



Holistic Network Design and Holistic Network Design Follow up Exercise Impact Assessment Process

Guidance document

10th August 2023

Updated 31st January 2024

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Context and guidance

Context

We acknowledge that in some instances there will be a need to identify and assess design changes as an alternative to the HND and HNDFUE recommendation. However, it is important to outline that the impact assessment process is not a formal step in progressing the Detailed Network Design (DND). It should be used by exception, where there is a definitive need to explore an alternative option to that recommended and consulted on by the ESO.

Out of scope

We understand that there is still work to be done between Transmission Owners (TOs) and offshore wind developers to reach agreement on issues surrounding ownership boundaries and we are aware that, in the absence of a channel to formally resolve these, the impact assessment process may be seen as a substitute to provide the reassurance being sought. However, please note that this is not the intention of the impact assessment process. The process does not give a view on ownership boundaries in the DND and shouldn't be viewed as a form of approval or sign off.

Updates

In this second version of guidance, updated in January 2024, we have provided additional clarification on timings and the treatment of multiple design changes. Please see the relevant slides within the pack for more information.

High-level overview of the Impact Assessment process

Objective: To capture and assess alternative designs to the Holistic Network Design (HND) and HND Follow Up Exercise (HND FUE) recommendations that developers and / or TOs may identify, as part of the Detailed Network Design (DND) process

What changes may need to be captured?

These changes may include a change in technology, a change in cable route or length or a change of network configuration that would have a material impact on the design criteria, but not number of cables, number of platforms or location of platforms. Additional infrastructure opportunities such as energy islands and multi-purpose interconnectors (MPIs) are out of scope. However, once a commercial framework around MPIs has been established, potential changes including MPIs may be considered in the future. If more clarity is required regarding the type of changes that will be considered as part of this process, please reach out to:

box.OffshoreCoord@nationalgridESO.com

Who is this for?

- HND non-radial developers
- HND radial developers
- HND FUE ScotWind developers
- HND FUE INTOG and Celtic Sea developers*
- TOs involved in HND delivery

