

Connections Reform

Appendix 2 – Design Criteria Assessment

June 2023



Scoring matrix

As per Chapter 1, we further refined our design objectives and design criteria for use in Phase 2 after early engagement with the Steering Group. This appendix provides the detailed assessment of the developed Target Model Options (TMOs) against the design objectives and design criteria.

Details of how the design objectives and design criteria were created can be found in Chapter 1 whilst details of how the TMOs were developed and recommended can be found in Chapter 3 to Chapter 9.

Table 1 below shows the scoring metrics that are used in this appendix.

Criteria Score	Description
+2 (More Positive)	This option has a more positive outcome against this design criteria when comparing the same design criteria to the legacy process i.e. the current process before the 5-Point Plan.
+1 (Positive)	This option has a positive outcome against this design criteria when comparing the same design criteria to the legacy process i.e. the current process before the 5-Point Plan.
0 (Neutral)	This option is the same as the legacy process (i.e. the current process before the 5-Point Plan) against the design criteria.
-1 (Negative)	This option has a negative outcome against this design criteria when comparing the same design criteria to the legacy process i.e. the current process before the 5-Point Plan.
-2 (More Negative)	This option has a more negative outcome against this design criteria when comparing the same design criteria to the legacy process i.e. the current process before the 5-Point Plan.

As per Table 1 and for the avoidance of doubt, our scoring below is against the legacy baseline i.e. the current connections process before the 5-Point Plan. This means that there are fewer negative scores than if we were instead scoring each of the design criteria against a desired target state. As the latter approach would be more challenging (and potentially less objective) we concluded that the relative incremental scoring approach would be more suitable to show the differentiation between each of the TMOs.

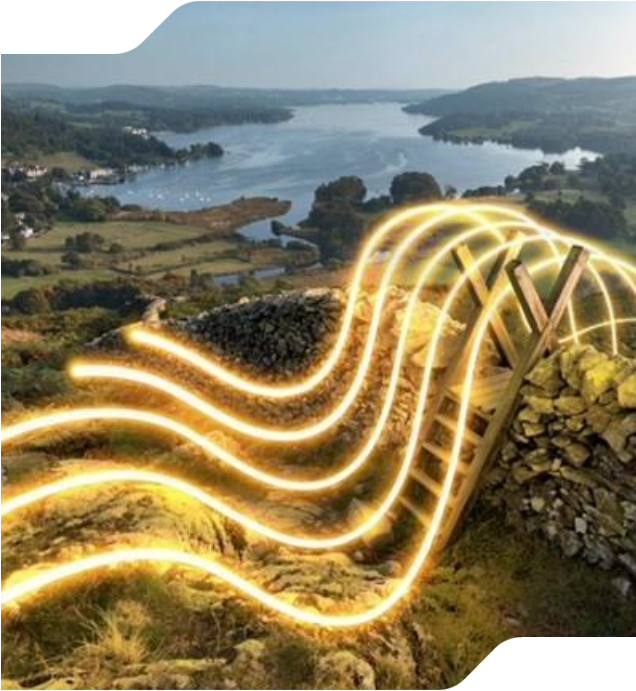


Table 1 - Scoring metrics that are used to rate each option against each design criteria.

Scoring of the TMOs against the design criteria

Table 2 shows how each of the four TMOs compare against each other in respect of each of the design criteria. In summary, the later TMOs tend to have higher scores as additional features are included. However, there are specific instances where a score drops for specific design criteria, and these are explained in the following tables which provide the rationale for the specific scoring against each of the design criteria.

