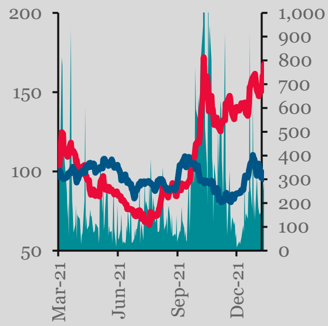
Renergen Limited

Potential Sale of 10% of Tetra4 implies an Equity Value of ~US$700mm for Renergen

GICS Sector	Energy
Ticker	ASX:RLT; JSE:REN
Market cap 25-Mar-22 (US$mm)	335
Share price 25-Mar-22 (AUD)	3.57

NAV summary (AUD $/sh)

Asset	Unrisked	Risked
Core NAV	1.3	1.2
Development	6.8	4.1
Exploration	2.6	0.5
Total	**10.6**	**5.8**



Renergen executes term sheet for sale of 10% of Tetra4 to Central Energy Fund

Renergen has announced the sale of 10% of fully owned subsidary, Tetra4 (which is a 100% owner of its flagship Virginia Gas Project), for ~US$69mm to the South African Central Energy Fund (CEF). The funds will be used to progress the development of Phase II of the Virginia Gas Project. A non-binding term sheet has been signed following long-term discussions given that Renergen's reserves have reached critical mass to allow CEF's involvement. The parties have until mid-August to execute binding agreements; if binding contracts have not been executed after 141 days, Renergen has the right to renegotiate the price. The transaction is subject to completion of conditions precedent including due diligence, Department of Minerals and Energy ministerial approval and National Treasury approval.

Central Energy Fund investment follows on from Ivanhoe investment

CEF is a State-owned diversified energy company with an investment mandate focused on contributing to the energy security of South Africa. The investment by CEF will provide exposure to economic participation in South Africa's first and only onshore petroleum production right. The agreement follows the strategic partnership announced last week between Renergen and Ivanhoe Mines. CEF said that its participation in the Renergen project is in line with the newly adopted strategy of being a "strategic investor" in the energy value chain that is geared to support the region's energy needs, leading the energy security and just transition programme for South Africa. Renergen's natural gas sales reduce South African carbon emissions by substituting coal usage.

Yet another external validation of project and reduces funding risk further

We see this as a significant announcement for several reasons. Firstly, it provides the second external validation of Renergen's assets and strategy in the space of two weeks following on from Ivanhoe. Secondly it provides Renergen with further equity funding for the Phase 2 project, reduces Renergen's own capex by 10% and gives confidence to the potential debt providers. These deals give Renergen the opportunity to consider a larger project to monetise more of its substantial reserves and resources. We see the potential for Renergen to double the output of helium that is currently planned for phase 2 of ~350mmcf/y of helium, which would take it to >10% global market share and be one of the leading global helium players.

Positive helium and LNG market fundamentals

Given the current market dynamics there is upside to both our helium and LNG price estimates. We see the helium market as undersupplied in 2022 following the shut-in of production from the US helium storage facility and the absence of growth from Russia. Spot pricing has already risen to multiple times our current helium price assumption of US$250/mcf and the supply demand dynamics mean that Renergen is well positioned to achieve higher prices. Furthermore, higher oil prices mean that Renergen will be able to achieve greater prices for its LNG and we expect significantly more demand to switch from LPG/diesel to Renergen's LNG if oil prices remain elevated.

Valuation: increasing risked NAV by 14% to R63/sh or A$5.8/sh

On the back of the expected funds from the Tetra sale (assigned 90% chance of completion), increasing our Virginia Phase 2 chance of commercialisation to 60% from 50% and partly offset by a lower stake in Virginia our new risked NAV is A$5.8/sh or R63/sh, which implies 60% upside from the current share price. Taking just the 2P value (excluding contingent resources and exploration upside) gives a risked value of A$5.2/sh or R57/sh, still implying 45% upside. On a fully unrisked basis we see ~200% upside to the current share price. The main catalysts are commencement of Phase 1 production, derisking Phase 2 on which we are expecting further funding announcements around debt, as well as uptake on the helium "tokens" issued to raise up to US$25mm.

