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# Operational and System Cost Update

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# Cost Outturns for September 2014 - January 2015

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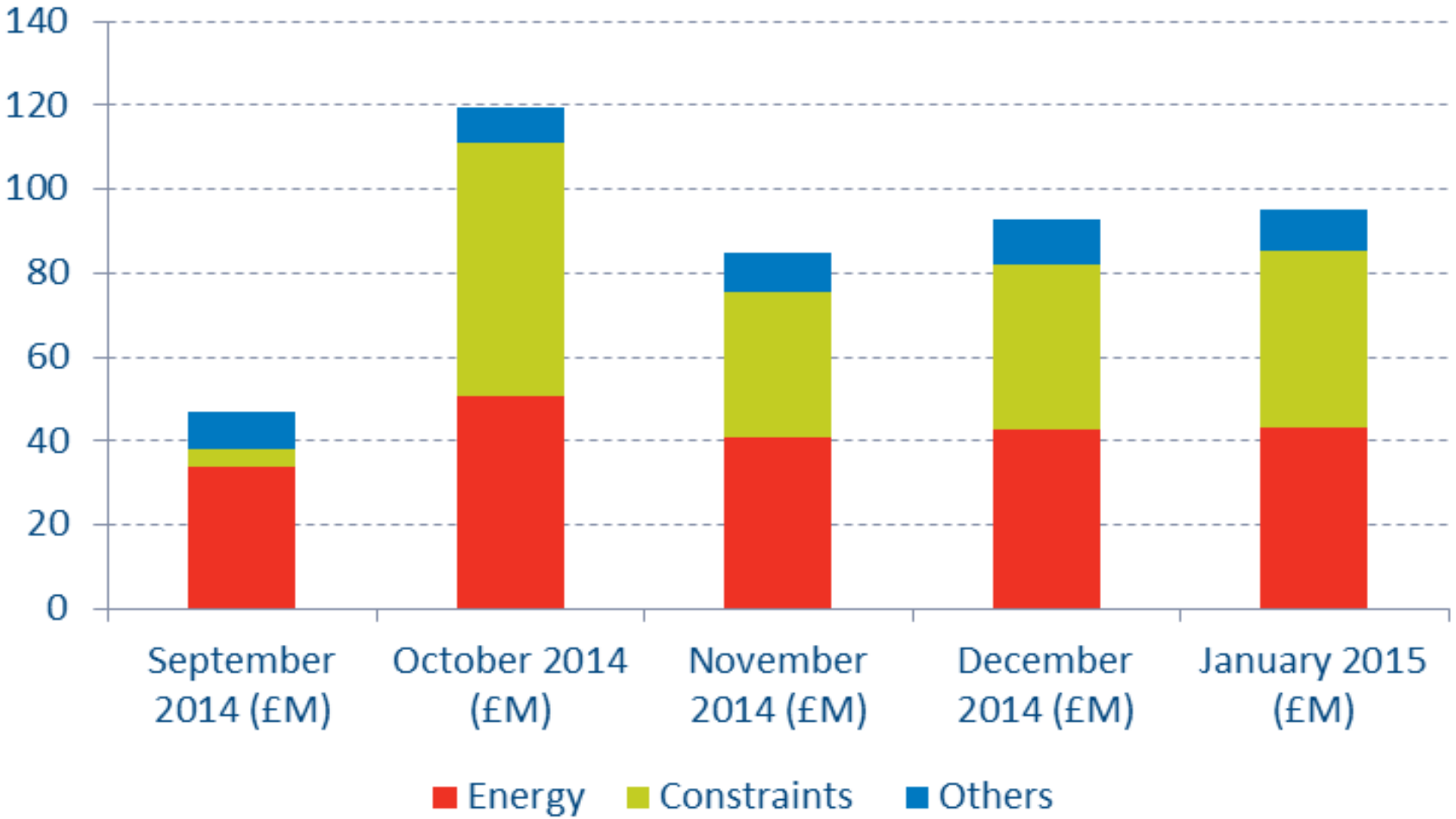
| Cost Category | September 2014 (£M) | October 2014 (£M) | November 2014 (£M) | December 2014 (£M) | January 2015 (£M) |
|---|---|---|---|---|---|
| Energy | 33.7 | 50.7 | 41 | 42.5 | 43.3 |
| Constraints | 4.3 | 60.3 | 34.5 | 39.6 | 42 |
| Others | 8.7 | 8.4 | 9.1 | 10.6 | 9.9 |
| **Total Cost** | **46.7** | **119.4** | **84.6** | **92.7** | **95.2** |

