

Strategic Metals & Rare Earths Letter

INTERNATIONAL

the independent information and advisory publication on investing in Strategic Metals & Rare Earths

September 2022



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publisher and editor

Critical Metals and Special Minerals		Heavy Rare Earths Oxides (HREO)		Light Rare Earth Oxides (LREO)
lithium (Li)	yttrium (Y)	europium (Eu)	erbium (Er)	lanthanum (La)
cobalt (Co)	scandium (Sc)	gadolinium (Gd)	thulium (Tm)	cerium (Ce)
graphite (C)	niobium (Nb)	terbium (Tb)	ytterbium (Yb)	praseodymium (Pr)
vanadium (V)	tantalum (Ta)	dysprosium (Dy)	lutetium (Lu)	neodymium (Nd)
magnesium (Mg)	beryllium (Be)	holmium (Ho)		promethium (Pm)
tungsten (W)	gallium (Ga)			samarium (Sm)
titanium (Ti)	indium (In)			
zirconium (Zr)	germanium (Ge)			
hafnium (Hf)				
antimony (Sb)				

► Buying momentum for selective critical metals exploration/development sources

Overview of listed LITHIUM focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	US\$ billion	US\$ billion
			US\$	US\$		US\$	US\$	US\$ billion	US\$ billion
Albemarle	NYSE	ALB	264.44	233.77	13	308.24	169.93	31.0	31.0
SQM	1) NYSE	SQM	90.75	50.43	80	115.75	46.13	25.9	25.9
			CNY	CNY		CNY	CNY	CNY billion	US\$ billion
Tianqi Lithium	Shenzen	002466	104.11	107.00	-3	148.57	58.05	148.3	20.8
Ganfeng Lithium	2) Shenzen	002460	76.76	142.85	-46	127.14	64.21	139.9	19.6
			Euro	Euro		Euro	Euro	Euro billion	US\$ billion
ERAMET	Euronext	ERA:FP	80.15	71.95	11	166.00	60.20	2.3	2.3
			A\$	A\$		A\$	A\$	A\$ billion	US\$ billion
Pilbara Minerals	3) ASX	PLS	4.56	3.20	43	5.08	1.78	13.6	8.8
Allkem	4) ASX	AKE	13.85	10.81	28	16.08	7.78	8.8	5.7
Liontown Resources	ASX	LTR	1.49	1.66	-10	2.19	0.86	3.3	2.1
Sayona Mining	5) ASX	SYA	0.24	0.13	81	0.39	0.11	2.0	1.3
Core Lithium	ASX	CXO	1.11	0.59	87	1.69	0.39	1.9	1.2
IoNeer	ASX	INR	0.64	0.80	-21	0.86	0.32	1.3	0.8
Piedmont Lithium	ASX	PLL	0.84	0.74	14	1.08	0.49	1.3	0.8
Lake Resources	ASX	LKE	0.90	1.01	-11	2.65	0.53	1.2	0.8
								A\$ million	US\$ million
Argosy Minerals	ASX	AGY	0.51	0.32	58	0.61	0.18	691.5	449.4
Neometals	ASX	NMT	1.13	1.43	-21	1.97	0.77	621.4	403.9
Galan Lithium	ASX	GLN	1.20	1.95	-39	2.33	0.90	364.0	236.6
Lithium Power International	ASX	LPI	0.54	0.46	17	1.04	0.28	211.2	137.3
Latin Resources	ASX	LRS	0.10	0.03	231	0.23	0.03	188.9	122.8
European Lithium	ASX	EUR	0.08	0.13	-41	0.19	0.05	107.8	70.1
Lithium Australia	ASX	LIT	0.06	0.12	-51	0.16	0.05	68.3	44.4
Winsome Resources	ASX	WR1	0.38	0.37	3	0.57	0.18	54.5	35.4
Prospect Resources	ASX	PSC	0.11	0.80	-86	1.02	0.07	50.8	33.0
Balkan Mining and Minerals	ASX	BMM	0.32	0.34	-4	0.74	0.15	14.7	9.6

