

Renergen Ltd Large Reserve Upgrade & Implications

Share Code: REN – Market Cap: R3.8bn – PE: -89.0x – DY: 0.0%

12m Target Price	6766cps
Share Price	3065cps
Implied Return	121%

Resources | [South Africa](#)

News: Large Reserve Upgrade & Upsizing of Phase Two

- Sproule has published [an updated reserve statement](#) on Renergen, revealing large upgrades to the Group's gas reserves.
- For example, +428% and +610% was added to the amount of methane & helium in 1P. Similar upsides came through in 2P & 3P.
- While Phase One remains mostly the same, this has resulted in us making the following key changes to our Phase Two assumptions:
 - Lifting our LNG production from 300tons/day to 720tons/day with a target of c.2.5% yield of helium, &
 - Boosting our capex to R12.2bn with 30% of being raised as equity (the balance being debt & prepaid tokens).

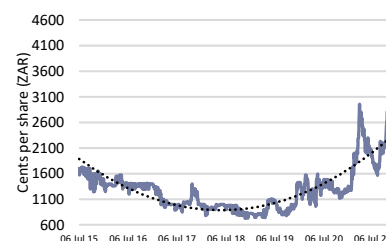
Our Thoughts & Spot Prices: Updated & Refined

- We have used this opportunity to update spot prices, exchanges rates and interest rates across the model.
- Likewise, we have tried to understand management's expectations for LNG and helium basket pricing and, although we feel that some of their views are conservative, we have tried to align our model with these views.

Valuation and Implied Return: Dividend Discount Model Added

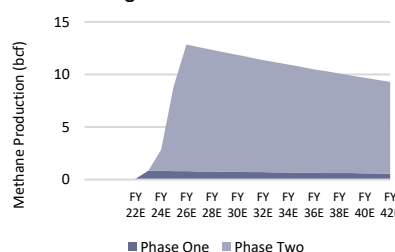
- Our Sum-of-the-Parts for Renergen sees the share's fair value as c.5,747cps and, on basic assumptions, implies an FY 30E Price Earnings of c.6.1x with a Dividend Yield of c.15.6%.
- Upon maturity, management intends paying most profits out as dividends. Therefore, we have taken our valuation a step further and attempted a crude Dividend Discount Model (DDM).
- Our DDM assumptions arrive at a fair value of 6,412cps for REN minority shareholders (after DWT). This is more or less in line with our SOTP model & adds conviction that REN shares are likely to be worth mid-R50/share to mid-R60/share, or certainly *above* their current 3,065cps share price, despite Phase Two dilution.

Renergen's Share Price



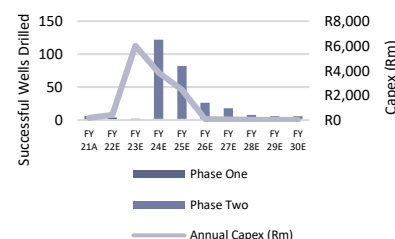
Sources: Profile Media, Blue Gem Research

Renergen's Forecast Production Profile



Source: Blue Gem Research

Renergen's Forecast Capex Profile



Source: Blue Gem Research

Production:	FY 20	FY 21A	H1:22A	FY 22E	FY 23E	FY 24E	FY 25E	FY 26E
LNG - Phase One (Giga Joules)	-	-	-	152,083	760,417	894,250	876,365	858,838
LNG - Phase Two (GJ)	-	-	-	-	-	4,380,000	8,760,000	13,140,000
Helium - Phase One (thousand cubic feet)	-	-	-	9,718	23,324	22,857	22,400	21,952
Helium - Phase Two (mcf)	-	-	-	-	-	134,068	268,136	402,204
Gas Reserves:								
Natural Gas - 1P (billion cubic feet)	40.8	215.1	215.1	215.0	214.2	211.3	202.5	189.6
Helium - 1P (bcf)	1.0	7.2	7.2	7.2	7.1	7.0	6.7	6.3
Financials (R'000's):								
Revenue	2,635	1,925	1,249	84,722	336,215	1,850,885	3,313,417	4,776,102
Net Profit	-52,619	-42,620	-25,167	-30,629	90,403	797,032	1,175,240	1,832,325
HEPS (cps)	-46cps	-36.3cps	-21.0cps	-25.2cps	49.3cps	327.6cps	483.0cps	753.1cps
Price Earnings (x)	-66.7x	-84.4x	-145.6x	-72.8x	62.1x	9.4x	6.3x	4.1x
Return on Assets (%)	-8%	-5%	-3%	-1%	1%	8%	12%	16%

