RENERGEN

FUTURE ENERGY, TODAY

Investor Presentation

January 2022

RENERGY TODAY

Company Overview



Executive Summary

World-class South Africa Helium and LNG opportunity poised for nearterm, full-scale development with contracted offtake



High demand strategic commodity, with high growth and short supply



US supply dropped from 80% to **below 50%**, Qatar & Russia emerging dominant suppliers, but not without challenges



Rare commodity, typical concentrations between 0.01% and 0.5%. **Renergen** has average 3.4%, with wells up to 12%



South Africa is strategically located with global access to customers



Will be South Africa's first commercial onshore LNG plant, reducing the country's carbon footprint by substituting diesel in trucks



Phase 1 online **April 2022**, ramping up to 3mmscf/d natural gas, 350kg helium per day



Phase 2 planned 2024/5, 44mmscf/d natural gas, 5,000kg helium per day (>6% of world production)



Renergen at a Glance

Emerging helium and domestic producer, rapidly advancing and developing flagship Virginia Gas Project, located in Free State in South Africa



Vision Statement

The vision statement embodies our values of "Do no Harm: To our people, to our world."



Management & Board

Executive Directors



Stefano Marani

Stefano is the Chief Executive Officer of Renergen Limited ("Renergen"), a dual listed helium and Natural gas company with substantial gas reserves in the Free State of South Africa (the "Gas Fields"). He was part of the team which acquired the Gas Fields from Molopo Energy Limited in April 2013, and was instrumental in taking the Gas Fields from a stranded gas asset into production with funding from the US government and an Initial Public Offering on the Australian Securities Exchange. Along with Nick Mitchell, they pioneered the use of natural gas in heavy duty vehicles in South Africa to help decarbonise the South African economy which ultimately lead to a joint-venture with Total South Africa Proprietary Limited, and he pioneered Cryo-VaccTM to help in the global rollout of vaccines in the fight against COVID-19.

Stefano has significant experience in the areas of structured finance and advisory. After completing his formative training with Deutsche Bank, Stefano was recruited by Morgan Stanley in London, where he was ultimately charged with building their sub-Saharan African fixed income capital markets business before leaving banking to start his own financial services firm



Nick is an experienced Director with a demonstrated history of working in the energy industry. Specialising in the South African oil and gas sector and focused on early-stage company development. He is the current Chief Operating Officer for Renergen, who holds the only onshore Petroleum Production Right in South Africa through their 100% owned subsidiary Tetra4. Together with his partners, Nick acquired Tetra4 in 2013 and since then have developed the asset from what was once considered a stranded gas asset into a potential worldclass helium and natural gas reserve. He is strong in operations, strategy and risk management. Nick currently serves as the Chairman of the Onshore Petroleum Association of South Africa (ONPASA) and has done so since March 2017. In December 2020, he was appointed as a Trustee to the Upstream Training Trust (UTT), established by the Petroleum Agency SA and the companies participating in the South African off and onshore search for oil and gas. The Trust seeks to provide bursaries to eligible students interested in Petroleum (oil and gas) Exploration.

Nick is also the Chairman of the Onshore Petroleum Association of South Africa (ONPASA). ONPASA represents the upstream onshore petroleum industry in South Africa



Brian is the Chief Financial Officer of Renergen Limited with over 15 years' experience in senior finance roles after having initially qualified and worked as a mechanical engineer for De Beers. He has worked for multinational, foreign listed and JSE listed companies, principally in the resources sector, including Weir Minerals Africa and Middle East, Royal Bafokeng Holdings Pty Ltd and Anglo American plc.

