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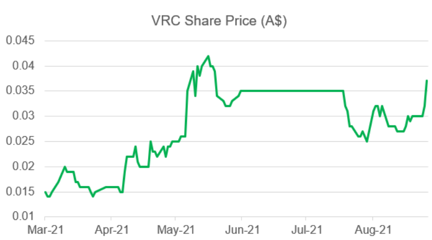
5 Sep 2021

Ticker:	Current Price:
ASX:VRC	A$0.037
FWB:R8L	EUR0.024

Market Data	
52-Week Range (A$)	0.008 - 0.045
3mth Avg Vol (Mil)	15.1
Market Cap (A$Mil)	90.3
Shares Out. (Mil)	2,670.1
Enterprise Value (A$Mil)	92.4
Est. Cash (A$Mil)	5.4
Est. Total Debt (A$Mil)	7.5

Options Outstanding		
Options @ strike price	Units (Mil)	Expiry Date
Unlisted @ A$0.010	55.0	15-May-22
Unlisted @ A$0.022	69.5	23-Oct-23
Unlisted @ A$0.05	30.0	26-Jul-24
Unlisted @ A$0.05	5.0	9-Sep-24
Performance Rights	15.0	
Convertible Note	US$4.4M	26-Jan-23



Top 5 Shareholders

Asimwe Kabunga (Non-Exec Chairman)	17.53% (Jul-21)
Ven Capital Pty Ltd	3.08% (Sep-20)
Virgara, Dominic	1.43% (Sep-20)
Littlejohn Embrey Engineering Pty Ltd	1.20% (Sep-20)
Notman, Peter Raymond	1.18% (Sep-20)

Volt Resources (ASX: VRC)

Desk Note

Cyprus Sia | Analyst | Spark Plus Pte Ltd. | cyprus@sparkplus.org

TANZANIA'S KING OF BLACK GOLD. Volt Resources owns the largest graphite deposit (Bunyu) in Tanzania with 461Mt at 4.9% total graphitic carbon (TGC), and only 6% of the project area explored. The PFS done on Bunyu in 2016 highlighted a post-tax NPV_{10} of US$890M with an above average production rate of 170ktpa, OPEX of US$536/t FOB, and a mine life of 22 years. The project is greatly de-risked through a 2-stage design, where Stage 1 only requires US$31.8M or 18.4% of the original CAPEX and, together with its Ukraine graphite production, generate cashflow for its Stage 2 expansion.

What's the Spark?

Natural graphite demand is expected to increase 7x to 5.9mt by 2030 fuelled by increasing demand for batteries used in electric vehicles (EV) and other renewable energy storage solutions as countries work towards decarbonisation. A typical Lithium-ion battery (LiB) is expected to hold about 1.2kg of graphite per kWh and requires double the amount as input. UBS projected that the global annual demand for LiB will increase 17x to 4,605GWh and natural graphite demand to grow 7x to about 5.9Mtpa by 2030 as EV sales accelerate at CAGR of 31.4% to 46 million units per annum in 2030 from 3 million units in 2020.

Double or more in natural graphite price in view of a tight supply, especially in the EU. The rapid increase in graphite demand outstrips planned production and could lead to a supply deficit of nearly 2Mtpa (33.9% of demand) in 2030. The EU bears the brunt as the union is expected to be the 2nd largest LiB manufacturer needing >441.6kt of graphite (22x its current production) by 2025 and strive to secure a domestic supply chain. Noting that synthetic graphite meets about half of LiB's demand and trades about 2x the price of natural graphite, we can expect the gap to narrow as supply runs short.

Leveled up - joining the ranks of a graphite producer. Volt is now a graphite producer after acquiring s 70% stake in one of the largest and oldest European graphite producers, ZG Group. ZG Group has a nameplate capacity of 30ktpa, established customer base, sales revenue, >80 years of experience, >200 years of mine life, and is cashflow generative. We estimate ZG Group to generate about US$10M in EBITDA at full capacity with further upside from planned battery anode materials production and garnet credits. ZG Group also brings along an experienced workforce to accelerate the development of its Bunyu Graphite Project and enhances Volt's credit rating when conducting financing activities.

Undervalued compared to its peers with a 168% potential upside. Volt trades at 3.1x MCap/TGC Resource, a huge discount of about 92.0% to its peers' average of 38.1x despite having comparable or better qualities than most of its peers. In our 0-inflation model, we derived an $NPV_{9.9}$ of US$321.0M (A$442.4M) for both Bunyu and ZG Group, some 4.9x Volt's current MCap of A$90.3M and a target price of A$0.10 (167.8% Upside) after factoring its systematic risk.

Company Overview

Volt Resources (Volt) is an explorer and developer of its wholly owned graphite projects in Tanzania and gold projects in Guinea. The Company recently (July 2021) completed its acquisition of a 70% interest in ZG Group, a graphite products producer in Ukraine.

Volt is part of the 600+ members in the European Battery Alliance (EBA), an initiative started by the European Commission (EC) in October 2017 with the aim to create a competitive and sustainable battery cell manufacturing value chain in Europe. Post the acquisition of ZG Group, the Company has also joined the European Raw Materials Alliance (ERMA), formed by the EC in September 2020 to develop resilient value chains for the EU industrial ecosystems. Being part of both alliances provide support for Volt to be an integrated graphite mine and battery anode material producer in the EU.

