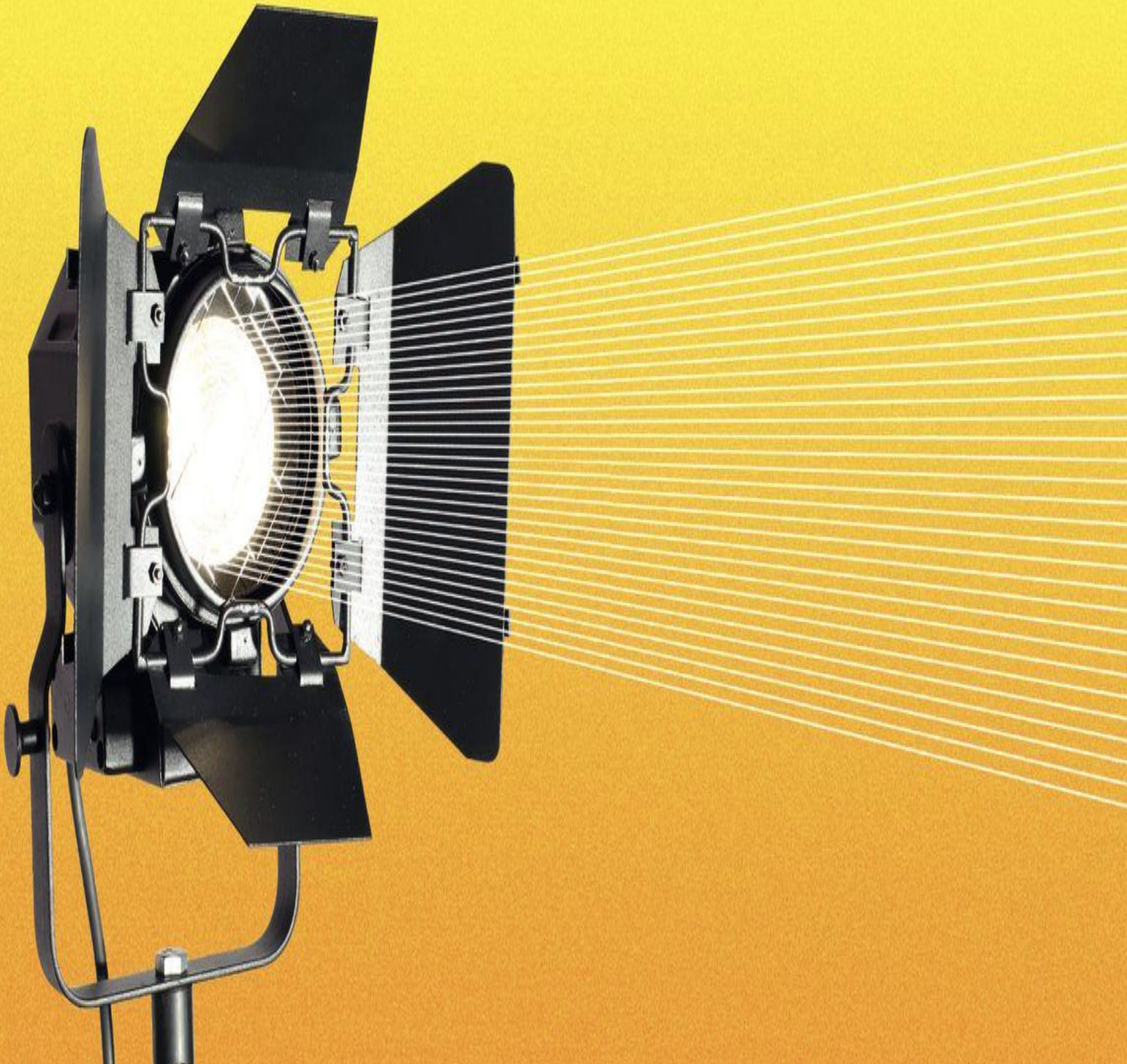


Balancing Costs

Hotspots

February 2019

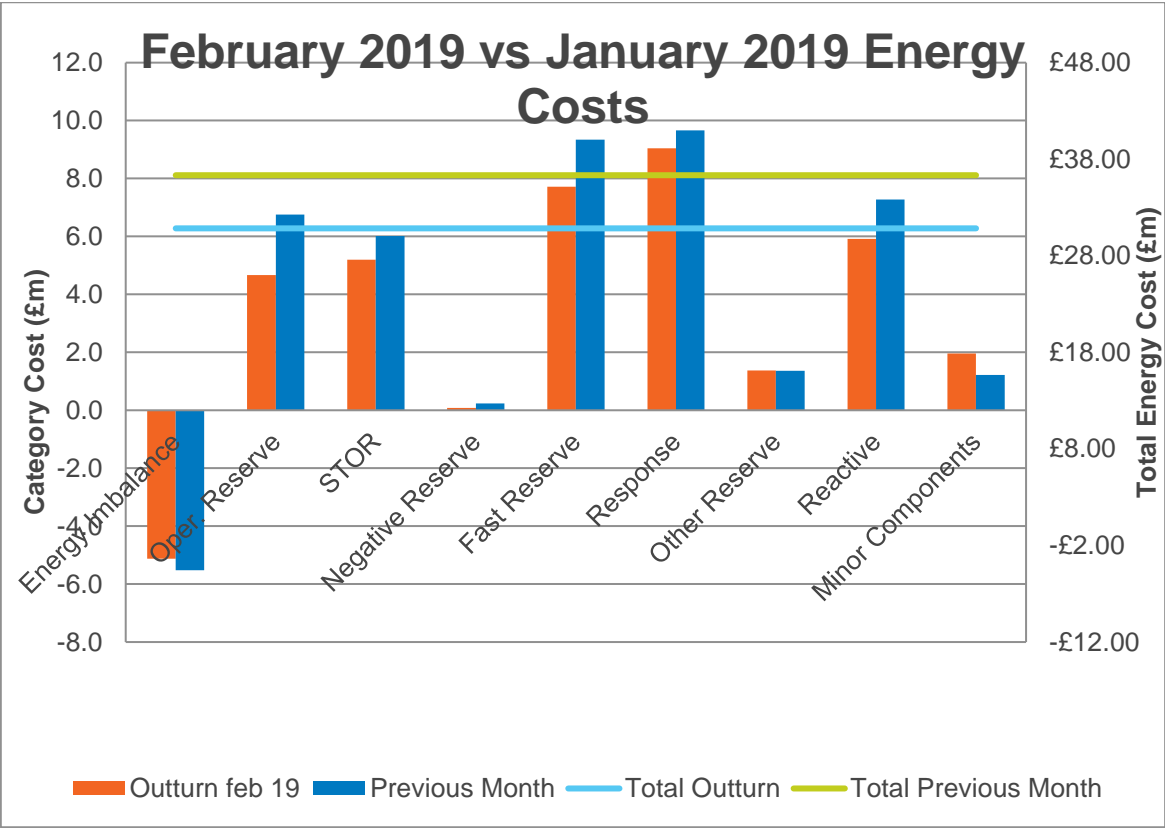


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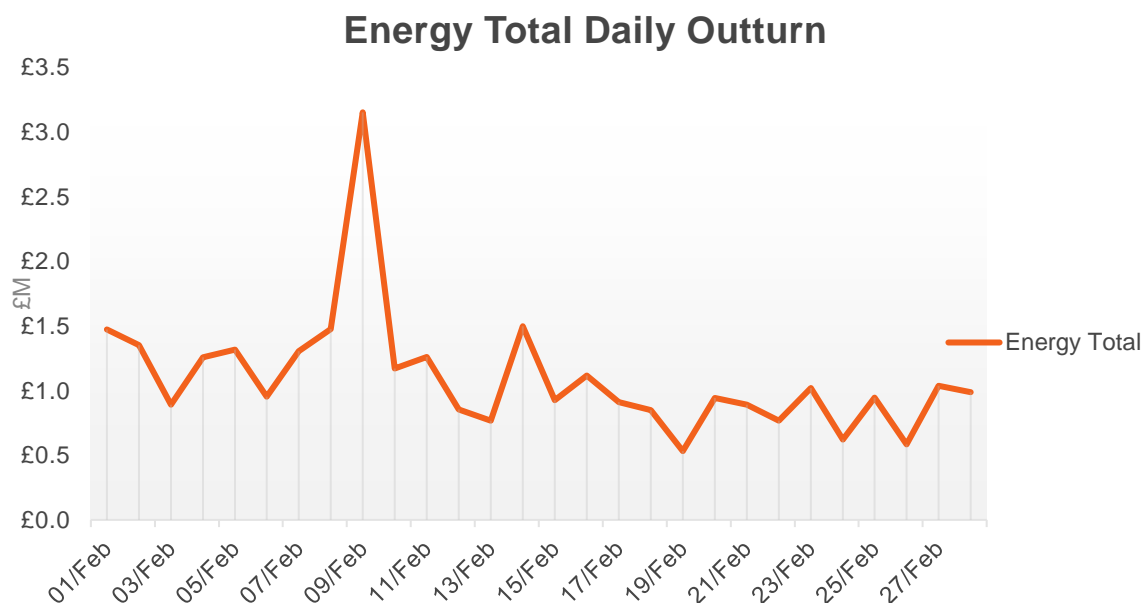
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Energy Costs