He also has both strategic and operational level experience in the finance area and been involved with the project finance and oversight of the delivery of several capital projects

Management & Board

Independent Non-Executive Directors



Dr David King Chairman

David is a professional geoscientist and has over 40 years' experience in oil and gas and other natural resources industries. He holds an MSc in Geophysics from Imperial College, London, and a PhD in Seismology from the Australian National University, Canberra. David has held various Board positions with ASX natural resources companies, and was a founder of oil and gas companies Eastern Star Gas Ltd and Sapex Ltd. He has also served as Managing Director of ASX listed gold producer North Flinders Mines, CEO and Managing Director of oil & gas producers Beach Petroleum and Claremont Petroleum, and Chairman of Robust Resources Ltd. David is currently Non- Executive Director of ASX listed Galilee Energy Limited and AIM listed Litigation Capital Management Limited. David is a Fellow at the Australian Institute of Company Directors, the Australian Institute of Geoscientists, and Australasian Institute of Mining & Metallurgy.

David was formerly Chairman of ASX-listed Cellmid Ltd, and is currently a director of formerly ASX-listed Tap Oil Limited



Mbali Swana Non-Executive Director

Mbali is the chief executive officer of Prop5 Corporation Proprietary Limited, a turnkey-built environment infrastructure and engineered products developer which he founded in 1986. Mbali has significant experience in implementing large scale projects across Africa and is currently developing Prop5's Africawide strategy for the development of infrastructure.

Mbali is also CEO of Prop5 Corporation (Pty) Limited, a turnkey built environment infrastructure and engineered products developer



Dr Bane Maleke Non-Executive Director

Bane holds an MBA from Dalhousie University (Canada) and a Ph.D. – Strategic Management, from the University of Bath (UK). He spent 20 years in senior management at the Development Bank of South Africa (DBSA) and held the position of Regional Executive for the SADC and East Africa Regions. He is the chairman of an MNO in Lesotho and Director of an energy company.

Bane also serves on the Board of Econet Telecoms Lesotho



Luigi actively consults on strategic and business development initiatives in the mining and engineering field. He served in senior management positions and as Financial Director of Highveld Steel and Vanadium Corporation Limited for 18 years up to 2007 where he implemented successful cost reduction and efficiency strategies.

Luigi also serves on the Boards of Delta EMD Ltd and Sublime Technologies Ltd.



Francois Olivier Non-Executive Director

Francois Olivier is a portfolio manager and executive committee member at Mazi Asset Management. He has 19 years of investment research and portfolio management experience, the first seven of which were spent in the USA.

Francois Olivier is also a portfolio manager and executive committee member at Mazi Asset Management. He is also a Non-Executive Director of Ellies Holdings Limited.

Company

Structure and Shareholding

Data below updated as of 21 January 2022

Share Price	A\$3.44/R38.30
Shares on issue	~123.8M
Options on issue	~5.4M to Brokers/Financial Institutions ~11.3M to Staff ¹
Market capitalisation	A\$423M/R4.7B
Debt	 Interest free Ioan R50M, Subordinated US DFC Loan US\$40M IDC Loan R163M

1. Options awarded over 5 years for share price appreciating to levels from R75 up to R150/share





Since South Africa implemented the POPIA Act, more recent data is no longer available. The JSE is however implementing a solution so the data will be available again from Q2 2022

Business Verticals - "Wellhead to Tank"

Ownership of end user in 4 market segments

Power generation

Phase 2 will incorporate a 60MW gas-to-power operation, a portion of which will supply the plant, and the balance will be sold to a 3rd party

Industrial users

- Sold to customers currently using liquefied petroleum gas (LPG), with LNG offering a cheaper and cleaner solution
- Phase 1 has Consol and key customer, and in negotiation with 4 customers on Phase 2 LNG

Liquid fuel substitution

- Dual fuel applications for trucks and busses, reducing emissions and running costs
- Tetra4 will establish refilling depos in Johannesburg, Cape Town, Durban, Bloemfontein, Harrismith and Port Elizabeth

Helium

- Phase 1 helium contracted
- 65% of Phase 2 helium contracted, with 35% available for spot market sales