*Process will be relevant once they have received their recommendations

Impact assessment process steps



TO/developer engagement

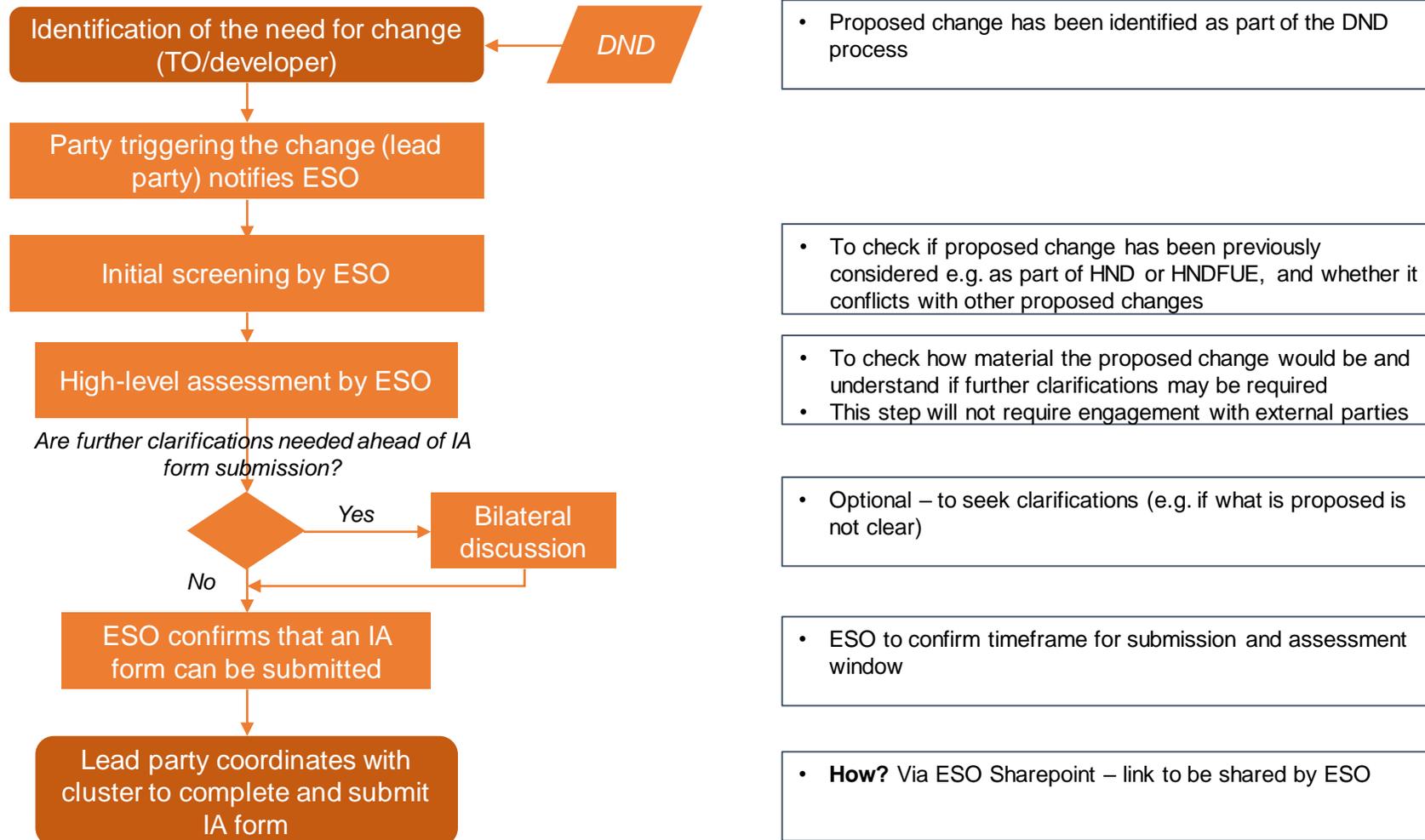
We strongly encourage TOs and offshore wind developers who are electrically connected through a coordinated network to engage within their “cluster” prior to the submission of an impact assessment to ensure all views are taken into account.

How will the impact assessment process be triggered?

Where developers and / or TOs see benefits in alternative designs to the HND or HNDFUE recommendations, as part of the DND process, they will be able to start an Impact Assessment process. These would include any deviations from the established baseline.

