ESO

Connections Reform Steering Group

Meeting 6 Minutes

| **Date:** | 18/05/2023 | Location: | MS Teams |

Participants

Attendee	Attend/Regrets	Attendee	Attend/Regrets
Merlin Hyman, Regen, CHAIR	Attend	Claire Jones, Scottish Government	Attend
Neil Bennett, SSEN Transmission	Attend	Deborah, MacPherson, ScottishPower Renewables	Attend
Sally Boyd, PeakGen	Attend	Andy Manning, Citizens Advice	Attend
David Boyer, ENA	Attend	Susana Neves e Brooks, ESO	Regrets
Catherine Cleary, Roadnight Taylor	Regrets	James Norman, ESO	Regrets
James Dickson, Transmission Investment	Attend	Mike Oxenham, ESO	Attend
Amy Freund, Ofgem	Attend	Jennifer Pride, Welsh Government	Attend
Chris Friedler, ADE	Attend	Mike Robey, ESO, Technical Secretary	Attend
Sotiris Georgiopoulos, UKPN	Attend	Patrick Smart, RES Group	Attend
Arjan Geveke, EIUG	Attend	Spencer Thompson, INA	Attend
Ben Godfrey, National Grid Electricity Distribution	Attend	John Twomey, National Grid Electricity Transmission	Attend
Garth Graham, SSE Generation	Attend	Matthew White, UK Power Networks	Regrets
Gemma Grimes, Solar Energy UK	Attend	Charles Wood, Energy UK	Attend
Paul Hawker, Department of Energy Security and Net Zero	Regrets	David Wildash, ESO	Regrets
Gareth Hislop, Scottish Power Transmission	Attend	Pete Aston, Roadnight Taylor (substitute for CC)	Attend
Lynne Bryceland, Scottish Power Transmission	Attend	Freddie Saunders, DESNZ (substitute for PH)	Attend

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Agenda

#	Topics to be discussed	
1.	Welcome and matters arising	Merlin Hyman
2.	Actions and Minutes from Meeting 5	Mike Robey
3.	Transmission-Distribution interface considerations	Mike Oxenham
4.	Target operating models and scoring against design criteria	Mike Oxenham
5.	Case studies	Mike Oxenham
6.	Offshore considerations	Mike Oxenham
7.	Overview of additional ad hoc process improvements (Add-ons)	Mike Oxenham
8.	Transition and Implementation plan	Mike Oxenham
9.	Any Other Business	Merlin Hyman

Discussion and details

#	Minutes from meeting, including online meeting group text chat during meeting, where referenced as "[*From online chat*]"

1.   Welcome and Matters arising

Publication of Ofgem's open letter on future reform of the electricity connections process

The open letter raises stakeholder awareness of the priority for connections reform and the significant effort required to bring it about. It acknowledges Ofgem's role in delivering this and provides strong support for this Connections Reform initiative. Ofgem is also working with government on an action plan to be published later in the year on next steps. The open letter invites comments by 16 June and stakeholders can register interest in a webinar to take place next month.

Energy Networks Association - Strategic Connections Group

As part of the SCG's 3 step plan, letters are going out from Network Operators to connection applicants within their queues with details of possible opportunities for promotion within the queue.

2.   Actions and Minutes from Meeting 5

Decision: 6.2 To publish the minutes of meeting 5

3.   Transmission – Distribution interface

Steering Group comments:
- A Steering Group member emphasised that Statement of Works (SoW) and project progression were major issues for connection customers and identified two things that would make a difference: making SoW timebound (and, consistently applied across the country) and providing visibility of project progression.
- [From online chat: Does anything really change on delays for embedded generation connections in the recommended reform operating model?]

   [ESO response: In the proposed reform, if there was sufficient Reserved Developer Capacity (RDC) at the relevant Grid Supply Point (GSP) there would be no SoW or project progression

requirement (as that would have already been done in an anticipatory fashion). If there was no / insufficient RDC, then yes, the application would need to wait for the next application window.]