VERTICALLY INTEGRATED BUSINESS -FROM WELLHEAD TO TANK



Virginia Gas Project Phases Summary

Significant progress made thus far in both Phase 1 and Phase 2

On track to commence commissioning in March 2022 with commercial operation in April 2022 • Finalisation of debt package	
 Award of EPC contracts and construction cor Anticipated first gas to plant by 2024/5 	s: ntracts
Helium Capacity 350kg/day 5,000kg/day	
NG Capacity 2,700GJ/day 24,000GJ/day	
Power Generated from Gas None 60MW	
Cost to Build \$60m \$900m	

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Significant Growth in Reserves Since 2019

1P helium reserves increased by 610% to 7.2Bcf and 1P methane reserves by 427% to 215.1Bcf

BCF

BCF

0.0

1P

	-		Mar-19	Sep-21	% Change
	e .	Phase - 1P	40.8	215.1	427%
eet	lethar	Phase - 2P	138.9	407.0	193%
ubic F	2 7	Phase - 3P	284.2	600.1	111%
2			1		
3illio		Phase - 1P	1.0	7.2	610%
<i>In B</i> Helium	Helium	Phase - 2P	3.4	13.6	298%
		Phase - 3P	6.9	20.0	192%

700.0 600.1 600.0 500.0 407.0 400.0 284.2 300.0 215.1 138.9 200.0 100.0 40.8 0.0 3P 1P 2P 25.0 20.0 20.0 13.6 15.0 10.0 7.2 6.9 3.4 5.0 1.0

2P

Mar-19 Oct-21

3P

Post-Dilution Net Present Value Per Share

Additionally issued shares in millions for the South African and Australian markets

ZAR/Share	+25m	+50m	+75m
2P 8%	436	374	327
2P 10%	347	297	259
2P 15%	208	178	156
1P 10%	179	153	134
1P 15%	103	88	77

AUD/Share	+25m	+50m	+75m
2P 8%	40	34	30
2P 10%	32	27	24
2P 15%	19	16	14
1P 10%	16	14	12
1P 15%	9	8	7



How Did The Gas Get There?

Production Right is on the rim of the Vredefort Crater, formed by an asteroid strike 1.8 billion years ago, where natural Helium is produced owing to ultra-high uranium concentrations below



Timing of the asteroid impact and conditions after impact, resulted in a bacteria known as Archaea adapting to the specific surroundings



Bacteria evolved to use the energy from the radioactivity underground to metabolise carbon into methane, similar to chlorophyl using sunlight to metabolise CO2 into sugar and oxygen



Helium gas produced as a by-product of radioactive decay so that the methane and helium are found together in this deposit





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Market Overview



Helium Uses - "Irreplaceable without Substitutes"

Helium is a vital and irreplaceable element in many modern industries

Why is helium important?

- Helium is a rare commodity
- Helium becomes economically viable to extract from natural gas at concentrations as low as 0.1%
- The Virginia Gas Project's average concentration of helium is 3.4%
- Tetra4 is placed at the forefront of exciting new discoveries for global helium supply



The properties of helium **F** 63 Helium is best known for being lighter than air, but it actually has many unique Lighter than air Boiling point -268.9°C Superfluid. The only Non-toxic Inert qualities that make it important for Doesn't react chemically It's colourless, odorless Ability to lift and/or Does not solidify at substance with no applications in technology. with other elements and tasteless float atmospheric pressure viscosity in liquid form

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Helium Prices

Supply and demand remains constrained. It is estimated that over the short to medium term, helium supply may increase brining much needed stability to the market



Source: Chinese Customs Data, Eurostat, H&P estimates (2020 for January and February is averaged as only aggregate data reported)

However, toward the later part of this decade, there are concerns of significant supply reductions due to decreased upstream production of natural gas in favour of renewable energies

Helium Uses

"Strong Supply & Demand Dynamics"



- Estimates vary but annual usage is 6-7BCF (28m -32m kg) worth \$US6bn
- US is the largest user of helium, accounting for 41% of current global demand
- Increased penetration of MRI in emerging markets
- Growth in electronics, semiconductors, LCD and fibre optics mainly from South East Asia





