

Mr. Chris Stark Chair, Mission Control

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BATTERY SKIPPING THREATENS INVESTMENT IN ENERGY STORAGE

Dear Mr Stark and Dr Golby,

We are writing as long-term institutional investors committed to supporting the Government's goal of achieving a clean power system by 2030. We would like to draw your attention specifically to policy and procedural weaknesses in the battery storage sector, which are undermining investor confidence. Left unaddressed, these failures put at risk capital deployment into energy storage precisely at the time the Government is seeking to ramp up supply to support decarbonisation of the electricity system.

While we were pleased to see this issue highlighted by NESO in its response to an industry letter last month¹ and then again in NESO's "Clean Power 2030" report², we wish to underline our concerns as investors and request urgent action. Of the many issues on NESO's to do list, this matter offers a quick and inexpensive opportunity to unlock capital for a more affordable and cleaner power system.

Background on signatories

By way of background, most of the signatories to this letter have made commitments to align their investment strategies with supporting achievement of the Paris Climate Agreement goals. We are also all investors in battery storage in the UK. In total we have deployed just over £140 million (at current share prices)³.

³ In the absence of regulatory uncertainty, we believe that the value of our combined investment would likely be closer to £280 million, based on reported Net Asset Values. See below on loss of value over last 3 years, reflecting a loss of confidence in the sector.



¹ https://www.neso.energy/news/our-commitment-improve-battery-dispatch-rates-balancing-mechanism

² NESO, "Clean Power 2030", November 2024, p. 23 (https://www.neso.energy/document/346651/download)



Battery storage investment is at risk

For investors like ourselves to channel capital towards the necessary infrastructure to support rapid decarbonisation, we require a supportive market environment. Above all, we are looking for the establishment of a level playing field for battery storage to compete fairly in the power system, regulatory transparency and predictability. The trouble is that when it comes to battery storage, the opposite has been true.

Over the past three years we have experienced deteriorating returns, rising volatility and increasing risks of insolvency in the very companies that the Government needs to be investing for growth. Taking the three listed battery storage operators (Gore Street Energy Storage, Gresham House Energy Storage and Harmony Energy Income), share prices have on average fallen by 21% a year over last three years, with shares declining a massive 47% in the year to date. This means that the sector sits at a substantial 53.5% discount to reported Net Asset Value today. While there are inevitably multiple factors driving share price performance for any company, these figures speak to the loss of confidence in the sector's future.

Under these conditions, the Government is highly unlikely to achieve the required expansion of battery storage of four to five times (from 5 GW to 23-27 GW) by 2030, as envisaged under NESO's clean power pathways⁴.

A key part of the solution is to tackle 'skipping'

One of the most impactful actions NESO could take today would be to tackle uneconomic 'skipping' of batteries in the dispatch process⁵. It makes no sense for cheaper battery power to be passed over in favour of more expensive carbon-intensive power. Aside from the unnecessary costs ultimately borne by customers, skipping undermines incentives to invest in battery assets, which are vital to achieve the Government's carbon neutral power system in 2030. A lack of battery storage, in turn, exacerbates curtailment where renewable power is lost as the system cannot absorb it in times of over-supply, reducing the economic viability of these projects and therefore the investment case for a net zero energy system as a whole.

NESO said it will act, but batteries must not get lost in the to-do list

While we have been pleased to see NESO reaffirm that it will tackle skipping in its recent "Clean Power 2030" report, this is not a new commitment and yet little progress has been made. This appears to be partly due to ESO in the past disputing the materiality of the problem⁶.

While the launch of the Open Balancing Platform in January and the move to a 30-minute rule (from 15-minutes) for batteries in March 2024 have helped, Modo Energy estimates that skip rates remain at an elevated 70 to 80%. Modo also found that, while overall energy dispatched to batteries reached a record

⁴ ibid

⁵ Skipping occurs where the control room fails to prioritise batteries over gas during periods of shortage due to legacy systems.

⁶ https://www.ft.com/content/13e8fd48-7320-4c60-9703-51d12268e868; https://www.zenobe.com/insights-and-guides/industry-calls-for-urgent-government-action-on-battery-storage-to-deliver-2030-target-and-cut-household-bills/



of 2.5 GWh per day in August, the in-merit dispatch (where batteries are made available at a competitive price) remained at just 10% of available battery energy volume as battery capacity has continued to expand⁷.

For its part ESO (now NESO) have repeatedly delayed releasing its report on skipping commissioned from LCP in December 2023, fuelling concerns over their willingness to accept the scale or urgency of the problem. Even in NESO's latest "Clean Power 2030" report, regulatory failures relating to batteries occupies half a page in an 84-page document. Our letter is intended to draw your attention to this matter to avoid it getting lost amongst the many action points.

Suggested actions

In order to lower skipping we would point to a number of measures that would be relatively inexpensive and quick to deliver:

- Faster transition to OBP this would be the quickest and most effective way to address elevated skip rates. OBP has demonstrated it can dispatch large volumes of assets in an automated fashion, including greater use of batteries. The current timetable from NESO sees gas fully moved over to OBP in 2027. We would like to see this happen faster.
- State of Energy upgrades this would allow NESO to see the state of battery charge or energy (remaining MWh of import/export capacity), which would permit the removal of the 30-minute rule, which is constraining a fuller use of battery capacity. This step is currently planned for the first half of 2025, which we believe could be accelerated.
- Reserving should permit greater battery participation currently, gas continues to dominate reserving, even when less economic. An ESO trial in September 2020 showed that when batteries are allowed to compete, significant savings can be achieved⁸. We would expect the savings to have increased significantly since the time of the study.
- **Transparency** the market requires full visibility of dispatch of batteries versus other technologies; accepted MWh versus available MWh for bids and offers and dispatch volume by technology.

Conclusion

The vital role of battery storage in delivering the Government's 2030 clean power targets is not in dispute. What we feel is lacking, however, is a sense of urgency is addressing key regulatory impediments. Fixing battery 'skipping' in the dispatch system offers an obvious opportunity to generate early momentum in transforming the UK's power system. It can also be delivered relatively cheaply.

 $^{^{7} \}underline{\text{https://modoenergy.com/research/bess-skip-rates-balancing-mechanism-2024-update-system-energy-actions}}$

⁸ESO estimated £680,000 savings a year during the trial, equivalent to £195 million when scaled up to the battery fleet size at that time: https://arenko.group/national-grid-eso-announce-highly-successful-results-of-arenko-pioneered-reserve-from-storage-trial/



While perhaps not be as grand as, for instance, investments in large new transmission cables, carbon capture and storage or hydrogen, the value for money proposition is clear. We would, therefore, welcome your attention to this matter and look forward to hearing back.

Yours sincerely,

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