

ENERGINET WORKSHOP ON HYDROGEN QUALITY AND GRID CONNECTION
JANUARY 18, 2024 - ONLINE PARTICIPATION Q&A

1	<p>Q: Are we looking into connection to the hydrogen infrastructure at both TSO and DSO level?</p> <p>A: Yes</p>
2	<p>Q: Do you have an overview of how many of the pipelines in the Stage 1 area are new build and how many can be converted to hydrogen services?</p> <p>A: <i>We have not finalized how exactly we will build the backbone in its entirety. It depends on various scenarios, but the only stage that we are considering converting would be the lower part of the "T" towards Germany. The rest would be new build.</i></p>
3	<p>Q: Will Energinet also supply the cluster networks?</p> <p>A: <i>No, we believe this will be Evida.</i></p>
4	<p>Q: Will large producers have to inject the hydrogen into the grid at a fixed pressure? Or how is the injection pressure determined?</p> <p>A: <i>Your compression system should be able to supply at the full ranger (currently estimated to be between 50 - 90 barg).</i></p>
5	<p>Q: How do Energinet determine if a producer is a "Large Producer"?</p> <p>A: <i>This is still to be defined.</i></p>
6	<p>Q: Do you not plan connections to small hydrogen distribution areas (recipients)?</p> <p>A: <i>No not yet, but Evida is doing so.</i></p>
7	<p>Q: If there are no inline compressors operated by Energinet in the grid, but the large producers operate their own compressor and inject following the pressure grid, how can Energinet ensure the minimum pressure of 50 bar at the German border?</p> <p>A: <i>That will be ensured through the commercial balancing model. The pressure is set by the balance between injection and extraction. So, if more is injected than extracted the pressure will rise and the opposite. This was also a topic on the last workshop.</i></p>
8	<p>Comment: During the presentation, reference was made to the study performed by DNV KIWA in the Netherlands for the Dutch Ministry of Economic Affairs and Climate Policy. This document is publicly available and can be found here: https://open.overheid.nl/documenten/e4c35d40-0888-41bf-bf6f-d59e7269e103/file</p>
9	<p>Comment: Information relating to the contaminants in natural gas pipelines and the way to clean them in the Netherlands can be found in this presentation of DNV: https://entsog.eu/sites/default/files/2022-11/4.2%20Conversion%20of%20a%20natural%20gas%20pipeline%20to%20H2%20and%20effects%20of%20impurities%20-%20Henk%20Top%20%28DNV%29.pdf</p>