

# Quarterly Report

1 July to 30 September 2024



## Lion delivers green hydrogen agreement with Japanese and Korean majors in September quarter

Lion Energy Limited ("Lion" or "Company") is pleased to report excellent milestones achieved by the company in green hydrogen and oil and gas in 3Q 2024.

Highlights include:

- The execution of a Joint Development Agreement ("JDA") with DGA Energy Solutions Australia Pty Ltd (DGA), a wholly owned subsidiary of Mitsubishi Corporation, and Samsung C&T Corporation (Samsung C&T) to develop the Port of Brisbane ("PoB") Green Hydrogen Project (Lion 50%).
- \$3,200,000 received in accordance with the JDA
- The granting of a four-year extension in the East Seram PSC (Lion 60%).
- New seismic processed data received in East Seram PSC with improved imaging of the world-class Kobi and Waru prospects.
- 2025 East Seram PSC work program approved by our partner with a focus on high-grading prospects and drilling planning and preparations for a planned early 2026 well.
- Engagement with East Seram PSC farm-in parties continues to gain traction.
- During the quarter, gross crude oil production from Oseil and surrounding oilfields in the Seram (Non-Bula) PSC (Lion 2.25%) was 81,910 bbls (Lion's gross share 2,048 bbls). Daily production averaged 890 bopd (Lion's gross interest being 22 bopd).

**Mr Tom Soulsby, Lion's Chairman, commented:** *"The quarter was highlighted by the signing of the JDA with DGA and Samsung C&T for our first Hydrogen Hub in Brisbane. Whilst we now share risk with our new partners, the funding procured under this agreement should satisfy the capital required for project completion. Some \$3.7m in cash will return to Lion Energy Ltd and we now seek new projects for further growth. Good progress continued in our exciting East Seram PSC with receipt of valuable new data which will be key in selecting a drill target, approval of the 2025 work program and advances in our ongoing farmout effort"*

### Lion at a glance

- ASX listed oil and gas E&P company with a new green hydrogen business and two conventional PSCs in Seram Island, Indonesia.
- Expected to build Southeast Queensland's first commercial scale green hydrogen production and distribution hub
- Net production of around 25bopd from the Seram PSC which also contains the Lofin gas/condensate discovery.

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### Directors & Officers

**Tom Soulsby** Executive Chairman

**Damien Servant** Executive Director

**Russell Brimage** Non-Executive Director

**Chris Newton** Non-Executive Director

**Zane Lewis** Non-Executive Director

**Rowan Harland** Company Secretary

### For more information

**Tom Soulsby**

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## Green hydrogen update

Lion announced in August 2024 that it had, entered into a definitive joint development agreement with DGA Energy Solutions Australia Pty Ltd ("DGA"), a wholly owned subsidiary of Mitsubishi Corporation, and Samsung C&T Corporation ("Samsung C&T") to jointly develop its green hydrogen hub at Port of Brisbane (the "Project").

Under the signed agreement, DGA and Samsung C&T will initially pay a total of A\$3.7m to Lion for historical and ongoing pre-construction costs. In return, DGA and Samsung C&T will each become entitled to 25% interest in the Project. Subsequently, upon the parties agreeing to start construction, DGA and Samsung will procure debt financing for a total amount of A\$6.3 million. It is expected that the overall funding commitment associated with the joint development agreement will satisfy the capital requirement to complete the Project. As a result of the joint development agreement and subject to the parties agreeing to commence construction, the Project company, Lion H2 Energy Pty Ltd equity holders will be Lion Energy 50%, DGA 25% and Samsung C&T 25%.



*Image 1: JDA signing ceremony August 26, 2024 attended by Alana Barlow, Qld Deputy DG for Hydrogen and Future Fuels, Mr Hwanjin Chung, Acting DG, Korean Ministry of Environment, Qld Gov't Ministers Mick De Brenni and Lance McCallum, along with the signing parties (Lion, DGA and Samsung C&T) with Joanna Kay from the SEC.*

On 30 September 2024, Lion received its first payment from its partners, totalling \$3.2 million representing their share of historical costs. Upon future agreeance to begin construction, Lion's partners, DGA and Samsung will procure debt financing for a total amount of A\$6.3m. It is expected that the overall funding commitment associated with the joint development agreement will satisfy the capital requirement to complete the Project.

The hub aims to capitalise on the rapidly evolving requirement for the heavy-mobility transportation industry to trend towards net-zero emissions. The PoB green hydrogen facility has been designed with a focus on public bus fleets, and the application of fuel cells providing onsite off-grid power to the Queensland construction and mining sectors and to supply industrial users. Several Australian state governments, including the Queensland State Government, have mandated to phase out the manufacture of diesel public buses from CY 2025. Hydrogen fuel cell buses produce no carbon emissions and are likely to account for a substantial percentage of future public bus fleets.

