EDISON

VivoPower International

Interim results update

COVID-19 financial impact vs operational progress

General industrials

COVID-19 shutdowns and associated additional costs affected VivoPower's Australian critical power business and hence group profitability, especially given the remaining divisions are primarily in investment mode. These nascent activities are critical to value creation, primarily the Tembo EV business and the potential from the recently announced crypto mining business.

Year end	Revenue ($m)	PBT* ($m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
06/20	48.7	(1.0)	(12.0)	0.0	N/A	N/A
06/21	40.4	(5.2)	(31.0)	0.0	N/A	N/A
06/22e	42.3	(15.2)	(69.8)	0.0	N/A	N/A
06/23e	60.1	(13.5)	(62.2)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

H122 interim results in brief

Sales declined 11% to $18.9m in H122. Operating losses widened to $7.3m (H121: $0.4m) due to COVID-19-related delays and costs including a $1.1m loss on a solar installation contract with operational investment in the Tembo EV business (loss $2.5m vs $0.2m). The loss before tax was $10.3m before exceptional items. Net debt increased to $21.9m (cash $3.3m) from $14.5m at the year end.

Operational progress

A new company called Caret has been established to develop the group's solar assets including a cryptocurrency mining operation. In electric vehicles, Tembo is moving to a new facility in Eindhoven, doubling the current footprint, and Vivo has announced the planned acquisition of GB Auto in Australia (subject to due diligence and customary conditions being fulfilled, the timing has been affected by COVID-19). Current global auto supply chain issues are delaying the ramp-up timetable.

Forecast changes

The consequences of prolonged and strict COVID-19 lockdowns in key markets, especially Australia, led to softer than expected H1 results. These issues and costs are expected to continue for much of Q3, limiting the H2 recovery. The nascent businesses are expected to remain loss making, while the global automotive supply chain shortages suggest c 12-month delays in volume ramp-up at Tembo. In addition to the above operational effects, the interest charge is expected to be higher due to the opening net debt position. We have increased our FY22 loss before tax forecast from $0.9m to $15.2m and FY23e from $1.4m to $13.5m.

Valuation: Tembo EV division remains key

The key to our discounted cash flow valuation remains the success of Tembo. Assuming a cost of capital (WACC) of 14% and 2,500 units delivered in 2025 (previous expectation 5,000) suggests a valuation of $10.4 per share (from $19/share previously). Note that we have not ascribed any value to the new crypto mining business given the limited details available or taken into account any potential impact from additional funding that may be required.

28 February 2022

Price	**$1.86**
Market cap	**$38.3m**

Net debt (US$m) at 31 December 2021	21.9
Shares in issue	20.6m
Free float	42.2%
Code	VVPR
Primary exchange	Nasdaq
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	(22.2)	(61.0)	(80.5)
Rel (local)	(22.7)	(58.2)	(83.0)
52-week high/low		$10.59	$1.86

Business description

VivoPower International's strategy is to provide sustainable energy solutions on an international scale. Key activities at present are electric vehicles, critical power, sustainable energy solutions and solar development. Its primary operations are in Australia, Europe and North America.

Next events

Full year results	TBC

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Edison profile page

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Interim results

Overview

Continued COVID-19 restrictions in key markets, particularly Australia, continued to affect the ability to deliver contracts and led to additional costs. Sales declined 11% and losses widened to $7.3m due to costs and a $1.1m loss on a contract in Critical Power Services. Strategic progress has been positive, particularly for the Tembo business and development of the solar strategy, after taking full control of its US assets with a realisation of $20m within a new digital currency mining venture (these are reviewed later in more detail). Vivo also successfully passed its B Corp reassessment.