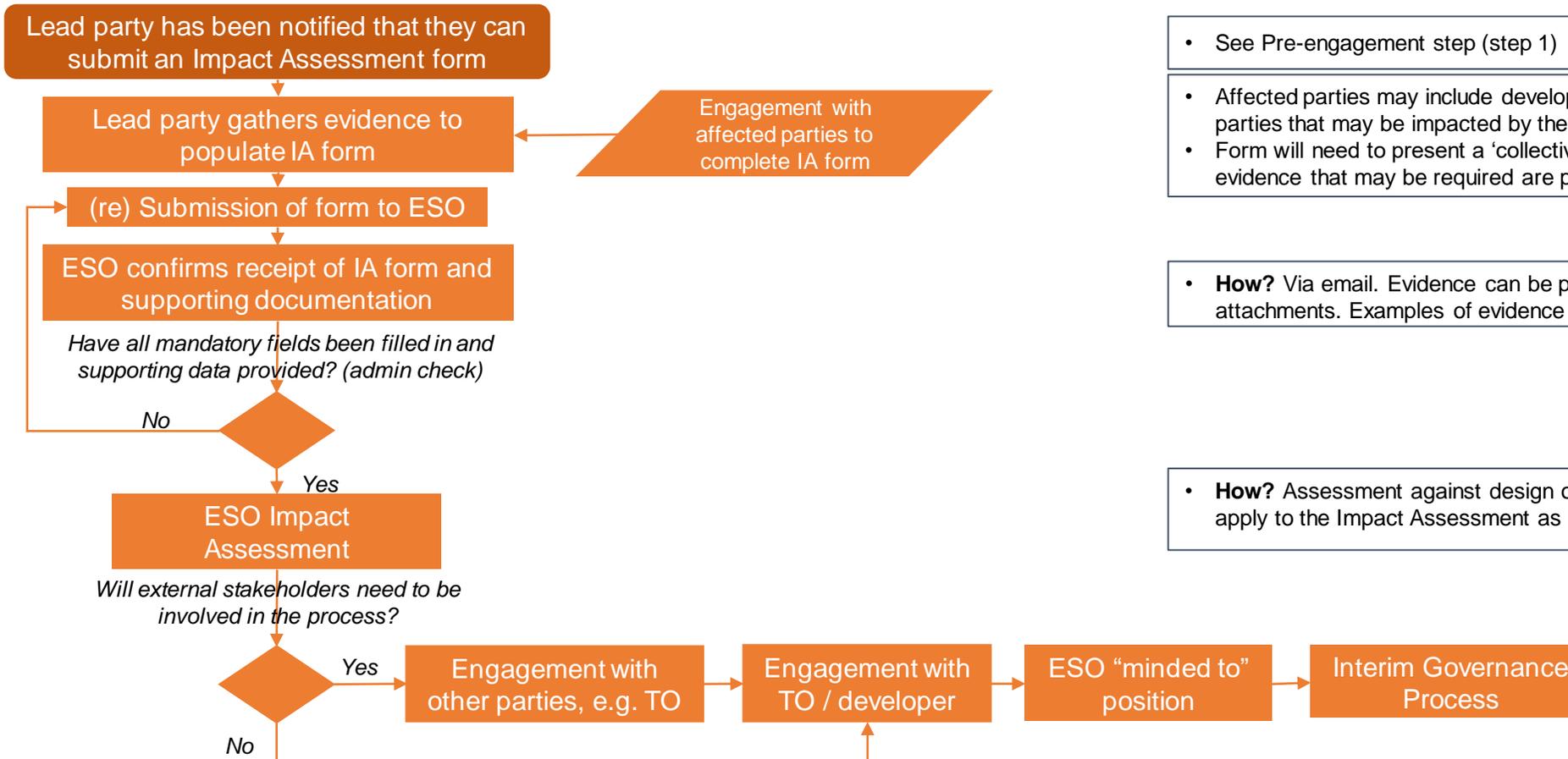
1. Pre-engagement between the ESO and TOs/developers

What happens before deciding if an Impact Assessment form will be submitted?



2a. ESO's Impact Assessment process

What happens once ESO has confirmed that a form can be submitted?



- See Pre-engagement step (step 1)

- Affected parties may include developers, TOs, other (electrically-connected) parties that may be impacted by the proposed change in that region / cluster
- Form will need to present a 'collective' view (examples of the types of evidence that may be required are provided in the form)

- **How?** Via email. Evidence can be provided in the form and / or via attachments. Examples of evidence have been included in the form

- **How?** Assessment against design objectives by the ESO. Same principles apply to the Impact Assessment as in HND (more detail is provided on slide 9)

- To request further evidence if needed
- To ask clarification questions

- See next slide

Note: This step may take up to 4-6 weeks depending on the volume and complexity of design changes submitted. It should be noted that the timeframe for completing an impact assessment could be extended if there is a need to assess multiple options.

2b. Interim Governance Process

What happens once ESO has a “minded to” recommendation?

There will be an interim governance process until a full Centralised Strategic Network Planning (CSNP) Change Control process is agreed.

ESO “minded to”
recommendation

Within 2 weeks of the ESO landing a minded to recommendation, a pack of information will be provided to Ofgem, The Department (DESNZ) and the parties listed on the IA form, comprising of: The process followed, the Impact Assessment Submission form, and the Results pack.

OTNR TNB
Interim
Governance

As an interim step, ESO will present to the Offshore Transmission Networks Review’s (OTNR) Transmission Networks Board (TNB) the outcome of the Impact Assessment and an explanation of the process followed, in order to provide sufficient evidence to the TNB to demonstrate that the required process has been followed and request their sign off. This is consistent with the approval sought for HND and HNDFUE i.e. the governance group is asked to approve that the required process has been adhere to, not to approve the design itself.

