

# Decarbonising oil & gas – next steps

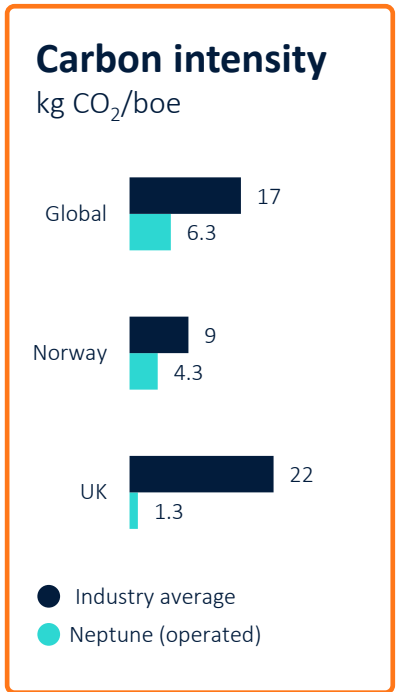
**Pierre Girard – Director New Energy**

September 2021



# Enhancing Our Lower Carbon Position

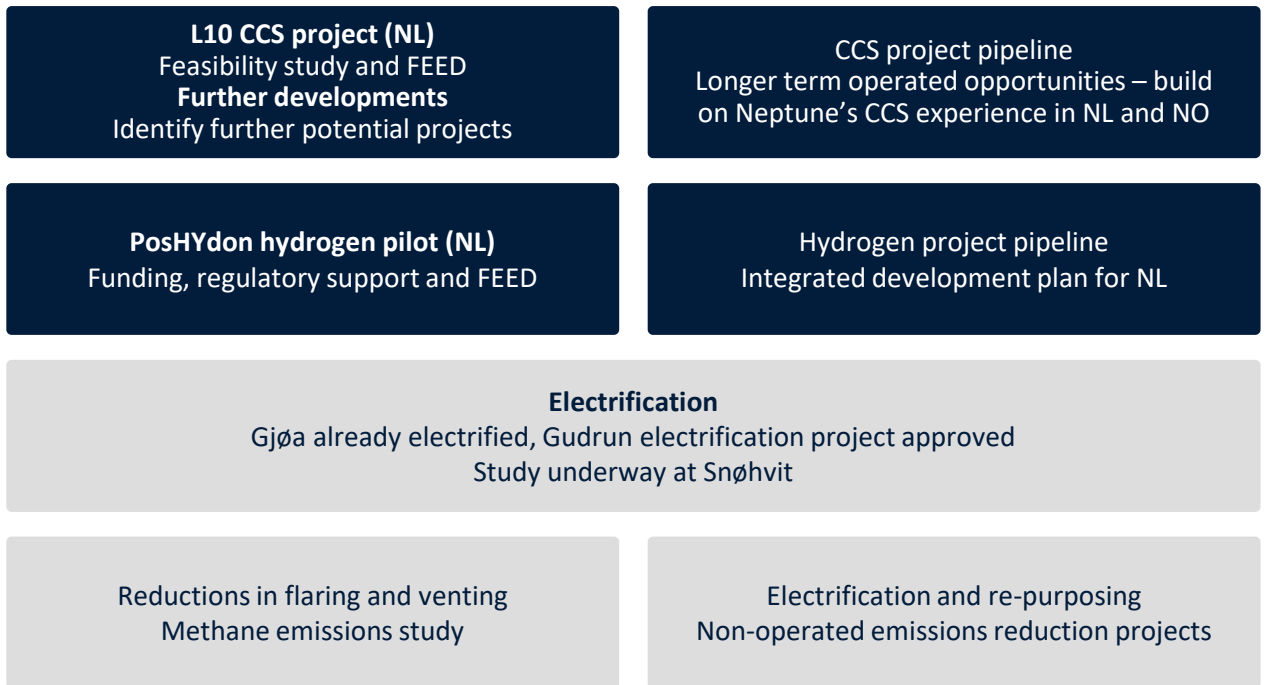
Lowering Operational Emissions, Creating Value From New Energy



2020

↑ Creating value from low carbon investments

↓ Reducing intensity, hitting targets



L10 CCS project to potentially store up to **120-150 million tonnes of CO<sub>2</sub>** for third party industrial customers

Pilot project **PosHYdon** to prove concept for larger **green hydrogen developments**

1. Operated production, scope 1 and 2



# L10 CCS Feasibility study

Why CCS at L10-A?