Bunyu Graphite Project (Bunyu)

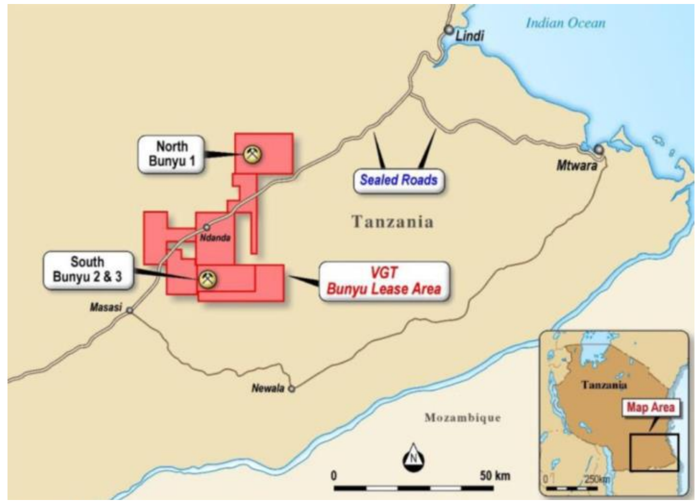
Bunyu is in Tanzania, East Africa, near sealed roads and 140km from Mtwara port. A pre-feasibility study (PFS) done on Bunyu in 2016 suggests a JORC resource of 461Mt at 4.9% total graphitic carbon (TGC), including a reserve of 127Mt at 4.4% TGC, at only 6% of the project area explored, making them the largest graphite resource in the country. The PFS done is based on a 3.8Mtpa of ore processed and production of 170ktpa of graphite with a mine life of 22 years. The highlights include an OPEX of US$536/t FOB, CAPEX of US$173M, and a Post-tax NPV_{10} of US$890M or IRR of 66.5%.

Bunyu can produce coated spherical purified graphite (cSPG) for battery anode material (BAM) using its highly purified graphite at 99.987% TGC with low deleterious impurities content. The cSPG flowsheet developed by American Energy Technologies Co. (AETC) uses high-temperature processes instead of environmentally damaging acid leaching for purification.

The Bunyu Project is designed in 2 stages to accelerate the timeline to production. A separate feasibility study (FS) on Stage 1 concluded in 2018 delivered a JORC resource of 76.8Mt at 5.4% TGC, at least 400ktpa of ore processed, average graphite production of 23.7ktpa, and a mine life of 7.1 years. The OPEX for Stage 1 is estimated to be US$664/t FOB and CAPEX of US$31.8M with a Post-tax NPV_{10} of US$14.7M or IRR of 19.3%. The Company is seeking funding for the development of the Stage 1 Bunyu Project.

The Company will be progressing with a definitive feasibility study (DFS) for Stage 2 concurrently with the construction of Stage 1. The Stage 2 DFS will be based on the PFS production output of 170ktpa of graphite.

Bunyu Graphite Project in Tanzania



Source: Company's website

Bunyu PFS highlights

Key Financial Parameters	Units	Metric
IRR - before tax	(%, real)	86.9%
IRR - after tax	(%, real)	66.5%
NPV @ 10.0% - before tax	(US$ M, real)	1,310
NPV @ 10.0% - after tax	(US$ M, real)	890
Payback Period from 1st ore to process plant	(years)	1.4
Parameter	**Units**	**Design**
Mine Life	Y	22
Nominal ore feed tonnes	Mt	83.4
Average grade TGC	%	4.7
Oxide ore	%	40
Fresh and transition ore	%	60
Nominal strip ratio	Waste : Ore	1.4
Process throughput	Mt/y	3.8
Recovery	%	93
Concentrate grade TGC (average)	%	95
Average graphite production	kt/y	170

Source: Company's website

Volt has recently (1 Sep 2021) raised A$5.75M via a share placement which saw strong demand exceeding its original target of A$4.0M. The capital raised will be mainly used to develop its battery anode and downstream graphite products in Europe and the US. In this round of raise, Volt's Chairman, Asimwe Kabunga, has also subscribed to A$0.7M, subject to shareholder approval, which displayed great insider confidence on the Company.

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ZG Group Acquisition (Ukraine Project)

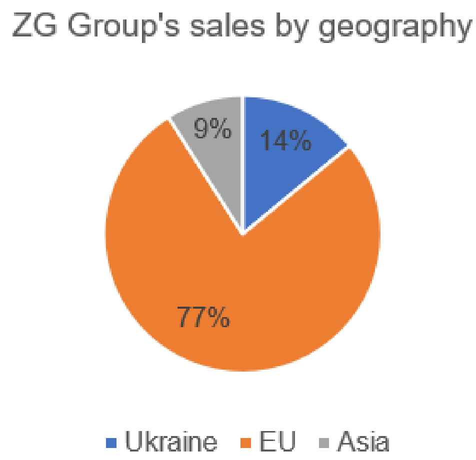
Volt has completed the acquisition of a 70% stake in ZG Group which compromises of Zavalievsky Graphite LLC, Stone Found LLC, and Graphite Invest LLC. The combined entity produces over 20 types of graphite products of up to 99.97% TGC purity with ores from one of the largest and oldest (since 1934) producing graphite deposits in Europe, Zavalye graphite deposit, to supply the traditional industrial markets. The Group plans to install a processing plant to produce spheronised graphite (SPG) of +99.95% TGC purity to enter the lucrative lithium-ion batteries (LiB) market of Europe over the next 12 months. Currently, ZG Group has a feed capacity of about 250ktpa, which can be upgraded, and a nameplate production capacity of 30ktpa of graphite.

The main body of the Zavalye deposit and its production facilities are located in the Hayvoron district. The total area of the field spans about 50km2, bordering Odesa and the Kirovohrad region. The deposit is an open-pit mine and the extracted ores are kaolinized gneisses (contains graphite, sillimanite, quartz, pyroxene, chloride, biotite, and garnet) where its 86%-97% purity graphite concentrates are easily obtained and contain minimum impurities. A report suggests the mineral reserves of Zavalye graphite deposit to be 99.4Mt @ 6.35% TGC with a total garnet content of 3.7Mt. Do note that these figures are non-JORC compliant, and **Volt is working towards converting it into JORC compliant**.