# Cost Outturns for September 2014 - January 2015



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# Cost Outturns for September

- A rise in gas price of ~10p/therm resulted in many gas plants 2-shifting overnight.
- Generation traded or bought in the BM to manage overnight voltage.
- Frequency response and margin costs remained low due to low wind volatility.
- Bids taken on Scottish generation to manage SCOTEX flows on 25th and 26th September.

# Cost Outturns for October

- Gas plants only running across peak periods, leaving a shortage of margin during the morning and overnight.
- Tight margins led to high cost units being bought on or warmed following the trip of Dungeness B2 on the 14th, and the unplanned outage of the remaining IFA bipole on the 16th.
- A sustained periods of high wind from mid October resulted in a significant increase in constraint costs due to SCOTEX limitations.
- Low plant availability in the south required increased action in the BM and trades to manage overnight high voltage issues.

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# Cost Outturns for November

- Improved market imbalance resulted in reduced energy costs from October.
- A number of high wind periods throughout November caused high outturn constraint spend as plant was bid off in Scotland to relieve congestion on the Cheviot boundary.
- Voltage control issues continued into November, particularly in the south east region of England.

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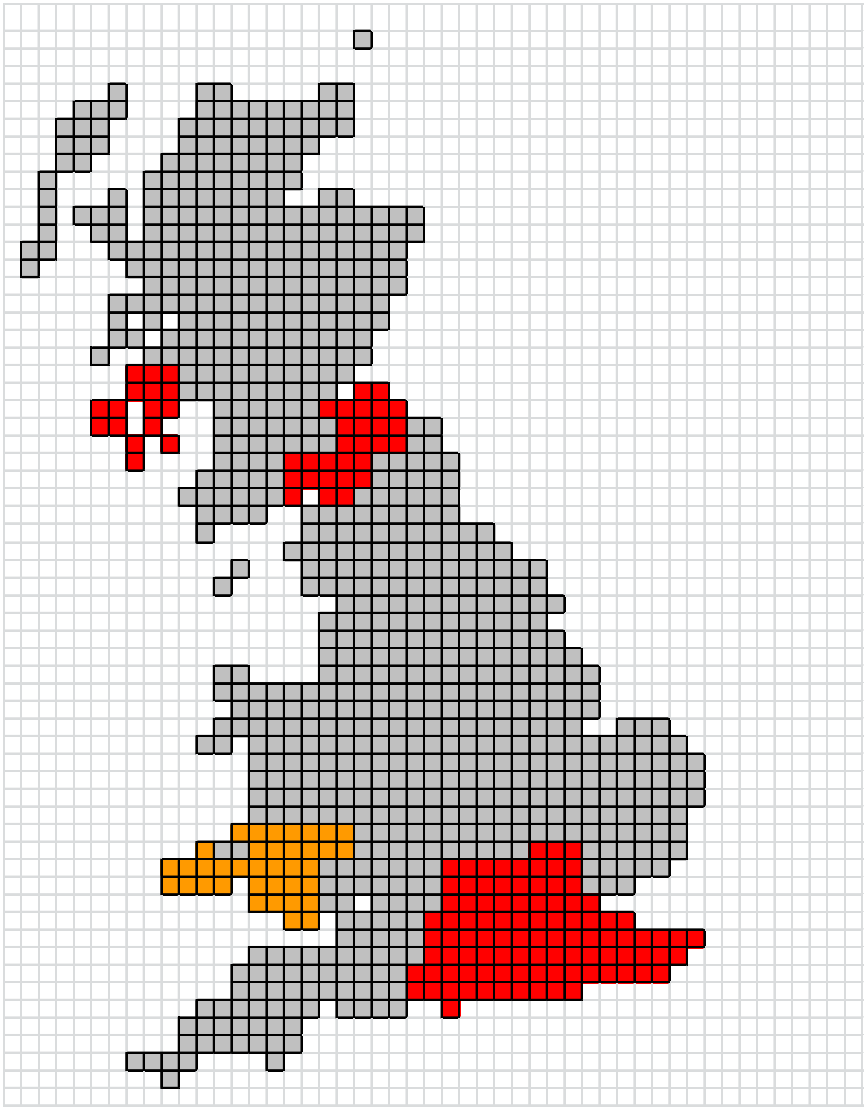
# Cost Outturns for December

