# **ASX** Announcement

7 September 2023



# **Corporate Presentation**

Buru Energy Limited (Buru) (ASX: BRU) is pleased to provide its latest corporate presentation. The presentation made by the Buru Chief Executive Officer Thomas Nador at the Good Oil Conference held today in Perth.

### **Authorisation**

This ASX announcement has been authorised for release by the Chair of Buru Energy.

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**Energising the future of the Kimberley** 

7 September 2023





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All references to \$ are in Australian currency, unless stated otherwise.



### **BURU ENERGY OVERVIEW**

## Committed to delivering material growth as an integrated energy business



### Who we are

Founded in 2008, we are an ASX listed diversified energy company focused on exploration and production of hydrocarbon and alternative energy resources in Australia.

Buru has been the most active onshore WA explorer since its formation and is the only E&P company in the Canning Basin with contemporary production history.

# **Key Stats**

Shares on issue ~596 million

Market Cap ~\$60 million

>> Share Price \$0.10

Cash at 30 Jun'23 ~\$11 million, with no debt

+ funds received from EP510 asset sale \$5m (Aug'23)

### What we do

We explore for and develop hydrocarbon resources in the onshore Canning Basin of Western Australia whilst participating in the new energy economy through our subsidiary companies: **GeoVault** (Carbon Capture and Storage (CCS)), **2H Resources** (natural hydrogen and helium exploration), and **Battmin** (battery minerals exploration).

# Our goal

Deliver material benefits to our shareholders, the Traditional Owners and communities of the areas where we operate.

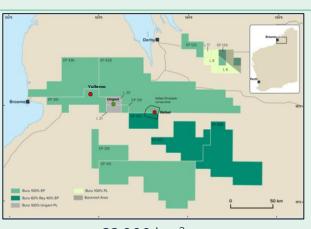


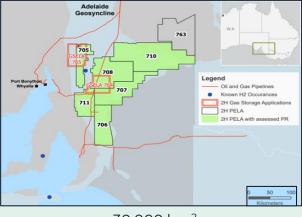
### **OUR ASSETS**

# Strategic operated acreage position to support exploration, development and energy transition and expansion opportunities

# **Onshore Canning Basin, WA**







Operating Area ~22,000 km<sup>2</sup>

~30,000 km²

12 (7 EPs, 5 PLs)

8\*

# **Buru Ownership**

60-100%

100%

## Strategy

- Establish an energy hub in the Northwest of WA as part of the Rafael gas development.
- Appraise, develop and commercialise the Rafael 1 gas and condensate discovery via a two phased project.
- Progress prospect and lead maturation and exploration drilling to provide backfill and growth.
- Leverage Carbon Capture and Storage potential in the basin to support Rafael and third party generated emissions reduction.

- Natural hydrogen and helium exploration and development.
- Preferred applicant for 6 Petroleum Exploration Licences (PEL).
- Preferred applicant for 2 Gas Storage Exploration Licences (GSEL).
- Granting of permits subject to valid land access agreements under the Native Title Act 1993.

### WHY INVEST IN BURU?

# Complementary asset and value streams focused on shareholder returns

# Major Gas Development

- 100% owner of first high potential, high quality, liquids rich conventional gas discovery in the Canning Basin (Rafael 1)
- 3D seismic survey underway. Appraisal drilling planned for 2024.
- Phased project development strategy confirmed.

2

# High Quality Exploration Portfolio

- Significant running room in Canning Basin with dominant acreage ownership with multiple leads and prospects.
- Exploration and development opportunities for Rafael backfill and/or growth.

3

# **Conventional Oil**

- 100%¹ owner of Ungani Oilfield and production infrastructure.
- Strong production history and customer relationships.
- Exploration opportunities to backfill production.

4

# Part of the New Energy Ecosystem

- Unparalleled understanding of Greenhouse Gas (GHG) storage potential in the Canning Basin.
- Carbon Capture and Storage for third party emitters and own development.
- Natural hydrogen and helium exploration and development.

# Corporate Strength

- Experienced board and management.
- Operating and commercial capability.
- Strong Traditional Owner relationships.
- Cash on hand, no debt.



