



CORPORATE PRESENTATION

SEPTEMBER 2023



Hartshead Resources NL

Disclaimer:

FORWARD LOOKING STATEMENT:



This document has been prepared by Hartshead Resources NL (HHR). This document contains certain statements which may constitute "forward-looking statements". It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including, but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve and resource estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delays or advancements, approvals and cost estimates.

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The volumetric estimates used to derive the estimates herein have been made by combining probabilistically derived estimates of initial in place gas volumes with assumptions regarding the gas recovery factors from analogous fields, such as the Clipper South and Babbage gas fields located in the UK Southern Gas Basin. 1 barrel of oil equivalent (boe) equates to 5,800 standard cubic feet (scf) of gas.

QUALIFIED PERSON'S STATEMENT



The Reserves estimated in this announcement have been made by Dr Adam Law, Director, ERC Equipoise (ERCE), a post-graduate in Geology, a Fellow of the Geological Society and a member of the Society of Petroleum Evaluation Engineers. Dr Adam Law is qualified in accordance with ASX listing rule 5.41 and has consented to the use of Reserves estimates, and to the form and context in which these statements appear. The Reserves estimates presented in this report were originally disclosed to the market in announcement released on 23 June 2022.

ERC Equipoise Ltd. (ERCE) is a leading, employee owned, global energy consultancy headquartered in London with offices in Singapore, Kuala Lumpur and Perth. It's fully integrated team of Geoscientists, Engineers and Economists are specialists in Competent Persons reporting, reserves and resources auditing, technical services, commercial analysis and Expert advisory services. ERCE supports companies in traditional energy sectors as well as providing energy transition and sustainability services.

The information in this announcement that relates to Reserves estimates is based on information compiled or reviewed by Mr Christopher Lewis. Mr Lewis has consented to the form and context in which the estimated Reserves and the supporting material are presented.

Hartshead has prepared the Contingent Resource and Prospective Resource information in this announcement in accordance with the ASX Listing Rules and the 2018 Petroleum Resources Management System published by the Society of Petroleum Engineers (SPE-PRMS). The Contingent Resource estimates and Prospective Resource estimates presented in this report were originally disclosed to the market in announcement released on 14 December 2020 and updated 8 March 2022 and 6 April 2022. Hartshead confirms that it is not aware of any new information or data that materially affects the information included in the aforesaid market announcements and that all the material assumptions and technical parameters underpinning the estimates in the aforesaid market announcement continue to apply and have not materially changed. The information in this announcement that relates to Contingent Resource information in relation to the Phase II Hodgkin and Lovelace fields and the Prospective Resource information in relation to the Phase III exploration portfolio is based on information compiled by Mr Christopher Lewis and information compiled by technical consultants contracted to Hartshead which has been subsequently reviewed by Mr Christopher Lewis. Mr Lewis has consented to the inclusion of such information in this announcement in the form and context in which it appears and the resources information in this report is based on, and fairly represents, information and supporting documentation reviewed by, or prepared under the supervision of, Mr Christopher Lewis.

Mr Lewis is a Director of Hartshead and holds a BSc from the Imperial College, University of London and is a member of The American Association of Petroleum Geologists (AAPG) and the European Association of Geoscientists and Engineers (EAGE). Mr Lewis is qualified in accordance with the requirements in ASX Listing Rule 5.41.

Corporate Information





This presentation is dated 4th September 2023 and is authorised to be given to ASX by the Board of Directors of Hartshead Resources NL. The address of Hartshead Resources NL is 333C Charles Street, North Perth WA 6006 and its website is www.hartshead-resources.com.au. Shareholders, investors and other interest parties can contact Nathan Lude, Executive Director, on +61 8 9226 2011 or at info@hartshead-resources.com.




Corporate Profile

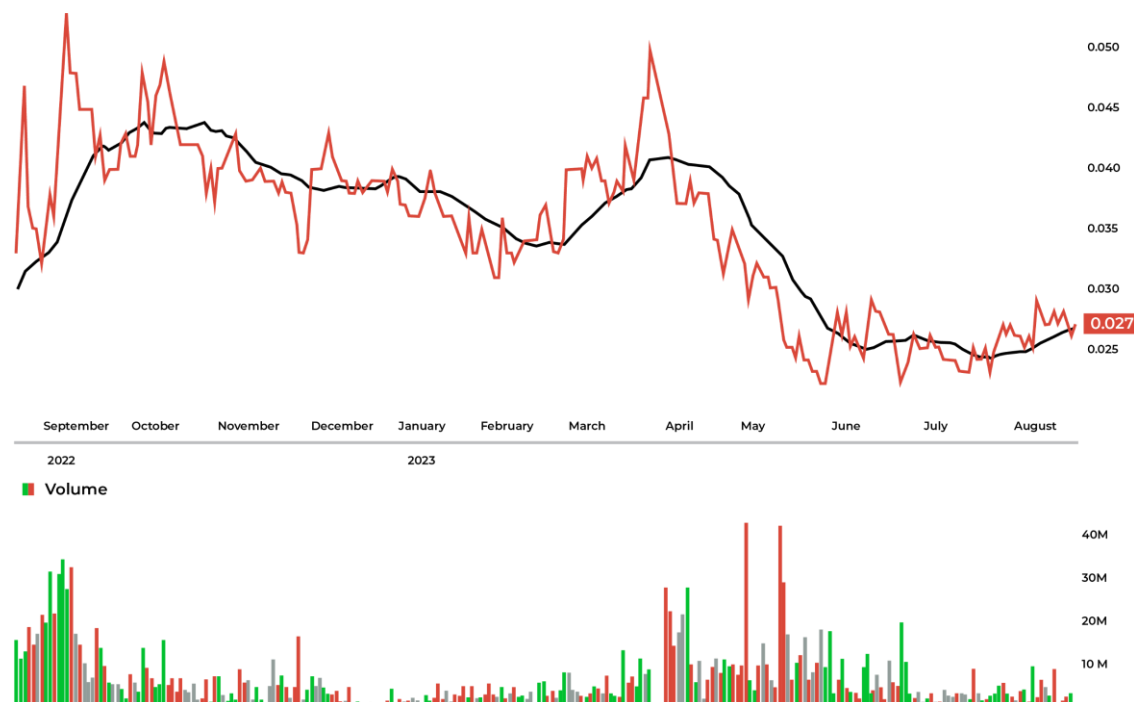
Board and Management incentivised through material shareholding

Capital Structure 	Current 
ASX Code	HHR.ASX
Last Closing Share Price (28 August 2023)	A\$0.026
Shares on Issue ¹	2,808,682,128
Partly Paid Shares on Issue ²	5,703,550
Market Capitalisation (28 August September 2023)	`\$73m
Cash and cash equivalents ³	\$32m
Enterprise Value	\$41m

Notes

1. Includes fully paid ordinary shares on issue only
2. Partly paid shares have an issue price of \$0.20, of which \$0.01 is paid. The balance of the issue price is payable at the election of the holder
3. Current cash as at 30 June 2023

Company Directors & Officeholders 	
Non-Executive Chairman	Bevan Tarratt
CEO & Managing Director	Chris Lewis
Executive Director	Nathan Lude
Company Secretary	Matt Foy



Project Management Team

▶ Deep Management experience within oil & gas sector, particularly UK North Sea



JEFF BARNES
**Project Developments
Manager**

- Over 40 years' upstream oil & gas experience
- Managed 14 UK Southern Gas Basin developments and infrastructure projects
- Track record of delivering successful UK capital projects



