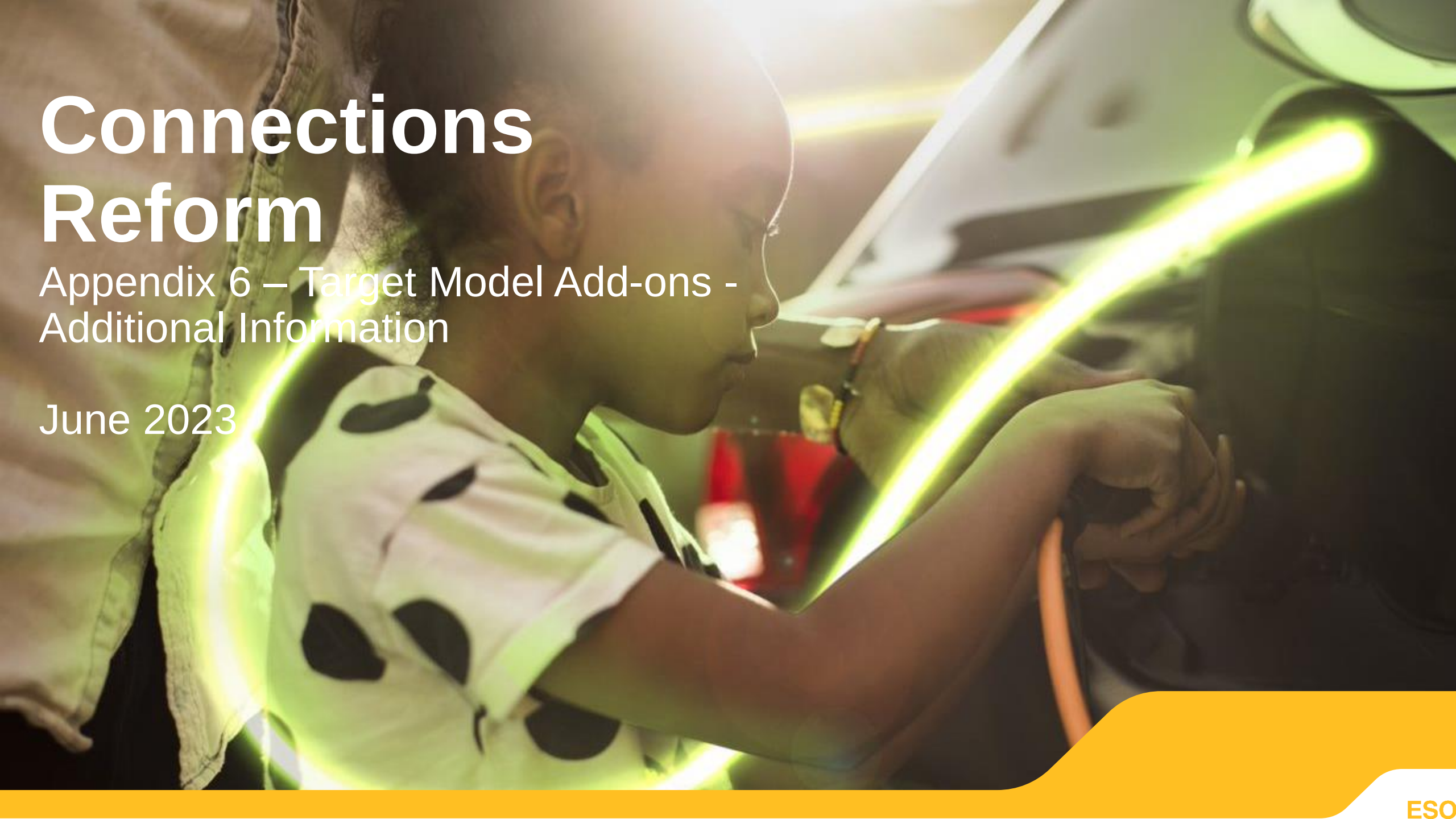

Connections Reform

Appendix 6 – Target Model Add-ons - Additional Information

June 2023

Overview (and TMA A to TMA C)

This appendix provides the full details of all the Target Model Add-ons (TMAs) considered, including a description, Stakeholder Score (SS), strengths and weaknesses, implementation considerations, whether and how the status quo can be maintained and finally our recommendation of which TMAs should be progressed if not already described in Chapter 5 or Chapter 9.

We have not scored the individual TMAs against the design criteria, but we have noted where the TMA interacts with the design criteria as part of the overall evaluation of the Target Model Option (TMO) against the design criteria in Appendix 2.

Please note that TMA E (Connection Assumptions) is detailed fully within Chapter 5 and no further information is provided on it within this appendix.

TMA A to TMA C – Pre-Application Stage TMAs

This topic considers the possible changes that could be enacted to the pre-application process. Due to the more detailed nature of these TMAs, a dedicated chapter has been created which goes into full detail of the possibilities and challenges involved; this can be found in Chapter 4.

Our recommendations in relation to the pre-application stage can be found in Chapter 4 and they are not duplicated here.

However, due to TMO4 being the preferred option, it is worth noting our initial view that the pre-application stage would itself effectively be a window i.e. there would be a period of time after the preceding window where the data (e.g. network information presented via heat maps) would be updated and a period of time prior to the close of the upcoming application window where the pre-application stage would occur in relation to that upcoming application window.

TMA D - Requirements to apply

TMA D – Requirements to apply

This topic group considers what the minimum criteria should be for the ESO to accept an application, assuming all information is complete and accurate i.e. technically and administratively competent applications are considered to be a baseline requirement.

Currently, this is (i) provision of an application form, (ii) provision of Data Registration Code (DRC) template and (iii) payment of the application fee. The TMAs suggested all revolve around providing additional information or revising materials required at the application stage. To maintain the status quo, none of these TMAs would be implemented.

