



AGM PRESENTATION

January 2022

ORCADIAN
ENERGY



This presentation and its enclosures and appendices (the “presentation”) have been prepared by Orcadian Energy plc (the “Company”) exclusively for information purposes. This presentation has not been reviewed or registered with any public authority. This presentation is confidential and may not be reproduced, further distributed to any other person or published, in whole or in part, for any purpose. By viewing this presentation, you agree to be bound by the foregoing restrictions and the other terms of this disclaimer.

The distribution of this presentation and the offering, subscription, purchase or sale of securities issued by the Company in certain jurisdictions is restricted by law. Persons into whose possession this presentation may come are required by the Company to inform themselves about and to comply with all applicable laws and regulations in force in any jurisdiction in or from which it invests or receives or possesses this presentation and must obtain any consent, approval or permission required under the laws and regulations in force in such jurisdiction, and the Company shall not have any responsibility or liability for these obligations.

This presentation does not constitute an offer to sell or a solicitation of an offer to buy any securities.

The contents of this presentation are not to be construed as legal, business, investment or tax advice. Each recipient should consult with its own legal, business, investment and tax adviser as to legal, business, investment and tax advice. In making an investment decision, investors must rely on their own examination of the Company and the terms of any investment in the Company, including the merits and risks involved. Although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and that the opinions expressed are fair and reasonable, the contents of this presentation have not been verified by the Company or any other person. Accordingly, no representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information and opinions contained in this presentation, and no reliance should be placed on such information or opinions.

Further, the information in this presentation is not complete and may be changed. Neither the Company nor any of its respective directors, officers or employees nor any other person accepts any liability whatsoever for any loss howsoever arising from any use of such information or opinions or otherwise arising in connection with this presentation. There may have been changes in matters which affect the Company subsequent to the date of this presentation. Neither the issue nor delivery of this presentation shall under any circumstance create any implication that the information contained herein is correct as of any time subsequent to the date hereof or that the affairs of the

Company have not since changed, and the Company does not intend, and does not assume any obligation, to update or correct any information included in this presentation.

All statements other than statements of historical facts included in this presentation, including, without limitation, those regarding the Company’s financial position, business strategy, plans and objectives of management for future operations, are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding the Company’s present and future business strategies and the environment in which the Company will operate in the future. Various factors exist that could cause the Company’s actual results, performance or achievements to differ materially from those in the forward-looking statements. These forward-looking statements speak only as of the date of this presentation. The Company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained herein to reflect any change in the Company’s expectations with regard thereto or any changes in events, conditions or circumstances on which any such statement is based. The Company makes no representation or warranty as to the accuracy of any forward-looking statements.

Any investment in the Company involves risk, and several factors could cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements that may be expressed or implied by statements and information in this presentation, including, among others, risks or uncertainties associated with the Company’s business, segments, development, growth management, financing, market acceptance and relations with customers, and, more generally, general economic and business conditions, changes in domestic and foreign laws and regulations, taxes, changes in competition and pricing environments, fluctuations in currency exchange rates and interest rates and other factors. Should one or more of these risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this document.

The Company does not intend, and does not assume any obligation, to update or correct the information included in this presentation.

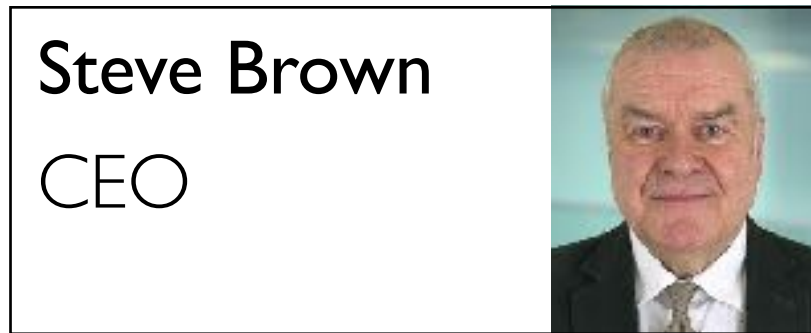
- **Ordinary Resolutions**

- To receive and adopt the report of the directors and the financial statements for the period ended 30th June 2021 and the report of the auditors thereon
- To re-elect Stephen Brown as a director of the Company
- To re-elect Joseph Darby as a director of the Company
- To re-elect Timothy Feather as a director of the Company
- To re-elect Gregory Harding as a director of the Company

- To re-elect Alan Hume as a director of the Company
- To re-elect Christian Wilms as a director of the Company
- To re-appoint PKF Littlejohn LLP as auditors of the Company

- **Special Resolutions**

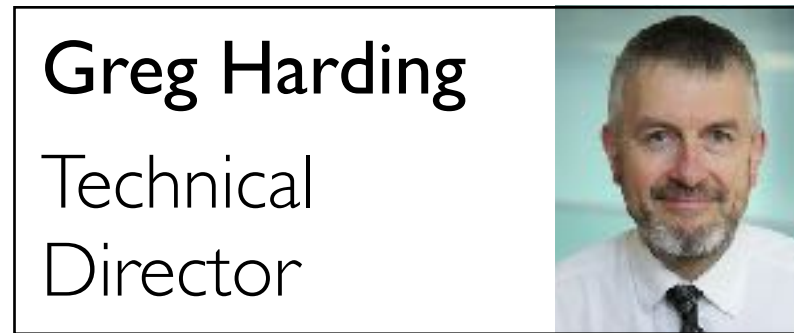
- To authorise the Directors to allot shares in the Company
- To disapply statutory pre-emption rights



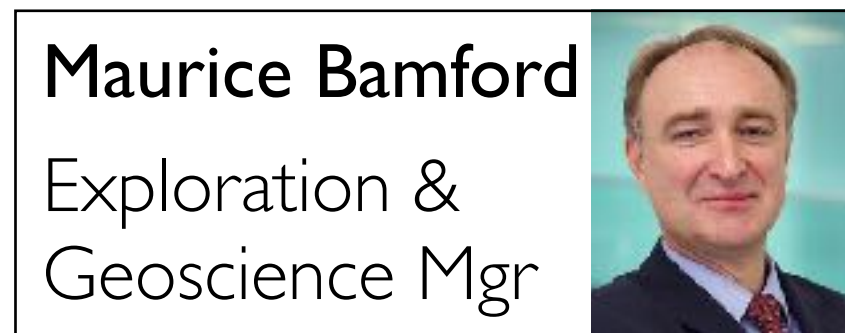
Steve Brown
CEO



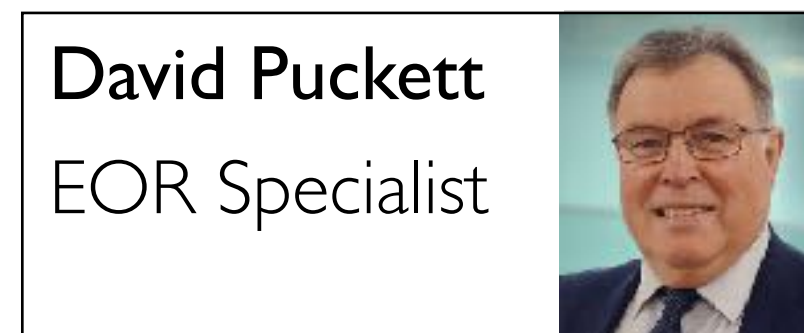
Alan Hume
CFO



Greg Harding
Technical
Director



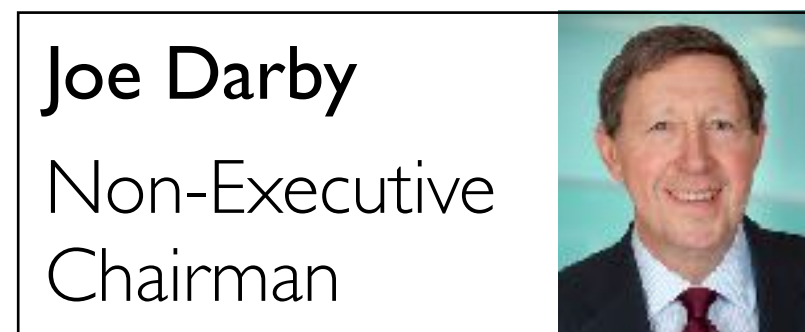
Maurice Bamford
Exploration &
Geoscience Mgr