SIMON HAWORTH
**Subsurface
Manager**

- Internationally experienced Geoscientist with over 20 years' experience in
- Held varied roles in subsurface studies and portfolio optimisation in the UK North Sea, Australian northwest shelf, Papua New Guinea and the Netherlands
- Spent the majority of his career with Shell and also held roles with Oil Search, Nexen and a variety of service companies



DON FERGUSON
**Operations
Manager/Advisor**

- 37 years' experience as a Petroleum Engineer
- Founder of UK SNS focussed Highland Energy and Caledonia Oil & Gas, both having highly successful growth and exit histories
- From 2007 to 2011 was a Director at First Reserve Corporation - serving as Board advisor for two North American E&P companies



STEVE ROSER
**Commercial
Manager**

- Negotiator with over 30 years' experience
- Extensive track record in delivery of major oil and gas projects
- Extensive experience of UK Southern Gas Basin and wider UKCS



KEITH BUSH
**Chief Operating
Officer**

- Over 30 years' petroleum engineering and executive leadership in upstream oil and gas
- Extensive experience managing SNS production and development assets
- Former COO and CEO of UK listed international E&P company



Board of Directors

Proven corporate experience in the oil & gas sector



BEVAN TARRATT
**Non-Executive
Chairman**

- Bevan has an extensive background in the corporate and financial services industries having worked in various accounting and corporate broking firms for the past 15 years.
- Bevan has significant experience in the recapitalisation, restructuring and acquisition of assets for numerous ASX companies and was a Client Advisor at Patersons Securities and Partner of a venture capital firm.
- Well experienced in executive and non-executive board roles with over 20 years of experience.



CHRIS LEWIS
**Chief Executive
Officer**

- Chris is a geophysicist and oil & gas professional with 28 years+ experience
- Experience gained with a spectrum of oil majors, small-mid caps, start-ups and consultancies
- Executive and board experience with geographical expertise in Africa, North Sea, CEE and Australasia
- Successful monetisation with Centric Energy, Lion Petroleum, ZETA Petroleum and Blackstar Exploration.



NATHAN LUDE
**Executive
Director**

- Nathan has broad experience working in Asset Management, Mining and the Energy Industry.
- Nathan is well experienced in project identification and project development for multiple ASX companies
- Previous roles include Business Development Management role for a large Canadian energy company and Executive Director roles for a number of ASX-listed companies.
- Nathan's business network spreads across Australia and Asia and has strong corporate ties in the finance industry.



MATTHEW FOY
**Company
Secretary**

- Matthew is a Fellow of Governance Institute Australia (GIA) with 15+ years facilitating company compliance and growth.
- Matthew has deep experience as a Company Secretary to small, mid and large cap ASX listed companies.
- Previous experience includes as Senior ASX Advisor, Listings Compliance.



UK Gas Market and New UK Energy Security Strategy

Conflict in Ukraine has highlighted UK energy security of supply as a new strategic priority



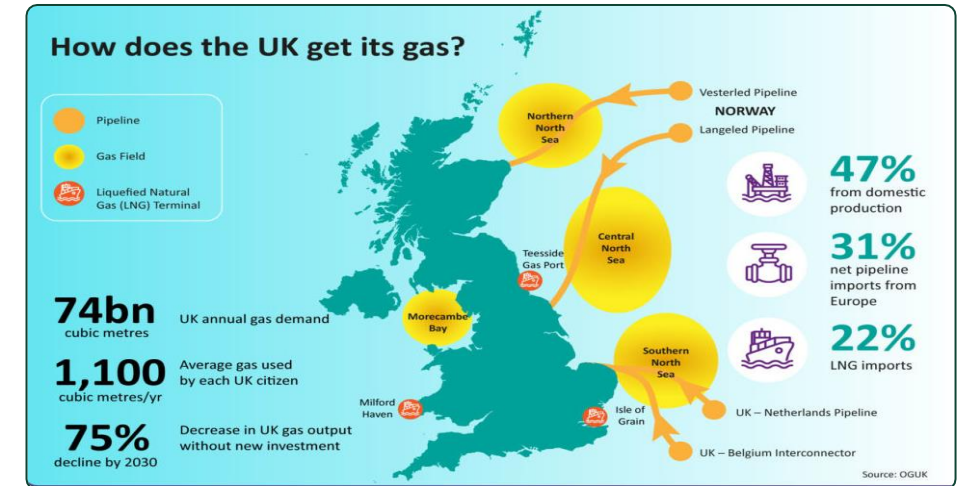
New UK Energy Security Strategy renews focus on maximising use of domestic resources

- Russia has terminated gas supply contracts with several EU countries with energy rationing now underway in Germany
- Europe competing with highly priced LNG cargoes destined for SE Asian markets resulting in an expansion in European regasification capacity
- Hartshead Phase I development will benefit from the UK Government's focus on bringing new developments on stream faster and more efficiently



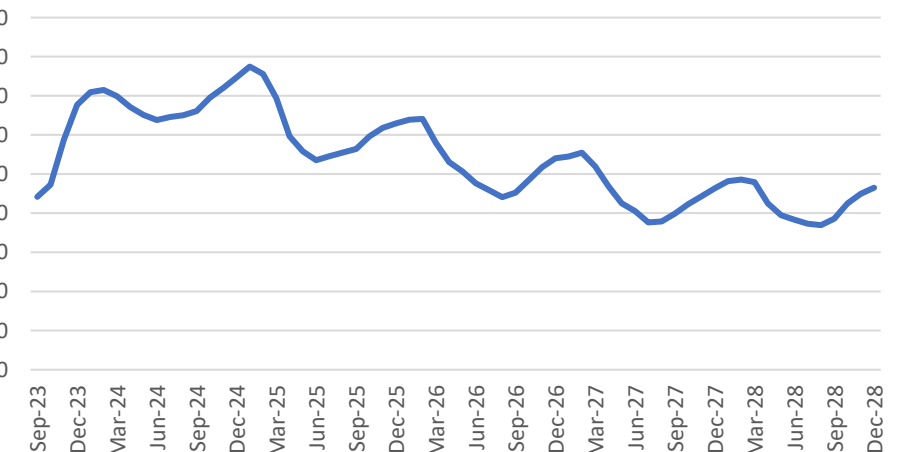
Energy security unlikely to be satisfied in near/mid-term via renewables and nuclear power

- Intermittency issues around renewables implies an ongoing dependency on gas-fired (CCGT) generation
- Record levels of power imported from Europe via interconnectors (7.8GW capacity)
- UK's remaining coal power stations due to close in 2024 and nuclear capacity being retired
- New power capacity likely to be met by CCGT generation requiring more natural gas from the UKCS or LNG imports