- [From online chat: The timing of windows needs to take account of the route to market timescales.]
- A Steering Group member felt that large, embedded generation (DG) would be discriminated upon (where their capacity exceeds the capacity available for quicker connection offer through the RDC).
  - o ESO response: At present the proposal is for large embedded generation to follow the transmission connection process timeline, rather than the RDC process.
  - o A member noted that the variation in capacity that defines what is a large embedded generator between the different transmission owners creates a source of discrimination in this process too (large embedded generation defined as being ≥100MW in England in Wales, ≥30MW in southern Scotland and ≥10MW in the north of Scotland).
  - o A member noted that GC117 is seeking to harmonise the definitions of large embedded generation.
- A member emphasised that the growth in DG connection applications made it not sustainable to have a process that requires network assessment of each individual application. A more strategic approach is required. Windows and gates within the connection process make sense and it's also important to provide some flexibility for DG. The windowed application approach gives the opportunity to consider the collective impact of a mixed portfolio of generation types and applications at each GSP. The member noted that the SCG is doing some good work in this area.
  - o Members of the Steering Group that are also involved with the SCG noted that work exploring these issues can continue through the SCG in parallel to the consultation.
  - o ESO noted the challenge of how to determine the right capacity levels for the RDC, how to calculate the appropriate level, how DNOs would go about requesting this, etc. All these considerations are to be worked out in the next phase, but for the consultation the point was to recommend the RDC concept, enabling DNOs to give DGs a connection date (where the relevant GSP has sufficient remaining RDC) without having to wait for the next transmission connection application window.
- A member queried what the difference between the current headroom at a GSP differed from the proposed RDC. The member also challenged whether ESO should be parcelling the RDC into technology types or whether this is better undertaken by the DNO.
  - o ESO noted that the RDC approach enables modelling of the impact of future generation capacity to be completed early in the process, reducing the risk of delay. The RDC approach could also enable consideration of technology type according to their varying impact on the system. The detail of how appropriate levels of RDC are determined can be agreed later on, but the overall principle of the RDC approach is to avoid delay to DG.
  - o ESO noted that RDC goes beyond Appendix G by reserving capacity strictly for DNOs embedded generation customers. In this approach transmission owners / applicants could not claw back un-used RDC before the next application window (at which point unused RDC would be reallocated). This does create tension between transmission and distribution in setting the appropriate level of RDC.
  - o A steering group member noted that for the RDC approach to work effectively other issues also need addressing. For example, many GSPs don't have capacity for more generation without investment. Another member asked for clarification on whether areas where network capacity is full might be excluded from windows.
  - o ESO response: The current intention is for application windows to be Great Britain-wide. ESO noted that windows, as a mechanism, would potentially allow for geographic or technology focus in the future, but that these are not currently part of the proposals.
- [From online chat: A member expressed concern that the RDC approach will encourage a scramble by developers to rush in applications to try and reserve the capacity released to RDCs each year.]
- A member raised the frequency of application windows, noting that embedded generation tends to be more agile and fast-paced so the approach taken needs to reflect this.
  - o [From online chat: A member speculated that there would be a lot of feedback about only having an annual application window. Another noted that this may cause a significant influx each window that will take ESO /TOs more than three months to reply on an offer / access confirmation.]

- o ESO response: The frequency of windows will depend on the detail of the process and the intention of having the RDC at GSPs is to prevent delay to embedded generation as the network studies will already have been undertaken.]

- A member advocated a strategic and co-ordinated approach rather than an ad-hoc developer led process.
    - o ESO response: ESO's preferred reform option would in theory address this point. There's also no reason why future capacity requirements couldn't be included within the strategic design work for application windows.

- [From online chat: Will embedded generators be charged for network reinforcement such as additional supergrid transformers]
    - o ESO response: Connection and network charging are not in scope of the reform project.
    - o Another member queried the approach to securities, and whether these would apply to embedded generation and DNOs.
    - o ESO response: There is no intention to change how DNOs currently apportion securities to DG once in the queue with developer capacity allocated to projects under the current user commitment arrangements, but there is a proposed question for the consultation on any unallocated RDC; should the DNO be responsible for this and how e.g., financial or regulatory arrangements. There is also a broader requirement to consider the impact of the preferred option on user commitment arrangements more generally and this will be done in the next phase.
    - o A member queried what would happen in an area where there were both transmission and distribution generation connections in the queue and one or more transmission applications withdrew. Would the reinforcement still go ahead or be aborted?