David Puckett
EOR Specialist



Christian Wilms
Non-Executive
Director



Joe Darby
Non-Executive
Chairman



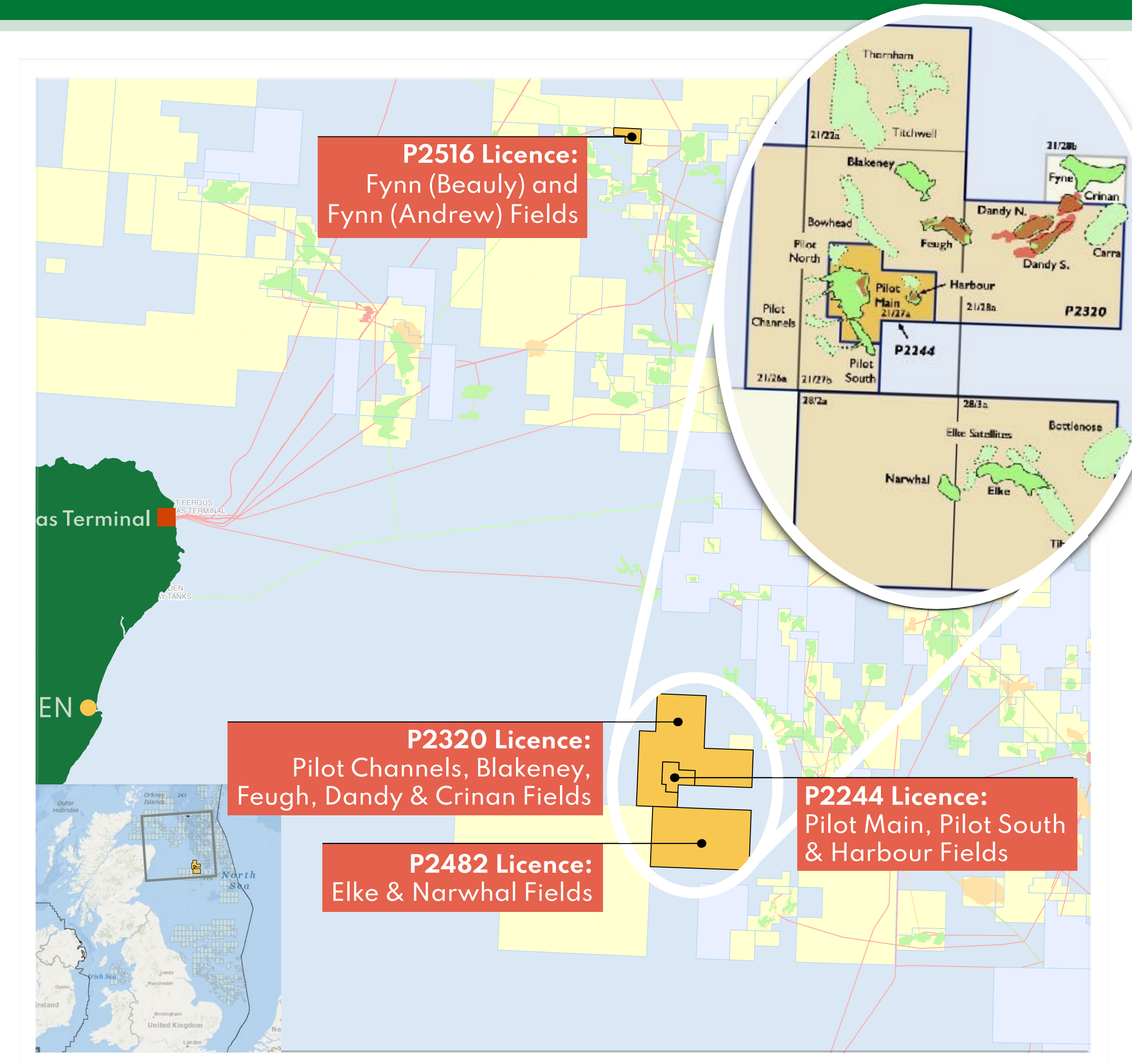
Tim Feather
Non-Executive
Director



- Founded in 2014 and awarded the Pilot licence
- Financed by Shell traders and started the concept select process for Pilot in 2019
- Switched to polymer flood and submitted concept select report to OGA in Sep 2020
- Renamed Orcadian Energy and listed on AIM, with 79MMbbls of 2P Reserves and 78MMbbls of 2C Resources in July 2021;
- Committed to operating at highest ESG standards
 - Net Zero focussed addendum to the concept select report endorsed by OGA Nov 2021
 - Winners of OGA Electrification competition Dec 2021

Asset highlights

- Key asset is the Pilot oilfield which has a substantial audited reserve: 79 MMbbl 2P (proven & probable)
- Pilot field is well appraised and development ready, project NPV₁₀ \$640m at \$60/bbl, NPV₁₀ breakeven of c. \$39/bbl, based on a low salinity polymer flood, using an FPSO, two WHPs and a floating wind turbine
- 78 MMbbl of contingent resources in Elke, Narwhal & Blakeney with an NPV₁₀ at \$60/bbl of \$458m
- Low risk exploration on licensed acreage
 - Bowhead prospect, a Pilot lookalike, 43 MMbbbls with appraisal style risks (49% geological chance of success)
 - Elke appraisal and satellite exploration targets contain over 80 MMbbbls with chance of success from 64% to 87%
- OGA has issued a “Letter of no objection” in support of our low emission development plan

