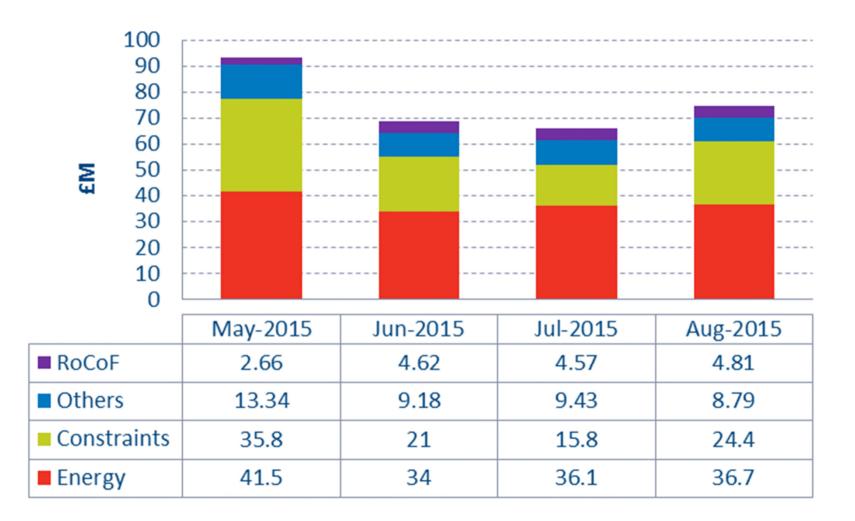
Operational and System Cost Update



Audrey Ramsay – Commercial Optimisation Manager

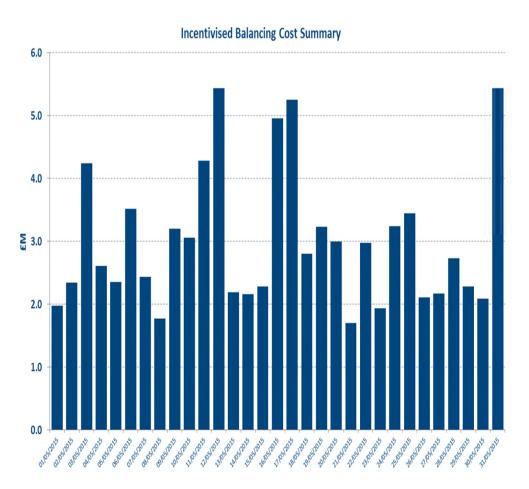
Cost Outturns for May - August 2015



Cost Outturns for May

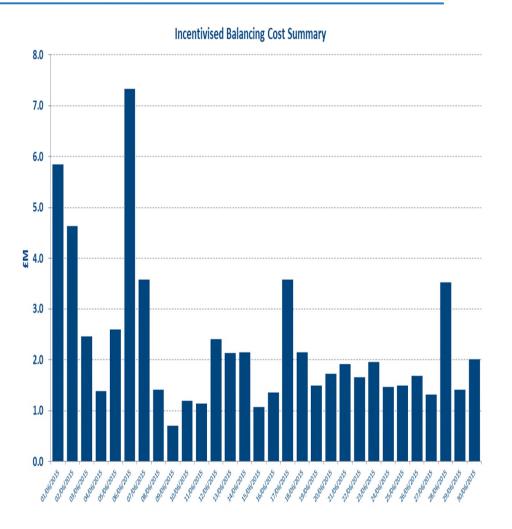
£93.3M

- High wind output on 11th/12th, 16th/17th and 31st May resulted in high constraint spend.
- Increased response costs due to demand uncertainty (Solar PV and embedded wind output).



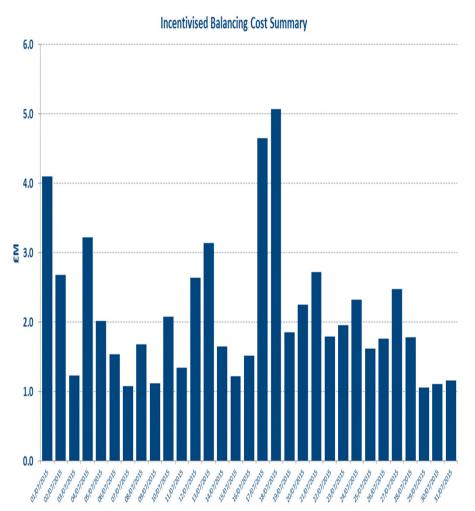
Cost Outturns for June

- £68.8M
- High wind output on the 1st, 6th, 17-18th and 28-29th June.
- Drop in overall costs
- Response, reserve and reactive costs dominated due to continued demand uncertainty.



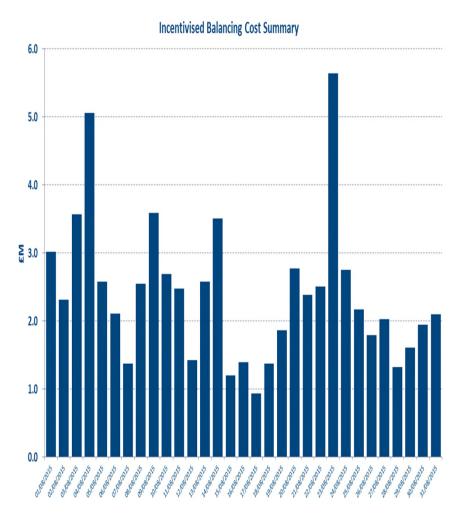
Cost Outturns for July

- **£65.9M**
- High wind output on the 17 & 18 July
- Response, reserve and reactive costs dominated due to continued demand uncertainty and generator unavailability