Design Objectives	Design Criteria	Reference	TMO1	TMO2	TMO3	TMO4
Creates a more coordinated and efficient transmission system and network design	Better informs when and where to connect	1	+1	+1	+1	+2
	Enables economic, efficient, coordinated network design	2	-1	-1	+1	+2
	Delivers more efficient use of network capacity	3	0	+1	+2	+2
	Maintains or improves operability of network	4	+1	+1	+1	+1
Options collaboratively developed throughout the connections lifecycle	Reduces risk of wasted effort	5	0	+1	+2	+1
	Parties able to engage to identify best option(s)	6	0	0	+1	+2
Quicker connections for projects progressed on their merits	Better recognises nature and status of connections	7	+1	+1	+2	+2
	Enables "shovel ready" projects to progress more quickly	8	+1	+1	+2	+2
	Accelerates timing of connections	9	+1	+1	+1	+2
A simple transparent and coordinated approach to connections	Improve Transmission and Distribution coordination	10	0	0	+1	+1
	Improve the connections process experience of connectees	11	+1	+1	+1	+1
	Efficiently manages policy complexity/interdependencies	12	-1	0	+1	+2
Easy access to self-service tools, consistent data and quality insight	Gives better access to and visibility of data and info for parties	13	+1	+1	+1	+2
	Enables parties to plan and act more efficiently	14	+1	+1	+1	+2
	Reduces reliance and/or workload on others	15	+1	+1	+1	+2
Consistent, skilled and well-resourced engagement	Provides coherent customer experience across networks	16	+1	+1	+1	+2
	Skills and capabilities matched to responsibilities and customer needs	17	0	0	0	+1
Future proof process	Adaptability to changes in the market landscape	18	0	+1	+2	+1
	Supports greater investment certainty across the industry	19	+1	+1	+1	+2
	Flexibility to evolve process to deliver future needs	20	-1	0	+1	+2
Better cost outcomes for the end consumer	Reduces overall costs to end consumers	21	0	0	+1	+2
	Can be implemented in a timely and efficient manner	22	0	-1	-2	-2
	Environmental and community impacts are avoided, minimised or mitigated by the network design	23	0	0	+1	+2

Table 2 - Shows the design objectives, how these design objectives are broken down into multiple design criteria and the reference number for each design criteria

Assessment of TMO1

The below table summarises our assessment of TMO1.

Design Objectives	Design Criteria	Ref	Score	Rationale
Creates a more coordinated and efficient transmission system and network design	Better informs when and where to connect	1	+1	Improvements to the pre-application process provide a positive outcome.
	Enables economic, efficient, coordinated network design	2	-1	Does not allow time for a coordinated network design during the offer process. Requires a separate process to manage coordination of offshore connections.
	Delivers more efficient use of network capacity	3	0	Changes to the modelling assumptions will allow more projects to connect sooner combined with the various efficient capacity usage changes i.e. Reactive Queue Management and use it or lose it arrangements. Although positive overall, we do not believe this is sufficient to merit a +1 rating.
	Maintains or improves operability of network	4	+1	The connection of more storage projects should provide more options for system operability without degrading the network.
Options collaboratively developed throughout the connections lifecycle	Reduces risk of wasted effort	5	0	Additional filters at the application stage will reduce the number of speculative applications entering the process, but not enough to justify a positive rating.
	Parties able to engage to identify best option(s)	6	0	Potentially longer timescales to provide the offer gives a limited opportunity to improve engagement but not sufficient to justify a positive rating.
Quicker connections for projects progressed on their merits	Better recognises nature and status of connections	7	+1	Changes to modelling assumptions benefit all projects.
	Enables "shovel ready" projects to progress more quickly	8	+1	
	Accelerates timing of connections	9	+1	

Assessment of TMO1 (continued)

The below table summarises our assessment of TMO1.

Design Objectives	Design Criteria	Ref	Score	Rationale
A simple transparent and coordinated approach to connections	Improve Transmission and Distribution coordination	10	0	Lack of changes in the process mean coordination and process complexity show little improvement. A broad range of minor improvements (e.g. contract simplification, capacity product updates) provide a positive outcome with no persona specific benefits or detriments. Lack of changes in the process mean coordination and process complexity show little improvement. Negative rating is due to the impact on offshore generators who will need a secondary process and the additional complexity this will introduce.
	Improve the connections process experience of connectees	11	+1	
	Efficiently manages policy complexity/interdependencies	12	-1	
Easy access to self-service tools, consistent data and quality insight	Gives better access to and visibility of data and info for parties	13	+1	Pre-application improvements allows more self-sufficiency in applicants and better discussions before applying.
	Enables parties to plan and act more efficiently	14	+1	
	Reduces reliance and/or workload on others	15	+1	
Consistent, skilled and well-resourced engagement	Provides coherent customer experience across networks	16	+1	No changes to roles and responsibilities across the process nor any additional requirement to match skills and capabilities. However, standardisation of offer terms and conditions provides a minor benefit to consistency.
	Skills and capabilities matched to responsibilities and customer needs	17	0	

Assessment of TMO1 (continued)

The below table summarises our assessment of TMO1.