- Energy costs increase in comparison to November.
- High winds and very cold periods, contributed to higher demand, requiring increased response levels.
- The market was short on a number of occasions particularly over the morning pick up and demand peak.
- Significant and sustained wind throughout December caused large spend in Scotland to reduce the flow across the Cheviot boundary.
- Voltage management also caused increased spend due to large generator outages.

# Cost Outturns for January

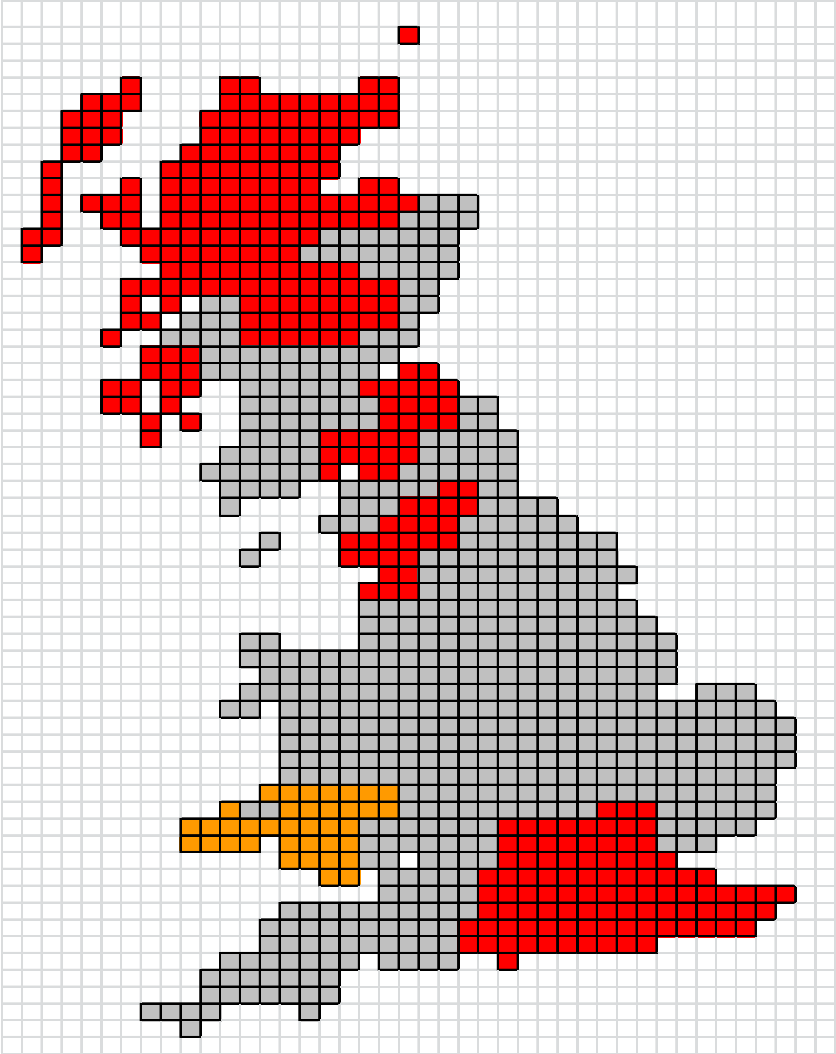
- Energy costs were up marginally in January compared with the previous month.
- High winds from winter storms, some cold weather and a few spells of short market conditions kept Energy spend high.
- Delayed works on North-South circuits caused large spend throughout the month on generation in Scotland and Northern England.
- Significant stormy periods required a number of actions to reduce output from Scottish units and some outages were deferred to improve system security.