- The discussion concluded noting that there was a lot for ESO to consider in the context of RDC. There were significant concerns that smaller generators could face more delay and that there was a need to understand how RDC would work in practice to avoid this and how it would be different from the current headroom approach being considered under the ENA SCG.

4. **Target operating models and scoring against the design criteria**

- ESO shared initial scoring of the target operating model options against the design criteria for connections reform. ESO believes option 4 gives the best opportunity to bring forward connection dates. It includes features that shift the process away from first-come, first-served, towards providing queue advancement opportunities for applicants that meet key milestones; it promotes anticipatory investment, more co-ordinated network design and potential for competition through use of application windows. Option 4 also presents the most future-proof approach in respect of the future implications arising from REMA and the emergence of the Future System Operator.
    - o A member stated they did not support first-come, first-served (the status quo process).

- ESO has responded to Steering Group feedback at the last meeting regarding the term 'shovel-ready' to adjust the second gate in option 4 (and options 2 and 3) to be positioned once applicants have submitted consent. ESO notes bringing this gate earlier creates a risk of a higher likelihood of projects passing the gate that ultimately fail to connect, but that it ensures any advancement opportunities are known about at a much earlier stage in a project development timeline.

- The difference between option 3 and 4 is that option 3 provides an initial indicative offer upon successful application (applying whenever the applicant chooses) with a confirmed connection date provided when gate 2 is reached. In contrast, option 4 requires applications at a defined window and the first applicants to reach gate two are provided with any advancement opportunities i.e. a move from first come, first served to first ready, first served, at gate 2.

Steering Group comments

- A member asked what impact the change in the option 4 timing of gate 2 to the point of consent submitted would have. They reflected that applicants would need to work through not having a firm connection date when seeking consent.

- o ESO noted that the date would be firm at gate 1 under option 4 but an earlier (firm and/or non-firm) would not be confirmed until gate 2, although it might be possible to provide indicative dates in respect of the potential for advancement at gate 1.
- A member stated it would be useful to understand the earliest possible connection date as well as the back-stop date.
- A member welcomed the softening of the gate 2 criteria for customers and noted that this makes option 3 more favourable than it had previously been. Developers need to liaise with the transmission owner before planning and that engagement is still needed in the co-ordinated design phase before application. Another member agreed, noting that it would be harder to adopt an approach where contracts are agreed and then subsequently need changing when more details of the connection are confirmed.
  - o ESO noted that under option 3 (and 2) some things, such as connection site, will still get locked-in early in the process.
- A member asked how the reformed connection process will be implemented. The amount of generation capacity already in the queue already exceeds the capacity required in any of the current Future Energy Scenarios. Will the reform be applied to the existing queue? If not, the impact of the reform will not be seen for a very long time.
  - o ESO noted that transitional arrangements, from the status quo to the reformed connections process (once implemented), is a significant issue to resolve. The default position is that these reforms are for new applications and debate will now be needed on the extent to which further action is needed on the contracted background as part of the transitional arrangements. Also noting that ESO's five-point plan for connections is delivering improvements to the current queue.
  - o A member noted that there was 90GW of storage in the pipeline whilst the system need may be about 20GW. How could 70GW be removed from the pipeline to ensure that the market does build what is required?
  - o A member cautioned that the transition is sensitive and would create winners and losers and therefore careful consideration is required.
- [*From online chat*: A member shared that they were struggling to see how the reforms will make a big change unless the current queue is deconstructed. They also supported a point from the previous discussion that with the proposed application windows and RDC for embedded connection applications, there was a risk that developers would hog capacity with speculative applications if the windows were only every 12 months.]
- [From online chat: A member expressed the view that auctions would clear out the queue for those window applications against clear criteria but recognised that customers would not like it.]
- [From online chat: A member expressed that how the existing queue is deconstructed is the key to the connections reforms really working and they asked ESO for the timeline on when this issue will be thought about.]
- Ofgem's open letter on connections reform is open to all options and it recognises concerns about the current queue and the impact this is having on connection dates.
- A member expressed some surprise that proactive queue management looks to be out of scope and noted that the reforms cannot solve connection problems if it only looks at new applications; this is too far out from today.
  - o ESO noted that proactive queue management is included within the consultation, but ESO does not currently prefer this option due to the issues potentially created, as to be set out in the consultation. Transitional arrangements are also still to be agreed including what approach is taken for the existing queue (with regards to the reforms).
  - o CMP376 is due to be submitted to Ofgem in June covering reactive queue management.
  - o ESO noted it assumes CMP376 will be approved and therefore applications not meeting milestones can be removed from the queue in future.
- A member expressed concern that DNOs with available RDC will get inundated on the day the RDC goes live and asked what consideration had been given to transition to the reformed process.
  - o ESO recognised the issue / risk of developers potentially swamping DNOs with applications where RDC was available, but ESO noted that speculative applications would be weeded out when they fail to progress against milestones]