Design Objectives	Design Criteria	Ref	Score	Rationale
Future proof process	Adaptability to changes in the market landscape	18	0	No changes to the process that affect adaptability.
	Supports greater investment certainty across the industry	19	+1	Quicker connections will provide a minor boost to investor certainty and bankability of projects.
	Flexibility to evolve process to deliver future needs	20	-1	Some minor improvements (e.g. criteria to reject applications, capacity clarifications, etc) are not sufficient to offset a negative rating due to the impact on offshore generators who will need a secondary process and the additional complexity this will introduce in evolving both processes in tandem.
Better cost outcomes for the end consumer	Reduces overall costs to end consumers	21	0	No coordinated design means no consumer benefits derived in connection designs whilst other initiatives to connect projects quicker assumed to have a small positive impact on consumers overall (but not enough to score +1).
	Can be implemented in a timely and efficient manner	22	0	Very similar to current processes.
	Environmental and community impacts are avoided, minimised or mitigated by the network design	23	0	No coordinated design means community or environmental impacts are not reduced by design.

Assessment of TMO2

The below table summarises our assessment of TMO2.

Design Objectives	Design Criteria	Ref	Score	Rationale
Creates a more coordinated and efficient transmission system and network design	Better informs when and where to connect	1	+1	Improvements to the pre-application process provide a positive outcome.
	Enables economic, efficient, coordinated network design	2	-1	Does not allow time for a coordinated network design during the offer process. Requires a separate process to manage coordination of offshore connections.
	Delivers more efficient use of network capacity	3	+1	Provides all the benefits identified in TMO1 but the addition of Reactive Queue Management+ increases the score to +1.
	Maintains or improves operability of network	4	+1	Same as TMO1.
Options collaboratively developed throughout the connections lifecycle	Reduces risk of wasted effort	5	+1	Additional application filters and indicative offers reduces the number of projects that progress to later gates and need full system design studies.
	Parties able to engage to identify best option(s)	6	0	Very limited ability to engage between gates not enough to justify a positive rating.
Quicker connections for projects progressed on their merits	Better recognises nature and status of connections	7	+1	Broadly the same as TMO1, but the gated process also benefits criterion 7 (but not enough to increased score beyond +1 as a result).
	Enables "shovel ready" projects to progress more quickly	8	+1	
	Accelerates timing of connections	9	+1	
A simple transparent and coordinated approach to connections	Improve Transmission and Distribution coordination	10	0	Lack of changes in the process mean coordination and process complexity show little improvement overall.
	Improve the connections process experience of connectees	11	+1	Introduction of gates does not significantly change the customer experience of the process compared to TMO1.
	Efficiently manages policy complexity/interdependencies	12	0	Gated process allows projects to account for changes in policy between gates. This benefit is offset by offshore generators who will need a secondary process and the additional complexity this will introduce.

Assessment of TMO2 (continued)

Design Objectives	Design Criteria	Ref	Score	Rationale
Easy access to self-service tools, consistent data and quality insight	Gives better access to and visibility of data and info for parties	13	+1	Same as TMO1.
	Enables parties to plan and act more efficiently	14	+1	
	Reduces reliance and/or workload on others	15	+1	
Consistent, skilled and well-resourced engagement	Provides coherent customer experience across networks	16	+1	Same as TMO1.
	Skills and capabilities matched to responsibilities and customer needs	17	0	
Future proof process	Adaptability to changes in the market landscape	18	+1	Gating criteria can be adapted to fit market conditions by adding/removing gates or changing the criteria to progress through a gate in a timely manner.
	Supports greater investment certainty across the industry	19	+1	Same as TMO1.
	Flexibility to evolve process to deliver future needs	20	0	Building on TMO1, the introduction of a gated process allows flexibility by adding/removing/changing gate criteria to meet evolving needs, but not enough to secure a higher score.
Better cost outcomes for the end consumer	Reduces overall costs to end consumers	21	0	Same as TMO1.
	Can be implemented in a timely and efficient manner	22	-1	Gated process is an evolution of the current process and can be used as the basis to implement improvements, but some code and regulatory change is required.
	Environmental and community impacts are avoided, minimised or mitigated by the network design	23	0	Same as TMO1.

