

# Sylvania Platinum

Lower PGM prices affecting results and forecasts

Q323 results

Metals and mining

4 May 2023

**Price** **90.5p**

**Market cap** **£241m**

US\$1.25/£; ZAR18.35/US\$

Net cash (\$m) at 31 March 2023 144.2

Shares in issue 266.8m

Free float 88.4

Code SLP

Primary exchange AIM

Secondary exchange N/A

## Share price performance



% 1m 3m 12m

Abs 4.3 (14.6) (1.6)

Rel (local) 2.6 (12.7) (3.0)

52-week high/low 112p 77p

## Business description

Sylvania Platinum focuses on the re-treatment and recovery of platinum group metals including platinum, palladium and rhodium, mainly from tailings dumps and other surface sources, but also lesser amounts of run-of-mine underground ore from Samancor chrome mines in South Africa.

## Next events

FY23 results September 2023

## Analyst

René Hochreiter +44 (0)20 3077 5700

[mining@edisongroup.com](mailto:mining@edisongroup.com)

[Edison profile page](#)

**Sylvania Platinum is a  
research client of Edison  
Investment Research Limited**

Despite the lower Q323 production and higher unit costs, Sylvania Platinum remains highly cash generative with US\$144.2m cash at end March 2023 versus US\$123.9m at end Q223. Lower rhodium prices resulted in significantly lower EBITDA than Q223. We have lowered our rhodium and palladium price forecasts for the next two years because of expected lower demand in China and some de-stocking from OEMs. Our new valuation is 173.7p/share, versus the previous valuation of 186.9p/share.

Year end	Revenue (US\$m)	PBT* (US\$m)	EPS* (c)	DPS (p)	P/E (x)	Yield (%)
06/22	152	81	20.6	10.3**	5.6	11.2
06/23e	142	71	19.0	6.0	6.0	6.5
06/24e	150	57	14.8	4.9	7.8	5.4
06/25e	178	73	19.3	6.9	6.0	7.5

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. \*\*Normal dividend of 8.0p and windfall dividend of 2.25p.

## Q323 results lower due to decline in basket price

Q323 results were lower than forecast mainly due to a 21% q-o-q decline in the US dollar basket price, which affected both Q3 revenues and the retrospective sales adjustment for Q2. Q3 production is usually lower because of the slower start-up after the December break and the short February month. Ore from host mines and current arisings (or feed) from Samancor were replaced by dump material, which led to lower feed grades. Unit costs were under pressure because of cost inflation, lower throughput and grades, and the combination of these factors resulted in the disappointing results. Despite this, Sylvania has guided to an increase in production to 72,000–74,000oz 4E PGMs in FY23 compared to last year's 67,053oz 4E.

## Near-term forecasts cut

Due to the lower PGM basket price for Q323, which we expect to continue in Q423, we have cut our FY23 EPS forecast from 22.4c/share to 19.0c/share. We have cut our rhodium price forecast for FY23 by 18% to US\$11,778/oz, palladium by 8% to US\$1,711/oz and platinum by 2% to US\$1,000/oz. Our lower forecasts for FY24 have also contributed to an EPS cut, from 21.3c/share to 14.8c/share.

## Valuation: 173.7p/share; 59.1p/share Volspruit upside

We value the Sylvania Dump Operations (SDOs) at 159.9p/share, which is 7% lower than our previous value, on the back of lower forecasts driven by lower basket prices. Our 173.7p valuation includes exploration assets at book value of 13.8p/share. The basket price is lower mainly because of our lower rhodium and palladium price forecasts. If rhodium (even allowing for recent downgrades) is included in the Volspruit valuation (although not yet JORC compliant), this would lift our valuation by 59.1p/share with our updated PGM price forecasts, with further upside for the Far North Limb and Volspruit South Body projects, for which there are not yet published mineral resource estimates.

## Meaningful upside despite lower PGM prices

---

The investment case for Sylvania Platinum (Sylvania) is based on a low-risk dump retreatment operation to which the bulk of the valuation of the company can be ascribed. It also has exploration assets in the northern part of the Bushveld Igneous Complex of South Africa. Sylvania recently published third quarter results confirming its cash generating ability and that it is focused on cost controls, targeted capex and dividend payments.