The PoB project location is proximate to the majority of Brisbane's 70+ bus depots, and also to the significant heavy vehicle traffic to and from the Port. The site will initially produce and dispense some 420kg/day of green hydrogen but has the ability to quickly double production to respond to increasing demand. The image below is the architects drawings for the development approval submission and should closely resemble the actual hydrogen generation and refilling station.



*Image 2: Image of approved development plan*

On the marketing side, Lion has been working closely with the bus and genset supply industries on their requirements around refuelling reliability and we are continuing to respond to requests for proposals for green hydrogen supply for bus operators in South East Queensland. We are also responding to enquiries for hydrogen supply to the fuel cell genset market as well as for other industries. We are currently negotiating a definitive agreement for our first offtake deal.

As part of recent announcements, Lion presented the following provisional roadmap and has responded to the objectives as listed in Table 1, in the quarter under review.

**Table 1: Lion's provisional green hydrogen roadmap vs response (as at end September 2024)**

Stated objective	Response
<b>Stage 1</b>	
Publish broad green hydrogen strategy	Completed
Register business name	Completed
<b>Stage 2</b>	
Establish team of hydrogen experts	Completed
Appoint experts to systematically analyse optimal electrolyser locations in Australia	Completed
Review the best value and fit for purpose solar, wind and electrolyser technologies	Completed
The review of opportunities in which Lion may be able to combine its expertise and resources with a suitable market and partner to progress a green hydrogen development using identified electrolyser locations and appropriate technologies	Joint venture secured
Expand the scope of the Advisory Board to review opportunities in H2 distribution and hydrogen fuel cells for heavy equipment and vehicles	Lion has developed inhouse and consulting expertise in this area. Hydrogen Advisory Board disbanded
<b>Stage 3</b>	
Appoint consultants to undertake a feasibility study to ascertain the economic viability of a short listed opportunity and the anticipated cost	Wasco FEED announced
Secure any required land rights conditional upon Lion proceeding with an opportunity	Completed and announced
Investigate investing in a pilot or demonstration plant including H2 distribution and hydrogen fuel cell heavy equipment and vehicles	Completed and announced
<b>Stage 4</b>	
Subject to a positive feasibility study, progress the opportunity by participating in the development of a smaller or larger solar/wind farm and relevant energy storage facilities to produce green hydrogen at low cost for domestic or export markets	Exploring opportunities at first site
Form a joint venture with a suitably experienced and funded partner	Secured and announced



## Oil and Gas Operations update

### East Seram PSC

Lion holds a 60% interest and is Operator of the 1,300 km<sup>2</sup> East Seram PSC. A four-year extension to the PSC has been approved effective 17 July 2024 to 16 July 2028.

