

Investor Presentation

September 2023



OUR VALUES

Act with Integrity

Operate with Excellence

Care for People

Lead with Courage

Cautionary Statement regarding Forward-Looking Statements

This presentation contains statements that relate to future events and expectations and as such constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include those containing such words as “aims,” “ambition,” “anticipates,” “believes,” “could,” “develop,” “endeavors,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “potential,” “plans,” “projects,” “reach,” “seeks,” “sees,” “should,” “strive,” “targets,” “will,” “working,” “would,” or other words of similar meaning. All statements by Alcoa that reflect expectations, assumptions or projections about the future, other than statements of historical fact, are forward-looking statements, including, without limitation, forecasts concerning global demand and growth for bauxite, alumina, and aluminum, and supply/demand balances; statements, projections or forecasts of future or targeted financial results, or operating performance (including our ability to execute on strategies related to environmental, social and governance matters); statements about strategies, outlook, and business and financial prospects; and statements about capital allocation and return of capital. These statements reflect beliefs and assumptions that are based on Alcoa’s perception of historical trends, current conditions, and expected future developments, as well as other factors that management believes are appropriate in the circumstances. Forward-looking statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and changes in circumstances that are difficult to predict. Although Alcoa believes that the expectations reflected in any forward-looking statements are based on reasonable assumptions, it can give no assurance that these expectations will be attained and it is possible that actual results may differ materially from those indicated by these forward-looking statements due to a variety of risks and uncertainties. Such risks and uncertainties include, but are not limited to: (a) cyclicalities of the aluminum industry and aluminum end use markets, including due to the influence of global economic conditions, and unfavorable changes in the markets served by Alcoa; (b) the effects of non-market forces, such as government policies and political instability, on global aluminum supply and demand; (c) volatility and declines in aluminum industry, including global supply and demand conditions and fluctuations in London Metal Exchange-based prices and premiums, as applicable, for primary aluminum and other commodities, and fluctuations in indexed-based and spot prices for alumina; (d) legal, regulatory, economic, political, trade, public health and safety, and reputational risks and conditions, including changes in conditions beyond our control as a result of our participation in increasingly competitive and complex global markets; (e) our ability to obtain, maintain, or renew permits or approvals necessary for our mining operations; (f) unfavorable changes in cost, quality, or availability of key inputs, including energy and raw materials, or uncertainty of or disruption to the supply chain including logistics; (g) our ability to realize expected benefits or achieve intended results, including as planned and by targeted completion dates, from announced strategies, plans, programs, or initiatives relating to our portfolio, profitability, capital investments, and developing technologies, and from joint ventures or other strategic alliances or business transactions; (h) fluctuations in foreign currency exchange and tax rates on costs and results; (i) changes in tax laws or exposure to additional tax liabilities; (j) changes in global economic and financial market conditions generally, such as inflation, recessionary conditions, and interest rate increases, which may also affect Alcoa’s ability to obtain credit or financing upon acceptable terms or at all; (k) current and potential future impacts to the global economy and our industry, business and financial condition caused by various worldwide or macroeconomic events, such as the ongoing conflict between Russia and Ukraine; (l) global competition within and beyond the aluminum industry; (m) our ability to obtain or maintain adequate insurance coverage; (n) the outcomes of contingencies, including legal and tax proceedings, government or regulatory investigations, and environmental remediation, or changes in foreign and/or U.S. federal, state, or local laws, regulations, or policies; (o) the impacts of climate change, related legislation or regulations, and efforts to reduce greenhouse gas emissions and our ability to achieve strategies and expectations related to climate change and other environmental matters; (p) claims, costs and liabilities resulting from the impact of our operations, including impoundments, or from health, safety, and environmental laws, regulations, and requirements, in the areas where we operate; (q) the impact of cyberattacks and potential information technology or data security breaches, including disruptions to our operations, liability, and reputational harm; (r) our ability to fund capital expenditures; (s) risks associated with long-term debt obligations including restrictions on our current and future operations as a result of our indebtedness; (t) our ability to continue to return capital to stockholders through cash dividends and/or share repurchases; (u) the impact of labor disputes, work stoppages and strikes, or other employee relations issues, as well as labor market conditions; (v) declines in the discount rates used to measure pension and other postretirement benefit liabilities or lower-than-expected investment returns on pension assets, or unfavorable changes in laws or regulations that govern pension plan funding; and (w) the other risk factors discussed in Alcoa’s Annual Report on Form 10-K for the fiscal year ended December 31, 2022 and other reports filed by Alcoa with the SEC. Alcoa disclaims any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law. Market projections are subject to the risks described above and other risks in the market.

Any information contained in the following slides that has been previously publicly presented by Alcoa speaks as of the date that it was originally presented, as indicated. Alcoa is not updating or affirming any of such information as of today’s date. The provision of this information shall not imply that the information has not changed since it was originally presented.

Important information

Non-GAAP Financial Measures

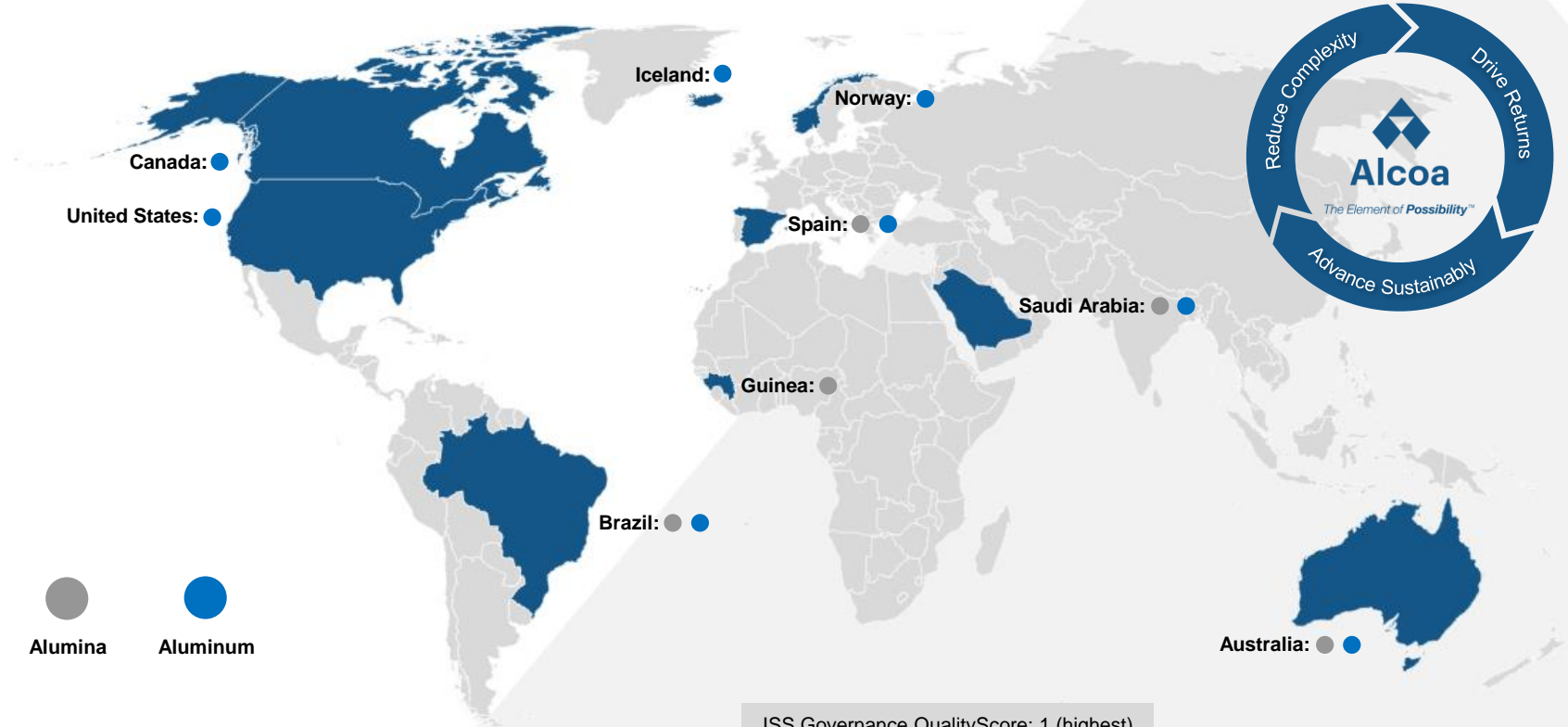
This presentation contains reference to certain financial measures that are not calculated and presented in accordance with generally accepted accounting principles in the United States (GAAP). Alcoa Corporation believes that the presentation of these non-GAAP financial measures is useful to investors because such measures provide both additional information about the operating performance of Alcoa Corporation and insight on the ability of Alcoa Corporation to meet its financial obligations by adjusting the most directly comparable GAAP financial measure for the impact of, among others, “special items” as defined by the Company, non-cash items in nature, and/or nonoperating expense or income items. The presentation of non-GAAP financial measures is not intended to be a substitute for, and should not be considered in isolation from, the financial measures reported in accordance with GAAP. Certain definitions, reconciliations to the most directly comparable GAAP financial measures and additional details regarding management’s rationale for the use of the non-GAAP financial measures can be found in the appendix to this presentation. Alcoa Corporation does not provide reconciliations of the forward-looking non-GAAP financial measures Adjusted EBITDA and Adjusted Net Income, including transformation, intersegment eliminations and other corporate Adjusted EBITDA; operational tax expense; and other expense; each excluding special items, to the most directly comparable forward-looking GAAP financial measures because it is impractical to forecast certain special items, such as restructuring charges and mark-to-market contracts without unreasonable efforts due to the variability and complexity associated with predicting the occurrence and financial impact of such special items. For the same reasons, we are unable to address the probable significance of the unavailable information, which could be material to future results.

