

EBS IT – Meeting 19

14 September 2016



Conference Call Details

Conference call:

UK Numbers Tel: 0808 238 9819 or Tel: 0207 950 1251

Participant code: 4834 7876

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Welcome



Agenda

- 1. Introduction**
- 2. Previous meeting (minutes and review of actions)**
- 3. Overall EBS plan**
- 4. Testing & Transition Update**
- 5. Progress Scheduling Parallel Run**
- 6. Proposal for Dispatch Pre-Trials**
- 7. AOB**

2. Previous meeting

- Attendance
- Comments to minutes



Adobe Acrobat
Document

- Review of actions

Actions

Action No.	Due Date	Issue	Responsibility	Action
061	Jan 2016	Sept 2013	AO	<p>Ascertain when suppliers will be able to access the test versions of EDL*/EDT* via their private communications. Ongoing</p> <p>Mar 2014 – awaiting availability of EDL*/EDT* server software.</p> <p>July 2014- New Interfaces will be available in Q4. However, National Grid will be testing these before being released to the Market Participants. Target date anticipated early 2015</p> <p>March 2015 – Target date is January 2016 in line with revised project plan</p> <p>June 2015 – Work in progress</p> <p>Sep 2015 – VPN access is in place however National Grid will perform an end to end test sometime in January 2016</p> <p>May 2016 – Work continues to resolve</p> <p>Sep 2016 -</p>
069	Jun 2016	Jun 2015	BC	<p>Agree on EDT access validation period as part of the Transition Plan. They are dependent on fixes to be received from supplier. Current indicative dates from end July/beginning August.</p> <p>Sep 2016 - Complete date set from 1 August to 12 August 2016. Action Closed.</p>
071	Aug 2016	Mar 2016	BC	<p>National Grid should consider the possibility of a ‘test’ (perhaps zero cost) instruction to all control points during the RD trials. BC to update the “Transition plan for Market Participants” to include one instruction per control point.</p> <p>May 2016 – This information will be updated as part of transition plan and will be discussed in next EBSIT in July 2016. Points discussed as part of meeting on 19 July 2016</p> <p>Sep 2016 – This has now been considered, and during or Despatch Trials we will endeavour to send an instruction to each control point. Action Closed</p>

Actions (cont'd)

Action No.	Due Date	Issue	Responsibility	Action
072	May 2016	May 2016	AdC	National Grid will arrange an EBS system demonstration after the next EBSIT meeting Sep 2016 – Action Closed. Participants will be seeing the EBS demonstrated at the September meeting.
074	Jun 2016	Mar 2016	ADC	National Grid will send out the audit communication in the week beginning 21 March. May 2016 – Process for sending new EBS password and for updating old BM Systems passwords now finalised This is ongoing and targeted for July 2016 Sep 2016 - Action Closed – passwords issued
076	Sept 2016	Jul 2016	PS	National Grid to work with Elexon to enable test data produced by the EBS during role play exercises to be provided to Elexon for Elexon to undertake settlement stress testing and cash price testing. Sept 2016 – NG have been in correspondence regarding how the appropriate testing can take place between EBS and Elexon systems. Action Closed.

3. Overall EBS plan

Philip Johnson

Electricity Transition Manager, Business Change

Programme Plan Update

- The EBS Programme entered the core Parallel Run (PR) transition phase on 15th August
- During PR, the new EBS processes are run in parallel with legacy BM processes. Both are fed with production data sets. Results are compared and validated.
- The PR facilitates embedding of the new EBS processes into the NG Control Room and proves the solution in a real-world environment
- After running the PR for a month, NG has established that the current PR timelines will need to be extended due to the following challenges:

1	Complex Business Rollout	The time required for Control Operators to fully come up to speed with the EBS solution & processes and gain necessary accreditations in their new roles is proving longer than anticipated.
2	Technology Challenges	A number of technology issues have slowed down some aspects of training
3	Data Challenges	Data issues, both on the IT and business side, have slowed down the PR

