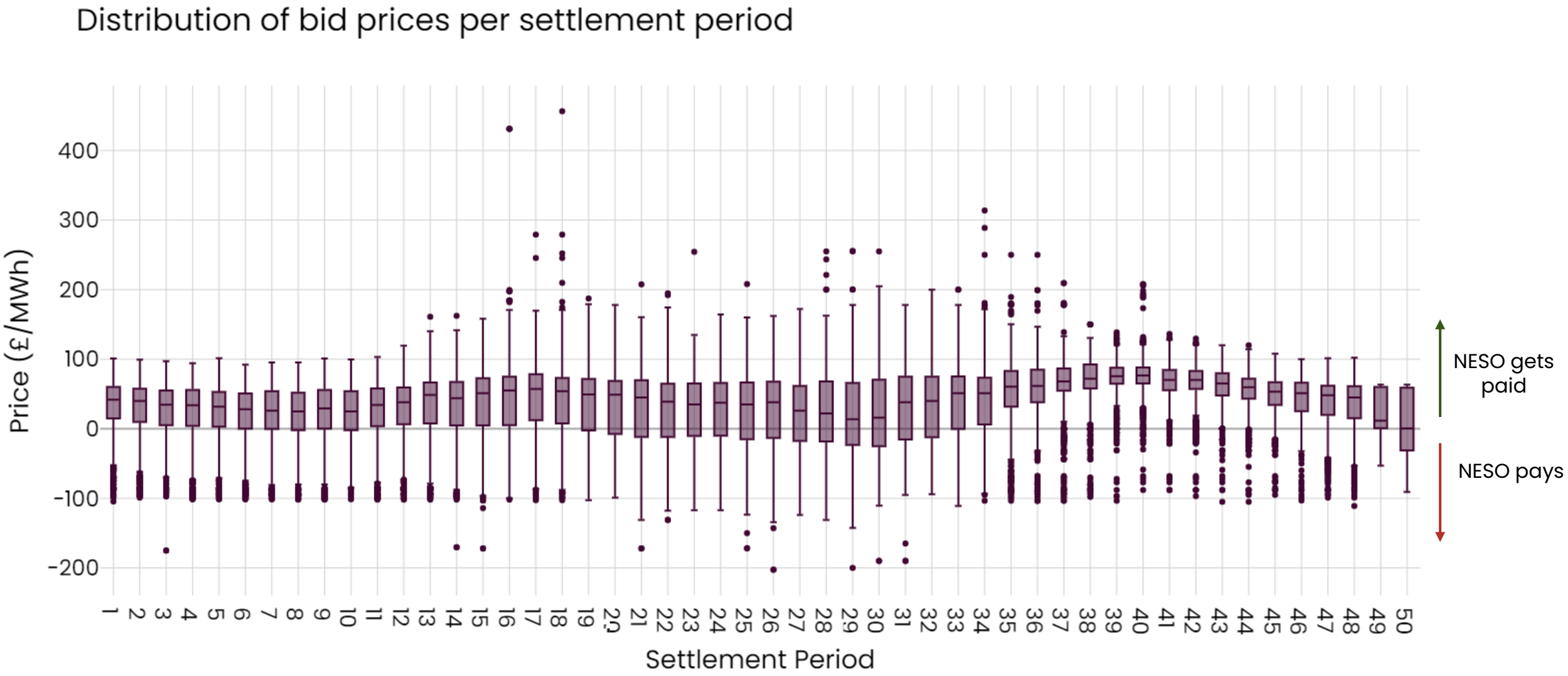