Energy costs (including energy imbalance) for February 2019 out-turned around £31m which is £5.5m lower than the previous month. Small increases in Energy Imbalance and Minor Components were offset by reductions across all other categories with Operating Reserve, Fast Reserve and Reactive showing the biggest drops.



1. Energy Total Daily Outturn

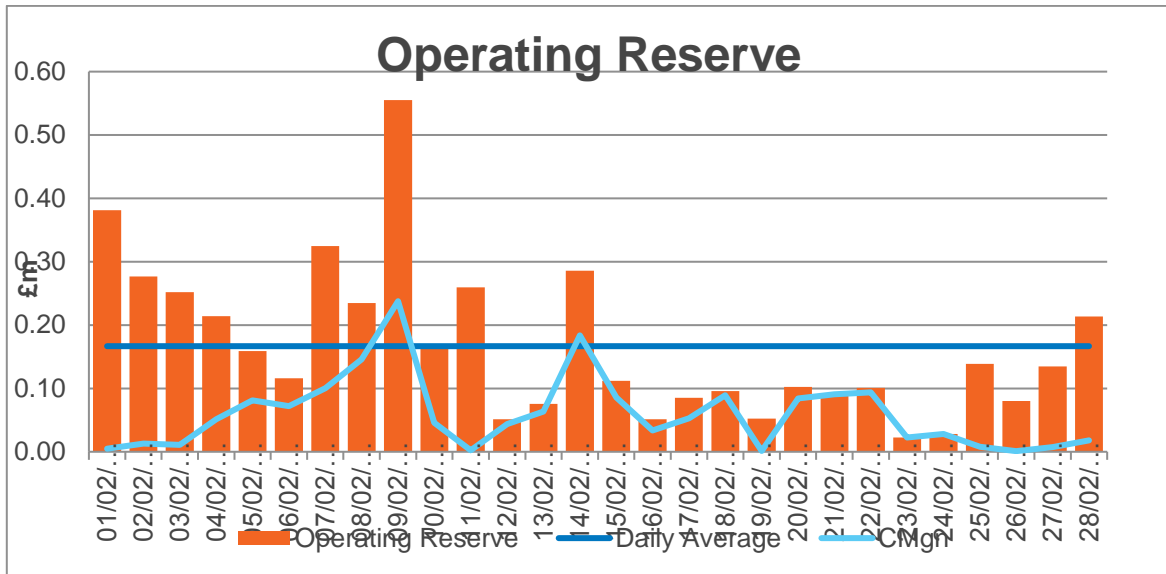


The average daily energy spend for the reporting month was around £1.1m. Daily energy costs remained below £1.6m for all days in February 2019, except for Saturday 9th when the daily spend was £3.2m.