Pence/therm

5 YEAR UK GAS FUTURES



Source: CME GROUP UK NBP futures

HARTSHEAD RESOURCES

P2607 Production & Development Area

Three phases of development



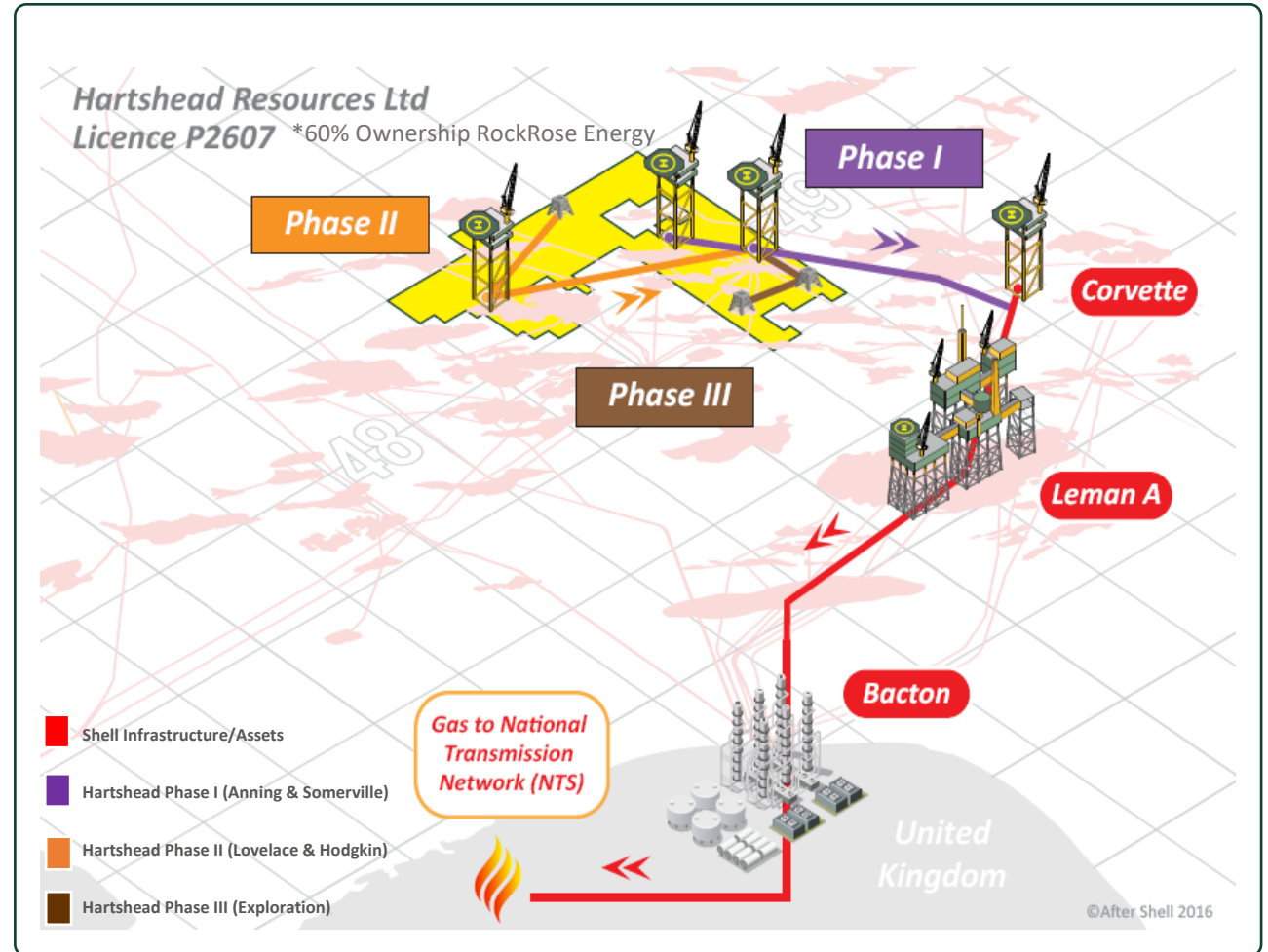
Phased development of c. 800 Bcf total resource

- Phase I - **301.5 Bcf** 2P Reserves
- Phase II – **139 Bcf** 2C Contingent Resources
- Phase III - **344 Bcf** 2U Prospective Resources
- Phase I CAPEX supports infrastructure investment for future phases



Delivery to Bacton Gas Terminal

- Planned via HHR pipeline to Shell Infrastructure



Company Highlights

Farm-out to RockRose Energy provides a clear pathway to first cashflows

1

Transformational Farm-out

- Completion of divestment of a 60% interest in Southern Gas Basin Licence P2607 to RockRose Energy (RockRose)
- Hartshead retains a 40% interest, maintaining a meaningful share of future production
- Hartshead retains operatorship, transferring to RockRose post taking Final Investment Decision (FID)

2

Up to A\$205m in consideration

- Phase I consideration comprises of approximately US\$128m (A\$196m) in past costs, milestone payments, free-carry and including UK government Investment & Capital Allowance of US\$31.4 million (A\$48.4 million) ¹
- Additional Phase II Bonus of US\$5.9m (A\$9.0m) in cash on government approval of the Field Development Plan (FDP) for the Phase II development of Lovelace and/or Hodgkin gas fields
- Implies a transaction value of A\$6.2/boe ³, which exceeds precedent transactions in the UK

3

Significant Technical Validation

- RockRose is an established UK producer, providing a major commercial and technical endorsement of the Project
- The Farm-out attracted interest from a wide number of parties, highlighting the quality of the Company's asset base
- See-through value translates to a A\$327m valuation for Phase I on a 100% basis and A\$131m to HHR 40%
- Transaction value to HHR is value plus consideration, total of A\$327m ²

4

Well Funded for Development

- \$32m cash position as per 30th June 2023 quarterly
- HHR is in discussions with a range of funding providers for project debt financing
- Completion of debt arrangements, together with farmout and placement proceeds sees HHR funded through development

5

On track for FID

- FDP Submitted to the NSTA in June 2023
- Key upcoming milestones include no further technical questions on FDP from NSTA and finalisation of debt funding (H2 2023)
- Decision on 33rd bid round applications due in H2 2023

Note 1: Farm-out agreement denominated in US\$, translated to A\$ at 0.65 USD:AUD exchange rate

Note 2: Implied value only. Does not include value for the Company's existing cash or the value of consideration to be received under the Farm-out

Note 3: Based on Phase 1 consideration only



Transaction Structure and Implied Valuation

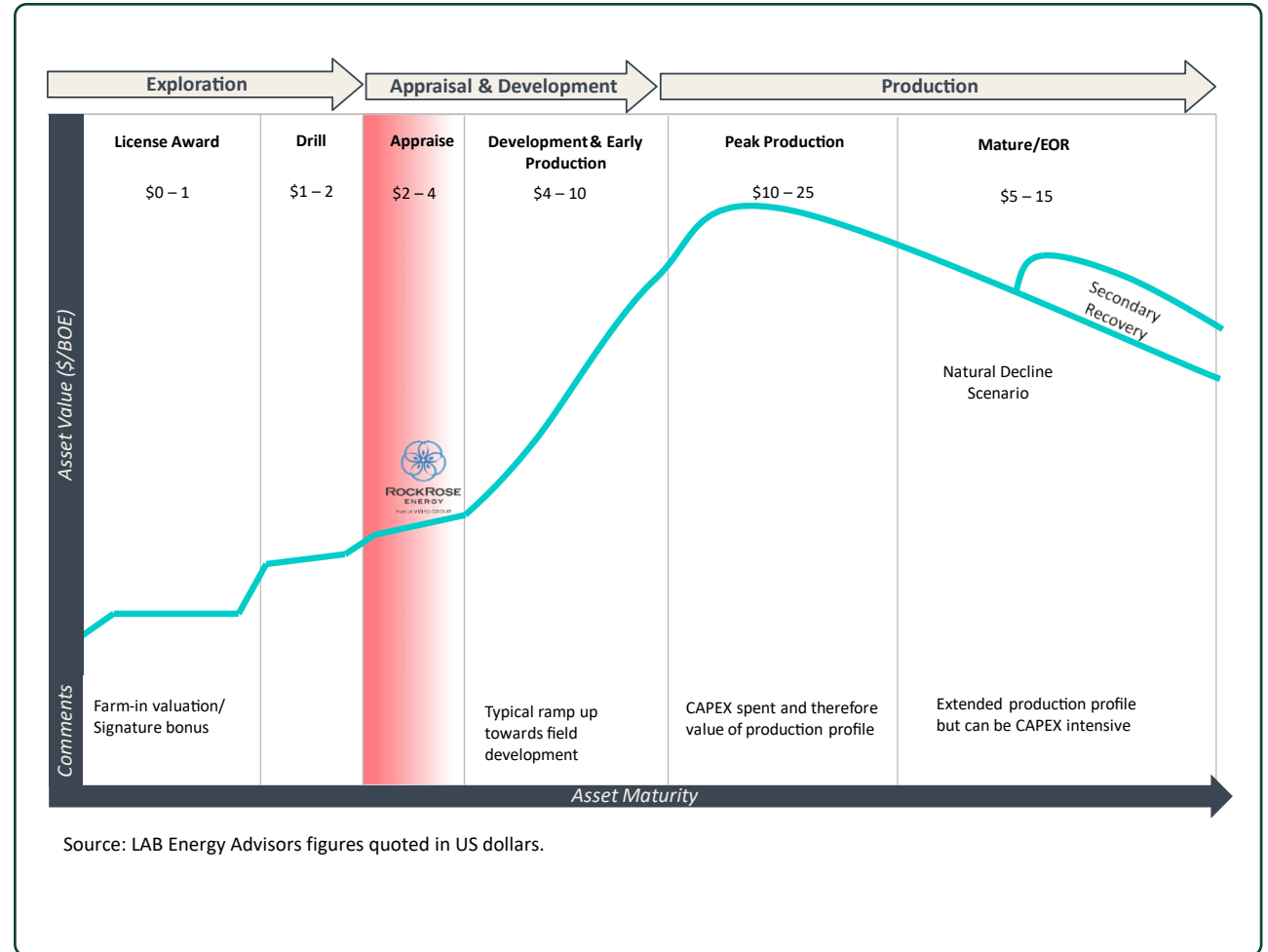
Significant uplift compared to HHR's current trading metrics



