

# ESO Technology Advisory Council Control Room of the Future sub-group

## TAC Control Room of the Future

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<b>Date:</b> 27/04/2022	<b>Location:</b> Virtual
<b>Start:</b> 10:00	<b>End:</b> 12:00

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The feedback captured during the meeting on the Axis collaboration tool can be found in the accompanying spreadsheet. This document summarises the feedback received verbally and via the Chat function.

All material from the meeting can be found on the Technology Advisory Council website:

<https://www.nationalgrideso.com/who-we-are/stakeholder-groups/technology-advisory-council/documents>

## Participants

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Attendee	Organisation
Angela Wilks (Chair) (AW)	GBESO
Andy Hadland (AH)	Independent
Chris Dent (CD)	University of Edinburgh
Steve Sinclair (SS)	Flexitricity
David Sykes (DS)	Octopus Energy
Peter Stanley (PS)	Elexon
Samuel Nhavira (SN)	Transport for London

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### For specific agenda items

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Attendee	Organisation
Bernie Dolan (BD)	GBESO
David Bowman (DB)	GBESO

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## Apologies

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Attendee	Organisation
Simon Pearson (SP)	Energy Systems Catapult
Chris Kimmitt (CK)	Reactive Technologies

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Claudia Centazzo (CC) Independent

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Kane Forkasiewicz (technical secretary) GBESO

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## **Agenda**

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1. Welcome and introductions

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  2. Minutes of last meeting and matters arising

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  3. Balancing Programme - Strategic Review

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  4. Update on transmission – distribution co-ordination

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  5. Next meeting and calendar

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  6. AOB
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## Discussion and details

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#	Topics discussed
1.	<p><b>Welcome and introductions</b></p> <ul style="list-style-type: none"> <li>The chair welcomes all members of the group for the first time. All present members give an introduction.</li> </ul>
2.	<p><b>Minutes of last meeting and matters arising</b></p> <ul style="list-style-type: none"> <li>No comments on the minutes from the last meeting were raised.</li> </ul>
3.	<p><b>Balancing Programme - Strategic Review</b></p> <ul style="list-style-type: none"> <li>David Bowman set the context of the strategic review of the Balancing Programme which has taken place over the past few months and the initiatives GBESO has committed to implementing in business plans. The panel is asked to review / advise on the GBESO plans to deliver new functionality, implement market initiatives and consider whether delivery should be into legacy or new systems (or both). Specifically, discussion to cover:           <ul style="list-style-type: none"> <li>Experience of delivering digital transformation programmes.</li> <li>Enabling Agile in a Control Room environment.</li> <li>What culture changes are required to succeed in a digital transformation programme.</li> <li>What level of industry transparency is considered to be required.</li> <li>What is important to you as a stakeholder during this Balancing Programme review.</li> <li>What is the experience of other Control Rooms going through similar challenges / programmes.</li> <li>What levels of assurance would you advise are required during this transformation?</li> </ul> </li> <li>A recap of the Balancing Programme engagement plan was provided.</li> <li>AH challenged that the plan as presented appeared to be a design-build-review strategy, rather than an agile strategy. The plan appeared to be missing prototyping and spiking. AH suggested early prototyping is very helpful because it allows people to come together and see and feel what is trying to be built, even if it's not a polished version. Bernie Dolan (BD) informed that GBESO is using a SAFE methodology which is a scaled agile, this is due to the size of the Balancing Programme. There are elements of agile in certain areas of the programme and the agile methodology is planned for the later Balancing Programme design stages, rather than the current strategic review stages. DB agreed to take away the early prototype feedback to explore further. AH feedback to consider using FIGMA (a collaborative interface design tool) for prototyping.</li> <li>AH further commented that as it's not known what the design requirements are for 4 years out, speed can be more important than the right answer, so waiting until a later phase doesn't appear to align with GBESO zero carbon system operation ambitions.</li> <li>DS advised that Octopus operate a "build, operate, transfer" systems upgrade methodology to avoid doing "open heart surgery" on IS systems. Similar to Google, running very big, high reliability systems, they do incremental continuously tested change and constantly roll out software and systems and increment on them, rather than monthly or quarterly or yearly releases.</li> <li>BD advised that the GBESO plan is currently to "cannibalise" the old systems and end up with something that begins to look a little more agile and the new systems becomes the master system.</li> <li>Chris Dent (CD) raised the issue of market reform and the requirement for more decentralised solutions to manage smaller &amp; embedded units and manage whole system issues and DNO constraints. These requirements are not currently part of modern dispatch instructors. DB acknowledged CD's points are important considerations and confirmed the aim of the Balancing Programme is to facilitate and not block market reforms.</li> <li>DB presented a slide on the current systems &amp; challenges.</li> <li>Peter Stanley (PS) provided an overview of recent experience developing central systems at ELEXON to meet new mandated requirements. Started by re-architecting the solutions to make</li> </ul>

them appropriate for dev-ops or agile development. How ELEXON looked at it was to assess where the most likely disruption and most significant change would be coming from and then build up flexibility, being aware of the time required and value added. Also used “API wrapping” to manage and maintain a hybrid architecture and implement data flows between legacy and new systems. Elexon took the approach of new systems making decisions but (at first) feeding these back to the legacy systems to do the instruction/communication so the interface doesn’t change. Then, at some point, you have to switch from the legacy systems.