<sup>&</sup>lt;sup>1</sup> Following Roc Oil's agreement to assign 50% interests of the Ungani Oilfield to Buru. Transfer completion expected 30 September 2023, subject to statutory Government approvals.

# 1

## PURSUING THE FIRST CONVENTIONAL GAS DEVELOPMENT IN THE KIMBERLEY

With full ownership of the Rafael discovery, focus is on commercialising the resource and securing a development partner

A seriously underexplored sedimentary basin, 9 times the size of the Perth Basin has delivered its first significant conventional wet gas discovery.

Rafael-1 is a high potential, high quality, liquids rich discovery with a gas column of 165m (proven) up to 630m (based on pressure data).

# A potential world scale conventional resource

- Resource assessed by ERCE to hold between 59 bcf and over 1 TCF of gas and up to 20.5 MMstb of condensate (probabilistic)<sup>1</sup>.
- Buru deterministic resource assessment provides improved level of confidence in resource volumes to underpin project development options.

# Feasibility studies confirm several project options

- Third party studies confirm several feasible project options, with a <u>2-phase</u> development providing highest value.
- Rafael is stand-alone commercial, even at this early stage.
- Progressing to next stage of engineering.
- Canning Basin CCS is a key enabler for development.

# Disciplined execution to deliver value

- 3D seismic survey underway with initial results by year end.
- Appraisal well planning and Long Lead Item procurement for 2024 drilling progressing.
- Development partner selection progressing to deliver a regionally significant project.



<sup>&</sup>lt;sup>1</sup> Refer to the ASX release of 26 April 2022 for full definitions and disclosures. Buru is not aware of any new information or data that materially affects this assessment and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



## RAFAEL 1 - A SIGNIFICANT CONVENTIONAL GAS AND CONDENSATE DISCOVERY

# The Eureka moment for Buru, the Kimberley and the Western Australian resource industry

Rafael 1 well was drilled in 2021 on a large structure with gas encountered in three zones.

Rafael geology is a proved Canning Basin play type with conventional reservoir in Ungani Dolomite equivalents and a new play type in Upper Laurel dolomites.

Encouraging initial flow rates of 7.5 mmcfd <u>from a restricted zone</u> with excellent quality gas <2% CO2 and 40 bbls/mmscf condensate (light oil).

Wide range of resources as expected at early stage of evaluation<sup>1</sup>:

- 1C of 59 Bscf is the gas seen in the well,
- **3C** of 1.024 TCF is the inferred gas in the structural closure and backed up by pressure data,
- 2C of 260 Bscf is a probabilistic calculation with no physical basis.

3D seismic survey underway and is expected to yield results late 2023 and inform appraisal well drilling in 2024