Storm Erik was at its peak on this day with the market shortfalls of over 2GW observed overnight and in the evening with high costs incurred covering the imbalance. The increased uncertainty caused by the adverse weather also saw high levels of cost incurred on reserve and response.

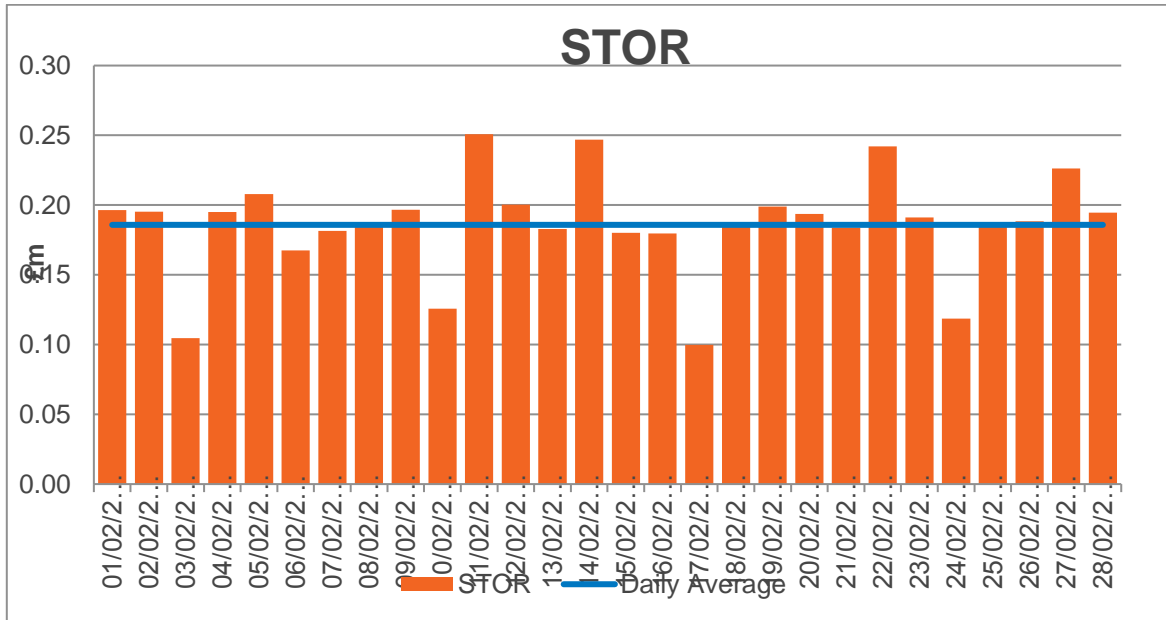
2. Operating Reserve

Operating Reserve out-turned at around £4.7m showing a decrease from the previous month of roughly £2m. The average daily cost was around £0.17m in February 2019. Saturday 9th saw the highest daily spend with an outturn of around £0.56 but high costs were also observed on 1st February (£0.38m) and 7th February (£0.32m). Adverse weather was a factor in all these days with weather warnings in place on each day.