- USA is the world's leading helium supplier with ~ 55% share of global supply in 2016, followed by Qatar with ~32% (Source: USGS)
- Qatar and Russia have been unreliable sources of helium supply
- Blockade of Qatar has reduced world supply and impacted price
- Supply is diminishing with the US Bureau of Land Management having announced a permanent shut down with the last auction having occurred in August 2018
- Hugoton field winding down, with production forecast < 500 MMSCF per anum



- Space agencies (China, India, SpaceX)
- According to Deloitte's 2019 report "Global health care outlook", the number of private hospitals in China doubled to 18,759 from 2011 to 2017 which represents a compound growth of over 12% in the private health care sector alone
- The world's only primary helium supply, the USA Federal reserve goes offline due to health and safety concerns
- Qatar's supply remains volatile given the situation in the Middle East
- Russia's Amur plant suffered significant delays

Global Helium Supply & Demand

Global supply and forecast, Akap Energy Estimates



- Current estimates are that helium should be in slight oversupply assuming only a modest growth of 3%, which seems unlikely with the growth in the expanding aerospace sector
- These estimates are also predicated on Qatar turning on its new plant, and Russia's Amur plant commencing production in 2021. This did not happen as the Aka plant suffered 2 consecutive fires in 2 months during commissioning and will take at least 12 months to rectify, delaying their ramp up and production



RENERGEN Source: Akap Energy estimates

Facilitation of Helium Spot Market

Argonon Helium Token, or ArgHe

Helium Supply Agreement

Renergen has entered into a pre-paid forward supply agreement to Argonon Helium US Inc, a Delaware company

https://argonon-he.com/

Mechanics

- Argonon has the right to purchase up to 100,000 mcf of helium from Renergen's Phase 2 plant at a predetermined price, ranging from US\$230 to 270/mcf
- Argonon is issuing tokens through its website, using Ethereum, to provide the blockchain infrastructure for the tokens
- The tokens allow the holder to collect helium from Renergen
- The will be tradeable in early January 2022 on exchange BitGet (<u>https://bitget.com</u>), and will include additional crypto exchanges in due course
- Token will also be traded on PancakeSwap, the largest decentralized crypto exchange



The South African Gas Market

Natural gas is currently imported via pipeline from Mozambique by Sasol

- Pipeline runs to Johannesburg reticulated to customers via low pressure pipeline
- Majority of imported gas is used by Sasol for its petrochemicals business
 - estimated shortfall of gas in Johannesburg of up to 220,000
 GJ/day
 - Industrial Gas Users Association of Southern Africa predicts gas supply crunch imminent, with Sasol's Mozambican field in depletion
- Pipeline natural gas sold at low pressure for ZAR 120/GJ to large users
- LPG is widely sold to industrial customers not on the pipeline in Johannesburg at a similar price to diesel
 - LPG in South Africa is low quality, being predominantly butane
- ~377,090 heavy duty trucks registered in South Africa



Renergen's supply by 2025 time is estimated at 36,000 GJ/day

If 30% of Phase 2 LNG is sold to trucks, it represents less than 0.8% of the trucking market

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LNG Opportunity



Domestic LNG Distribution

Renergen pioneered an innovative solution for our refrigeration trucking customers, using the exergy from the gasification process to cool the food box, reducing costs and greenhouse gas emissions



- Renergen's LNG operation is completely vertically integrated, controlling the custody chain of the gas directly into the customers' assets
- Renergen and Total signed an agreement to allow the company to establish LNG filling stations to supply our customers on Total's forecourts on the major highways in SA
- Phase 1 can supply LNG to a maximum of 500 trucks, SA has over 377,000!