Assessment of TMO3

The below table summarises our assessment of TMO3.

Design Objectives	Design Criteria	Ref	Score	Rationale
Creates a more coordinated and efficient transmission system and network design	Better informs when and where to connect	1	+1	Improvements to the pre-application process provide a positive outcome.
	Enables economic, efficient, coordinated network design	2	+1	Window allows for a coordinated network design (including offshore) of the broader network but potentially not for local connection works.
	Delivers more efficient use of network capacity	3	+2	In addition to benefits identified in TMO2, the introduction of a window allows more coordinated approach for a smaller number of more certain connections.
	Maintains or improves operability of network	4	+1	The connection of more projects that are shown to have a positive network impact (including storage) combined with a coordinated network design. Could increase to +2 in future if prioritised projects which benefit network as per TMA F2.
Options collaboratively developed throughout the connections lifecycle	Reduces risk of wasted effort	5	+2	Additional application filters and indicative offers reduces the number of projects that progress to later gates. A later window including more certain projects means coordinated design has reduced chance of rework.
	Parties able to engage to identify best option(s)	6	+1	The window means there is opportunity to have dedicated engagement time during the window. The reduced scope of the later window (i.e. for a subset of the overall design) means this engagement cannot focus on local works effectively.
Quicker connections for projects progressed on their merits	Better recognises nature and status of connections	7	+2	Changes from TMO2 with the addition of a window allows a coordinated network design to be delivered for those who are able to demonstrate they are ready to use the network. Some scope for anticipatory investment. to be considered as well just increases in the scores of criteria 7 and 8.
	Enables "shovel ready" projects to progress more quickly	8	+2	
	Accelerates timing of connections	9	+1	

Assessment of TMO3 (continued)

Design Objectives	Design Criteria	Ref	Score	Rationale
A simple transparent and coordinated approach to connections	Improve Transmission and Distribution coordination	10	+1	Window creates a regular process to review the Transmission and Distribution Interface and undertake long-term planning.
	Improve the connections process experience of connectees	11	+1	Building on TMO2, better offer production is offset by longer time to complete the process because of introducing the window.
	Efficiently manages policy complexity/interdependencies	12	+1	Gated process allows projects to account for changes in policy between gates whilst windows allows this to be reflected into connection designs in a structured manner. This benefit is partially offset by offshore generators who will need potentially significant tweaks to this process.
Easy access to self-service tools, consistent data and quality insight	Gives better access to and visibility of data and info for parties	13	+1	Same as TMO2.
	Enables parties to plan and act more efficiently	14	+1	
	Reduces reliance and/or workload on others	15	+1	

Assessment of TMO3 (continued)

Design Objectives	Design Criteria	Ref	Score	Rationale
Consistent, skilled and well-resourced engagement	Provides coherent customer experience across networks	16	+1	Same as TMO2.
	Skills and capabilities matched to responsibilities and customer needs	17	0	
Future proof process	Adaptability to changes in the market landscape	18	+2	In addition to TMO2, as the window is later in the process, this means any changes can be enacted quickly into early gates and considered in later windows.
	Supports greater investment certainty across the industry	19	+1	Same as TMO2.
	Flexibility to evolve process to deliver future needs	20	+1	Building on TMO2, window allows an opportunity to consistently reflect changes in future needs into the connections process.
Better cost outcomes for the end consumer	Reduces overall costs to end consumers	21	+1	Coordinated network design for fewer but higher confidence projects. This results in less economies of scale in the coordinated design (and therefore optionality) but also less attrition risk to the coordinated design.
	Can be implemented in a timely and efficient manner	22	-2	Implementation of windows alongside all other changes will result in lengthier implementation timescales. Regulatory and code change is required.
	Environmental and community impacts are avoided, minimised or mitigated by the network design	23	+1	Coordinated design of high(er) confidence projects means community and environmental impacts of the broader network can be considered but more local impacts potentially not considered.

Assessment of TMO4

The below table summarises our assessment of TMO4.