- o   ESO responded that the consultation focusses on the reformed processes, rather than the transition. How transition is done can be considered separately to the consultation on the target model options. ESO will be working on more detailed thinking for the transitional arrangements as soon as the consultation goes live.
- [From online chat: A member asked whether a connection application that doesn't need consent would automatically proceed to gate 2.]
  - o   ESO response: This isn't described in the consultation explicitly at this point, but in theory, yes that would be the case. ESO noted this would be given some more thought and a position would be made clear in the consultation.
- [From online chat: A member noted that if there was no consideration of securities and liabilities in the consultation it should be drawn out up front to make clear that there are no changes proposed under these considerations.]
- A steering group expressed support for the approach but questioned how we'd get it to work. Developers will focus on getting consent and a connection date.
- A member noted it will be good for the consultation to have some content on management of the transition to the reformed process. It will be useful to stakeholders, and it will give hope to those waiting to connect.
- ESO thanked members for sharing their views. These will be considered by the ESO connections reform team in drafting the consultation documents.

5.   Case studies

- A member asked whether the case study scenarios take account of other windows for the market (e.g., for Contracts for Difference)?
  - o   ESO noted that this will need to be carefully considered in the detailed design stage after the consultation to avoid unintended consequences. ESO will add a note to reflect this into the consultation.
- A member noted that the site capacity used in the embedded generation case study would be relevant in the context of the available RDC.
- In the offshore wind generation connection case study, a member asked about interconnectors? The Letter of Authority (LoA) will vary according to nature of the project. The seabed lease may be too close to the financial investment decision. "Interconnector License" may be a better milestone?
  - o   ESO noted that the offshore case study relates to wind. LoAs need to be clarified for offshore and for interconnectors and the evidence needs to be comparably early as for other types of connection.
  - o   A member noted that interconnectors did need to follow the reformed connections process to avoid discrimination between standard offshore connections and those seeking to connect via an interconnector.
- A member flagged the importance of transitional arrangements, otherwise these reforms are too far into the distance. They noted the issue that some developers are small and yet the securities could be very large, and this could badly impact the developers.
- A member suggested the process flow diagrams could be added to the case studies.
- A member challenged the approach to scoring the reform options against the design criteria. One issue was that some design objectives have more design criteria than others and therefore adding up scores for design criteria gave some objectives more weight than others. In this approach benefit to consumers appears under-emphasised. Another member proposed removing the total scores and instead just present the scoring of each option against each of the criteria.
  - o   ESO recognised the issue being raised and agreed to look again at how the assessment of options against the design criteria is presented.
  - o   A member drew attention to option 4 being scored as taking the longest amount of time to implement, which was a big concern. This raises whether we should look again at the relative merits of the other reform options.

- o ESO noted that option 4 is the most radical reform of the 4 options presented and due to this both licence and code changes would be required. The ESO team will review the assessment of the options as option 2 and 3 will also require licence and code changes, so the balance of scoring across these three options might not be right and so made need score refinements.
- A member asked where locational aspects are considered in the reformed connections process options.
  - o ESO advised that option 4, with early application windows, should give better quality information on the status of the network to inform project developers on locational aspects.
- A member supported the concerns raised by others about the scoring of the options against the reform design criteria and encouraged the ESO team to check that these concerns were being considered in the review of the assessment of the options against the design criteria. They also asked how the reform add-ons feature in the scoring and whether there would be any quantitative analysis of the relative benefits of the different reform options.
  - o ESO noted that the intention was to qualitatively assess the scale of benefit against the status quo. They noted it was hard to quantify benefits and is ESO is open to hearing ideas on how to quantify. ESO also noted that transition arrangements to the reformed connections process was not yet agreed, but clearly if the reformed process was applied to the existing queue to an extent in some way then this would have a big impact on the scale of benefits.
- ESO thanked Steering Group members for their comments. ESO will review the comments and how they can be reflected within the consultation.