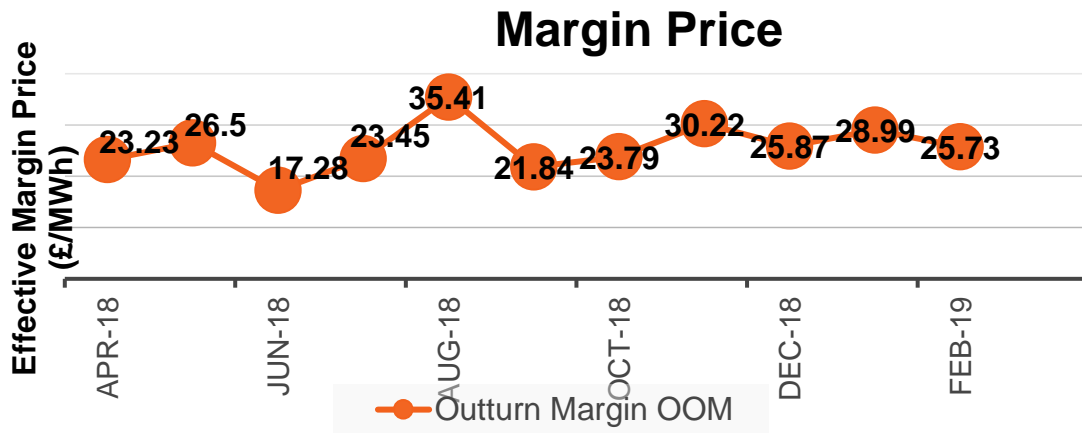
3. STOR

STOR cost for February 2019 was around £5.2m showing a slight drop from the previous month. The average daily cost was around £0.19m. Monday 11th was the most expensive day for this category with a spend of £0.25 when 500MW of STOR was run over the morning pick up.



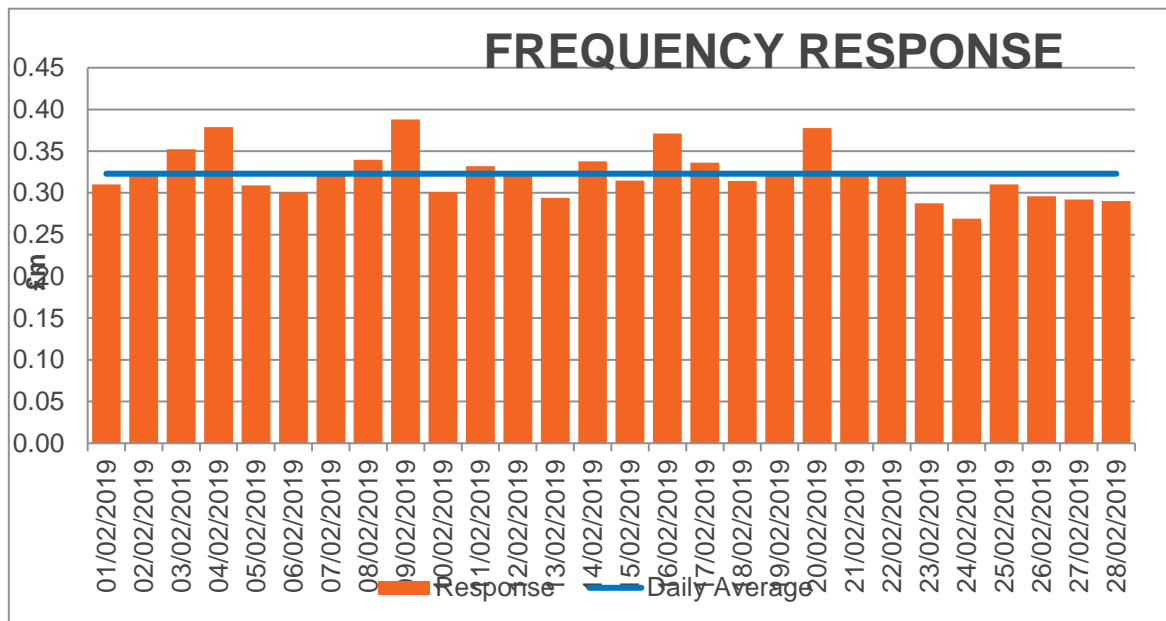
4. Margin Price

The Average margin price in February 2019 decreased from the previous month out-turning at £25.73/MWh.