1) 23.8% equity interest Tianqi

2) announced on January 21, 2022 a 90.3% ownership in Bacanora Lithium

3) completed acquisition of Altura Lithium on January 20, 2021; in consideration of an upfront cash payment of US\$ 155 million (A\$ 201 million)

4) merger of Orocobre with Galaxy Resources implemented on August 20, 2021; name change from Orocobre effective December 6, 2021

5) superior Court of Quebec approved acquisition of North American Lithium to create world-scale Abitibi Lithium hub

Overview of listed LITHIUM focused companies (by market capitalization) - continuation

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	C\$ million	US\$ million
			C\$	C\$		C\$	C\$		
Lithium Americas	1)	TSX LAC	36.25	36.82	-2	53.09	24.65	4,881.3	3,563.3
Sigma Lithium		TSX V SGML	37.47	13.00	188	38.84	9.81	3,773.8	2,754.9
Standard Lithium		TSX V SLI	6.05	12.27	-51	15.92	4.92	1,007.6	735.5
Frontier Lithium		TSX V FL	2.13	2.03	5	3.89	0.81	453.7	331.2
American Lithium		TSX V LI	2.04	4.26	-52	6.25	1.56	424.5	309.9
Critical Elements Lithium		TSX V CRE	1.66	1.39	19	1.98	1.13	347.8	253.9
Cypress Development		TSX V CYP	1.18	2.22	-47	2.61	0.99	172.9	126.2
E3 Lithium	2)	TSX V ETL	2.27	2.30	-1	3.49	1.59	138.4	101.0
Avalon Advanced Materials	3)	TSX AVL	0.18	0.11	59	0.24	0.09	71.2	52.0
Wealth Minerals		TSX V WML	0.21	0.37	-44	0.67	0.17	57.7	42.1
Brunswick Exploration		TSX V BRW	0.35	0.17	106	0.44	0.11	55.6	40.6
Lithium South Development		TSX V LIS	0.52	0.81	-36	1.08	0.38	50.2	36.6
Foremost Lithium Resource		CSE FAT	0.24	0.29	-16	0.44	0.11	45.5	33.2
ACME Lithium		CSE ACME	0.74	0.96	-23	1.44	0.62	39.5	28.8
Power Metals		TSX V PWM	0.19	0.22	-14	0.34	0.15	25.3	18.4
Argentina Lithium and Energy	*	TSX LIT	0.27	0.45	-39	0.96	0.20	24.5	17.9
HeliosX Lithium & Technologies	4)	TSX V HX	0.64	0.76	-16	1.31	0.42	23.2	16.9
Macarthur Minerals		TSX V MMS	0.14	0.31	-56	0.51	0.12	22.4	16.3
Pure Energy Minerals		TSX PE	0.57	1.64	-65	2.60	0.52	18.8	13.7
International Lithium		TSX V ILC	0.07	0.12	-42	0.15	0.07	17.4	12.7
Ultra Lithium	5)	TSX V ULT	0.10	0.21	-52	0.45	0.10	16.7	12.2
Aberdeen International		TSX AAB	0.05	0.14	-67	0.18	0.04	6.5	4.7
Portofino Resources		TSX V POR	0.04	0.12	-67	0.17	0.04	4.4	3.2
			GBX	GBX		GBX	GBX	£ million	US\$ million
European Metals Holdings		AIM EMH	45.00	68.50	-34	86.50	34.20	83.7	97.9
Kodal Minerals	6)	AIM KOD	0.29	0.31	-6	0.47	0.21	49.0	57.3
Savannah Resources		AIM SAV	2.35	4.35	-46	5.60	2.04	39.7	46.4

* featured as a **Special Situation** and included in **SMRE shortlist of investment recommendations**