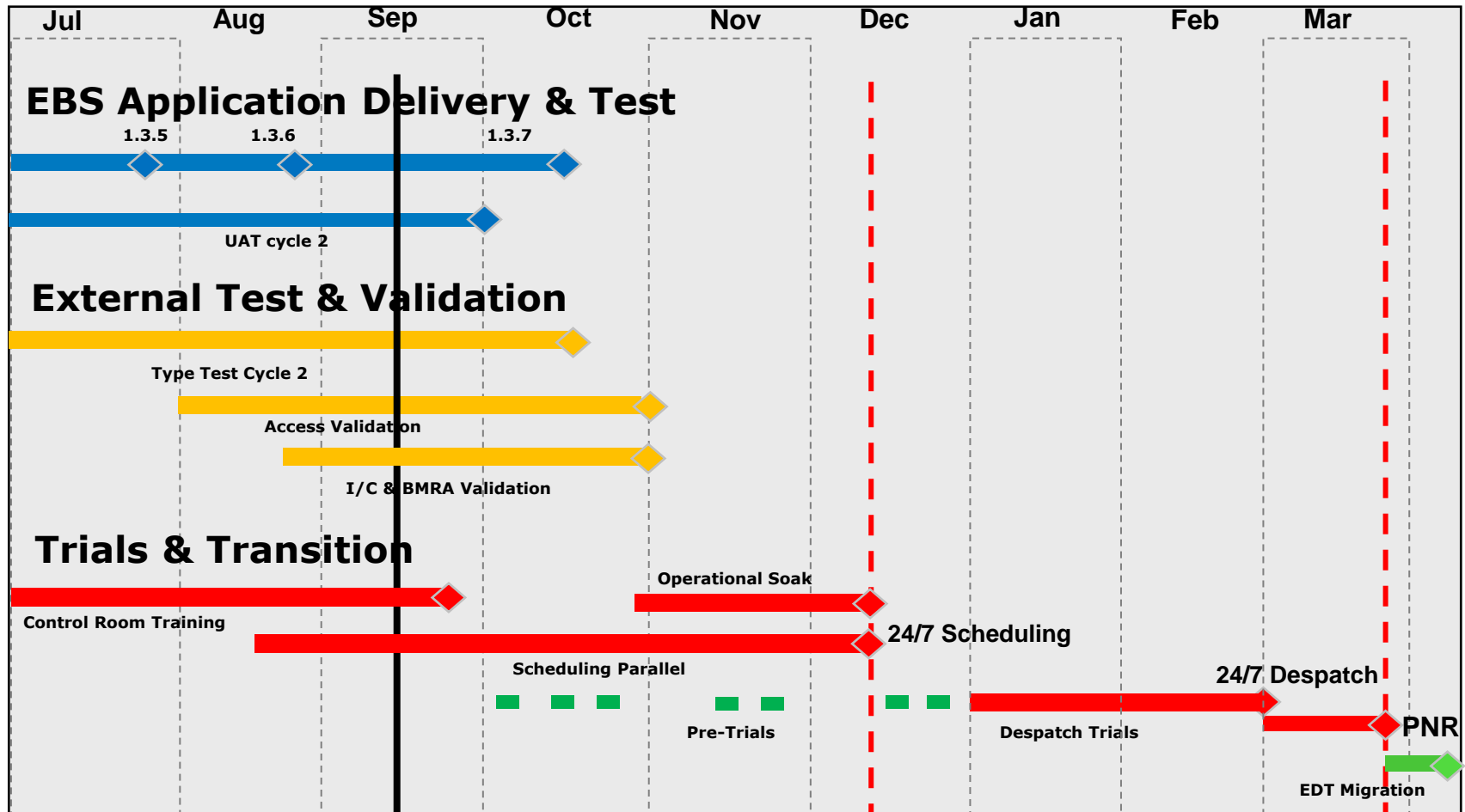
Programme Plan Update

- The programme is currently working to establish a revised and achievable parallel run and go-live schedule.
- The following prioritisations have been established for 2016

1	Scheduling Go-Live	NG is working towards putting the Scheduling functions of the EBS solution live this year as a top priority.
2	Prove the Dispatch Solution in Live Operation	Testing, verification and proving of the Dispatch functions of the EBS solution should continue to conclusion this year, so that the end-to-end EBS solution is fully ready for large scale training, business trials and rollout in the new year.

