
Hydrogen Transport and Storage infrastructure consultation

Strategic Planning Workshop



Workshop aims



Provide a high level overview of the strategic planning chapter.



Provide further detail of our thinking on strategic planning.



Gain initial views on some key questions within the consultation.

Agenda

Welcome and overview (5 mins)	All	14:00 – 14:05
Discussion 1 - Is strategic planning needed? (25 mins)	Break-out	14:05 – 14:30
Discussion 2 - Implementation (25 mins)	Break-out	14:30 – 14:55
Short Break (5 mins)		14:55 – 15:00
Discussion 3 - Project support (20 mins)	Break-out	15:00 – 15:20
Further reflections and close (10 mins)	All	15:20 – 15:30

Housekeeping

- **No planned fire alarms.** In the event of an emergency please follow the signs to nearest emergency exit and move away from the building
- **Please take care when moving around the room**
- **Those joining online please remain on mute during the breakout discussions and post any questions into the chat.** Please include your role, name and organisation
- If we do not have time to respond to your question, you are welcome to reach out to us via email: hydrogentransportandstorage@beis.gov.uk
- **We will be recording the session** for note taking purposes. We have no plans to share the recording.

Chapter overview

We see strategic planning as the planning and build out of infrastructure in line strategic objectives.



The wider context and the implications of the infrastructure build out.



The need for strategic planning and potential approaches.



Institutional features of the strategic planner.



Interactions with business model support.



“Low or no regrets” and systemically important projects.

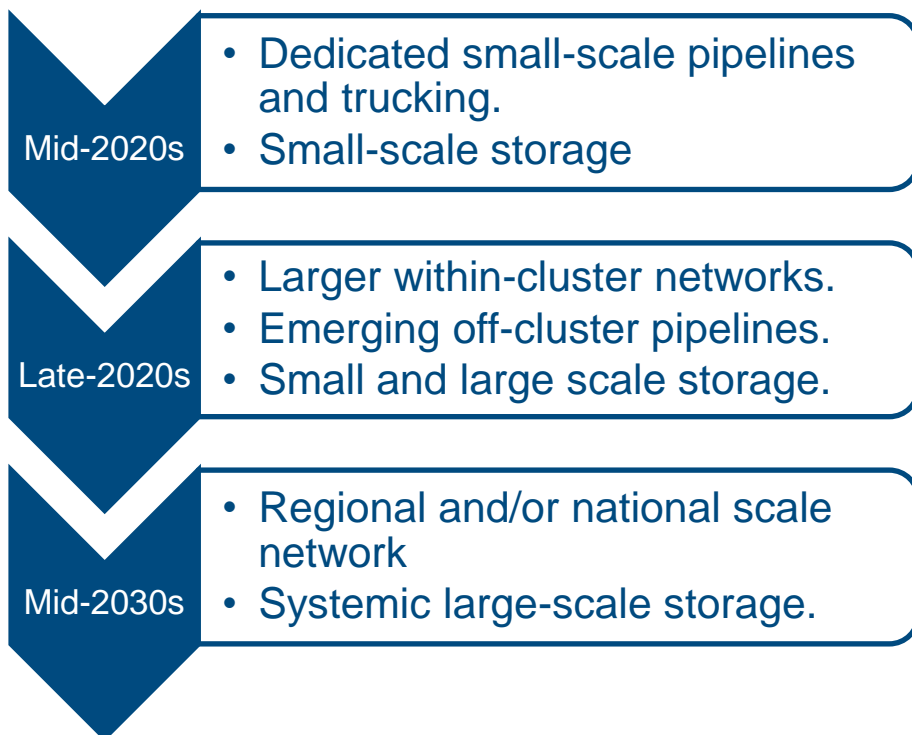
Discussion 1:

Is strategic planning needed?