Further upside to the share price may result from Sylvania's announcement on 2 May 2023 of a share buyback programme, to purchase issued shares of the company up to a maximum consideration of US\$10m.

### Quarterly results

Q323 production is usually lower than other quarters due to the slow resumption of operations after the December break, mainly due to the host mines' run-of-mine ore delivery to the SDOs' plants and slow resumption of delivery of current arisings (tailings material received from Samancor after extraction of chromite).

However, the Q323 results were lower than our forecasts for plant feed and feed grades, total 4E production and by-product revenue, with a large drop in EBITDA due to a combination of these factors.

Plant feed decreased by 11% q-o-q (13.6% below our estimates), resulting in 7% lower 4E PGM ounces produced at 17,926oz in Q323 relative to Q223. Because of the absence of the disruptive festive season restart of operations from the host mines' feed to Sylvania's plants, we have left our FY23 production forecast unchanged at 74,535koz 4E.

The basket price per ounce decreased by 21% in US dollars because of rhodium prices falling to an average of US\$10,975/oz for Q3 compared to US\$13,335/oz for the previous quarter.

On the back of a lower PGM basket price, Q323 group EBITDA was 51% below our forecast.

The cash balance increased to US\$144.2m from US\$123.9m.

Total operating costs differed by 1% from our forecasts, with group cash cost per 4E ounce increasing by around 12%. This is broadly in line with South African mining unit cost increases. The South African rand was virtually unchanged during the quarter. We expect the ZAR/US\$ will continue to weaken during FY23, supporting lower US dollar costs. We have increased the rand unit costs in our model as mining cost inflation in South Africa normally runs at around 12%. The cost of chemicals, a large cost component for Sylvania, has increased significantly. The weaker currency will be offset by local inflationary pressures.

Despite the weaker quarter, Sylvania has guided to 72–74koz 4E production for FY23 (this compares to the guidance given at H123 results stage of 70–72koz 4E). In the first three quarters, production totalled 56,396oz so if the poor Q3 is repeated, guidance is likely to be met. However, we see a possibility of a stronger fourth quarter with production back to 19koz 4E, similar to the first two quarters.

Exhibit 1 shows the quarterly results:

**Exhibit 1: Comparison of Q323 results with Q223**

	Q223	Q323	Q323e	Q323 vs Q223	Q323 vs Q323e
<b>Production</b>					
Plant feed (t)	645,832	575,973	666,995	(10.8%)	(13.6%)
Feed head grade (g/t)	1.94	1.92		(1.0%)	
PGM plant feed (t)	341,528	322,366	309,078	(5.6%)	4.3%
PGM plant feed grade (g/t)	3.22	2.98	3.03	(7.5%)	(1.7%)
Total 4E PGMs (oz)	19,276	17,926	16,858	(7.0%)	6.3%
Total 6E PGMs (oz)	24,630	22,884	22,194	(7.1%)	3.1%
Basket price (\$/oz)	2,432	1,932	2,609	(20.6%)	(26.0%)
<b>Financials</b>					
4E revenue (US\$m)	33.1	25.0	34.3	(24.4%)	(27.0%)
By-product revenue (US\$m)	3.6	3.2	2.8	(12.2%)	14.4%
Total revenue before sales adjustment (US\$m)	36.7	28.2	37.1	(23.2%)	(23.9%)
Sales adjustment (US\$m)	0.4	(1.7)	0.6	N/A	N/A
Total revenue (US\$m)	37.1	26.5	37.7	(28.5%)	(29.7%)
Total operating costs (ZARm)	274.7	279.6	297.1	1.8%	(5.9%)
Total operating costs (US\$m)	15.6	15.7	17.2	1.0%	(8.3%)
Other costs (US\$m)	0.79	0.73	0.69	(7.7%)	4.8%
EBITDA (US\$m)	20.0	9.8	19.9	(51.1%)	(50.7%)
Net interest (US\$m)	0.99	1.58	0.83	59.2%	90.5%
Net profit (US\$m)	13.6	6.1		(55.2%)	
Gross margin	58.0%	40.6%	54.5%	(29.9%)	(25.5%)
Basic EPS (USc)	5.1	2.3		(55.2%)	
Capex (US\$m)	3.6	1.9		(48.5%)	
Cash balance (US\$m)	123.9	144.2		16.4%	
Average ZAR/US\$ rate	17.62	17.76	17.31	0.8%	2.6%
Spot ZAR/US\$ rate	17.05	17.81	17.05	4.5%	4.5%
<b>Unit costs (US\$)</b>					
SDO cash cost /4E PGM oz	590	688		16.6%	
SDO cash cost /6E PGM oz	462	539		16.7%	
Group cash cost / 4E PGM oz	751	843		12.3%	
Group cash cost / 6E PGM oz	588	660		12.2%	
All-in-sustaining cost (4E)	867	932		7.5%	
All-In cost (4E)	1,010	1007		(0.3%)	