Rafael 1 flow test - March 2022

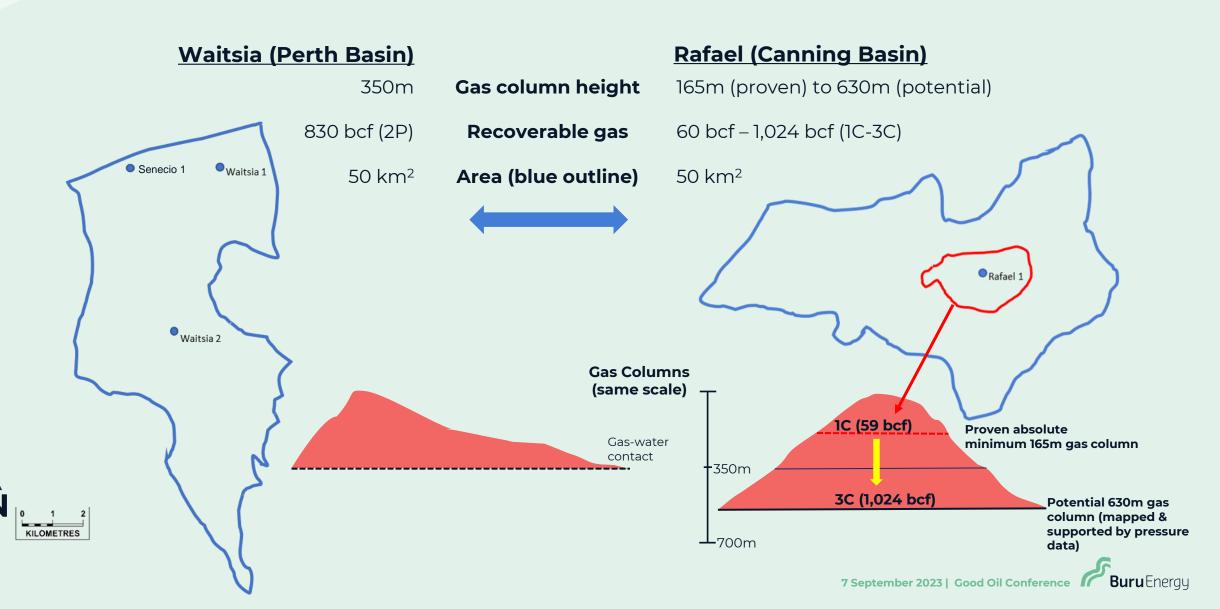


Rafael 3D seismic survey underway



<sup>&</sup>lt;sup>1</sup> Refer to the ASX release of 26 April 2022 for full definitions and disclosures. Buru is not aware of any new information or data that materially affects this assessment and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

Current 3D seismic survey will provide confirmation of structure size and confirm potential gas column extent



# 1 RAFAEL IS STAND-ALONE COMMERCIAL, EVEN AT THIS EARLY STAGE

Concept work to date confirms credible phased development with CCS as an enabler





# PHASE 1 DEVELOPMENT - TARGETING THE TRANSFORMATION OF THE KIMBERLEY ENERGY SYSTEM

# Domestic hybrid LNG and renewables for power generation with condensate export

Objective
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Develop a small footprint, scalable LNG supply stream, complemented by 50% renewable energy supply via solar and battery storage, to meet the energy needs of Kimberley.

### Resource

Low Case

First Production: 2027

Project Life: 20 years

**Key Project Parameters** 

No. of wells:

1-2 (Rafael appraisal wells completed as producers)

Gas flowrate: 8 – 16 mmscf/d

Product streams: LNG (0.05 – 0.1 MTPA)

Condensate (225 -450 bopd)

- Gas gathering system & liquids separation close to wellsite,
- Pipelines for gas and condensate to Central Processing Facility (CPF) at Energy Hub,

# Indicative basis of design

- Indicative basis Small scale, containerized LNG facility at Energy Hub,
  - LNG trucking to Broome and regional communities, condensate trucking to Broome, and
  - 50% renewable power generation (photovoltaic and battery storage) at each site.

### Market

Domestic power for Broome, Derby, Camballin/Looma, Fitzroy Crossing and Halls Creek, with demand creation opportunities for other industrial gas customers. Condensate for SE Asian refineries.







# PHASE 2 DEVELOPMENT - RESOURCE APPRAISAL DRIVEN OPTIONS

# Building on Phase 1 to deliver a large-scale project with Carbon Capture & Storage

# Methanol

# PHASE 2 Demetic LNG for power generation with condensate export Small to large capacity methanol production for export production

# **Ammonia**



# **LNG Export**



First Production:

**Project Life:** 20 years

**No. of wells:** 5 – 10

**Gas flow rate:** 55 - 110 mmscf/d

**Product streams:** LNG for domgas power (0.03 MTPA)

2029

Methanol (0.5 – 1.0 MTPA)

Condensate (2,200 – 4,400 bopd)

Relative impact of CCS on low reservoir CO<sub>2</sub> Rafael development:



2029

20 years

5 – 10

55 - 110 mmscf/d

LNG for domgas power (0.03 MTPA)

■ Ammonia (0.5 – 1.0 MTPA)

Condensate (2,200 – 4,400 bopd)



2029

10 years

Up to 12

280 mmscf/d

LNG for domgas power (0.03 MTPA)

LNG for export (~1.6 MTPA)

Condensate(5,100 bopd)







