



# Central Cement & Lime Project

A low cost, long life and expandable project set to support the global energy transition

Mayur Resources - Investor Presentation - August 2022



# Disclaimer



This presentation has been prepared by Mayur Resources Limited ARBN 619 770 277 (“Mayur” or the “Company”).

The information contained in this presentation is not investment or financial product advice and is not intended to be used as the basis for making an investment decision. Please note that, in providing this presentation, Mayur has not considered the objectives, financial position or needs of any particular recipient. Mayur strongly suggests that investors consult a financial advisor prior to making any investment decision. It may not be reproduced, disseminated, quoted or referred to, in whole or in part, without the express consent of Mayur.

No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. To the maximum extent permitted by law, none of Mayur, its related bodies corporate, shareholders or respective directors, officers, employees, agents or advisors, nor any other person accepts any liability, including, without limitation, any liability arising out of fault or negligence for any loss arising from the use of information contained in this presentation.

This presentation includes “forward looking statements” within the meaning of securities laws of applicable jurisdictions. Forward looking statements can generally be identified by the use of the words “anticipate”, “believe”, “expect”, “project”, “forecast”, “estimate”, “likely”, “intend”, “should”, “could”, “may”, “target”, “plan” “guidance” and other similar expressions. Indications of, and guidance on, future earnings or dividends and financial position and performance are also forward-looking statements. Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Mayur and its officers, employees, agents or associates, that may cause actual results to differ materially from those expressed or implied in such statement. Actual results, performance or achievements may vary materially from any projections and forward looking statements and the assumptions on which those statements are based. Readers are cautioned not to place undue reliance on forward looking statements and Mayur assumes no obligation to update such information. Specific regard (amongst other things) should be given to the risk factors outlined in this presentation.

This presentation is not, and does not constitute, an offer to sell or the solicitation, invitation or recommendation to purchase any securities and neither this presentation nor anything contained in it forms the basis of any contract or commitment.

Non-IFRS Measures - the Company supplements its financial information reporting determined under International Financial Reporting Standards (IFRS) with certain non-IFRS financial measures, including cash operating costs, All-In Sustaining Cost, EBITDA, NPV, IRR and project payback. The Company believes that these measures provide additional meaningful information to assist management, investors and analysts in understanding the financial results and assessing our prospects for future performance.



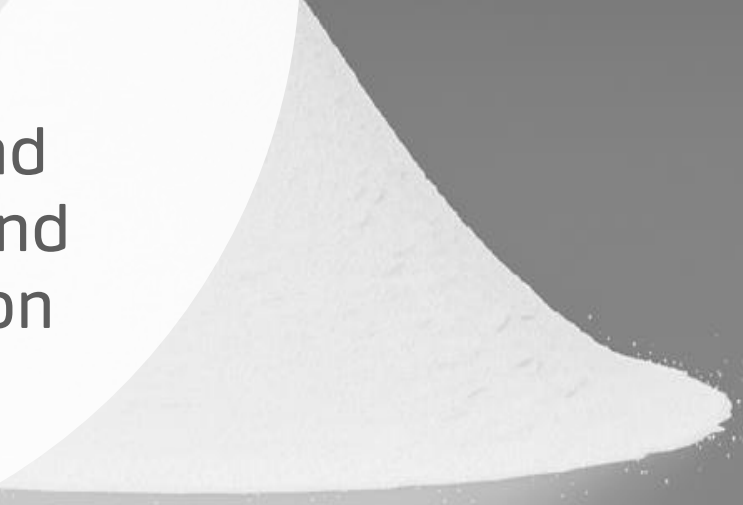
## CCL Project

Set to deliver  
Papua New Guinea's

# FIRST

**quicklime, clinker and  
cement production**

a fully integrated project with  
wharf and green energy  
infrastructure



Enhanced two-phase  
development strategy

**Phase 1 prioritises**

**QUICKLIME**

**production**

to meet critical demand  
from battery mineral and  
environmental/pollution  
abatement sectors





# **CCL Phase 1** **400KTPA** **QUICKLIME** **capacity**

with additional 500 ktpa raw limestone production and wharf and supporting infrastructure

**01**

Compelling project metrics

Low cost, long life and high scalability

**02**

Growing quicklime criticality

Escalating price environment

**03**

Strategically located

Proximate to future customers

**04**

Environmentally sensitive

Targeting carbon neutral products



# 01 Compelling project metrics

Improved development economics with significant economies of scale

## CCL Phase 1 DFS highlights\*

- Twin-kiln (1,200 tonne per day) manufacturing capacity
- 400 kt quicklime and hydrated lime plus 500 kt raw limestone production per annum
- Scaled construction of wharf, power station and access road
- Low upfront US\$91M capital estimate
- Post tax revenue US\$1,518M and project life EBITDA US\$771M
- Post tax NPV<sub>8%</sub> US\$133.5M and ungeared IRR 24.4%
- Low operating cost US\$49.8/t (compared to SE Asia producers)
- Zero strip ratio 45Mt Ore Reserves
- Large 144Mt Mineral Resource inventory capacity to support future expansion
- Granted Special Economic Zone (SEZ) status provides tax and fiscal incentives
- Mining Lease and Environment permit granted
- Access to nature-based carbon offsets (originated from within PNG via Mayur Renewables) to offset hard-to-avoid emissions and provide customers with net zero products from CCL

\*refer to ASX release dated 26 July 2022 – CCL Project DFS update

## Study outcomes

Estimated Life of Project (LOP)	Years	30
Capex	US\$M	91
Post-tax NPV <sub>8%</sub> real, ungeared (100% basis)	US\$M	133.5
Internal Rate of Return (IRR)	%	24.4

### Initial FOB (Kido, PNG) product pricing (real)<sup>1</sup>

Quicklime price (average weighted selling price)	US\$/t	100
Hydrated lime price (average weighted selling price)	US\$/t	120
Limestone (export)	US\$/t	11

### FOB operating Costs<sup>1</sup> (per product tonnes)

Operating costs – quicklime	US\$/t	49.82
Operating costs – hydrated lime	US\$/t	46.72
Operating costs – limestone	US\$/t	4.45

### All In Sustaining Costs<sup>2</sup>

Operating costs – quicklime	US\$/t	52.34
Operating costs – hydrated lime	US\$/t	49.44

1. FOB (Free on Board) means that the seller is responsible for transportation of the product to Kido wharf for shipment, plus ship loading costs. The buyer pays the cost of marine freight transport, insurance, unloading, and transportation from the arrival port to the destination
2. All in Sustaining Costs include Mining and Haulage, Processing, Power, Maintenance, Port Operations, Indirect, Corporate Overheads, Royalties, Sustaining Capital.



# 01 Compelling project metrics

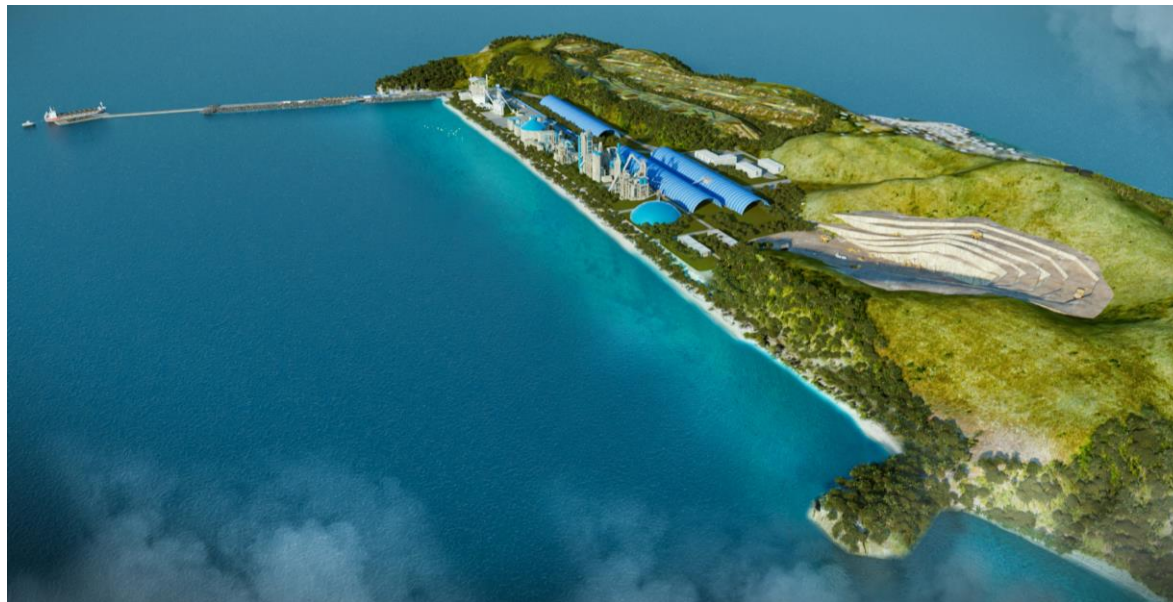
Low capital construction and low-cost production

## Pre-production capital estimate

Phase 1	US\$M
Quarry & Limestone production	12.34
Quicklime Plant (2 kilns) & Infrastructure	78.67
<b>Total pre-production capital estimate</b>	<b>91.03</b>

## Operating costs by product type (US\$/t)

Type	Quicklime	Hydrated lime	Export limestone
C1 cash cost (FOB)	49.82	46.72	4.45
Non-site costs	2.52	2.72	N/A
All in sustaining costs	52.34	49.44	N/A