Ref	Title	Description	SS
D1	Provision of a Letter of Authority (LoA)	As part of the application, the applicant must provide a LoA from the landowner confirming they are the (potentially sole) entity authorised to correspond in respect to the potential project on their land. This is a requirement the DNO's already have in place for applications to the DNO's networks.	+7
D2	Provision of Land Rights	As part of the application, the applicant must provide an agreement between the developer and the landowner to demonstrate they have property rights for the project i.e. freehold, lease, easement, wayleave etc.	0
D3	Provision of planning consent.	As part of the application, the applicant must provide evidence that the relevant local planning authority has given permission to build the project.	0
D4	Duplication check	This would introduce a new check to cross reference the additional land information provided (from D1, D2 or D3) against each application to ensure that only one application is submitted per piece of land.	N/A
D5	Simplification & standardisation of offer T&CS	Simpler contracts and greater standardisation across Transmission Owners to promote a better customer experience and facilitate broader changes.	N/A
D6	Acceptance of standard T&CS on application	Standard terms and conditions applicable to all offers would be accepted when submitting the application, meaning that the offer provided by ESO would only need to focus on project specific or non-standard clauses.	N/A

TMA D - Strengths and Weaknesses

There was strong support from stakeholders for implementing an option from TMA D. Almost all stakeholders supported implementing TMA D1, with the level of stakeholder support falling considerably as the requirement became more onerous in the later TMAs i.e. D2 and D3. TMA D4, D5 and D6 were not explicitly voted on by stakeholders during the sprints however qualitative feedback from stakeholders was that all these changes were beneficial.
This is reflected in the following tables of strengths and weaknesses.

Ref	Title	Strength	Weakness
D1	Provision of a Letter of Authority (LoA)	• Provides a barrier against the most speculative projects but is not onerous to the vast majority of projects; • Aligns with checks that the DNOs undertake in their process; • Can be applied early in the project development lifecycle; and • Clear favourite from stakeholder feedback.	• Difficult for ESO to cross-check the validity of the provided information.
D2	Provision of Land Rights	• Prevents speculative projects but is not overly onerous to most projects.	• Difficult for ESO to cross-check the validity of the provided information; and • Prevents early applications as Land Rights not agreed until later in the development process.
D3	Provision of planning consent.	• Will significantly reduce application volumes, allowing the process to focus on progressing projects; and • Easy for ESO to independently verify.	• Very onerous requirement that is a significant barrier; • Significant investment risk to applicants under this TMA as significant spend obtaining planning with no certainty on the connection; and • Results in very late applications being submitted for mature projects.
D4	Duplication check	• Will have a minor impact on application volumes by removing the most speculative applications.	• Requires new tools and processes to manage this validation; and • May result in an overall increase in workload if this validation is onerous to manage.

TMA D - Strengths and Weaknesses (continued)

Ref	Title	Strength	Weakness
D5	Simplification & standardisation of offer T&CS	• Widespread approval from stakeholders; • Will make production of offers easier; and • Will result in greater customer satisfaction by being easier to understand the offer.	• Time consuming and difficult to agree a common set of T&Cs across all parties; and • There will always be 'edge cases' which need non-standard clauses.
D6	Acceptance of standard T&CS on application	• Will make production of offers easier; and • Will result in greater customer satisfaction by being easier to understand the bespoke elements of the offer relevant to them.	• Risk that applicants don't read/understand the standard T&Cs before applying for or accepting the offer.

It is worth noting that only one of D1, D2 or D3 could be implemented in the status quo and TMO1 processes due to them being a 'single gate' process. TMOs that contain multiple gates can only have one of these per gate but could have multiple across the full process. The implementation of D4 would need to align with (or be later than) the implementation of D1, D2 or D3 and couldn't be progressed earlier. Finally, there is scope to progress D5 and D6 together in a coordinated manner separately to D1, D2 or D3.

TMA F - Criteria for accelerating projects

TMA F – Connection Assumptions

Stakeholder feedback has been clear that the ability to accelerate specific projects would be a significant benefit. This would involve these priority projects both connecting sooner as well as potentially entering the connections process at a later stage. This is dependent upon the TMO chosen in Chapter 6. This topic explores the new criteria (i.e. the status quo would be to implement no TMAs from this topic) to be used to identify specific projects for acceleration (i.e. which projects should be accelerated) whilst TMA G explores how they are accelerated.

Ref	Title	Description	SS
F1	Government Support	Projects that are given a specific designation by a senior government representative (e.g. the Secretary of State) due to their impact on the national interest.	-1
F2	Positive consumer/network benefit case	Projects that are able to provide a definitive and quantifiable benefit to consumers and/or network operation through either their technology type or geographic location e.g. projects whose technology and location alleviate network constraints.	-3
F3	Ready to progress (e.g. 'shovel ready')	Projects which demonstrate that they are ready to progress e.g. the only outstanding requirement preventing construction starting is the connection date in their connection contract.	+11
F4	Price based mechanism	Projects who are able to pay using a suitable mechanism (e.g. after winning an auction) are able to accelerate.	N/A

There was very strong stakeholder feedback that allowing 'ready to progress' projects to be accelerated (i.e. TMA F3) would be beneficial, with the joint highest SS (alongside TMA K3). There was also a view that this TMA should be progressed as a priority action.

TMA F1 received a largely neutral reception overall as it was deemed to be necessary in the national interest but of little benefit to most projects. Finally, discussions around TMA F2 showed there are instances where this could be beneficial but there were concerns about how the positive benefit case would be determined and if this would be fair/transparent and this was reflected in its negative SS. Finally, whilst there is no dedicated SS score for TMA F4, qualitative feedback from the sessions was that this would not be a beneficial step as whilst it can theoretically allocate capacity efficiently, practically it is likely to result in those with larger finances 'paying to win' rather than having the 'better' project.

TMA F - Strengths and Weaknesses

Ref	Title	Strength	Weakness
F1	Government Support	• Provides a clear path for how nationally significant projects are managed in the process; and • Allows the earlier connection of projects which receive this status.	• Needs to be used in exceptional circumstances with the support of senior politicians; • Could disrupt other projects waiting to connect; and • Criteria for determining if a project is beneficial will need to be transparent and will be challenged.
F2	Positive-Consumer/Network benefit case	• Allows earlier connection of projects that are 'beneficial', reducing costs to consumer overall; and • Could facilitate the connection of other projects by mitigating reinforcement works.	• Could disrupt other projects waiting to connect; and • Criteria for determining if a project is beneficial will need to be transparent and will be challenged.
F3	Ready to progress (e.g. 'shovel ready')	• Very strong stakeholder support for progressing as a priority; • Allows earlier connections for projects who can utilise network capacity; and • Strong incentive to define the criteria and for projects to be able to demonstrate achievement of that criteria.	• No restrictions on this could result in higher consumer costs in the short term until enabling works are completed; • Stakeholder expectations may need to be managed as acceleration may not be possible or significant in all instances; and • Depending on detailed design, could disrupt other projects waiting to connect.
F4	Price based mechanism	• Good way to accelerate projects that can afford it; and • Ability to create tiered pricing (i.e. earlier connections cost more than later connections) which could be more efficient overall.	• Strong feedback would be distortionary; • Adversely affects smaller and less financially established e.g. newer) developers; • Questions around what happens with the money paid to accelerate projects; and • Time/complexity in designing a suitable price-based mechanism for project acceleration.