Programme Plan Update

Indicative Plan below – this is **Work in Progress and NOT confirmed**



4. Testing & Transition Update

Pete Smith
EBS Transition Manager

EBS Test & Transition

- There is no significant change to the EBS Test & Transition Strategy or plan
- All previously discussed phases for test and transition remain
- The key driver for the EBS Programme is still **Quality**

EBS Functional Testing & UAT

- UAT Cycle 2 is ongoing – this is the final cycle
- Both Control Room and non-Control Room scenarios are being completed
- Completion of EBS Training Modules is allowing the use of engineers outside the programme to verify results
- The EBS version under test (1.3.6) is appropriate for Scheduling Parallel Run and RD Pre-Trials
- EBS Version 1.3.7 will be required for Scheduling Go-Live and Despatch Parallel Running
- Testing on EBS 1.3.7 will be aimed at verifying defect fixes and Change Request deliveries

EBS Non-Functional Testing

Non-functional testing is divided into three areas;

- Resilience Testing
 - Testing hardware & software failure scenarios
 - Testing cycles complete, fix testing in release 1.3.6
- Performance Testing
 - Baseline and volume testing
 - Final cycle planned on release 1.3.6
- Operational Acceptance Testing
 - Testing of IS Operational Procedures
 - Final cycle planned on release 1.3.6

Type Test Progress

- Formal type tests are a final run of the previous informal supplier type tests
 - EDL and EDT formal type tests have started
 - These have a functional and non-functional element
 - Post completion, National Grid will issue the fresh type test certificates for EBS to each supplier

Type Test Progress

- EDT type tests are approximately 90% complete
 - Final fix received and verified
 - Remaining formal tests can now be scheduled

- EDL type tests are approximately 10% complete
 - Outstanding fixes received and verified
 - Remaining formal tests can now be scheduled
 - Alternate EBS production environment may be used to avoid impacting critical path

National Grid Contact for EBS Type Test: Sarvesh Kumar
sarvesh.kumar@nationalgrid.com (EBS Ext. Test Lead)

EDT Access Validation

- EDT Access Validation Cycle 1
 - 100% completion for Market Participants scheduled in AV1
 - 95% were successful (with 1 outstanding rerun)
- EDT Access Validation Cycle 2
 - Gathering appropriate contact details to schedule cycle 2
 - EDT Passwords being issued
 - Scheduled dates for EDT AV2 will be confirmed shortly
 - Alternate EBS Production environment may be used to avoid impacting the critical path

EDL Access Validation

- 2 Cycles completed with live control points
- Success rate of 80%
- Some firewall and control point infrastructure issues
- Remedial action is under way, with some faults fixed
- Decision has been made that a third cycle is not required before RD Pre-Trials

National Grid Contact for EBS Access Validation: Sarvesh Kumar
sarvesh.kumar@nationalgrid.com (EBS Ext. Test Lead)










Interconnector Parties

- Initial Testing completed with all interconnectors
 - A small number of defects identified
- Fixes received and tested internally for most defects
- Final formal test cycle to be scheduled
 - Requires remaining fixes (release 1.3.7)
 - Dependent on availability of EBS production infrastructure
 - Alternate EBS production environment may be used to avoid impacting critical path
 - Dependent upon some (non-EBS) infrastructure changes