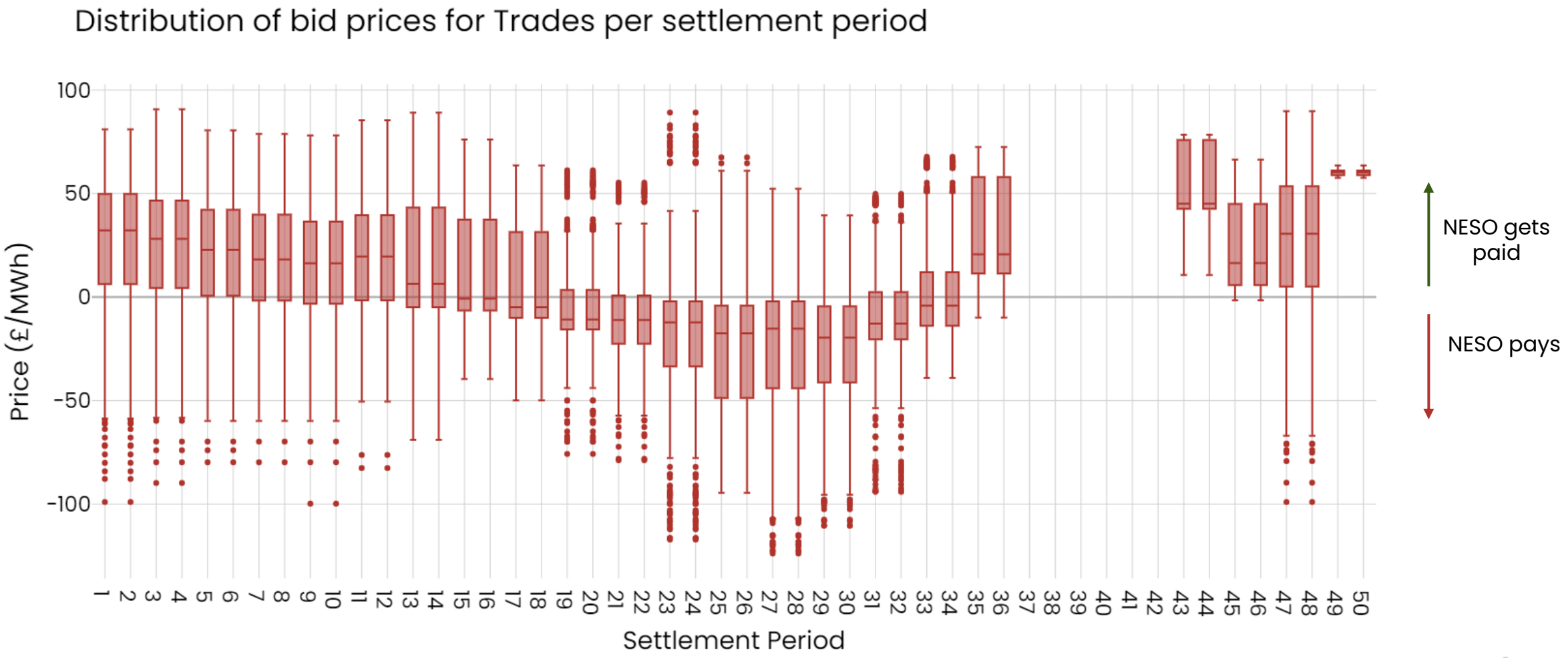
Balancing Mechanism