- PS fed back that funding governance also needs to be considered when working with an agile methodology.
- CD & DS advised that HMRC is a good example of new interfaces interacting with legacy back end systems.
- AH advised that Arenko has developers who can also act as BAs, which can make things quicker. Also there’s a challenge to minimise churn and hold on to talent by empowering them to develop the required systems and use creativity to shape what they are building, rather than them getting bored by only developing what they are told to do.
- BD presented the over-arching philosophy as:
  - Avoid a “big bang” approach.
  - Develop Open Balancing Platform (OBP) to replace modules in existing systems.
  - At some point OBP will have enough functionality to become the “master” for one of the existing systems.
  - Net zero initiatives may have to be coded in several systems depending on timelines.
  - New capabilities will gradually be added to the Control Room.
  - GBESO are developing in an agile way, constantly checking back on the needs of participants.
- AH advised that the most difficult role or extreme case the OBP must deal with should be tackled first.
- AH recommended a tool called Project Board which interfaces with JIRA. It also allows displaying the same roadmap in different ways – eg internal/external audience. Can also do voting on individual elements. MODO energy have used this tool.
- PS advised OBP should consider the different drivers that are fundamentally driving different parts of the OBP roadmap and make sure the programme is clear on the implications of those drivers. E.g. from past experience, when milestones slipped, timescales became compressed, there was limited wiggle room to ensure the quality of the product was maintained, then there was then a requirement to factor in requirements into legacy systems or worse both legacy and new systems to meet deadlines.
- PS advised optimising the run costs of the legacy and operating new systems in parallel, this may highlight financial advantages from implementing the road map in a slightly different sequence. Setting up a financial model allows understanding of what matters and what doesn’t.
- PS advised a strong top down approach in the project to ensure products are delivering in the right timeframe and sequence to meet OBP dependencies, rather than product owners meeting their own individual timelines.
- BD requested feedback from the panel on their experiences on what ball park costs similar projects have incurred to make similar levels of transformational change. This would be for comparison with GBESO cost models.

#### 4. **Transmission – Distribution Co-ordination**

- CD advised the need for rapid, strategically directed research to feed into innovation programmes. CD is working up a project which has a working title of “Deployable architectures for transmission distribution co-ordination.”

#### 5. **Next meeting and calendar**

- The chair will send out another poll to ascertain the best time for the next meeting.

#### 6. **AOB**

- There was no AOB.

The chair closed the meeting by thanking members for their participation.

## Decision Log

Note – this document contains current decisions and a rolling history of decisions. The complete log may be found in:

<https://nationalgridplc.sharepoint.com/sites/GRP-UK-National-Control-ESO-Technology-Advisory-Council>

Decisions: Made at last meeting

ID	Description	Owner	Date
1	Terms of Reference agreed	All	ERSG-1
2	Meeting frequency to be monthly	All	ERSG-1

## Action Item Log

Note – this document contains in-progress items and a rolling history of completed items. The complete log may be found on the GBESO Technology Advisory Council MS Teams site:

<https://nationalgridplc.sharepoint.com/sites/GRP-UK-National-Control-ESO-Technology-Advisory-Council>

Action items: In progress and completed since last meeting

ID	Description	Owner	Due	Status	Date raised
1	Provide comments on Terms of Reference	All	26/11/2021	Closed	26/11/2021
2	Update TOR based on feedback received in the first meeting	GBESO	03/12/2021	Closed	26/11/2021
3	Determine the time and date for the next meeting	GBESO	11/02/2021	Re-opened	04/02/2022
4	Circulate the minutes within the group for comment at the next meeting	GBESO	11/02/2022	Re-opened	04/02/2022
5	Circulate the agenda for the next meeting	GBESO	04/03/2022	Re-opened	04/02/2022
6	GBESO to create clearly defined problem statements for the meeting to provide advice on.	Rob Rome	25/02/2022	Closed	27/04/2022
7	ID to share the list of companies GBESO have visited / will visit for learning on transformational projects.	Ian Dytham	25/02/2022	Open	26/11/2021
8	GBESO to consider the Aletheia Framework™ and feedback on its application to the Network Control and Balancing programmes.	Rob Rome	25/02/2022	Closed	27/04/2022