Resources

This presentation can be found under the “Events and Presentations” tab of the “Investors” section of the Company’s website, www.alcoa.com.

A pure play aluminum company with two business segments

Alcoa global operations by business segment

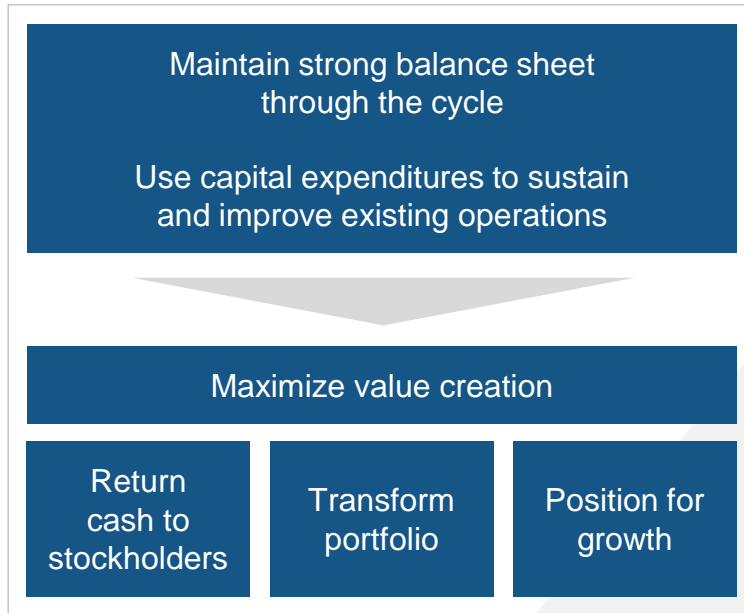


ISS Governance QualityScore: 1 (highest)

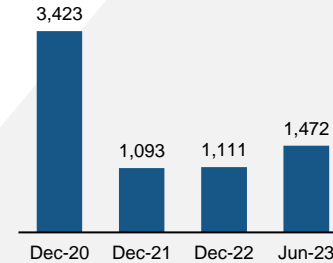
Achieved strong balance sheet, made stockholder returns

Capital allocation framework and key metrics

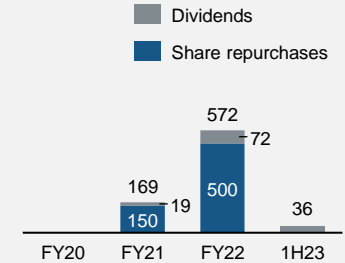
Capital allocation framework



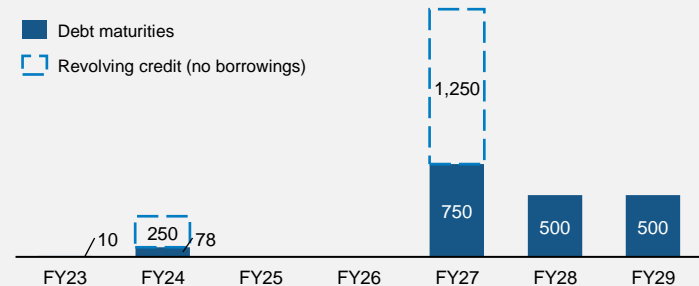
Prop. adj. net debt, \$M



Stockholder returns, \$M



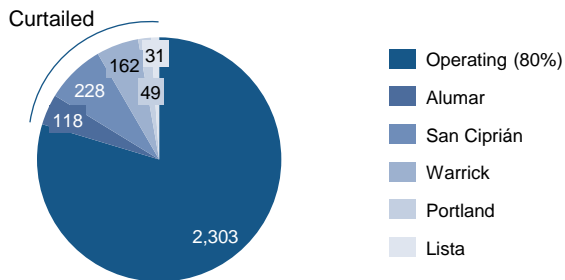
Debt maturity profile and available credit, \$M



Optionality from curtailed capacity; some restarts in process

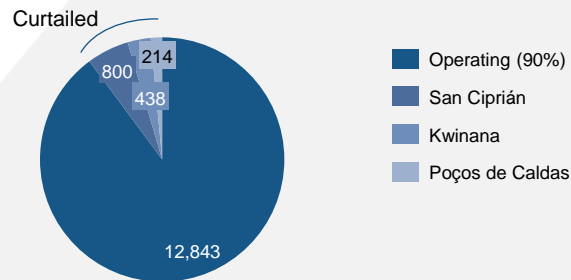
Operating and curtailed production capacity¹ by segment, kmt, as of June 30, 2023

Curtailed capacity by smelter



- 80% of total smelter capacity is operating
- Alumar restart continuing, with over half of capacity operating; using renewable energy
- San Ciprián smelter phased restart to begin in January 2024, full restart expected by October 2025; pursuing wind power energy contracts
- Warrick, Portland and Lista operating stably at current levels; restarts depend on economics

Curtailed capacity by refinery



- 90% of total refinery capacity is operating
- San Ciprián refinery operating at half capacity due to high energy costs; restart depends on economics
- Kwinana has one of five digestors curtailed, originally due to gas shortage in 1Q23; restart depends on bauxite availability and economics
- Poços producing non metallurgical alumina (NMA)

1. Includes unconsolidated 25.1% joint venture capacity in Operating totals

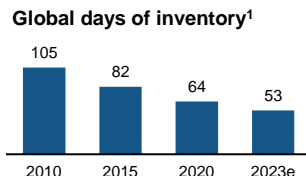
Mixed conditions for 2023 market; positive long-term outlook

Current aluminum market considerations and long-term outlook

Current market considerations

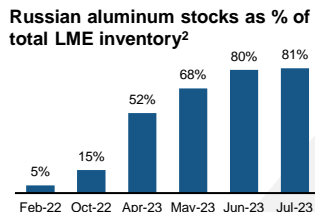
Projected 2023 global aluminum market balances and inventories

- Mixed current market; demand conditions varying across different sectors; limited supply growth
- Global inventories projected to remain historically low in 2023



RoW

- Significant portion of global aluminum consumers self-sanctioning Russian metal
- Unwanted Russian tonnes make up majority of LME inventories



China

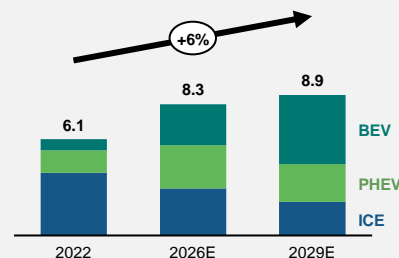
- Some curtailed capacity restarting in Yunnan, but energy conditions remain in question
- Demand growth challenged by real estate slowdown; still strong grid and transportation demand