The Group has constructed a garnet tailing recovery circuit only recently to monetise its garnet by-products which were treated as waste materials previously. The recovery circuit is yet to be commissioned but could add new revenue streams and diversify product concentration risk for Volt.

The total consideration for the acquisition is US$7.6M where US$3.8M was paid in July 2021 (funded through a US$4.0M convertible note with SBC Global Investment Fund) and the remaining half is to be paid in July 2022. Volt holds a 70% stake in ZG Group which propels them ahead of its peers to become a graphite producer. This reduces the common risks associated with many exploration companies such as securing greenfield project funding and the waiting time to production.

ZG Group sales by Geography



Data extracted from: Volt presentation, Aug 2021

Guinea Gold Projects

Source: Company's website

Guinea Gold Projects (Gold Projects)

Volt acquired 100% of its Gold Projects (Konsoloon, Kouroussa, and Mandiana) in May 2020 which comprises of 6 permits covering an area of 348.7km2. The Gold Projects sit along the highly prospective Birimian Greenstone Belt in Guinea, West Africa, and among various known gold resources including Lefa Mine and Suigiri Gold Mine, two of the country's largest gold mines with a total gold resource of about 4.0Moz. and 5.7Moz. respectively.

The Kouroussa permits sit at the border of Predictive Discovery's (ASX: PDI) Kaninko permit which announced a gold intersection of 46m at 6.58g/t in April 2020. Assay results from grab sample on Mandiana and Kouroussa in July 2020 shows grades of up to 14.5g/t. During the June 2021 quarter the Company completed the auger drilling component of the exploration campaign incorporating the Kouroussa (including in-fill drilling), Kouroussa South, Fadougou, Nzima, Monebo and Konsolon permits. Sample assay results are either being evaluated or waiting to be received from the laboratory.

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Investment Thesis

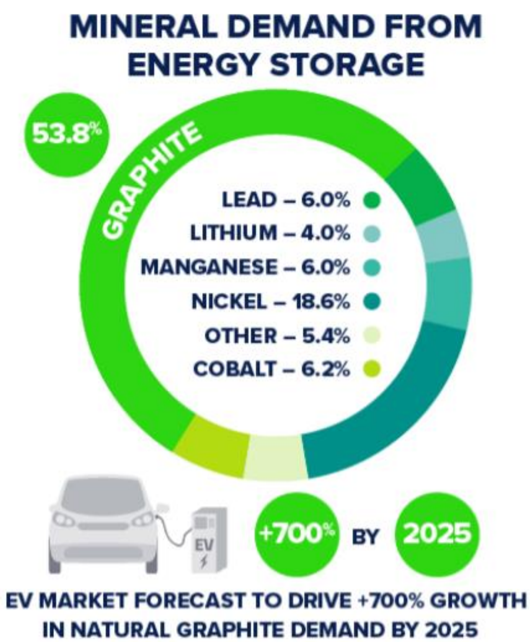
Natural graphite demand could increase by [700% to 5.9Mt by 2030](), according to UBS. The growth is mainly fuelled by increasing demand for energy storage (batteries) used in electric vehicles (EV), solar farms, wind farms, and other renewables as countries work towards decarbonisation. Lithium-ion batteries (LiB) are expected to dominate the battery industry moving forward with 53.8% of its content being graphite or about 1.2kg/kWh. This amount does not include the wastage from processing graphite flakes into spherical graphite (SPG) used in batteries which averaged around 50% yield. UBS projected that the global annual demand for LiB will increase 17x to 4,605GWh and natural graphite demand to grow 7x to about 5.9Mtpa by 2030 as EV sales accelerate at CAGR of 31.4% to 46 million units per annum in 2030 from 3 million units in 2020.

Severe supply deficit post-2022, expect natural graphite prices to double or more. The rapid increase in graphite demand outstrips planned production and could lead to a supply deficit of nearly 2Mtpa in 2030 or some 33.9% of the demand in 2030. The natural graphite supply deficit could start as soon as 2023 with a shortfall of nearly 200kt. While the shortfall may be made of synthetic graphite, the cost of synthetic battery-grade graphite (or SPG) is about 2x the cost of natural SPG due to additional purification processes needed. This means that natural SPG could trade up to 2x its current price, US$20K/tonne or higher if the supply deficit could not be filled with synthetic SPG.

While we note that LiB recycling could meet certain battery material demand in the future, it would go beyond 2030 for recycled batteries to reach a substantial amount as EV batteries typically have 8 – 10 years of warranty. Furthermore, most studies on recycling battery materials are geared towards lithium, cobalt, and nickel with the economics of graphite being understudied.

Catapult into a producer from an explorer with ZG Group acquisition and provides immediate cashflow. ZG Group is an existing producer of graphite products with a nameplate capacity of 30ktpa, established customer base, sales revenue, cashflow generating, and >80 years of experience. Volt plans to install an SPG processing plant within the next 12 months to root itself in the LiB supply chain and boost the project economics. We estimate that at full capacity, ZG could generate an EBITDA of at least US$10.0M per annum even without considering by-product (garnet) credits and the higher economics of SPG products which could partially fund the CAPEX for ZG Group's expansion or Bunyu Graphite Project.

LiB metals composition



Source: EcoGraf Webinar presentation, Jun 2021

Doubling unit economics through optimization of operations. ZG Group is said to have a [design capacity of 50k – 60ktpa but produces only 10k – 12ktpa currently](). Volt plans to ramp up production to at least its suggested nameplate capacity of 30ktpa and optimize its processing circuit to fetch a higher basket price (increase coarse graphite flakes production). We believe such optimization could reduce OPEX per ton by 12%-15% while increasing basket price by more than 20% resulting in almost an 80% increase in cash margin. Further value can be expected from the garnet by-products which trade at about US$250/t in 2019 and SPG which are sold for anywhere between US$3,000/t – US$12,000/t.