L10-A production hub dual-purposed as

CO<sub>2</sub> storage hub

Scope of CCS Feasibility study

CO<sub>2</sub> injection in the K12-B field


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## Neptune announces feasibility study into CCS plan for Netherlands

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Big news! We're excited to announce a feasibility study for a large-scale offshore Carbon Capture and Storage (CCS) project in the Dutch North Sea, with the potential to safely store 120-150 million tonnes of CO<sub>2</sub>. ...see more



**Neptune Energy announces feasibility study into CCS plan for Netherlands**  
neptuneenergy.com • 3 min read

Neptune Energy announces feasibility study into CCS plan for Netherlands

ity study into plans for a large-scale offshore Carbon Capture and Storage (CCS) project in the y store 120-150 million tonnes of CO<sub>2</sub>. Neptune will conduct the study in cooperation with its

ing between 5 and 8 million tonnes of CO<sub>2</sub> annually into the depleted gas fields around the E areas. If the project is developed, it will be one of the largest CCS facilities in the Dutch North CO<sub>2</sub> reduction being targeted by the Dutch industrial sector.

ecome a 'new energy hub', given its existing infrastructure that connects offshore with first offshore green hydrogen pilot, PosHYdon, which Neptune's Q13a platform will host.

Energy in the Netherlands, said: "The first step is a feasibility study to confirm that CO<sub>2</sub> can ted gas reservoirs, using our existing infrastructure. We will engage with organisations and sed CO<sub>2</sub> storage.

Dutch sector of the North Sea, we are well-positioned to help the Netherlands achieve its re to enable offshore CCS and offshore green hydrogen production."

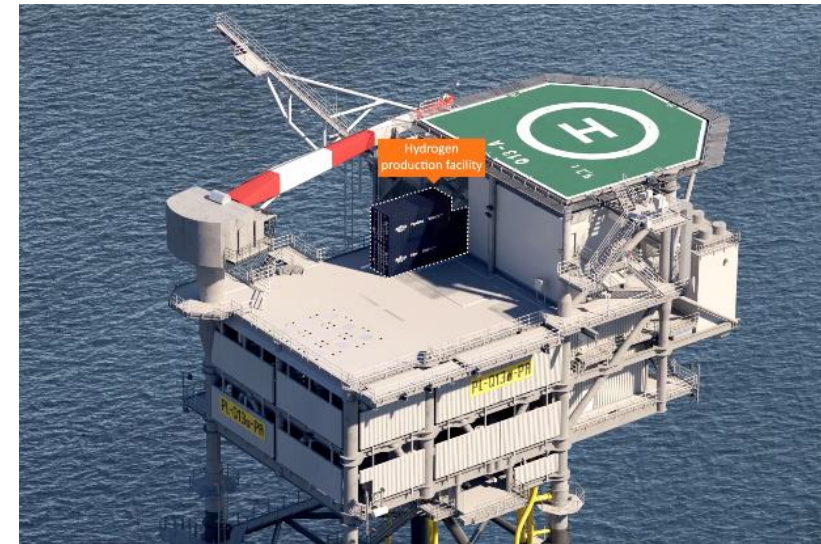
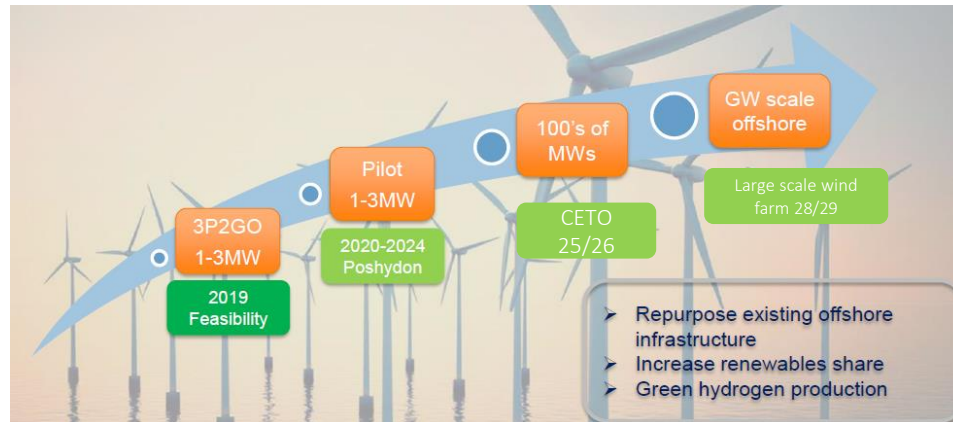
Beheer Nederland (EBN): "CCS is crucial for the Netherlands to achieve the Paris climate with the Porthos and Athos projects that want to store CO<sub>2</sub> in empty gas fields off the coast of study by Neptune is another important step to convert the empty offshore gas fields into large-



# Q13a-A Hydrogen Pilot Project

Hydrogen pilot project initiative to demonstrate safe green hydrogen production offshore:
















- Part of Neptune’s vision to participate and play a role in the energy transition
- Part and first step of long-term vision of large-scale green hydrogen production and transport far out at sea
- Safe integration of offshore energy systems, share OPEX and tail-end gas production
- DEI+ subsidy has been granted and project officially been kicked off
- Full focus on accelerating the start-up

