Holistic Network Design
Impact Assessment Process
Guidance document

10th August 2023
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High-level overview of Impact Assessment process

Objective: To capture and assess alternative designs to the Holistic Network Design (HND1) recommendations that developers and / or TOs may identify, as part of the Detailed Network Design (DND) process

<table>
<thead>
<tr>
<th>#</th>
<th>What this includes</th>
<th>Characteristics</th>
<th>Who is this for?</th>
</tr>
</thead>
</table>
| 1  | The development of a process / framework that will be followed when a developer / TO identifies a deviation from HND1 recommendations | • Robust process, easy to follow  
• Will define timeframe for form submission & assessment process, roles & responsibilities | • HND non-radial developers  
• HND radial developers  
• HNDFUE Scotwind developers  
• HNDFUE INTOG and Celtic Sea developers*  
• TOs involved in HND delivery |
| 2  | The development of an Impact Assessment form that will be populated by the party that identifies the change (i.e., lead party), as well as parties potentially impacted by the change (i.e., affected parties), and will be assessed by ESO | • Will consider potential impacts on all four design objectives  
• May consider other wider impacts | |

What changes may need to be captured?

These may include substantial design changes e.g. interface point change and offshore network interconnection (topology and ratings), but not number of cables and number 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

*Process will be relevant once they have received their recommendations
Impact assessment process steps

1. Pre-engagement between the ESO and TOs / developers to understand if an Impact Assessment form will be submitted

How will the impact assessment process be triggered?

Where developers and / or TOs see benefits in alternative designs to the Holistic Network Design (HND1) recommendations published in July 2022, as part of the Detailed Network Design (DND) process, they will be able to start an impact assessment process. These would include any deviations from the established baseline (full suite of documents available in the public domain incl. HND detailed report, summary report, comprehensive list of works etc.). The process will be similar for HNDFUE.
1. Pre-engagement between the ESO and TOs/developers

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

- Identification of the need for change (TO / developer)
- Party triggering the change (lead party) notifies ESO
- Initial screening by ESO
- High-level assessment by ESO
- Are further clarifications needed ahead of IA form submission?
  - Yes → Bilateral discussion
  - No → ESO confirms that an IA form can be submitted → ESO asks lead party to submit IA form

DND

- Proposed change has been identified as part of the DND process
  - How? Via email
  - To whom? box.OffshoreCoord@nationalgridESO.com

- To check if proposed change has been previously considered e.g. as part of HND or HNDFUE, and whether it conflicts with other proposed changes

- To check how material proposed change would be and understand if further clarifications may be required
- This step will not require engagement with external parties

- Optional – to seek clarifications (e.g. if what is proposed is not clear)

- To confirm timeframe for submission and assessment window

- How? Via email

Note: The pre-engagement step may take up to 1-2 weeks.
2. ESO’s Impact Assessment process (once ESO has confirmed that a form can be submitted)

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

- Lead party has been notified that they can submit an Impact Assessment form
- Lead party gathers evidence to populate IA form
- (re) Submission of form to ESO
- ESO confirms receipt of IA form & supporting documentation
  - Have all mandatory fields been filled in? (admin check)
  - No
  - Yes
- ESO Impact Assessment
  - Will external stakeholders need to be involved in the process?
    - Yes
    - Engagement with other parties, e.g. TO
    - Engagement with TO / developer
    - ESO recommendation
    - Ofgem / DESNZ engagement
    - Final recommendation
    - Note: This step may take up to 4-6 weeks depending on the volume of IA forms submitted and the materiality of change proposed
      - • To request further evidence if needed
      - • To ask clarification questions
  - No

• 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)

• Ofgem / DESNZ engagement – tbc
• ESO will provide its recommendation (more detail as to how this might look like can be found in the impact assessment form)
3. Outcome communication

What happens after a final recommendation has been made (next steps)

- **ESO final recommendation**
  - Is recommendation in line with proposed change?
    - No
    - Yes

  - **Lead party communicates recommendation to parties potentially impacted**
  - New design is incorporated in an annual update (incl. all accepted changes)
  - Implementation of change

  - **Would the proposed change be in line with ESO recommendation if certain conditions are met?**
    - No
      - Lead party may be able to re-submit form
        - ESO clarifies conditions (in the form)
    - Yes
      - ESO team to communicate recommendation to lead party

  - **Outcome communication**
    - Will provide assurance that impact assessment conclusions would not be reverted at a later date (once all parties have agreed on the design).
    - ESO will provide details regarding how relevant documentation (e.g., design maps) will be updated.