FARM-OUT TRANSACTION STRUCTURED TO OPTIMISE TAX RELIEF AVAILABLE FROM UK ENERGY PROFITS LEVY (EPL)

Phase I - 301.5 Bcf

- Aggregated cash consideration, development carry and investment allowance yields an implied valuation of **A\$327 million**
- **A\$6.20 per boe** of Phase I 2P Reserves (US\$4.1/boe)
- **91.4% tax relief** available to RockRose Energy from EPL investment allowances applied to Phase I Earn-In Costs
- Phase I Bonus to Earn-In Costs ratio minimises Hartshead capital gain liability
- Hartshead to transfer Operatorship to RockRose post FID:
- Transformational Farm-out transaction delivers:
 - **A\$148 million** of Phase I development capital
 - RockRose as an established UK North Sea Independent JV partner

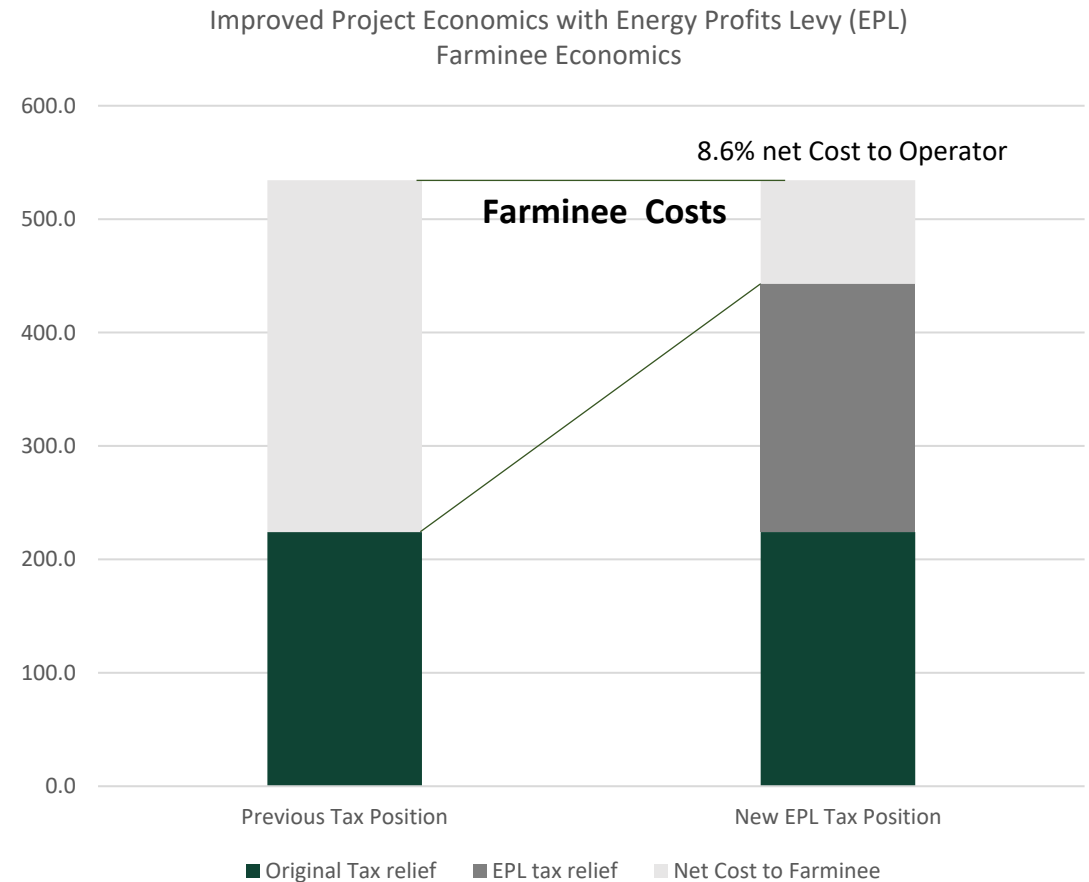


Energy Profits Levy – Super-deduction

New Investment Allowance creates super deduction against project costs and mitigates CAPEX escalation



- Investment & Capital Allowance is a “super-deduction” introduced to enhance domestic UK Oil and Gas production
- 91.4% deduction on CAPEX spend
- 109% deduction for CAPEX on decarbonisation items
- Allowance provides significant protection from cost inflation
 - \$100m increase in capex has \$8.6m cost post allowance
 - \$100m increase in decarbonisation items results in \$9m gain post allowance
- Items in decarbonisation include wind turbines, solar panels and battery storage etc
- Existing Gas producers are actively seeking investments in developments to take advantage of the allowance



Key Milestones in Asset Advancement

Accretive milestones in portfolio development

Phase I Development – First Gas 2025



- ✓ Acquisition of 100% of UK SNS License P2607
- ✓ License is an aggregation of former ConocoPhillips production assets
- ✓ Resource Base
 - Phase I – 215 Bcf 2C Contingent
 - Phase II - 139 Bcf 2C Contingent
 - Phase III – 141 Bcf P50 Prospective
- ✓ UK gas price 40p per therm
- ✓ A highly skilled O&G team with SNS experience assembled to undertake project advancement



- ✓ 41% Increase in Phase I Resource
- ✓ ERCE 2022 CPR completed
- ✓ Phase I assigned 301.5 Bcf 2P Reserves
- ✓ 125% increase in project target to 0.8 Tcf across 3 Phases
- ✓ Concept Select Report “Letter of no objection” received from NSTA
- ✓ UK gas price at 400p+ per therm
- ✓ Project expenditure 35% below budget for FY 21/22
- ✓ Commencement of FEED
- ✓ Industry Partner Negotiations
- ✓ Shell Agreement for Phase I Engineering Study