## Mayur's competitive advantage for low cost production

**Co-located plant**

Minimal internal logistics costs

**PNG advantage**

Access to low-cost labour, renewable solar and adjacent energy sources

**Resource scale**

Zero strip ratio quarry



## 02 Growing quicklime criticality

Key applications in future facing metal beneficiation and pollution mitigation with an emerging role in energy storage

- Strong and growing applications in pollution abatement, treatment of acidification and water purification
- Critical inputs for processing battery and future green facing metals
- Key ingredient in beneficiation of critical battery minerals including:
  - Nickel
  - Copper
  - Alumina
  - Uranium
  - Lithium
  - Cobalt
  - Rare Earths
  - Vanadium
- Anticipated **40%** annual growth rate of global EV market from 2021 – 2027
- Expected **17%** annual growth rate of global storage capacity from 2021 to 2030
- Key ingredient in an energy storage process developed by Swedish SaltX Technology AB



### Water Treatment

Absorbs and removes pollutants from drinking water, wastewater, sewerage and industrial sludge



### Mineral and Metallurgical Processing

Removes impurities in ferrous and non-ferrous metals processing – a key component in metal recovery



### Construction and Civil Engineering

Stabilises soil for construction of roads, buildings and dams, and enhances durability of roads and pavements



### Chemical and Industrial Manufacturing

Used in the chemical process for paper, paint, ink, plastic, rubber and sugar



### Agriculture and Crop Management

Effects soil pH to improve growing conditions and increase crop yields



### Global Decarbonisation

Acts as a natural carbon sink capturing ambient CO<sub>2</sub> - most prevalent when used in construction





## 02 Growing quicklime criticality

### Tightening quicklime availability and rising market prices

- Construction and metallurgical industries driving base load Asia Pacific and China demand
- The emerging beneficiation consumption markets are proportional to the magnitude of metals processed into final products
- Chronic under investment has led to lime shortage particularly on the Australian East coast increasing reliance on imports from north Asia
- Australian quicklime selling prices have increased by circa 30% in last 18 months.

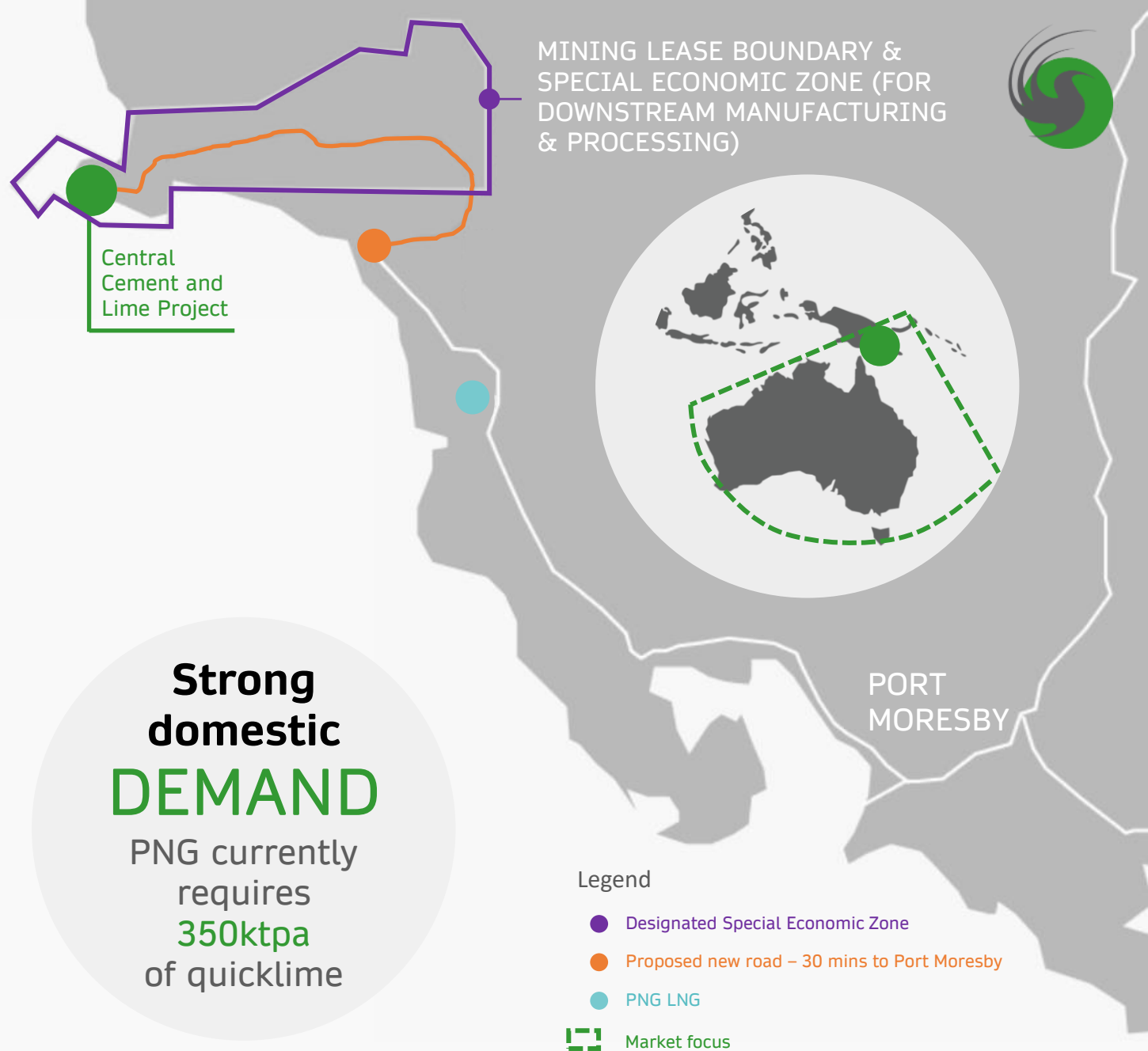
#### CCL Phase 1 initial target production and sales volumes

Product	Sales (tpa)
Quicklime	356,000
Hydrated Lime	52,000
Limestone	500,000
Road base / aggregates	70,000

### 03 Strategically located

Proximal to all potential customers

Coastal location  
and competitive  
international shipping  
**ADVANTAGE**  
Australian quicklime  
market over  
**2.0Mtpa**



Strong  
domestic  
**DEMAND**  
PNG currently  
requires  
**350ktpa**  
of quicklime





# 03 Strategically located

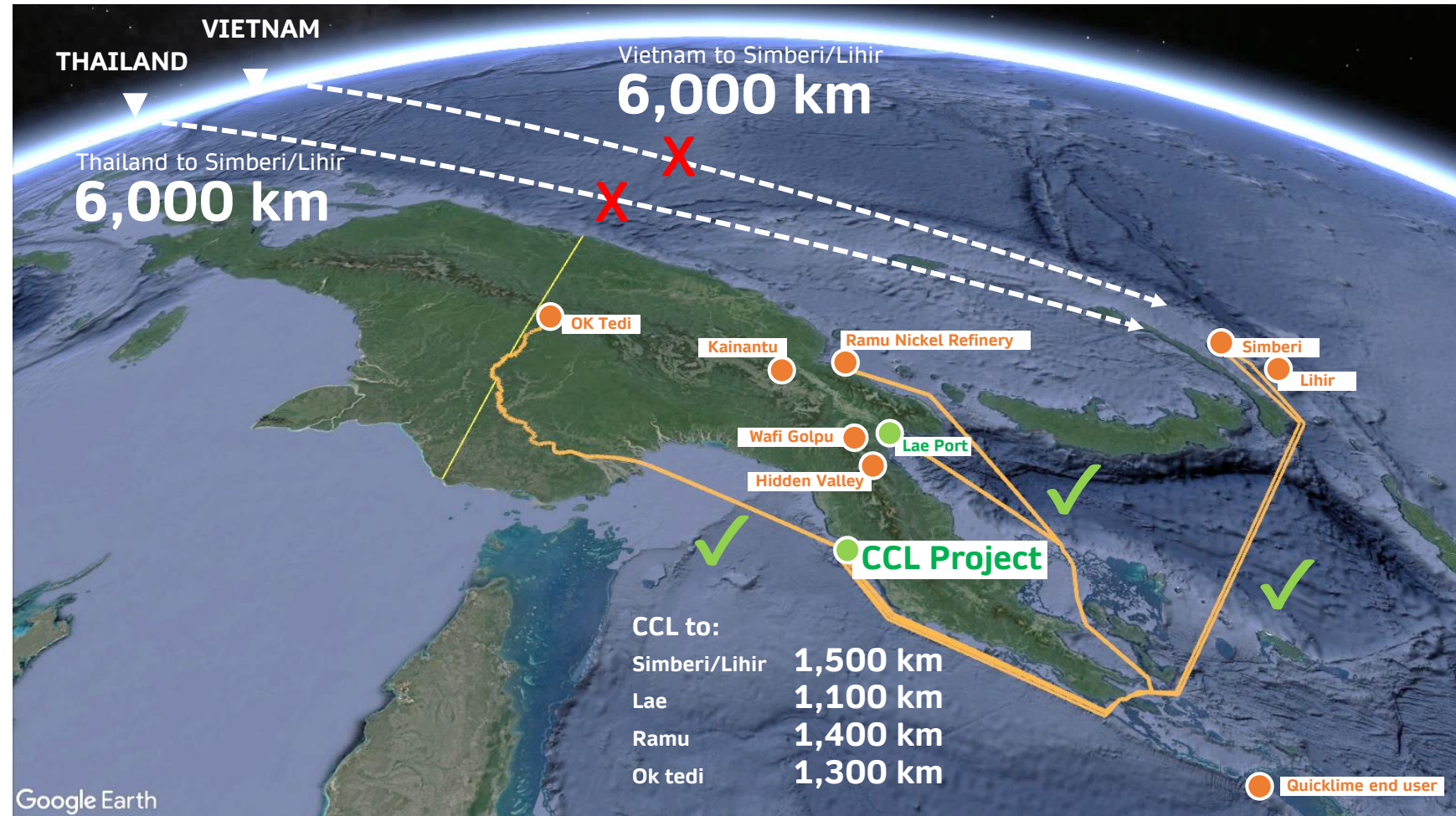
Large freight advantage for lime supply (import replacement) in PNG

PNG is one of the world's great copper and gold discovery regions.