Long-term market outlook, 2023 - 2029

Factors driving demand

- Transportation, electrical and packaging sectors expected to lead aluminum demand growth
- Energy transition, including electric vehicles, to be a driver of demand growth

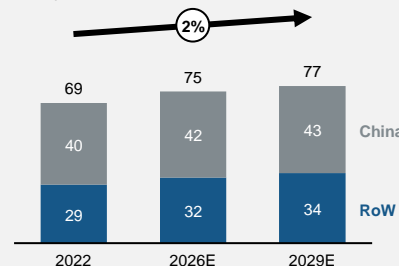
NA and EU vehicle aluminum demand by engine type⁴, Mmt³



Factors constraining supply

- RoW supply pipeline limited by renewable energy availability
- China supply growth expected to continue slowing as they prioritize carbon emissions reduction and approach 45Mmt capacity cap

Global primary aluminum production, Mmt¹

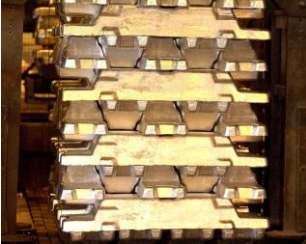






Sources: 1. CRU; 2. LME; 3. Ducker and LMC.

Note: 4. BEV: Battery Electric Vehicles, PHEV: Plug-in and Hybrid Electric Vehicles, ICE: Internal Combustion Engine Vehicles

Offering a variety of value add aluminum products and P1020

Aluminum segment product offerings and end markets examples

				
GLOBAL	EUROPE AMERICAS	EUROPE AMERICAS	EUROPE AMERICAS ASIA	EUROPE AMERICAS
<p><u>End Markets</u> Transportation, Building and Construction, Electrical Packaging, Aerospace, Industrial</p> <p><u>Main Uses</u> Remelt inputs for slab, billet, wire rod; “sweetener” for high recycled content applications</p>	<p><u>End Markets</u> Transportation, Industrial, Building and Construction, Packaging</p> <p><u>Main Uses</u> Sheet and plate, can stock</p>	<p><u>End Markets</u> Transportation, Building and Construction, Packaging, Aerospace, Industrial</p> <p><u>Main Uses</u> Cast parts and remelt inputs for slab, billet, wire rod</p>	<p><u>End Markets</u> Transportation, Building and Construction, Industrial</p> <p><u>Main Uses</u> Extrusions, wheels</p>	<p><u>End Markets</u> Industrial, Electrical</p> <p><u>Main Uses</u> Overhead wire, mechanical and welding wire</p>

Full suite of Sustana™ products focused on carbon footprint

Summary of Sustana products and position on carbon emissions curves

Alcoa Sustana product line



- Alumina products from a refinery portfolio with average emissions intensity below 0.6 tonne CO₂e per tonne of alumina (scope 1 and 2, mining and refining)
- Emission intensity less than half the industry average¹
- Cradle-to-gate carbon footprint information² for Smelter-grade alumina, and certain Non-metallurgical grades

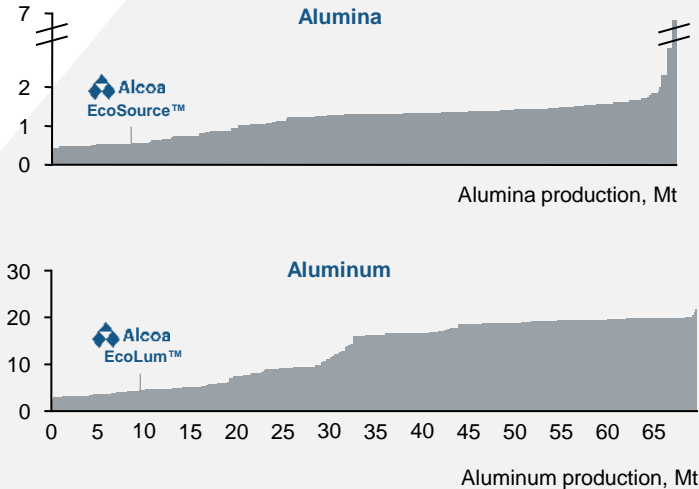


- Primary aluminum with emissions less than 4.0 tonne CO₂e per tonne aluminum (scope 1 and 2, from mining, refining, smelting and casting)
- Emission intensity less than one third the industry average³
- Cradle-to-gate carbon footprint² information for all product groups (ingot, foundry, slab, billet, wire rod)



- Minimum 50% recycled content⁵ (pre-consumer scrap)
- Available globally

Metric tons of CO₂e/mt, by product

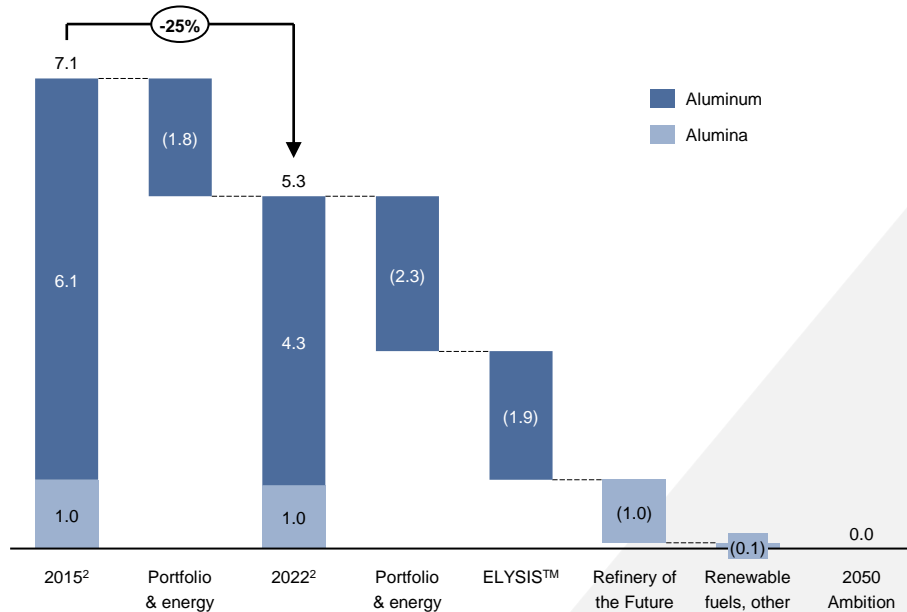


ASI certifications available for all products and 18 sites
Learn more at www.Alcoa.com/sustana

Expected pathways to support net zero ambition

Potential scope 1&2 emissions reduction pathways and current progress

Estimated Alcoa scope 1&2 emissions reductions by segment, CO₂e/tonne¹



Emissions reduction progress to date

- 25 percent CO₂e reduction against 2015 baseline; nearing 2025 emissions reduction target of 30 percent
- Major portfolio & energy actions driving progress:
 - Restart of Alumar smelter on renewable energy
 - Closure of Intalco smelter
 - Curtailment of San Ciprián smelter
 - Restart of hydro based production at Bécancour smelter