# Active constraints – September



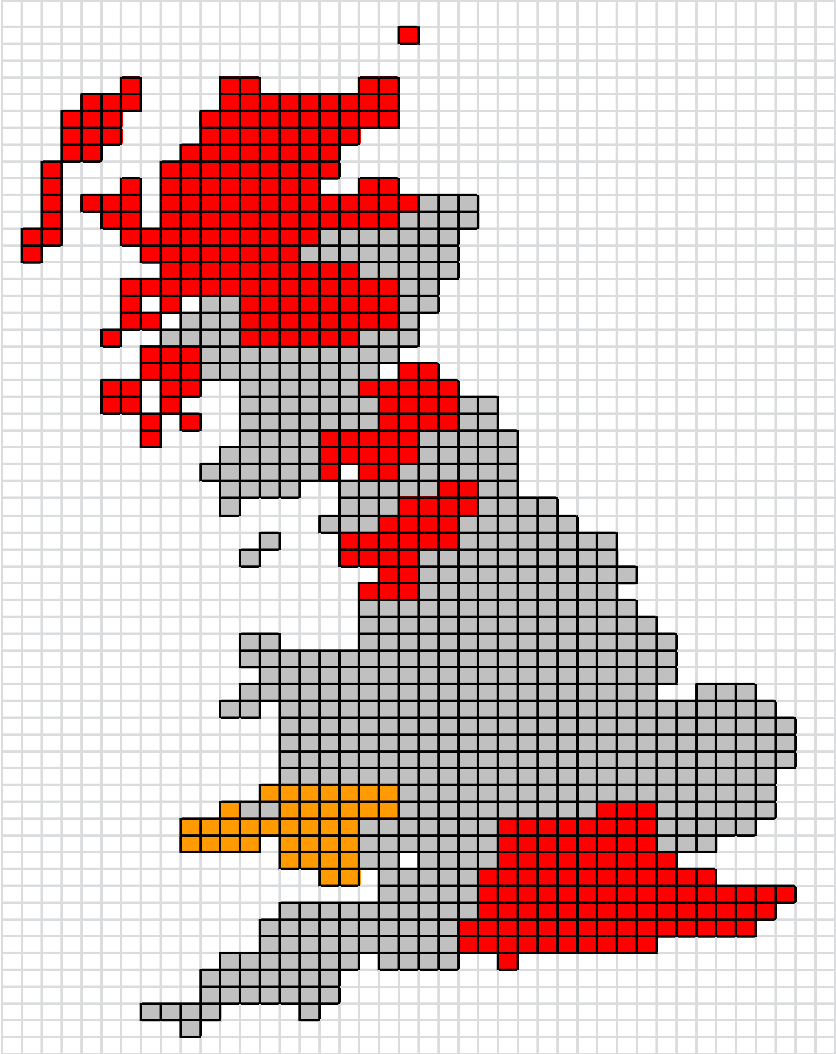
- E&W costs predominantly voltage related.
- Scotland – ongoing outages on major North – South circuits – impacting Cheviot but dependent on wind output.
- West Scotland – outage related and wind dependent