Phase II and III



- ✓ Commence Phase 1 FDP
 - ✓ Geophysical and Geotechnical Survey tenders
 - ✓ Phase 1 Industry partner secured via Partial Divestment to Rock Rose
 - ✓ FDP Submission to NSTA
- Phase I FDP No Further Technical Questions
 - Phase I FID
 - Completion of Gas Transport & Processing agreements
 - Platform & Pipeline contract award (EPC/EPIC)
 - Phase I production drilling contracts award



- Platform & Pipeline installation & commissioning
- Commence production drilling
- 2025 - First Gas
- All Phase I wells on-stream
- Phase II FID
- Commence Phase II development of Hodgkin and Lovelace
- Phase III exploration (e.g. McLaren Prospect with tie-back to Sommerville)

Phase 1 Development

Development



Field Development Plan (FDP) submitted to NSTA (June 2023)



ERCE audited 2P Reserves estimate **301.5 Bcf**

- 1P estimate is **180 Bcf**
- Six production wells



Peak production rate estimated at c. **140 mmscf/d**

- Approximately **160 TJ/d**

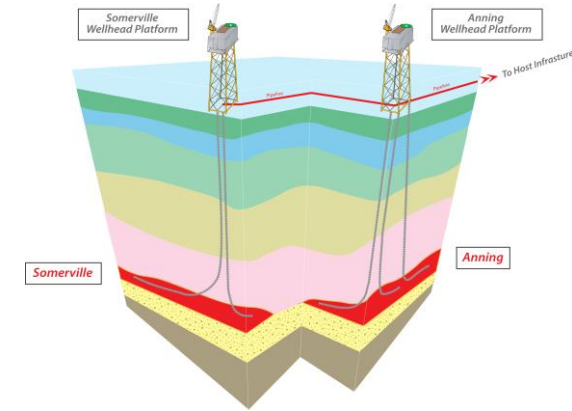


Greenfield Development Concept Identified

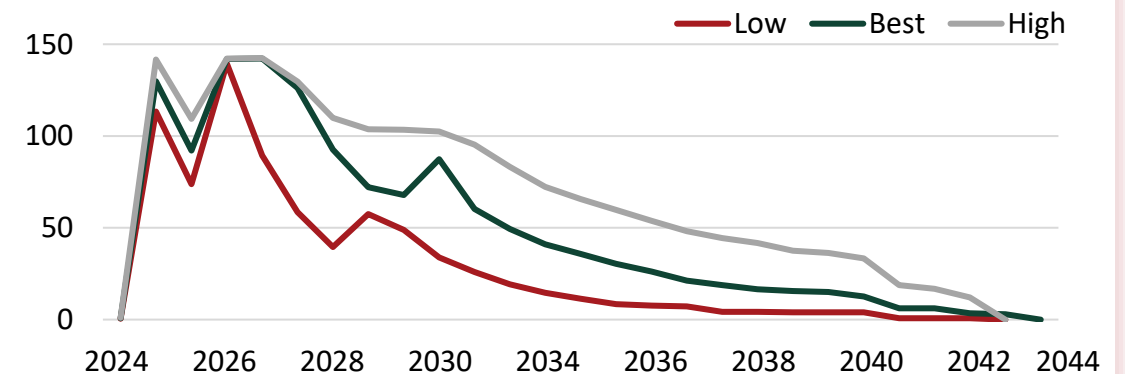
- Two minimum facility, unmanned platforms
- Export via Shell Leman Alpha Platform
- Gas delivery to Bacton Gas Terminal



Phase I infrastructure can then be used to monetise Phase II and Phase III resources



Anning + Somerville monthly raw gas production forecasts



Phase I Development

Anning Gas Field

2P Reserves



- **145 Bcf** of gas
- **0.192 MMbbls** of condensate

Planned development:

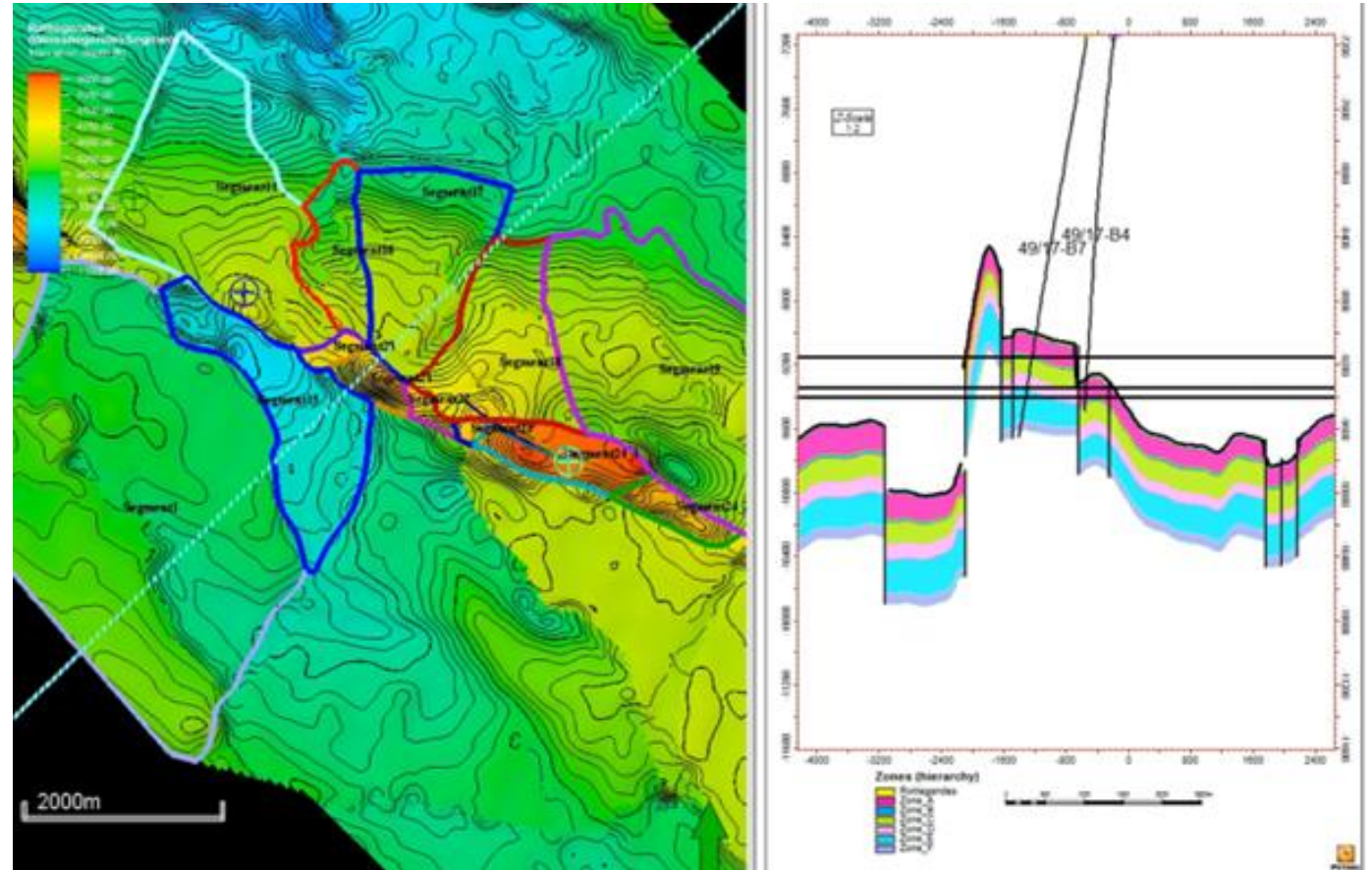


- Three horizontal multi-frac wells
- Minimum facility unmanned platform
- Gas export via Shell infrastructure
- Gas delivery to Bacton Gas Terminal