Exhibit 1: Profit and loss summary

$000s	2020	H121	H221	2021	H122
Group turnover	48,710	22,656	17,755	40,411	18,945
Operating profit					
Critical Power	3,351	2,562	119	2,681	(690)
Electric Vehicles		(184)	(1,983)	(2,167)	(2,535)
SES					(445)
Solar	1,083	(893)	498	(395)	(22)
Central costs	(-2265)	(1,860)	(3,041)	(4,901)	(3,620)
Underlying operating profit	2,169	(375)	(4,407)	(4,782)	(7,311)
Exceptionals					
Reorganisation costs	(3,410)	(364)	(1,856)	(2,220)	(514)
Other		(1,536)	876	(660)	
EBIT (reported)	(1,241)	(2,275)	(5,387)	(7,662)	(7,825)
Financing charges	(3,149)	2,259	(2,670)	(411)	(3,021)
PBT reported	(4,390)	(16)	(8,057)	(8,073)	(10,846)
PBT before exceptionals	(980)	1,884	(7,077)	(5,193)	(10,332)

Source: Edison Investment Research, VivoPower International

Critical Power

Critical Power's H122 results were significantly weaker than the corresponding period in 2021 due to the COVID-19 restrictions and associated additional costs. A comparison with H221 when similar restrictions were in place suggests improvements in the top line but there was a decline from a $119k profit to a $688k loss. This was due entirely to the one-off $1.1m COVID-19 related loss on the BlueGrass solar project, suggesting underlying improving performance. Note that Australian peer Mayfield has reported similar trading difficulties, and released a profit warning. Critical Power's strong order position, heads of terms up 72% year-on-year and expectation for pent-up demand should see the performance improve in H2, although with COVID-19 restrictions in place for the third quarter (Australia's international borders only opened in February although Western Australia delayed opening until March) full recovery is not expected until FY23.

Exhibit 2: Critical Power divisional results

$000s	2020	H121	H221	2021	H122
Sales	48,638	22,196	16,636	38,832	18,007
COGS	(40,865)	(17,581)	(15,211)	(32,792)	(17,222)
Gross Profit	7,773	4,615	1,425	6,040	785
G&A costs/other income	(2,745)	(1,208)	(249)	(1,457)	(569)
EBITDA	5,028	3,407	1,176	4,583	216
D&A	(1,718)	(845)	(1,057)	(1,902)	(904)
Underlying EBIT	3,310	2,562	119	2,681	(688)
Gross margin	16.0%	20.8%	8.6%	15.6%	4.4%
EBITDA margin	10.3%	15.3%	7.1%	11.8%	1.2%
EBIT margin	6.8%	11.5%	0.7%	6.9%	-3.8%

Source: Edison Investment Research, VivoPower International

Electric vehicles

Electric vehicles' turnover increased to $0.9m from $0.4m, although activity was curtailed by COVID-19 restrictions. Losses widened from $0.2m to $2.5m due primarily to increased opex, including investment to increase battery unit power from 28kWh to 72kWh. Expansion of the distribution network continues in line with plans (double over 12 months) and Vivo has announced a move to new premises in Eindhoven, which will permit capacity of up to 5,000 kits a year. Although the effects of COVID-19 should start to recede, supply chain issues in the automotive sector look set to be more protracted.

Exhibit 3: Tembo key agreements

Date	Partner	Region	Contract	Technology	Minimum volume	Timescale	Value
Jan-21	GB Auto	Australia	Definitive agreement	Conversion kits	2,000	4 years	$250m
May-21	Acces Industriel Mining	Canada	Heads of terms	Conversion kits	1,675	5.5 years	$120m
Jun-21	Arctic Trucks	Nordic	Heads of terms	Conversion kits	800	5.5 years	$58m
Jun-21	Toyota	Global	Letter of intent	Technology partnership	-	5 years	
Jul-21	Bodiz	Mongolia	Heads of terms	Conversion kits	350	5 years	$29m
Sep-21	GHH	Global	Definitive agreement	Conversion kits	3,000	5 years	

Source: VivoPower International

SES, solar and central costs

Sustainable Energy Solution (SES) is a nascent business and hence marginally loss making as it looks to develop its products and end-markets. Solar business reflects the lack of disposals as Vivo took control of the US assets and looks to develop the portfolio. Central costs increased to reflect the increased development of the group.

Cash flow and financing

The operating loss and finance charges led to a cash outflow in the period of $7.4m, with net debt increasing to $21.9m. Management reports that cash of $3.3m has increased since the period end as COVID-19 restrictions have eased. Key to the funding of the group remains the $21.1m loan from AWN Holdings, the group's largest shareholder, with bank debt of only $0.3m. Management expects working capital to unwind and increased activity in Critical Power to assist cash generation in H2. Additional financing is expected from UK R&D tax credits and European Investment Council grants and equity investments.