Mining projects are the main end users of imported quicklime in PNG for use in processing.

Quicklime from CCL provides a new domestic supply option with:

- ✓ Lower cost
- ✓ Supply chain responsiveness
- ✓ Local PNG purchasing
- ✓ Less fuel burnt
- ✓ Lower freight cost

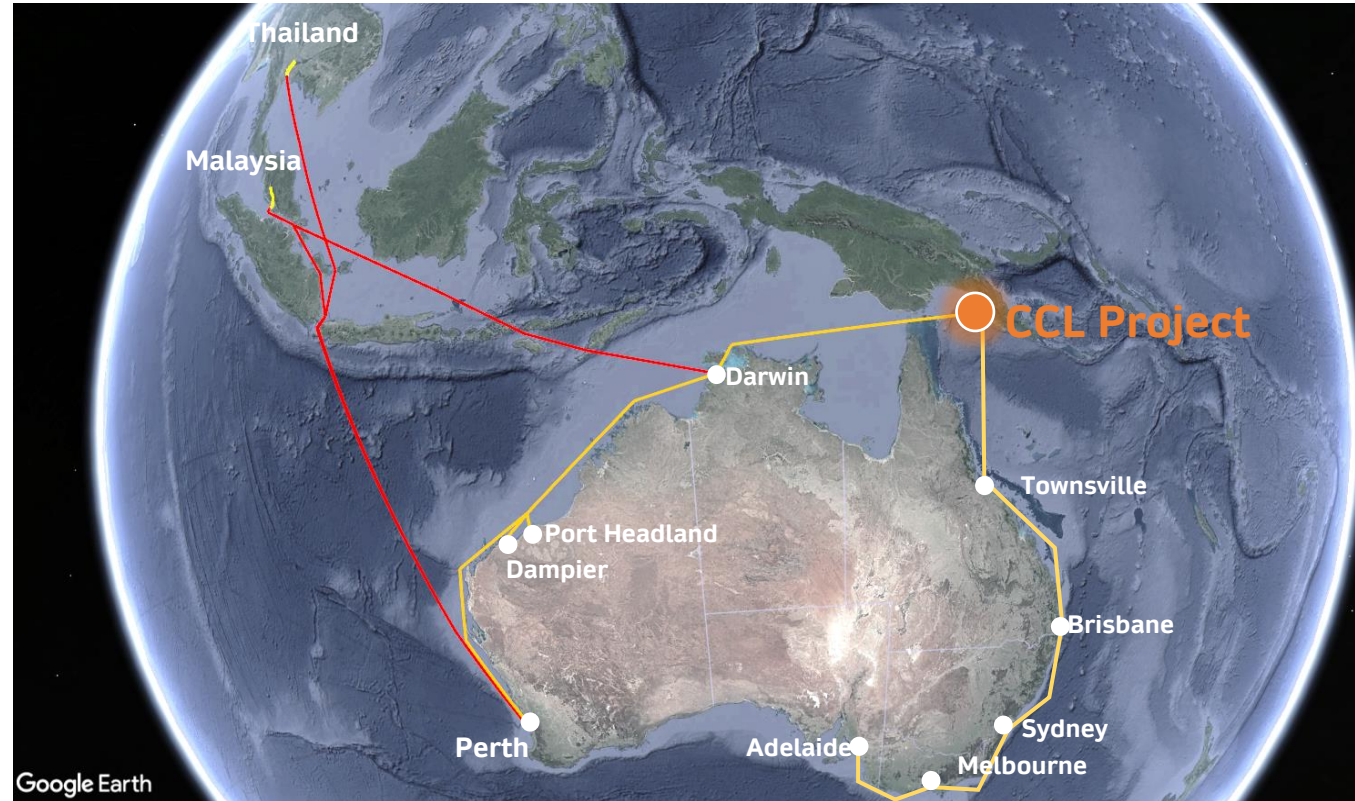




# 03 Strategically located

A nearby, strategic entry point into the growing Australian Lime Market

- ✓ Closest and highest quality supplier
- ✓ Cost competitive against Asian Competitors for both West and East Coast
- ✓ Supply Chain / Freight advantage for both East and West Coast



SUPPLIER	ORIGIN	TRANSPORT ROUTE/DISTANCE	DESTINATION
Competitor 1	Malaysia	TRUCK ~200km → SEA FREIGHT →	Perth
Competitor 2	Thailand	TRUCK ~100km → SEA FREIGHT →	
Mayur	CCL Project	On the coast no trucking required Shorter shipping	Mel./Adel. Bris./Syd. Townsville
		SEA FREIGHT →	
		SEA FREIGHT →	
		SEA FREIGHT →	



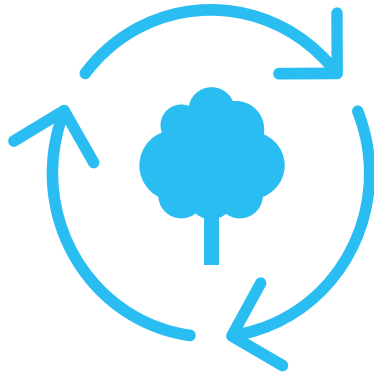


## 04 Environmentally sensitive

Set to deliver Southeast Asia's first carbon neutral lime products

CCL Project roadmap to carbon neutrality includes:

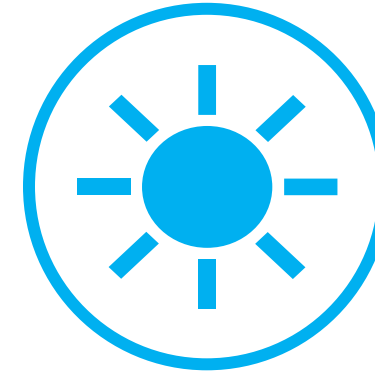
### Carbon offsets



Benefiting from Mayur Renewables nature-based forestry carbon credit areas. Addressing the climate, deforestation, and biodiversity crisis by generating carbon credits over important forest areas.

CREATING CARBON NEUTRAL PRODUCTS

### Solar Power



Renewable energy study completed for Mayur's Special Economic Zone (SEZ) confirmed solar power capacity of at least 500 megawatts

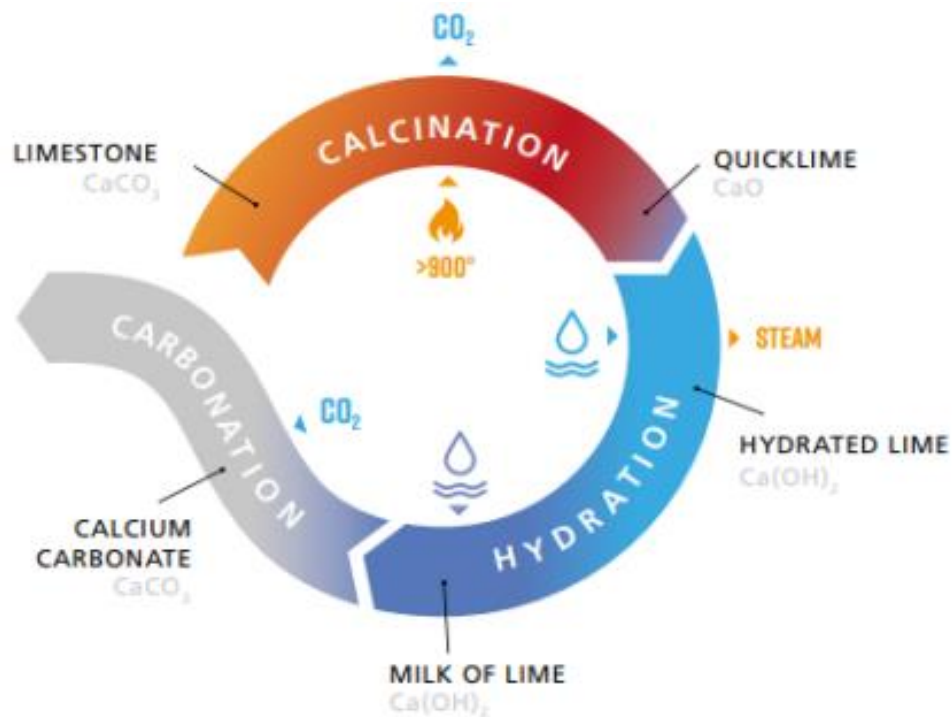
POTENTIAL RENEWABLE ENERGY FOR COMMUNITIES WITHOUT ACCESS TO ELECTRICITY



## 04 Environmentally sensitive

**Lime:** one of the world's most environmentally sustainable minerals

The lime cycle: CO<sub>2</sub> released is ultimately re-captured by the natural carbonation process