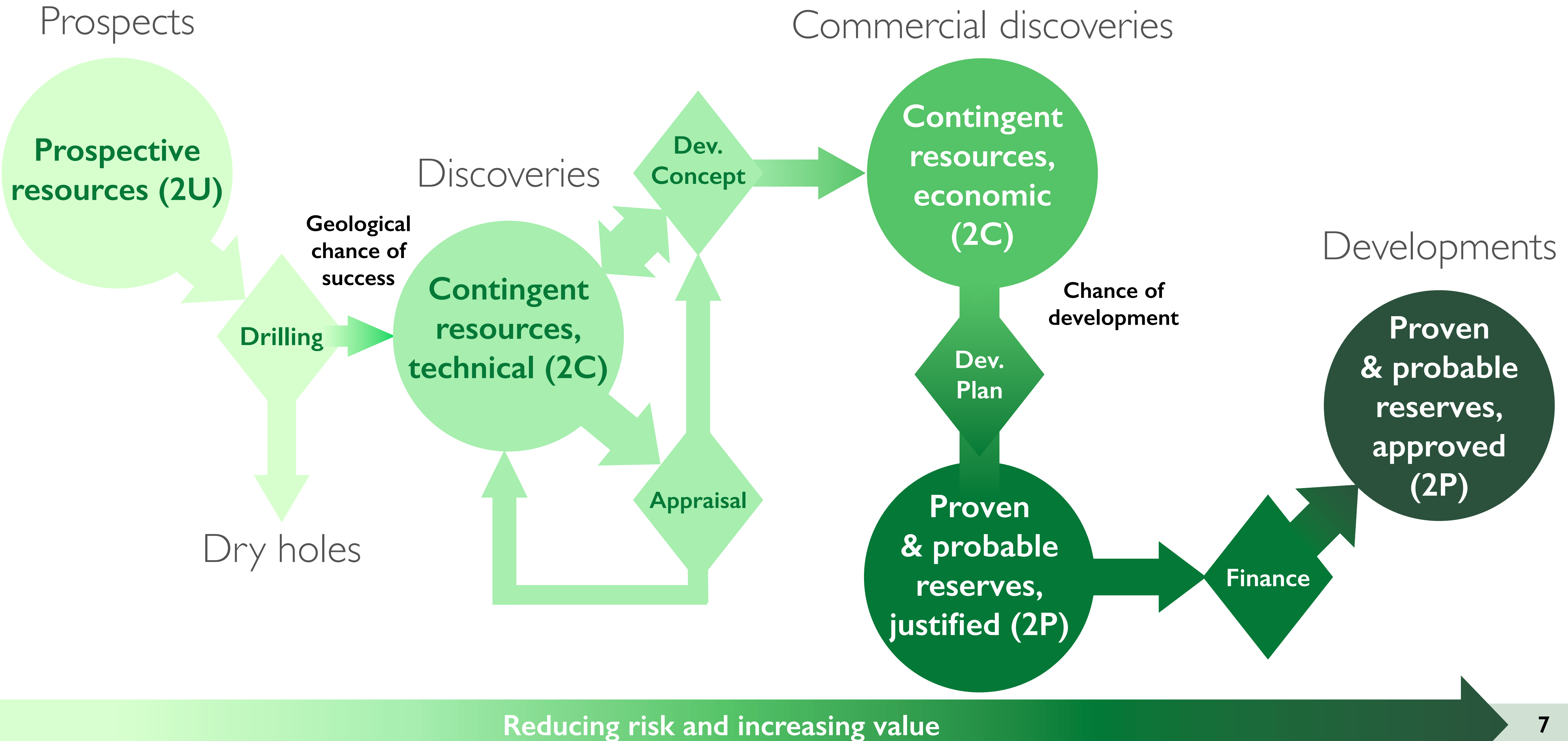


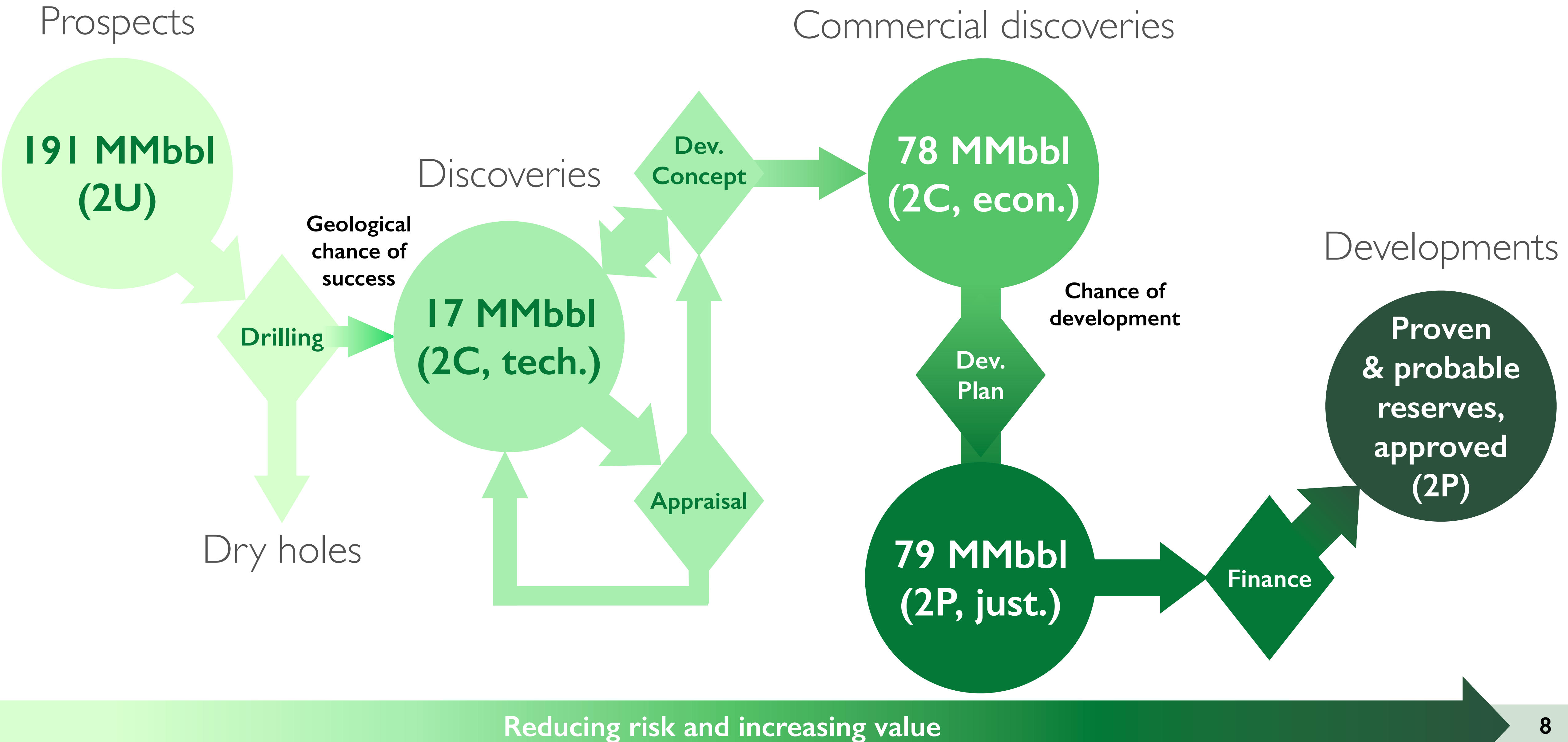
Licence & CPR Summary

| Licence and block numbers | Operator or admin. | Orcadian Interest | Status | Term Expiry* | Phase Expiry† | Licence Area (km²) | Discoveries | 2P Reserves MMbbl | 2C Contingent Resources (On hold) MMbbl | 2C Contingent Resources (Technical) MMbbl | 2U Prospective Resources (Unrisked) MMbbl |
|--|--------------------|-------------------|----------------------|----------------|----------------|--------------------|-------------------------------------|-------------------|---|---|---|
| P2244 21/27a | Orcadian | 100% | Second Term | 30th Nov 2022 | n/a | 43.2 | Pilot Main, Pilot South and Harbour | 78.8 | | 13.0 | |
| P2320 21/22a, 21/26a, 21/27b & 21/28a | Orcadian | 100% | Initial Term Phase A | 14th May 2024 | 14th May 2022 | 447.9 | Blakeney, Feugh, Dandy & Crinan | | 25.1 | 2.2 | 72.1 |
| P2482 28/2a & 28/3a | Orcadian | 100% | Initial Term Phase A | 14th July 2027 | 14th July 2022 | 361.6 | Narwhal & Elke | | 52.7 | 2.0 | 119.3 |
| P2516 14/20g, 15/16g | Parkmead (E&P) Ltd | 50% | Initial Term Phase A | 30th Nov 2026 | 30th Nov 2023 | 19.9 | Fynn (Beaully) & Fynn (Andrew) | Not audited | | | |
| † P2320, P2482 and P2516 are all drill-or-drop licences, and require a well commitment by May 2022, July 2025 and November 2023 respectively | | | | | | | Total | 78.8 | 77.8 | 17.2 | 191.4 |

* The Directors recognise that it is possible that the conditions for the P2244 licence to continue into the Third Term will not be satisfied by the stated deadline and accordingly a term extension may need to be sought from the OGA. There can be no guarantee that such an extension will be granted but, following dialogue with the OGA, the directors are confident that such an extension will be granted provided that the Company continues to work to satisfy the conditions.