Exhibit 4: Cash flow

$000s	2020	H121	H221	2021	H122
Operating profit (pre exc & g/w)	2,169	(375)	(4,407)	(4,782)	(7,311)
Depreciation & amortisation	1766	889	1367	2256	1173
EBITDA	3,935	514	(3,040)	(2,526)	(6,138)
Net change in WC	(3,145)	(5,686)	(4,675)	(10,361)	2,099
(Profit)/loss on sale of fixed assets	(1,589)	324	71	395	
Charge for share schemes		704	374	1,078	
Restructuring	(3,410)	(2,259)	2,259		
Other adjusting items		(343)	(3,306)	(3,649)	(755)
Operating cash flow	**(4,209)**	**(6,746)**	**(8,317)**	**(15,063)**	**(4,794)**
Returns & servicing of finance	(515)	(3,135)	(2,161)	(5,296)	(84)
Total tax paid	(477)	(366)	(354)	(720)	
Net capex	(452)	(313)	(588)	(901)	(2,888)
Free cash flow	**(5,653)**	**(10,560)**	**(11,420)**	**(21,980)**	**(7,766))**
Acquisitions & disposals	746	(1,053)	(728)	(1,781)	
Shares issued / (repurchased)		26,358	5,689	32,047	135
Net cash flow	**(4,907)**	**14,745**	**(6,459)**	**8,286**	**(7,631)**
Exchange rate differences	(3,100)	100			(81)
Other non-cash	(381)		150	150	300
Net cash/(debt) b/fwd	(14,557)	(22,945)		(22,945)	(14,509)
Movement in net debt	(8,388)	14,845	(6,309)	8,436	(7,412)
Net cash / (debt)	**(22,945)**	**(8,100)**		**(14,509)**	**(21,921)**

Source: Edison Investment Research, VivoPower International

Recent strategic developments

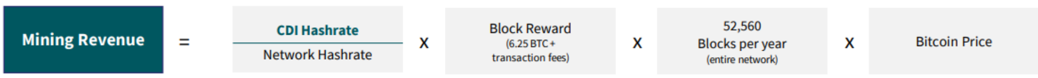
Formation of digital asset mining business

Vivo took full control of its US solar development activities in 2021 and formed a new business unit called Caret to provide focus and future commercialisation of these assets. The first development is a letter of intent to create Caret Decimal Inc (CDI), a renewable-powered digital asset mining business. Initial expectations are for mining bitcoin, Ethereum and Litecoin, but CDI will be able to develop other blockchain opportunities.

CDI was created in partnership with an experienced New York-based crypto mining team. Caret will inject 206MW DC of fully permissioned solar assets in Texas in exchange for US$20m in equity. Further financing will be raised at the CDI level, including the potential for an IPO. Commissioning is expected to take 24 months and for the three sites to have 4,398 petahash capacity from a fleet of 33,000 mining rigs. The company expects this to provide revenue potential of c US$270m pa with an EBITDA margin of c 87% based on forecast bitcoin prices.

The following brief analysis looks to verify the revenue potential of the project.

Exhibit 5: Bitcoin mining revenue calculation



Source: VivoPower

Assuming that the block reward rate remains stable, Exhibit 6 provides analysis relative to the two key swing factors outside CDI's control: the bitcoin price and annual growth in the network hashrate.

Exhibit 6: CDI revenue potential (US$m)

Bitcoin price (US$000)		30	40	50	60	70	80
Annual growth in network hashrate	25%	182	243	303	364	425	485
	50%	126	169	211	253	295	337
	75%	93	124	155	186	217	248
	100%	71	95	119	142	166	190

Source: Edison Investment Research

We await further details on the exact timing, financial investment and funding, which is expected to take place at the CDI level. Note that Caret has a further 1.6GW of solar assets in varying stages of development.