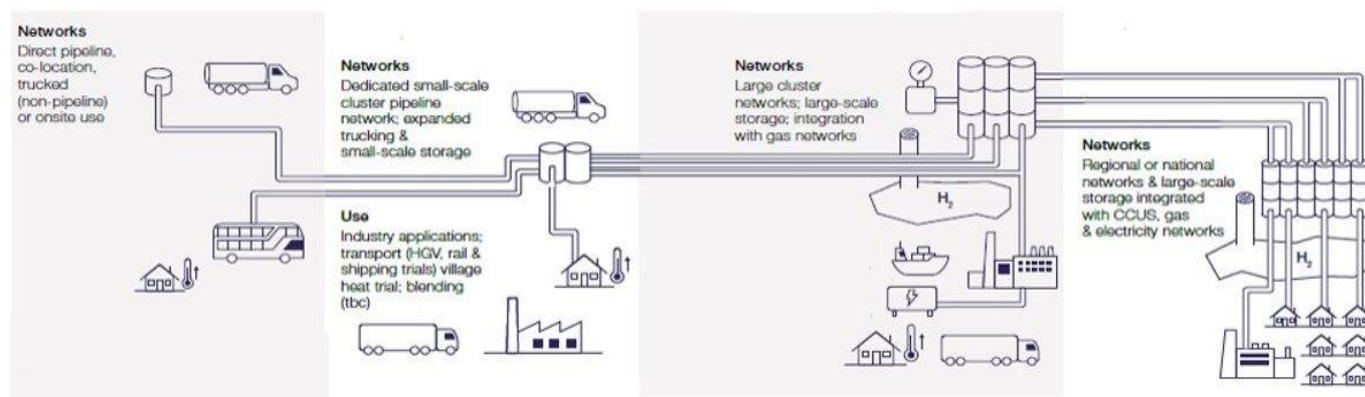
Phased development

Our vision for hydrogen transport and storage infrastructure builds on the hydrogen strategic roadmap.

Phased development



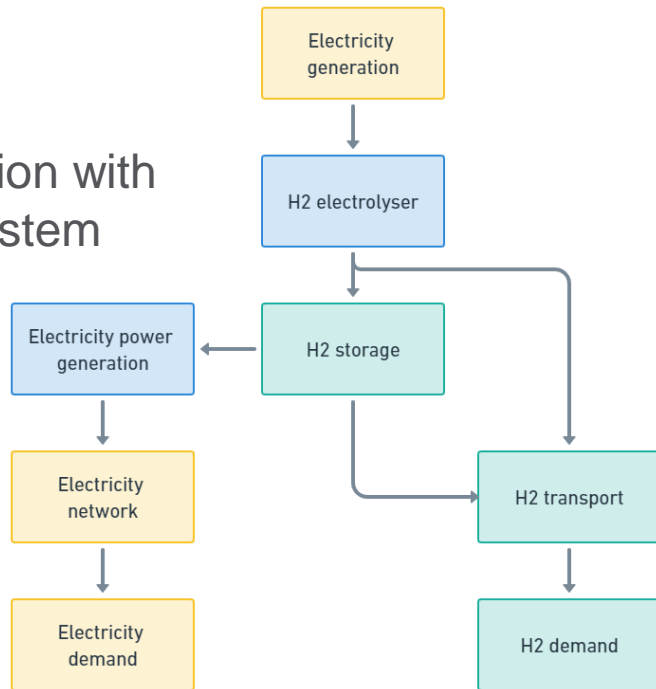
“We aim to reach a large, liquid and competitive hydrogen market enabled by an integrated and resilient network with multiple entry and exit points, connected by several storage facilities at various scales.”



Decarbonisation and wider implications

Decarbonisation will lead to greater interactions across vectors.

E.g. Interaction with electricity system



The location and sequencing of hydrogen transport and storage infrastructure roll out will have important implications.