Sources: Renergen, Profile Media, BLM, MHA, various company reports & Blue Gem Research workings & assumptions



twitter.com/BlueGemResearch



facebook.com/BlueGemResearch

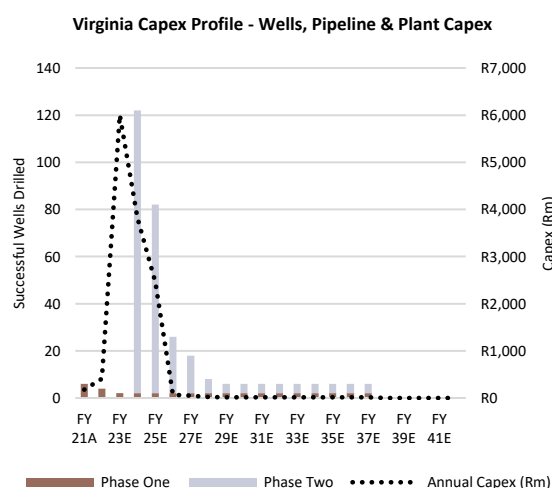
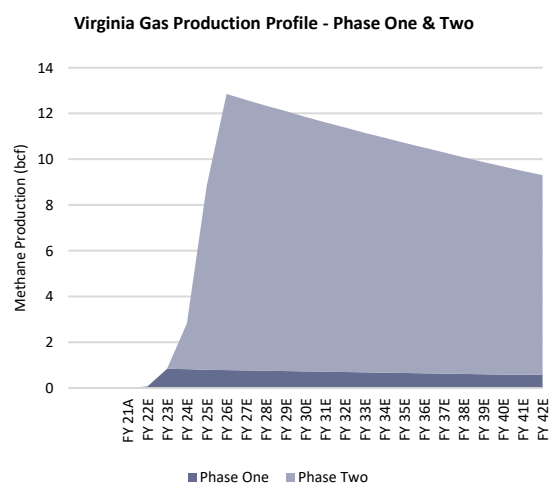
www.BlueGemResearch.co.za – Confused by this report? View our [methodology](#) and [FAQ](#). Please refer to disclaimer at the end of this document and on website



BLUE GEM RESEARCH

Summary & Forecast:	FY 21A	H1:22A	FY 22E	FY 23E	FY 24E	FY 25E	FY 26E
Production:							
LNG - Phase One (Giga Joules)	-	-	152,083	760,417	894,250	876,365	858,838
LNG - Phase Two (GJ)	-	-	-	-	4,380,000	8,760,000	13,140,000
Helium - Phase One (thousand cubic feet)	-	-	9,718	23,324	22,857	22,400	21,952
Helium - Phase Two (mcf)	-	-	-	-	134,068	268,136	402,204
Gas Reserves:							
Natural Gas - 1P (billion cubic feet)	215.1	215.1	215.0	214.2	211.3	202.5	189.6
Natural Gas - 2P (bcf)	407.0	407.0	406.9	406.1	403.2	394.4	381.5
Natural Gas - 3P (bcf)	600.1	600.1	600.0	599.2	596.4	587.5	574.6
Helium - 1P (bcf)	7.2	7.2	7.2	7.1	7.0	6.7	6.3
Helium - 2P (bcf)	13.6	13.6	13.6	13.5	13.4	13.1	12.7
Helium - 3P (bcf)	20.0	20.0	20.0	20.0	19.8	19.5	19.1
Financials (R'000's):							
Revenue	1,925	1,249	84,722	336,215	1,850,885	3,313,417	4,776,102
Gross Profit	-917	-357	78,567	288,723	1,667,691	2,876,397	4,140,076
Operating Profit	-46,773	-25,411	4,334	225,263	1,563,846	2,721,499	3,984,477
Net Profit	-42,620	-25,167	-30,629	90,403	797,032	1,175,240	1,832,325
Issued Shares (000's)	117,427	123,140	123,140	243,297	243,297	243,297	243,297
Weighted Shares (000's)	117,427	119,570	121,355	183,218	243,297	243,297	243,297
EPS (cps)	-36.3cps	-21.0cps	-25.2cps	49.3cps	327.6cps	483.0cps	753.1cps
HEPS (cps)	-36.3cps	-21.0cps	-25.2cps	49.3cps	327.6cps	483.0cps	753.1cps
Price Earnings (x)	-84.4x	-72.8x	-121.4x	62.1x	9.4x	6.3x	4.1x
Total Assets	780,271	859,810	694,362	8,767,991	13,866,483	15,056,909	16,911,295
Property, Plant & Equipment	475,558	575,591	881,407	6,851,246	10,536,561	12,686,337	12,304,569
Intangible Assets	112,155	135,821	122,875	128,235	455,195	674,955	744,635
Equity	206,408	289,302	175,779	3,948,982	4,746,014	5,921,254	7,753,579
Return on Equity (%)	-21%	-9%	-17%	2%	17%	20%	24%
Total Liabilities	573,954	570,508	516,195	4,814,233	9,115,693	9,130,879	9,152,940
Total Debt	534,293	503,585	503,585	4,800,185	9,096,785	9,096,785	9,096,785
Return on Assets (%)	-5%	-3%	-1%	1%	8%	12%	16%
Return on Capital (%)	-6%	-3%	-1%	2%	9%	12%	17%