Source: Edison Investment Research, Sylvania Platinum accounts

## Changes to PGM price forecasts

With rhodium prices now at around US\$9,000/oz, we have reduced our rhodium and palladium price forecasts for FY23 and FY24 as we think that there is some excess stock in the market, plus demand from China is likely to be lower due to the slower than expected recovery from COVID-19 shutdowns. In addition, the recessionary environment in the Western economies could persist for some time. We see platinum prices strengthening even in the short term with the positive impact of the hydrogen economy on demand and also substitution of platinum for palladium, especially in the new tri-metal catalyst (TMC) developed by BASF and Implats. Jewellery demand has increased, especially in China, and this will also increase demand for platinum. The strong gold price may also pull platinum along with it as a result of the strong correlation between them. Our updated commodity forecasts are given in Exhibit 2.

**Exhibit 2: Edison updated (April 2023) PGM price forecasts (average June year end prices)**

US\$/oz	2021	2022	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
Platinum	1,089	993	1,000	1,164	1,199	1,243	1,283	1,312	1,355	1,394
Palladium	2,400	2,210	1,711	1,503	1,507	1,610	1,700	1,700	1,700	1,700
Rhodium	20,124	16,158	11,778	10,836	14,184	16,574	17,595	17,595	17,595	17,595
Gold	1,786	1,796	1,868	1,750	1,749	1,749	1,749	1,749	1,749	1,749
Ruthenium	564	664	480	470	468	500	500	500	500	500
Iridium	5,066	4,661	4,406	4,608	4,716	4,805	4,924	5,012	5,106	5,206

Source: Edison Investment Research, ALG, Refinitiv

We have adjusted our rhodium price forecasts downwards by 18% for FY23, 20% for FY24 and 19% for FY25. From FY26 onwards, there is no change from our previous forecasts.

For palladium we have dropped our price by 8% for FY23, due to excess stocks in the market and lower demand because of substitution of palladium by platinum in the TMC, 12% for FY24 and 15% for FY25. From FY26, our forecasts are 14% lower.

For platinum, our price forecasts are very similar to our previous forecasts until FY26. From FY27, our price forecasts are higher – up 2% in FY27, 4% in FY28, 8% in FY29 and 11% in FY30 – mainly because we think that demand from the hydrogen economy and fuel cell electric vehicles (FCEVs) will increase at a more rapid rate than we thought, as the materials shortage for pure battery electric vehicles (BEVs) will see their market penetration limited, with the FCEV and hybrid vehicles taking the BEVs' market share.

## Forecast revisions

Our forecast revisions are shown in Exhibit 3. We forecast plant feed to reduce by 3.4% and the basket price to reduce by 14.2% from our old forecasts, as a result of our lower rhodium and palladium price forecasts. Consequently, our 4E revenue declines by 11.5%. Total operating costs in US dollars are slightly lower but EBITDA is significantly lower, 18.1% down on our old forecast. Net profit also declines by 15.5% and gross margins decline marginally though they are still a healthy 50%. Consequently, our basic EPS declines by 15.3%. The cash balance increases by 8.1%.