ZG Group to lay the red carpet for Bunyu Mine. In addition to being cashflow positive, the acquisition of ZG Group brings along an upgrade to Volt's credit rating and a skilled workforce to expedite the development of its Bunyu Gaphite Project. We believe Volt is now in a much more favourable position to access capital and negotiate better terms with financiers to bring Bunyu's Stage 1 into production.

Ready demand for Ukraine acquisition (ZG Group) battery-grade graphite. EU is expected to be the 2nd largest LiB manufacturer with >368GWh of capacity or >441.6kt of graphite by 2025. However, the EU produces only 20ktpa of graphite or 2% of global graphite produced while China can say to be the only processor of SPG worldwide. The gap in production and consumption is critical as the European Commission (EC), through the creation of the European Battery Alliance (EBA), aims to establish a domestic supply chain of battery materials and create jobs for its people. As such, the EC has approved more than €6B in funding for 2 battery innovative projects under EBA, which Volt is a member of. We believe the severe domestic supply deficit of graphite in the EU would create immediate demand for Volt's planned SPG production in Ukraine while the strong government support for battery initiatives would allow for smooth access to capital for Volt.

Amount of LiB gigafactories in Europe

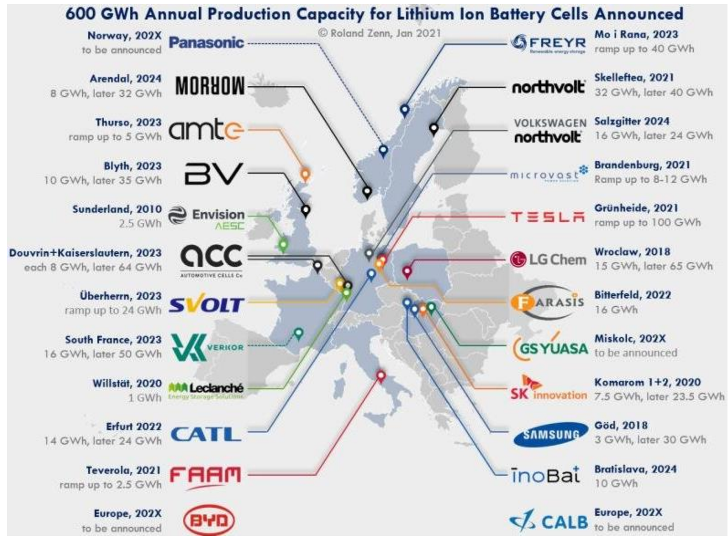
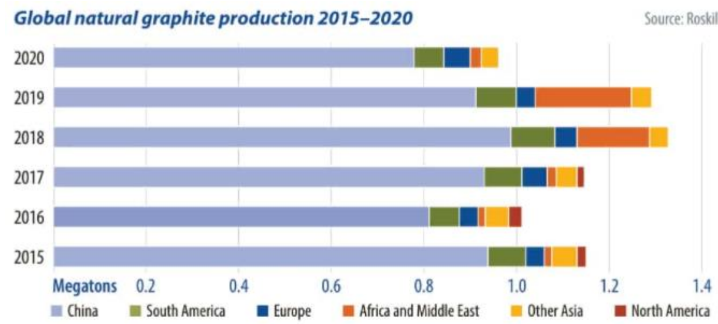


Image credit: Roland Zenn

Graphite production by country



Source: pv magazine, May 2021

In the immediate term, ZG Group could benefit from the hot global steel production market. About 50% of graphite demand goes to refractory applications due to its high heat resistance and 19% goes to foundries and lubricants in industrial activities. Global steel production is expected to reach record levels of near 2 billion tons in 2021 supported by pent-up demand and governments' recovery programs. In 1H 2021 alone, global steel production reached over 1 billion tons (+14.4% YoY) with countries ex-China increasing at a faster rate of 17.9% YoY. Despite China's (largest producer of steel at c.53% global market share) efforts to curb steel production, growth in steel demand is expected to continue at a single percentage level in 2022 as most countries bump up their infrastructure spending to support their economy.

Bunyu Graphite Project is strategically designed to unlock shareholders' value at a faster pace. Bunyu Graphite Project is split into 2 stages to bring down the capital needed to head towards production and achieve cashflow generation sooner. Stage 1 of the Bunyu Graphite Project requires a CAPEX of US$31.8M instead of the US$173M for the entire project. It is estimated to produce 23.7ktpa and generate an average annual EBITDA of US$13.2M, over its mine life of 7.1 years, which could be reinvested, together with cashflow from ZG Group, for the development of Stage 2. This reinvestment may see up to 87% IRR as production is expected to increase by 7.2x to 170ktpa with an average annual EBITDA of US$195M.

Key Risk

Future graphite demand tied to EV demand. An in-house estimate suggests that LiB used in EV will account for >75% of graphite demand by 2030, up from 14% in 2018. As such, graphite prices are extremely sensitive to future EV demand and will be negatively affected if EV demand softens. Notable factors for slowing demand include global semiconductor chip shortage for automotive, (mid-term, expected to last till 2Q2022), the higher total cost of ownership (debatable), and accessibility to charging infrastructures.

Battery shortage may hamper EV supply. Like the outlook for graphite's supply and demand, other battery materials are also facing or expected to face severe supply shortages. These include lithium, cobalt, nickel, separators, etc. We expect a longer-term EV supply shortage if the supply of raw materials does not catch up with the growing demand for LiB, while the shorter-term EV supply shortage may be linked to the shortage of semiconductor chips.

Substitute or technology risk. Since graphite demand will be tied to EV demand, substitutes to LiB with the graphite-based anode in EV or technology advancement that reduce or eliminate the need for graphite in the battery would negatively impact Volt's value. Potential substitutes such as LiB with a silicon-based anode, zinc-air batteries, and hydrogen fuel cells exist but possess few shortcomings when compared to LiB with a graphite-based anode.

