

**Pale Blue Dot Energy Response to Ofgem Consultation on:
NGT Project Union Feasibility Phase**

Background

The Acorn Hydrogen Project, located in North East Scotland, is looking to establish hydrogen generation from North Sea Natural Gas at the St Fergus Gas Terminal. The project aims to use a leading hydrogen reformation process to deliver an energy and cost-efficient process for hydrogen production with the project carbon dioxide (CO₂) emissions being captured and permanently stored using the Acorn Carbon Capture and Storage (CCS) infrastructure. Clean hydrogen will be used in the region for decarbonising heat and industry through the Aberdeen Vision Project Pipeline, or via road haul. For bulk and longer distance transmission, the project will depend on the availability and suitability of the National Transmission System (NTS) to transport either pure hydrogen or as a blend with natural gas.

The diagram to the right shows the interaction of Acorn Hydrogen with the Acorn Project as a whole. The Acorn Project in turn is at the heart of the Scottish Cluster, and will provide the backbone infrastructure and geological storage sites for CO₂ captured from emitters in the Scottish Cluster, which forms a key part of Scotland's decarbonisation objectives.

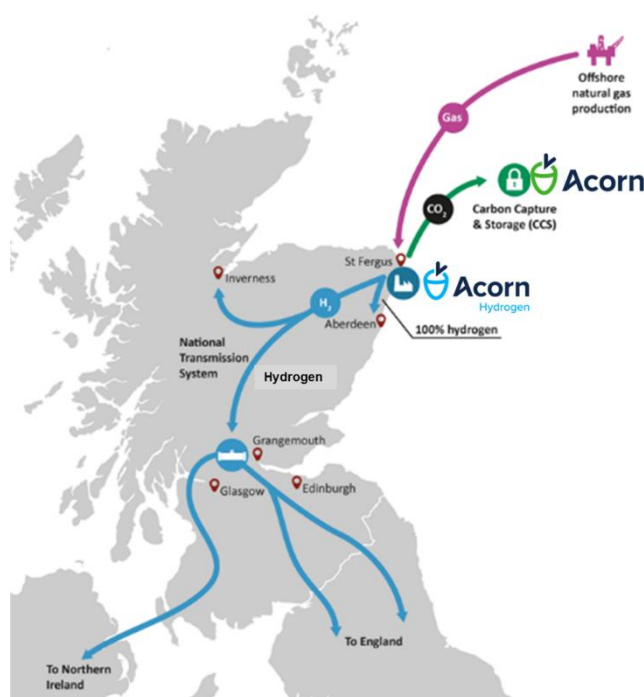
Pale Blue Dot Energy Limited (PBDE), a Storegga Group Company, acts Lead Developer of the Acorn Project for and on behalf of the Acorn Project Participants, being PBDE, Chrysaor E&P Limited (also known as Harbour Energy), Shell U.K Limited and NSMP Operations Limited.

At the Acorn Project we work closely with NGT as a key member of the Scottish Cluster Team, and in the light of the dependence on NTS infrastructure for the evacuation of Hydrogen from the Acorn Project (and indeed, in addition, the transportation of CO₂ from emitters northwards to St Fergus and beyond to offshore storage) we are pleased to respond to this consultation. We are supportive of the proposals of NGT for Project Union and wish to see NGT able to progress the work required to Select and Define the Project as quickly as possible.

Responses to Ofgem Questions:

Q1. Do you agree with our minded-to decision to approve funding for the Project under the NZASP re-opener mechanism, and at the value proposed?

Response: We support the initiative proposed by NGT and the permitted funding under the NZASP reopener. We note that Ofgem proposed to allow around £5m of funding out of a total of around £7m. We question the disallowing of some costs on the basis that they should be considered as BAU. We



would encourage Ofgem to determine that Hydrogen utilisation can form a significant contribution to the UK's Net Zero Strategy. We note the acknowledgement in the January 2023 Net Zero Review, commissioned by the Department of Energy Security and Net Zero that “**using infrastructure to unlock net zero** – including developing a cross-sectoral infrastructure strategy by 2025 to support the building and adaptation for new green energy sources such as hydrogen to support the green economy” is critical to delivering the economic benefits of Net Zero to the UK.