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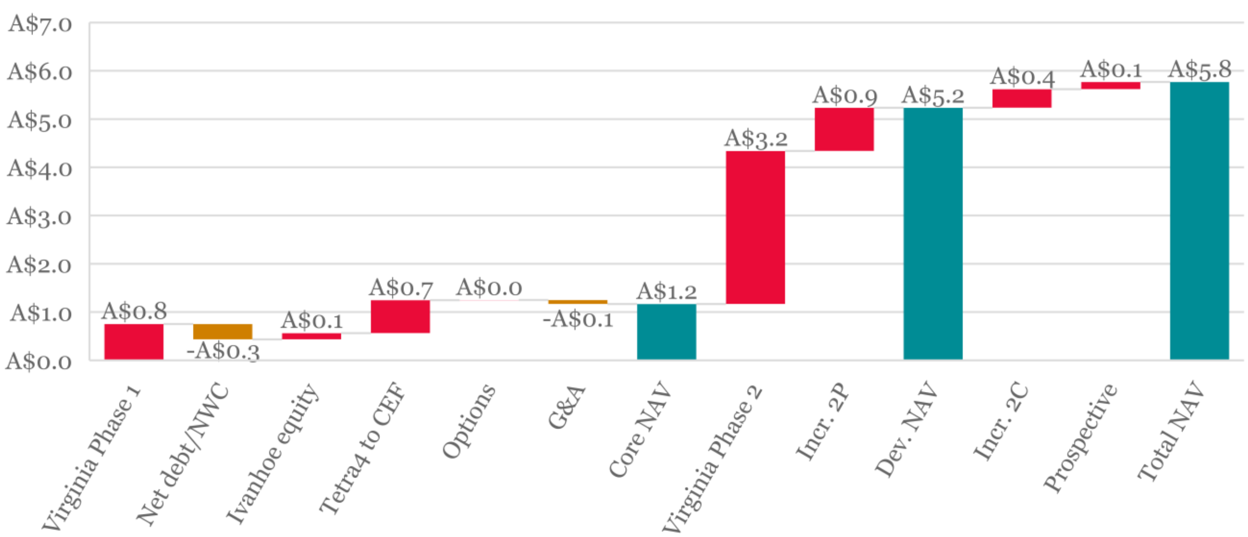
Valuation

NAV

Asset	Net bcf	NPV US$/mcf	Unrisked US$m	Unrisked R/sh	Unrisked A$/sh	Risking CoS	Risked US$m	Risked R/sh	Risked A$/sh
Net debt			-U$32	-R3.5	-A$0.3		-U$32	-R3.5	-A$0.3
Equity raise			U$13.3	R1.4	A$0.1		U$13.3	R1.4	A$0.1
Tetra4 sale to CEF			U$69.0	R7.4	A$0.7	€ 0.90	U$69.0	R7.4	A$0.7
Options and warrants			U$0.4	R0.0	A$0.0		U$0.4	R0.0	A$0.0
G&A @ 3x			-U$8.3	-R0.9	-A$0.1		-U$8.3	-R0.9	-A$0.1
Net working capital			-U$0.1	R0.0	A$0.0		-U$0.1	R0.0	A$0.0
Virginia Phase 1	20	$4.3	U$85	R9.1	A$0.8	90%	U$76	R8.2	A$0.8
Core NAV	**20**	**$6.5**	**U$127**	**R14**	**A$1.3**	**93%**	**U$118**	**R13**	**A$1.2**
Virginia Phase 2	309	$1.7	U$536	R57.6	A$5.3	60%	U$321	R34.6	A$3.2
Incremental 2P reserves	50	$3.0	U$151	R16.2	A$1.5	60%	U$91	R9.7	A$0.9
Development NAV	**359**	**$1.9**	**U$687**	**R74**	**A$6.8**	**60%**	**U$412**	**R44**	**A$4.1**
Incremental 2C reserves	224	$0.5	U$112	R12.1	A$1.1	35%	U$39	R4.2	A$0.4
Prospective resource	299	$0.5	U$149	R16.1	A$1.5	10%	U$15	R1.6	A$0.1
Contingent / Exploration	**523**	**$0.5**	**U$261**	**R28**	**A$2.6**	**21%**	**U$54**	**R6**	**A$0.5**
Total NAV	**523**	**$2.1**	**U$1,075**	**R116**	**A$10.6**	**54%**	**U$585**	**R63**	**A$5.8**

Source: H&P estimates

Risked NAV build up for Renergen (AUD/sh)



Source: H&P estimates

Risked NAV (A$/sh) at different gas prices and discount rates

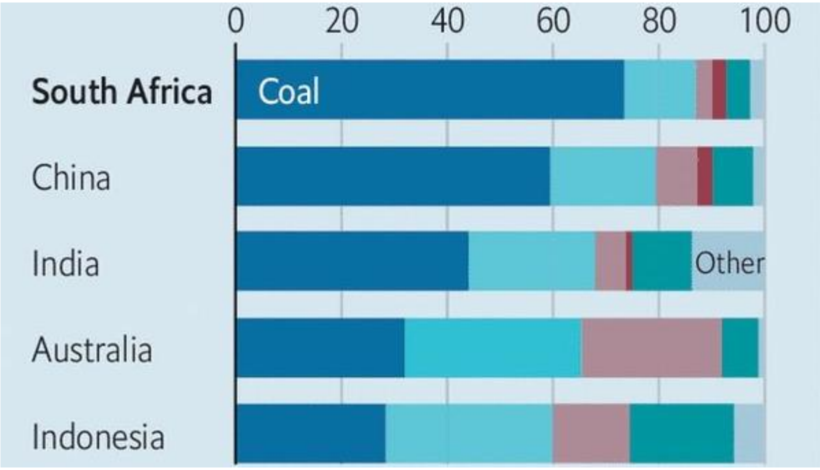
		Helium Price ($/mcf)				
		$150	**$200**	**$250**	**$300**	**$350**
	$11.5	A$3.4	A$3.8	A$4.3	A$4.7	A$5.1
LNG	**$14.0**	A$4.2	A$4.6	A$5.0	A$5.4	A$5.9
price	**$16.5**	A$4.9	A$5.3	A$5.8	A$6.2	A$6.6
$/mcf	**$19.0**	A$5.7	A$6.1	A$6.5	A$6.9	A$7.4
	$21.5	A$6.4	A$6.8	A$7.3	A$7.7	A$8.1