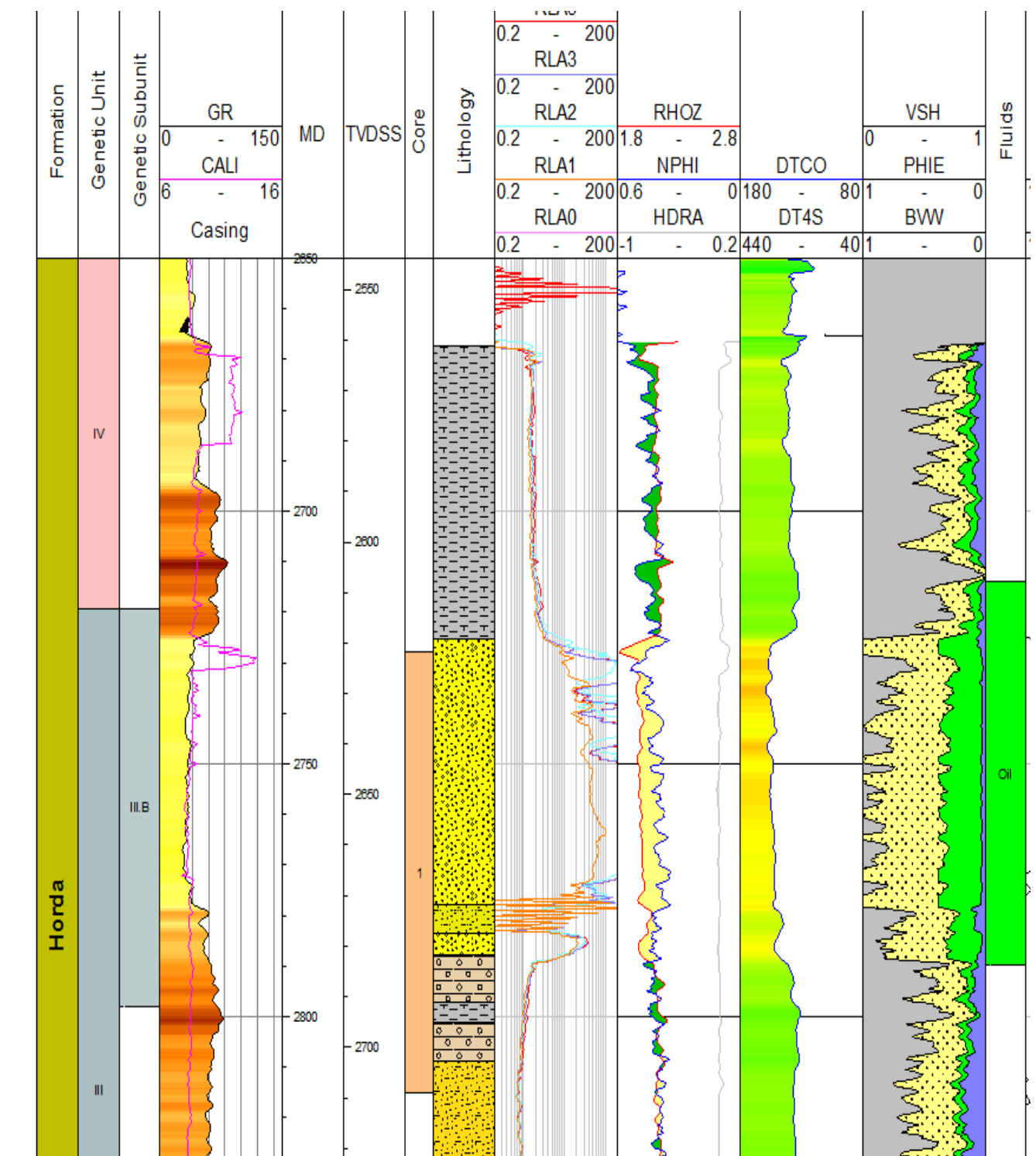
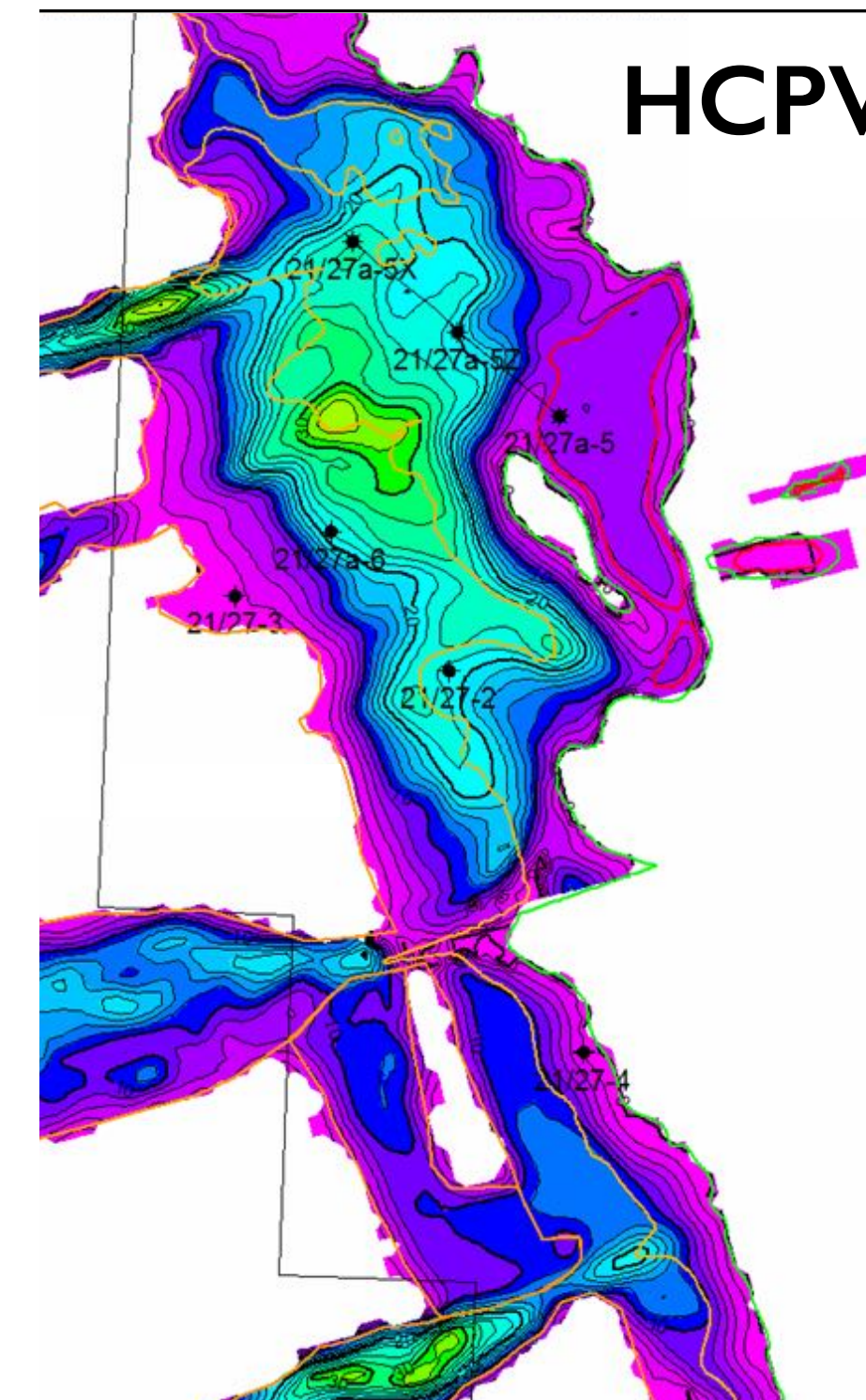
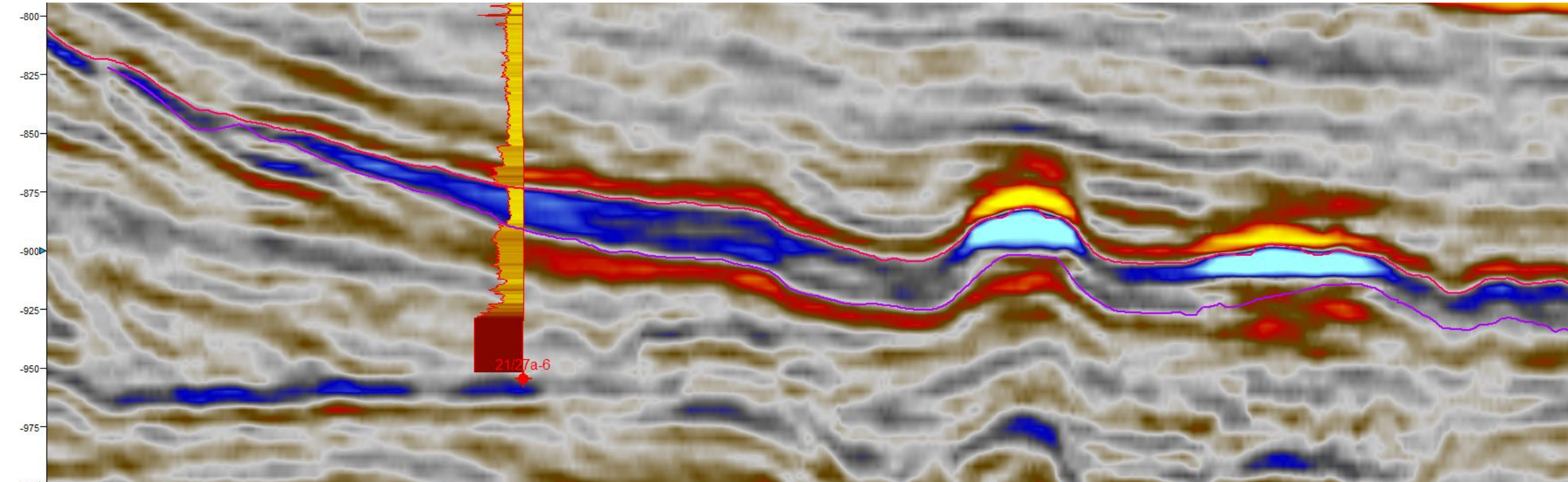
Maturing resources into reserves



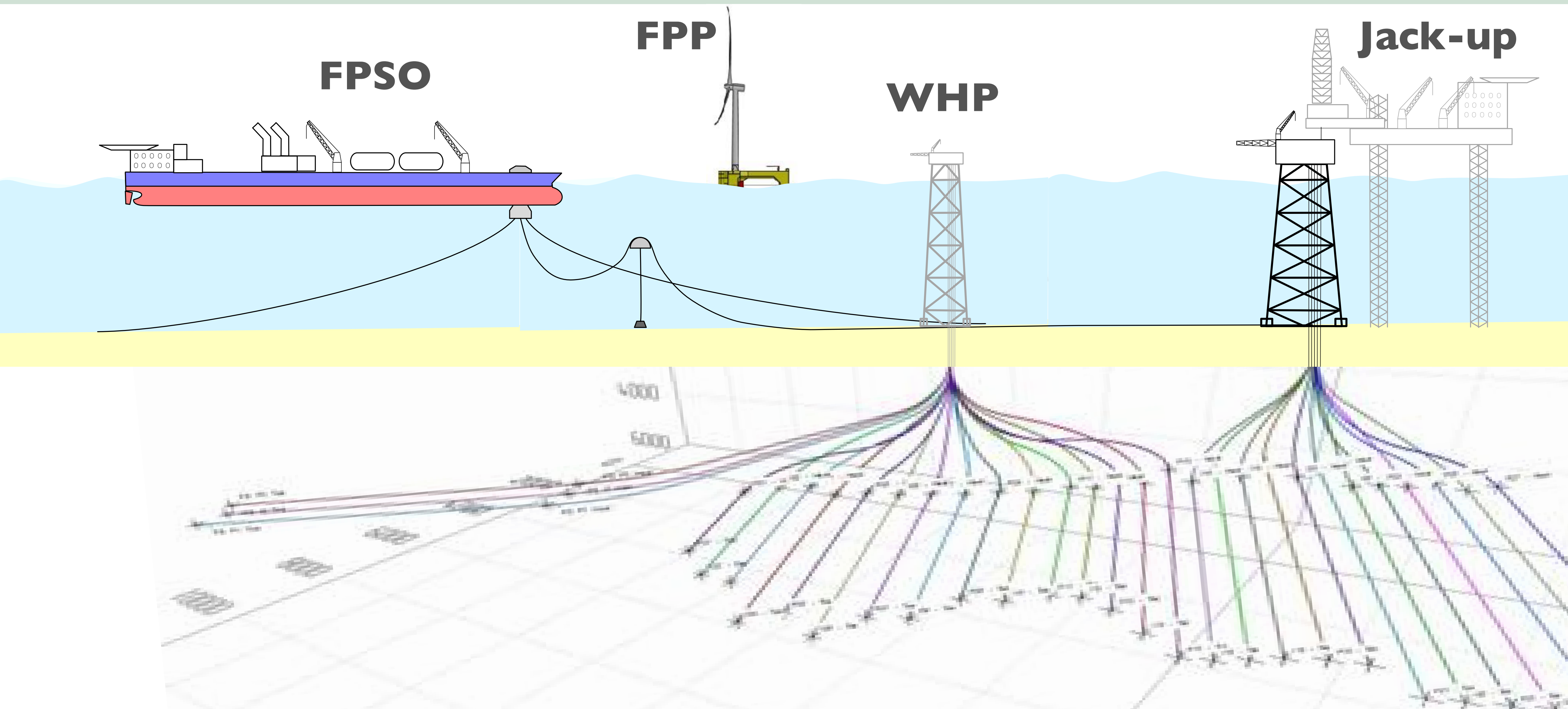


Pilot field summary

- Fully appraised, seven reservoir penetrations, two tested wells, core and fluid samples held by Orcadian, two high quality 3D seismic surveys
- Very high quality sandstone turbidite reservoir, 34% porosity, 2 to 10 darcies of permeability
- Significant oil in place: 263 MMbbls; audited 2P reserve of 79 MMbbls, based on a low salinity polymer flood of the reservoir
- Variable quality oil from 12° to 17° API, 160 cP to 1,200 cP
- Shallow water (c. 80m), 140 kms due East from Aberdeen, c. 40 kms from Gannet et al