The dependencies in implementing these TMAs are highly linked to the chosen TMO and also to the queue management TMA chosen in TMA G. Implementing these TMAs in the status quo process and in TMO1 without disadvantaging existing projects will not be possible as it will potentially delay the connection date of other projects. All these TMAs could be implemented in the status quo and any TMO if these impacts on other projects were to be deemed to be acceptable.

TMA G - Queue Management

TMA G – Queue Management

Queue Management was a popular topic of discussion during our Phase 2 stakeholder engagement. The sprint discussions identified that there are different types and meaning behind the term 'queue management' so we have further defined these terms. Chapter 5 includes a description of queue management in the context of each TMO, whilst this section explores the application of different types of Reactive Queue Management (RQM) and Proactive Queue Management (PQM). In short, these options can be accelerated to different degrees and the extent to which this is to the detriment of other projects (in the queue) or consumers.

Ref	Title	Description	SS
G1	Reactive Queue Management (RQM)	This is the status quo, assuming that CMP376 is approved. When capacity is released by queue management, all parties (who can benefit) are progressed forward (i.e. a small benefit to a large number of projects).	N/A
G2	Reactive Queue Management Plus (RQM+)	Revise RQM and change its focus so that when capacity is released, it is provided to projects who are most able to use that capacity by being ready to connect (i.e. a large benefit to a small number of projects).	N/A
G3	Consumer Impact PQM	Accelerate a project meeting the relevant criteria as far forward as possible (even if no capacity is released by RQM or RQM+) as long as it does not worsen contracts of other projects. However, this could be at a cost to consumers i.e. with the ESO managing any resulting system issues of having advanced such project(s).	N/A
G4	Developer Impact PQM	A further evolution of G3 so that a project meeting the relevant criteria is accelerated as far forward as possible even if it worsens contracts of other projects.	N/A

Stakeholder interest in queue management was very high during the sprints and seen as a key lever to allow progressing projects to connect with earlier connection dates. At the time of the sprints the TMAs relating to queue management were not fully formed and so there is no SS scoring for these TMAs. However, feedback was clear that queue management arrangements should allow suitable projects (as per TMA F) to progress as far forward as possible.

TMA G - Strengths and Weaknesses

Opinion was mixed whether this advancement should be to the actual or potential detriment of other projects and the extent to which consumers should mitigate this detriment. There were also comments that the terminology used when discussing queue management is inconsistent and this adds additional complexity to discussions. Once we clarified the distinction between RQM and PQM with our Steering Group there was considerably more concern about PQM where it could be of detriment to other projects' connection dates.

Ref	Title	Strength	Weakness
G1	Reactive Queue Management (RQM)	• Minimal consumer risk; • Requires no additional rule/licence changes; and • All projects benefit from advancement.	• Least potential to meaningfully advance connection dates; and • Requires other projects to be terminated to release capacity for advancement.
G2	Reactive Queue Management Plus (RQM+)	• Minimal consumer risk; • Potentially requires no additional rule/licence changes (depending on CMP376 wording); and • Provides meaningful advancement to those ready to connect now.	• Requires other projects to be terminated to release capacity for advancement; and • Sterilises advancement opportunity for those who are not yet ready to connect (but will in future).
G3	Consumer Impact PQM	• Does not actively detriment other projects (i.e. delay them); and • Allows a balance between advancement and mitigating impact on other parties.	• Minimises the advancement potential of other projects i.e. their ability to advance when able is potentially reduced; and • High consumer cost in maintaining network operability.
G4	Developer Impact PQM	• Provides the greatest advancement potential to the advancing project.	• Is incompatible with some TMOs; • Will potentially delay the connection date of projects who are bypassed; and • High consumer cost in maintaining network operability.

As G1 is assumed to be the baseline, subject to CMP376 being approved by Ofgem, this becomes the de facto status quo option. Code and/or process changes will be needed to implement TMAs G3 and G4 but this could be avoided for G2 depending on the precise legal text that is implemented. The extent of these changes (e.g. codes, licences, etc) is still to be confirmed.

TMA H - Structure and Value of Fees

TMA H – Structure and value of application fees

This group considers the options suggested of when application fees are applied at different stages of the connections process, how they are calculated and what the payment terms of these fees should be.

Ref	Title	Description	SS
H1	Pre-Application Fee	A fee could be applied to parties who wish to engage with the ESO before they formally apply. This would be a new charge compared to the current process.	0
H2	Application Fee	A fee could be applied to parties who formally apply for a connection application. This fee is applied in the current process and so maintains the status quo arrangements.	-1
H3	Modification Fee	A fee could be applied to parties who formally apply to modify an existing, signed connection contract. This fee is applied in the current process and so maintains the status quo arrangements.	0
H4	Methodology Review	This TMA is to review the methodology of calculating the fees (preapplication, application or modification as appropriate) i.e. how the value of the fee is determined, etc.	+3
H5	Payment Review	This TMA is to review when any fee is due to be paid (i.e. timing of the fees). Currently, fees are paid in advance of any work being started.	+1

TMA H - Strengths and Weaknesses

As can be seen from the SS, there was not any significant difference in opinion between these TMAs except for H4, which did have modest support. Stakeholder feedback heavily influenced the strength and weakness assessment for these TMAs and so we have combined them for this topic.

Strength	Neutral	Weakness
• A fee means that the costs incurred by the ESO and TOs are passed on to the individual triggering the cost and are not being socialised; and • Application fees and modification application fees are already established in the connections process.	• Reviewing the methodology of these fees would be beneficial when the TMO is decided.	• A Pre-Application fee would be new and create a disincentive to use the service, which may result in more work for ESO and TOs overall; • Fees are not a strong deterrent to speculative applications; and • High fees disproportionally affect smaller developers.

In respect of implementation considerations, we believe a decision on whether to progress TMAs H1, H2 and H3 can be made now. However, progress on the remaining TMAs (i.e. H4 and H5) can only be practically made when the TMO is determined. This is so the key attributes of the process are determined (i.e. which TMO is chosen) so that TMAs H4 and H5 can be progressed e.g. does the preferred reformed connections process contain gates and should a fee be applied at each gate or only on initial application.

TMA I - Criteria for ESO to reject an application

TMA I – Criteria for ESO to reject an application

TMA D describes what information must be provided by an applicant for the application to be complete. TMA I is then to determine in what circumstances (if any) the ESO can reject an application even if it is full, accurate and complete.

