

15th March 2022

Lion at a glance

- ASX listed oil and gas company with conventional PSC's in Indonesia.
- Focus on conventional oil and gas production and development, appraisal and step out exploration risk opportunities.
- Exploring green hydrogen opportunities in Australia.
- Net production of around 37bopd from the Seram PSC which also contains the 1.5TCF Lofin gas/condensate discovery.
- Leveraging synergies in conventional assets and access to both infrastructure and markets.
- Executive team and strategic investors with impressive track records for value creation in Asia.

Contact

Lion Energy Limited

ABN 51 000 753 640

ASX Code: LIO

Suite 1

295 Rokeby Road

Subiaco WA 6008

Australia

Tel +61 8 9211 1500 | Fax +61 8 9211 1501

info@lionenergy.com.au

www.lionenergy.com.au

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
Arron Canicais	Company Secretary

For more information contact

Tom Soulsby

+61 487 527 958

tsoulsby@lionenergy.com.au

ARRB study conclusion further guides Lion's Green Hydrogen focus

Lion Energy Limited ("Lion" or "Company"; ASX: LIO) appointed the independent research group, Australia Road Research Board ("ARRB"), to prepare a high-level business case to determine the competitiveness of green hydrogen and fuel cell electric buses (FCEB's) to the public sector bus industry. Lion is pleased to report that the study has concluded, and the strategically important results have been presented to the Queensland Government.

- **The key conclusion of the study is that FCEB's are a core Zero Emission Bus (ZEB) technology alongside Battery Electric Buses (BEB's) largely due to relatively high BEB infrastructure costs.**

Lion Energy's Chairman, Tom Soulsby, responded to the study's conclusions saying that *"the key conclusions of the work support Lion's position on green hydrogen outlined in our strategy paper released back in November 2021."*

"We are now working with key players, including our partners, to submit proposals to transport ministries across Australia to propose zero emission solutions and solve the problems that the transition presents."

According to ARRB, two key ZEB technologies will effectively support a transition to net zero emissions by Australian states.

Battery Electric Buses (BEB's) enjoy low operating costs, but are constrained by limited depot space for charging infrastructure, high infrastructure investments (chargers, energy storage and electricity connection/substation upgrades), shorter range and longer charging times of BEBs likely requiring additional BEBs to maintain service levels.

Fuel Cell Electric Buses (FCEB's) are currently more expensive, but have fewer operating constraints, such as small footprint of H2 refuelling infrastructure, fast refuelling, no range restrictions (comparable with current internal combustion engine buses) and simpler depot management. FCEB (vehicle and gas) purchase prices will further reduce as the technology matures and production volumes increase.

As such, FCEBs will be part of the future ZEB mix to complement BEBs.

- ARRB went further to say that this goal requires targeted government support to encourage investments into FCEBs and H2 refuelling infrastructure.
- A systematic approach to the ZEB transition is required with more flexible bus operation contracts and stakeholder collaboration involving governments, bus operators, OEMs, H2 and electricity suppliers being key elements.

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