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CCS NETWORK CODE MODIFICATION FORM

1 PERSONAL DETAILS

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2 MODIFICATION PROPOSED

Modification Title:	Northern Endurance Partnership Annexure B Part 1 Update
Description of Modification Proposal:	Annexure B Part 1 was inadvertently not updated to match the NEP CO₂ Pipelines Entry Specification Document (Rev B01) when NEP achieved Financial Close and the Network Code went live. As such, the Annexure B Part 1 no longer represents the NEP CO₂ specification that has been widely communicated to users. Specifically, the way that the combined non-condensable limit of 4 mol% for N₂, Ar, H₂, Methane and Propane is presented in the Code is confusing and inconsistent. As written, it implies that any level of Propane below 4 mol% would be acceptable, providing the total combined quantities of N₂, Ar, H₂, Methane, Ethane and Propane are also below 4 mol%. This is incorrect, as there is deliberately not a specific limit for Propane in the CO₂ Pipelines Entry Specification, as this may cause some condensation. Propane is counted amongst heavier hydrocarbons for this reason in this document. In addition, the order of contaminants listed is not the same as in the CO₂ Pipelines Entry Specification, which may cause confusion in comparing the two. The NEP CO₂ Pipelines Entry Specification Document has been widely shared with Planned Initial Users, potential Future Users and other stakeholders. It is well understood and is the reference from which the Planned Initial Users have been basing their projects from. It is published on the NEP website. In addition, Section 2 of Annexure B Part 1 was inadvertently left blank when NEP achieved financial close and the Code went live, so the Annexure does not contain any information on pressure and temperature limits at present. These limits have already also been communicated with Users and

	Potential Future Users in the CO ₂ Pipelines Entry Specification. Note that the only small difference between Section 2 and the current CO ₂ Pipeline Entry Specification relates to the wording of the minimum operating temperature (the limit remains the same). This is currently being updated in the published CO ₂ Pipeline Entry Specification to provide greater clarity on the safe operating limit – this is reflected in this modification.						
Proposed Solution:	The proposal is to update Annexure B to ensure that is consistent with the current, and widely understood NEP CO₂ Pipelines Entry Specification. This will involve the following updates: – Changing the limits for N₂, Ar, Methane and Ethane so that it is clearly a combined limit of 4 mol%. – Including Propane under the heavier hydrocarbons. – Re-ordering the contaminants listed in Section 1 to reflect the order in the CO₂ Pipeline Entry Specification – Incorporating a table containing pressure and temperature limits for NEP under Section 2 of Annexure B (taken from the CO₂ Pipeline Entry Specification)						
Case for change:	This will correct inconsistencies between the CO ₂ Pipeline Entry Specification and the Network Code, which could result in confusion and prospective network users working towards an incorrect CO ₂ specification.						
How does this Modification Proposal better achieve the Relevant Objectives:	<table border="1"> <thead> <tr> <th>Relevant Objective</th><th>Identified Impact</th></tr> </thead> <tbody> <tr> <td>The safe, economic, efficient and effective development and operation of the T&S Network to which the licence relates (as well as the coordinated, safe, economic, efficient and effective development and operation of the carbon dioxide transport and storage networks of one or more other T&S Licensees where relevant.</td><td>This will help achieve safe and efficient operation of the NEP T&S Network by ensuring there is greater clarity on the limit for propane, to ensure that there is not liquid drop out in the CO₂ pipelines, which could cause equipment damage and impact operational availability.</td></tr> <tr> <td>The economic, efficient and effective discharge of the Licensee's obligations under the licence</td><td>Limited Impact</td></tr> </tbody> </table>	Relevant Objective	Identified Impact	The safe, economic, efficient and effective development and operation of the T&S Network to which the licence relates (as well as the coordinated, safe, economic, efficient and effective development and operation of the carbon dioxide transport and storage networks of one or more other T&S Licensees where relevant.	This will help achieve safe and efficient operation of the NEP T&S Network by ensuring there is greater clarity on the limit for propane, to ensure that there is not liquid drop out in the CO ₂ pipelines, which could cause equipment damage and impact operational availability.	The economic, efficient and effective discharge of the Licensee's obligations under the licence	Limited Impact
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Background Information: (Optional)	N/A

3 CODE IMPACTS

Which parts of the code does this Modification impact:

Section:	N/A
Exhibits:	N/A
Annexures:	Annexure B (Part 1)

4 DRAFT LEGAL TEXT AND IMPACTS

Draft legal text (optional)	Please refer to attachment for proposed red-line update to Annexure B Part 1.
CCS Network Code baseline version	Version 1.0
Impact on Users and T&SCos (optional)	This should have no impact to Users as all users have been basing design work off the CO ₂ Pipelines Entry Specification Document to date. This proposal is to align the code with that. This will have no impact to T&SCos.

5 SELF-GOVERNANCE



Should the Modification be Self-Governance/Fast Track Self Governance/?	No
Rationale for Self-Governance:	No

6 REGULATOR/SECRETARY OF STATE IMPACTS

Does this Modification impact a Significant Code Review?	No
Modification directed by the Regulator?	No
Does this Modification impact an existing SoS Modification Proposal?	No
Modification directed by the SoS?	No

7 TIMEFRAMES AND PROGRESSION

Do you consider this Change Proposal should be treated as an Urgent Modification Proposal	No
Justification for Urgent Modification Proposal:	N/A
Are there any required timescales for the development of this Modification?	This modification should be progressed as quickly as possible through the modification process to ensure use of the correct CO ₂ specification.
Proposers preference on Modification progression path:	Straight to consultation.

8 ATTACHMENTS



List any attachments or supporting documents to be considered with this Modification Proposal

NEP CO₂ Pipelines Entry Specification
Red line mark-up of Annexure B Part 1