Historical Single Frac in well 49/17-14



- Initial production at **14 mmscf/d**
- EUR **13 Bcf** from this well



Phase I Development

Somerville Gas Field

2P Reserves



- **156.5 Bcf** of gas
- **0.208 MMbbls** of condensate

Planned development:

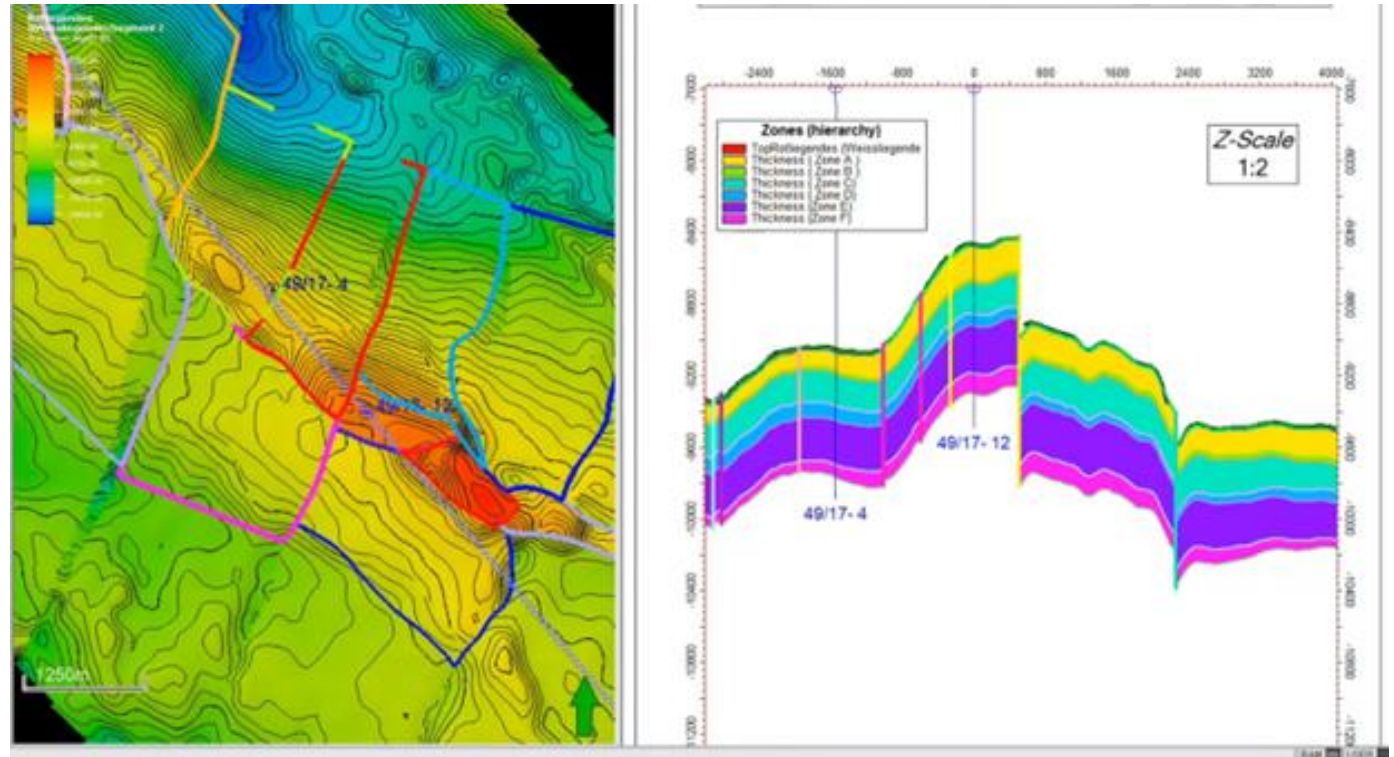


- Three horizontal multi-frac wells
- Minimum facility unmanned platform
- Gas export via Shell infrastructure
- Gas delivery to Bacton Gas Terminal

Historical Single Frac in well 49/17-14

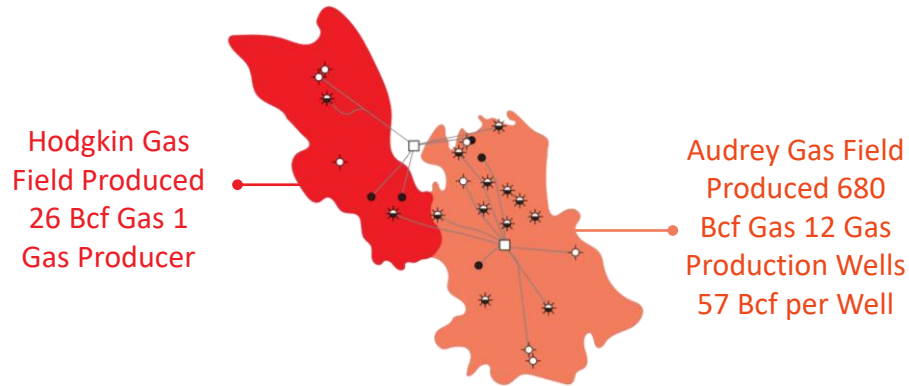


- Initial production > **45 mmscf/d**
- EUR **46 Bcf**



Phase II Development

Hodgkin & Lovelace



H O D G K I N

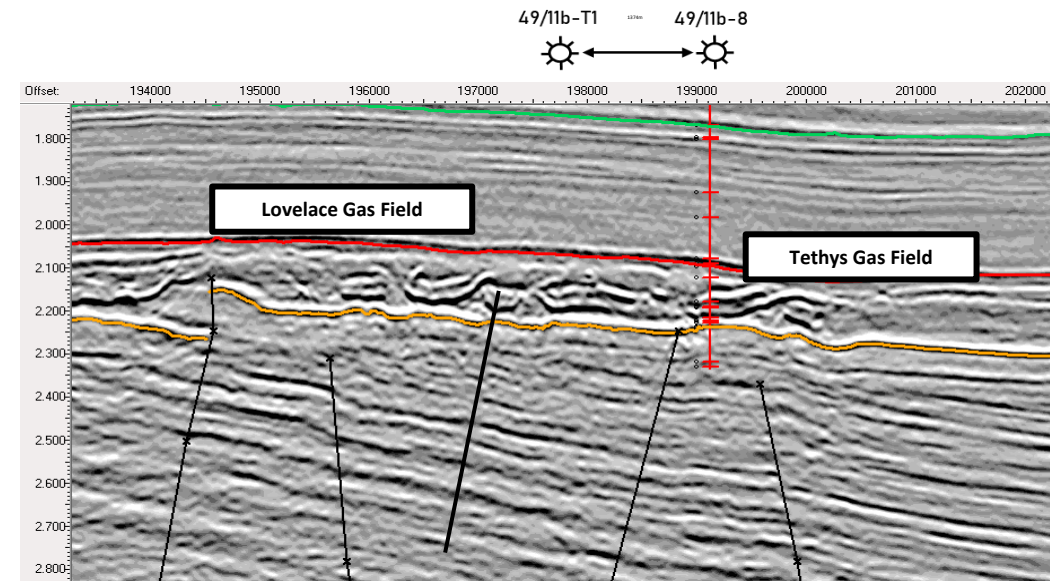
- 2C Resources **100 Bcf**
- Subsurface work ongoing to refine reservoir model
- Single well historically produced **26 Bcf**
- Current mapping indicates significant undeveloped volumes