Availability implications



Natural gas grid implications



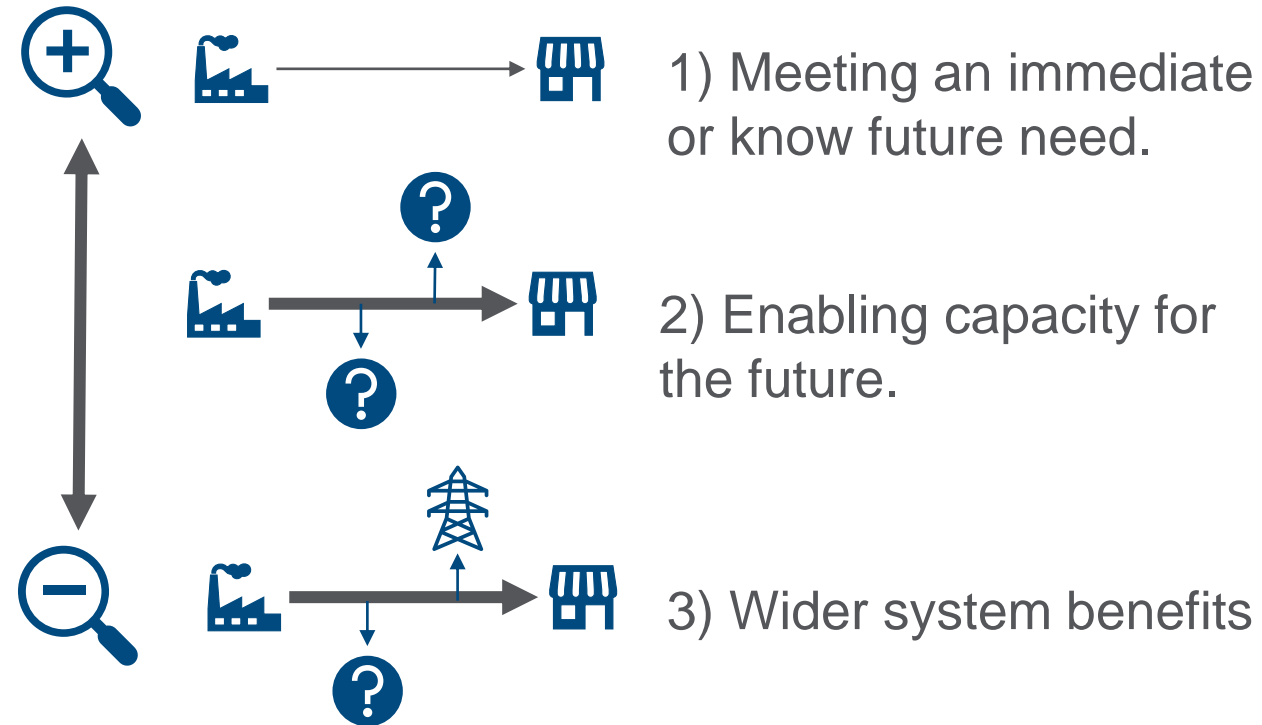
Power system implications



CCUS implications

Whole system value

Hydrogen infrastructure projects can be viewed through three lens to assess whole system value.



A market-led approach may not be sufficient in order to take into account wider project value and wider system benefits.

Our initial conclusion is that **some form of strategic planning is needed** to ensure the optimised rollout of hydrogen transport and storage infrastructure.

- **Development of the hydrogen infrastructure.**
- **Decarbonised system context.**
- **Whole system value.**

Break-out group discussion

Main question:

- Do you agree that some form of strategic planning is required for the build out of hydrogen transport and storage infrastructure?

Subsidiary question:

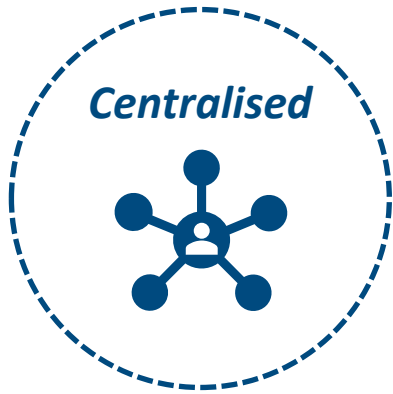
- Do you agree with our vision for hydrogen network evolution through the different phases as described in the consultation?
- Does the level of strategic planning change depending on the development phase of the hydrogen economy?
- Does there need to be alignment between transport and storage?

Discussion 2: Implementation



Approaches

We identified a number of different approaches to strategic planning within the consultation.



Future system
operator (FSO)



European commission
Dutch multi-year programme



CCUS

Our **lead consideration for the UK's approach to strategic planning is the FSO** as a central network planner.

- FSO will be considering hydrogen
- Has roles looking across gas and electricity.

It is likely that whichever approach is used there may need to be a temporary solution in place.

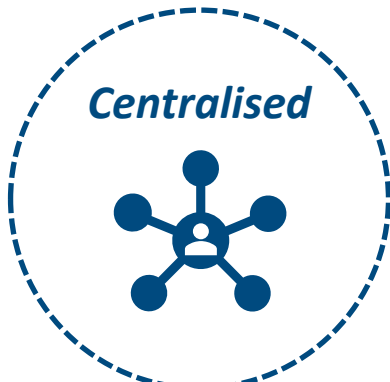
Break-out group discussion

Main question

- Discuss the different approaches identified. Do you agree with our lead consideration or is there another approach that would be more suitable?

Subsidiary questions

- Do you agree that there is a need for an interim option to be in place whilst the strategic planning approach is established? What would this look like?
- Would there need to be separate approaches to transport and storage infrastructure?



Short break (5 min)



Discussion 3: Project support



Interactions with business models and early support

Interactions with provision of business model support

A strategic planner is likely to play an important role in provision of business model support.

- **Proactive** in identifying infrastructure needs.
- **Reactive** in assessing infrastructure needs

It may be possible to identify “low or no-regrets” projects and systemically important projects, which could be key enablers for the future growth of the hydrogen economy.

“Low or no-regrets”

Have little to no risk of becoming stranded assets and which provide long term value to the hydrogen economy.

Systemically important

Likely to provide significant capacity that allows future growth in the hydrogen economy.

Break-out group discussion

Main questions

- What role could the strategic planner have in provision of business model support?
- Should “low or no-regrets” and systemically important projects be identified in order to priorities their development?

Subsidiary questions

- What factors should be considered when identifying these projects and determining if they are “low or no-regrets” and systemically important?
- How might early support interact with future business models?

Further reflections



Next steps

- The consultation will be open for **12 weeks** and will close on the **22 November 2022**.
- Formal written responses to the consultation are still required. This workshop was just to gather initial views and supplement the upcoming formal written responses.
- We aim to publish our response to this consultation, alongside a summary of responses received, in **Q2 2023**.



Thank you