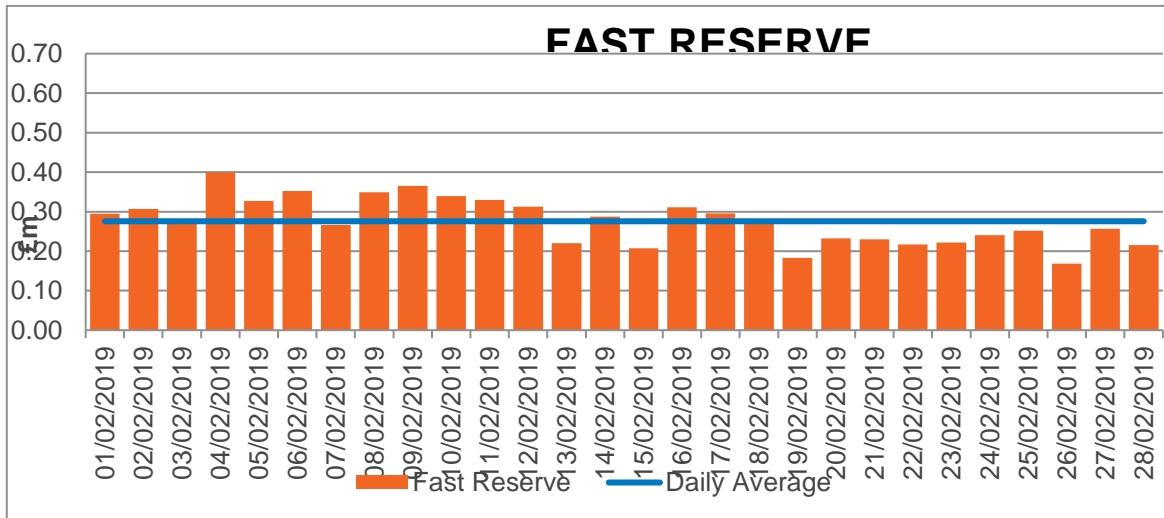
5. Frequency Response

Frequency response in February 2019 out turned at £9.04m showing a small decrease from January but an increased daily average on £0.32m due to the shorter month. The highest cost day was 9th February with a cost of £0.39m driven by the adverse weather.



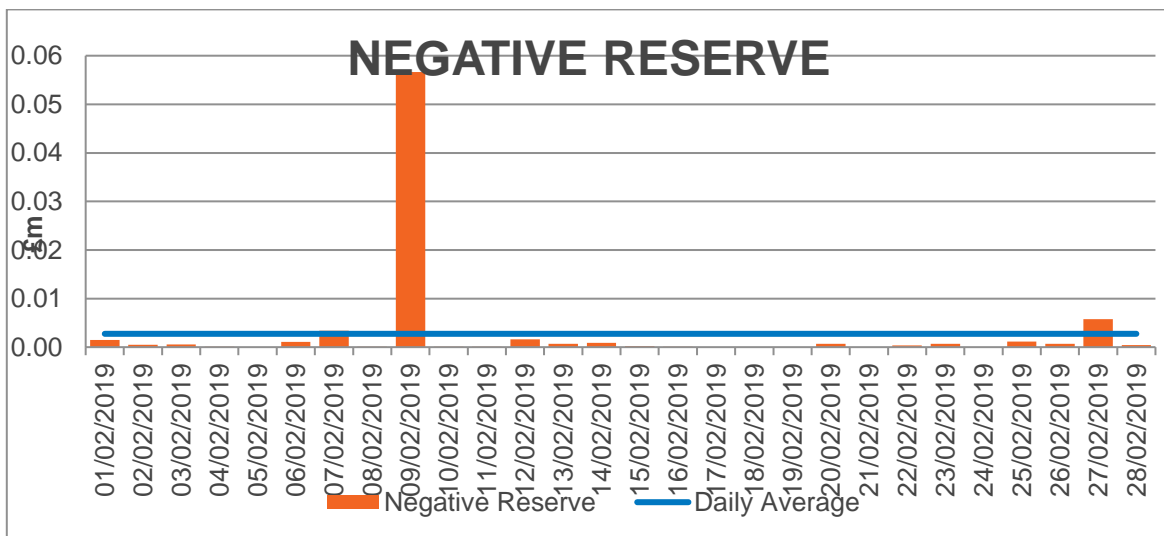
6. Fast Reserve

Fast reserve out turned at £7.72m in February 2019, showing a decrease from the previous month of roughly £1.6m. Throughout the month, the average daily cost was around £0.28m and the ancillary costs made up around 83% of the total costs, most of which is incurred on the SpinGen service.