There are no existing provisions for the ESO to reject such an application (i.e. the status quo would be to implement no options from TMA I) and so these TMAs would create new provisions. These new provisions are not to be confused with an existing right for the ESO to not provide an offer in specific circumstances after receiving and progressing the application. For example, where providing the offer would result in a breach of the ESO's licence obligations.

Ref	Title	Description	SS
I1	Long connection date	The ability to reject applications if the amount of enabling works in the offer is likely to be known upon receipt (e.g. from a previous application) and this will be a significant amount of time e.g. 10+ years.	-1
I2	Technology and/or geographical restriction	The ability to reject applications based purely on the technology type of the proposed project and/or the location they are looking to connect to.	-1
I3	Cap on total aggregate applications	The ability to reject applications if a total aggregate cap on the number of applications received by the ESO in a period of time is exceeded.	-4
I4	Cap on applications (customer specific)	The ability to reject applications if a total cap on the number of applications an applicant can have in the process at any one time is exceeded.	-4

Feedback for these TMAs was mixed and is explored further in the following tables.

TMAs I1 and I2 both had their supporters and detractors, which is reflected in the SS, whilst TMAs I3 and I4 were not supported by stakeholders.

TMA I - Strengths and Weaknesses

Ref	Title	Strength	Weakness
I1	Long connection date	• Provides resourcing benefits to industry if these areas are clearly identified and communicated by avoiding creating and processing applications; and • Allows industry to focus time/resource on less congested areas with earlier connection dates.	• Will require the creation of a registration list for parties who still want to apply and a process to review when applications should be stopped/started; • May prevent the deployment of some beneficial projects; and • Likely to be challenged by applicants who have an application rejected.
I2	Technology and/or geographical restriction	• Provides resourcing benefits to industry if these restrictions are clearly identified and communicated by avoiding creating and processing applications; and • Allows more focussed targeting of these rejections so beneficial projects can be prioritised.	• Will require the creation of a registration list for parties who still want to apply and a process to review when applications should be stopped/started; and • May be challenged by applicants who have an application rejected.
I3	Cap on total aggregate applications	• Limits the number of applications in the process and so provides resourcing benefits to network companies.	• Will require the creation of a registration list for parties who still want to apply and a process to review when applications should be stopped/started; • Creates an incentive to submit applications based on speed rather than quality of the application; • Strong stakeholder resistance to this proposal; and • May be challenged by applicants who have an application rejected.
I4	Cap on applications (customer specific)	• Focuses applicants to develop quality applications that they decide on quickly; and • Helps prevent large numbers of speculative applications (and associated minor resourcing benefits).	• Directly limits the growth potential of applicants; • Complexity managing joint ventures and special purchase vehicles; • Strong stakeholder resistance to this proposal; and • May be challenged by applicants who have an application rejected.

TMA J - Optionality provided in an offer

Any number or combination of these TMAs could work under the status quo process or the TMOs and so could potentially be progressed prior to a reformed connections process. However, given the nature of these TMAs there is potential that changes to the ESO and TO's licences will be required, and this limits the speed by which these TMAs could be implemented, if chosen. There will also need to be significantly more development needed to refine the chosen TMA(s) to demonstrate their use in practice.

TMA J – Optionality provided in an offer

Stakeholder feedback during Phase 2 was that stakeholders would like to be more involved in the optioneering processes (undertaken by networks companies when creating their connection offers during the process) and this topic contains possible TMAs that formalise this optioneering engagement into connection offers. This way, connectees would have had direct input into the connection offers they receive for them to choose between.

Ref	Title	Description	SS
J1	A single offer	A single offer provided with fully costed and programmed works. This is the status quo.	0
J2	A single offer with later advancement	As per J1 but with an additional review later in the process to determine if the connection can be made quicker.	-1
J3	A small range of customer defined options	The ESO will provide a small selection of offers for the applicant to choose between. These offers will be what the ESO believe the customer wants to see based on discussions during the process.	+4
J4	A small range of predefined options	The ESO will provide a small selection of offers for the applicant to choose between. These offers will be what the ESO believe the customer wants to see based on discussions during the process.	+7

The feedback from stakeholders mostly reflected the desire to see more optionality as part of the application process as can be seen in the SS for J3 and J4. However, the practicalities of this were reflected in their comments and the higher SS for J4 compared to J3.

TMA J - Strengths and Weaknesses

Ref	Title	Strength	Weakness
J1	A single offer	• Simplest to implement as it's the status quo and has fewest process implications.	• Relies on the connections process to collaboratively develop connection options; and • Customers need to request earlier connection dates if the offered date isn't what is required.
J2	A single offer with later advancement	• Simple to implement as it has a few process implications; and • Provides certainty that the project will be advanced as far forward as possible once defined criteria are met.	• Relies on the connections process to collaboratively develop connection options.
J3	A small range of customer defined options	• Formalises the collaborative optioneering discussions into contractual options; • Potential to provide best range of options for the customer to consider; and • Strong stakeholder support.	• Significant process complications (e.g. interactivity) and duplicative work (as only one of X options agreed); and • Potential uncertainty in what ESO/TOs provide as options if collaboration is not effective.
J4	A small range of predefined options	• Formalises the collaborative optioneering discussions into contractual options; • Clear what options are provided by ESO/TOs; and • Strong stakeholder support.	• Significant process complications (e.g. interactivity) and duplicative work (as only one of X options agreed); and • Potential that the options don't provide what the applicants want.

For implementation, the TMAs that result in the provision of a single offer (i.e. J1 and J2) are more easily implementable and are compatible with all the TMOs. The TMAs that provide a range of offers (i.e. J3 and J4) will be more difficult to implement due to more significant changes to codes and processes and the possibility that the changes would also require changes to the ESO and TO licence conditions.

TMA K - Capacity products in an offer

TMA K –Capacity products in an offer

To provide connections to and use of the transmission system, we have a range of products which provide capacity. The main product is Transmission Entry Capacity (TEC) and there are also less frequently used products to exchange or temporarily increase TEC.

This group reviewed the suggestions affecting these products or the creation of new capacity products.