Funding risk. The Bunyu Graphite Project requires a total CAPEX of US$173M (A$225M) with Stage 1 needing US$31.8M (A41.3M) or about half of Volt's market capitalisation to kickstart the mine development. The Company is exposed to risks associated with securing funding which may delay development plans and production schedules. As mentioned above, the entire Bunyu Graphite Project is greatly de-risked through splitting the project into 2 stages and from the acquisition of ZG Group. Although the economics around ZG Group were not announced, using the cost curve by Benchmark Minerals Intelligence and ZG Group's nameplate capacity of 30ktpa, we estimate that a 70% stake in ZG Group could generate about US$6M of operating cash flow to Volt. This would open more doors for Volt in seeking capital including bank loans.

Foreign exchange (FX) risk. Post-ZG Group Acquisition, Volt would have operations in Tanzanian and Ukraine, goods sold in USD or RMB, while reports in AUD. As such, the company is likely to be negatively impacted if USD or RMB were to depreciate against Tanzanian shilling or Hryvnia and if AUD were to appreciate against the other currencies.

Geographical risk. Volt's operations are located overseas (Tanzania and Ukraine) which are subjected to its respective country regulations. In Tanzania, deceased ex-President John Magufuli introduced several new mining codes in the subsequent years after he took power in 2015. These include export ban on unprocessed copper and gold as well as a mandatory 16% free carry interest for the state on all mining projects within the country. Worries on further tightening on regulations may deter investment into the country although the new President, Samia Suluhu Hassan, is making a number of changes to encourage foreign investment and project developments. The ongoing conflict between Ukraine and Russia adds to the political risks faced by Volt. However, we do note that ZG Group has a long-standing history of operations and is located away from the east of Ukraine where the conflict exists.

Industry Peers

Ticker	Company Name	Project Location	Ownership	Project Status	MCap (A$M)	MCap / TGC Resource	CAPEX / production (US$M/kt)	Total Resource (Mt)	Grade (% TGC)	Total Graphite Content (Mt)	Projected Graphite products (ktpa)	CAPEX (US$M)	OPEX FOB (US$/t)	Mine Life (Years)	Product	Battery Anode Material (BAM) production
ASX:SYR	Syrah Resources	Mozambique	100%	Production	682.5	4.8		1422.0	10.0	142.2	350.0		330.0	50.0	94%-98% TGC conc.	Yes - Product Qualification
ASX:TLG	Talga Resources	Sweden	100%	Constructing	430.6	44.5	9.78	55.3	17.5	9.7	49.5	484.0	2363.0	24.0	Talnode-C (BAM)	Yes - Constructing
ASX: EGR	EcoGraf	Tanzania	100%	BFS completed	364.4	165.9	1.48	23.3	9.4	2.2	60.0	89.0	572.0	36.0	avg 96% TGC conc.	Yes - Financing
ASX:RNU	Renascor Resources	Australia	100%	DFS completed	253.6	38.7	0.92	87.4	7.5	6.5	144.0	133.0	325.0	35.0	94%-96% TGC conc.	Yes - Financing
ASX:BKT	Black Rock Mining Ltd	Tanzania	100%	DFS completed	157.2	9.5	0.99	211.9	7.8	16.6	340.0	337.9	397.0	26.0	95-99% TGC conc.	No
ASX:MRC	Mineral Commodities	Norway & AU	100%	DFS completed	80.1	60.3	1.22	9.6	14.3	1.3	65.5	79.9	506.2	14.5	95.7%-98.3% TGC conc.	Yes - Financing
ASX:WKT	Walkabout Resources Ltd	Tanzania	100%	Funding	97.8	21.8	0.70	41.8	10.7	4.5	40.0	27.8	347.0	24.0	>95% TGC conc.	No
ASX:TON	Triton Minerals Limited	Mozambique	100%	DFS completed	38.6	7.4	1.66	77.2	6.7	5.2	60.0	99.4	634.0	27.0	95% TGC conc.	No
ASX:BAT	Battery Minerals	Mozambique	100%	FS completed	29.4	4.7	1.01	62.3	10.0	6.2	108.0	108.9	395.4	38.5	>96% TGC conc.	No
ASX:BEM	Black Earth Minerals	Madagascar	100%	BFS completed	31.1	23.7	1.17	20.2	6.5	1.3	60.0	70.0	593.0	10.0	95%-97% TGC conc.	No
	AVERAGE (Peers)					**38.1**	**2.1**		**10.0**		**127.7**		**455.5**			
	AVERAGE (BAM producers)					62.9										
	AVERAGE (non-BAM)					13.4										
ASX:VRC	**Volt Resources**	**Tanzania & UKR**	**100%**	**Funding**	**90.3**	**3.1**	**1.0**	**461.0**	**5.0**	**22.8**	**170.0**	**173.0**	**536.0**	**22.0**	**avg 95% TGC conc.**	**Yes - Planning/Financing**
	Bunyu Graphite Project	Tanzania	100%	PFS completed				461.0	5.0	22.8	170.0	173.0	536.0	22.0	avg 95% TGC conc.	
	Bunyu Graphite Project Stage 1	Tanzania	100%	DFS completed				76.8	5.4	4.1	23.7	31.8	664.0	7.1	avg 93.5% TGC conc.	
	ZG Group acquisition	Ukraine	70%	Production				99.4	6.35	6.3	30				87 - 99.97% TGC conc.	Yes - Planning/Financing
								Estimation - non-JORC compliant								