6. Offshore considerations

- ESO noted that for offshore, there is potential to review what goes into the application windows. For example, The Crown Estate and Crown Estate Scotland could reserve capacity for future offshore leasing rounds.

7. Overview of additional ad hoc process improvements (Add-ons)

- A Steering Group asked:
  - o Whether the Add-on relating to *formalising Transmission Import Capacity* would also apply to demand and storage projects, or just to generation.
  - o For ESO to clarify the *Simplify TEC Exchange / Trade Products* add-on. In the meeting ESO expressed the view that they thought TEC Trade had been removed from the CUSC historically and that what remained was only STTEC, LDTEC and Temporary TEC Exchange.
    - **Post-meeting correction** – Following the meeting ESO has confirmed that there are TEC Trade provisions in the CUSC as well as STTEC, LDTEC and Temporary TEC Exchange.
  - o Whether the *Connected use-it or lose-it arrangements* will apply to the existing connections?
  - o *Financial compensation* – why has this add-on been excluded from the recommendations? If the Add-ons apply penalties in some circumstances, shouldn't financial compensation be available to provide some degree of balance?
- ESO to review feedback and clarify approach to each of the above comments in the consultation.

8. Transition and implementation plan

- A steering group member noted that connections reform was a hot topic with Ministerial and other Government interest and timing of the reforms is important. Whilst this does not rule out option 4 it is important to consider what shorter term actions can be taken not begin making improvements as soon as possible. Can some reforms be brought in earlier (some of the add-ons, for example) or is it possible to phase in reforms over time, starting with option 2 and moving towards option 4. Another member echoed these views.

- A member welcomed government urgency and drive to improve connections and drew attention to possible ways that government could help speed things up. ESO has identified high-level approaches to delivering the required code changes. These range from:
  - o the status quo of using the existing code modification process;
  - o utilising the existing Significant Code Review process;
  - o use connections reform as a pilot topic to go through the emerging Energy Code Reform governance structure; or
  - o Secretary of State powers – to direct changes to the code to enable reform and legislation change.
- A member expressed preference for following the status quo code change process as it gets into the detail to develop the text and get it done. They felt code changes could be delivered within 6 months.
- All options for implementation and transition are currently on the table, and this also includes engaging on proactive queue management.
- A member suggested a roadmap would be helpful, setting out what could be implemented more quickly and what requires more time. They encouraged everyone to get involved in investigating the options to speed up the changes and for the Department of Energy Security and Net Zero, Ofgem and ESO to get together to address this as soon as possible. They emphasised that this work can start now, rather than waiting for the consultation to close later in the summer.
- Members expressed views that launching the reforms in mid-2025 was too far away and that it was important to bring forward the reforms as early as possible.
- UK Government advised in the Powering Up Britain report that it will publish a connections action plan in the summer.

9. Any Other Business

- The Chair thanked Steering Group members for all of their input over the six meetings and advised that the next meeting would be scheduled for mid-September once the consultation closes, and the responses have been collated.

Action 6.9.1 ESO to consider Steering Group feedback in the finalisation of the consultation documents.

Next meeting, mid-September
- A Steering Group member proposed holding a full day in the diary to allow for a possible face-to-face meeting and/or longer meeting.

Action: 6.9.2 ESO to schedule.

Decisions and Actions

Decisions: Made at last meeting

ID	Description	Owner	Date
5.2	To publish the minutes of Meeting 5	Mike Robey	18/05/2023

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Action items: In progress and completed since last meeting

ID	Description	Owner	Due	Status	Date
6.9.1	ESO to consider Steering Group feedback in the finalisation of the consultation documents.	James Norman	12/06/2023	ESO to review feedback	
6.9.2	ESO to schedule an additional Steering Group meeting in mid-September.	Mike Robey	01/06/2023	To be scheduled	
3.6.1	Steering Group members can respond to circulated slides with comments via email before the next meeting.	All	30/03/2023	Open invitation for Steering Group members.	ongoing
2.5.1	ESO to track progress with REMA, FSO and other strategic policies and to consider how the evolution of these affects consideration of the centralised planning process design option	James Norman	Ongoing	To keep under review	