LNG Routes and Stations

The Total joint marketing agreement focuses on the N3, with additional plans for the N1 to Cape Town





- The N3 joins Johannesburg and Durban, the busiest highway in the country
- The N3 alone has over 20,000 heavy trucks per day

LNG Vehicle Options

Overview of the diesel dual fuel system

Diesel Dual Fuel (DDF)



- Developed over 50 years ago and today, over 24m vehicles use NG
- 'Plug and Play' system for most trucks
- 1-2 days for installation
- Kit can be transferred from the same engine type to another
- Up to 60% diesel substitution
- Higher travel range (up to 1200 km) compared to CNG operation

Dedicated





- Operate on NG only
- Same power as diesel trucks
- Low environmental emissions
- Up to 1000 km travel distance
- Lower engine noise
- Use HP Diesel Injection technology

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Virginia Gas Project



Phase 1 - Schedule Update

The Revised Phase 1 schedule updated as per forecasted completion dates

Milestones	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22
Gas Gathering Pipeline																
LNG/ Lhe Fabrication																
Shipping																
Onsite Installation																
Cold Commissioning																
Hot Commissioning																
Performance Testing																
Commercial Operation										Start-up of Commercial Operations April 2022						

- In September 2021 we quantified the new commercial commencement date as March 22, with commissioning commencing in December 21, gas to plant in January 22, and tanks being filled in February 22
- In the last two weeks, the construction was hit with several delays including COVID on site (18 cases this month), adverse weather conditions (11 days of rain), shipping delays (ship mechanical failure leading to unscheduled stops before reaching Durban) and construction delays
- Despite these challenges, the team has implemented mitigation strategies to reduce risk and delays, and **commercial operation has** only been impacted by a month as a result

Concentration is Key

Extraction of helium produces natural gas, which when combusted each kg of Methane produces 2.2kg C02

- Nearly all helium is produced as a by-product of natural gas. Very few helium plays with little to no methane
- The highest concentration of helium consequently produces the lowest carbon foot-print
- Helium is irreplaceable in the modern world; Qatar (30% of the world's helium production) produces
 63x more C02 than Renergen





1 – Figures are an assumption on a "cradle-to-grave" basis measuring through to the end user.

2 - Conservative financial modelling utilises a helium concentration rate of 2.5%

Phase 2 - 2024 Turn On

A busy 12 months ahead with plant design, key exploration and development activities commencing



Design Stage

- Saipem and EPCM have completed FEED
- Reserve Update now completed

💩 Drilling Target

- Will consist of 297 wells, drilled along the main faults and dykes throughout the Production Right
- Anticipated to build up to **44mmscf per day** at full production
- Total estimated CAPEX of around US\$900mn

Construction Timeline

- Anticipated turn on date in 2024
- 65% of Phase 2 anticipated production is pre sold to clients including Linde, Meser, Helium 24 and iSi

Drilling Target Modelling

Gas modelling depicts presence of high value resources in the Contingent and Prospective areas. These are areas that are yet to be explored and potentially have *more* resources than the Reserve area



But How Much Gas Is It?

2P total gas (methane plus helium) is equivalent to 65,000,000 standard cubic feet ("scf") per day for the remainder of the license tenor

Our target once **Phase 2** comes online is **44,000,000scf per day** (of gross gas made up of helium, methane and helium) from the Phase 2 plant and 3,000,000scf from the Phase 1 plant, well below the 2P volumes At prices of over **US\$15/1,000scf** for methane and **US\$250/1,000scf** for helium, delivers revenue of **US\$0.93 million per day**, or **US\$321 million per annum** (including maintenance days) 40,000,000scf of methane per day is equivalent to 280MW of electricity in a closed-cycle turbine for almost 20 years

 280MW of power from gas would reduce CO2 emissions by 2.3 million tpa or 46 million tonnes over the life of the Virginia Gas Project as compared to Eskom

Where Do We Drill For It?