Remaining keys to reach net zero ambition

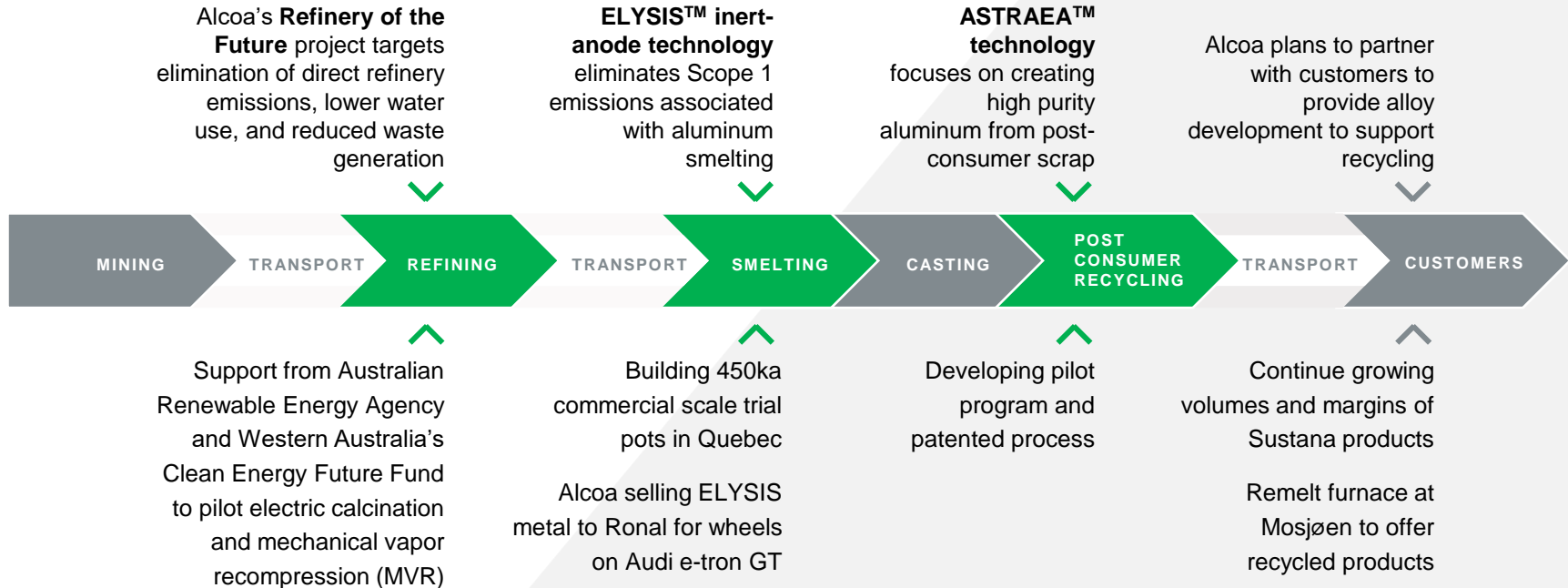
- ~2 tonnes of CO₂e from portfolio and energy related emissions reductions linked to two facilities
- ~3 tonnes of CO₂e related to R&D projects under development outlined in our technology roadmap

1. Reductions in CO₂e/tonne depend on various factors, including access to cost effective renewable energy, successful deployment of R&D projects under development with acceptable returns, and ability to complete portfolio review. See also the risk factors discussed in Part I Item 1A of Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

2. Source: 2022 Alcoa Sustainability Report

Technology roadmap addresses upstream aluminum value chain

Long-term technology projects under development for Alcoa system



Investing in today and tomorrow

Key takeaways

OUR VALUES

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- **Aluminum is a key commodity** for the world's transition to a decarbonization-focused economy; strong demand is expected over the long term and numerous factors are expected to constrain supply growth
- **Alcoa is an upstream-focused aluminum company** with highly rated corporate governance and leading positions in mining bauxite, refining alumina and smelting aluminum
- **Alcoa has undertaken strategic actions** to improve its asset portfolio, reduce leverage, increase stockholder returns, and continue its focus on stable, low cost operations
- **In addition to its Sustana product offerings, Alcoa is working to develop technologies described in the Company's technology roadmap** in refining, smelting and recycling that, if successful, could reinvent the aluminum industry for a sustainable future
- **Alcoa is the aluminum company for the present, and for the future**

Appendix



Net debt reconciliations

<i>Millions</i>	<u>FY20</u>			<u>FY21</u>			<u>FY22</u>			<u>2Q23</u>		
	<u>Cons.</u>	<u>NCI</u>	<u>Alcoa Prop.</u>	<u>Cons.</u>	<u>NCI</u>	<u>Alcoa Prop.</u>	<u>Cons.</u>	<u>NCI</u>	<u>Alcoa Prop.</u>	<u>Cons.</u>	<u>NCI</u>	<u>Alcoa Prop.</u>
Short-term borrowings	\$77	\$31	\$46	\$75	\$30	\$45	\$-	\$-	\$-	\$10	\$-	\$10
Long-term debt due within one year	2	-	2	1	-	1	1	-	1	1	-	1
Long-term debt, less amount due within one year	2,463	-	2,463	1,726	-	1,726	1,806	32	1,774	1,808	32	1,776
Total debt	2,542	31	2,511	1,802	30	1,772	1,807	32	1,775	1,819	32	1,787
Less: Cash and cash equivalents	1,607	176	1,431	1,814	177	1,637	1,363	94	1,269	990	91	899
Net debt (net cash)	935	(145)	1,080	(12)	(147)	135	444	(62)	506	829	(59)	888
Plus: Net pension	1,503	28	1,475	263	(7)	270	78	(7)	85	95	(1)	96
Plus: OPEB Liability	892 ¹	24	868 ¹	710	22	688	536	16	520	500	12	488
Adjusted net debt	\$3,330	(\$93)	\$3,423	\$961	(\$132)	\$1,093	\$1,058	\$(53)	\$1,111	\$1,424	\$(48)	\$1,472

Net debt is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt. When cash exceeds total debt, the measure is expressed as net cash.

Adjusted net debt and Proportional adjusted net debt are also non-GAAP financial measures. Management believes that these additional measures are meaningful to investors because management also assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt and net pension/OPEB liability, net of the portion of those items attributable to noncontrolling interest (NCI).

1. Includes OPEB liabilities of approximately \$83 million related to the Warrick rolling mill sale which was a negotiated estimate used at December 31, 2020 and subsequently trued up in 2021. Recorded in Liabilities held for sale.

**2Q23 Financial and other information
as presented on
July 19, 2023**



2Q23 EPS of \$(0.57), Adjusted EPS of \$(0.35)

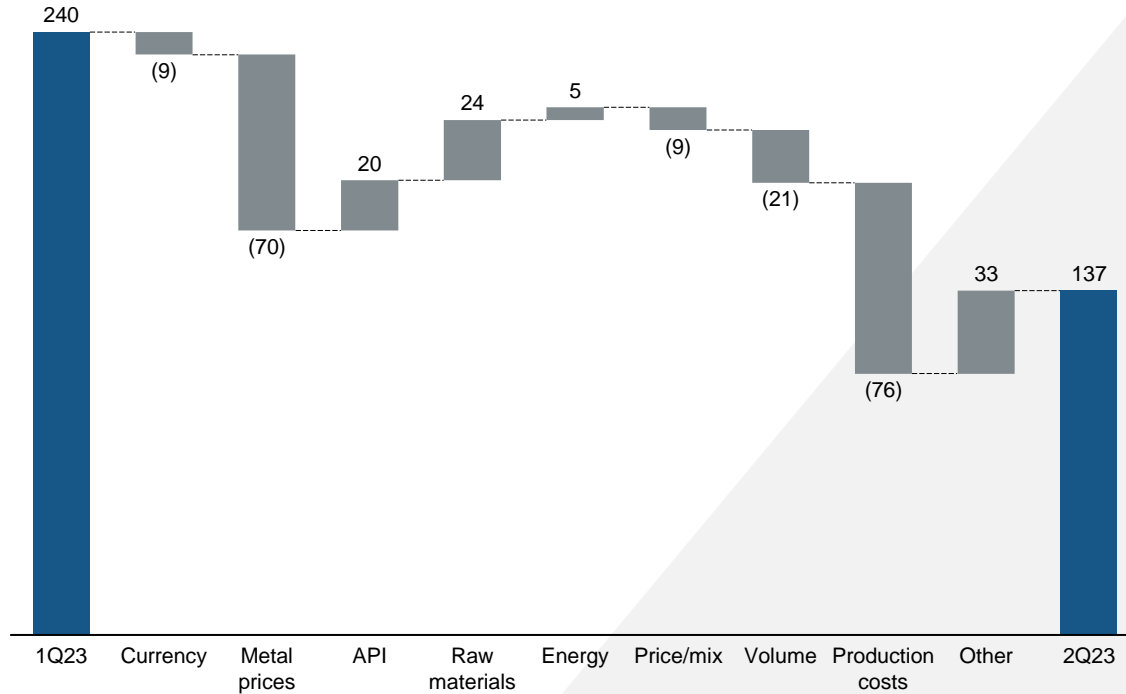
Quarterly income statement summary

	1Q23	2Q23	Change
Third Party Realized prices (\$/mt)			
Realized primary aluminum price	\$3,079	\$2,924	\$(155)
Realized alumina price	\$371	\$363	\$(8)
Income statement highlights (millions, except per share amounts)			
Revenue	\$2,670	\$2,684	\$14
Net loss attributable to Alcoa Corporation	\$(231)	\$(102)	\$129
Loss per share ¹	\$(1.30)	\$(0.57)	\$0.73
Adjusted income statement highlights (millions, except per share amounts)			
Adjusted EBITDA excluding special items	\$240	\$137	\$(103)
Adjusted net loss attributable to Alcoa Corporation	\$(41)	\$(62)	\$(21)
Adjusted loss per share ¹	\$(0.23)	\$(0.35)	\$(0.12)