Production & Revenue Profile:



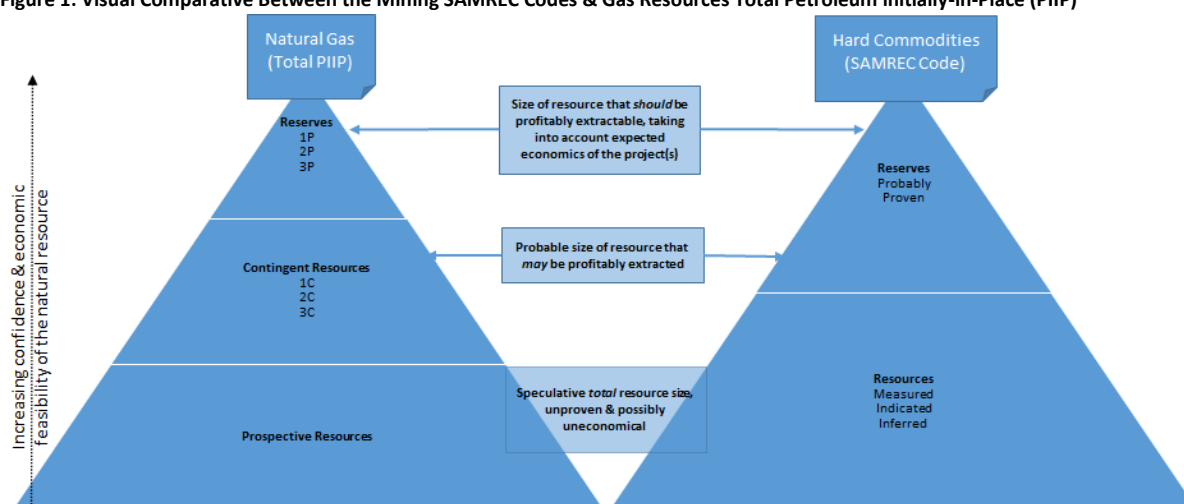
Sources: Renergen, Profile Media, Bloomberg, BLM, MHA, various company reports & Blue Gem Research workings & assumptions

Background for Understanding Gas Projects & Reserves (“Relative” to Mining)

We originally published this section in our Initiation of Coverage on Renergen ([Lighter-than-Air Falling to the Bottom-line](#)) as a background to help the reader understand the similarities and differences between gas projects and traditional mining. Given the technical nature of the gas reserve update published by Sproule ([1 September 2021 – Full report here](#)), we thought it might be useful to repeat this explanation.

South Africa’s mineral code is called SAMREC and the value (and commercial viability) of the underlying moves up the confidence curve from mere *resources* into actual *reserves*. Similarly, gas resources are accounted for and measured based on the Total Petroleum Initially-In-Place (PIIP) methodology that works its way up from mere *prospective resources* to commercially viable *reserves* (particularly at 1P-level).

Figure 1: Visual Comparative Between the Mining SAMREC Codes & Gas Resources Total Petroleum initially-in-Place (PIIP)



Sources: [SAMREC Code](#), [Petronas PIIP](#), MHA, & Blue Gem Research simplifying assumptions for a theoretical illustration

Furthermore, a key difference between gas and hard commodity resources should be pointed out: hard commodities are typically *inert* while gas is typically *mobile*. This difference drives capex and opex variances in the underlying projects and day-to-day operations.

This key difference implies that hard commodity extraction often involves spending more operating expenses (“opex”) on physically extracting the resource. The trade-off is that the projects, particularly open-cast mines, may have less required upfront capital expenditure (“capex”) but a much higher running opex at steady-state. On the other hand, once a gas well is opened and connected, it typically flows based on its own pressure and, thus, attracts a much lower opex. The trade-off is that the weight of capital is typically invested at the beginning of gas projects, thus creating a different shaped payoff to a typical hard commodity mine.

Then consider that, once operating, the inert nature of hard commodities means that the rate of extraction can be (to some degree) fine-tuned. If a miner wants to stop producing, it merely stops mining. Contrary to this, once the gas is flowing at a gas project from a well (or wells), the operational flexibility is more limited. This is particularly true of helium-rich projects, given helium’s extremely limited “shelf-life” post-extraction.