The Lime cycle (source: EuLA, 2021/ British Lime Association)

Quicklime and hydrated lime draw CO<sub>2</sub> from the atmosphere when exposed to air

- When limestone (CaCO<sub>3</sub>) is burnt in a kiln it releases CO<sub>2</sub> and turns into quicklime
- Water can be added to quicklime to produce hydrated lime (Ca(OH)<sub>2</sub>)
- Over the lifetime of lime products, carbon dioxide is gradually re-absorbed from the air – a process known as re-carbonation
- This replaces the oxide component of the chemical and turns the lime roughly back into its original state

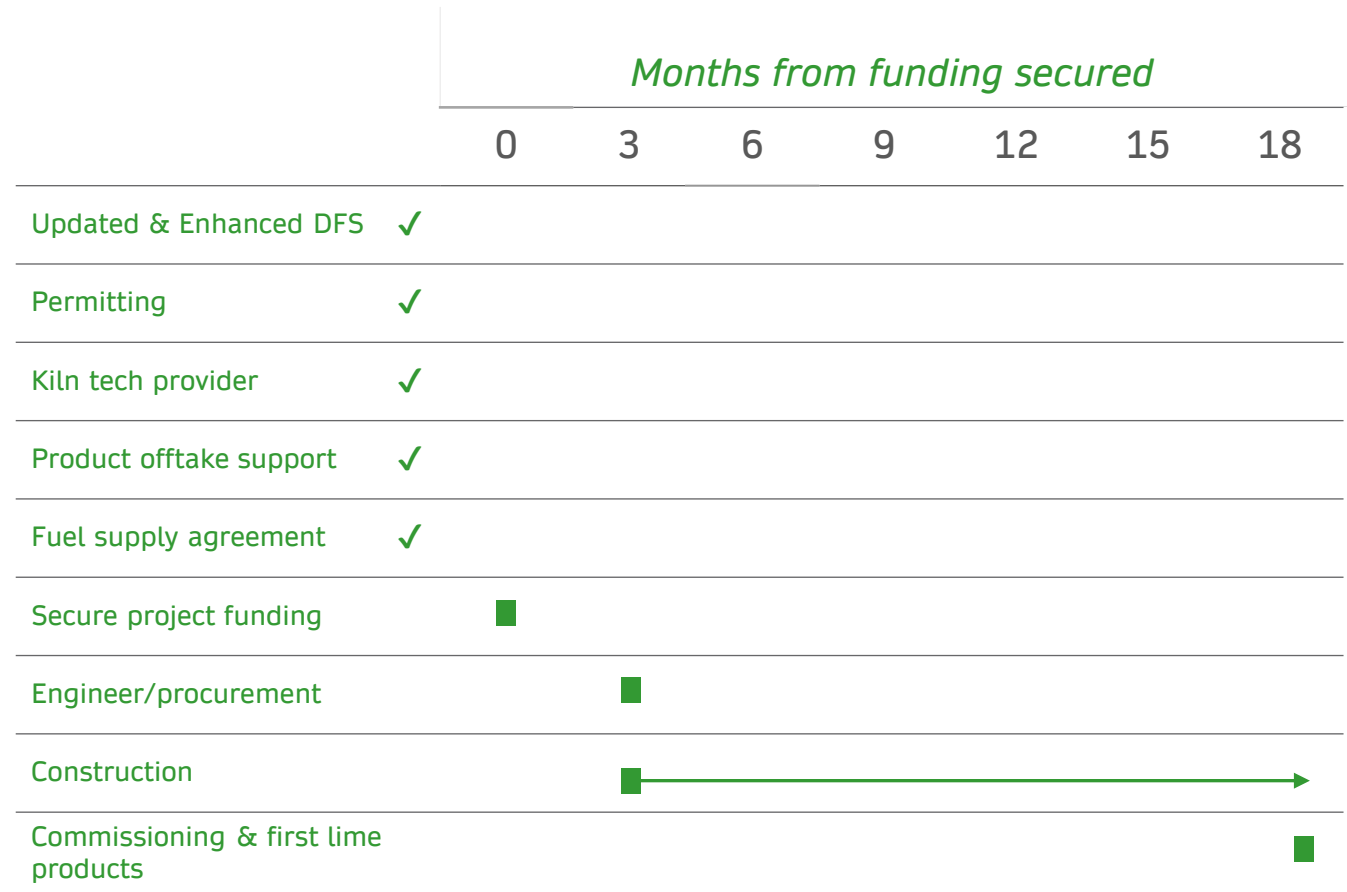




# Accelerated production pathway

## Rapid delivery of quicklime production

Enhanced development strategy  
**targeting first lime PRODUCTION**  
**Q2 CY2024\***  
 with quarry materials cashflow expected during 2023



\*Target development schedule is assumed on the basis funding is secured in the third quarter 2022. It includes forecast internal and external / third-party timeframes and is subject to change in response to changes in market and regulatory environments.



Phase 1 product sales and  
**revenue growth**  
to support future  
**DEVELOPMENT**  
of a fully integrated  
**quicklime, hydrated lime  
and lime aggregates  
production**





## CCL Phase 1

# QUICKLIME

Targeting production of **400ktpa quicklime** and hydrated lime **plus 500ktpa raw limestone** for domestic and export markets

Set to benefit from significant tightening in quicklime product availability and rising market prices

*Future optionality exists for additional 400ktpa*

## CCL Phase 2

# CLINKER & CEMENT

Targeting production of **1.65Mtpa of clinker** for export markets and **~910ktpa cement grinding capacity** for domestic and export markets

An environmentally attractive product benefiting from supply chain superiority





# Fast tracking CCL Phase 1: Quicklime

## Preserving future value for Phase 2

### Project development

Phase 1	CAPEX	EBITDA p.a.
Quicklime (2 kilns)	US\$91M	US\$24.5M (LOA, real)

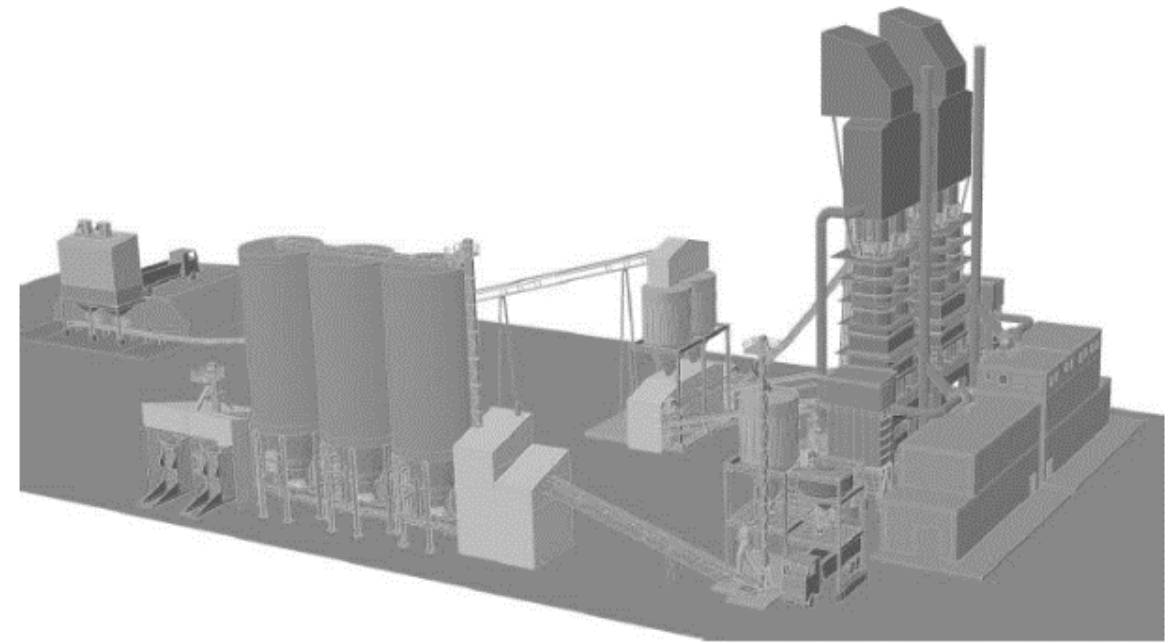
~18 months construction

- Phase 1 prioritised to address an immediate, significant market opportunity
- 1,200 tpd production capacity (400 ktpa) from 2 quicklime kilns
- *Expansion optionality exists for a further 2 kilns (backed up by letters of support from end users)*
- EPC Construction bids received for Phase 1

Phase 2	CAPEX	EBITDA p.a.
Clinker and Cement	US\$283M	US\$91.8M (LOA, real)