The insert shows the Production Right, with faults and fissures running north-south, and sills and dykes running west-east ("structures")



- Gas is generated at depths that exceed 5km and migrate to a depth of 300m from surface in these structures
- Gas is trapped in these structures by a dolerite cap
- Drilling into these structures creates a preferential pathway for the gas to migrate to surface
- The green in the image shows the least methane leakage and red the highest leakage to the surface

Drilling Accuracy

Renergen developed a sophisticated proprietary algorithm to pinpoint drilling locations to improve our drilling success ratio, using methane detection combined with several other biological markers



- Pictured is a close-up example of the algorithm
- The recent campaign increased drilling success to 83%, up from the previous rate of just over 50%
- ST23 (drilled in 1982) and PR007 (drilled in 2021) are amongst the 2 best blowers
- 007 was selected using the algorithm, with almost no human oversight

Phase 2 Drilling Plan

High level plan for Phase 2 drilling



- Phase 2 drilling campaign will include 297 wells drilled along the primary identified faults and dykes, covering around 300km of gas bearing structures
- There are over 1,000km of identified gas prospective structures that have been identified thus far, and only half the Production Right has been properly explored

Production Right Layout

Significant upside potential exists as the Contingent and Prospective areas contained within the Production Right have yet to be adequately explored



- Proven Reserve area in the centre of Production Right is the most clearly defined by geological data
- Structures identified in the Reserve Area extend toward the outer perimeter of Production Right area

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Additional Material



Business Model

Renergen aims to accelerate the adoption of cleaner energy by beneficiating our resource into a refined commodity that will benefit our customers, by saving them money and reducing their carbon footprint

Key PartnersImage: Construction partners• Drilling & exploration partners• OEM technology providers• Engineering and construction partners• Distribution partner-TotalKey Regulators• JSE• ASX• DMRE• NERSA• DEAT• DWA	 Key Activities Upstream natural gas exploration Midstream natural gas processing and distribution Downstream Sales & Marketing Key Resources Geological resource Natural gas refined and sold as: LNG Liquid helium Intellectual property 	 Value Proposition First mover ad Environmental alternative Highest helium globally Low cost prod Nearing positive generation Significant upseunexplored an resources Revenue linkee 	on vantage vantage ly friendly fuel a concentration ucer ve earnings ide in d undiscovered d to the US \$	 Customer Relationships Dedicated and experienced technical and commercial sales team Large global multinational customers Renergen Brand is gaining support and trust in the market Sales Channels Business to business sales Conference events Product auctions Trading platform 	 Customer Segments LNG Mining sector Heavy logistics transport sector Cold chain logistics transport sector Cold chain logistics transport sector Industrial manufacturing sector Food and beverage manufacturing sector Power Helium Industrial gas wholesalers Large consumers/manufactures
 Cost Structure Exploration costs Production costs Distribution costs Sales costs 	Financing costsExpansion and further dev	elopment costs	 Revenue Strean Tetra4 LNG-Liquid LHe-Liquid Power Future possible 	ns I natural gas helium e	6

General administrative costs

- Future possible
- Cryo-Vacc

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Phase 1 Images



Sandstone Drill Success

- In 2016, hole 2057 was drilled vertically and intersected 11% helium just below the Vryheid formation in the sandstone, which covers 90km² and is around 100m thick with 15% porosity and c. 250md permeability
- In October 2019 it was decided to drill a horizontal well into the sandstone around 2057 to explore the potential for high concentration helium
- December 2019 saw the discovery of 12% helium in the "motherhole" below the base of the Karoo
- The flow reached 850,000 scf/d during initial testing. Gas found originating from faults 2057 and 2089 below





New Wells

Over the past 18 months, the Company has been working with Shango Solutions and Sproule to define the reservoir



 A comprehensive data base of holes, drilled by the gold mining in the area, produced lithography which was then modelled in 3 dimensions

- Based on gas intersections, faults, fissures and dykes have now been ranked in terms of their gas production
- The map shows an overlay of the existing wells, the pipeline, the major faults and dykes, and Sproule's previous coordinates for Proven and Probable wells based on a more traditional reservoir model as opposed to a faulted system
- The new wells have been selected to intersect critical faults, fissures and dykes, while also expanding Proven and Probable locations

https://www.renergen.co.za/commencement-of-drilling/

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