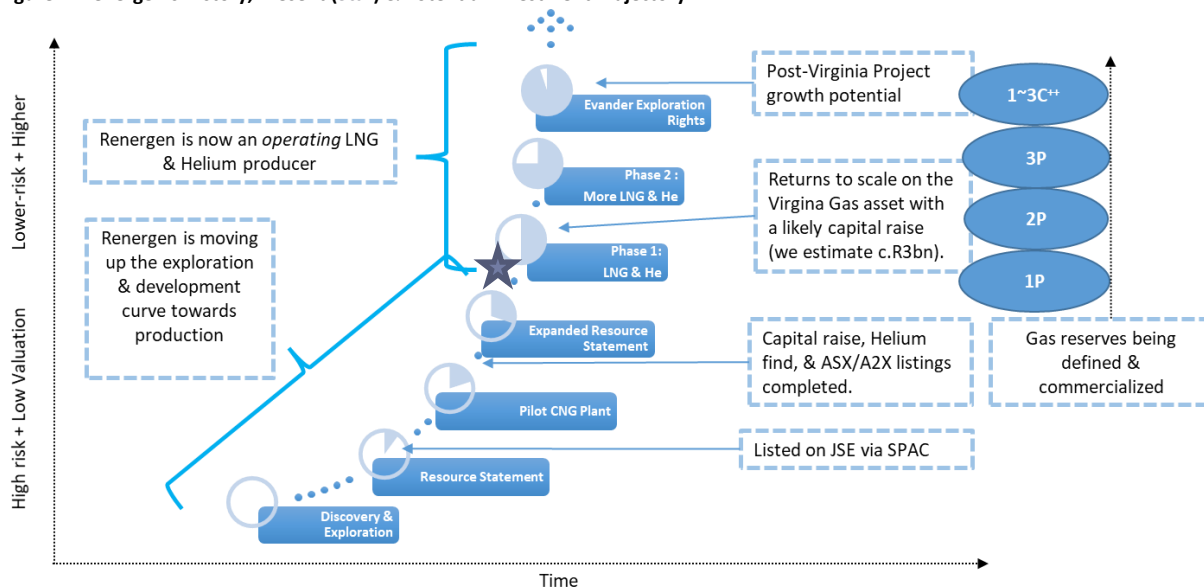
Finally, we have summarized key terminology and conversions for understanding gas(es) below:

- *cf* – cubic feet or feet³; *mcf* – thousand cubic feet or 1000 x *cf*; & *bcf* – billion cubic feet or 1,000,000 x *mcf*
- *J* – Joule; *MJ* – Mega Joule = 1,000 x *J*; & *GJ* – Giga Joule = 1,000 x *MJ*
- 1 litre of diesel = 36.1MJ of energy
- 20kg of LNG = 1GJ

- 213cf of helium = 1kg of helium, thus 1mcf of helium = 4.7kg of helium, & 1kg of liquid helium = 7 litres of helium (at -269 Celsius)

Finally, it will be good to remember where Renergen is on its development life cycle. Phase One capex is nearly complete, the gas reserves are being better defined and Phase Two metrics are becoming clearer.

Figure 2: Renergen’s History, Present (Star) & Potential Investment Trajectory



Sources: Blue Gem Research theoretical illustration

The Evander Exploration Right remains a post-Phase Two option (which we do not specifically value) while the key variables that we have updated are the size of Phase Two (in terms of both gas, capex and funding requirements). Likewise, [CryoVacc](#) remains an embedded option within our valuation and we do not yet separately value that business (we still expect this business to be a future spin-off from the Group).

Large Methane & Helium Reserve Update

On 1 September 2021, Sproule Incorporated (“Sproule”) published an updated reserve statement on Renergen’s wholly-owned subsidiary, Tetra4’s Virginia Gas Field. This report updates previously noted reserves and is particularly relevant in derisking Phase Two for the Group. The report further backs our view that Phase Two will be larger than we had originally envisioned.