This may take the form of a formal TNB meeting or email circulation, depending on the materiality of the change to the original design.

Recommendation

Upon sign off, the ESO will convert the minded to recommendation to recommendation.

3. Outcome communication

Recommendation

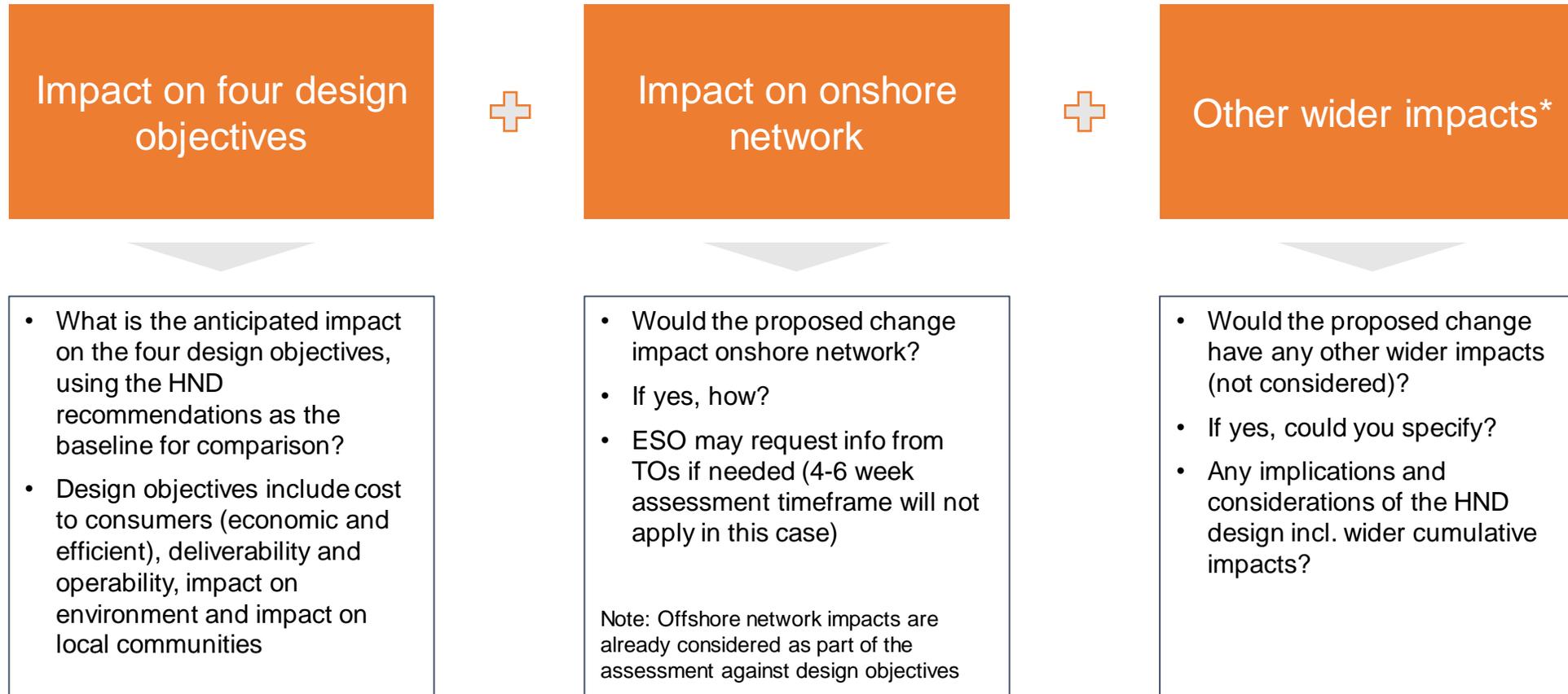
ESO to communicate the outcome of the governance process to parties named on the IA form, and other key stakeholder groups

The outcome will be communicated publicly via ESO’s website.