The transformation from gas explorer to developer and producer

Confirmed

phased

development

# **3D Fast-track** interpret'n

Complete 3D seismic

Commit to

LLIs for 2024

appraisal

**Development Partner** 

Shortlist

# **Near Term Objectives**

Rafael

production

test

Create and maintain value ahead of Development Partner selection

Drive certainty of outcome for development by managing risks and reducing subsurface and development uncertainty

studies

Rafael

discovery

Set up development for value realisation stage

Rafael

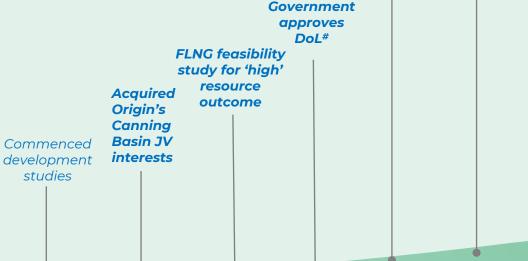
Independent

resource

assessment

strategy Strengthened balance sheet via Carnarvon asset sale

Commenced 3D seismic survey



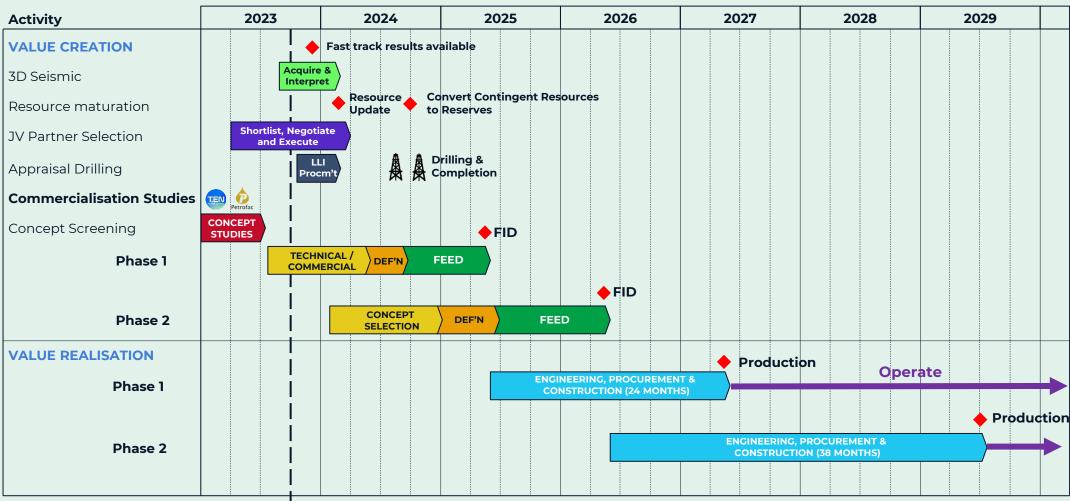
- Achieved - On track

#Declaration of Location

# 1

# **EXECUTION STRATEGY TO MITIGATE SUBSURFACE UNCERTAINTY**

# Phased development to deliver early cashflows on known resource, and significant upside on appraisal success



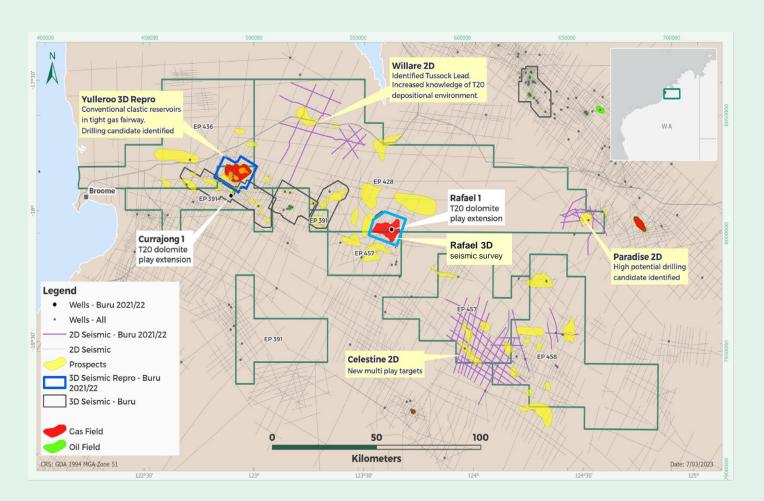
Timeline is indicative and is subject to capital availability, future discussions with potential asset partners, offtake arrangements, land access and regulatory approvals.