1) acquisition of Millennial Lithium completed on January 11, 2022 at a price of C\$ 4.70 per share payable in cash and shares

2) name change from E3 Metals effective May 31, 2022

3) also rare earth elements indium, usium and tantalum

4) name change from Dajin Lithium effective February 1, 2022

5) name change from Ultra Resources effective January 19, 2022; also gold assets in Australia

6) lithium project in Mali and in addition gold activity in Côte d'Ivoire

Overview of major NICKEL focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	C\$ million	US\$ million
			C\$	C\$		C\$	C\$		
Canada Nickel		TSX V CNC	1.46	3.52	-17	4.01	1.18	165.07	120.5
Sherrit International		TSX S	0.38	0.41	-6	0.85	0.31	150.96	110.2
FPX Nickel		TSX V FPX	0.48	0.50	-5	0.96	0.42	102.65	74.9
Nickel 28		TSX V NKL	0.91	0.97	-6	1.79	0.83	82.3	60.1
Garibaldi Resources		TSX V GGI	0.36	0.25	42	0.65	0.21	45.05	32.9
Grid Metals		TSX V GRDM	0.14	0.11	29	0.23	0.09	18.57	13.6
			A\$	A\$		A\$	A\$	A\$	
Queensland Pacific Metals		TSX V QPM	0.125	0.17	-17	0.28	0.09	196.46	127.7
			CNY	CNY		CNY	CNY	CNY billion	US\$ billion
Metallurgical Corp. of China		SSE 601618	2.97	3.83	-17	4.83	2.95	56.7	7.9

Overview of listed COBALT focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	CNY billion	US\$ billion
			CNY	CNY		CNY	CNY	CNY billion	US\$ billion
Zhejiang Huayou Cobalt	Shanghai 603799		65.48	110.31	-41	109.46	52.32	102.8	14.4
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Electra Battery Metals	1) TSXV	ELBM	3.83	5.76	-34	7.65	3.27	124.9	91.2
Fortune Minerals	TSXV	FT	0.08	0.15	-45	0.16	0.08	30.5	22.3
Canada Silver Cobalt Works	TSXV	CCW	0.09	0.17	-45	0.33	0.08	18.3	13.3
Cruz Battery Metals	2) CSE	CRUZ	0.11	0.27	-61	0.34	0.10	11.8	8.6
Fuse Cobalt	TSXV	FUSE	0.07	0.07	-7	0.12	0.04	9.9	7.2
Quantum Battery Metals	3) CSE	QBAT	0.37	0.89	-58	2.75	0.33	9.1	6.6
Sienna Resources	4) TSXV	SIE	0.06	0.12	-48	0.15	0.04	7.5	5.5
Enerev5 Metals	5) TSXV	ENEV	0.02	0.05	-67	0.06	0.01	3.5	2.5
Fjordland Exploration	6) TSXV	FEX	0.04	0.12	-65	0.13	0.03	3.3	2.4
Global Energy Metals	TSXV	GEMC	0.08	0.26	-69	0.31	0.06	2.6	1.9
Power Group Projects	TSXV	PGP	0.02	0.04	-57	0.06	0.02	1.8	1.3
Bolt Metals	7) CSE	BOLT	0.08	0.20	-59	0.35	0.08	1.2	0.9
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Jervois Global Limited	ASX	JRV	0.52	0.59	-13	1.02	0.38	813.1	782.7
Cobalt Blue Holdings	ASX	COB	0.71	0.50	43	1.07	0.28	234.7	152.6
A-Cap Energy	8) ASX	ACB	0.07	0.15	-52	0.19	0.05	91.2	59.3

1) name change from First Cobalt effective November 8, 2021

2) name change from Cruz Cobalt, effective August 3, 2021

3) name change from Quantum Cobalt, effective March 23, 2021

4) cobalt-nickel-copper project in Sweden

5) name change from Cobalt Blockchain, effective November 10, 2021

6) Nickel-copper-PGE project in Manitoba, USA and Nickel-copper-cobalt project in Newfoundland and Labrador, Canada