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

Metal prices and Alumina segment costs are key impacts

Sequential changes in Adjusted EBITDA excluding special items, \$M



	1Q23	2Q23	Change
Alumina ¹	\$103	\$33	\$(70)
Aluminum ¹	184	110	(74)
Transformation	(8)	(17)	(9)
Intersegment eliminations	(8)	31	39
Other corporate	(31)	(20)	11
Total	\$240	\$137	\$(103)

1. Segment Adjusted EBITDA

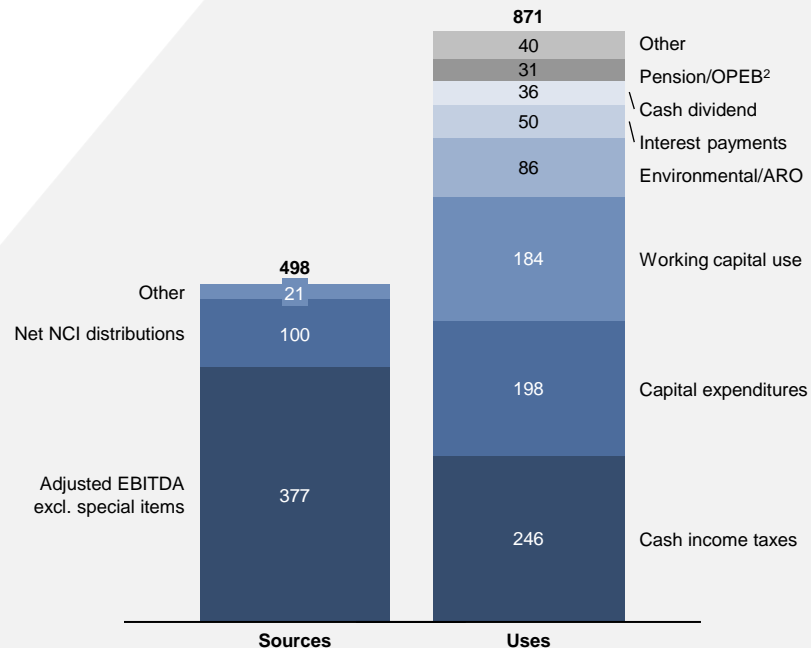
Taxes, capital expenditures, working capital are top cash uses

Key financial metrics and cash flow information, 2Q23 and YTD

Key financial metrics

2023 YTD Return on equity	2Q23 Days working capital
(4.3)%	55 Days
2023 YTD Capital returns to stockholders	2Q23 Proportional adjusted net debt
\$36M	\$1.5B
2023 YTD Free cash flow less net NCI distributions	2Q23 Cash balance
\$(274)M	\$1.0B ¹

2Q23 YTD Cash flow information, \$M

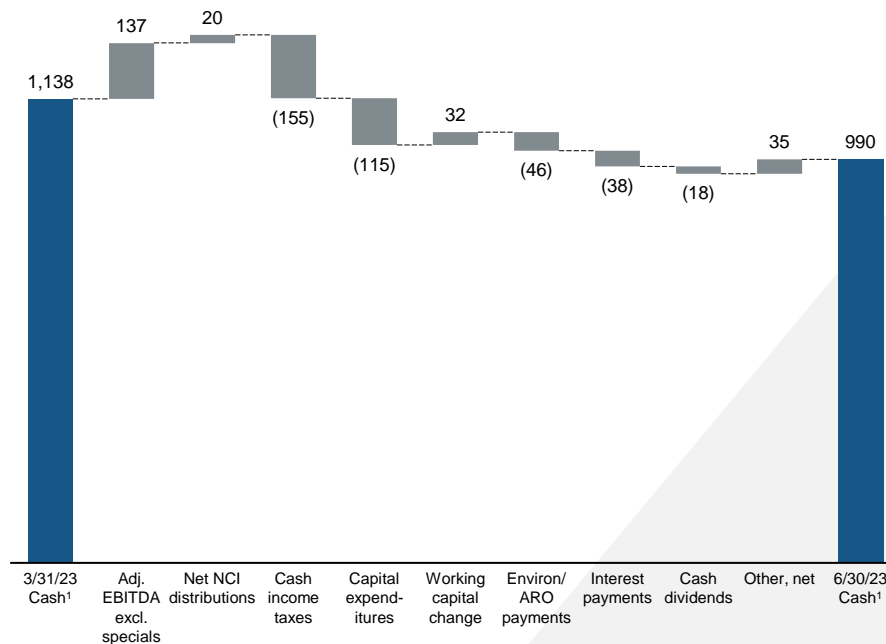


1. Excludes \$107 million in restricted cash
 2. Pension/OPEB funding of \$37 million is reflected net of \$6 million related expenses within Adjusted EBITDA

Working capital change now a source of cash

2Q23 sequential quarter cash flow information

3/31/23 to 6/30/23 Cash changes, \$M



1. Excludes restricted cash of \$113 million at 3/31/23 and \$107 million at 6/30/23

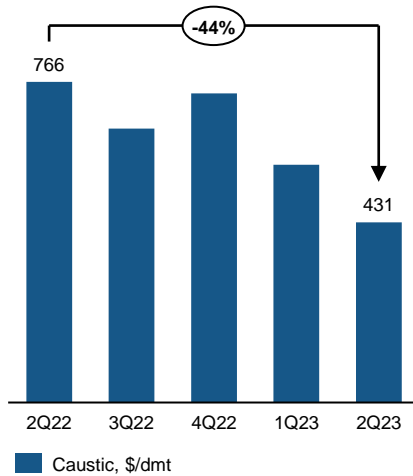
2Q23 Commentary

- Cash income taxes of \$155 million included \$115 million of prior year taxes; prior year tax payments predominantly completed
- Capital expenditures up \$32 million sequentially to \$115 million
- Compared to 1Q23, Working capital change a source of cash of \$32 million due to Accounts payable, trade stabilizing at \$1.5 billion while Accounts receivable decreased sequentially
- Net noncontrolling interest distributions were again a net contribution (\$20 million in 2Q23)

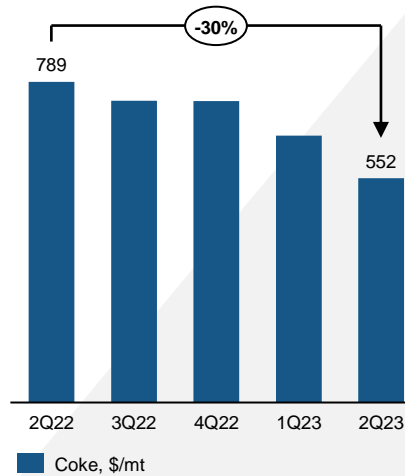
Key input prices continuing to decline

Key raw material global market prices for refining and smelting, 2Q22 to 2Q23

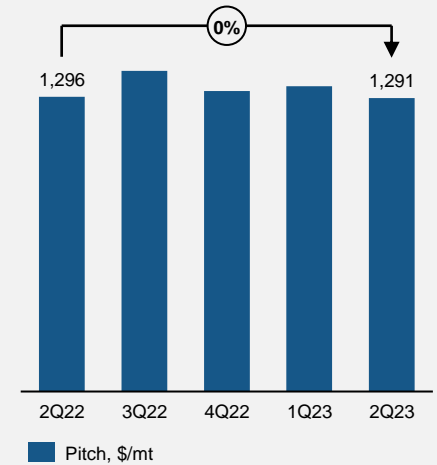
Average market prices of key raw materials¹



- Price correction continues; nearing historical averages in June 2023
- Accounted for ~50 percent of major raw material spend in quarter