Design Objectives	Design Criteria	Ref	Score	Rationale
Creates a more coordinated and efficient transmission system and network design	Better informs when and where to connect	1	+2	Improvements to the pre-application process along with a dedicated time for pre-application stage (i.e. refreshing data and dedicated engagement time) provide more benefit. Window allows for a fully coordinated network design for all customer types (including offshore). In addition to benefits/score identified in TMO2, the introduction of an early window allows more coordinated approach for all connections. Same as TMO3.
	Enables economic, efficient, coordinated network design	2	+2	
	Delivers more efficient use of network capacity	3	+2	
	Maintains or improves operability of network	4	+1	
Options collaboratively developed throughout the connections lifecycle	Reduces risk of wasted effort	5	+1	Additional application filters have some effect. Full offers provided (as per TMO1) but they are studied more efficiently (via the window) to result in a +1 rating. The window means there is opportunity to have dedicated engagement time during the window. The early window means this engagement can focus on all the network design.
	Parties able to engage to identify best option(s)	6	+2	
Quicker connections for projects progressed on their merits	Better recognises nature and status of connections	7	+2	Same as TMO3 however the broader scope of the window and full potential for inclusion of anticipatory investment increases the score of criteria 9 compared to TMO3.
	Enables "shovel ready" projects to progress more quickly	8	+2	
	Accelerates timing of connections	9	+2	

Assessment of TMO4 (continued)

Design Objectives	Design Criteria	Ref	Score	Rationale
A simple transparent and coordinated approach to connections	Improve Transmission and Distribution coordination	10	+1	In addition to TMO3, the concept of Reserved Developer Capacity (RDC) means many relevant small and medium embedded generators should not be delayed by the window timing and duration, but a notable risk that some projects could need to wait for the next window if RDC is insufficiently allocated and hence scored +1 due to this risk. When felt to be sufficiently mitigated (i.e. via detailed design of allocation) would become +2.
	Improve the connections process experience of connectees	11	+1	Same as TMO3. Introduction of RDC mitigates the negative impact on relevant small and medium embedded generators of application windows.
	Efficiently manages policy complexity/interdependencies	12	+2	Gated process allows projects to account for changes in policy between gates whilst windows allow this to be reflected into connection designs in a structured manner. No offshore impact on this criteria due to this option supporting offshore.
Easy access to self-service tools, consistent data and quality insight	Gives better access to and visibility of data and info for parties	13	+2	Same as TMO3, but dedicated time for pre-applications provides an additional benefit by allowing all preapplications to use updated data and tools that are deployed ahead of / within the pre-application stage.
	Enables parties to plan and act more efficiently	14	+2	
	Reduces reliance and/or workload on others	15	+2	
Consistent, skilled and well-resourced engagement	Provides coherent customer experience across networks	16	+2	In addition to TMO3, dedicated windows for specific process/activities (i.e. pre-application, application, coordinated design, etc) mean individuals can receive more focused training and are better able to share workload to provide a consistent service.
	Skills and capabilities matched to responsibilities and customer needs	17	+1	

Assessment of TMO4 (continued)

Design Objectives	Design Criteria	Ref	Score	Rationale
Future proof process	Adaptability to changes in the market landscape	18	+1	Whilst this option does contain gates and windows like TMO3, having the window at the start of the process means implementation of any changes needs to align with the start of the window and hence the lower score compared to TMO3.
	Supports greater investment certainty across the industry	19	+2	In addition to TMO3, the provision of a backstop date in the offer provides certainty of the 'worst case' connection date.
	Flexibility to evolve process to deliver future needs	20	+2	An earlier window (compared to TMO3) means these changes in needs are reflected earlier in the process. Whilst the speed of incorporating the changes into the process is slower (as per criteria 18), they are implemented in a coordinated manner in an earlier stage of the process.
Better cost outcomes for the end consumer	Reduces overall costs to end consumers	21	+2	Coordinated network design for all projects means consumers will only pay for the network that is needed if project attrition is accurate/managed over the long term.
	Can be implemented in a timely and efficient manner	22	-2	Implementation of windows alongside all other changes will result in lengthier implementation timescales. Implementation likely to be slightly more challenging than TMO3 due to earlier window as the window is then on the critical path to implementation. Regulatory and code change is required.
	Environmental and community impacts are avoided, minimised or mitigated by the network design	23	+2	Coordinated design of all projects means community and environmental impacts (wider and local works) can be considered within the window.