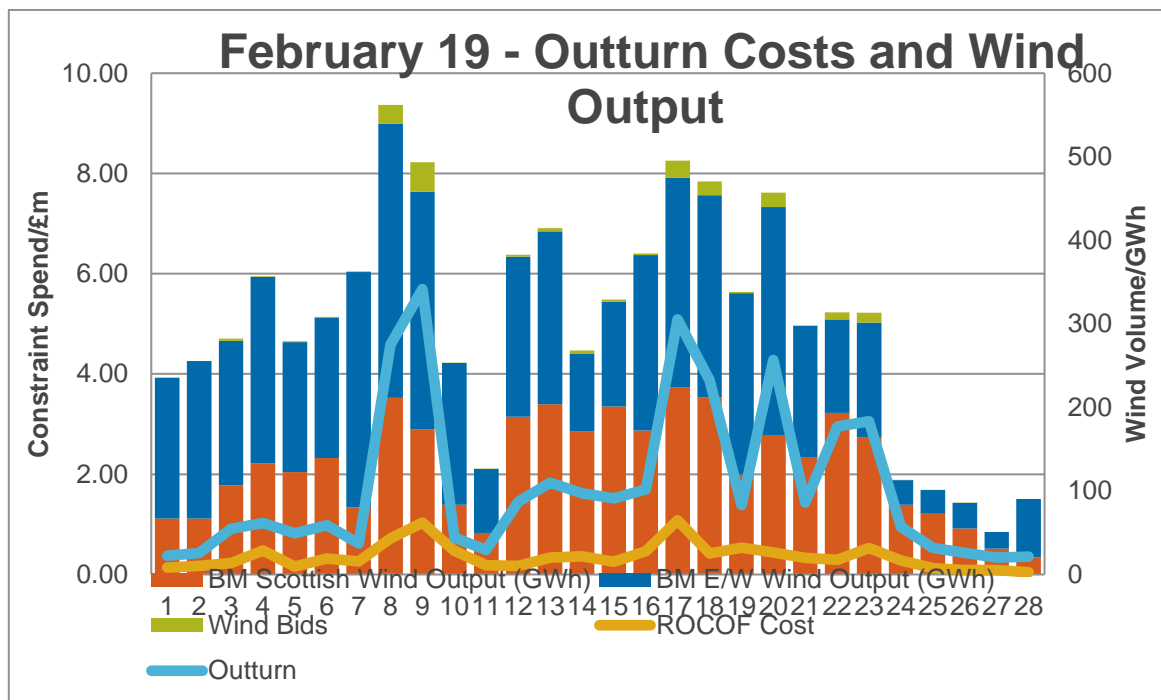
7. Negative Reserve

Negative Reserve out turned at £0.08m, showing little variance from the past month. The costs for this category were nil or below £0.01m for most of the days. The highest spend day occurred on Saturday 9th February with cost peaking at £0.06m, which is around 75% of the entire month spend for this category.



Constraints Costs

The total constraints cost for January 2019 was £49.5m; £9.6m for England and Wales, £9.1m for Cheviot, £8.3m for Scotland, £8.8m for Sterilised Headroom, £7.0m on ROCOF, and £6.6m on Ancillary Services costs.



The graph above shows the daily outturn costs and the portion made up by ROCOF. It also shows output levels of BM wind and volume of wind bids (including trades) to indicate the extent to which wind output drives constraint costs.

The highest constraint costs in February 2019 were recorded on Saturday 9th and Sunday 17th with a daily spend peaking at around £5.69m and £5.09m respectively. In both cases, the main drive behind these high costs were the sustained high wind levels across the country over weekend days when the demand is low.