~24 months construction

Lime plant to employ modern vertical shaft kiln technology

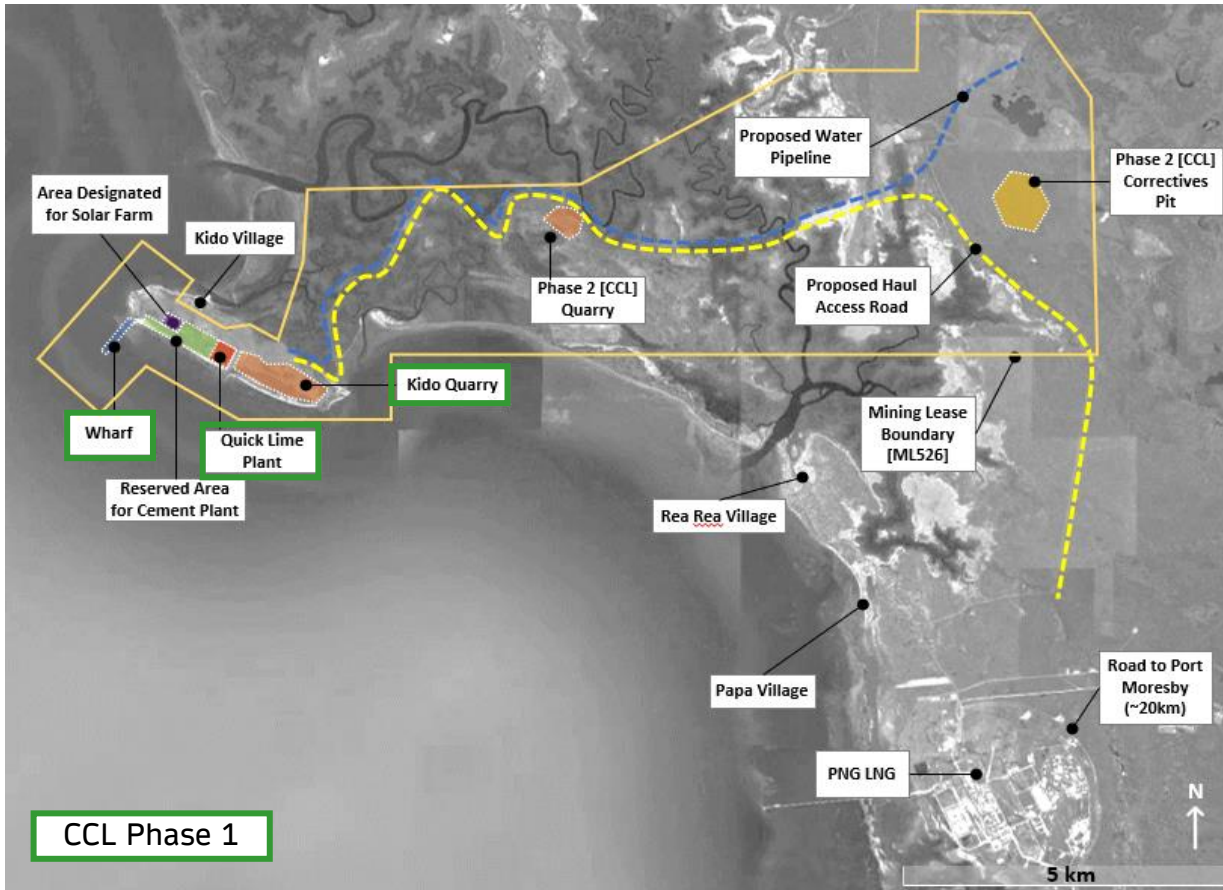


1. For further information refer to CCL DFS ASX announcement dated 26 July 2022. The company confirms it is not aware of any new information or data that materially effects the previously disclosed information and that all material assumptions and technical parameters underpinning the estimates in that information continue to apply and have not materially changed.



# Targeting fully integrated production

CCL Precinct – co-located quarry, quicklime plant and private deep draft wharf



## CCL Phase 1

- Facility includes an integrated limestone crushing and handling, vertical twin shaft kilns, quicklime bagging and storage
- Key infrastructure including wharf, power station and access road

## CCL Phase 2

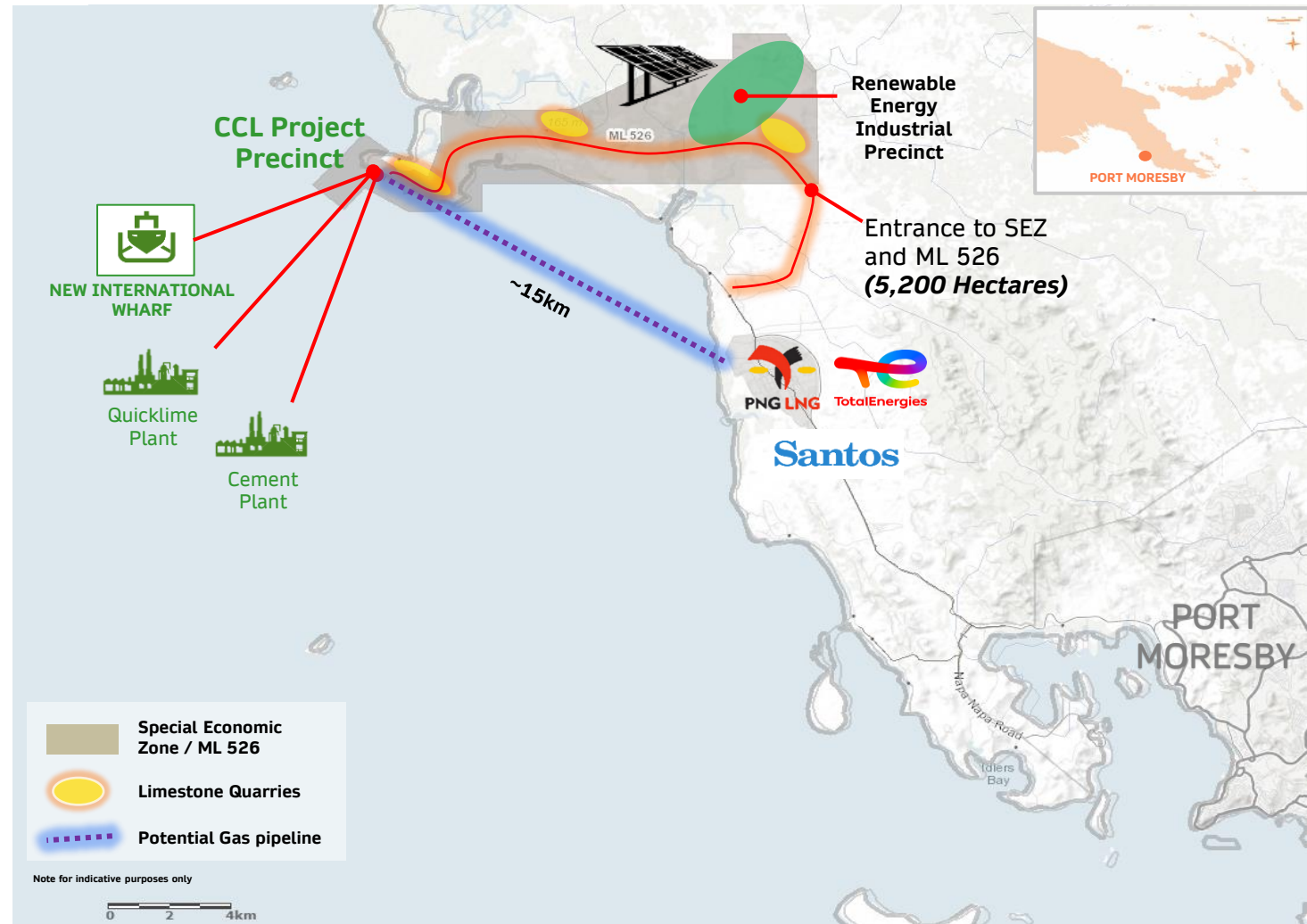
- Optionality preserved for a 907.5ktpa cement grinding capacity and infrastructure expansion to support clinker and cement plant and operations, including:
  - clinker raw mix grade quarry material (containing limestone, marl, alumina silicates and iron correctives);
  - expansion of CCL Phase 1 wharf; and
  - expanded power plant
- Optionality to construct additional quicklime kiln capacity (over and above CCL Phase 1)



# Special Economic Zone

## CCL Precinct – located in 5,200-hectare SEZ

- SEZ granted in September 2021 by PNG Government to promote new downstream processing and vertically integrated industries
- SEZ includes Central Cement & Lime Project
- Strategically located north of PNG LNG/ Papua LNG
- Direct road access to Port Moresby
- A new deep water international import / export wharf
- Potential for +500 MW of solar farm within 5km of PNG LNG
- Renewable power source for other future industry such as blue/green hydrogen and ammonia
- Australian Govt to assist in planning & contributing funding







# Wholly owned by MayurResources

Developing natural resources in Papua New Guinea



**Deep in country experience**  
Successfully operating in PNG for 11 years

**Strong community relationships**  
Trusted by the people of PNG

**Lead by an experienced team**  
Strong track record of developing projects of scale



# Mayur Resources

Papua New Guinea



## Mining is critical for the PNG economy

- Hosting a vast diversity of geographic and natural resources, the economy is dominated by agriculture, forestry and fishing, and minerals and energy extraction
- Proven jurisdiction for the discovery and development of major mineral projects
- Mineral exports of gold, copper, nickel, silver and cobalt have occurred since 1970's
- Mines are located across the country, the largest include, Ok Tedi Copper and Gold Mine, Porgera Gold Mine, Lihir Gold Mine and Ramu Nickel Mine



## Favourable mining regulations

- Exploration leases (EL): Two year initial term of up to two years with renewal increments of two years
- Special mining lease (SML): Large mines up to forty years with specific renewal provisions
- Mining lease (ML): Initial twenty year term up to 60km<sup>2</sup> and renewal in ten year increments
- PNG Government has right to a one time purchase of up to a 30% interest in a project at the time of conversion from EL/SML to ML



## Emerging market growth opportunities

- GDP growth 4% pa (projected, 2022) driven by the extractives sector
- Strategic location between Australia and China
- Government has a positive attitude to foreign investment, demonstrated by grants of incentives and concessions to international businesses