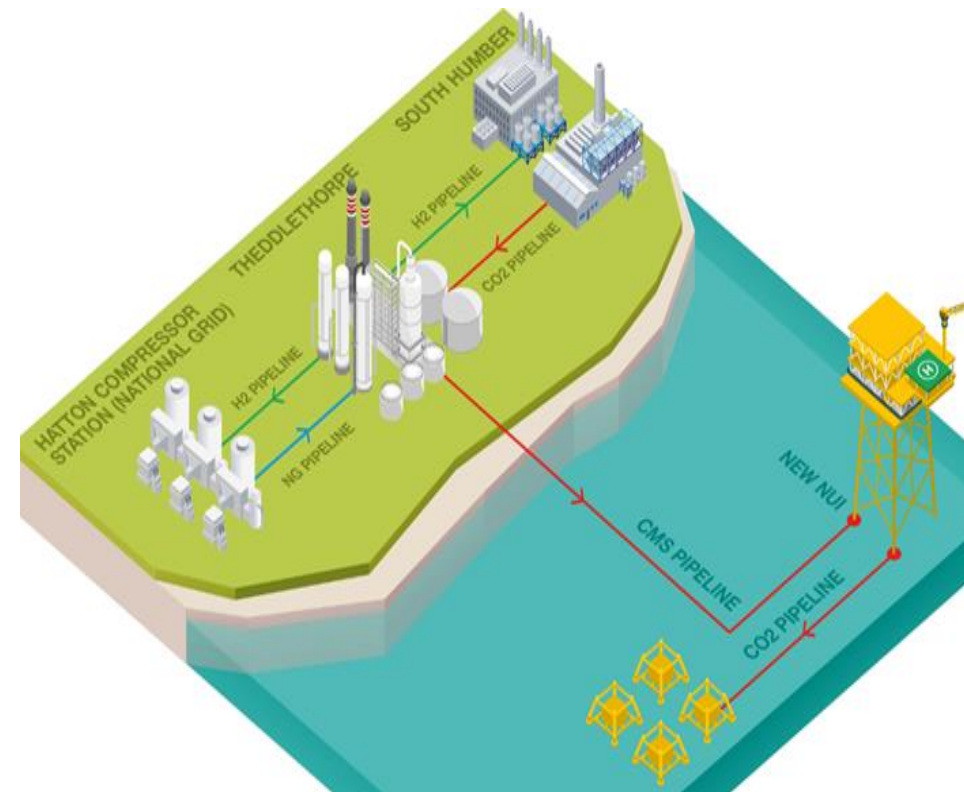




# DelpHynus Project

## Project DelpHYnus Differentiators: Climate change and our role in a lower carbon world

<p><b>Focus on energy transition and low carbon</b></p> 	<p><b>Low carbon intensity operator</b> – 6.3 kg CO<sub>2</sub>e/boe</p> 	<p><b>One of the best sustainability ratings</b> in oil and gas</p> 	<p><b>Experience injecting CO<sub>2</sub></b> (14-years)</p> 	<p><b>700 ktCO<sub>2</sub>/year injection CO<sub>2</sub></b> at Snøhvit and K10</p> 
<p><b>World's first offshore green hydrogen plant</b> - PosHYdon</p> 	<p><b>Experienced pipeline operator</b> – NGT, NOGAT and Esmond</p> 	<p><b>Industry leading subsurface capability</b></p> 	<p><b>Fully aligned with 2050 Net Zero ambition</b></p> 	<p><b>Storage capacity - 570 MTCO<sub>2</sub></b></p> 
<p><b>Repurposing existing infrastructure</b></p> 	<p><b>1,200 MW hydrogen plant</b> (phase 1 and 2)</p> 	<p><b>20% of UK 5 GW target</b> for hydrogen production</p> 	<p><b>Decarbonise Humber industrial cluster</b></p> 	<p><b>Potential CO<sub>2</sub> link to Netherlands</b></p> 



# Key Points

- Oil and gas are integral part of the Energy Transition and journey to Net Zero and new oil and gas developments will be required. Reducing dependency on imports of energy is a critical factor.
- Decarbonisation can be facilitated by low cost access to green electricity, long life of assets and clarity on CO2 pricing outlook.
- Low cost carbon dioxide storage will be required from a large number providers to create a competitive landscape and avoid monopolistic position and reduce cost to society.
- Opportunity for re-purposing and dual purposing of oil and gas assets for CCS or for offshore green hydrogen generation extending assets life and facilitating decarbonisation investments



The logo for Neptune Energy features the word "NEPTUNE" in a bold, white, sans-serif font. Above the letter "T" is a stylized crown icon with three points. A horizontal white line is positioned below "NEPTUNE", and the word "ENERGY" is centered below this line in the same font style.

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