NEXT STEPS:

- Revised resource estimate
- Field development planning

L O V E L A C E

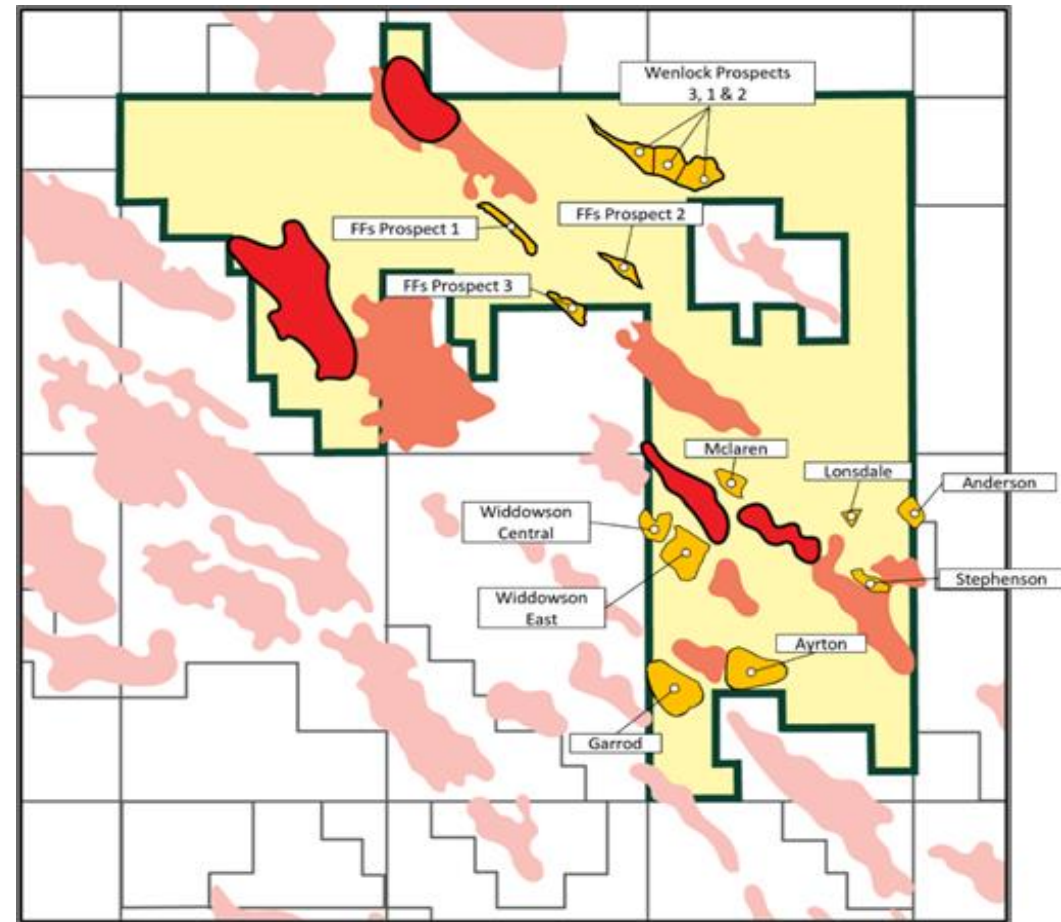
- 2C Resources **39 Bcf**
- Likely depends on Audrey development to support infrastructure
- Single well to south of field produced **18 Bcf**



Phase III Development

Exploration Prospects to follow up Phase I and II

- Xodus Group exploration study has identified **12** new exploration prospects
- All prospects are undrilled structural traps within the Rotliegendes Reservoir
- Phase III exploration inventory now totals **14** prospects
- Phase III 2U Prospective Resources total **344 Bcf** (un-risked)
- Prospect geological chance of success (GCoS) ranges from **32% to 54%** across the exploration portfolio (arithmetic average GCoS **43%**)
- High grading of inventory will see prospects economically evaluated and ranked prior to the selection of a prospect for drilling
- Potential for the McLaren prospect to be drilled as part of the Somerville development in 2024 or 2025





Annexure



Project Economics

Robust Phase 1 economics with Phase 2 & 3 to further increase value

Anning and Somerville – Project Economics (CPR)_{1,2}








1P (low case):
NPV₁₀ = £264

2P (base case):
NPV₁₀ = £514

3P (high case):
NPV₁₀ = £810

Key Project Parameters_{1,2}



 Phase 1 field development concept	6 production wells, 2 unmanned well head platforms
 Phase 1 2P gas resources	301 bcf
 Target Plateau Production Rate	140mmscf/d (~160TJ/d)
 Project Capex	£351m
 Base Case NPV ₁₀	£514m (at 81p/Therm)

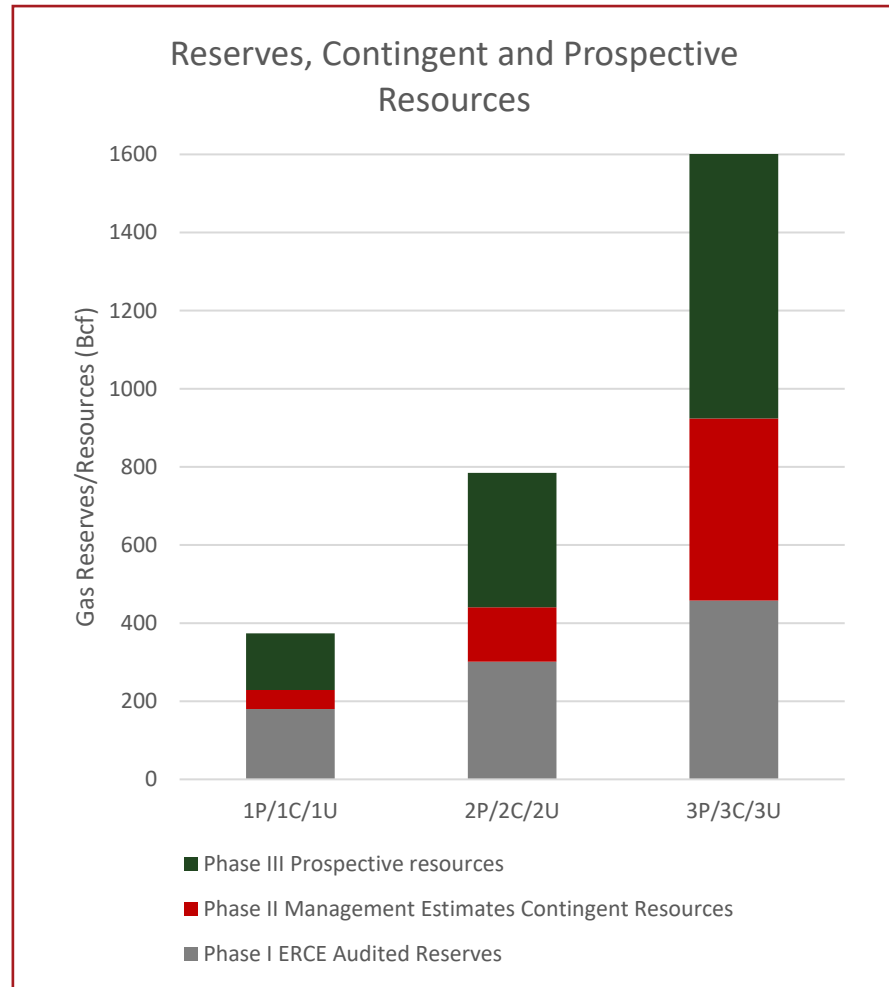
Note 1: For full details please refer to ASX Announcement dated 23 June 2022. The Company confirms that all material assumptions in the ASX Announcement continue to apply and have not materially change.