- Steady supply and weaker demand expected to drive lower prices in all regions
- Accounted for ~25 percent of major raw material spend in quarter



- Expect price reduction in 3Q driven by a long market in India
- Accounted for ~25 percent of major raw material spend in quarter

1. Sources: Platts, Advisian, CMA (IHS), Baiinfo, weighted by source region

2023 Outlook

FY23 Key metrics as of June 30, 2023

Income statement excl. special items impacts		
	2Q23 YTD Actual	FY23 Outlook
Alumina shipments (Mmt)	6.0	12.7 – 12.9
Aluminum shipments (Mmt)	1.2	2.5 – 2.6
Transformation (adj. EBITDA impacts)	\$(25)M	~\$(80)M
Intersegment eliminations (adj. EBITDA impacts)	\$23M	Varies
Other corporate (adj. EBITDA impacts)	\$(51)M	~\$(130)M
Depreciation, depletion and amortization	\$306M	~\$645M
Non-operating pension/OPEB expense	\$6M	~\$15M
Interest expense	\$53M	~\$110M
Operational tax expense ¹	\$78M	Varies
Net loss of noncontrolling interest	\$(21)M	40% of AWAC NI

Cash flow impacts		
	2Q23 YTD Actual	FY23 Outlook
Pension / OPEB cash funding	\$37M	~ \$75M
Stock repurchases and dividends	\$36M	Varies
Return-seeking capital expenditures ²	\$26M	~\$90M
Sustaining capital expenditures ²	\$172M	~\$450M
Payment of prior year income taxes ³	\$173M	~\$175M
Current period cash taxes ¹	\$73M	Varies
Environmental and ARO payments ⁴	\$86M	~\$195M
Impact of restructuring and other charges	\$23M	TBD
Additional market sensitivities and business information are included in the appendix.		

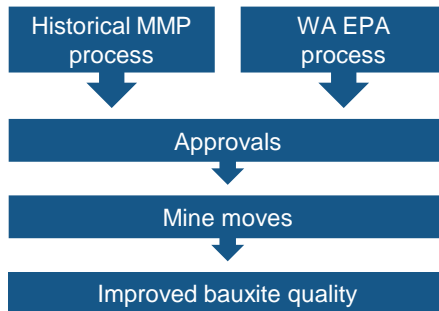
1. Estimate will vary with market conditions and jurisdictional profitability
2. AWAC portion of FY23 outlook: ~50% of return-seeking capital expenditures and ~60% of sustaining capital expenditures
3. Net of pending tax refunds
4. As of June 30, 2023, the environmental remediation reserve balance was \$278M and the ARO liability was \$855M

Maintaining focus on key performance drivers

Update on operations

Western Australia

- Mine plan approval process ongoing
- Providing additional data, implementing enhanced controls to protect drinking water sources, stepping up forest restoration, and protecting key environmental and social values
- Alumina Segment Adjusted EBITDA impact of lower bauxite quality in 2Q23 better than expected: \$45M vs \$55M



Alumina

- Alumar refinery conveyer outage resolved and production reestablished; other major maintenance work finishing in 3Q23
- San Ciprián refinery operating at a loss, seeking optimal production level, currently at 50 percent of capacity
- Kwinana operating four of five digesters
- Major maintenance complete at Wagerup

Aluminum

- Multiple smelters continue operating at high levels, including Baie Comeau, Bécancour, Deschambault, Fjarðaál, Massena and Mosjøen
- Lista, Portland and Warrick smelters continue stable operations at reduced production levels
- Alumar smelter stability reset in 2Q as foundation for further restart progress; now at greater than 60 percent of capacity
- Capital projects continuing at curtailed San Ciprián smelter

Improvement expected over time; Alcoa producer of choice

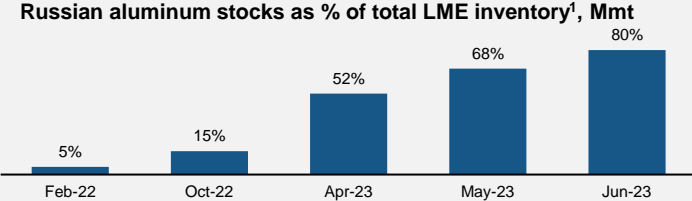
Global aluminum market dynamics and Alcoa's position

Mixed current market; improvement expected

Current status	Future expectation
Supply	
China: Some curtailed capacity restarting in Yunnan, but energy conditions remain in question	China: Expected to hold to 45Mmt cap and limit production growth to ~2 or 3Mmt from current level
RoW: Curtailed capacity restarts challenged as energy stays relatively expensive; no significant new projects to start ramping up in 2023, outside Indonesia	RoW: Competitive renewable energy hard to find, limiting supply growth; limited new projects in the pipeline will not be enough to meet demand by 2030
Demand	
China: Growth challenged by real estate slowdown; still strong grid and transportation demand	China: Building & construction to stabilize, grid spending to benefit from the energy transition
RoW: Transportation, electrical strong, challenges in building & construction and packaging	RoW: Transportation and electrical expected to continue strong as packaging and building & construction recover
Global inventories at low levels (~50 days)	

Alcoa commercial position

- Alcoa to remain a primary aluminum producer of choice
 - Domestic producer of choice in Europe and North America, as customer self-sanction away from Russian material; further scrutiny around metal supply due to 200 percent U.S. tariff on Russian metal
 - Concentration of Russian origin material in LME warehouses continues trend higher, now 80 percent of LME inventories



- Continued interest in Sustana™ product portfolio, which offers customers solutions to reach their sustainability goals; European sales of low-carbon Ecolum™ aluminum equal ~40 percent of European production (volumes up 60 percent year over year)
- Value add products serve a diverse range of end markets; 2023 demand firm in wire rod (electrical) and foundry (automotive), weaker conditions in billet (construction) and slab (packaging) given higher interest rates and inflation impacts

Positioned well for future opportunities in aluminum and alumina

Alcoa levers for future improvement

Operations, commercial improvements

- Optimize Australia bauxite mining and return to improved bauxite quality
- Complete Alumar refinery recovery
- Continue production creep via operational improvement
- Grow Sustana sales volume and margins; add further casthouse product capacity

Production levels

- In process:
 - Alumar smelter restart completion (curtailed capacity 118kmt)
 - San Ciprián smelter phased restart starting 2024 (curtailed capacity 228kmt)
- Potential:
 - San Ciprián and Kwinana refineries (curtailed capacity 800kmt and 438kmt)
 - Portland, Lista and Warrick smelters (curtailed capacity 49kmt, 31kmt and 162kmt)

Technology innovations

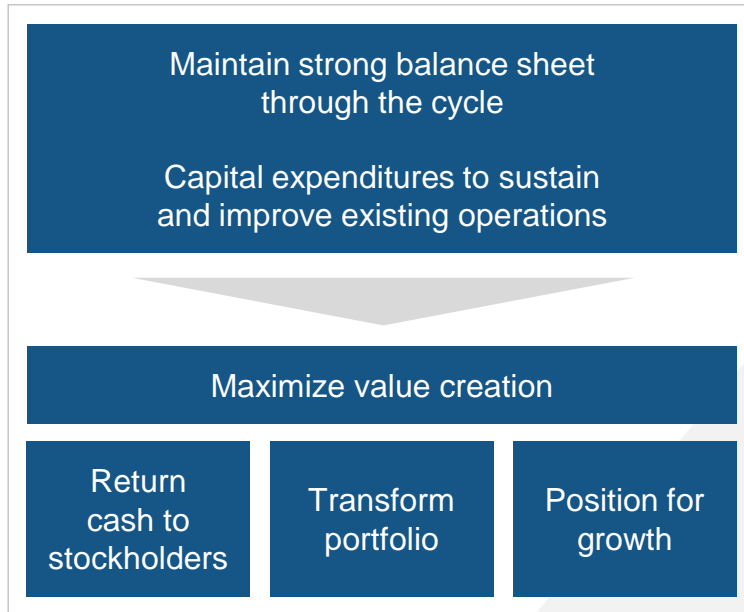
- ELYSIS™
 - Zero carbon aluminum smelting process
 - Building test 450ka reduction cells in Quebec
- Refinery of the Future projects
 - Reduce carbon footprint, water use, and residue generation
 - Electric calcination, Mechanical vapor recompression
- ASTRAEA™ scrap purification
 - Continuing development