# Active constraints - October



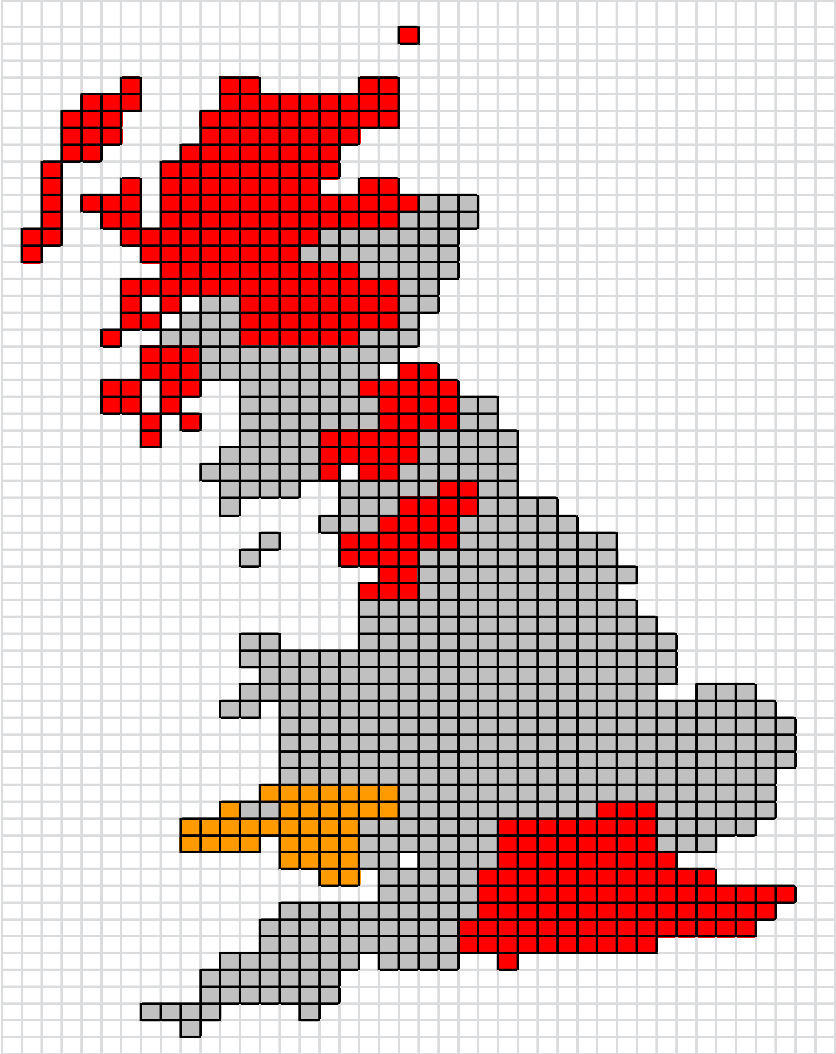
- E&W costs predominantly voltage related. Some costs related to outage of major North – South circuits.
- Cheviot – ongoing outages on major North – South circuits – impacting Cheviot but dependent on wind output.
- Scotland – related to several outages and wind dependent

# Active constraints - November



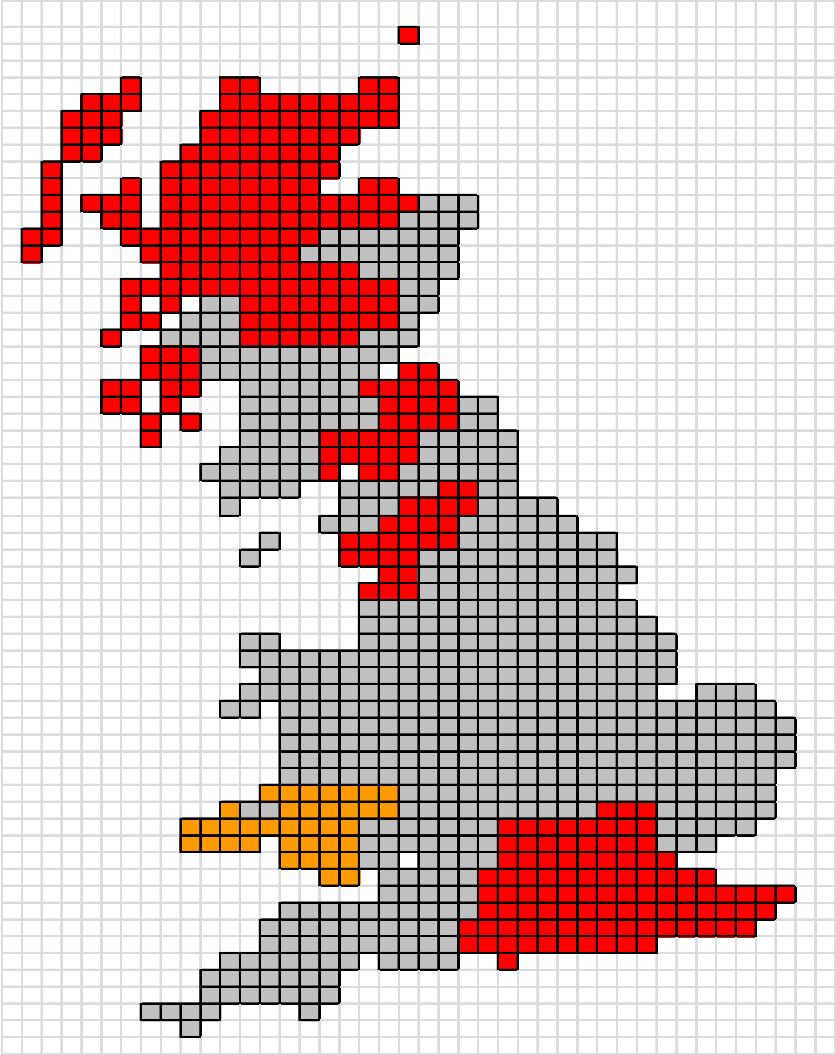
- E&W costs predominantly voltage related. Some costs related to outage of major North – South circuits.
- Cheviot – ongoing outages on major East – West circuits – impacting Cheviot but dependent on wind output.
- Scotland – related to several outages and wind dependent