Ref	Title	Description	SS
K1	Fundamental review of time-limited products	Redesign the current range of time-limited capacity products to provide a wider range of products as well as temporary capacity decreases.	-1
K2	Clarification of existing time-limited products	Retain existing (i.e. LDTEC and STTEC) products but provide more detailed guidance on when/why they can be used. This would maintain the status quo products.	0
K3	Define and formalise new 'non-firm capacity' products	Define what is meant by 'non-firm' and create a range of products that formalise 'non-firm' capacity.	+11
K4	Define and formalise new demand capacity products	Define and create a new TEC-equivalent product for demand capacity.	+1
K5	Fundamental review of capacity trading products	Redesign the current capacity trading products to provide a wider range of options for connecting customers to trade capacity between them.	+3
K6	Clarification of existing capacity trading products	Retain the existing (i.e. Temporary TEC Exchange) product but provide more detailed guidance on when/why they can be used. This would maintain the status quo products.	0
K7	Define and formalise new 'access trading' products	Design a new product whereby capacity isn't traded (i.e. TEC) but 'non-firm' access (as per K3) is exchanged between connecting customers.	-1

Stakeholder feedback during the sprints was generally positive for these TMAs. There was some debate as to whether some of these TMAs would be needed if others were progressed e.g. if K1 and K5 would solve the same stakeholder concerns. There was also debate on the possibility of some of these being of a higher priority compared to progressing other TMAs in other groups. This is mostly reflected in the neutral SS. The exception to this was TMA K3 which received the highest SS (jointly with TMA F3) of any TMA and had strong support to progress.

TMA K - Strengths and Weaknesses

Ref	Title	Strength	Weakness
K1	Fundamental review of time-limited products	• An opportunity to understand the limitations of the current products and revise based on feedback; and • Ability to create long and short-term capacity products that align with customer needs.	• Will add to time and difficulty of implementing the reform package and creates interaction with other industry changes e.g. TNUoS reform; and • Not clear that this is a priority for industry.
K2	Clarification of existing time-limited products	• Quick and simple to enact with limited/no interaction with other changes.	• Limited scope to address stakeholder concerns about the products.
K3	Define and formalise new 'non-firm capacity' products	• Very strong stakeholder support for progressing as a priority; • Removes ambiguity and clarifies what 'non-firm' means for transmission system access; • Allows applicants to define more precisely what they are applying for; and • Ability to align with existing Energy Network Association (ENA) work in this area to promote consistency between Distribution and Transmission.	• Broader consequential questions will likely need to be addressed after completion of this TMA e.g. should there be any associated TNUoS changes?; and • Updating existing contracts with these new definitions will be time consuming.
K4	Define and formalise new demand capacity products	• Creates broader alignment between Distribution and Transmission; • Facilitates greater information sharing of demand capacity, similar to how the TEC register shows generation export capacity; • Allows applicants (especially storage) to define more precisely what they are applying for; • Can be combined with TMA K3 to create a range of non-firm demand products; and • Supports greater standardisation of contracts and process between generation and demand i.e. all connection contracts refer to demand and generation capacity.	• Broader consequential questions will likely need to be addressed after completion of this TMA e.g. should there be any associated TNUoS changes?; • Will not provide any immediate benefit by itself i.e. it's a facilitative change; • Not clear that this is a priority for industry; and • Updating existing contracts will be time consuming.

TMA K - Strengths and Weaknesses (cont.)

Ref	Title	Strength	Weakness
K5	Fundamental review of capacity trading products	• An opportunity to understand the limitations of the current products and revise based on feedback; • Ability to design and create a secondary market for capacity trading; and • Modest support from industry.	• Will add to time and difficulty of implementing the reform package and creates interaction with other industry changes e.g. TNUoS reform; • More complex than K1 without significantly more benefit; and • Unclear whether a secondary capacity market is a desirable feature.
K6	Clarification of existing capacity trading products	• Quick and simple to enact with limited/no interaction with other changes.	• Limited scope to address stakeholder concerns about the products.
K7	Define and formalise new ‘access trading’ products	• Could facilitate quicker connections; and • An opportunity to understand the limitations of the current products and revise based on feedback.	• The most complex TMA in this topic which may need TMAs K3 and K5 as prerequisites; and • Not clear that this is a priority for industry.

All of these TMAs are compatible with the status quo process and all the TMOs.

Implementation of most of these options will require significant amounts of industry engagement and development. The clarification TMAs (i.e. K2 and K6) will be the quickest to implement and could possibly only require supporting code and guidance clarifications. All other TMAs in this topic will need careful consideration to avoid unintended consequences.

TMA L - Capacity products in an offer

TMA L – Requirements to accept an offer

To accept an offer, there are existing requirements that the applicant must complete in order for their acceptance to remain valid. This topic was to discuss whether these requirements should be modified.

Ref	Title	Description	SS
L1	Provision of User Commitment or Final Sums value	User Commitment and Final Sums are existing financial securities that must be provided and maintained. This TMA was to keep this in place (i.e. status quo) whilst TMA R2 is to consider whether the methodology should be reviewed.	+1
L2	Provision of security for holding capacity	User Commitment and Final Sums are linked to the amount of works triggered by the application. A capacity holding security amount would be a financial value linked to the amount of capacity requested and would be returned on energisation.	0
L3	Payment of a charge for holding capacity	This TMA is similar to L2 (i.e. a financial value linked to the amount of capacity) with the key difference that this would be a charge and not a secured amount i.e. it will not be returned on energisation. This is discussed further in R3.	-8

TMA L - Strengths and Weaknesses (cont.)

Most stakeholders agreed that the current security arrangements (i.e. User Commitment or Final Sums under TMA L1) are beneficial for consumers and so served a purpose. It was unclear how these arrangements would be different to TMAs L2 and L3 or if they would be duplicative.

There was also strong feeling (as reflected in the SS) that any payments should be used as security and returned on energisation.

Ref	Title	Strength	Weakness
L1	Provision of User Commitment or Final Sums value	• Part of the current process with a well understood methodology; and • Partially protects consumers from stranding of assets.	• Links mainly to the works required and so a weak direct signal on capacity.
L2	Provision of security for holding capacity	• Provides a direct incentive linked to the amount of capacity requested i.e. can be differentiated from L1; and • Only affects projects which ultimately don't connect.	• Will disproportionately affect smaller parties who are more sensitive to costs.
L3	Payment of a charge for holding capacity	• Provides a direct incentive linked to the amount of capacity requested i.e. can be differentiated from L1; and • Potentially creates a fund that can be used to provide other benefits.	• Strong stakeholder feedback against this TMA being introduced; and • Will disproportionately affect smaller parties who are more sensitive to costs.