**Exhibit 3: FY23 forecast changes**

	Old FY23e	New FY23e	FY23e vs old FY23e
<b>Production</b>			
Plant feed (t)	2,676,469	2,585,447	(3.4%)
Basket price (\$/oz)	2,470	2,120	(14.2%)
<b>Financials</b>			
4E revenue (US\$m)	142.7	126.3	(11.5%)
Total revenue (US\$m)	158.3	141.7	(10.5%)
Total operating costs (ZARm)	1,105.0	1,094.1	(1.0%)
Total operating costs (US\$m)	63.8	62.4	(2.2%)
EBITDA (US\$m)	87.0	71.3	(18.1%)
Net profit (US\$m)	59.9	50.6	(15.5%)
Gross margin	53.9%	50.0%	(7.2%)
Basic EPS (USc)	22.4	19.0	(15.3%)
Cash balance (US\$m)	134.2	145.1	8.1%

Source: Edison Investment Research

## Valuation

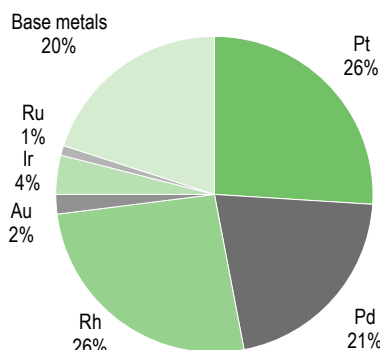
We have revised our valuation for producing assets and have used previously published exploration results to value the potential of the exploration assets. The latter was carried at a book value of US\$46m (13.9p/share) by Sylvania as at end FY22.

Key sensitivities to the valuation lie mainly in the prices of the PGMs. In the past this was rhodium, which accounted for around 39% of the revenue basket earned by South African producers. This has fallen to 26% by our calculation and is now equal to platinum in contribution.

We highlight that Sylvania has more rhodium in its prill split than the average South African producer (Exhibit 4), so a softening of the rhodium price has a large effect on the revenue of the company. Sylvania re-treats the Middle Group number 1–4 seams and the Lower Group number 6 reef dumps around the Bushveld Complex. These are tailings dumps from ore that has previously been mined by South African chrome giant Samancor, its main supplier of dump material (called

'current arisings' by Sylvania). These reefs are around 50% higher in rhodium content than the Upper Group number 2 (UG2) reef, which most other South African producers mine.

#### Exhibit 4: South African PGM revenue split (%) at 28 April 2023



Source: Edison Investment Research, Sylvania Platinum data

### Valuation of producing operations: 159.9p/share

Edison values operating mining resources companies at a 10% real discount rate based on the dividend discount model (DDM). In the case of Sylvania, while we do not forecast windfall dividends over our explicit forecast period (even though these have become a regular feature of this company), we allow for maximum supportable dividends from FY26 and a pay-out ratio of close to 100%. While our long-term PGM price forecasts remain close to those we forecast in December 2021 (for further information, please see our [PGM market report](#)), current market conditions have necessitated a more conservative view in the medium term, especially for rhodium.

Our valuation is down 7.1% to 159.9p/share, from our previous 173.7p/share, for operating assets only, largely driven by lower PGM (and specifically rhodium) prices in the short term. The key risk to the downside remains in PGM prices and inflationary cost pressures, although any cost increases at the operations in South African rand terms could potentially be offset by a weakening of the local currency.

### Valuation of the exploration assets

We conservatively continue to value exploration assets at the company's book value of 13.8p/share (down from the previous 13.9p/share because the pound has risen against the US dollar, from US\$1.24/£ at our last publication to the current US\$1.25/£). However, we flag that the scoping study could result in a write-up of this value over time and that if any of the projects, especially Volspruit, are converted into producing operations, the upside, if the rhodium content of the ore is included in the valuation, could boost our valuation by up to 59.1p/share. This has decreased from the 73p/share value we previously ascribed to the Volspruit project because of the lower palladium and rhodium prices that we now forecast (Exhibit 2) and the slightly stronger pound to US dollar exchange rate. Further upside is possible with the inclusion of the other exploration projects that are currently being assessed.