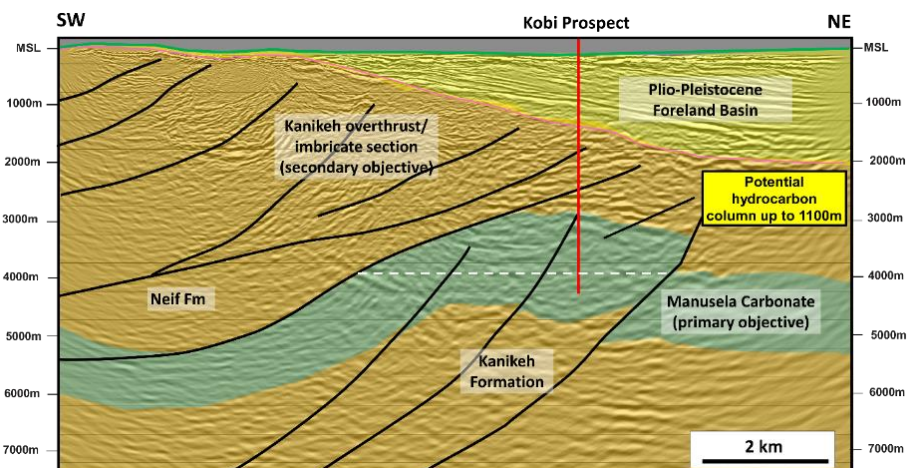
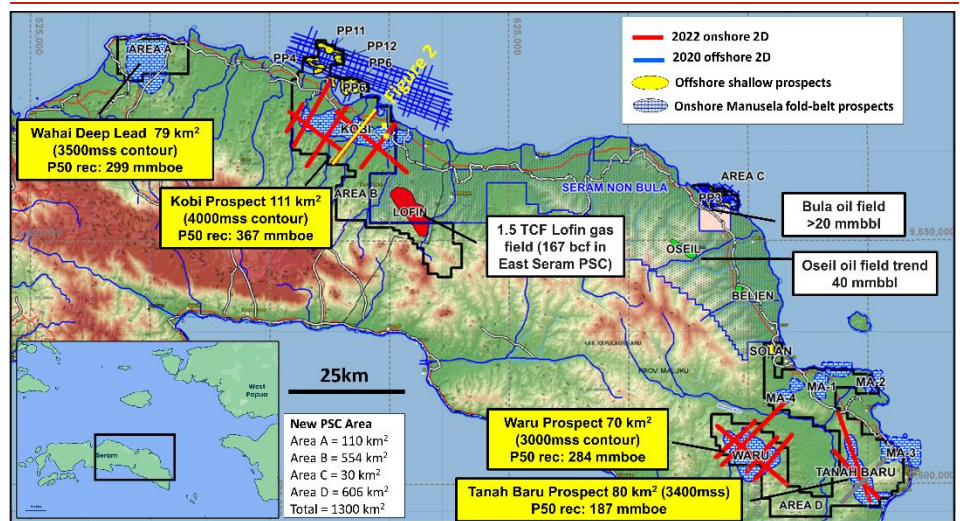
Since acquiring the PSC in 2018, Lion has conducted an active exploration program. A 664 km offshore 2D survey targeting the Plio-Pleistocene foreland basin play in 2020 delineated an attractive shallow oil portfolio. From June 2022 to January 2023 Lion recorded 14 2D seismic lines totalling 200km and a 1,000 station gravity survey. Three exceptional prospects emerged from this onshore survey, Kobi, Waru and Tanah Baru.

The 110 sq.km Kobi Prospect is a robust feature partly analogous to the nearby 1.5 TCF Lofin discovery. The seven (7) new 2D seismic lines recorded indicate the P50 (unrisked) prospective resource<sup>1</sup> potential for Kobi is 357 mmboe with upside (P10) potential over one billion boe. In the southeast area of the PSC, which is modelled to be more oil prone, Lion recorded 5 lines over the 70 sq.km Waru fold-belt prospect. The P50 (unrisked) prospective resource<sup>1</sup> potential for Waru is 284 mmboe with upside (P10) potential of 766 mmboe. Two seismic lines were recorded over the Tanah Baru Prospect, a large structure with areal closure up to 80 sq.km and P50 (unrisked) prospective resource<sup>1</sup> potential of 187 mmboe with upside (P10) potential of 679 mmboe.

Pre-stack depth migration ("PSDM") processing of the new 2022 lines over the high-graded Kobi and Waru Prospects was completed during the quarter with results delivered to Lion in early September. Analysis of the new data is ongoing with initial results confirming valuable improvements in data quality.

During the quarter the 2025 Work Program was approved by the Joint Venture and is awaiting approval by the Indonesian regulator. Additional geological and geophysical studies are planned to include completing interpretation and analysis and integration of new PSDM data. This work which will be focussed on determining the best prospect and drill location, will guide well planning activities scheduled for H2 2025 for a planned early 2026 well.

**Figure 3: East Seram PSC – New area effective July 17 2024**



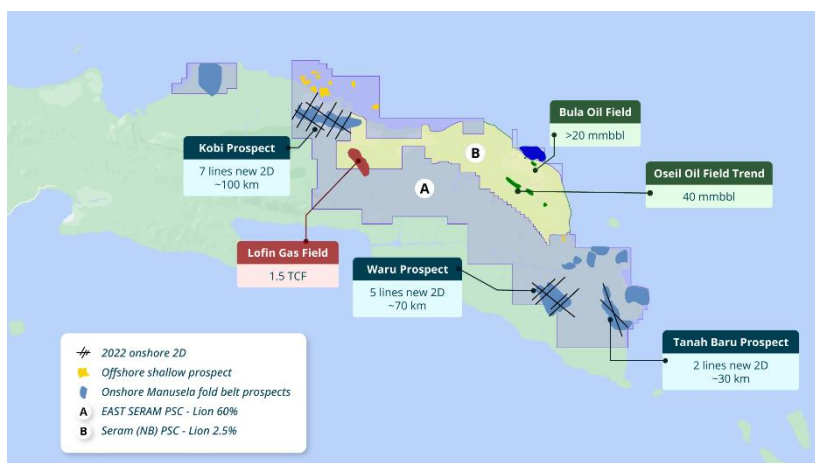
**Figure 4: Geoseismic section showing interpretation on PSDM line over the Kobi Prospect**

## Seram (Non-Bula) PSC

Lion, via its wholly owned subsidiary Lion International Investment Ltd, holds a 2.5% participating interest in the Seram (Non-Bula) PSC ("SNB PSC"), located onshore Seram Island in eastern Indonesia.