# Active constraints - December



- E&W costs predominantly voltage related. Some costs related to outage of major North – South circuits.
- Cheviot – ongoing outages on major East – West circuits – impacting Cheviot but dependent on wind output.
- Cheviot – intact boundary capability restricting flows but dependent on wind output.
- Scotland – related to several outages and wind dependent

# Active constraints - January

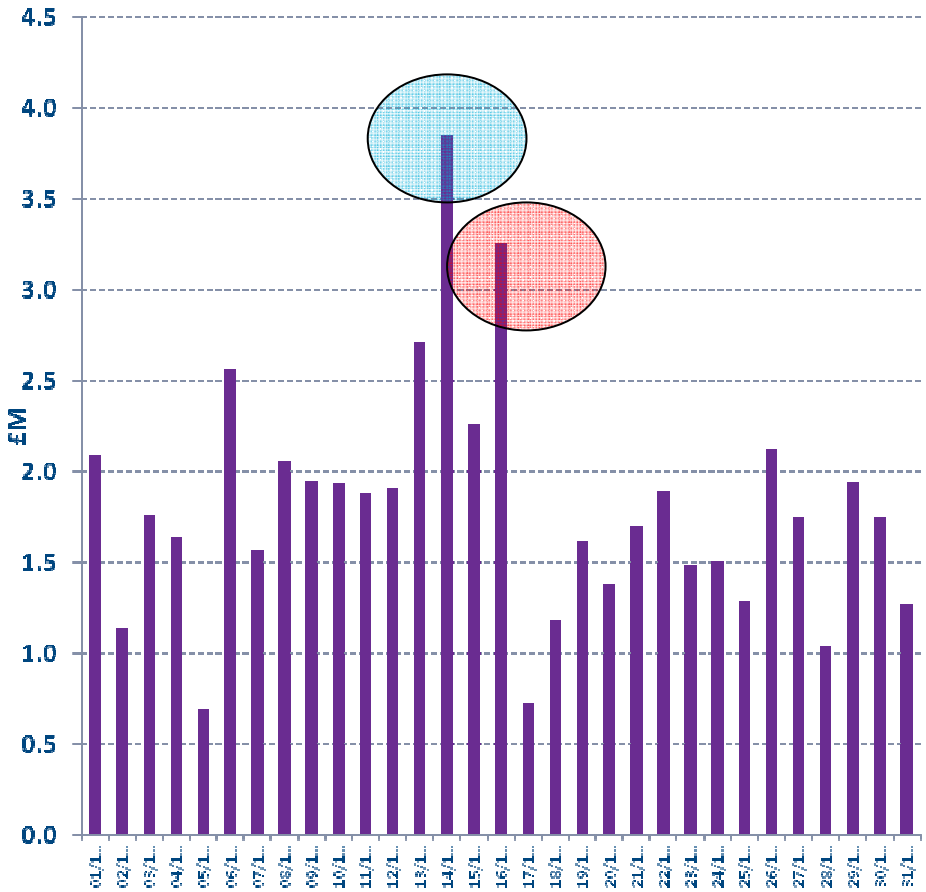


- E&W costs predominantly voltage related.
- Some costs related to fault outage of North – South circuit.
- Cheviot – intact boundary capability restricting flows but dependent on wind output.
- Scotland – outages on circuits – impacting flows from North of Scotland but dependent on wind output.