7) mass consolidation of mining permits by Indonesian government leads to conditional sale of Cyclops Project to Nickel Mines in December 2021

8) besides farm-in and Joint Venture Agreement with Blackham Resources to acquire a 75% interest in cobalt and nickel associated metals of the Wilconi Project in Western Australia; also major uranium project in Botswana

Overview of listed GRAPHITE focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	A\$ million	US\$ million
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Syrah Resources	ASX	SYR	1.64	1.81	-9	2.13	0.98	1,090.0	708.5
Talga Group	ASX	TLG	1.27	1.63	-22	2.23	1.00	387.3	251.7
Magnis Energy Technologies	ASX	MNS	0.37	0.58	-36	0.76	0.27	359.0	233.4
Ecograf	ASX	EGR	0.32	0.68	-53	0.86	0.22	144.1	93.7
Greenwing Resources	1) ASX	GW1	0.37	0.43	-15	0.58	0.18	45.7	29.7
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Nouveau Monde Graphite	TSX.V	NOU	7.45	8.79	-15	11.90	4.36	416.1	303.7
NextSource Materials	TSX.V	NEXT	2.37	3.26	-27	4.90	1.73	241.4	176.2
Graphite One	TSX	GPH	1.03	1.91	-46	2.54	0.93	99.6	72.7
SRG Mining	TSX.V	SRG	0.75	0.72	4	0.96	0.37	85.4	62.3
Northern Graphite	TSX.V	NGC	0.50	0.83	-40	0.94	0.43	60.2	43.9
Mason Graphite	TSX.V	LLG	0.30	0.69	-57	0.78	0.26	40.9	29.8
Ceylon Graphite	TSX.V	CYL	0.09	0.20	-54	0.27	0.09	13.9	10.1
Lomiko Metals	TSX.V	LMR	0.03	0.10	-70	0.13	0.03	7.1	5.2
Focus Graphite	TSX.V	FMS	0.12	0.75	-84	1.20	0.12	6.7	4.9
Canada Carbon	TSX.V	CCB	0.04	0.08	-50	0.11	0.03	5.6	4.1
Eagle Graphite	TSX.V	EGA	0.08	0.16	-50	0.22	0.07	3.0	2.2
			US\$	US\$		US\$	US\$	US\$ million	US\$ million
Westwater Resources	NASDAQ	WWR	1.14	2.15	-47	4.19	1.00	53.8	53.8

1) formerly Bass Metals; name change, effective July 29, 2021; also lithium assets

Overview of listed VANADIUM focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	£ million	US\$ million
			GBX	GBX		GBX	GBX	£ million	US\$ million
Bushveld Minerals	AIM	BMN	4.60	10.10	-54	15.20	4.00	59.2	72.2
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Australian Vanadium	ASX	AVL	0.03	0.03	3	0.12	0.02	135.3	87.9
TNG	1) ASX	TNG	0.08	0.08	-1	0.15	0.05	109.7	71.3
Technolpgy Metals Australia	ASX	TMT	0.37	0.29	26	0.62	0.27	76.6	49.8
Vanadium Resources	ASX	VR8	0.10	0.08	27	0.18	0.06	45.0	29.2
			GBX	GBX		GBX	GBX	£ million	US\$ million
Aura Energy	2) AIM	AEE	17.00	13.50	26	19.00	8.50	86.1	105.0
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Blue Sky Uranium *	3) TSX.V	BSK	0.14	0.20	-28	0.35	0.12	28.0	20.4
Phenom Resources	4) TSX.V	PHNM	0.34	0.41	-18	0.81	0.32	27.8	20.3
Voyager Metals	5) TSX.V	VONE	0.11	0.18	-42	0.27	0.10	9.8	7.1
Vanadian Energy	TSX.V	VEC	0.03	0.05	-40	0.10	0.02	1.3	0.9