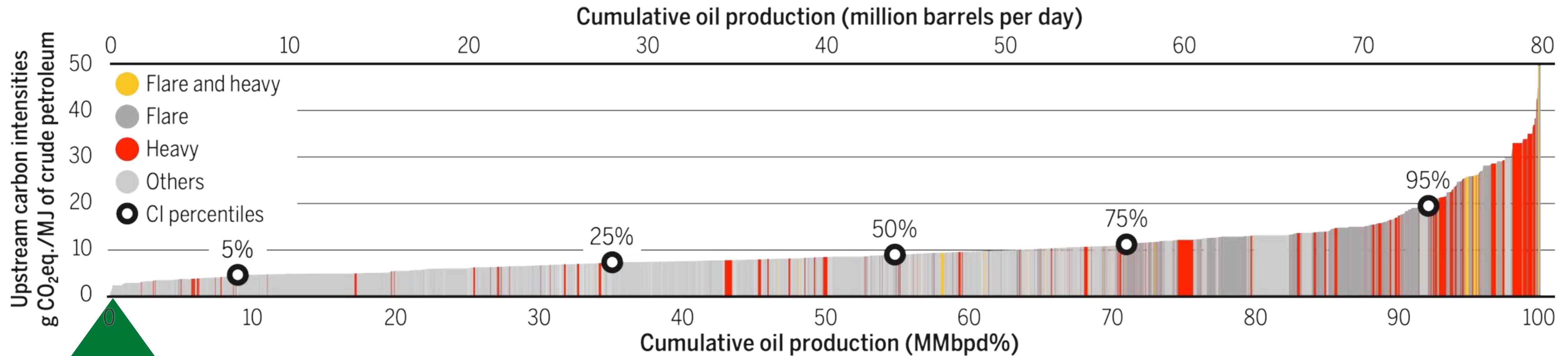


Pilot field development plan



Comparison with global oil production emissions

Viscous oil doesn't have to mean high emissions



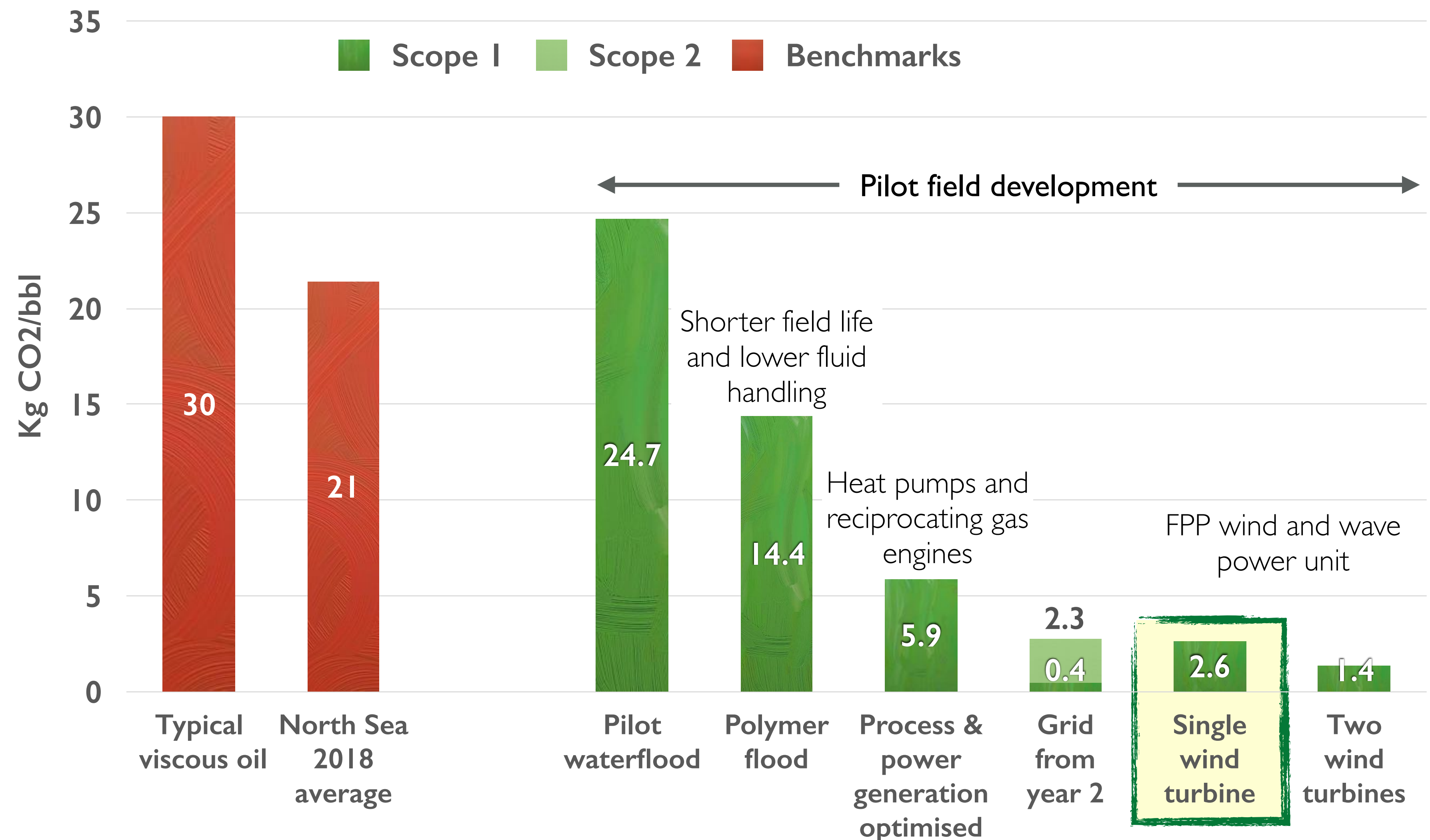
- To be comparable with this Stanford University dataset, to our Scope 1 & 2 emissions we have added:
 - Scope 3 emissions from offshore logistics, oil transportation to the refinery, and polymer production
 - Estimates of emissions during the exploration and development phases (done using the Stanford tool)
- Pilot field comparable emissions are 1.4 gCO₂eq/MJ with a single wind turbine