# **CANNING BASIN PIPELINE OF LEADS AND PROSPECTS**

# A seriously underexplored sedimentary basin the size of France

- Recent reprocessing of 2021/22 seismic data and well information has provided significant insights
- Prospects and leads to underpin a targeted future exploration program to provide expansion opportunities for Rafael development





# CANNING BASIN CONVENTIONAL OIL

# Full ownership of the Ungani Oilfield provides Buru with strategic optionality

# **Asset overview**

No. of Permits	<ul> <li>5 Production Licences</li> </ul>
Area	■ ~1,140 sq km
Interest	<ul> <li>100%<sup>1</sup> interest in the Ungani Oilfield, and the only oil production infrastructure in the Canning Basin</li> </ul>
	<ul><li>100% interest in Lennard Shelf</li></ul>
Key Assets	<ul> <li>Ungani Oilfield</li> </ul>
Production (gross)	<ul> <li>~185,000 bbls transported via road to Wyndham Port for export (CY22)</li> </ul>
	<ul> <li>Production pre-suspension (Aug'23) ~ 450 bopd</li> </ul>
	<ul> <li>Last crude lifting for CY23 on 28 August.</li> </ul>
Strategy	<ul> <li>Operations suspended until Great Northern Highway (export route) to Wyndham Port is permanently re- established by Government.</li> </ul>
Next Steps	<ul> <li>Undertake technical, commercial and operational analysis to inform future Ungani operations.</li> </ul>
	<ul> <li>Continue to decommission and rehabilitate Blina facilities (L6/L7/L8).</li> </ul>



Ungani Production Facility



Crude Oil Road Train



Oil tanker at Wyndham Port



SE Asian Refineries



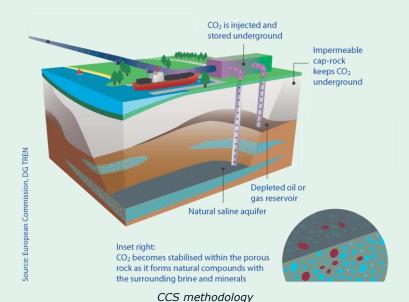


## **BURU IS PART OF THE NEW ENERGY ECOSYSTEM**

# Leveraging Buru competency and IP, subsidiary companies established to actively participate in the energy transition

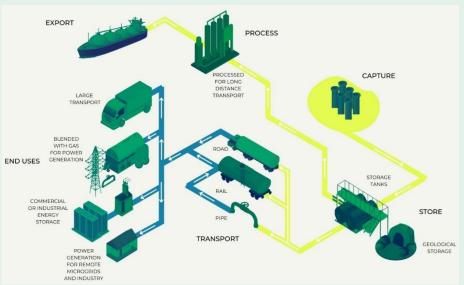


- Aims to be a pre-eminent operator in the identification, development and operation of greenhouse gas (GHG) storage projects in Australia.
- Unparalleled understanding of GHG storage (CCS) potential in the Canning Basin.
- Support Rafael development and third-party CO2 emitters by making available suitable storage formations to reduce greenhouse gas emissions as part of the transition to a lower carbon future.





- Actively developing the geological expertise to ensure 2H Resources can be at the forefront of the exploration and production of natural hydrogen.
- Developing expertise in identifying hydrogen accumulations by their surface expressions through its own exploration programs and co-operatively with CSIRO.
- Independent Hydrogen Prospective Resource assessment for 2H Resources' South Australian permit application areas confirms significant potential and business case to pursue exploration and development.







## **EXPERIENCED BOARD AND MANAGEMENT TEAM**

## Deep industry experience and proven track record



**Mr Eric Streitberg**Non-Executive Chair
Geology, geophysics, commercial



Ms Joanne Kendrick
Independent Non-Executive Director
Technical, engineering



Mr Malcolm King
Independent Non-Executive Director
Commercial, exploration, operations



Mr Robert Willes
Independent Non-Executive Director
Finance, commercial, M&A



**Mr Thomas Nador**CEO
Strategy, development, commercial



Mr Paul Bird

CFO and Company Secretary

Finance, governance



**Dr Kris Waddington**COO
Operations, stakeholder engagement



Mr Mark Devereux

GM Subsurface and Technical Integration

Exploration, technical, regulatory compliance





































### **BURU INVESTMENT PROPOSITION - RECAP**

Backed by a strong balance sheet, complementary asset and value streams focused on shareholder returns



**Dominant position** in underexplored onshore **Canning Basin** with a significant portfolio of exploration and development opportunities.