# October 2014 – High costs

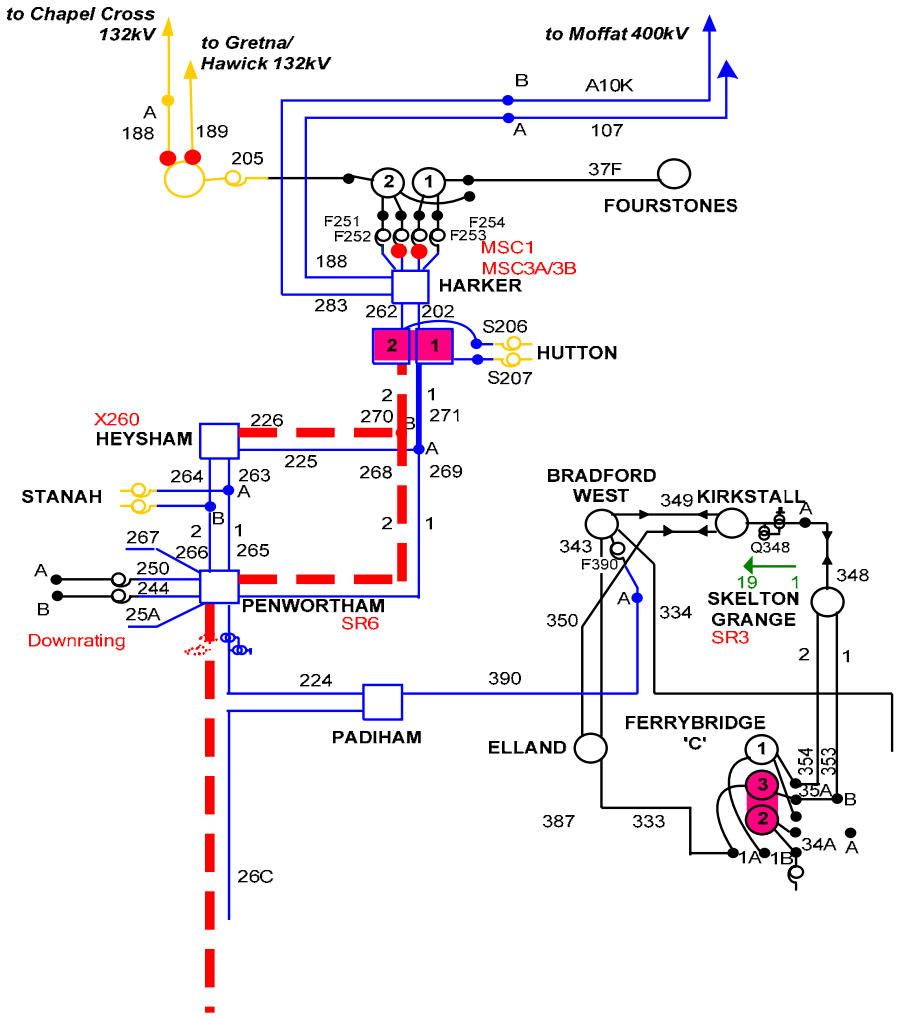
# Costs - £50.7M Energy

- Tight margins throughout October
- Dungeness B2 trips tightening margins & requiring high cost units
- **Unplanned outage of French Interconnector Bipole**