**Pilot emissions
will lie in the
lowest 5% of
global oil
production**

A project delivering on OGA's Net Zero agenda

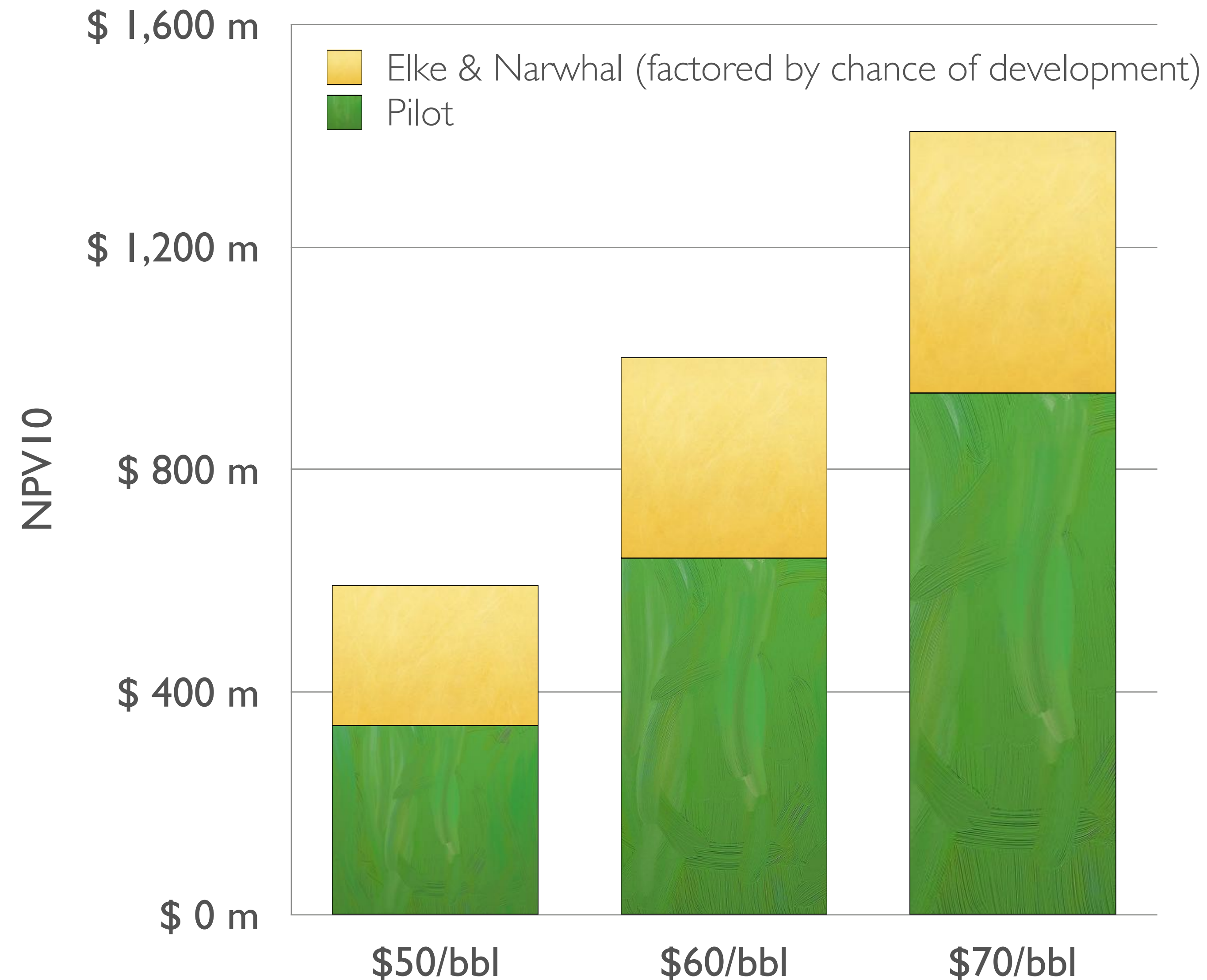
Powered by renewable energy

- Multiple opportunities to reduce emissions adopted
- Integration of aggressive process heat management with high efficiency back-up power generation and electrification has driven emissions down by over 80%
- Pilot will likely be among the first UKCS projects to be largely powered by renewable energy



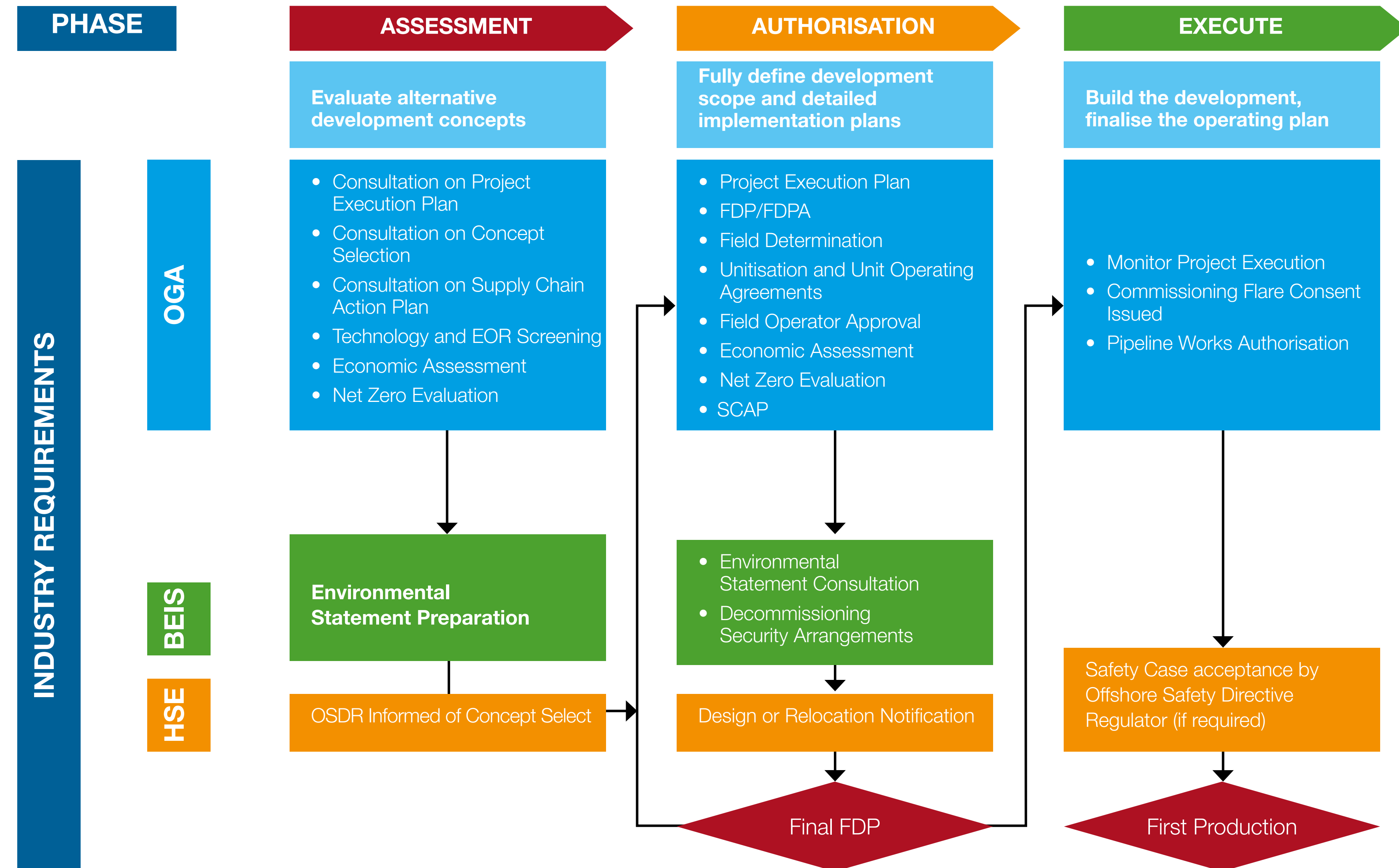
A highly profitable project

- Pilot low salinity polymer flood is a robust and highly profitable project with a NPV₁₀ breakeven below \$40/bbl
- Next step is to secure development partners (oil company or an alliance of contractors) to deliver a fully financed FDP
- FPSO contract is key to defining equity needs, Crondall Energy hired to secure the best FPSO deal, three “Expressions of Interest” received
- Debt capacity is determined by the robustness of the proven reserve
- Equity can come either from industry (via farm-in) or the markets (via an equity raise)
- We will choose the approach which maximises value for shareholders



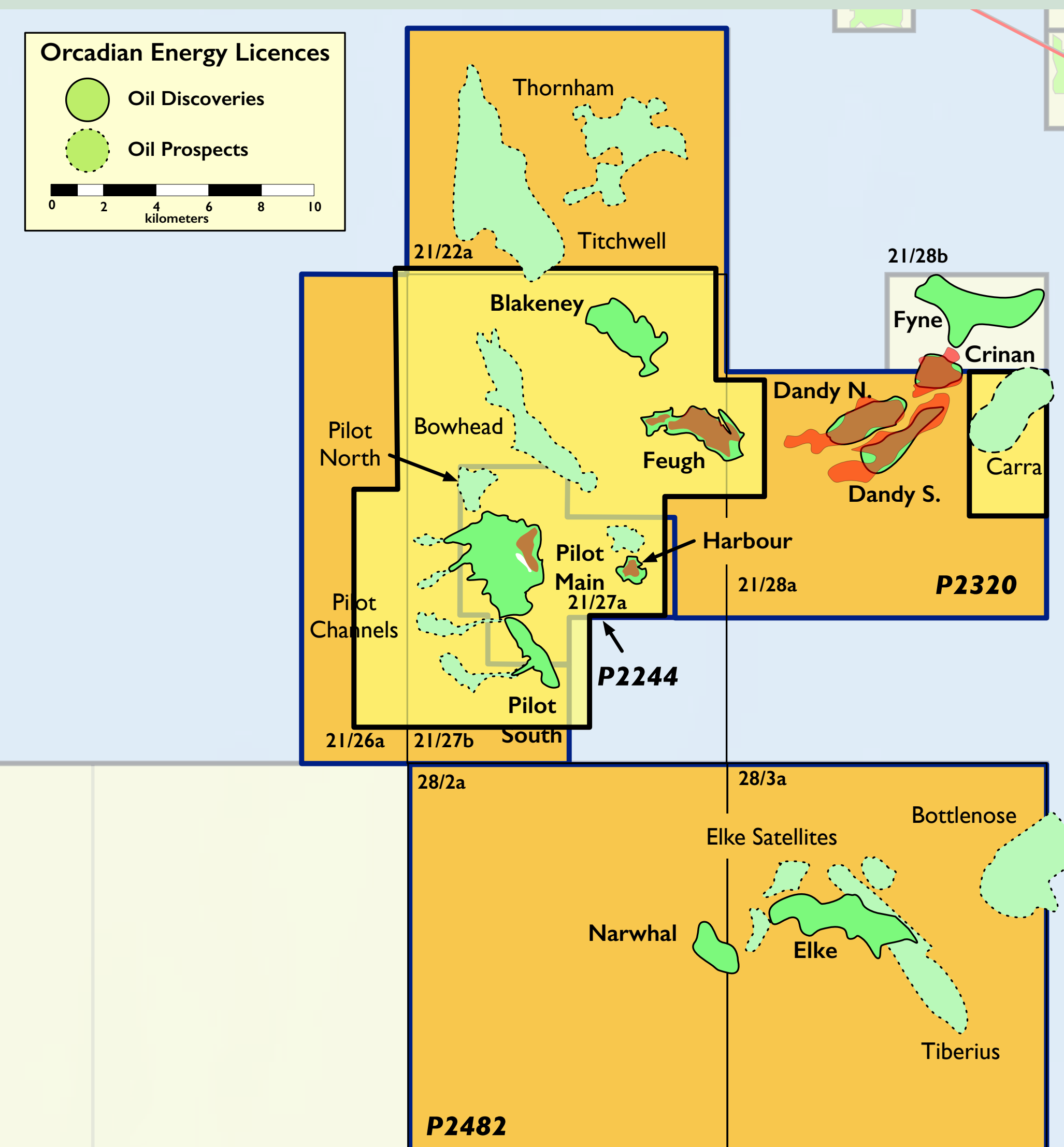
Progress since IPO: Pilot development progress

