Electricity Balancing System

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Electricity Transition Manager
The BM system is used for managing frequency and power flow in real time. Originally developed by the CEGB, it has now reached ‘end-of-life’ and is being replaced by the EBS system.

The BM is essentially an manual system designed in 1980’s to allow for the control of a handful of coal units.

It now has to handle 100s of balancing units so manual balancing can be “difficult” during high wind.

The EBS incorporates automated dispatch which will provide significant improvement to frequency control.

A key implementation objective for the EBS is not to change existing interfaces to industry participants.
The project is now at the point of transition from BM to EBS. The transition plan has at its heart the key objective of maintaining real-time control of the power system under all circumstances.

A staged approach will be used to transfer control from the BM system to the new EBS system.

Day ahead scheduling, Intraday scheduling and Real time despatch will be transferred over in stages.

This staged approach will allow for reversion back to the BM system up until the final transition stage.

The decision to switch off the BM system will be taken once the new EBS system has been established.
A number of entry criteria have been developed for EBS Go-live to ensure transfer can be achieved in a smooth way. These criteria are being tracked by three teams:

**Operational**
- Staff trained and authorised to use the system
- Scheduling parallel run has proved process
- Pre-dispatch trials have proved Auto BOA stability

**IT Support**
- Staff trained and authorised to support the system
- Site failover tests completed to prove system resilience
- Vendor support & escalation process in place

**Commercial**
- Algorithm analysed to validate economic decisions
- EBS outputs compared with BM to validate variations
- Impact of auto BOA volumes on cash out price assessed
Complex transition

The EBS scheduling parallel run started on 15 August. However, the time required for the transition had been underestimated. As a consequence a new timeline has now had to be developed.

- Control operators require more time to fully come up to speed with the complexity of the EBS system.
- Undertaking scheduling parallel running coincident with despatch training causing learning overload.
- Some of the technical functionality was still requiring workarounds that were increasing task complexity.
- Authorisation needs to be delayed to allow control operators to become proficient.
A revised draft timeline has now been developed and is now being validated internally and socialized with industry participants.

Staged approach of transfer of control from the BM system to the new EBS system.

Scheduling will be undertaken in parallel with the BM until scheduling is established.

Short duration dispatch pre-trials to prove the solution will retain BM in fast back-up.

Dispatch training will start in the new year with full trials following during the Spring.

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<th>Month</th>
<th>Scheduling Rollout</th>
<th>Despatch Rollout</th>
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<td>Scheduling Parallel Run - Familiarisation</td>
<td>Despatch pre-trials</td>
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Revised Go-live timetable
Q&A

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