TMA L1 is already part of the status quo, pending any changes under TMA R2 further below. However, the TMOs that provide an 'indicative' offer will require changes to the user commitment methodology to reflect that these 'indicative' offers will not cover the full scope of works subject to User Commitment. In addition, TMO4 provides an offer based on a 'backstop date' and the interactions with this backstop and User Commitment needs to be understood to mitigate any unintended consequences. TMAs L2 and L3 are not affected by these as they are not dependent on the enabling works triggered by an application and so could be implemented in any TMO, or the status quo under the current industry change process.

TMA M - Timeframe for updating contracts

TMA M – Timeframe for updating contracts

Due to the lead-time between a connection contract first being signed and that project connecting, it is likely that the contract will need to be updated to reflect project or network related changes. This topic was to discuss how these contract updates would be managed.

Ref	Title	Description	SS
M1	Ad-hoc updates	The contract should be updated as and when there are changes necessary. This is the status quo.	0
M2	Annual Review	There should be an annual review cycle where all contracts are reviewed, and any changes made, or confirmation of no changes.	+1
M3	6-Monthly Review	As per M2 but with more frequent, 6 months updates	+1
M4	3-Monthly Review	As per M2 but with more frequent, 3 months updates	0
M5	Key Process Milestones	The contract should be reviewed whenever key milestones in progress of the project are met.	0

There was little specific stakeholder feedback on this topic. Other feedback was more general in that connection contracts should be updated in a timely manner and any unplanned or unknown contract changes harms investor confidence.

TMA M - Strengths and Weaknesses

Ref	Title	Strength	Weakness
M1	Ad-hoc updates	• Allows for the quickest update of contracts if managed well; and • Can incorporate TMA M5 in the TMA with no extra process/effort.	• Risks the slowest updates of contracts if managed poorly.
M2/3/4	Annual/6/3 month Review	• Provides a predictable patten for contracts to be updated helping resource planning.	• More frequent review cycles place a higher administrative burden on parties; • Slower review cycles could add unnecessary delays to providing contract updates; and • Little stakeholder appetite.
M5	Key Process Milestones	• Aligns updating of contracts to when those updates are most likely to be needed.	• Potentially adds process complexity if a regular update cycle is also used as above; and • Has insufficient updates compared to other TMAs.

Note: TMAs M2 (annual review), M3 (6-monthly review) and M4 (3-monthly review) are grouped together due to having the same strengths and weaknesses.

All these TMAs could be implemented in any TMO or via status quo depending on how formal this review cycle is obligated. If it was kept informal, it could be implemented almost immediately whereas if it was fully formalised (e.g. via a licence change) then this would take longer. Consideration should be given to the TMOs that contain windows (i.e., TMO3 and TMO4) as the timing of these reviews will need to consider the timing of the coordinated network design.

We believe that maintaining the status quo (i.e. TMA M1) is the most suitable. It allows the most flexibility to respond to customer requests, although we accept this is dependent upon sufficiently skilled and resourced teams across the industry to process these updates.

TMA N - Criteria for ESO to reject a modification

TMA N – Criteria for ESO to reject a modification

Whereas TMA I determines in what instances the ESO can reject an application, TMA N explores when the ESO could reject a modification application. There are no existing provisions for the ESO to reject such an application and so these TMAs would create these new provisions.

These new provisions are not to be confused with an existing right for the ESO to not provide an offer in specific circumstances after receiving and progressing the application. For example, where providing the offer would result in a breach of the ESO's licence obligations.

Ref	Title	Description	SS
N1	Cap on number of contract changes	An aggregate cap on the number of changes allowed on a contract from when it is first signed.	-4
N2	Restricted scope of allowable changes	Restricting the type of changes that can be applied for at certain parts of the process e.g. changing technology type after planning consent.	0
N3	Formalise guidance on substantial changes	Where there is guidance to determine what is a 'material change' and so beyond the scope of a modification. This could be formalised to elevate its status from guidance to a formal rule.	0

As can be seen from the SS, there was no strong support for any of these TMAs and active encouragement to not progress TMA N1. Whilst stakeholders could see the potential benefits of these TMAs for network companies, they generally felt that these TMAs did not provide any benefits for developers.

TMA N - Strengths and Weaknesses

Ref	Title	Strength	Weakness
N1	Cap on number of contract changes	• Ensures applications of a high quality and are close to final when first submitted; and • Reduces the number of modification applications submitted and the effectiveness of queue management.	• Incentivises fewer, bigger changes that are requested at later stages in the process; • Means that projects cannot adapt quickly to changing needs without the risk hitting the cap in changes; • Will require significant time to design a suitable arrangement with industry, especially given negative stakeholder feedback; and • Unclear what should happen if the cap is hit and likely to be challenged.
N2	Restricted scope of allowable changes	• Provides more investment certainty to network companies.	• Complex to design and implement; • Reduces flexibility of the process; and • Unclear it adds additional benefits over queue management.
N3	Formalise guidance on substantial changes	• Provides clarity of what modifications will be acceptable and which will require a new application; and • Relatively quick and simple to implement.	• Amount of time needed to formalise will depend on how formal the guidance should be and the legal weight it will carry i.e. should the guidance become a formal part of the code.

Noting some of the complexities mentioned in the tables above, these TMAs could be implemented in all TMOs.

TMA O - Secondary processes for defined changes to a connection

TMA O – Secondary processes for defined changes to a connection

The TMOs in Chapter 6 are designed to accommodate full, complex applications, or changes to existing applications.

Some changes asked for by a modification do not need to progress via the full process as they are smaller and simpler in scope. This topic defines which simpler changes can progress via a secondary, quicker process when compared to the TMOs in Chapter 6. Under the status quo only O4 has a formal, faster process; we aim to provide a lot of the other changes in faster timescales, but this is not formalised.

Ref	Title	Description	SS
O1	Connection charging appendices	Where only the appendices relating to payment of connection assets or one-off works are seeking to be modified.	0
O2	Corrections and administrative changes	Changes that are agreed between the applicant, the TO and the ESO to be immaterial in nature.	+1
O3	Contract Novation	Where the contracted party is looking to move the connection contract from one party to another party with no other changes.	-1
O4	No transmission system impact	Where it is known that the application will not require any works on the transmission system e.g. new Supplier or Virtual Lead Party registrations. This is the status quo.	0
O5	Construction Programme changes	Where only the appendices relating to the construction timescales are seeking to be modified.	0
O6	Following interactivity	Where an offer was provided and subsequently withdrawn as a result of the application being interactive with another application i.e. after the interactivity process.	0
O7	Capacity reductions	Where the applicant wishes to return capacity to the ESO and reduce their use of the transmission system i.e. reduce from X to <X. ***Please note that this is related to non-connected projects rather than connected projects.***	+1
O8	Capacity increases	Where the applicant wishes to obtain capacity from the ESO and increase their use of the transmission system i.e. increase from Y to >Y. ***Please note that this is related to a permanent increase rather than a temporary increase, as considered within TMA K.***	0
O9	Connection site changes	Where the connection site location is requested to move to another location.	0

TMA O - Strengths and Weaknesses

Overall, stakeholder feedback was that having a quicker secondary process for 'minor' changes would be beneficial, especially in TMOs that contained windows. There was little feedback of what specific changes should be considered 'minor' with largely neutral SS across all TMAs.