- “Letter of no objection” to the selected concept received, project now moves from “Assessment” phase into the “Authorisation” phase
- Statement of Requirements seeking “Expressions of Interest” sent to FPSO contractors; three very good responses received
- Polymer core flood studies completed, full field reservoir model, based on this work, has been built, new seismic interpreted
- Financing, development farm-out and partnering process during 2022, multi-strand approach



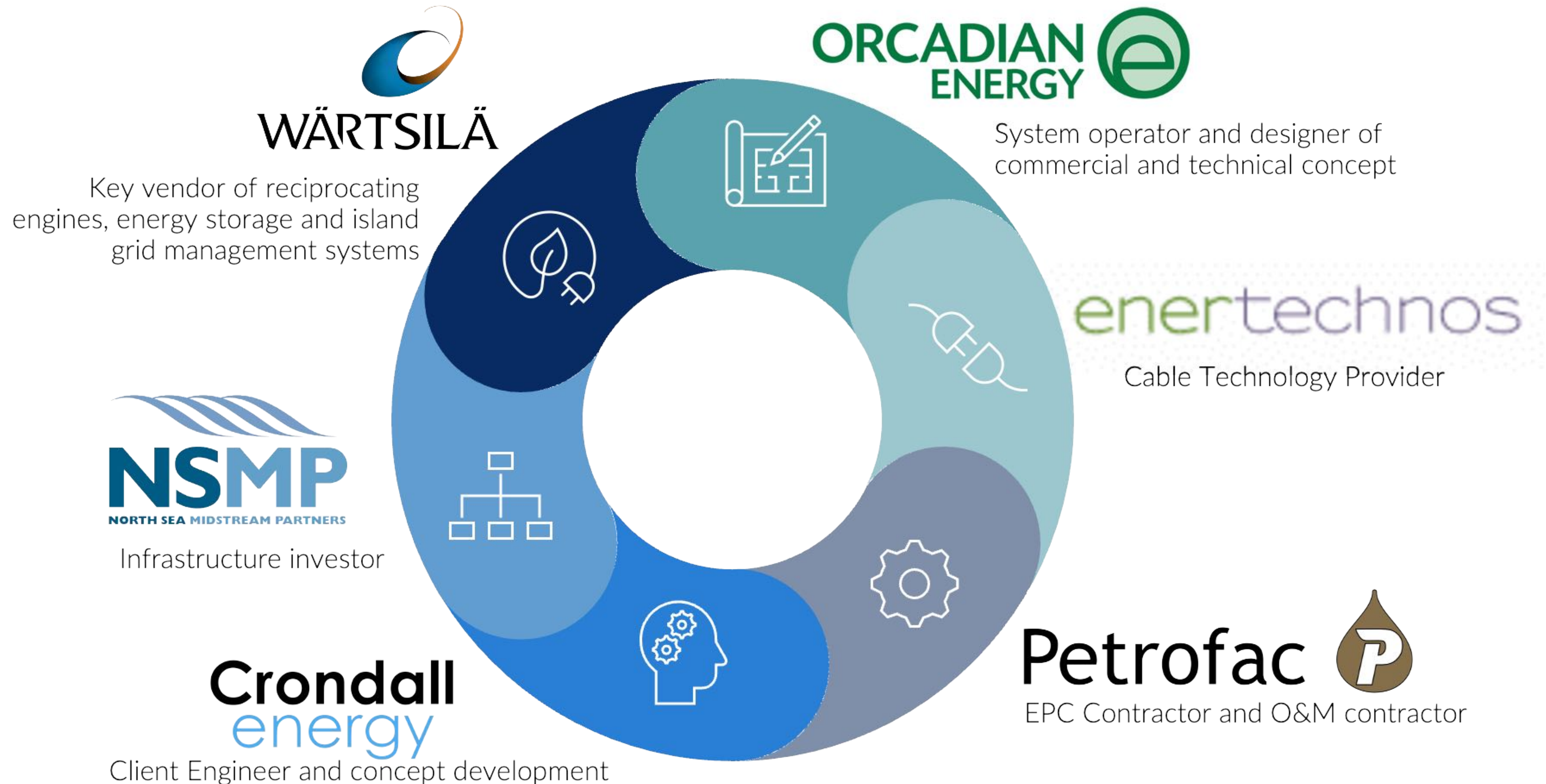
Progress since IPO: New seismic

- Recently reprocessed seismic dataset licensed from TGS
- Axis have interpreted seismic over Bowhead, Pilot, Blakeney and Feugh, new maps and geological models
- Bowhead prospect definition much improved
- Pilot field development area confirmed with better resolution and confidence in the geological model to incorporate in FDP process
- Non-binding heads of terms with Carrick Resources for farm-out of a 50% interest in the Carra prospect