Lion expects the regulatory required divestment of 0.25% interest in Seram (Non-Bula) PSC to be finalized in 2024. At completion, Lion's participating interest in the Seram (Non-Bula) PSC will reduce to 2.25% from 2.5% currently.

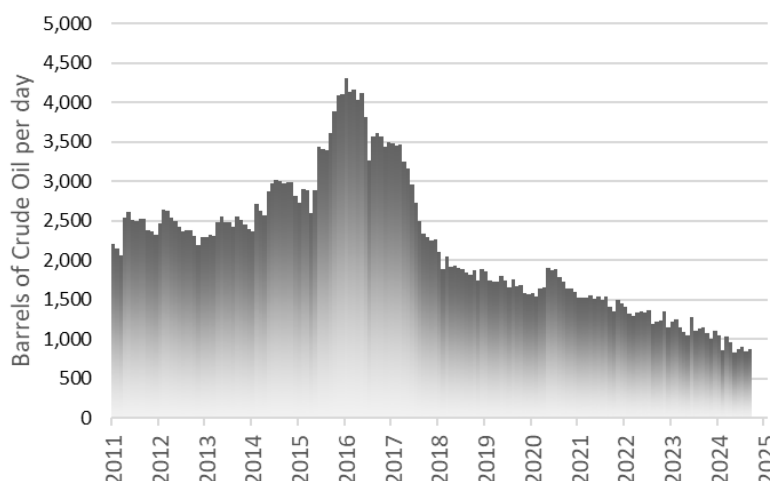
Figure 5: Seram (Non-Bula) Block PSC – location map



## Production

During the quarter, gross crude oil production from Oseil and surrounding oilfields was 81,910 bbls (Lion's gross share 2,048 bbls). Daily production averaged 890 bopd (Lion's gross interest being 22 bopd). Lion received lifting proceeds during the quarter of US\$198,122 received in July 2024, this being Lion's entitlement from the June 2024 crude oil lifting. A further US\$84,909 from this lifting is expected to be received by Lion early November 2024, being 30% retention retained for 3 months under government legislation. Crude oil available for lifting at 30 September 2024 was 72,787 bbls.

Chart 1 Seram (NB) Block – daily production per calendar month (bopd)



The next crude oil lifting is expected late December 2024.

Operating costs were US\$32.23 per barrel for the Quarter.

## Related Party Payments

During the quarter, the Company made payments of US\$176,000 to related parties and their associates. These payments relate to the existing remuneration agreements for the Executive and Non-Executive Directors.

## Summary of petroleum tenements held as of 30 September 2024

	% interest	Tenement	Location
Held at end of quarter	60%	East Seram PSC	Seram Island, Indonesia
	2.5%	Seram Non-Bula PSC	Seram Island, Indonesia

**ENDS**

This ASX announcement was approved and authorised for release by the Board of Directors.

## Qualified petroleum reserves and resources evaluator requirements

In accordance with ASX Listing Rule 5.43 the Company confirms that references to petroleum reserves, contingent resources and prospective resources have previously been announced (7/9/2018, 10/9/2018, 04/03/2019, 13/04/2021 and 16/06/2021). The Company confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all the material assumptions and technical parameters underpinning the estimates in this announcement continue to apply and have not materially changed.

## Glossary

bbl: barrels	JV: joint venture	PSC: Production Sharing Contract
bcf: billion cubic feet	KB: Kelly bushing	psi: pounds per square inch
bopd: barrels oil per day	mmscfd: million standard cubic feet of gas / day	tcf: trillion cubic feet
BOP: blow out preventer	mmbbl: million barrels	Sq.km: square kilometres
ESP: Electric submersible pump	mmboe: million barrels oil equivalent	ss TVD: sub-sea true vertical depth
FTP: first tranche petroleum	mss: metres subsea	TD: total depth

<sup>1</sup>Prospective resources are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects. Prospective resources have both an associated chance of discovery (geological chance of success or GCOS) and a chance of development (economic, regulatory, market and facility, corporate commitment, or political risks). The chance of commerciality is the product of these two risk components. There is no certainty that any portion of the prospective resources will be discovered and, if discovered, there is no certainty that it will be developed or, if it is developed, there is no certainty as to either the timing of such development or whether it will be commercially viable to produce any portion of the resources.