Source: H&P estimates

South African Natural Gas Market

South Africa is in the midst of an energy crisis as it has a significant fuel deficit and a reliance on coal. South Africa's economy is one of the most carbon-intensive in the world, with a fleet of 15 coal-fired power plants providing more than three-quarters of the nation's electricity. The country is already seeing rolling blackouts due to failing electricity infrastructure, which makes 'rewiring' it a more urgent priority. The national power generation company Eskom is struggling with load shedding and with generation capacity. The country is already short of gas and in addition there are significant barriers to importing any other form of energy. Most of South Africa's gas comes through a pipeline from Mozambique (where production is in decline) all the way to Johannesburg and Sasol sells it at a significant premium to what the international market is paying, under normal market conditions.

Top-5 coal-intensive G20 countries, 2020 by primary energy supply (%)



Source: Climate Transparency

The governments of South Africa, France, Germany, the UK and the US, along with the EU, in 2021 announced a partnership to support South Africa's decarbonisation efforts, with a focus on the electricity system. It will mobilise an initial commitment of US$8.5bn for the first phase of financing, through various mechanisms including grants, concessional loans and investments and risk sharing instruments, including to mobilise the private sector. It aims to prevent 1-1.5 gigatonnes of emissions over the next 20 years, to move away from coal and to accelerate its transition to a low emission, climate resilient economy.

There is a >200mmcf/d gas shortfall in Johannesburg with a further 60mmcfe/d of LPG demand and potential for LNG for trucking. Therefore, there are ample opportunities for Renergen to tap with its initial Phase 2 production plans of ~40mmcf/d of natural gas with confidence that it could further grow the business in the longer-term. A new Gas Master Plan is being developed to increase the share of gas in the power mix. There are environmental benefits of switching from coal to gas and plans to add >8GW of new gas/diesel generation capacity by 2030. Significant offshore gas discoveries could stimulate the creation of a much larger domestic gas market but these will take time to develop.

Renergen is looking to build a vertically integrated business from wellhead to tank. Around the Virginia Gas project there is access to existing infrastructure for transport and consumption of natural gas (power stations, liquefaction plants, rail networks, etc.). Renergen is South Africa's first LNG producer and has access to a supply constrained market providing reliable long term offtake agreements.

Why LNG is the most environmentally friendly solution in South Africa

In South Africa, LNG is both a cleaner source of fuel and more cost competitive than diesel, without the need for any legislative involvement or changes, making it a more obvious, and immediate solution than battery-electric vehicles (BEVs) or hydrogen. An LNG heavy vehicle (such as a bus or truck) is 25% cheaper and 8% more fuel efficient than diesel, and the carbon emissions are around 30% less.

Converting to running trucks off electric batteries is not feasible in South Africa, in our view. The energy density in a battery is not sufficient to be able to run trucks on the road under South African conditions where they would need to run for 10-14 hours a day carrying combination payloads of 50 tons. This cannot be achieved with a BEV and furthermore the electricity grid is too constrained and unreliable. The only other clean option is hydrogen, but this will require large quantities of platinum *per* truck for South Africa's payloads, which would be cost prohibitive, as would be the cost of producing the green hydrogen, again given the lack of low-cost reliable power.

Utilising LNG has further enhanced benefits for vehicles with refrigeration. Renergen has developed a zero-emission solution for the cold chain logistics industry deploying LNG. The innovative concept utilises the fact that LNG is stored at ultra-low temperatures in the truck's tank and must be brought to room temperature before being consumed in the engine. In heating the gas, the cold energy of the gas is transferred to the refrigeration compartment of the trailer, providing free cooling and reducing combined greenhouse gas emissions by up to 96t p.a. per truck. The added benefit here is reducing running costs by up to 23% as compared to the total fuel bill for a truck using standard refrigeration technology.

There is a substantial South African truck fuel market that Renergen is seeking to tap consisting of 400k heavy duty trucks. Renergen's own trials in 2017 on dual fuel trucks (diesel-CNG) showed a 13-14% improvement in consumption and 25-26% reduction in direct fuel costs over diesel-only vehicles. Market estimates suggest ~50,000 trucks could potentially convert to LNG over the next 10 years. 1mmcf/d of gas produced supplies ~250 trucks. Phase 1 will see the supply of fuel for ~450 trucks, which means that supply is unlikely to outstrip demand.

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