Acquisition of GB Auto

Vivo has signed a letter of intent to acquire GB Auto, a supplier of a services, products and technology to fleet, heavy vehicle and mobile equipment operators in the mining, construction, transport and agriculture industries. GB has five centres in New South Wales. It is also Tembo's Australian distributor, hence full ownership is expected to provide closer alignment with end-customers, especially in mining, and accelerate adoption. In the year to June 2021, GB Auto generated sales of $22.3m and adjusted EBITDA of US$2.1m (unaudited). The cash/debt-free price of US$7.6m translates into an EV/EBITDA multiple of 3.6x and will be funded 75% in cash and 25% in VivoPower shares. COVID-19 restrictions have delayed due diligence and the deal is now expected to be completed in mid-CY22.

Forecast changes

The financial effect of COVID-19 led to softer than expected H1 results with these COVID-19 restrictions and costs expected to continue for much of Q3 limiting the H2 recovery that had been expected. The nascent businesses are expected to remain loss making, as per previous expectations, but the effect of the global automotive supply chain shortages suggests a greater impact and delays in deliveries by c 12 months would be a prudent assumption. Central costs are expected to moderate now that the required infrastructure has been put in place. In addition to the above operational impacts, the interest charge is expected to be higher due to the opening net debt position.

Exhibit 7 provides a summary of our forecast changes and initial FY24 expectations.

Exhibit 7: Forecast changes

$m	2022e			2023e			2024e
	Old	New	Change	Old	New	Change	New
Revenues	52.3	42.3	(19%)	133.2	60.1	(55%)	135.5
Gross profit	5.0	2.0	(60%)	20.7	6.2	(70%)	17.2
Gross margin	9.6%	4.8%	(5%)	15.5%	10.4%	(5%)	12.7%
EBITDA	5.3	(8.2)	(255%)	11.6	(4.7)	(141%)	4.3
EBITDA margin	10.1%	(19.4%)	(292%)	8.7%	(7.8%)	(190%)	3.2%
Normalised operating profit	0.2	(10.8)	N/A	2.1	(9.7)	N/A	(2.5)
Normalised operating profit margin	0.4%	(25.5%)	(26%)	1.6%	(16.1%)	(18%)	(1.9%)
Normalised PBT	(0.9)	(15.2)	N/A	(1.4)	(13.5)	866%	(8.3)
Normalised basic EPS (c)	(4.1)	(69.8)	1603%	(6.2)	(62.3)	904%	(38.3)

Source: Edison Investment Research

Valuation

We continue to believe that a discounted cash flow (DCF) is the most appropriate valuation given that the key value creation will come through the ramp-up of Tembo. The group has commitments for 7,825 units over the next five years, which underpins expansion plans, although given the global automotive supply-chain issues, we have delayed our volume ramp-up expectations by around 12 months. Exhibit 8 provides a per-share valuation based on the number of vehicle deliveries in 2025 and the WACC. Our assumption is for 2,500 deliveries in 2025 (previously 5,000), which, using a WACC of 14.0%, suggests a valuation of $10.4 per share. Note that we have not taken into account the new crypto mining venture at this point given the limited information on structure and timing. Also, we have not taken into account the impact of any additional funding that may be required although management expects much of Tembo's funding to come from European green grants and working capital facilities, while management has already stated that CDI will be funded separately, outside of Vivo.

Exhibit 8: DCF valuation per share ($)

		2025 Tembo deliveries				
		1,500	**2,000**	**2,500**	**3,000**	**3,500**
WACC	18.0%	2.3	3.9	5.4	6.9	8.4
	17.0%	2.8	4.7	6.3	8.0	9.7
	16.0%	3.5	5.6	7.4	9.3	11.2
	15.0%	4.4	6.7	8.8	10.9	13.0
	14.0%	5.4	8.0	**10.4**	12.8	15.2
	13.0%	6.7	9.6	12.4	15.1	17.8
	12.0%	8.3	11.7	14.9	18.0	21.2
	11.0%	10.4	14.3	18.1	21.8	25.5