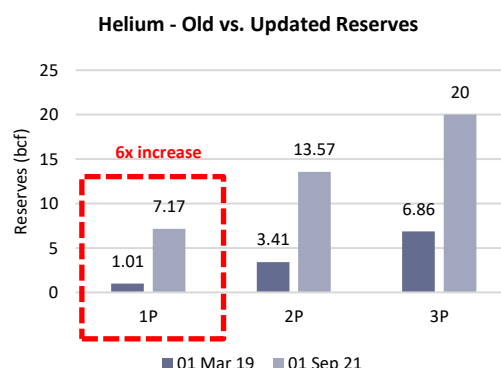
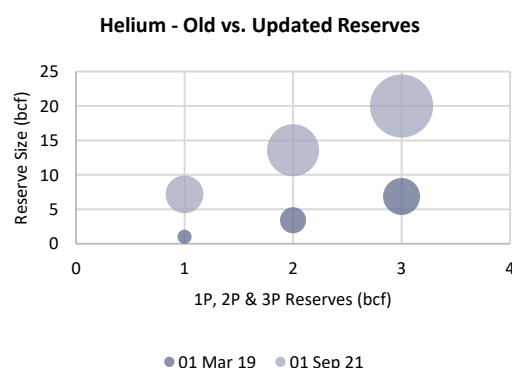
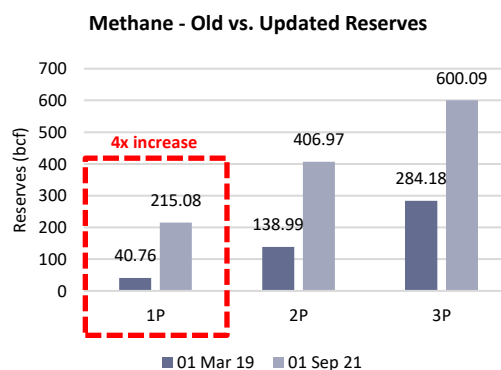
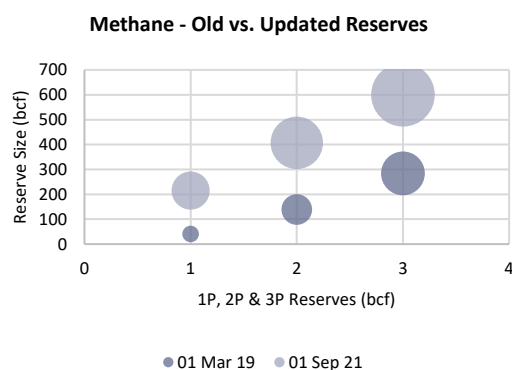
Sproule’s reserve update sees a substantial uplift in both methane and helium reserves, importantly, in the 1P (proved) and 2P (proved + probable) ranges. This does flow through to 3P reserves as well.

Refer to Table 1 and Figure 3 for representations of both the old reserves, the new reserves and how *large* the upgrade is. The upgrades to reserves are *multiples* of the old reserve numbers.

Due to a large number of updated assumptions (most importantly, pricing, production, capex, timing and dilution), we strongly suggest that you read the full Sproule report ([1 September 2021 – Full report here](#)). Our aim is not to regurgitate it here, but to use it and its implications to refine *our* forecast and valuation model for Renergen.

Table 1 & Figure 3: Renergen’s Previous & Updated 1P, 2P & 3P Methane & Helium Reserves

Independent House Used Date of Report	MHA Report 1 March 2019		Sproule Inc. 1 September 2021	% Increase
Methane (bcf) – Reserves				
1P	40.76bcf	→	215.08bcf	+428%
2P	138.99bcf	→	406.97bcf	+193%
3P	284.18bcf	→	600.09bcf	+111%
Helium (bcf) – Reserves				
1P	1.01bcf	→	7.17bcf	+610%
2P	3.41bcf	→	13.57bcf	+298%
3P	6.86bcf	→	20bcf	+192%



Sources: MHA Final Report (March 2019), Sproule Inc. (1 September 2021 reports), Blue Gem Research illustration

Forecast, Valuation and Dividend Discount Model: Fair value of 5,747cps ~ 6,412cps

Following Sproule’s update, we have updated, improved and refined the following assumptions in our model of Renergen (including updating for the latest spot prices, exchange rates & interest rates):

- **LNG:** We have updated our model for the latest Diesel Wholesale Price (A1) of 1655.1cents/litre (previously: 1506.9cents/litre)
 - We have also refined our expectations for the final pricing of LNG in Phase Two.
 - Management guide for approximately 1/3rd of LNG to go into trucking, industrial and power generation industries respectively.
 - The larger, longer-term contracts in industrial and power are logically at a larger discount to this A1 price, though these are also harder to estimate at present and we rely heavily on management guidance at a blended level here.
 - We estimate a final blended price of between R200/GJ to R240/GJ (we use R216/GJ) for Phase Two LNG off-takes, blended across the trucking, industrial and power generation industries, though note that we believe there could be upside to this assumption.