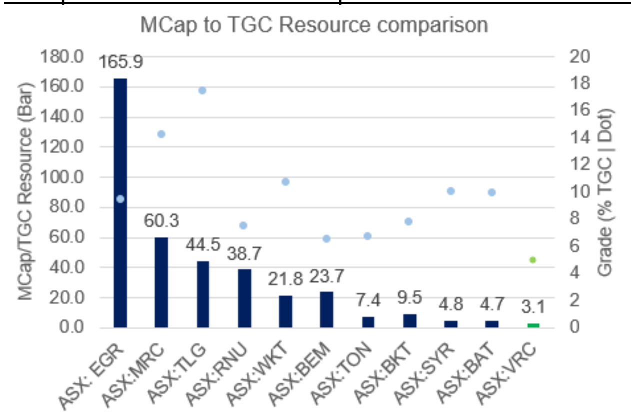
Source: Individual Company's announcement and CapIQ, 5 Sep 2021

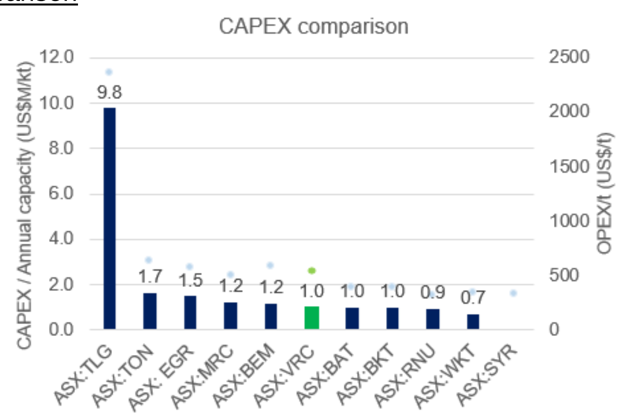
Volt peers are selected based on the criteria of having graphite project(s) as the core or leading project(s), at least a feasibility study (FS) completed or in production, and ASX-listed. Despite only 6% of its project area explored, Volt has the 2nd largest TGC Resource of 22.8Mt – excludes ZG Group's portion. The Company also expects to have one of the highest productions at 170ktpa, trailing the largest graphite producer outside of China, Syrah Resources (ASX: SYR), with a production target of 180kt in 2022. **From a market capitalization (MCap) to TGC resource multiple perspectives, Volt trades at 3.1x MCap/TGC Resource, a huge discount of about 92.0% to its peers' average of 38.1x.**

We notice that companies with plans to produce battery anode materials (BAM) for the EV battery manufacturers such as EcoGraf (ASX: EGR) and Mineral Commodities (ASX: MRC), commands a higher MCap/TGC Resource multiple. **As such, Volt's plans for SPG production in Ukraine within the next 12 months further illustrate how heavily undervalued the Company is among its peers.** The industrial average MCap/TGC Resource multiples would suggest Volt to be trading at about A$703.2M or some 7.8x its current MCap (Bunyu – A$306M + ZG – A$397M)

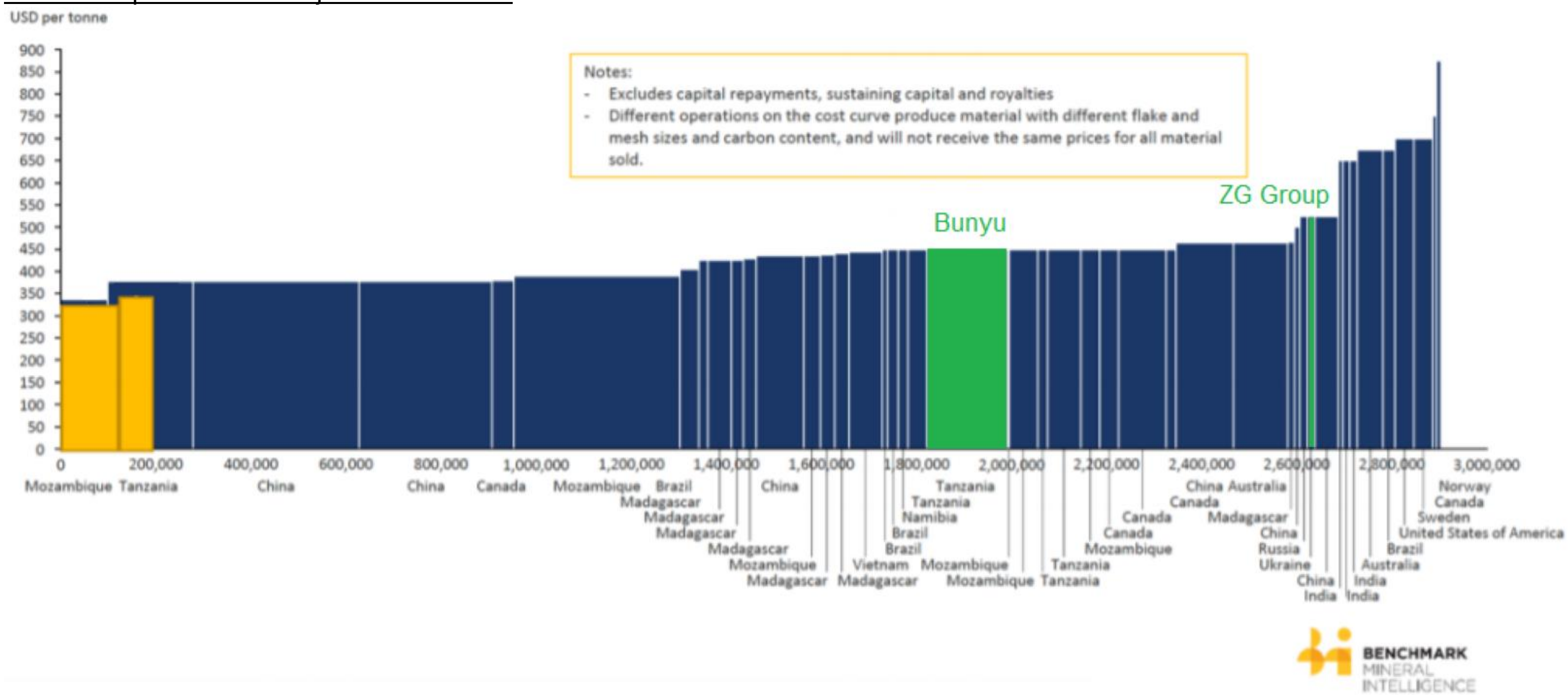
In terms of cost, Bunyu's full-scale OPEX/t of US$536/t seems to be about the 50th percentile among its peers. This is observed on the global scale seen from Benchmark Mineral Intelligence cost curve comparison chart (do note that their estimate OPEX/t excludes capital repayments, sustaining capital, and royalties). From the same chart, we further assume that ZG Group's OPEX/t is about US$525/t at a production rate of 10ktpa – 12ktpa. We believe ZG Group's OPEX/t could lower to US$462/t at a production rate of 30ktpa due to the economics of scale. Bunyu's CAPEX of US$173M is on the cost-effective side among its peers when view from a CAPEX per installation capacity angle but also suggests that OPEX/t is more sensitive to production quantity.