Decision Log

Decisions: Previously made

ID	Description	Owner	Date
1.01	Agreed to apply Chatham House rule – All participants not to attribute comments to individuals or their affiliations	ALL	16/02/2023
1.02	Steering Group agendas and minutes will be published. Minutes to be published following confirmation at the next meeting that they are a fair record. Additional documentation may be published (e.g., slide packs/papers taken to the Steering Group), but subject to confirmation by the Steering Group.	Mike Robey	02/03/2023
2.3.1	Approved the Terms of Reference v1.2 subject to the inclusion of the edits identified in Meeting 2 (creating v1.3)	Merlin Hyman	02/03/2023
2.5.1	General agreement with the position to not continue to develop Option C as a stand-alone option within the remaining sprints, but to consider whether elements of option C could be incorporated into options A and B.	Merlin Hyman	02/03/2023
2.5.2	Add-on 1 should not be a focus for Connections Reform	Merlin Hyman	02/03/2023
2.5.3	Add-on 3: Stakeholders identified some concerns to be further considered but there was a general overall view that this add-on is worthy of further consideration in later design sprints	James Norman	02/03/2023
2.5.4	Proposed that Add-on 4 is not given focus in later design sprints, although REMA developments will be monitored.	James Norman	02/03/2023
3.2	To publish the minutes of Meeting 2	Mike Robey	16/03/2023
3.2.1	To approve the Terms of Reference v1.3	Merlin Hyman	16/03/2023
4.2	To publish the minutes of Meeting 3	Mike Robey	30/03/2023

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Action Item Log

ID	Description	Owner	Due	Status	Date
0.1	Steering Group members to provide photograph and biography for Steering Group web page	All	09/03/2023	Complete	09/03/2023
1.2.1	ESO to update and circulate the Terms of Reference, updating the narrative on purpose and membership details (members, Welsh Government, Scottish Government, DNO representative(s)).	James Norman	23/02/2023	Complete	23/02/2023
1.2.2	To seek Steering Group agreement of updated Terms of Reference at meeting 2.	James Norman	02/03/2023	Agreed	02/02/2023
1.3.1	ESO to share details of who is contributing to the design sprint workshops, including which Steering Group members are participating.	Mike Oxenham	23/02/2023	Complete	23/02/2023
1.3.2	ESO to clarify how its evaluation of options within each design sprint will work at meeting 2.	Mike Oxenham	02/03/2023	Complete	02/03/2023
1.3.3	ESO to clarify the process following the consultation at the end of this phase of the connections reform project	James Norman	16/03/2023	Complete	17/03/2023
1.3.4	Strategic policy goals (particularly net zero and energy security) to be elevated and given more prominence within the design objectives	James Norman	02/03/2023	Adopted	02/03/2023
1.3.5	ESO to add a summary status of relevant code modifications and a summary of tactical initiatives to improve connections to the Steering Group pack	Ruth Matthews & Laura Henry	23/02/2023	Complete	23/03/2023
1.4.1	Relationship between connections at Transmission and Distribution levels to be discussed at meeting 2	James Norman	02/02/2023	Complete	16/03/2023
2.2.1	ENA to share updates from its Strategic Connections Group within subsequent Steering Group packs	David Boyer	16/02/2023	Included for 16/03 and ongoing	16/03/2023
2.3.1	ESO to update and circulate the agreed Terms of Reference (v1.3)	James Norman	09/02/2023	Circulated	16/03/2023
2.6.1	ESO to share project timeline	Mike Robey	09/02/2023	Circulated	10/03/2023
3.4.1	ESO to reconsider RAG rating for high-level options and provide more information on scoring in any future version	James Norman	30/03/2023	Status	27/04/2023
3.4.2	ESO to return to Steering Group with further views on the T&D interface at a later meeting	James Norman	30/03/2023	Added to 27 April agenda	27/04/2023
4.2.1	To discuss connections across the Transmission and Distribution interface at the 27 April Steering Group meeting.	James Norman	27/04/2023	Complete	27/04/2023
4.4.1	ESO will bring refined versions of the process options to the Steering Group in four weeks' time.	Mike Oxenham	27/04/2023	Complete	18/05/2023
ID	Click or tap here to enter text.	Owner	Click or tap to enter a date.	Status	Click or tap to enter a date.