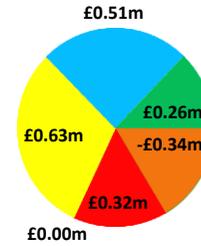
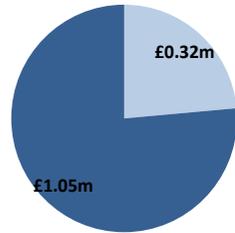


Daily Balancing Costs

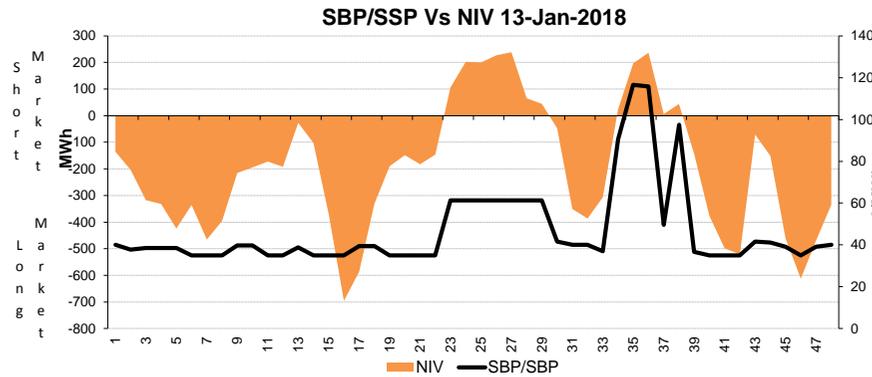
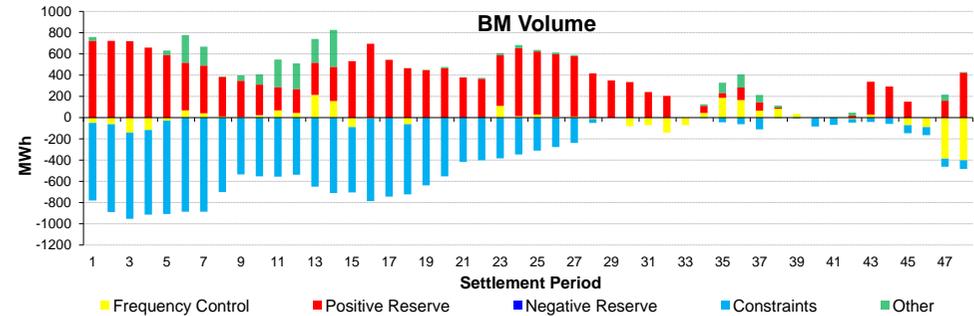
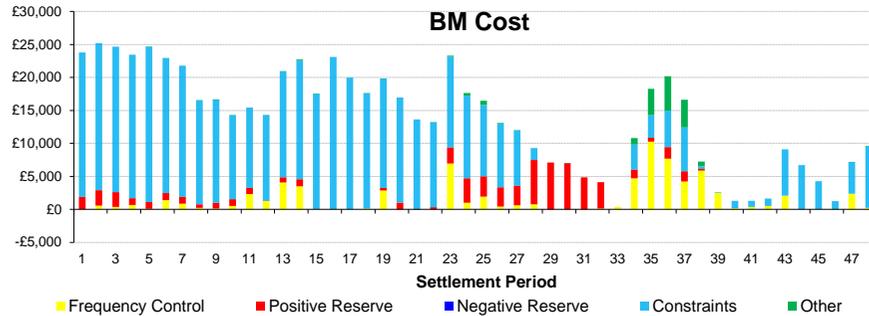
Date: 13/01/2018

BSUoS Charge Estimate: £1.15/MWh
Total Outturn: £1.38m

BM Cost (Indicative)
AS Cost (Estimate)



- Energy Imbalance
- Positive Reserve (Op Res + STOR + BM Start Up)
- Negative Reserve (Footroom)
- Frequency Control (Response + Fast Reserve)
- Constraints (BM & Trades only)
- Other (Reactive + Black Start + BM + AS General)



Commentary

During the morning pick up, a delay to a generator connecting to the system required 500MW of STOR to be instructed, which was also used to cover expected PV forecast error. For the darkness peak, around 800MW of expected generation did not materialise after some units pulled their PNs; 800MW of STOR was instructed to cover the shortfall. Additional levels of response were held to cover wind volatility throughout the day; frequency dropped to 49.79Hz following demand pick up as wind levels dropped off. BM actions were required throughout the day for constraints in North of England, with a small volume of wind actions required in North West Scotland. Numerous Trades on interconnectors and BM actions were required for ROCOF both early morning and late night. All voltage requirements were met by the market.