Ofgem will take the outputs of the Impact Assessment and assess the impact on / implications for asset classification.

Impact assessment criteria

Impact assessment request needs to consider the following criteria



*Other wider impacts may include impacts not captured in the other impact categories (four design objective, onshore network). For example, these may include wider implications of the design such as cumulative impacts, impact on adjacent sectors e.g. marine/onshore industries.

Impact assessment – how impact assessment will be carried out

- ESO will independently appraise / review the request against known features and constraints
- ESO will verify any perceived impact of the change based on the evidence developers / TOs present
- To assess the request, ESO will use similar methodology to the [HND methodology](#) which is publicly available
- The four design objectives (see below) will be considered on an equal footing

Economic and efficient costs	The network design should be economic and efficient
Deliverability and operability	The network design should be deliverable by 2030 and the resulting system should be safe, reliable and operable
Environmental impact	Environmental impacts should be avoided, minimised or mitigated by the network design, and best practice in environmental management incorporated in the network design
Local communities impact	Local communities impacts are avoided, minimised or mitigated by the network design

Design objectives of the HND

Timeframe for impact assessment form submission & assessment

When would an impact assessment form be submitted and assessed?

Options	Pros	Cons
1. Set intervals/windows	<ul style="list-style-type: none">• More efficient from a resourcing perspective• Time limited (process does not drag on)• Allows for comparison of changes at the same time	<ul style="list-style-type: none">• May lead to a higher volume of IA requests
2. Ad hoc basis	<ul style="list-style-type: none">• Assessment of material changes may be accelerated	<ul style="list-style-type: none">• Less 'tidy' from a process perspective• Does not allow for comparison of changes at the same time



In designing the process, we considered and sought feedback on whether set intervals or an ad hoc approach would be most appropriate for impact assessment submissions.

A structured approach is required given there may be multiple impact assessments required, multiple parties may be involved in any one assessment, and the work involved needs to be planned alongside other deliverables for all parties involved. As such, we will run impact assessments no more frequently than every two months and will endeavour to complete these within four to six weeks. It should be noted that the timeframe for completing an impact assessment could be extended if there is a need to assess multiple options and therefore we advise developers and TOs submitting design changes to narrow down options as far as possible prior to presenting these to the ESO. It is our firm preference that only one design is submitted, two if there is a strong justification.

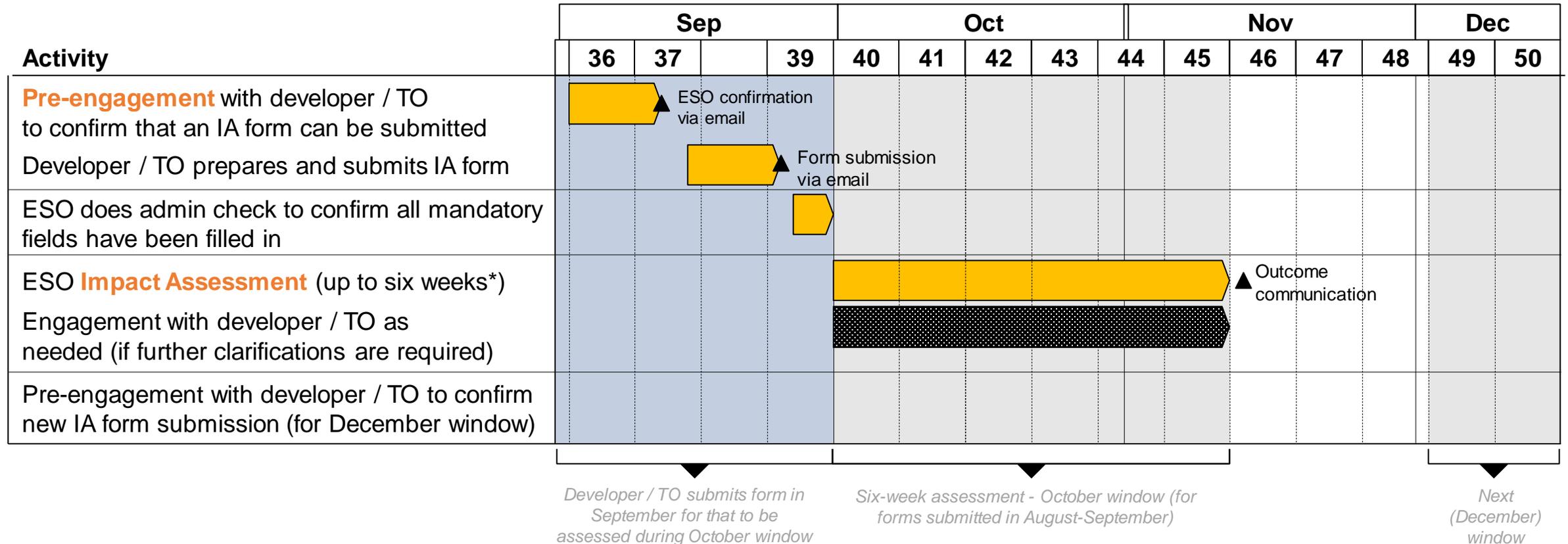
Treatment of multiple impact assessment requests