### Rhodium sensitivity

As mentioned above, rhodium and platinum are currently the joint lead revenue producers. Our sensitivity analysis of changing the rhodium price by 10% and 20% higher and lower shows that the value of the share would rise or fall by 11.5% and 23.1%.

This sensitivity applies equally to platinum. Our more conservative view on rhodium prices in the next two years is likely to be cancelled out by our more bullish outlook for platinum prices.

**Exhibit 5: Rhodium sensitivity analysis**

	20% lower rhodium price	10% lower rhodium price	Base case	10% higher rhodium price	20% higher rhodium price
Valuation (US\$m)	410	472	533	595	656
Valuation (p/share)	123	141	160	178	197
% change	-23.1%	-11.5%	0.0%	11.5%	23.1%

Source: Edison Investment Research

## Financials

End-March (Q323) cash was US\$144.2m having risen from US\$123.9m at the end of Q2. The company is highly cash generative with sufficient funds to facilitate capex, process optimisation, exploration drilling, pre-feasibility studies and dividends.

Exhibit 6 shows our forecasts to FY25. Our revenue forecasts fall in FY23 by around 6.6% as PGM prices fall. The fall in revenue results in our forecast EBITDA declining to US\$71m in FY23 from US\$83m in FY22. We see a further decline to US\$61m in FY24 due to our lower forecast PGM prices and anticipated cost increases. The new MF2 circuits installed at each of the SDOs bar Lannex, until H124, will improve metal recoveries, which should see revenues rising from FY24 onwards and EBITDA in FY25.

There has been a large increase in costs so far in FY23 compared to FY22. We estimate that costs will rise by 8% in FY23 versus FY22 and that in FY24 they could rise by 26% as a result of continued inflation and the possibility that ESKOM power cuts will become significantly worse from FY24. Sylvania is in the process of procuring back-up power generators for Lesedi and Millsell, and these should be commissioned during Q124. However, power costs are likely to add to total costs and cost increases are therefore likely to continue for many years.

As our PGM price forecasts rise in FY25 because of expected high vehicle sales combined with higher demand as EURO 7 legislation for light vehicles comes into force and Tier 4 standards come into force in the US and North America, possibly followed by China 7 emissions regulations (though the date of implementation is not yet certain), we see a sharp rebound in EBITDA from US\$61m in FY24 to US\$77m in FY25. Our EPS forecasts for the next three years show declining headline EPS (HEPS), from 20.4c/share in FY22 to 19.0c/share in FY23, falling further to 14.8c/share in FY24 and rising to 19.3c/share in FY25, in line with our PGM price forecasts and cost increases that we are anticipating because of the factors we mention above and global inflationary pressures.

We expect ordinary dividends to reduce in FY23 to 6.0p/share, from 8.0p/share in FY22, and to 4.9p/share in FY24, before rising to 6.9p/share in FY25.

We expect Sylvania to continue to be strongly cash generative with little or no debt over the next few years. We forecast cash levels in FY23 to increase to US\$145m, for reasons already explained.

With the H123 results reported in February 2023, Sylvania announced that its board had reviewed the company's dividend policy. The new dividend policy, effective from 1 July 2022, is to pay out a minimum of 40% of adjusted free cash flow for the financial year. The company states: 'Adjusted free cash flow is the calculated cash flow from operating activities less capital expenditure for the reporting period, adjusted for debt commitments and covenants and committed future growth/expansion capital. Where annual dividends are declared, these will be paid in two tranches, with an interim dividend equating to one third of the forecast full dividend and the final dividend equating to the remaining unpaid balance of the minimum of 40% of actual adjusted free cash flow. The payment of dividends remains at the discretion of the Board.'