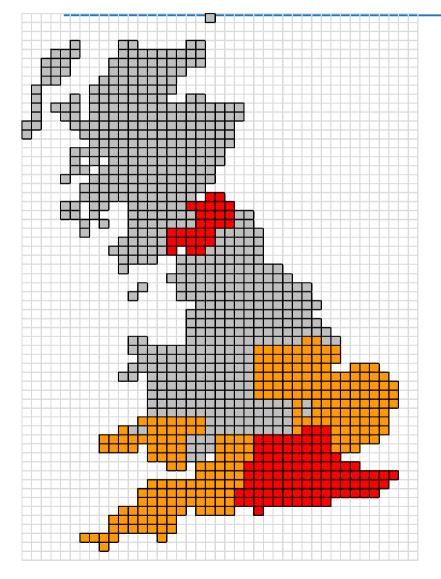


Cost Outturns for August

- **£**74.7M
- High wind output on several days in August saw significant costs for managing system constraints
- Response, reserve and reactive costs dominated due to continued demand uncertainty and generator unavailability

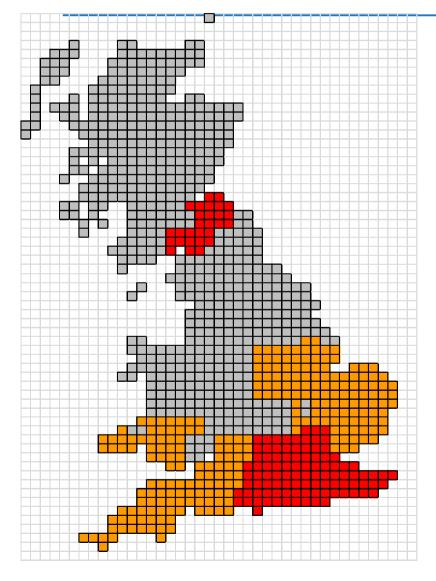


Active constraints – May



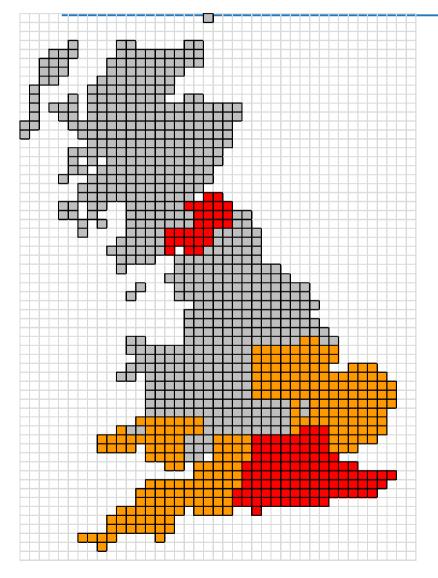
- Constraint: £35.8M
- RoCoF: £2.66M
- Cheviot constraint active during Blyth-Eccles-Stella West outage which reduced the SCOTEX by 500MW
- England and Wales spend mainly driven by Voltage requirements and RoCoF

Active constraints – June



- Constraint: £21M
- RoCoF: £4.62M
- Blyth-Eccles-Stella West outage continued into June
- RoCoF spend increased with trades required every day.
- Fewer gas units selfdispatching overnight increasing National Grid actions for voltage management

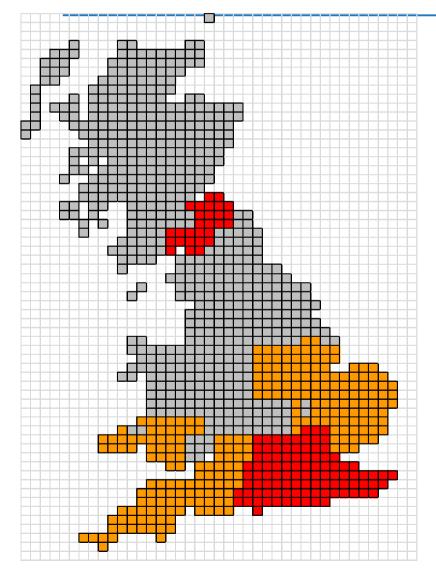
Active constraints – July



■ £15.8M

- Blyth-Eccles-Stella West outage continued into July
- RoCoF remained a high spend factor throughout the month of July requiring interconnector trades overnight, and weekend daytime
- BOA and Trades required overnight for voltage management

Active constraints – August



■ £24.4M

- Scotland England boundary outages continued into August
- ROCOF spend continued into August with interconnector trades overnight, and weekend daytime. Plus BOA action required in real-time
- BOA and Trades required overnight for voltage management

Minimising Balancing Costs

- SCOTEX constraint
 - Utilisation of intertrip
 - Rating enhancement
 - Optimal outage placement
- Voltage
 - Voltage Control Circuits
 - Index–linked Contracts
 - Trades

RoCoF

- Interconnector trades
- Energy
 - Fast Reserve contracts
 - FFR contracts
 - Combined voltage/FFR contracts

BSUoS Forecast Update 2015/16



BSUoS Forecast 2015-16

- External BSUoS costs estimated to be: £882.1M
- Internal Costs: £163M
- Total BSUoS costs estimated to be: £1,045M
- Total Charging Volume: 567.6TWh
- Est. BSUoS charge: £1.84/ MWh

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