- **Helium:** We have kept many of our helium spot price assumptions the same, though the exchange rate movements have Rand-based impacts here.
 - We have assumed Linde’s \$200/mcf price for Phase One
 - We have assumed longer-term contract prices for Phase Two of c.\$220/mcf
 - We have assumed the Argonon Helium Tokens start trading at \$300/mcf, implying the portion of Phase Two production exposed to “spot” yields this revenue.
 - Therefore, we arrive at a Phase Two weighted average helium price of c.\$248/mcf with Rand/USD exchange rate of R15.71 (previously: R14.54).
- **Capex, opex & working capital:** We have upgraded our expectations for Phase Two capex materially, including its implied dilution.
 - We expect Phase Two capex to total c.R12.2bn (previously: R4.2bn) and expect the Group to raise c.30% of this capital through a dilutionary equity issuance (previously: We had assumed 25% was raised as equity). We have used the current share price as the assumed issue price for the capital raise (currently 3065cps; previously we had used 2818cps).
 - We have refined our capex per well, considering the higher success ratio from the incline drilling technique and better modelling by Reenergy.
 - We have aligned our variable cash cost per mcf in production to R13.90/mcf (previously: R20/mcf) while lowering our expectations for working capital from 10% of revenue to 8% (based on a 30-day in arrears model by long-term take-or-pay contracts).
 - We have kept our expectations for environmental provision build-up, royalties and taxes the same.
- **Production:** In parallel with the materially higher capex, we expect that Phase Two production of gas will be higher than originally expected and relied on management guidance here:
 - We have lifted our expectation for LNG production to 720tons/day (previously: 300tons/day) and aligned our helium expectations to this baseline methane production (management has guided for c.5,000kg/day running on a conservative 2.5% yield; our assumed yields arrive at 5,173kg/day).
 - We have lowered our expected well decline ratios to -2.0% pa (previously: -4.0% pa) as the biogenic nature of the reserve keeps being proven (**Note: If we assume there is no decline in gas flow from wells, this adds +20% to our sum-of-the-parts valuation of the Group**).
 - We have refined our assumptions for the timing of Phase One ramp-up (near-term) and the timing of Phase Two capital raise, capex, ramp-up and production. Importantly, we have assumed the bulk of plant capex in Phase Two is spent in FY 23E, the bulk of well capex is spent in FY 24E and two months of gas production starts to flow towards the end of FY 24E, ramping up into FY 25E and hitting steady-state flows in FY 25E.
 - We still only run our production (and valuation model) until FY 42E when the current gas rights expire, though the project will likely continue thereafter.
 - Note, though, that we have kept our Phase One production expectations the same.
- **Risk & rates assumptions:** We have updated our weighted average cost of capital (“WACC”) to reflect current rates while removing the added premium to the discount rate in Phase Two (as this project is now derisking as reserves and management guidance is being refined & it is far less speculative now).

Table 2: Phase One & Phase Two Net Present Values

Phase One	H2:22E	FY 23E	FY 24E	FY 25E	FY 26E	FY 27E	...	FY 42E
LNG GJ's Produced (GJ)	-	760,417	894,250	876,365	858,838	841,661	...	621,625
Helium Produced (mcf)	-	23,324	22,857	22,400	21,952	21,513	...	15,889
Revenue	-	336.22	380.74	373.12	365.66	358.35	...	264.66
EBITDA	-	318.99	363.75	356.37	349.14	342.05	...	251.25
Tax	-	-124.18	-135.92	-133.09	-130.31	-127.60	...	-93.24
Capex	-	-5.36	-5.36	-5.36	-5.36	-5.36	...	-
Working Capital	-	-28.02	-31.73	0.63	0.62	0.61	...	0.45
Assessed Loss	-	124.18	-	-	-	-	...	-
Free Cash Flow	-338.66	285.61	190.74	218.56	214.09	209.70	...	158.46
Discount Rate	1.0	0.9	0.8	0.8	0.7	0.7	...	0.2
PV	-R327.10	R257.34	R160.33	R171.38	R156.60	R143.10	...	R38.14
NPV								R1,692.64

Phase Two	H2:22E	FY 23E	FY 24E	FY 25E	FY 26E	FY 27E	...	FY 42E
LNG GJ's Produced (GJ)	-	-	4,380,000	8,760,000	13,140,000	12,877,200	...	9,510,702
Helium Produced (mcf)	-	-	134,068	268,136	402,204	394,160	...	291,114
Revenue	-	-	1,470.15	2,940.29	4,410.44	4,322.23	...	3,192.27
EBITDA	-	-	1,415.10	2,749.07	4,161.44	4,076.70	...	2,991.14
Tax	-	-	-434.08	-963.36	-1,454.45	-1,424.17	...	-1,044.80
Capex	-	-6,000.00	-3,821.60	-2,454.40	-64.32	-42.88	...	-
Working Capital	-	-	-122.51	-245.02	-367.54	7.35	...	5.43
Assessed Loss	-	-	434.08	963.36	1,454.45	1,424.17	...	-
Free Cash Flow	-	-6,000.00	-2,529.01	49.64	3,729.59	4,041.17	...	1,951.76
Discount Rate	1.0	0.9	0.8	0.8	0.7	0.7	...	0.2
PV	R0.00	-R5,406.16	-R2,125.76	R38.93	R2,728.20	R2,757.70	...	R469.73
NPV								R12,209.98

Sources: Renergen, MHA, Sproule, Bloomberg, Investing.com & Blue Gem Research workings and assumptions

Combining these Phase One and Phase Two NPV's into a Sum-of-the-Parts ("SOTP" – Table 3) for Renergen, subtracting a 'Head Office' discount, taking into account the expected dilution and then further adding a discretionary +10% option for CryoVacc and Evander assets, we see Renergen's fair value as c.5747cps.