**100% owner of the Rafael discovery** – a high quality, liquids rich conventional gas discovery with a phased development plan. Progressing with Phase 1 Project.



**100% owner<sup>1</sup> of the Ungani Oilfield** which has produced >2 million barrels of oil since 2015. Autonomy provides strategic optionality for asset.



Leveraging corporate capability, an **early mover** in **Carbon Capture and Storage** (CCS) in the Canning Basin and **natural hydrogen** exploration in South Australia.



**Experienced Board and Management Team** to drive growth agenda across hydrocarbon and new energy expansion/transition businesses to deliver value.







# **Buru Energy Limited**

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# **Backup Presentation Material**



# PHASE 2 DEVELOPMENT - RESOURCE APPRAISAL DRIVEN OPTION 1

# Phase 1 plus Methanol production for export with CCS as enabler

**Objective** 

Facilitate the development of a small (0.5 MTPA) to large (1.0 MTPA) methanol production facility, supported by CCS to meet export and local demands, including as an alternative marine fuel.

Resource

Mid – High Case

First Production:

2029

Project Life: No. of wells: 20 years

**Key Project** 

**Parameters** 

5 - 10

Gas flowrate:

55 - 110 mmscf/d

Product streams:

LNG (0.03 MTPA)

Methanol (0.5 – 1.0 MTPA)

Condensate (2,200 - 4,400 bopd)

### Phase 1 plus:

Additional gas gathering and liquids separation close to wellsite,

# of design

- Indicative basis Methanol plant and small scale, containerized LNG facility at Energy Hub, and
  - Product trucking or pipeline for methanol and condensate to Broome, LNG trucking to Broome and regional communities.

Market

Export and domestic.





# PHASE 2 DEVELOPMENT - RESOURCE APPRAISAL DRIVEN OPTION 2

# Phase 1 plus Ammonia production for export with CCS as enabler

Objective

Facilitate the development of a small (0.5 MTPA) to large (1 MTPA) ammonia production facility, supported by CCS to meet the needs of export markets, including as an alternative marine fuel.

Resource

Mid – High Case

First Production:

2029

Project Life:

Gas flowrate:

20 years

No. of wells:

5 - 10

**Key Project Parameters** 

55 - 110 mmscf/d

Product streams: LNG (0.03 MTPA)

Ammonia (0.5 – 1.0 MTPA)

Condensate (2,200 - 4,400 bopd)

### Phase 1 plus:

Additional gas gathering and liquids separation close to wellsite,

# Indicative basis of design

Indicative basis • Ammonia plant at Energy Hub, and

 Product pipeline for ammonia to King Sound area for export, with condensate trucking or pipeline to Broome for export. LNG trucking to Broome regional communities.

Market

Export and domestic.







# PHASE 2 DEVELOPMENT - RESOURCE APPRAISAL DRIVEN OPTION 3

# Phase 1 plus small-scale FLNG production for export with CCS as enabler

**Objective** 

Facilitate the development of a compact, regionally located Floating LNG (FLNG) facility, in conjunction with onshore condensate and LPG processing.

Resource

High Case

First Production:

2029

Project Life: No. of wells:

Gas flowrate:

10 years Up to 12

**Key Project** 

**Parameters** 

280 mmscf/d

Product streams:

LNG for domestic power (0.03 MTPA)

LNG for export (~1.6 MTPA)

Condensate (5,100 bopd)

## Phase 1 plus:

Additional product pre-treatment at Energy Hub,

# of design

- Indicative basis Permanently moored, small scale FLNG facility located in King Sound area in 60m - 80m water depth,
  - Side by side loading of LNG to trading tankers, and
  - Condensate trucking or pipeline to Broome for export.

Market

Export and domestic.