Elexon/BMRS

- Functional Testing
 - Testing complete against legacy & new BMRS
 - Fixes and re-testing required on release 1.3.7 against new BMRS
- End to End Testing
 - Initial testing completed against legacy Test BMRS
 - E-2-E validation required between EBS release 1.3.7 and new test BMRS
- BOA Volume & Stress Testing - options
 - Output captured from RD Trials and Parallel Run
 - End to End tests during RD Trials
 - End to End tests from Performance Testing on EBS

EBS Transition Progress

-  EDT/EDL Type Testing
-  EDT/EDL Access Validation
-  Inter-connector Validation
-  BMRS Validation
-  Operational Soak
-  Continuous Uninterrupted Operation
-  Scheduling Parallel Run
-  RD Pre-Trials
-  RD Trials

5. Progress Scheduling Parallel Run

Antonio Del Castillo Zas
EBS Business Lead

Scheduling Parallel Run - summary

- Started 15th August – now 5th week of Parallel Run
- Roles involved:
 - Network modelling, operational planning, traders, demand forecasters, network analysis, day ahead schedulers and in-day schedulers
 - 73 on-shift and 65 day-staff involved
- Adapting to the change on processes and tools will take longer than anticipated:
 - eg demand forecast is the main driver – situational awareness – getting used to new screens and controls
- Progressively embed EBS tasks with current for all 20 roles in the next 2 months

Scheduling Parallel Run - prerequisites

- all background + Scheduling training delivered
 - total of 120+ training days delivered
- production system + interfaces in place
 - contracts, wind, demand forecasts, EDL, EDT, I/C, etc
 - all data items validated to 85%
- control room desks - new specs, new logins
 - 100% available
- final software release 1.3.6
 - few final defects, changes and enhanced visualisation to be released on 1.3.7

Scheduling Parallel Run - daily run

- Day-ahead to 4 hour-ahead run as if operational
- EBS scheduling daily meeting comparing results with current BM systems
- Control Room staff getting familiarised with EBS decisions
- Data accuracy critical to EBS output – Detailed investigation required for “stubborn” cases
 - algorithm cannot find an answer that is feasible
 - Due to incorrect contract data, PN data, dynamic data or reserve/response requirements

Scheduling Parallel Run - issues

- Currently engineers know all default system requirements and constraints and only enter to BM systems the daily requirements
- EBS “needs to be told” all assumed information:
 - e.g. every single overnight voltage requirement need to be entered as a constraint
 - e.g. black start units
- Scripts being developed now to extract information from EBS and SPICE to make automatic comparison

6. Proposal for Dispatch Pre-Trials

Philip Johnson

Electricity Transition Manager, Business Change

EBS Dispatch Trials

With the EBS Scheduling parallel run in full swing, the EBS project is now close to the point of trialling the EBS Dispatch functionality in live operation



The EBS Dispatch has been extensively tested against a system simulator

During the trial the existing BM system will remain available to step in and balance the system if required

The trials will be initially limited in scope to enable a small number of instructions to be validated

Trials of automated Dispatch will be phased in as experience is gained and the algorithms tuned

Trial steps

On selected mornings in October, short duration trials will see the EBS being used to balance the power system to prove the end to end functionality of the EBS system



At the start of the trials the EDL connections to CPs will temporarily moved over to EBS