8. RoCoF

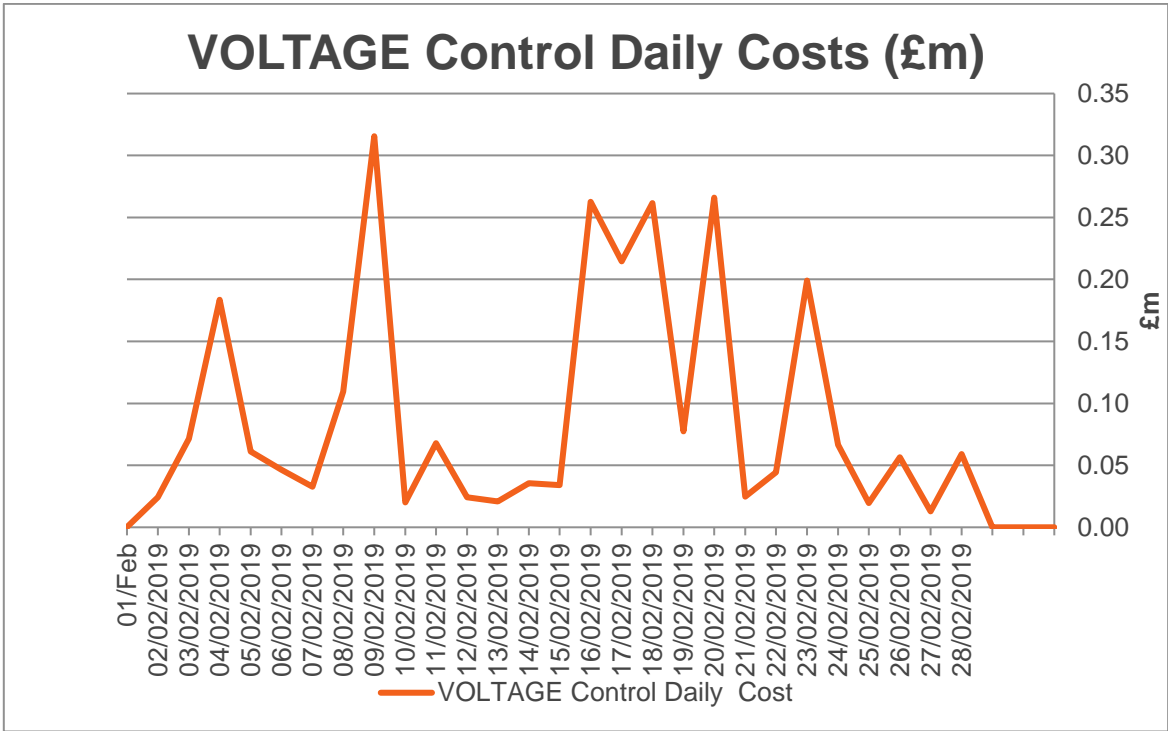
The RoCoF outturn for February 2019 was £7.0m. Wind and demand levels were the main drive behind high costs days for this category, on this reporting month, requiring large volumes of trades on the interconnectors and on generating units, sometimes with the support of BM actions, to limit the largest generation loss on the system. The highest daily costs occurred on weekend days when RoCoF constraints are likely to persist through the day due to lower system demand. Saturday 9th and Sunday 17th February were once again the highest days with RoCoF costs exceeding £1m on both days.

9. Voltage

These costs relate to the buying of energy in order to access the voltage capability on the generating units. The costs for voltage are reported in the Reactive Power category.

Voltage costs in February 2019 out-turned at around £2.6m to deliver 176.0GWh of energy with voltage supporting capabilities, of which around 40% of volumes were solved with forward trading.

There were no days during the reporting month when no voltage costs were incurred as the voltage management requirement was met by the market. The highest daily cost for this category occurred on Saturday 9th February and there was a cluster of high cost days from 16th – 20th February, when actions were required to support voltage control.



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