MCap to TGC resource comparison and CAPEX comparison





Global Graphite Mines/Projects Cost Curve



Source (edited): Renascor Resources (ASX:RNU) Investor presentation, Apr 2021

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NPV model

Year	0	1	2	3	4 - 7	8 - 25
Mine (Volt Ownership)		**Bunyu Stage 1 (84%)**			**Bunyu Stage 2 (84%)**	
Avg Annual Production (ktpa)		25.1	25.4	23.7	170.0	170.0
Avg basket Price (US$/t)		1,140.5	1,140.5	1,140.5	1,193.5	1,193.5
Royalties		3.0%	3.0%	3.0%	3.0%	3.0%
Avg OPEX (US$/t)		664.0	664.0	664.0	536.0	536.0
Est. Annual EBITDA (US$M)		8.6	8.7	0.8	83.7	75.7
CAPEX (US$M)	31.8	0.0	0.0	150.0	0.0	0.0
Est. Debt	29.4	25.0	25.0	145.0	120.0	0.0
Int Expense	-2.7	-2.5	-2.5	-9.7	15.2	0.0
Mine (Volt Ownership)			**ZG Group (70%)**			
Avg Annual Graphite Production (ktpa)	25.0	30.0	26.7	26.7	26.7	26.7
Avg basket Price (US/t)	713.0	900.0	869.7	869.7	869.7	869.7
Avg Graphite OPEX (ktpa)	510.0	480.0	462.0	462.0	462.0	462.0
Avg Annual Garnet Production (ktpa)	7.2	8.6	8.6	8.6	8.6	8.6
Avg Garnet Price (US/t)	250.0	250.0	250.0	250.0	250.0	250.0
Avg Garnet OPEX (ktpa)	150.0	150.0	150.0	150.0	150.0	150.0
Avg Annual BAM Production (ktpa)	0.0	0.0	3.0	3.0	3.0	3.0
Avg BAM Price (US/t)	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0	3,500.0
Avg BAM OPEX (ktpa)	2,100.0	2,100.0	2,100.0	2,100.0	2,100.0	2,100.0
Est Annual EBITDA (US$M)	5.8	13.5	15.6	15.6	15.6	15.6
CAPEX (US$M)	4.0	21.0	1.0	1.0	1.5	1.5
Est. Equity Raised (US$M))	16.0	20.0		40.0		
NPV (US$M)	**321.0**					
Discount rate	9.9%					
Market Risk Premium (3Yrs Avg)	*8.70%*					
Risk Free Rate	*1.16%*					
Beta	*1.00*					
AUD/USD	0.72552					
NPV (A$M)	**442.4**					
Security Risk Discount	21.0%					
Beta (Volt)	*2.28*					
Target Price (A$)	**0.10**					

With expect immediate restricting of ZG Group's operation to occur and SPG production to commence in Year 2. We also assume Bunyu Stage 1 CAPEX to be partially funded by debt due to a better credit rating Volt possesses now. We further believe that the company would kickstart the next stage of Bunyu in Year 4 riding on the momentum and with a proven track record of profitable production. **Using the above assumptions, we derived an NPV (based on free cash flow) of US$321M (A$442.4M) or 4.9x Volt's current MCap of A$90.3M.** Inferring a near term equity raise of US$16M to meet the remaining CAPEX and apply a security risk discount of 21%, we derived a **target price of A$0.10 per share (Upside: 167.8**%**)**

In our assumptions, we did not bake in the potential production and sales of SPG from Bunyu (expected to commence by Year 3 of Bunyu Stage 1 commissioning) nor further ramp-up of ZG Group to design capacity of 60ktpa which would greatly boost the total NPV. To illustrate the added value of an SPG processing plant, we can use EcoGraf (ASX:EGR) as a reference point. EcoGraf has a graphite project in Tanzania and plans for an SPG pant in AU. At a 20ktpa of SPG and an average selling price of US$3,250 (near the lower band), the SPG project is expected to have a pre-tax NPV8 of US$642M. We believe Bunyu's SPG project would garner much better economics as the company considers producing cSPG which are generally sold for a much higher price (Talga's Talnode-C is modeled with average selling price of US$11,250/t)

Appendix

Management team and the Board

Asimwe Kabunga, Non-Executive Chairman

Mr Kabunga has over 19 years of technical and commercial experience in the mining industry across Tanzania, US, and Australia. He has been instrumental in establishing the Tanzania Community of Western Australia Inc. and served as its first President. Mr Kabunga was a founding member of Rafiki Surgical Missions and Safina Foundation, both NGOs dedicated to helping children in Tanzania. He is also the non-executive chairman of Lindian Resources (ASX: LIN).

Trevor Matthews, Managing Director

Mr Matthews has an accounting and finance background with over 25 years of experience in the resources industry including roles with North and WMC Resources in executive-level positions. He was the MD for MZI Resources (2012-16) and Murchison Metals (2005-11) where he garnered rich experience across the majority mining stages from nascent resource projects through to production.