* featured as a **Special Situation** and included in Shortlist of investment recommendations

1) vanadium-titanium-iron project

2) also advanced uranium project in Mauretania

3) uranium-vanadium project

4) name change from First Vanadium, effective July 6, 2021

5) name change from Vanadium One Iron, effective October 18, 2021

Overview of listed MAGNESIUM focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization million	
			Sept.30 2022	Year-end 2021		H	L	local	US\$
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Western Magnesium	TSX.V	WMG	0.11	0.50	-78	0.90	0.09	49.5	36.1
West High Yield Resources	* 1) TSX.V	WHY	0.32	0.68	-53	1.22	0.25	26.2	19.1
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Latrobe Magnesium	ASX	LMG	0.08	0.10	-19	0.18	0.03	125.7	81.7
Korab Resources	ASX	KOR	0.03	0.05	-40	0.10	0.02	11.7	7.6

1) also gold project in Victoria, Australia

* featured as a **Special Situation** and included in Shortlist of investment recommendations

Overview of listed MANGANESE focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization million	
			Sept.30 2022	Year-end 2021		H	L	local	US\$
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Euro Manganese	TSX.V	EMN	0.27	0.47	-43	0.60	0.19	106.3	77.6
Recyclico Battery Materials	1) TSX.V	AMY	0.30	0.52	-42	1.10	0.28	74.5	54.4
Giyani Metals	2) TSX	EMM	0.25	0.34	-26	0.61	0.25	54.6	39.9
Manganese X Energy	TSX.V	MN	0.22	0.30	-25	0.58	0.21	27.9	20.3
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Element 25	ASX	E25	0.76	1.23	-39	2.07	0.43	115.3	74.9

1) name change from Amican Manganese effective September 27, 2022

2) developing projects in Botswana

Overview of listed TUNGSTEN focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L	C\$ million	US\$ million
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Almonty Industries	TSX	All	0.63	0.89	-29	1.10	0.57	136.1	99.3
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
EQ Resources	1) ASX	EQR	0.05	0.06	-17	0.08	0.04	64.5	41.9

1) formerly Carbine Tungsten; new name change from Specialty Metals, effective December 2, 2020; also lithium assets in Chile and gold exploration licences in NSW, Australia

Overview of listed TITANIUM focused companies (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization	
			Sept.30 2022	Year-end 2021		H	L		
			US\$	US\$		US\$	US\$	US\$ billion	US\$ billion
Tronox	NYSE	TROX	12.25	24.03	-49	26.33	11.14	1,890.0	1,890.0
Kronos Worldwide	NYSE	KRO	9.34	15.01	-38	19.78	8.71	1,080.0	1,080.0
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Iluka Resources	ASX	ILU	9.06	10.10	-10	12.83	8.05	3,840.0	2,496.0
			GBX	GBX		GBX	GBX	£ million	US\$ million
BlueJay Mining	1) AIM	JAY	5.13	9.22	-44	12.10	4.20	53.8	58.6

1) Dundas ilmenite project in Greenland; also joint venture and earn-in agreement with Rio Tinto to advance Enonkoski nickel project in Finland.

Overview of listed REE focused companies (by market capitalization) - traditional countries