It is in the interests of both current and future consumers that NGT and other pipeline owners are given the correct frameworks, allowances and incentives to explore all opportunities to optimise the use of existing infrastructure. . We would therefore propose a higher level of support. Specific comments below, based on our understanding of the consultation document.

Q2. Do you agree with our assessment of the Project's needs case?

Response: Yes

Q3. Do you agree with our assessment of the design and efficient costs of the Project's work packages?

Response: NGT will have a central role in a new industry. It will be similar in many ways to the current natural gas business, but there will be significant new elements, and the transition from the old to the new will require due and efficient consideration. Whilst we are not a party to the economic regulatory regime under which NGT operates, delivering the transition at pace is critical. NGT and other economically regulated pipeline operators should be given the opportunity and financial allowances to lead this critical work. Overall Ofgem's response is generally supportive of the technical work, but less so around the commercial/market/regulatory workstreams. We feel the commercial/market/regulatory work is of equal importance and note that in the normal course of business project development it is vital to progress technical and commercial aspects together in lockstep if consumers' interests are to be protected; we support the approach of NGT in doing this. With these considerations in mind, we would propose that Ofgem reconsider the partly or wholly disallowed elements, as follows:

- Programme management: We feel that for efficient and timely communication and interaction, a common office should be considered for the team.
- Implementation strategy: Without sight of NGT's detailed proposal we cannot comment on this.
- Market need analysis: we think it is vital for NGT to communicate to all stakeholders and engage around Project Union. The market and other stakeholders should be kept updated with NGT's vision and plans for hydrogen. The more the market and stakeholders are aware of the development of the network and timings, the more likely we are to see quicker uptake of hydrogen and utilisation of NGT's assets and that the concerns of stakeholders can be addressed. It is recommended to approve funding for the entire package.
- Hydrogen Policy: We feel that it is logical to follow the review of current policy and its impact on PU with a piece on what changes or new policies are required. We do not agree that as new policy this should be regarded as BAU. It is recommended to approve funding for the entire package.
- Commercial frameworks: Further to our comment above about maturing technical and commercial aspects together, we assume the funding is to allow for a dedicated team to carry out this work. This allows NGT to deliver a better overall package that will be in the interest of all consumers. It is recommended to approve funding for the entire package.
- Regulation: As Commercial frameworks above.

- Engineering policy review: Without sight of NGT detailed proposal we cannot comment on this.

Q4. Do you agree with our minded-to decision to reduce NGT’s proposed contingency costs of 7.5% to 0%?

Response: In general we feel that a contingency would be in accordance with normal course of business practice particularly early stage design and assessment works but the redactions make it difficult to assess this.

Q5. Do you agree with our minded-to decision on the company contribution level?

Response: Given that it seems to be standard practice we have no comment on this.

Q6. Do you have any views on the proposed project deliverables for NGT, and whether further deliverables are required?

Response: We are supportive of the deliverables as drafted by NGT.

Q7. Do you have any views on the proposed direction for the Project contained in Appendix 2?

Response: We would recommend the direction and funding be amended in line with comments above.

Details of Respondent

Name of respondent	Pale Blue Dot Energy Limited as the Lead Developer of the Acorn Project.
Information about organisation	The Acorn Project is a collaborative joint venture among Storegga, Shell UK, Harbour Energy and NSMP (the Acorn Participants). Pale Blue Dot Energy Limited (a Storegga subsidiary) is the Lead Developer for the Acorn Project and Shell UK is the Technical Developer for the hydrogen, and transportation and storage modules of the Acorn Project. The Acorn Project and the Acorn Participants are developing infrastructure across the entire carbon ecosystem – hydrogen, transport, and permanent deep geological storage.
Contact name and email	George Tilley, Hydrogen Opportunity Manager george.tilley@storegga.earth
Happy for response to be published?	Yes
Happy to be contacted when response is published?	Yes – and happy to provide any additional clarifications or information about the Acorn project.