**Exhibit 6: Financial summary**

US\$m	2019	2020	2021	2022	2023e	2024e	2025e
Year ending 30 June	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>							
Revenue	71	115	206	152	142	150	178
Cost of Sales	(45)	(47)	(55)	(62)	(67)	(85)	(95)
Royalties Tax	0	(1)	(8)	(7)	(4)	(8)	(9)
Gross Profit	26	67	143	83	70	58	74
EBITDA	30	69	145	83	71	61	77
Operating Profit (before amort. And except.)	24	64	142	80	67	55	71
Intangible Amortisation	0	0	0	0	0	0	0
Exceptionals	0	(10)	0	0	0	0	0
Other	(9)	(9)	(5)	(7)	(8)	(8)	(9)
Operating Profit	24	54	142	80	67	55	71
Net Interest	1	2	1	1	4	2	2
Profit Before Tax (norm)	24	65	143	81	71	57	73
Profit Before Tax (FRS 3)	24	56	143	81	71	57	73
Tax	(6)	(15)	(43)	(25)	(20)	(17)	(22)
Profit After Tax (norm)	18	51	100	56	51	39	51
Profit After Tax (FRS 3)	18	41	100	56	51	39	51
Average Number of Shares Outstanding (m)	286	280	272	272	267	267	267
EPS – normalised (c)	6.4	14.6	36.7	20.6	19.0	14.8	19.3
EPS – normalised fully diluted (c)	6.2	14.3	35.9	20.4	19.0	14.8	19.3
EPS – (IFRS) (c)	6.2	14.3	35.9	20.4	19.0	14.8	19.3
Dividend per share (p)	0.0	1.6	4.0*	8.0*	6.0	4.9	6.9
Gross Margin (%)	36%	58%	69%	55%	50%	39%	42%
EBITDA Margin (%)	43%	60%	70%	54%	50%	40%	43%
Operating Margin (before GW and except.) (%)	34%	55%	69%	52%	47%	37%	40%
<b>BALANCE SHEET</b>							
Fixed Assets	93	74	86	93	103	103	102
Intangible Assets	53	43	45	46	48	48	48
Tangible Assets	38	30	40	46	54	54	54
Investments	2	0	0	0	0	0	0
Current Assets	59	89	188	187	204	210	249
Stocks	2	2	4	4	3	3	3
Debtors	8	12	69	53	47	50	59
Cash	22	56	106	121	145	149	178
Other	28	19	9	8	9	9	9
Current Liabilities	7	9	14	11	9	10	12
Creditors	7	9	14	11	9	10	12
Short term borrowings	0	0	0	0	0	0	0
Long Term Liabilities	18	13	16	18	22	21	22
Long term borrowings	0	0	0	0	0	0	0
Other long term liabilities	18	13	16	18	22	21	22
Net Assets	128	141	244	251	262	282	317
<b>CASH FLOW</b>							
Operating Cash Flow	25	71	114	92	77	58	69
Net Interest	1	2	2	2	4	2	2
Tax	(8)	(15)	(47)	(24)	(20)	(17)	(21)
Capex	(8)	(5)	(8)	(16)	(17)	(5)	(5)
Acquisitions/disposals	0	0	0	0	0	0	0
Financing	(1)	(18)	(4)	(20)	(0)	0	0
Dividends	(1)	(3)	(20)	(23)	(26)	(19)	(16)
Net Cash Flow	8	41	39	20	19	18	29
Opening net (debt)/cash	14	22	56	106	121	145	149
HP finance leases initiated	0	0	0	0	0	0	0
Other	(0)	(7)	12	(5)	5	(15)	0
Closing net (debt)/cash	22	56	106	121	145	149	178

Source: Company accounts, Edison Investment Research. Note: \*Excludes windfall dividend.



## General disclaimer and copyright

This report has been commissioned by Sylvania Platinum and prepared and issued by Edison, in consideration of a fee payable by Sylvania Platinum. Edison Investment Research standard fees are £60,000 pa for the production and broad dissemination of a detailed note (Outlook) following by regular (typically quarterly) update notes. Fees are paid upfront in cash without recourse. Edison may seek additional fees for the provision of roadshows and related IR services for the client but does not get remunerated for any investment banking services. We never take payment in stock, options or warrants for any of our services.

**Accuracy of content:** All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable, however we do not guarantee the accuracy or completeness of this report and have not sought for this information to be independently verified. Opinions contained in this report represent those of the research department of Edison at the time of publication. Forward-looking information or statements in this report contain information that is based on assumptions, forecasts of future results, estimates of amounts not yet determinable, and therefore involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of their subject matter to be materially different from current expectations.