Ref	Title	Strength	Weakness
O1	Connection charging appendices	• Does not require system design or engineering input.	• Will require TO input and update to contracts between ESO and TO.
O2	Corrections and administrative changes	• Streamlined process for correcting errors.	• None identified.
O3	Contract Novation	• Does not require system design or engineering input.	• Will require TO input and update to contracts between ESO and TO.
O4	No transmission system impact	• Can reduce workload for network's engineering resource if this can be quantified in advance and kept up to date.	• Transmission impact will need to be quantified and kept up to date; and • Creates an incentive to scope projects to be 'just under' the threshold.
O5	Construction Programme changes	• Does not affect connection design; and • Would capture a significant percentage of modifications.	• Will need TO input and agreement, which could be significant and won't be known at the time of modification, as TO will need to reprogramme works, etc.; and • May require engineering resource if the programme change affects the delivery of shared works.
O6	Following interactivity	• Results in applicants who have 'lost' at interactivity previously to have a better experience of the process.	• Likely to be a fringe benefit most of the time; and • Significant design work will still be required.
O7	Capacity reductions	• Provides a better applicant experience of the process.	• Significant design work will still be required, especially to see who can benefit.
O8	Capacity increases	• Provides a better applicant experience of the process.	• Significant design work will still be required.
O9	Connection site changes	• Provides a better applicant experience of the process.	• Significant design work will still be required.

The secondary process will need significant pan-industry engagement to design and determine any associated deadlines in the process; this will be easier to determine when the scope of the process (i.e. which TMAs from this topic) are to be included. Code change may be required to formalise this secondary process if deemed necessary but there are no restrictions on this from the status quo process or any of the TMOs.

TMA P - Dual track process for priority projects

TMA P – Dual Track process for priority projects

‘Priority projects’ (if/as determined by TMA F) will need to be managed differently to regular projects to reflect their priority status. This category aims to determine what process these priority projects should progress through to ensure it is transparent for all. There are three broad options available as described in the following table;

Ref	Title	Description	SS
P1	Use the main TMO process (as described in chapter 9)	There is no special/unique process for priority projects and they progress through the ‘regular’ process. This does not prevent priority projects entering the process at a later gate. This is the status quo.	N/A
P2	Use the secondary process developed under TMA O	TMA O will develop a secondary, quicker process for ‘non-material’ changes. This process could be used to provide connection offers to priority projects in a faster timeframe than regular projects	N/A
P3	Bespoke priority project process	This would be to create a bespoke and unique process specifically for priority projects that would provide connection offers like the TMO.	N/A

There is no SS for this TMA as it was not explicitly voted upon by stakeholders however qualitative feedback is that the treatment of priority projects should be fair and transparent with any different process clearly articulated and well documented.

TMA P - Strengths and Weaknesses

Ref	Title	Strength	Weakness
P1	Use the main TMO process	• Uses an existing process, no bespoke process required; • Avoids any potential (perceived or real) preferential treatment or conflict with the TMO; and • Simpler for industry to administer.	• Potentially not the best process to connect priority projects as soon as possible.
P2	Use the secondary process developed under TMA O	• Uses an existing process, no bespoke process required;	• Secondary process not designed to provide full connection offers so may not be practical/feasible.
P3	Bespoke priority project process	• Tailored process designed to connect priority projects as soon as possible.	• Adds to industry complexity by creating another process; and • Risks conflicting with other processes (either the TMO or the secondary process).

Implementation of this category of TMAs will need to synchronise with other TMAs in this consultation, assuming this is done in a managed way, then any of these TMA P proposals could implemented in the status quo or any of the TMOs.

TMA Q - Financial recompense for contract changes triggered by ESO or TO

TMA Q – Financial recompense for contract changes triggered by ESO or TO

Between contract signature and connection, there may instances where the ESO or TO need to enact a contract change that is detrimental to the applicant e.g. unforeseen extra costs or delays. This topic was raised by stakeholders to consider if options are possible to mitigate the impact of these contract changes to provide more certainty and/or more closely align connection contracts with commercial contracts.

Ref	Title	Description	SS
Q1	Liquidated Damages	As part of the connections process, applicants can opt to pay more on their connection charges to fund liquidated damages which are paid if the connection date is delayed. This is currently an option and so is status quo.	0
Q2	Price Control	A new price control mechanism would be applied on ESO and/or TOs by Ofgem. This incentive mechanism would transfer a value from ESO/TOs to applicants in the event of a (delay) contract change.	+2
Q3	Network Charges	A value would be transferred from the ESO to the applicant in the event of a contract change. This value would then be recovered by the ESO via network charges (i.e. TNUoS or BSUoS) to socialise this value across industry.	0
Q4	Applicant Fund	As part of the applications process, all applicants contribute towards a central fund. This central fund is then used to finance a value to compensate individual projects if they are subject to a contract change. This value will therefore be socialised across all projects awaiting a connection.	+2

There was consistent feedback during the sprints about the perceived asymmetry of risk associated with contract changes, especially increased costs and delays to connection dates.

However, compared to the other TMAs discussed, this topic was not as high priority and this is shown in the low positive SS values.

TMA Q - Strengths and Weaknesses

Ref	Title	Strength	Weakness
Q1	Liquidated Damages	• No changes required as it is status quo; and • No impact on consumers or other applicants.	• Provides no incentive on ESO or TOs to improve their contract delivery; and • Results in the applicant self-insuring against delays and increases connection costs.
Q2	Price Control	• Provides a direct incentive to improve ESO/TO performance; and • Only option that can directly transfer funds from ESO/TOs to affected parties without affecting other industry parties – and so is a very strong incentive.	• Will impact consumers, amount will depend on incentive design and performance; • Needs a licence change and Ofgem management of the incentive; and • May create a perverse incentive where ESO/TO overestimate connection dates to outperform the price control incentive.
Q3	Network Charges	• Once designed, which might be a challenge, then relatively simple to implement and manage within the ESO i.e. no TO impact.	• Requires a process for ESO to determine compensation value and then recover this from network charges; and • Results in the socialisation of poor ESO/TO performance across connected parties.
Q4	Applicant Fund	• Once designed, which might be a challenge, then relatively simple to implement and manage within the ESO i.e. no TO impact.	• Requires an income stream to populate the ‘applicant fund’ and this could be targeted depending on how this is designed e.g. from connecting customers via TMA L options; and • Requires a process for ESO to determine compensation value and then distribute ‘applicant fund’ to affected parties.