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization million	
			Sept.30 2022	Year-end 2021		H	L		
			A\$	A\$		A\$	A\$	A\$ million	US\$ million
Australia:									
Lynas Rare Earths	ASX	LYC	7.56	10.17	-26	11.59	6.21	6,930.0	4,504.5
Arafura Resources	ASX	ARU	0.33	0.21	55	0.50	0.17	586.4	381.1
Hastings Technology Metals	ASX	HAS	3.46	5.20	-33	6.40	3.46	425.8	276.8
Northern Minerals	ASX	NTU	0.04	0.06	-17	0.07	0.04	204.3	132.8
US:									
Texas Mineral Resources		OTC US TMRC	1.93	1.97	-2	2.55	1.40	140.6	140.6
Rare Element Resources	1)	OTC US REEMF	0.41	1.25	-67	2.75	0.36	87.1	87.1
			C\$	C\$		C\$	C\$	C\$ million	US\$ million
Ucore Rare Metals		TSX V UCU	0.72	0.73	-1	1.25	0.53	35.3	25.8
Canada:									
Appia Rare Earths & Uranium	2)	CSE API	0.51	0.14	278	0.83	0.28	62.8	45.8
Search Minerals		TSX V SMY	0.10	0.22	-55	0.33	0.10	41.4	30.2
Eagle Plains Resources		TSX V EPL	0.16	0.17	-6	0.19	0.14	17.7	12.9
Commerce Resources		TSX V CCE	0.12	0.23	-49	0.32	0.10	10.5	7.7
Marvel Discovery	3)	TSX V MARV	0.09	0.08	13	0.17	0.07	8.7	6.3
Canada Rare Earth		TSX V LL	0.04	0.06	-42	0.08	0.03	7.4	5.4
Medaillon Resources		TSX V MDL	0.06	0.13	-58	0.18	0.05	3.9	2.8
Western Europe:									
Greenland:									
Greenland Minerals	4)	ASX GGG	0.05	0.08	-38	0.14	0.04	63.7	41.4
Sweden:									
Leading Edge Materials	5)	TSX V LEM	0.17	0.50	-67	0.72	0.16	25.2	18.4

1) approximately 49% held by Synchron, an affiliated General Atomics privately held group of companies

2) also uranium assets; name change from Appia Energy effective October 15, 2021

3) also uranium assets

4) world's largest undeveloped multi-element REE-uranium-zinc occurrence; uranium exploitation banned by Greenland government

5) also graphite and lithium properties in Sweden and 51% nickel-cobalt exploration alliance in Romania

Overview of listed REE focused companies (by market capitalization) - emerging countries

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization million		
			Sept.30 2022	Year-end 2021		H	L			
Africa:										
Namibia:										
Namibia Critical Metals	1)	TSX.V	NMI	C\$ 0.12	C\$ 0.25	-51	C\$ 0.27	C\$ 0.12	C\$ million 23.6	US\$ million 17.2
Angola:										
Pensana Plc		AIM	PRE	GBX 54.30	GBX 99.05	-45	GBX 119.52	GBX 41.05	£ million 127.4	US\$ million 138.9
Tanzania:										
Peak Rare Earths	2)	ASX	PEK	A\$ 0.44	A\$ 0.85	-49	A\$ 0.93	A\$ 0.29	A\$ million 89.2	US\$ million 58.0
Burundi:										
Rainbow Rare Earths		AIM	RBW	GBX 11.25	GBX 17.38	-35	GBX 18.50	GBX 9.50	£ million 54.4	US\$ million 59.3
Malawi:										
Mkango Resources		TSX.V	MKA	C\$ 0.18	C\$ 0.52	-65	C\$ 0.70	C\$ 0.18	C\$ million 38.7	US\$ million 28.3
Globe Metals and Mining		ASX	GBE	A\$ 0.07	A\$ 0.11	-36	A\$ 0.15	A\$ 0.06	A\$ million 34.7	US\$ million 22.6

1) heavy rare earths joint venture with JOGMEC of Japan

2) name change from Peak Resources, effective November 29, 2021

CARBON STREAMING focused company (by market capitalization)

September 30, 2022	Trading symbol		Share price		Change in %	12 months prices		Market capitalization million		
			Sept.30 2022	Year-end 2021		H	L			
Carbon Streaming	*	NEO	NETZ	C\$ 3.50	C\$ 13.15 *	-73	C\$ 16.84	C\$ 2.53	C\$ 163.8	US\$ million 119.6

* featured as a **Special Situation** and included in **SMRE shortlist of investment recommendations**

► US sets 50% target on electric vehicles by 2030

The United States has set a target to make half of all new passenger cars and light trucks sold in 2030 zero emission vehicles. The category includes battery electric plug-in hybrid electric or fuel cell electric vehicles.