  - **To whom?** Lead party that submitted IA form
  - **How?** Via email (with updated form as attachment)
  - **Lead party will be responsible for circulating the updated form to the affected parties (as identified in the form, ESO will also consider impact on other parties / projects)**

  - **ESO** will release an annual update with all agreed changes (date TBC)

  - **TO / developers will use accepted change as their new design baseline**

  - **If ESO recommendation is not in line with the proposed change, lead party may be able to re-submit an IA form, after considering ESO feedback**
    - If lead party does not agree with ESO recommendation, they can use Ofgem as the next point of escalation

  - Depending on the nature of proposed design changes, there might be engagement with lead party to further discuss these conditions

  - **If lead party does not agree with ESO recommendation, they can use Ofgem as the next point of escalation**
Impact assessment criteria

Impact assessment request needs to consider the following criteria

**Impact on four design objectives**
- What is the anticipated impact on the four design objectives, using the HND recommendations as the baseline for comparison?
- Design objectives include cost to consumers (economic and efficient), deliverability and operability, impact on environment and impact on local communities

**Impact on onshore network**
- Would the proposed change impact onshore network?
- If yes, how?
- ESO may request info from TOs if needed (4-6 week assessment timeframe will not apply in this case)
  
  Note: Offshore network impacts are already considered as part of the assessment against design objectives

**Other wider impacts***
- Would the proposed change have any other wider impacts (not considered)?
- If yes, could you specify?
- Any implications and considerations of the HND design incl. wider cumulative impacts?

*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

<table>
<thead>
<tr>
<th>Economic and efficient costs</th>
<th>The network design should be economic and efficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliverability and operability</td>
<td>The network design should be deliverable by 2030 and the resulting system should be safe, reliable and operable</td>
</tr>
<tr>
<td>Environmental Impact</td>
<td>Environmental impacts should be avoided, minimised or mitigated by the network design, and best practice in environmental management incorporated in the network design</td>
</tr>
<tr>
<td>Local communities impact</td>
<td>Local communities impacts are avoided, minimised or mitigated by the network design</td>
</tr>
</tbody>
</table>

*Design objectives of the HND*
## Timeframe for impact assessment form submission & assessment

When would an impact assessment form be submitted and assessed?

<table>
<thead>
<tr>
<th>Options</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
</table>
| 1. Set intervals (e.g., window-style) | • More efficient from a resourcing perspective – easier to manage / process  
• Time limited (process does not drag on)  
• Allows for comparison of changes at the same time | • May lead to a higher volume of IA requests |
| 2. Ad hoc basis        | • Assessment of material changes may be accelerated                  | • Less ‘tidy’ from a process perspective  
• Does not allow for comparison of changes at the same time |

Our preferred option, and intended approach based on feedback, is **set intervals** (e.g. bi-monthly – six assessment windows per year) for **form assessment** as the process may take 4-6 weeks to complete from form submission to outcome communication (assuming one alternative design is submitted, multiple designs could take longer). However, TOs / developers would be able to **submit Impact Assessment forms on an ad hoc basis**. As with all elements of the process, we will keep the frequency of assessments under review and build on lessons that are learnt as we run the process.
Treatment of multiple impact assessment requests

What happens when several options are proposed in one region

- Lead party would need to submit a separate impact assessment form for each option so each option can be given a unique identifier
- ESO would compare these options together
- ESO would then compare these options against the HND baseline and provide a revised recommendation
- It should be noted that revised recommendation would reset the HND baseline (if recommendation supports the new design, that becomes the new HND baseline)
- 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, potentially extending the timeframe beyond the indicative 4-6 week period if options are materially different from each other
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)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-engagement with developer / TO to confirm that an IA form can be submitted</td>
<td>36</td>
<td>37</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Developer / TO prepares and submits IA form</td>
<td></td>
<td>40</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>ESO does admin check to confirm all mandatory fields have been filled in</td>
<td></td>
<td>43</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>ESO Impact Assessment (up to six weeks*)</td>
<td></td>
<td>46</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>Engagement with developer / TO as needed (if further clarifications are required)</td>
<td></td>
<td>49</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

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.
Next steps – External stakeholders potentially involved in the process

Stakeholders that may receive the impact assessment form

We are currently engaging with Ofgem and the Department for Energy Security and Net Zero to establish an appropriate governance process across network planning activities, changes to network plans and wider impacts. Details of this will be communicated in due course.

**HND Environmental Subgroup (ESG) members**

- We note that a number of ESG members would welcome engagement with developers/TOs prior to the submission of a form, although advance notice of this would be necessary. There may be circumstances where ESO request evidence of engagement with ESG from the lead party.
- May be engaged by the lead party prior to form submission
- May request additional evidence
- Will be informed of ESO recommendation and potential changes
- Any updates in the assessment methodology will be consulted with ESG as and when required in the future

Note: ESO will provide an update on governance (date TBC)
## Impact assessment timeline for the various developer groups

### When could the impact assessment process start for you?

<table>
<thead>
<tr>
<th>Developer group</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
</tr>
</thead>
<tbody>
<tr>
<td>HND non-radial developers</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>HND radial developers</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HND FUE ScotWind developers</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HND FUE INTOG developers</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>HND Celtic Sea developers</td>
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<td>(starts post-Round 5 completion)</td>
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</tbody>
</table>

Note: For each developer group, the impact assessment process would start after publication of the final (recommended) design.
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 recommendation 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 recommendation, 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**

<table>
<thead>
<tr>
<th>Form completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fill in Section 1. This includes completing all mandatory fields (highlighted in <strong>blue</strong> on the form).</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>4. Submit form to ESO (<a href="mailto:box.OffshoreCoord@nationalgridESO.com">box.OffshoreCoord@nationalgridESO.com</a>) once all affected parties have provided acknowledgement (under Section 1).</td>
</tr>
</tbody>
</table>

**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