Giacomo Fazio, Non-Executive Director

Mr Fazio is a highly experienced project, construction and contract/commercial management professional having held senior project management roles with Primero Group Limited, Laing O'Rourke and Forge Group Ltd. His experience ranges from feasibility studies through to engineering, procurement, construction, and commissioning of diverse mining resources, infrastructure, oil & gas and energy projects.

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Financial Statements (Source: VRC's annual report and half yearly report)

Income Statement

Income Statement (AUD)	FY2019 30-Jun-19	FY2020 30-Jun-20	1H FY2021 30-Jun-21
Revenue	0	0	0
Interest income	4,071	580	7
Other income	0	41,685	25,251
Corporate compliance fees	(534,882)	(401,755)	(234,505)
Corporate management fees	(1,840,920)	(1,524,291)	(250,570)
FX gain/(loss)	38,222	290	174,795
Marketing and IR costs	(202,064)	(205,945)	(76,583)
Occupancy expenses	(156,427)	(46,364)	(5,982)
Share based payments	(591,582)	72,449	(65,384)
Finance costs	(233,280)	(765,662)	(305,597)
Other expenses	(607,586)	(350,582)	(238,443)
Profit/(Loss) before Tax	**(4,124,448)**	**(3,179,595)**	**(977,011)**
Income tax benefit/(expense)	642,173	45,499	0
Net Profit/(Loss)	**(3,482,275)**	**(3,134,096)**	**(977,011)**
- Owners of Volt Resources Limited	(3,493,873)	(3,139,173)	(977,011)
- Non-controlling interests	10,598	5,077	0
Other Comprehensive Income, net of income tax			
FX translation of foreign operations	(61,075)	1,161,504	(1,812,696)
Total Comprehensive Loss for the year	(3,543,350)	(1,972,592)	(2,789,707)
- Owners of Volt Resources Limited	(3,554,948)	(1,973,390)	(2,789,707)
- Non-controlling interests	10,598	798	0
EPS	(0.24)	(0.19)	(0.05)

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Balance Sheet

Balance Sheet (AUD)	FY2019 30-Jun-19	FY2020 30-Jun-20	1H FY2021 30-Jun-21
Current Assets			
Cash and Cash Equivalents	1,171,421	264,449	317,919
Trade and other receivables	41,748	129,281	80,452
Prepayments	40,413	39,465	22,726
Total Current Assets	**1,253,582**	**433,195**	**421,097**
Non-current Assets			
Trade and other receivables	3,900	0	0
Other financial assets	30,000	0	0
PPE	45,676	40,846	121,358
Deferred exploration and evaluation expenditure	22,394,753	23,959,210	25,009,538
Total Non-current Assets	**22,474,329**	**24,000,056**	**25,130,896**
Total Assets	**23,727,911**	**24,433,251**	**25,551,993**
Current Liabilities			
Trade and other payables	347,354	679,635	683,513
Provisions	62,260	0	0
Borrowings	1,523,709	1,543,299	1,602,851
Total Current Liabilities	1,933,323	2,222,934	2,286,364
Non-current Liabilities			
Borrowings	1,004,648	0	0
Total Non-current Liabilities	**1,004,648**	**0**	**0**
Total Liabilities	**2,937,971**	**2,222,934**	**2,286,364**
Net Assets	**20,789,940**	**22,210,317**	**23,265,629**
Equity			
Share capital	64,415,434	67,880,852	71,660,487
Reserves	20,102	1,113,436	(633,876)
Accumulated losses	(43,435,138)	(46,574,311)	(47,551,322)
Parent entity interest	21,000,398	22,419,977	23,475,289
Non-controlling interest	(210,458)	(209,660)	(209,660)
Total Equity	**20,789,940**	**22,210,317**	**23,265,629**

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Cashflow Statement

Cashflow Statement (AUD)	FY2019 30-Jun-19	FY2020 30-Jun-20	1H FY2021 30-Jun-21
Cashflows from Operating activities			
Government incentive received	0	33,348	8,337
R&D tax credit received	641,173	0	0
Payments to suppliers and employees	(3,831,464)	(2,252,585)	(793,078)
Interest received	5,320	580	(11,499)
Finance costs	(19,210)	(120,514)	(2,589)
Net cash used in operating activities	**(3,204,181)**	**(2,339,171)**	**(798,829)**
Cashflows from Investing activities			
Payments for PPE	0	0	(44,414)
Payments for exploration expenditure	0	(355,195)	(489,345)
Proceeds from disposal of plant and equipment	609	0	0
Refund of rental bond	59,088	0	0
Net cash from/(used in) investing activities	**59,697**	**(355,195)**	**(533,759)**
Cashflows from Financing activities			
Proceeds from issue of shares	429,825	3,380,155	1,565,000
Proceeds from borrowings	2,435,218	132,208	0
Repayment of borrowings	(491,625)	(1,526,424)	(80,924)
Payments of share issue costs	39,812	(198,545)	(98,018)
Costs of loan financing	(289,602)	0	0
Net cash from Financing activities	**2,123,628**	**1,787,394**	**1,386,058**
Net increase/(decrease) in Cash	(1,020,856)	(906,972)	53,470
Beginning Cash and Cash equivalents	2,192,277	1,171,421	264,449
Ending Cash and Cash equivalents	1,171,421	264,449	317,919

Disclosure of Interests:
Volt Resources Limited currently are, or in the past 12 months have been, a client of Spark Plus Pte Ltd. During this period, Spark Plus Pte Ltd provided corporate advisory services. In the past 12 months, Spark Plus Pte Ltd have received compensation for corporate advisory services from the Company. Spark Plus Pte Ltd intends to seek or expects to receive compensation for corporate advisory services from the Company in the next three months.

Spark Plus directors, consultants and advisers currently hold less than 1% of issued shares in Volt Resources Limited and may buy or sell the shares from time to time.

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