Appendix: CCL Phase 1 DFS further information

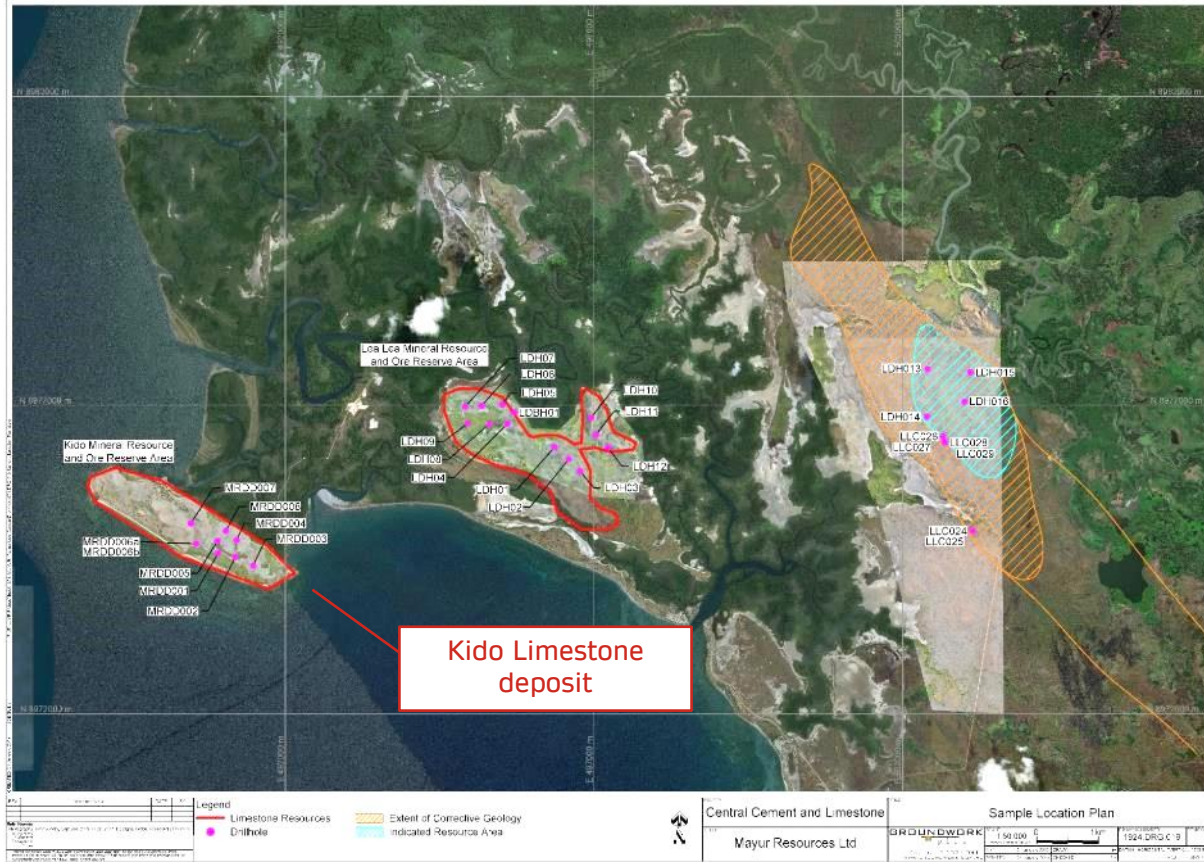
MayurCement&Lime





# Geology and Mineral Resources

Large scale lime resource located at surface with zero strip ratio



- Large scale limestone Mineral Resource of 382 Mt across two domains, Kido and Lea Lea (Rea Rea)<sup>1</sup>
- Phase 1 focuses on utilizing the high-grade limestone located at the Kido deposit
- Extraction via blasting and ripping, then haulage to stockpiles at adjacent plant site

## Total Mineral Resource estimate<sup>1</sup>

Category	Tonnes	CaO (%)	Al <sub>2</sub> O <sub>3</sub> (%)	SiO <sub>2</sub> (%)
Measured	205	53.50	0.61	1.73
Indicated	128	51.80	0.90	2.60
Inferred	49	48.30	1.00	1.90
<b>Total</b>	<b>382</b>	<b>52.26</b>	<b>0.76</b>	<b>2.04</b>

1. Refer to maiden Mineral Resources estimate contained in ASX release dated 12 January 2018, *Maiden JORC Resource at Port Moresby Limestone Project*. Mayur confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning that release continue to apply and have not materially changed.



# Kido domain Ore Reserves

## Phase 1 target limestone deposit

- Phase 1 focuses on utilizing the high-grade 45Mt limestone Ore Reserve located at the Kido deposit
- No Inferred Resources are considered in the mining schedule
- Extraction via blasting and ripping, then haulage to stockpiles at plant site
- A total mining rate of 1.3 Mt per annum
- A base mining cost of US\$3.05 per tonne of raw feed material exclusive of haulage rates
- Owner operator cost model used for estimation of operating costs
- 330 days production per annum using two nine-hour shifts
- Mining recovery factors are set at 95% which makes allowance for a loss of 5% material. Dilution is factored in as all the material in the pit shells can be used as raw feed.

### Ore Reserve Estimate

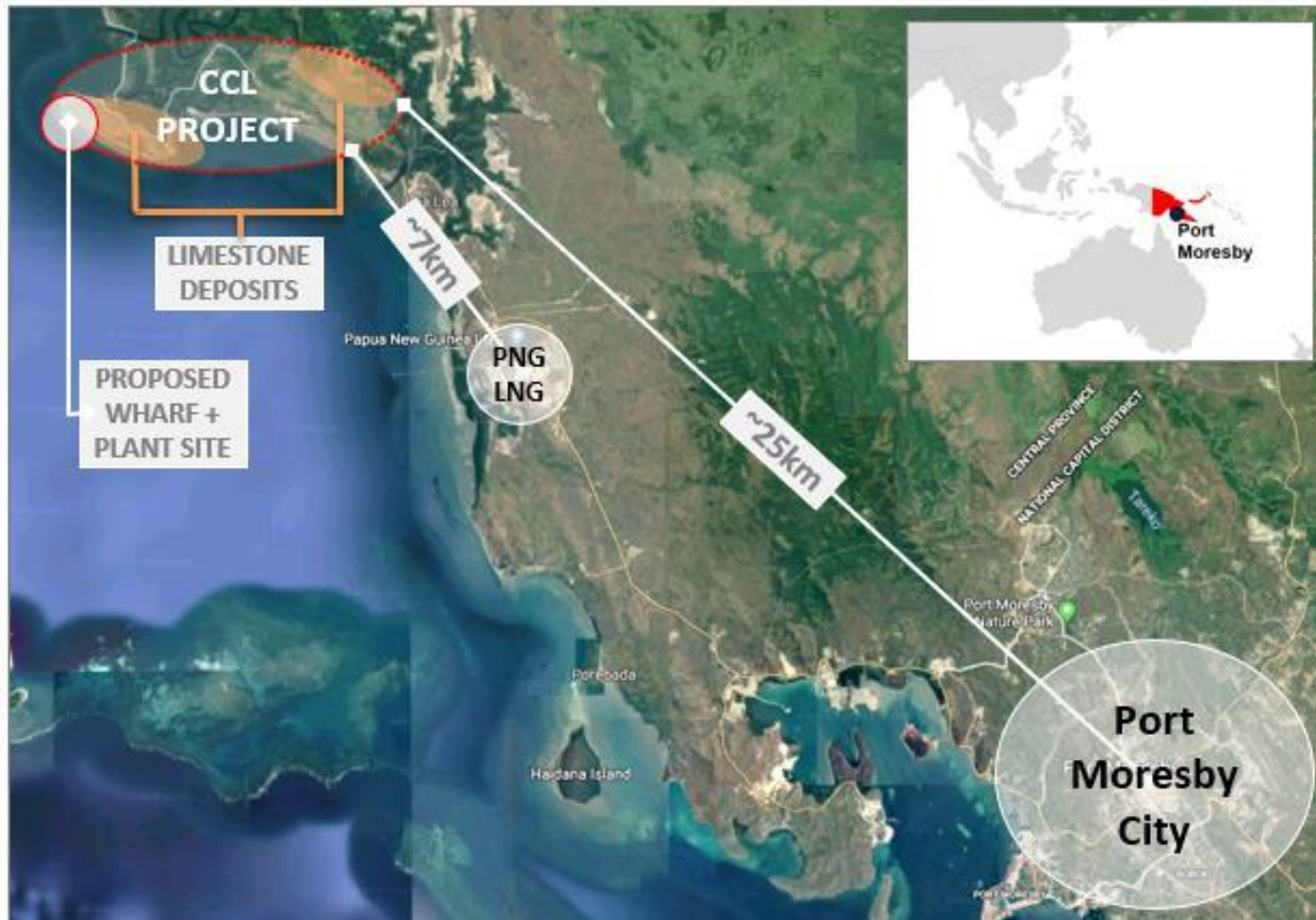
Area	Reserves	MT	CaO(%)	Al <sub>2</sub> O <sub>3</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	K <sub>2</sub> O (%)	MgO (%)	Na <sub>2</sub> O (%)	SiO <sub>2</sub> (%)	LOI (%)
Kido <sup>1</sup>	Probable	45.0	54.0	0.5	0.3	0.04	0.4	0.2	1.3	43.0