Another two ways of viewing the "reasonableness" of this fair value are on an implied FY 30E (steady-state post-debt earnings) Price Earnings (PE) and Dividend Yield (DY):

- On expected FY 30E HEPS of c.942cps, a fair value of 5,747cps places the share on a 6.1x PE, &
- Assuming that 95% of this HEPS is paid out as a dividend, the fair value implies a DY of 15.6%.

Neither of these market metrics is particularly aggressive, particularly given the biogenic nature of the gas (i.e. renewable) and the likelihood of the gas right being renewed post-2042. We give zero value to that. Also, Rand weakness and LNG/helium spot price upside potential create upside risk to our FY 30E forecasts too.

Table 4: Renergen Sum-of-the-Parts (SOTP)

Sum-of-the-Parts (ZAR)	Value
Virginia Gas Project (Estimated NPV)	
- Phase One	R1,692,635,412
- Phase Two	R12,209,984,911
Head Office NPV (i.e., Discount to SOTP)	-R672,808,868
Enterprise Value	R13,229,811,455
Less: Net Debt	-R519,375,000
Equity Value (undiluted)	R12,710,436,455
Issued Share Capital	123,140,000
Potential Phase Two Dilution (assumed 30% of R12.2bn raised at 3065cps)	120,156,607
Fair Value (ZAR cps)	5,224
Add: Cryo-Vacc Option & Evander (assumed +10% option in REN share price)	+10%
Fair Value (ZAR cps)	5,747cps
12m TP (ZAR cps)	6,766cps

Sources: Renergen, MHA, Sproule, Bloomberg, Investing.com & Blue Gem Research workings and assumptions

Along the same lines as the thought experiment with the FY 30E PE and DY, we have built a Dividend Discount Model ("DDM" – Table 4) and attempted to present value our forecast dividends.

Discussion with management has revealed that they *do* intend to pay the majority of Renergen's profits out as dividends. In essence, a mature Renergen will probably become a "yield play" and, thus, a DDM may become a relevant metric upon which to value minority valuations in the Group.

Our key DDM assumptions are:

- The Group declares its maiden dividend in FY 26E when Phase Two hits steady-state production.
- This payment is based on our expected HEPS for each year, thus also takes into account the dilution from Phase Two's capital raise.
- We have assumed a 95% dividend payout ratio, retaining 5% each year in the Group.
- We have used South African Dividend Withholding Tax (DWT) of 20% across the years.
- Finally, we have *not* assumed any terminal year in FY 42E, i.e. that the gas right expires and the final dividend payment in that year is the last one received by shareholders.

Table 4: Dividend Discount Model for Renergen

	FY 24E	FY 25E	FY 26E	FY 27E	FY 28E	FY 29E	FY 30E	...	FY 41E	FY 42E
HEPS (cps)	328	483	753	767	808	892	942	...	1,782	1,892
<i>Dividend Payout Ratio (%)</i>	<i>0%</i>	<i>0%</i>	<i>95%</i>	<i>95%</i>	<i>95%</i>	<i>95%</i>	<i>95%</i>	...	<i>95%</i>	<i>95%</i>
Gross DPS (cps)	-	-	715	729	768	847	895	...	1,693	1,797
DWT (20 %)	-	-	-143	-146	-154	-169	-179	...	-339	-359
Net DPS (cps)	-	-	572	583	614	678	716	...	1,355	1,438
<i>Discount Factor</i>	<i>0.84</i>	<i>0.78</i>	<i>0.73</i>	<i>0.68</i>	<i>0.64</i>	<i>0.59</i>	<i>0.55</i>	...	<i>0.26</i>	<i>0.24</i>
Discounted Net DPS (cps)	-	-	419	398	391	402	397	...	349	346
NPV of Dividends (cps)										6,412cps
Share Price (cps)										3065cps
Implied Upside (%)										109%

Sources: Renergen, MHA, Sproule, Bloomberg, Investing.com & Blue Gem Research workings and assumptions

Our basic Dividend Discount Model assumptions arrive at a fair value of 6,412cps for REN minority shareholders (after DWT).

We like how this fair value agrees (more or less) with our above SOTP based on NPVs for the Group, thus adding to our conviction that REN shares are likely to be worth from 5,747cps to 6,412cps, or certainly *above* their current 3065cps share price.

Disclaimer

Confused by this report? View our [methodology](#), [FAQ](#) and [this disclaimer](#).

** Market prices in this report predominantly set to Closing Prices noted on 19 November 2021.*

Potentially a Commissioned Report

With reference to the disclosure contained within the 'Disclosures*' section below, it is possible that Blue Gem Research (Pty) Ltd has agreed with Renergen Limited (here after referred to as 'the Company') for the inclusion of the Company in its coverage universe for a certain time period. Part of this agreement includes payment to Blue Gem Research (Pty) Ltd by the Company and, as such, Blue Gem Research (Pty) Ltd, any employees, contractors and/or analysts who worked on this report cannot be considered independent in any way. Thus, this is a commissioned report and cannot be considered financial advice, investment advice or any such similar material.