Enabler – strong balance sheet and liquidity position

Maximizing value creation through balanced uses of cash

Capital allocation framework and value creation considerations

Capital allocation framework



Maximize value creation

Return cash to stockholders

- 2Q23 dividend payments totaled \$18 million

Transform portfolio

- Continuing restart of Alumar smelter production based on renewable energy
- Phased restart of San Ciprián smelter scheduled to begin January 2024

Position for value-creating growth

- Implement innovative technologies, when proven at commercial scale, with potential to transform the industry
- Fund projects that are expected to provide returns to stockholders greater than cost of capital

Quarterly income statement

Quarterly income statement for 2Q22, 1Q23 and 2Q23

<i>Millions, except realized prices and per share amounts</i>	2Q22	1Q23	2Q23	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$3,864	\$3,079	\$2,924	\$(940)	\$(155)
Realized alumina price (\$/mt)	\$442	\$371	\$363	\$(79)	\$(8)
Revenue	\$3,644	\$2,670	\$2,684	\$(960)	\$14
Cost of goods sold	2,767	2,404	2,515	(252)	111
SG&A and R&D expenses	59	64	58	(1)	(6)
Depreciation, depletion and amortization	161	153	153	(8)	0
Other (income) expense, net	(206)	54	6	212	(48)
Interest expense	30	26	27	(3)	1
Restructuring and other charges, net	(75)	149	24	99	(125)
Total costs and expenses	2,736	2,850	2,783	47	(67)
Income (loss) before income taxes	908	(180)	(99)	(1,007)	81
Provision for income taxes	234	52	22	(212)	(30)
Net income (loss)	674	(232)	(121)	(795)	111
Less: Net income (loss) attributable to noncontrolling interest	125	(1)	(19)	(144)	(18)
Net income (loss) attributable to Alcoa Corporation	\$549	\$(231)	\$(102)	\$(651)	\$129
Earnings (loss) per share	\$2.95	\$(1.30)	\$(0.57)	\$(3.52)	\$0.73
Average shares ¹	186.1	178.0	178.4	(7.7)	0.4

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

Special items

Breakdown of special items by income statement classification – gross basis

<i>Millions, except per share amounts</i>	2Q22	1Q23	2Q23	Description of significant <u>2Q23</u> special items
Net income (loss) attributable to Alcoa Corporation	\$549	\$(231)	\$(102)	
Earnings (loss) per share ¹	\$2.95	\$(1.30)	\$(0.57)	
Special items	\$(53)	\$190	\$40	
<i>Cost of goods sold</i>	95	38	26	<i>Alumar smelter restart \$13, Portland energy contract reclass \$13</i>
<i>SG&A and R&D expenses</i>	-	-	-	
<i>Restructuring and other charges, net</i>	(75)	149	24	<i>Canadian pension annuitization \$21</i>
<i>Interest</i>	-	-	-	
<i>Other (income) expense, net</i>	(171)	(13)	9	<i>Mark to market energy contracts \$22, Portland energy contract reclass \$(13)</i>
<i>Provision for income taxes</i>	52	8	(12)	<i>Tax on special items</i>
<i>Noncontrolling interest</i>	46	8	(7)	<i>Partner's share of special items</i>
Adjusted net income (loss) attributable to Alcoa Corporation	\$496	\$(41)	\$(62)	
Adjusted earnings (loss) per share ¹	\$2.67	\$(0.23)	\$(0.35)	

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

Quarterly income statement excluding special items

Quarterly income statement excluding special items for 2Q22, 1Q23 and 2Q23

<i>Millions, except realized prices and per share amounts</i>	2Q22	1Q23	2Q23	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$3,864	\$3,079	\$2,924	\$(940)	\$(155)
Realized alumina price (\$/mt)	\$442	\$371	\$363	\$(79)	\$(8)
Revenue	\$3,644	\$2,670	\$2,684	\$(960)	\$14
Cost of goods sold	2,672	2,366	2,489	(183)	123
SG&A and R&D expenses	59	64	58	(1)	(6)
Adjusted EBITDA	913	240	137	(776)	(103)
Depreciation, depletion and amortization	161	153	153	(8)	0
Other (income) expenses, net	(35)	67	(3)	32	(70)
Interest expense	30	26	27	(3)	1
Provision for income taxes	182	44	34	(148)	(10)
Adjusted net income (loss)	575	(50)	(74)	(649)	(24)
Less: Adjusted net income (loss) attributable to noncontrolling interest	79	(9)	(12)	(91)	(3)
Adjusted net income (loss) attributable to Alcoa Corporation	\$496	\$(41)	\$(62)	\$(558)	\$(21)
Adjusted earnings (loss) per share	\$2.67	\$(0.23)	\$(0.35)	\$(3.02)	\$(0.12)
Average shares ¹	186.1	178.0	178.4	(7.7)	0.4

1. In periods with net loss, share equivalents related to employee stock-based compensation were excluded from average shares as the impact was anti-dilutive

2Q23 Financial summary

Three months ending June 30, 2023, excluding special items

<i>Millions</i>	Alumina ³	Aluminum ^{3,4}	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	\$1,291	\$1,792	\$4	\$(407)	\$4	\$2,684
Third-party revenue	\$894	\$1,788	\$2	-	-	\$2,684
Adjusted EBITDA ¹	\$33	\$110	\$(17)	\$31	\$(20)	\$137
Depreciation, depletion and amortization	\$80	\$68	-	-	\$5	\$153
Other expenses (income), net ²	\$11	\$16	-	-	\$(30)	\$(3)
Interest expense						\$27
Provision for income taxes						\$34
Adjusted net loss						\$(74)
Net loss attributable to noncontrolling interest						\$(12)
Adjusted net loss attributable to Alcoa Corporation						\$(62)

1. Includes the Company's proportionate share of earnings from equity investments in certain bauxite mines, hydroelectric generation facilities, and an aluminum smelter located in Brazil, Canada, and/or Guinea

2. Amounts for Alumina and Aluminum represent the Company's proportionate share of earnings from its equity investment in the Saudi Arabian joint venture

3. Segment Adjusted EBITDA

4. Third-party energy sales volume, revenue and Segment Adjusted EBITDA in Brazil were 518GWh, \$7 million and \$(5) million, respectively

2Q23 Segment Adjusted EBITDA drivers

Segment Adjusted EBITDA sequential changes, \$M

	Segment Adjusted EBITDA 1Q23	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Segment Adjusted EBITDA 2Q23
Alumina	\$103	(1)	0	24	11	27	(7)	(30)	(90)	(4)	\$33
Aluminum	\$184	(10)	(70)	(10)	13	(22)	(2)	9	14	4	\$110
Total	\$287	(11)	(70)	14	24	5	(9)	(21)	(76)	0	\$143

Aluminum value chain

2023 YTD Alcoa shipments by product type



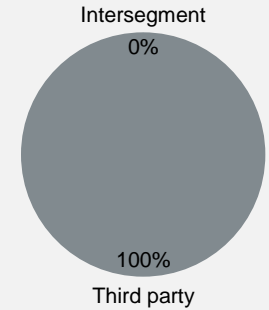
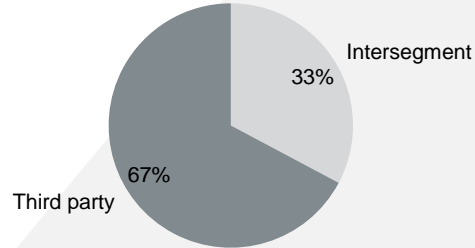
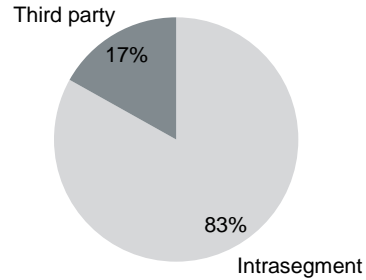
21.9 Mdmmt shipments