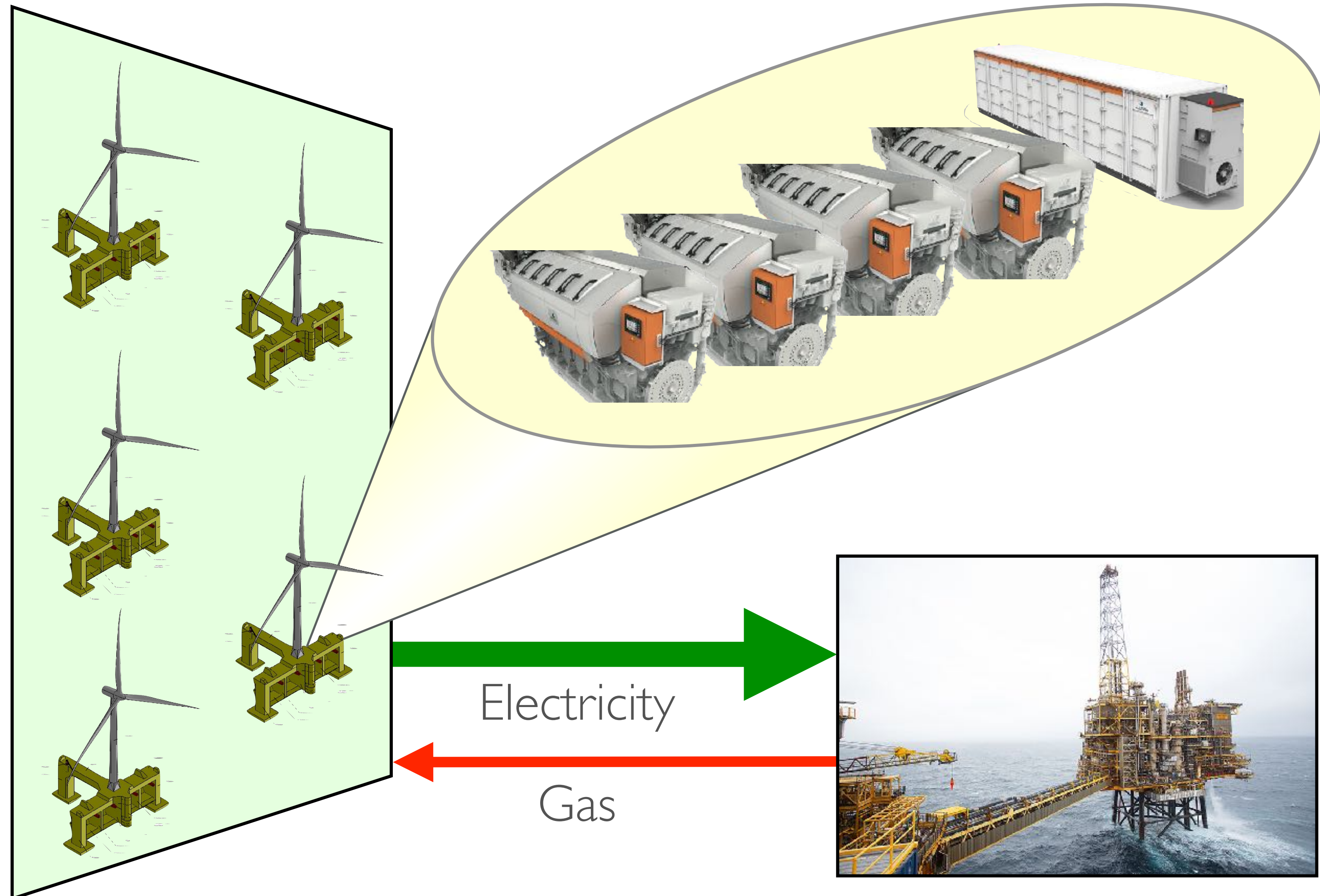


- The “£1million decarbonisation competition for the electrification of offshore oil and gas installations” was launched by the OGA on the 23rd September
- Orcadian submitted an entry offering to prepare a report on an alternative concept for electrification of the Central Graben fields
 - *Chosen as there was a coherent and focussed group (CNSE) already working on more conventional electrification schemes*
 - *Timetable for delivery is by end of March 2022 which is in line with the CNSE group’s decision making schedule*
- Orcadian was one of three winners and has been awarded £466,667 to deliver the report





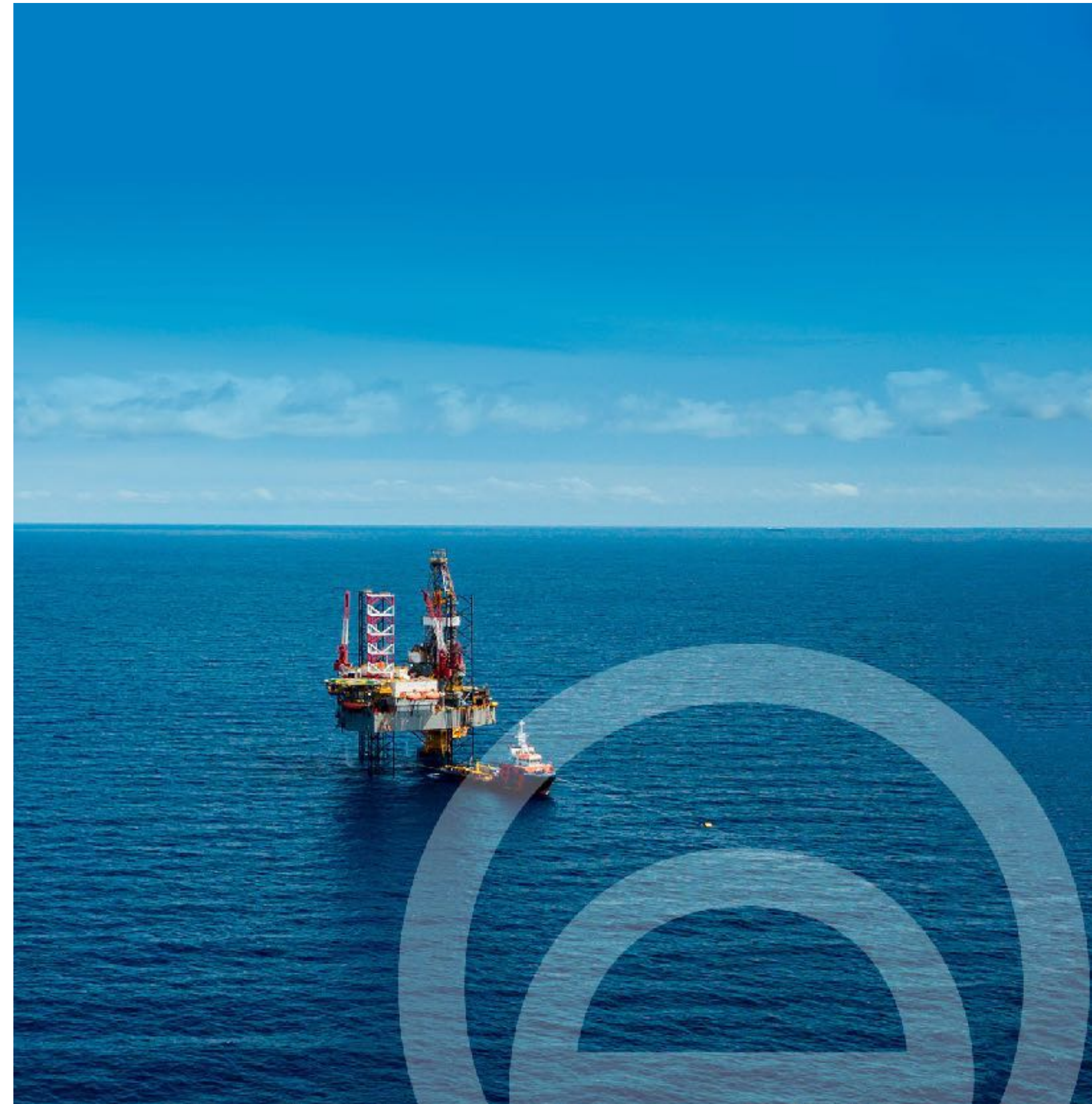
- Local wind farms sized at c. 125% of demand
- Highly efficient reciprocating gas engines fuelled by gas (or in-time Net Zero fuels) for back-up
- Supported by battery storage to minimise “spinning reserve”
- Power exported to the platforms at 33kV or 11kV to minimise modifications
- An “Island grid” delivering reliable low emissions power



- **Scalable and easy to deploy** – relatively modest, repeatable, local solutions, not a big complex infrastructure project, can start with partial electrification and move to full electrification later
- **Very reliable, low emissions, fully backed-up power** – c. 70% wind power backed up by efficient gas reciprocating engines and battery support, supplied through a private power purchase agreement
- Potential for local power ring mains for **greater resilience**
- Power will be delivered at the voltage the platforms already use (11kV), or close to (33kV), to **minimise brownfield modifications**
- Initial estimates indicate significantly **lower total cost** than power-from-shore UK and this approach is cheaper than power-from-shore Norway even when assuming a £39/MWh power purchase price
- Can interconnect power hubs, to add further resilience, and ultimately connect to grid to **create legacy infrastructure** and provide low emissions energy to the grid when local demand wanes
- Potential to **expand wind farms** and deliver reliable baseload power to the grid; potential for carbon dioxide capture or to use alternative fuels to **fully decarbonise**

Deliver a high return for investors

- Fully finance the polymer flood project for Pilot, multi-strand approach:
 - Seek farm-in partners
 - Structure a contractor alliance to deliver the project with a minimised equity requirement
 - Engage with financing partners
- Add value through well-timed and focussed exploration and appraisal
- Progress resources into reserves and onto production
- Build a business that delivers investor returns through the transition



Why Orcadian?

- Substantial Proven & Probable Reserve base with significant exploration and appraisal upside
- Pilot project well advanced and in line with OGA's Net Zero goals
- Core projects with NPV₁₀ of over \$1.0 billion at \$60/bbl and \$1.4 billion at \$70/bbl*
- Multiple paths forward to finance the project
- Highly experienced management team, aligned with shareholders and focussed on maximising shareholder returns
- Proven capability to identify and secure developable resources and business opportunities at low cost



*NPV estimates as per Sproule 2021 CPR; Elke, Narwhal & Blakeney NPV's are factored by the Sproule estimate of chance of development

| | | |
|--|---|--|
| Auditor: PKF Littlejohn | Nomad & Broker: WH Ireland | Broker: Shore Capital |
| 15 Westferry Circus London E14 4HD | 24 Martin Lane, London EC4R 0DR | Cassini House 57 St James's Street London SW1A 1LD |
| Lawyer: Hill Dickinson | Lawyer: TandonHildebrand | Registrar: Neville |
| The Broadgate Tower, 20 Primrose Street London EC2A 2EW | Labs Atrium, Chalk Farm Rd, London, NW1 8AH | Neville House, Steelpark Road, Halesowen, B62 8HD |
| Public Relations: Tavistock | Competent Person: Sproule | Banker: Barclays |
| 1 Cornhill, London EC3V 3NR | President Kennedylaan 19 2517 JK Den Haag, The Netherlands | Level 25, 1 Churchill Place, London, E14 5HP |

| |
|--|
| Registered Office |
| 6th Floor 60 Gracechurch Street, London, United Kingdom, EC3V 0HR |

| |
|---|
| Contact Details |
| email: info@orcadian.energy telephone: +44 (0) 20 3603 1941 twitter: @orcadian_energy website: https://orcadian.energy |

ORCADIAN ENERGY PLC