**Exclusion of Liability:** To the fullest extent allowed by law, Edison shall not be liable for any direct, indirect or consequential losses, loss of profits, damages, costs or expenses incurred or suffered by you arising out of or in connection with the access to, use of or reliance on any information contained on this note.

**No personalised advice:** The information that we provide should not be construed in any manner whatsoever as, personalised advice. Also, the information provided by us should not be construed by any subscriber or prospective subscriber as Edison's solicitation to effect, or attempt to effect, any transaction in a security. The securities described in the report may not be eligible for sale in all jurisdictions or to certain categories of investors.

**Investment in securities mentioned:** Edison has a restrictive policy relating to personal dealing and conflicts of interest. Edison Group does not conduct any investment business and, accordingly, does not itself hold any positions in the securities mentioned in this report. However, the respective directors, officers, employees and contractors of Edison may have a position in any or related securities mentioned in this report, subject to Edison's policies on personal dealing and conflicts of interest.

Copyright: Copyright 2023 Edison Investment Research Limited (Edison).

## Australia

Edison Investment Research Pty Ltd (Edison AU) is the Australian subsidiary of Edison. Edison AU is a Corporate Authorised Representative (1252501) of Crown Wealth Group Pty Ltd who holds an Australian Financial Services Licence (Number: 494274). This research is issued in Australia by Edison AU and any access to it, is intended only for "wholesale clients" within the meaning of the Corporations Act 2001 of Australia. Any advice given by Edison AU is general advice only and does not take into account your personal circumstances, needs or objectives. You should, before acting on this advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Product Disclosure Statement or like instrument.

## New Zealand

The research in this document is intended for New Zealand resident professional financial advisers or brokers (for use in their roles as financial advisers or brokers) and habitual investors who are "wholesale clients" for the purpose of the Financial Advisers Act 2008 (FAA) (as described in sections 5(c) (1)(a), (b) and (c) of the FAA). This is not a solicitation or inducement to buy, sell, subscribe, or underwrite any securities mentioned or in the topic of this document. For the purpose of the FAA, the content of this report is of a general nature, is intended as a source of general information only and is not intended to constitute a recommendation or opinion in relation to acquiring or disposing (including refraining from acquiring or disposing) of securities. The distribution of this document is not a "personalised service" and, to the extent that it contains any financial advice, is intended only as a "class service" provided by Edison within the meaning of the FAA (i.e. without taking into account the particular financial situation or goals of any person). As such, it should not be relied upon in making an investment decision.

## United Kingdom

This document is prepared and provided by Edison for information purposes only and should not be construed as an offer or solicitation for investment in any securities mentioned or in the topic of this document. A marketing communication under FCA Rules, this document has not been prepared in accordance with the legal requirements designed to promote the independence of investment research and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

This Communication is being distributed in the United Kingdom and is directed only at (i) persons having professional experience in matters relating to investments, i.e. investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the "FPO") (ii) high net-worth companies, unincorporated associations or other bodies within the meaning of Article 49 of the FPO and (iii) persons to whom it is otherwise lawful to distribute it. The investment or investment activity to which this document relates is available only to such persons. It is not intended that this document be distributed or passed on, directly or indirectly, to any other class of persons and in any event and under no circumstances should persons of any other description rely on or act upon the contents of this document.

This Communication is being supplied to you solely for your information and may not be reproduced by, further distributed to or published in whole or in part by, any other person.

## United States

Edison relies upon the "publishers' exclusion" from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940 and corresponding state securities laws. This report is a bona fide publication of general and regular circulation offering impersonal investment-related advice, not tailored to a specific investment portfolio or the needs of current and/or prospective subscribers. As such, Edison does not offer or provide personal advice and the research provided is for informational purposes only. No mention of a particular security in this report constitutes a recommendation to buy, sell or hold that or any security, or that any particular security, portfolio of securities, transaction or investment strategy is suitable for any specific person.