“America must lead the world on clean and efficient cars and trucks” U.S. President Joe Biden announced on August 5, 2022. “My administration will prioritize setting clear standards, expending key infrastructure planning, critical innovation and investing in the American auto worker”.

In a joint statement by Ford General Motors and Stellantis, the automakers announced “their shared aspiration to achieve sales of 40-50% of annual U.S. volumes of electric vehicles (battery electric, fuel cell and plug-in hybrid vehicles) by 2030 in order to move the nation closer to a zero-emission future consistent with Paris climate goals”. That percentage range is up from about 2% this year.

The White House briefing noted that the U.S. market share of electric vehicles “is only one-third of that of the Chinese electric vehicle market” and outlined a number of investments including installation of the first-ever national network of electric vehicle charging stations; consumer incentives; financing the rebuilding and expansion of the fuel domestic manufacturing supply chain”; and “innovating the next generation of clean technologies to maintain our competitive edge”.

Since 2010, the cost of battery packs has fallen by 85%, the White House briefing stated, “paving the way to sticker price parity with gasoline-powered vehicles”. It also noted that “the range of EVs has increased dramatically as charging times shortened”.

As we said before, “we are in competition with China and many other nations for the 21st century”, President Biden declared. “To win, we are going to have to make sure the future will be made in America”.

“Right now, China is leading the race and is one of the largest and fastest growing electric vehicle markets in the world and a key part of the electric vehicle – to state the obvious – is the battery. And right now, 80% of the manufacturing capacity for these batteries is done in China”.

According to the White House briefing the Environmental Protection Agency (EPA) and U.S. Department of Transportation are advancing “smart fuel efficiency and emission standards and would deliver around US\$ 140 billion in net benefits over de life of the program, save about 200 billion gallons of gasoline and reduce around two billion metric carbon pollution”.

On November 9, 2021, a proposal revised U.S. critical minerals list was published in the Federal Register. The new list contained 50 individual mineral commodities, proposed changes were the addition of **nickel** and **zinc** and the removal of helium, potash, rhenium, strontium and uranium, which were included in the 2018 critical minerals list.

CALENDAR OF MINING EVENTS



Uraniumletter INTERNATIONAL

Strategic Metals & Rare Earths Letter
INTERNATIONAL

Media Partnerships 2022

January	25 – 27	Mines and Money Online Connect
April	5 – 7	Mines and Money Online Connect
April	6 – 8	Madrid Energy Conference (MEC 2022), Madrid, Spain
April	6 – 8	MINEX Kazakhstan – Nur Sultan, Kazakhstan
May	4 – 5	Mines & Money London (Hybrid)
June	1 – 3	DRC Mining Week – Lubumbashi, DRC
June	13 – 15	PDAC 2022 – Toronto, Canada – in person
June	28 – 29	PDAC 2022 – Toronto, Canada – ONLINE
June	28 – 30	Suriname Energy, Oil & Gas Summit, Paramaribo, Suriname
July	26 – 27	Lithium Latin America – Buenos Aires, Argentina
August 30 – September 1		Mines and Money Online Connect
September	14 – 16	Guyana Basins Summit – Georgetown, Guyana
November	1 – 3	ZIMEC 2022 – Kitwe, Zambia
November	2 – 4	Int.Mining and Resource Conf. (IMARC) – Melbourne, Australia
November	15 – 17	Symposium Mines Guinee – Conakry, Guinea
November	29	MINEX Eurasia
November 29 – December 1		Resourcing Tomorrow, brought to you by Mines and Money - London

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