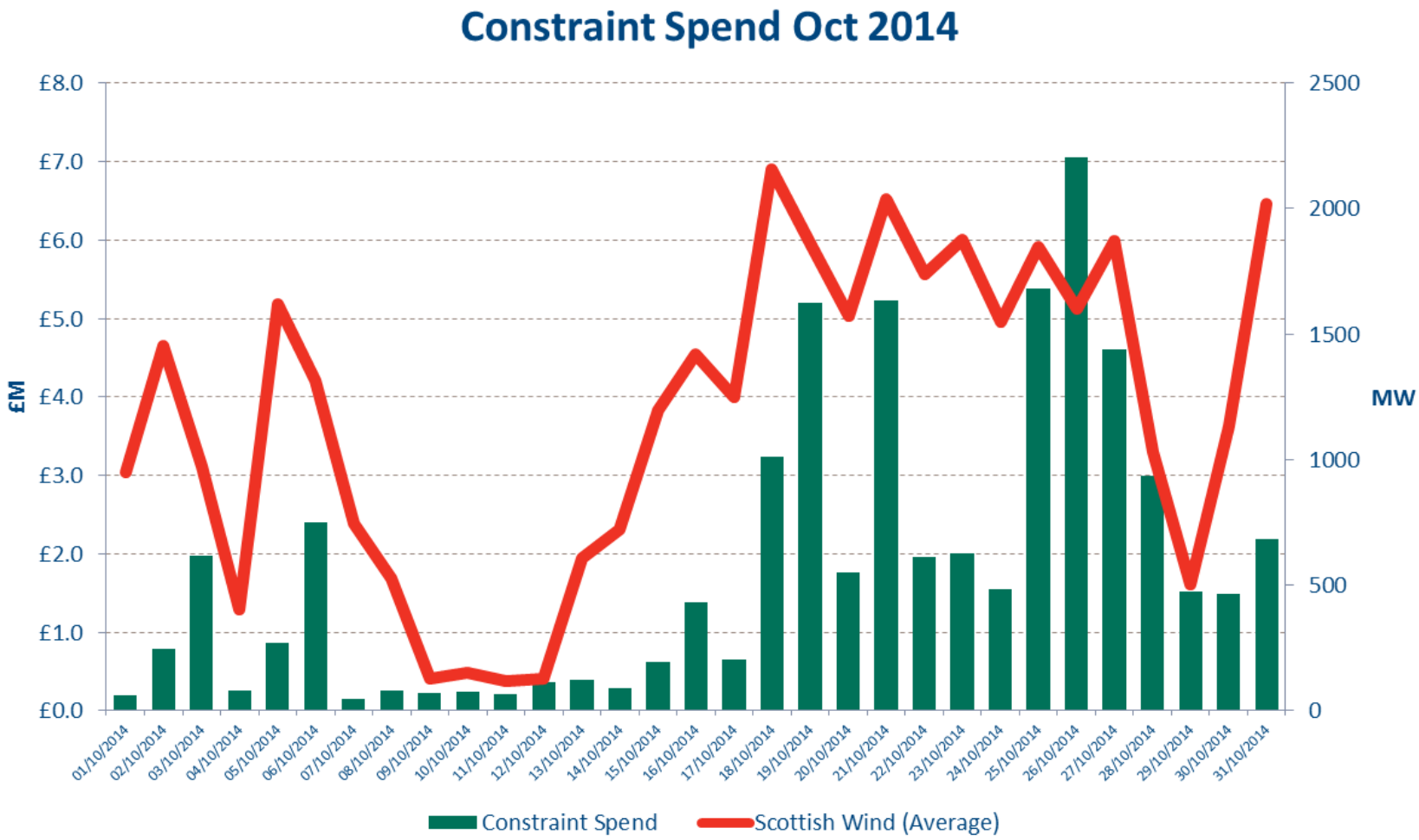


# Costs - £60.3M Constraint

- Significant transmission system outages including:
  - Connection of Series Compensation
  - Reinforcement of North – South route
- Reduced North – South flow capability
- High wind in North from mid October led to high cost
- ~£9M on Voltage Management



# Costs - £60.3M Constraint



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# BSUoS Forecast Update 2014/15

# BSUoS Forecast 2014-15

- External BSUoS  costs estimated to be: ~£875m
- Internal Costs £141.3M
- Total BSUoS costs estimated to be: ~£1,016M
- Total Charging Volume: 563TWh
- Est. BSUoS charge: £1.86/MWh

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