In the event that this is not a 'Commissioned Report', then all the usual disclaimers concerning independent research are applicable per industry norms.

Ownership of the Report

This report is the property of Blue Gem Research (Pty) Ltd, but may be freely distributed so long as in the act of such a distribution no additions to, deletions from and modifications to this report are made. Furthermore, no party without the express permission of Blue Gem Research (Pty) Ltd may sell this report or make any direct form of compensation from the re-distribution thereof.

Frequency of Next Update

The frequency of new and/or updated report is left at the discretion of Blue Gem Research (Pty) Ltd. No guaranty or promise is made for any level of frequency or timeliness concerning an update or related report with regards to this report.

Disclosures*

- A. The analyst is an officer, board member, or director of Blue Gem Research (Pty) Ltd.
- B. The Company is a client of Blue Gem Research (Pty) Ltd (i.e. this is a Commissioned Report) and Blue Gem Research (Pty) Ltd has received money in exchange for the production of this report.
- C. Analyst holds long or short personal positions in a class of common equity securities of this company.

Renergen Limited	B, C
------------------	------

Financial Numbers, Forecasts, Valuations and other Assumptions

While every effort has been made by Blue Gem Research (Pty) Ltd to ensure the accuracy and integrity of the financial numbers, ratios, forecast, valuations and other quantitative and qualitative data in this report, Blue Gem Research (Pty) Ltd does not warranty or guaranty its accuracy. The reader relies on this data and information from this report at his/her own risk. Furthermore, in the case of forecasts and valuations, Blue Gem Research (Pty) Ltd wholly and completely cannot be held liable for any damage or loss caused by any individual, collection of individuals or business or any other party by said party acting or not acting based on the forecasts and valuation(s) included in this report. By their very nature, forecasts and valuations may not be accurate and, indeed, may be wholly and completely wrong.

General Opinion, Not Specific Advice

This report is prepared on a *per share* basis. Blue Gem Research (Pty) Ltd is therefore giving an opinion (and not financial advice) on a *per share* basis, which may or may not be applicable to the reader (or any person, entity or related person or entity). Blue Gem Research (Pty) Ltd lacks complete knowledge of any reader's (or any person, entity or related person or entity) portfolios and/or individual circumstances and, therefore, any of Blue Gem Research (Pty) Ltd's opinion(s) or implied opinion(s) are general in nature and not a specific recommendation or advice, nor can they be construed to be specific in nature. Hence, in no way is this report financial advice.

Legal Entities

To South African Residents: Blue Gem Research (Pty) Ltd is not an Authorised Financial Services Provider. This report is not financial advice, investment advice or any such similar material. **This report constitutes "marketing information"**. Blue Gem Research (Pty) Ltd and/or its employees and/or officers have no knowledge of any reader's or readers' financial position(s) and, hence, this cannot in any way be construed as direct or indirect advice leading any person or persons to act thereon. Any decision made or not made which can in any way be linked to this report is solely the responsibility of the party or parties making such a decision. I.e. Blue Gem Research (Pty) Ltd cannot be held liable for any result based on any decision that can be directly or indirectly linked to this report.

General

For the purposes of this report Blue Gem Research (Pty) Ltd refers to all employees of Blue Gem Research (Pty) Ltd. This research report is based on information from sources that Blue Gem Research (Pty) Ltd believes to be reliable. Whilst every care has been taken in preparing this document, no research analyst or employee or director of Blue Gem Research (Pty) Ltd gives any representation, warranty or undertaking and accepts no responsibility or liability as to the accuracy or completeness of the information set out in this document (except with respect to any disclosures relative to members of Blue Gem Research (Pty) Ltd and the research analyst/s involvement with any issuer referred to above. All views, opinions and estimates contained in this document may be changed after publication at any time without notice. Past performance is not indicative of future results. The investments and strategies discussed here may not be suitable for all investors or any particular class of investors; if you have any doubts you should consult your investment advisor. The investments discussed may fluctuate in price or value. Changes in rates of exchange may have an adverse effect on the value of investments. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. Employees of Blue Gem Research (Pty) Ltd and/or their respective directors' may own the investments of any of the issuers discussed herein and may sell them to or buy them from clients on a principal basis. This report is intended solely for clients and prospective clients of Blue Gem Research (Pty) Ltd and is not intended for, and may not be relied on by persons to whom this report may not be provided to by law. This report is for information purposes only. By accepting this document, you agree to be bound by the foregoing limitations and release Blue Gem Research (Pty) Ltd from any potential legal or otherwise liability.

NOT FOR DISTRIBUTION OUTSIDE OF SOUTH AFRICA OR ANY TERRITORY WHERE THIS MATERIAL MAY BE CONSIDERED ILLEGAL.