Note 2: The company is in the process of preparing an updated NPV post completion of FEED and FDP, as part of the FID decision making process





Resource Base

2P Reserves and 2C contingent Resources c.440 BCF across four discoveries



RESERVES ^{1,2} <div></div>				1P	2P	3P
PHASE I	49/17b	Anning	Sales Gas (Bcf)	73	145	245
			Condensate (MMbbl)	0.081	0.192	0.375
	49/17b	Somerville	Sales Gas (Bcf)	107	156.5	213
			Condensate (MMbbl)	0.119	0.208	0.325
			Total (MMboe)	31.2	52.4	79.7

¹ Reserves estimates are from ERC Equipoise Limited, Independent Competent Persons Report (CPR) entitled "Hartshead Resources NL Somerville and Anning Competent Persons Report" dated June 2022. See Qualified Persons Statement for reserves reporting notes. ² First reported on 23 June 2022

CONTINGENT RESOURCES ^{3,4} (BCF) 			1C	2C	3C	GCoS
PHASE II	49/6c, 49/11c	Lovelace	14	39	79	100%
	48/15c	Hodgkin	35	100	387	100%
PROSPECTIVE RESOURCES ^{3,5,7} (BCF) 			1U	2U	3U	Average GCoS
PHASE III EXPLORATION	P2607	14 Prospects	143	344	719	42%


³ Hartshead management estimates

⁴ First reported on 14 December 2020

⁷ Prospective resources are estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These prospective resources estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Exploration Prospect Inventory

Phase III

Prospect 	Recoverable Volume (Bcf) ^{3,5,7}			GCoS
	1U	2U	3U	P50
McLaren	18	27	39	0.54
Stephenson	36	47	60	0.43
Widdowson East	6	29	79	0.32
Widdowson Central	11	21	40	0.50
Lonsdale	5	16	31	0.50
Anderson	5	12	29	0.45
Garrod	16	52	125	0.50
Ayrton	25	74	146	0.41
Wenlock Prospect 1	4	19	55	0.36
Wenlock Prospect 2	1	5	19	0.36
Wenlock Prospect 3	1	5	17	0.36
FFs Prospect 1	3	11	26	0.41
FFs Prospect 2	8	19	37	0.35
FFs Prospect 3	4	9	17	0.34
Arithmetic Total	143	344	719	

³ Hartshead management estimates ⁵ First reported on 8 March 2022

⁷ Prospective resources are estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) and relate to undiscovered accumulations. These prospective resources estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

ESG Vision and Goals

▶ Developing an ESG strategy with impact, that aligns with our core values

- Hartshead are focused on developing an ESG strategy that is relevant to a growing European gas development company
- Our ESG planning process to date has developed a materiality assessment utilising the Global Reporting Initiative (GRI) 11 Oil & Gas 2021 Sector Standard.
- We have identified three key pillars of focus, but recognise significant overlap as part of our business ecosystem:



Environmental
Stewardship



Partner of Choice



Strong Governance

- We are currently working to define relevant and specific measurable targets to enable us to monitor, report, and continually improve our performance against reportable ESG benchmarks



ENVIRONMENTAL STEWARDSHIP

E    

Support UK's energy transition while minimising our environmental impact

PARTNER OF CHOICE

S    

Positively contribute to local communities through safe and equitable operations.

STRONG GOVERNANCE

G   

Build a culture based on strong governance and effective partnerships



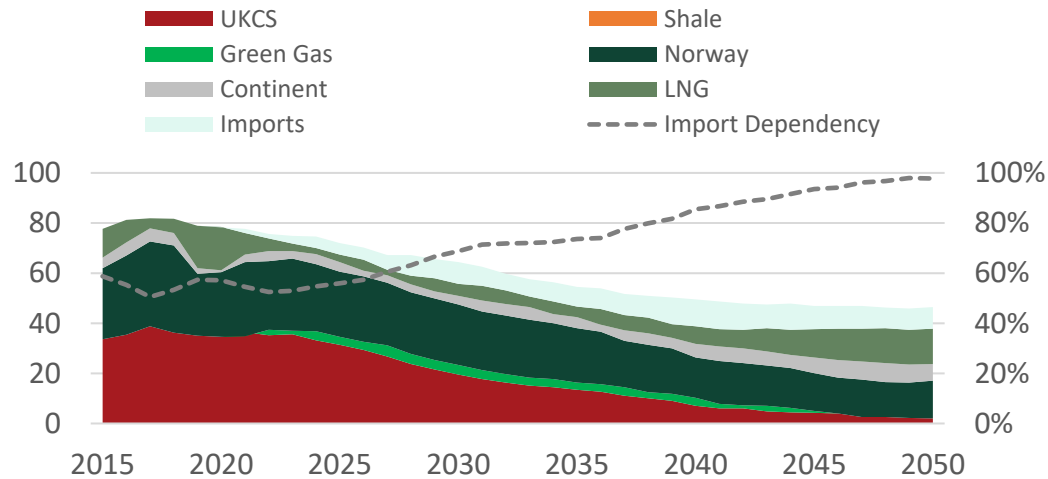
Net Zero Emissions & the Energy Transition

Southern gas basin has a central role to play in the UK energy security and 2050 net zero target

Growing UK gas import dependency points to greater future reliance on LNG volumes



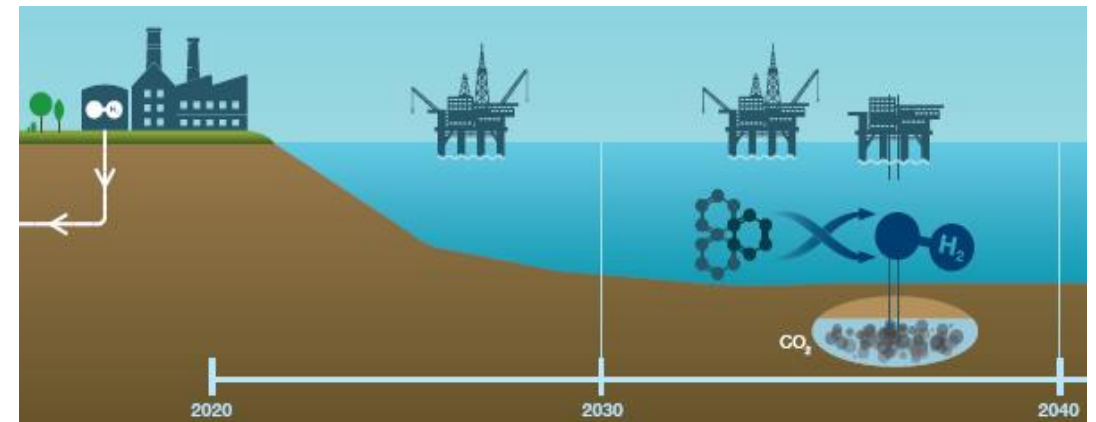
- Lower carbon intensive domestic gas is critical to the UK 2050 net zero target as import dependency grows
- Domestic UK gas production has less than half the average emissions intensity than imported LNG
- “Green LNG”, shipping costs and competition from SE Asia for LNG cargoes likely to lead to increased pricing



Future hydrogen-led Bacton Energy Hub identified by the NSTA



- Bacton is Hartshead’s planned processing terminal and gas could be used as feedstock for Blue Hydrogen
- Natural gas will also provide critical UK domestic & commercial heating support until hydrogen replacement is established
- Wind infrastructure within Bacton Catchment Area could provide power to offshore installations
- Hartshead offshore infrastructure could be used in future carbon capture and electrification projects



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