There will be a significant amount of time needed to design a suitable process to implement these TMAs given the potential commercial implications on affected parties. This means that despite TMAs Q3 and Q4 being possible with code and process change and TMA Q2 requiring licence (and potentially code) and process changes, the potentially contentious nature of these TMAs means it is likely to take longer to implement than other TMAs. Should one of these TMAs be chosen to be implemented, there are no barriers from the design of status quo process or TMOs that will affect the implementation.

TMA R - Management of underused capacity

TMA R – Management of underused capacity

Other than the payment of TNUoS, there is no long-term incentive for parties to ensure the capacity they have contracted is efficiently used and due to the locational nature of TNUoS, this incentive is geographically inconsistent. User Commitment plays a similar role before energisation however it is only indirectly linked to capacity. This topic explores whether there needs to be something new (i.e. the status quo would be to implement no TMAs from this topic) which aims to ensure that contracted capacity is utilised and not 'hoarded'.

Ref	Title	Description	SS
R1	Use it or lose it (UIOLI)	A new process would analyse the amount of capacity a project is using based on e.g. long-term average of actual use. Any excess capacity would be reclaimed to create a 'use it or lose it' incentive.	+6
R2	Revise the User Commitment methodology	The current User Commitment methodology could be changed to place a greater emphasis on the amount of capacity being requested compared to the amount of works needed for the connection.	+1
R3	Charge or security deposit for holding capacity (pre-energisation only)	Apply a new amount to projects who are yet to energise. This amount could be in the form of a security deposit which is only returned on energisation (and kept if they fail to energise) or a recurring charge.	-3
R4	Charge for holding capacity (pre and post energisation)	Apply a new recurring charge to all projects who have contractually agreed capacity. This would be agnostic of location or project status (i.e. energised, to be built, etc) to provide a consistent incentive.	-3
R5	Apply TNUoS to contracted projects	Begin applying the TNUoS methodology to all contracted projects instead of just those projects who have connected.	-2

Ensuring capacity is well utilised was an aim that was well supported by stakeholders, although different stakeholders had different priorities as to whether this should be for all projects or just those awaiting connection. There was also a dislike of any financial means to create an incentive as seen in the SS.

TMA R - Strengths and Weaknesses

Ref	Title	Strength	Weakness
R1	Use it or lose it (UIOLI)	• Ensures that any connected projects who have under-used capacity are able to return this capacity, potentially allowing other projects to connect; and • Moderate support from stakeholders.	• Will only affect projects that are already connected; and • If designed/implemented poorly, could be a major investment risk to customers.
R2	Revise the User Commitment methodology	• Could be changed to increase the capacity elements of the methodology; and • Relatively simple change to enact via the code change process.	• Only affects projects waiting to connect; and • Potential conflicts or unintended consequences by changing the methodology.
R3	Charge or security deposit for holding capacity (pre-energisation only)	• Dedicated approach to incentivise efficient capacity could be more targeted.	• Only affects projects waiting to connect; • More difficult and contentious than TMA R2; and • Not supported by stakeholder feedback.
R4	Charge for holding capacity (pre and post energisation)	• Dedicated approach to incentivise efficient capacity could be more targeted	• More difficult and contentious than TMA R2; • Would require ongoing (e.g. annual) charges to be levied on all parties; and • Not supported by stakeholder feedback.
R5	Apply TNUoS to contracted projects	• Relatively simple change to enact via the code change process; and • Strength of signal directly linked to locational nature of TNUoS.	• Only a new incentive on projects waiting to connect; • Assumes locational signal for TNUoS aligns with where applicants want to connect; • Potential conflicts or unintended consequences by changing the methodology; and • Not supported by stakeholder feedback.

TMAs R2 and R4 utilise existing methodologies and so should be quicker to implement compared to the other TMAs in this topic, which require new approaches to be designed.

TMA S - Dispute Process

TMA S – Dispute Process

There will need to be a dispute process related to key process stages, gates and decisions. The first dispute stage would be where the ESO has rejected an application (options under TMA I) and the applicant wishes to challenge that decision – a timely decision will be required to allow the Attrition CPAs (TMA E2) to be finalised and to allow a timely decision as to whether to include that application in the network modelling so that a connection offer may be developed. Secondly, once an application window concludes (TMO3 and 4), its outputs will provide the inputs into the subsequent application window process. Therefore, it is important that any connection offers referred to Ofgem are resolved (i.e. acceptance or lapse) in a timely manner and prior to the data set for the subsequent window being finalised for the commencement of the subsequent network design process. Thirdly, any dispute about whether a gate has been passed by a particular project will need to be determined (TMOs 2, 3 and 4). This will be important in terms of determining treatment of a particular project, but any such dispute is less likely to impact the efficiency of the overall process like the first and second areas above.

In order to help mitigate the chances of (successful) dispute, we will need to develop simple and transparent criteria for making any decisions during the reformed connections process, particularly in relation to the potential dispute stages referred to above. We will also need to make it very clear to customers what information we require them to submit, and what options they have to dispute a decision or refer that decision to Ofgem.

Ref	Title	Description	SS
S1	Clarified and defined dispute process	A new process would be documented between industry (including ESO) and Ofgem to allow speedy resolution of disputes so that any potential impact on the wider connections process is minimised.	N/A

There is no SS for this TMA as it was not explicitly voted upon by stakeholders however qualitative feedback is that a dispute process is required, and this process should be fair and transparent.

TMA S - Strengths and Weaknesses

Ref	Title	Strength	Weakness
S1	Clarified and defined dispute process	• Provides clear guidance and route for industry to dispute stages of the process; and • Ensures that the wider connections process (i.e. TMO) isn't inadvertently affected by delays in resolving disputes.	• Requires a process to be agreed with Ofgem to defined timescales.

We intend to work with Ofgem to create a fast-track dispute process to allow the efficient running of the process and to provide a fair and transparent process for customers. Due to nature of these discussions, it's unlikely that this will be available for implementation quickly but would be beneficial for removing future risk in the reformed process.