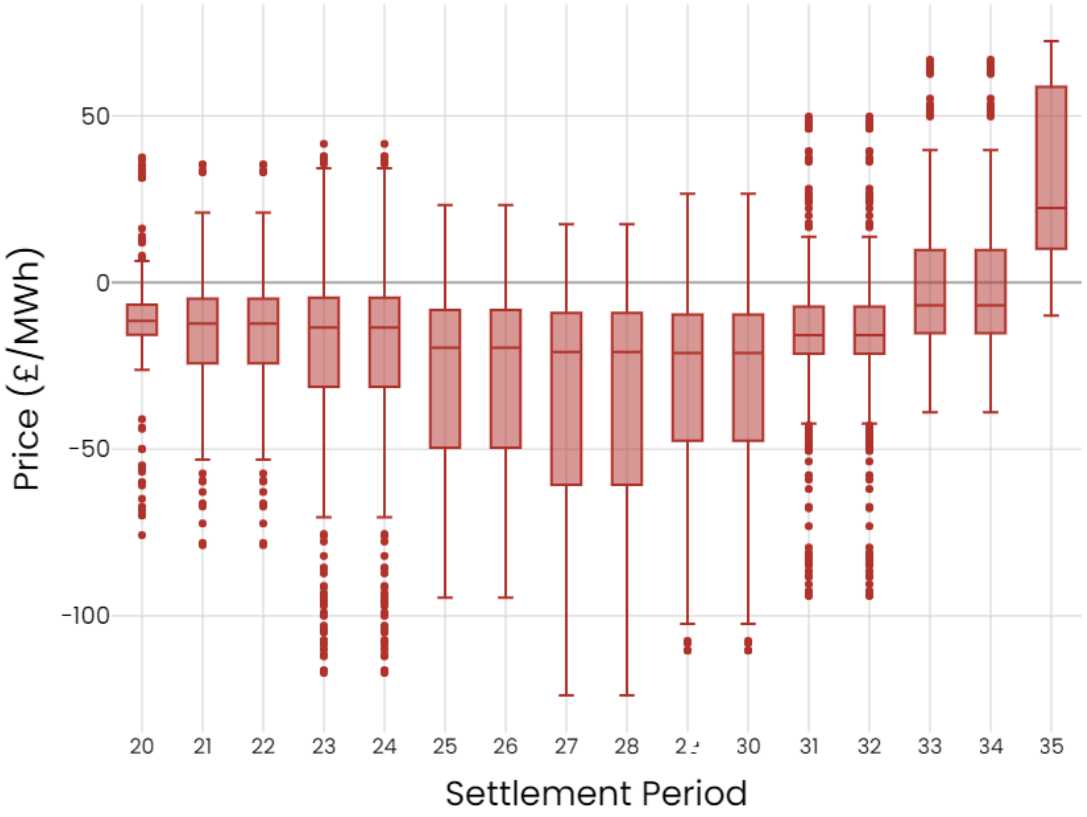


Trades


Distribution of bid prices for Trades per settlement period
Price (£/MWh)
100
50
0
-50
-100
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50
Settlement Period
NESO gets paid
NESO pays

Weekend

9:30am-5:30pm



NESO gets paid

NESO pays

Date Range – April 2024 to May 2025

Price Range (£/MWh)	Volume (MWh)	SPs
>= £50	3775	91
£0 <= PB < £50	50086	1193
£-50 <= PB < £0	172136	4455
£-100 <= PB < £-50	28602	919
PB < £-100	2345	106

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DFS Initial Service Design Proposals

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ABSVD

- Previous industry feedback has highlighted an issue regarding some Balancing Responsible Parties being unfairly impacted when their imbalance position is adjusted (using ABSVD) when delivering certain Balancing Services.
- Issue Group 114 set up to co-ordinate and agree on a resolution
- Elexon have proposed a resolution of 'Direct Compensation' for Issue 1
- NESO raising proposal for code modification
- DFS looking to adopt this process, ensuring consistency across services
- Issue Group Survey

Baseline Methodology

- Currently using the P376 methodology as this is the most widely recognised industry baseline methodology
- Self-nominated baseline used by other core services – may not be the best option for DFS
- Considerations:
  - Apply weather adjustment correction
  - Within-day adjustment – could reinstate as now procuring DFS closer to real time
  - Baseline options for renewable assets e.g. wind and solar
    - Potential to introduce 2 different baselines

Bi-directional

- Accessing negative margin – considerable market interest
- Unlocking ODFM (optional downward flexibility management) volume.
- Process timings vs positive margin service
- Operating outside core hours
- Complimentary stacking rules

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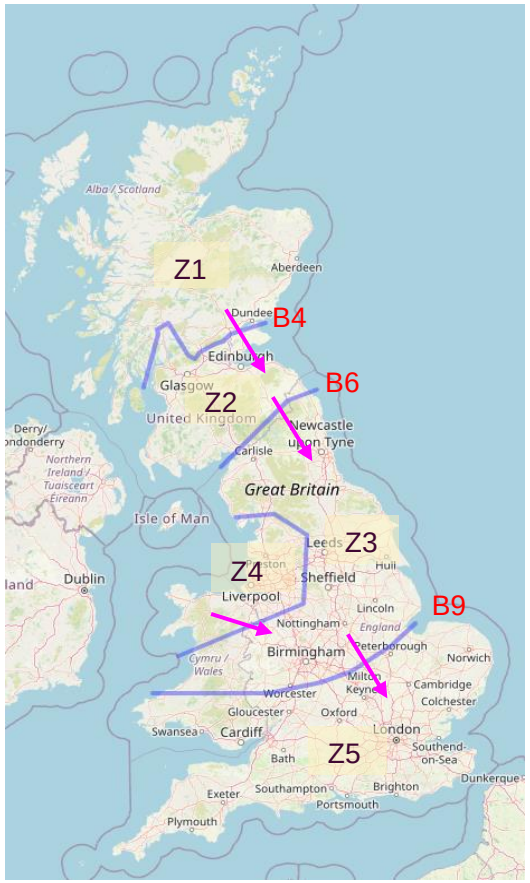
Locational Considerations

- Aligning with broader Response and Reserve reform
- Introducing Zones, for DFS procurement.
- The minimum number of zones we are considering is 2.
- These zones will be aligned with the most congested network boundaries.
- Zones are likely to straddle DNO regions.

