

CSNP Consultation Survey: Hydrogen Network Planning

This consultation survey will be used to gather the views from stakeholders regarding the hydrogen network planning elements of CSNP methodology. This feedback will be considered and used to develop the final methodology released in September 2025.

Please complete this consultation survey by 1 August at 5pm. Following this date the consultation will be closed and you will no longer be able to submit a response through this form.

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Are you happy to be contacted following your submission to further understand your views? * 

☒ Yes

☐ No

How would you like us to treat your response? * 

☒ My response can be published

☐ My response can be shared anonymously with identifiable information redacted

☐ My response is confidential

Do you agree that the hydrogen CSNP should follow an approach consistent with the gas and electricity transmission network planning process where possible? (page 195) * 

☐ Strongly agree

☒ Agree

☐ Neutral

☐ Disagree

Do you agree that the modelling of initial hydrogen networks growing out of industrial clusters should be included within the CSNP? (Page 195) *



- ☒ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you agree that the modelling of this broader industrial view should be included within the CSNP? (Page 196) *



- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you agree with our three-tiered approach for hydrogen network? (Page 196) *



- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you agree with the need to limit the scope of hydrogen network planning within the CSNP primarily to projects supported under the hydrogen transport and storage business models? (Page 197) * 

- ☐ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☒ Disagree
- ☐ Strongly disagree

Do you agree with our approach to engage further with industry on the detail of the hydrogen network planning methodology in winter 2025/2026 subsequent to further policy detail being set out? (Page 197) * 

- ☒ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you agree with our treatment of hydrogen storage within the CSNP? (Page 199) * 

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you have any other comments or feedback on the proposed approach to hydrogen network planning? 

In broad agreement but BGS recommend there is flexibility to adapt plans to include geological storage facilities that may be remote from existing gas and electricity transmission networks. Plans should also consider the potential for hydrogen trading between different regions in the UK, from areas of hydrogen supply but lacking storage, to areas with excess storage opportunities.

Do you agree with our proposal to use the outputs from the SSEP and the Future Energy Scenarios to model a potential national strategic hydrogen network? (Page 201) * 

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Are there any other data sources or pathways that we should consider? (Page 201) 

In broad agreement but BGS recommend there is flexibility to adapt plans to include geological storage facilities that may be remote from existing gas and electricity transmission networks. You could consider models of potential locations of geological storage of hydrogen. e.g., Salt caverns (Williams et al., 2022: <https://nora.nerc.ac.uk/id/eprint/532864/>) and porous rocks (data from University of Edinburgh- HyStorPor project and hydrogen storage GIS database), and considering conflict of use of available storage with permanent CO2 storage, windfarm location and other uses of the subsurface (e.g., see <https://projectmoet.org/>)

Do you agree that boundary zones for hydrogen network analysis should be initially based on SSEP boundaries? (Page 204) * 

- ☐ Strongly agree
- ☐ Agree
- ☒ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you have any other comments or feedback on our approach to establishing hydrogen network needs? (Page 204) 

Consideration could be given to natural geological constraints on geological storage - these may not agree with established SSEP boundaries (e.g., zones 6-10)

Do you think there should be any restrictions on who should be able to propose options to meet hydrogen network needs? (Page 206) 

- ☒ Yes
- ☐ No
- ☐ Maybe
- ☐ Don't know

Should NESO undertake pre-filtering of proposed hydrogen network options? (Page 206) * 

- ☒ Yes
- ☐ No
- ☐ Maybe
- ☐ Don't know

Do you agree with our approach outlined above to establish suitable technical requirements? (Page 206) * 

- ☒ Strongly agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Should we always consider new build asset options as an alternative to proposed repurposed assets? (Page 206) * 

- ☒ Yes
- ☐ No
- ☐ Maybe
- ☐ Don't know

Do you have any other comments or feedback on the approach to hydrogen network options development? (Page 206) 

There may be some geological considerations regarding new geological storage facilities that mean some options are more appropriate than others. There should be flexibility in network options development to acknowledge these (e.g., some options may be more prone to microbial activity or reactions between hydrogen and bedrock that may cause hydrogen loss or hydrogen quality to deteriorate).

Do you agree with our proposed decision-making framework? (Page 209) * 

- ☐ Strongly agree
- ☒ Agree
- ☐ Neutral
- ☐ Disagree

Given the lack of a market framework within which to quantify the commercial impact of a network that is too small, are there other economic factors or costs that you consider we should be including in the economic assessment? (Page 210) * 

- ☒ Yes
- ☐ No
- ☐ Don't know

If yes, what are these? * 

Geological storage is unlikely to be required at large scale initially. Consideration should therefore be given to scalable storage options that will be able to increase and support as the network supply and demand increases.

Do you have any other questions on the hydrogen network options assessment? (page 210) * 

Geological hydrogen storage is regionally restricted in some areas of the UK due to the absence of suitable rocks at suitable depths. Because of this, can this be a consideration in the network options assessment?

Do you agree with taking a consistent approach to environmental and community assessment to that followed for gas network planning? (Page 211) * 

- ☒ Strongly Agree
- ☐ Agree
- ☐ Neutral
- ☐ Disagree
- ☐ Strongly disagree

Do you have any other comments or feedback on our approach to environmental and community assessment? (Page 211) 

To help identify environmental impacts, consideration should be given to establishing a hydrogen environmental baseline against which leaks/impacts can be quantified.

Do you have a view on how we should engage stakeholders when further developing our methodology and approach to hydrogen network planning? (Page 213) 

Establish an understanding of key stakeholder groups (Production-Transport-Storage and Demand) and keep them informed through regular communication. Keep up-to-date with current knowledge of stakeholder needs and status of major hydrogen Production-Transport-Storage and Demand projects.