As stated above, it is our strong preference that only one design is submitted, but what happens if more than one option is proposed in a region?

- It should also be noted that the volume and complexity of the design changes will influence the length of time required to complete the process, extending the timeframe beyond the indicative 4-6 week period if options are materially different from each other.
- Requests with more than two options cannot be accepted.

Example of how this could work in practice (timeline is indicative)

Example: TO / developer submits form in September, assessment process kicks off in October (assuming bi-monthly assessment windows)



There will be six impact assessment windows. Depending on when developer / TO submits IA form, submission-to-outcome communication period can take from 1.5-3.5 months (in the above example this takes seven weeks). Please note that the above timeline is indicative and will depend on the complexity of assessment required as well as availability of TO to provide input (if needed).

*It should also be noted that the above example does not consider treatment of multiple impact assessment forms.

Impact on connection contracts

Things to consider

- 1 The connection contract will first be updated to reflect the HND recommendation and DND by Transmission Owners – this process is already underway for HND1 contracts and will include normal detail in appendices including Site Specific Requirements and Construction programme.
- 2 It is expected that should a material change be required following the first contract update that captures HND recommendations/DND and after approval of the “minded to” position in the Impact Assessment form, developers would be expected to lodge a Modification Application via the current process to have the change assessed and effected in a further Agreement to Vary.
- 3 Where a change triggered by one party affects other parties, it is expected that, following the ESO “minded to” position, the other parties would be notified via the Modification Notification process and contracts would be updated accordingly.

How to complete the form

Guidance note for the lead party

Form completion	
1	Fill in Section 1. This includes completing all mandatory fields (highlighted in blue on the form).
2	Describe how the proposed change would impact each of the four design objectives, the onshore network, and specify if proposed change has any other wider impacts that may not have been covered above (optional), under Section 2.
3	Provide additional, supporting evidence (if needed) in the Appendix (Section 4). This may include any additional evidence (i.e., not considered at the HND recommendation stage) that supports the case for change.
4	Upload to Sharepoint once all affected parties have provided acknowledgement (under Section 1). Link to be shared by ESO.

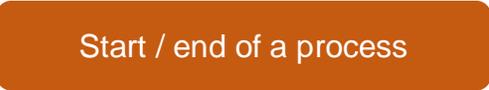
Lead party: developer or TO responsible for submitting the form,

Affected party: party or parties potentially impacted by proposed design change (may include developers, TOs or other electrically-connected parties within the same region / cluster)

Note: The lead party may work collaboratively with affected parties to populate Sections 1, 2 and 4 of the form.

Appendix

Symbols and how they are used



Start / end of a process



Represents activity



Connector showing relationships between shapes



Decision



Input / Output



• Comment

Note: Credit to Guidehouse for developing this Impact Assessment process