Example 5-Zones



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Timelines and What's Next

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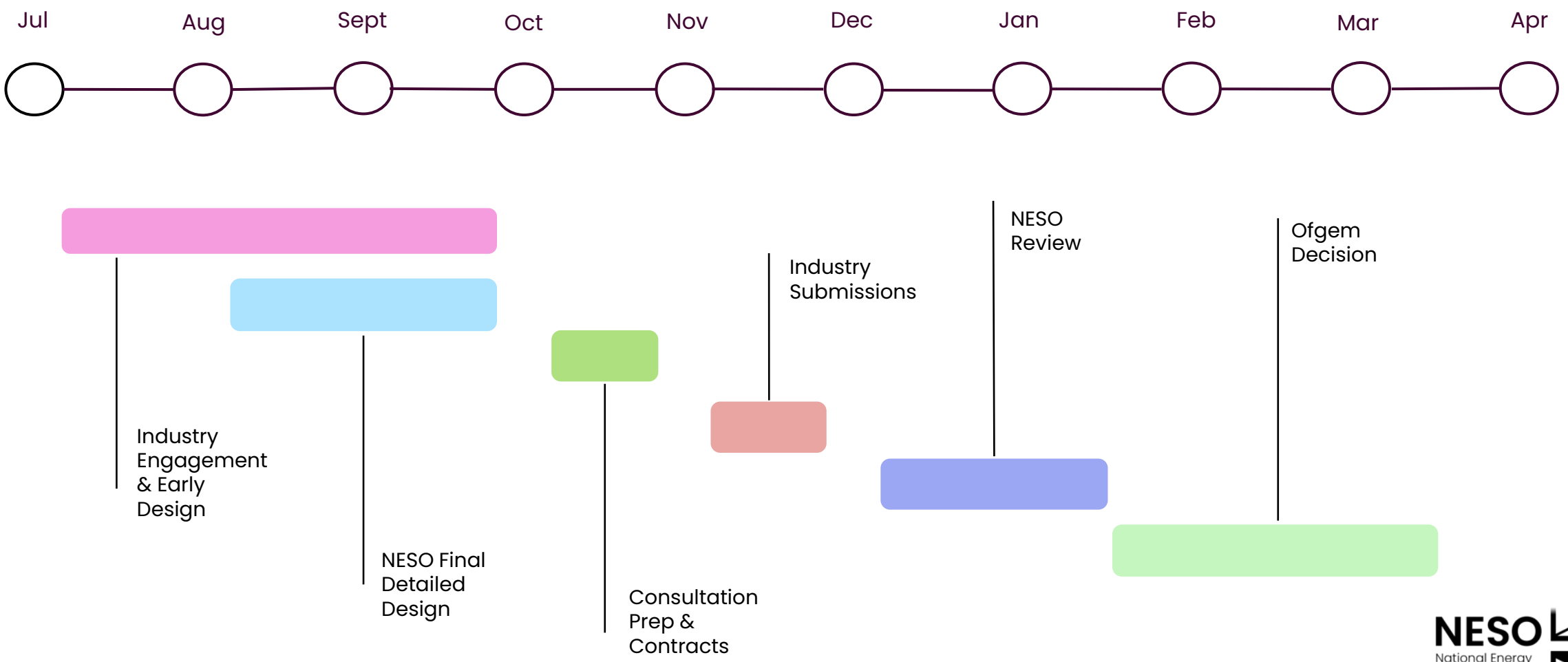
DFS Indicative Timeline*



Early view indicative timeline. Subject to change as detailed design progresses.

Deep Dive Workshops

Baseline & ABSVD

Locational Procurement

Demand Turn-Up

Eligibility Rules & Process

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Keep in touch

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Any questions & queries or would like to arrange a direct call

demandflexibility@neso.energy