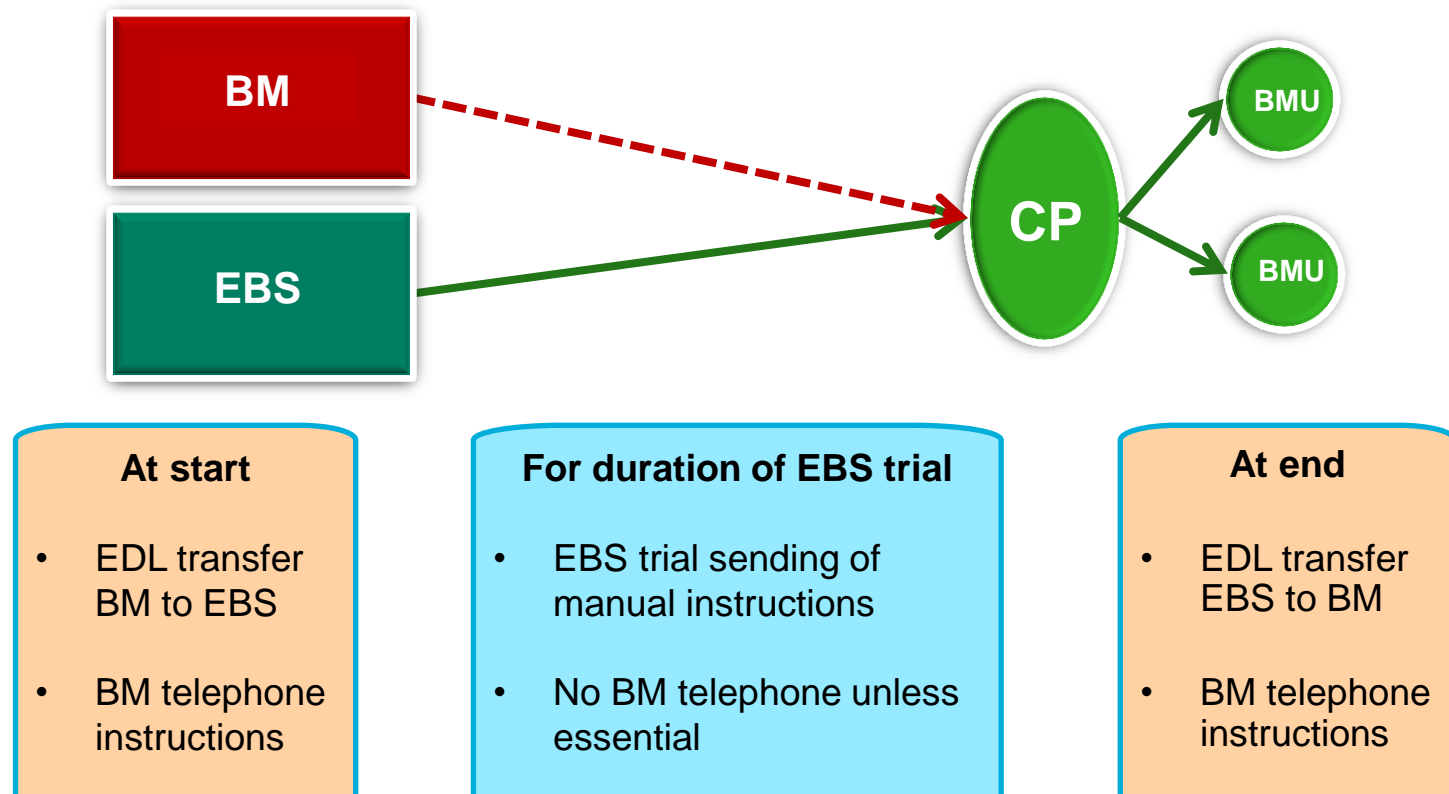
BOA and AS instructions will then be sent from the EBS system to CPs to balance the system

A copy of the instructions will also be sent to the BMRA and AS settlement system in the normal way

At the end of the trial the EDL connections to CPs will be returned to the BM system

Trial instructions

During the trials the EBS will be used to send a small number of instructions, but the BM will remain in service and able to issue Instructions by telephone as a back up.



Trial dates

EBS dispatch trials have been rescheduled to October following dispatch rehearsals that had highlighted the need for minor correction to the EBS configuration.



Short manual trials

- Indicative dates 4th & 11th October
- Duration 1 hour

Medium manual trial

- Indicative dates 25th October & 1st November
- Duration 2 to 3 hours

Medium auto-Dispatch trials

- Details and dates to follow
- Duration 2 to 3 hours

Long auto-Dispatch trials

- Details and dates to follow
- Duration 4 hours plus

7. AOB

Antonio Del Castillo Zas
EBS Business Lead

10. Close

- Date of next meeting
- AOB