Source: Edison Investment Research

Exhibit 9: Financial summary

$000s	2020	2021	2022e	2023e	2024e
Year end 30 June	IFRS	IFRS	IFRS	IFRS	IFRS
INCOME STATEMENT					
Revenue	48,710	40,411	42,280	60,144	135,547
Cost of Sales	(40,885)	(34,084)	(40,258)	(53,910)	(118,315)
Gross Profit	7,825	6,327	2,021	6,234	17,233
EBITDA	3,935	(2,526)	(8,210)	(4,698)	4,298
Normalised operating profit	2,169	(4,782)	(10,801)	(9,656)	(2,508)
Amortisation of acquired intangibles	0	0	0	0	0
Exceptionals	(3,410)	(2,880)	(1,000)	0	0
Share-based payments	0	0	0	0	0
Reported operating profit	(1,241)	(7,662)	(11,801)	(9,656)	(2,508)
Net Interest	(3,149)	(411)	(4,374)	(3,870)	(5,805)
Joint ventures & associates (post tax)		0	0		
Exceptionals	3,410	2,880	1,000		
Profit Before Tax (norm)	(980)	(5,193)	(15,175)	(13,526)	(8,313)
Profit Before Tax (reported)	(4,390)	(8,073)	(16,175)	(13,526)	(8,313)
Reported tax	(713)	115	809	676	416
Profit After Tax (norm)	(980)	(5,193)	(14,416)	(12,850)	(7,897)
Profit After Tax (reported)	(5,103)	(7,958)	(15,366)	(12,850)	(7,897)
Basic average number of shares (m)	13,557	16,307	20,642	20,642	20,642
EPS - basic normalised ($)	(12.0)	(31.00)	(69.84)	(62.25)	(38.26)
EPS - diluted normalised ($)	(12.0)	(31.00)	(69.84)	(62.25)	(38.26)
EPS - basic reported ($)	(37.64)	(46.00)	(74.44)	(62.25)	(38.26)
Dividend ($)	0.00	0.00	0.00	0.00	0.00
BALANCE SHEET					
Fixed Assets	41,907	52,519	54,424	60,607	73,377
Intangible Assets	29,849	47,449	48,818	52,362	56,544
Tangible Assets	2,486	2,575	3,111	5,750	14,338
Investments & other	9,572	2,495	2,495	2,495	2,495
Current Assets	20,473	23,993	19,154	23,605	43,057
Stocks	0	1,537	1,338	2,592	9,557
Debtors	12,556	12,712	11,817	15,013	27,501
Cash & cash equivalents	2,824	8,604	5,000	5,000	5,000
Other	5,093	1,140	1,000	1,000	1,000
Current Liabilities	(19,679)	(13,431)	(14,655)	(20,202)	(40,135)
Creditors	(15,395)	(8,917)	(10,221)	(14,187)	(30,836)
Tax and social security	(75)	(708)	101	777	1,193
Short term borrowings	(1,312)	(1,004)	(1,000)	(2,000)	(3,000)
Other	(2,897)	(2,802)	(3,535)	(4,792)	(7,492)
Long Term Liabilities	(24,811)	(22,663)	(31,462)	(46,654)	(66,510)
Long term borrowings	(24,642)	(22,087)	(31,254)	(46,372)	(66,068)
Other long term liabilities	(169)	(576)	(208)	(282)	(441)
Net Assets	17,890	40,418	27,461	17,356	9,789
Minority interests	184	0	0	0	0
Shareholders' equity	18,074	40,418	27,461	17,356	9,789
CASH FLOW					
Op Cash Flow before WC and tax	3,935	(2,526)	(8,210)	(5,568)	4,574
Working capital	(3,145)	(10,361)	2,442	2,031	(614)
Exceptional & other	(4,999)	(2,176)	522	1,000	1,000
Tax	(477)	(720)	(50)	0	0
Net operating cash flow	(4,686)	(15,783)	(5,296)	(2,537)	4,961
Capex	(452)	(901)	(4,810)	(9,711)	(19,852)
Acquisitions/disposals	746	(1,781)	0	0	0
Net interest	(515)	(5,296)	(2,774)	(3,870)	(5,805)
Equity financing	0	32,047	135	0	0
Dividends	0	0	0	0	0
Other					
Net Cash Flow	(4,907)	8,286	(12,745)	(16,118)	(20,696)
Opening net debt/(cash)	(14,557)	(22,945)	(14,509)	(27,254)	(43,372)
FX	(3,100)	0	0	0	0
Other non-cash movements	(381)	150	0	0	0
Closing net debt/(cash)	(22,945)	(14,509)	(27,254)	(43,372)	(64,068)

Source: Edison Investment Research, VivoPower International

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