1. For full Ore Reserve Details, refer to ASX announcement 26 July 2022 *Updated DFS For Central Cement and Lime Project*. Mayur confirms that it is not aware of any new information or data that materially affects the information included in that release. All material assumptions and technical parameters underpinning that release continue to apply and have not materially changed. All categories of material and geochemical values rounded to the nearest significant figure. Minor rounding errors may occur pursuant to JORC 2012 reporting requirements. High grade raw feed to produce lime will be sourced from Kido. Importantly Ore Reserve estimates are not precise calculations



# Project description

## Strategic rationale and project location



### Strategic rationale:

- PNG mineral wealth diversification and development of nation building commodity industries
- Vertical integration through, co-located limestone quarry, quicklime plant and supporting infrastructure
- Targeting capacity to meet domestic demand requirements and create new export market opportunities

### Project location:

- Located on the southern coast of PNG
- Approximately 25 km north-west of the capital city, Port Moresby

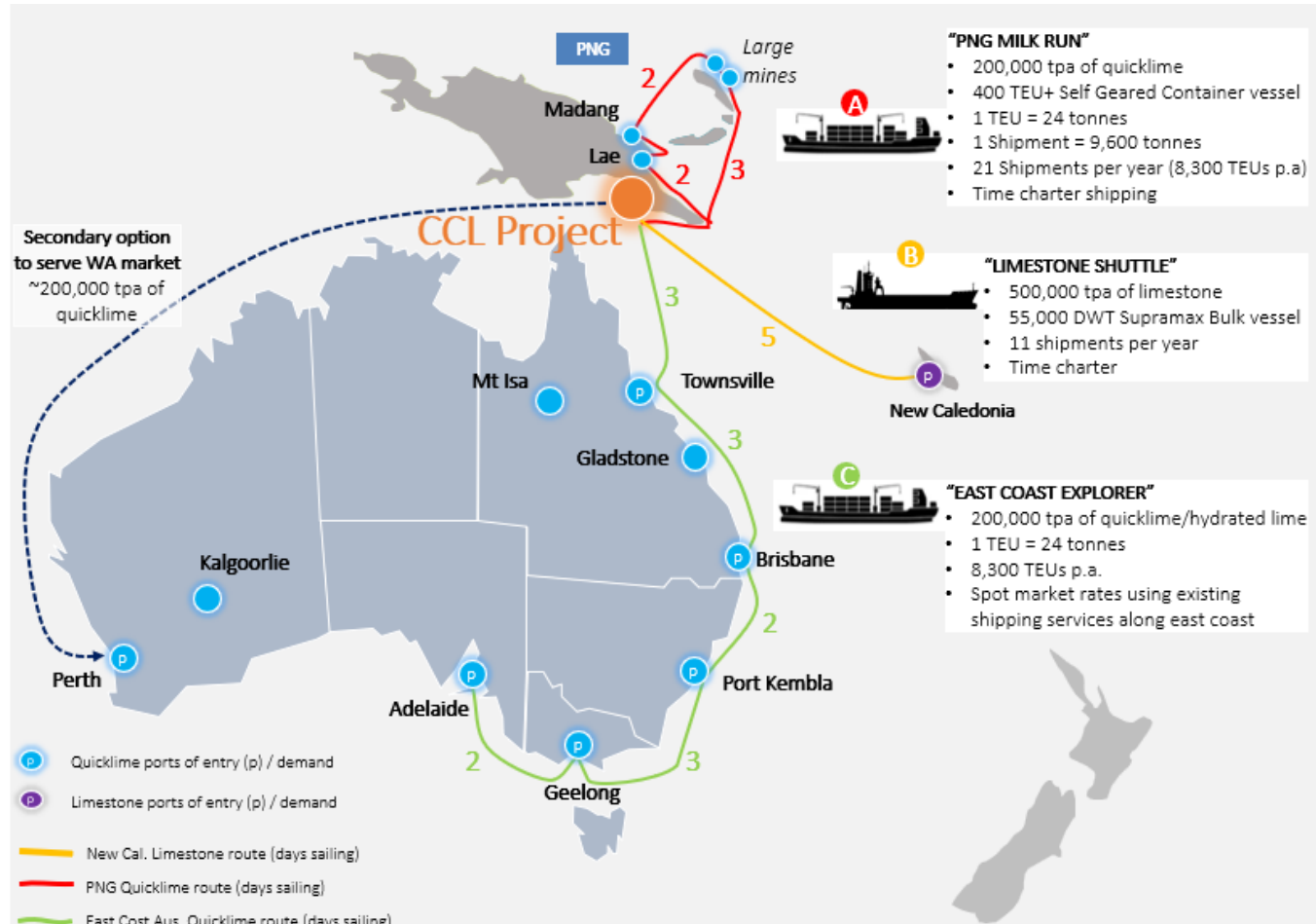




# Markets and Shipping logistics

## Domestic and export routes from new port at Kido

### Primary shipping routes from CCL Project – quicklime / raw limestone



### Three main proposed product shipping routes:

- *PNG Milk Run Route*: a dedicated time charter coastal container vessel to transport the quicklime product to the key proposed customers in PNG
- *East Coast Explorer Route*: likely either a time charter vessel or existing services and for the distribution route for quicklime (and hydrated lime) along the east coast of Australia
- *Limestone Shuttle Route*: dedicated time charter bulk vessel that would transport limestone from Kido to New Caledonia



# International and Domestic Quicklime Pricing Strategy

Market and research-based pricing methodology

Assumed quicklime  
**sale price**

**US\$100/T**

average Quicklime FOB price  
used in CCL Phase 1 DFS

- No established pricing index for quicklime products
- Mayur's FOB price calculated through comparative analysis of known prices and shipping and logistics net backs
- Mayur's advantage is having low production cost position and price just below the customers 'next best alternative' in the Australasian market
- Mayur offers differentiation through:
  - Premium quality – high reactivity, high CaO and low impurities
  - Ability to provide net zero carbon neutral products
  - First mover advantage and only domestic supplier in PNG



# Offtake support for quicklime, hydrated lime and limestone

With meaningful additional demand

- Significant demand from Australian Lime Customers who have been rationed due to local capacity issues
- PNG customers are mandated to utilize domestic product
- Quarry products demand not sought beyond New Caledonia (further opportunity)

## CCL Phase 1 – offtake support volumes

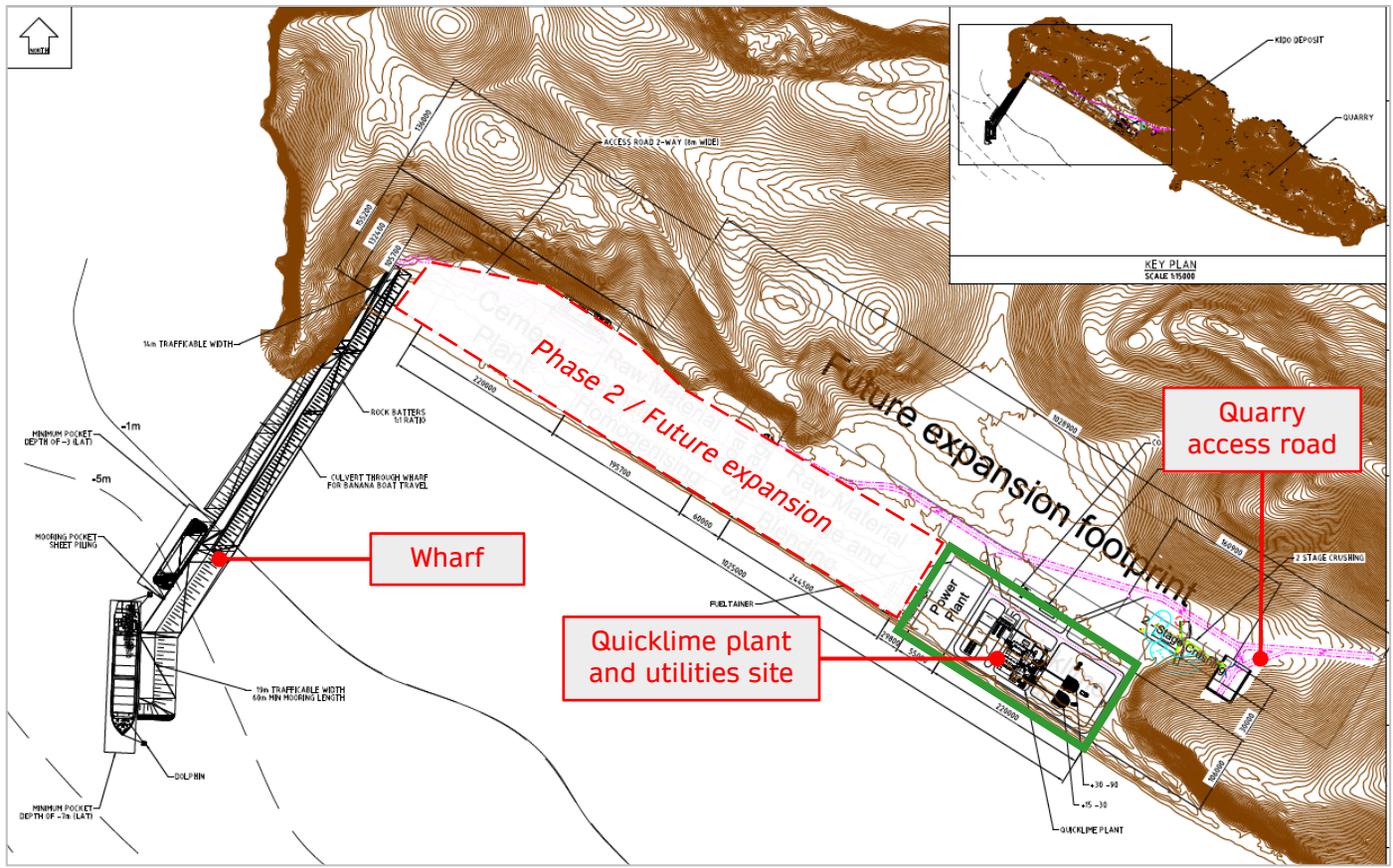
Product	Potential Offtake (tpa)
Quicklime	516,000
Raw Limestone	700,000
<b>Total all products</b>	<b>1,216,000</b>





# Process overview

## Project site arrangement



### Five process zones:

- limestone quarry
- quicklime plant - crushing and vertical twin shaft kilns
- utilities (power plant, water and gas)
- wharf area (including product laydown and storage) for bulk loading of bulk carriers up to 55,000 dwt
- access roads (internal road and connection road / bridge to existing road network)

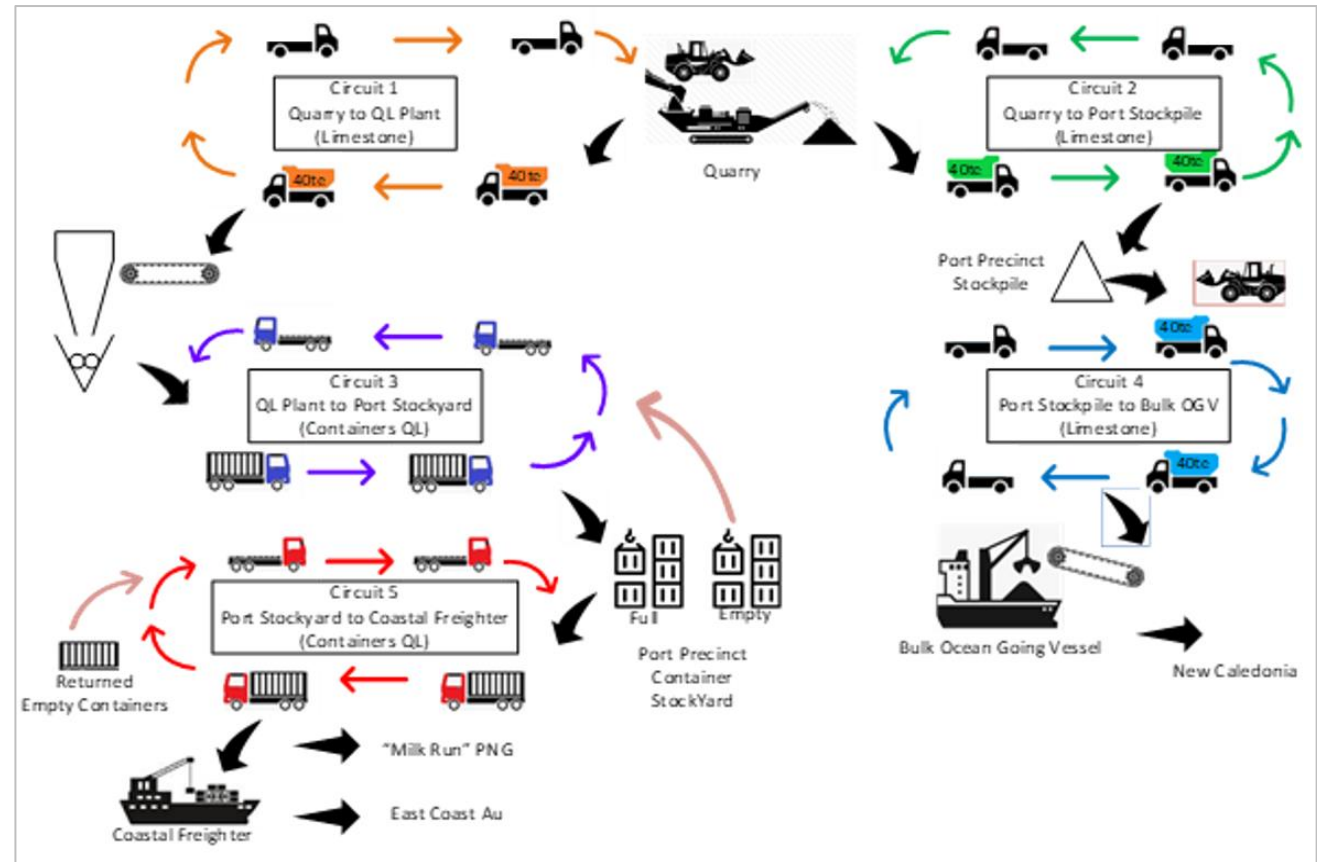


# Onsite product handling and logistics

## Tested and proven product loadout process

### Five onsite product flow circuits:

- Circuit 1: Bulk Limestone Calcination from Quarry to Quicklime Plant
- Circuit 2: Bulk Limestone Export, Quarry to Port Precinct Stockpile
- Circuit 3: Lime Export, 20ft Containers from Quicklime Plant to Port Precinct Container yard
- Circuit 4: Bulk Limestone Export, from Port Precinct Stockpile to Bulk Vessel Berth
- Circuit 5: Lime Export, 20ft Containers from Port Precinct Container Yard to Coastal Freighter Berth





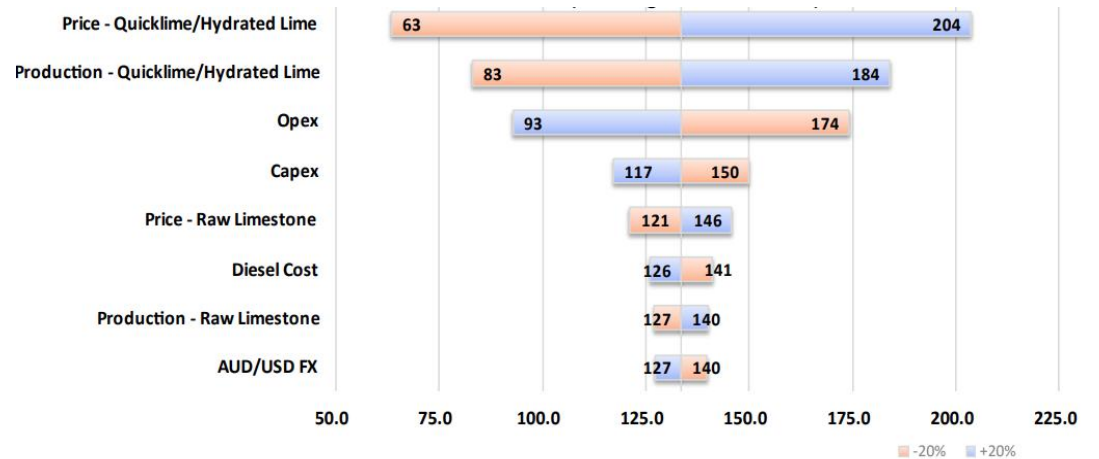
# Financial analysis and evaluation

## CCL Phase 1 delivers strong leverage to quicklime price appreciation

### Financial model assumptions:

- Discount rate 8% (real) on post-tax cashflows - circa 10% on a nominal basis
- Project life of 30 years
- 10-year tax free holiday applied due to grant of SEZ status; thereafter taxation rate of 30% applied
- PNG Royalty of 2.5% which comprises of a 2% Royalty and 0.5% Production Levy
- Project developed on a turn-key EPC basis
- Straight-line depreciation based on a 10-year period
- Figures presented on a 100% equity basis
- Capital risk and contingency derived by Monte Carlo simulation
- No terminal value has been added to the NPV, reflected no extension to the plant and/or mine life

### Sensitivity analysis (NPV<sub>8%</sub>, ungeared, real, US\$M)



### Selling price sensitivity (ungeared, real, US\$M)

CCL Phase 1	Price case	NPV <sub>8%</sub>	IRR
Case 1	Base case	133.5	24.4%
Case 2	+4%	150.0	26.3%
Case 3	+8%	166.4	28.2%
Case 4	+12%	182.9	30.1%
Case 5	+16%	199.3	31.9%





# Environmental and social considerations

## All permits and landowner consents received

- Environmental Permit for Project received from Conversation & Environmental Protection Authority (CEPA)
- Community engagement ongoing over many years with various social projects implemented



Mayur team with local community after installation of first ever microgrid solar at Kido school

### Potential project benefits

CCL Phase 1 project to provide ~400 jobs during construction, 92 direct jobs once in operation and various other indirect flow on jobs and employment opportunities

Landowner Spin Off Businesses to support project – catering, earthworks, logistics, camp management

SEZ established for future manufacturing and downstream processing in the area with associated landowner opportunities

Enable access to road, water and electricity infrastructure as per Landowners Agreement

Potential for improved health and education services between Mayur and Government

Lower Cost quicklime to supply and support PNG's Nation Building capability once in production

Reducing foreign currency out flow from the buying of imported lime

Increasing foreign currency inflows via products exported (i.e USD revenues into PNG)

CCL Phase 1 (quicklime) project will act as a critical enabler for the delivery of CCL Phase 2 (clinker and cement plant) and the associated benefits this would deliver (employment, in country capacity building, import replacement, royalties, tax revenues etc.)



MayurCement&Lime