6.0 Mmt shipments



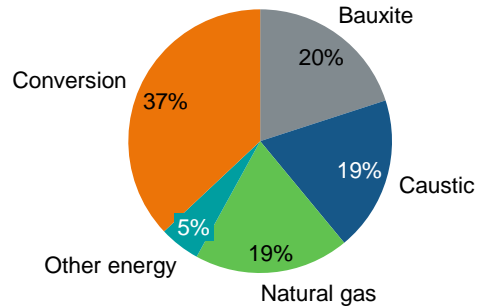
1.2 Mmt shipments



Composition of alumina and aluminum production costs

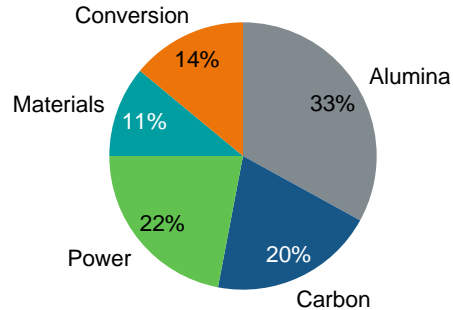
Alcoa 2Q23 production cash costs

Alumina refining



Input cost	Inventory flow	Pricing convention	FY23 annual cost sensitivity
Caustic soda	5 - 6 Months	Quarterly, Spot	\$9M per \$10/dmt
Natural gas	1 Month	Quarterly, 91% with CPI adjustment	\$10M per \$0.10/GJ
Fuel oil	1 - 2 Months	Prior Month	\$2M per \$1/barrel

Aluminum smelting



Input cost	Inventory flow	Pricing convention	FY23 annual cost sensitivity
Alumina	~2 Months	API on a 6 to 8 month average	\$38M per \$10/mt
Petroleum coke	1 - 2 Months	Quarterly	\$7M per \$10/mt
Coal tar pitch	1 - 2 Months	Quarterly	\$2M per \$10/mt

2023 Business information

Estimated annual Segment Adjusted EBITDA sensitivities

<i>\$Millions</i>											
Segment	LME + \$100/mt	API + \$10/mt	Midwest + \$100/mt	Europe + \$100/mt	Japan + \$100/mt	AUD + 0.01 0.67 ¹	BRL + 0.10 4.96 ¹	CAD + 0.01 1.34 ¹	EUR + 0.01 1.09 ¹	ISK + 10 137.54 ¹	NOK + 0.10 10.69 ¹
Alumina		103				(23)	8		(1)		
Aluminum	196	(42)	132	63	25	(3)	(1)	4	(1)	8	1
Total	196	61	132	63	25	(26)	7	4	(2)	8	1

Pricing conventions

Segment	Third party revenue
Alumina	<ul style="list-style-type: none"> ~95% of third-party smelter grade alumina priced on API/spot API based on prior month average of spot prices Negotiated bauxite prices
Aluminum	<ul style="list-style-type: none"> LME + regional premium + product premium Primary aluminum 15-day lag Brazilian hydroelectric sales at market prices

Regional premium breakdown

Regional premiums	% of 2023 Primary aluminum shipments
Midwest	~50%
Rotterdam Duty Paid	~40%
CIF Japan	~10%

Currency impacts on Segment Adjusted EBITDA

Currency balance sheet revaluation and EBITDA sensitivities impact (\$M, except currencies)

	AUD	BRL	CAD	EUR	ISK	NOK	Total
6/30/23 currencies	0.66	4.86	1.33	1.09	136.44	10.75	
2Q23 currency avg.	0.67	4.96	1.34	1.09	137.54	10.69	
2Q23 Balance sheet revaluation impact							
Alumina	(1.2)	0.1		0.2			(0.9)
Aluminum	(1.4)	0.6	(2.0)	(1.5)	(0.3)	(1.4)	(6.0)
Corporate		0.2	1.3	0.1			1.6
Subtotal	(2.6)	0.9	(0.7)	(1.2)	(0.3)	(1.4)	(5.3)
2Q23 Currency sensitivity impact							
Alumina	6.0	(4.8)		(1.0)			0.2
Aluminum	0.8	(3.5)	(0.8)	(0.3)	(0.5)	0.5	(3.8)
Subtotal	6.8	(8.3)	(0.8)	(1.3)	(0.5)	0.5	(3.6)
2Q23 Total EBITDA currency impact							
Alumina	4.8	(4.7)		(0.8)			(0.7)
Aluminum	(0.6)	(2.9)	(2.8)	(1.8)	(0.8)	(0.9)	(9.8)
Corporate	0.0	0.2	1.3	0.1			1.6
Total	4.2	(7.4)	(1.5)	(2.5)	(0.8)	(0.9)	(8.9)

Additional business considerations

Items expected to impact Adjusted EBITDA and Adjusted net income for 3Q23

Expected sequential impacts on Adjusted EBITDA excluding special items, excluding indexed sales prices or currency impacts:

- In the Alumina segment, we expect \$10 million unfavorable impact from lower bauxite grades in Australia. In addition, we expect an improvement of approximately \$65 million due to lower raw material prices, and better production costs and higher volumes as a result of the conclusion of elevated maintenance during 2Q23.
- In the Aluminum segment, we expect a net improvement of approximately \$25 million on favorable raw materials and lower production costs, partially offset by unfavorable price/mix, primarily softer billet demand. In addition, we expect alumina costs in the Aluminum segment to be favorable by \$5 million.
- Estimate intersegment profit elimination for every \$10/mt decrease in API prices to be a \$7 million to \$9 million favorable impact based on comparison of the average API of the last two months of each quarter (API is based on average of prior month spot prices); consider intersegment eliminations as component of minority interest calculation.
- Using quarter end exchange rates, 2Q23 Adjusted EBITDA included an unfavorable balance sheet revaluation impact of \$1 million (\$5 million unfavorable sequentially compared to 1Q23); impacts related to balance sheet revaluation are not incorporated into the currency sensitivities provided for Adjusted EBITDA.

Below Adjusted EBITDA:

- 2Q23 Other income included favorable foreign currency gains of \$40 million.
- Based on recent pricing, the Company expects 3Q23 operational tax expense to approximate \$10 million to \$20 million.

Investments summary

Investments listing and income statement location

Investee	Country	Nature of investment ⁴	Ownership interest	Carrying value as of June 30, 2023	Income statement location of equity earnings
ELYSIS Limited Partnership	Canada	Aluminum smelting technology	48.235%		
Ma'aden Aluminium Company ¹	Saudi Arabia	Aluminum smelter	25.1%		
Ma'aden Bauxite and Alumina Company ¹	Saudi Arabia	Bauxite mine and Alumina refinery	25.1% ⁵		
Subtotal Ma'aden and ELYSIS				\$591M	Other expenses (income), net
Consortio Serra do Facão	Brazil	Hydroelectric generation facility	34.97%		
Energetica Barra Grande S.A.	Brazil	Hydroelectric generation facility	42.18%		
Halco Mining, Inc. ²	Guinea	Bauxite mine	45.0% ⁵		
Manicouagan Power Limited Partnership	Canada	Hydroelectric generation facility	40.0%		
Pechiney Reynolds Quebec, Inc. ³	Canada	Aluminum smelter	50.0%		
Subtotal other				\$443M	Cost of goods sold
Total investments				\$1,034M	

1. Alcoa Corporation has an investment in a joint venture related to the ownership and operation of an integrated aluminum complex (bauxite mine, alumina refinery, and aluminum smelter) in Saudi Arabia. The joint venture is owned 74.9% by the Saudi Arabian Mining Company (Ma'aden) and 25.1% by Alcoa Corporation.
2. Halco Mining, Inc. owns 100% of Boké Investment Company, which owns 51% of Compagnie des Bauxites de Guinée (CBG).
3. Pechiney Reynolds Quebec, Inc. owns a 50.1% interest in the Bécancour smelter in Quebec, Canada thereby entitling Alcoa Corporation to a 25.05% interest in the smelter. Through two wholly-owned Canadian subsidiaries, Alcoa Corporation also owns 49.9% of the Bécancour smelter.
4. Each of the investees either owns the facility listed or has an ownership interest in an entity that owns the facility listed.
5. A portion or all of each of these ownership interests are held by majority-owned subsidiaries that are part of AWAC.

Alcoa sustainability goals

Alcoa strategic long-term sustainability goals, baseline and progress

Goal	Description	2015 Baseline	2022 Progress
Safety	Zero fatalities and serious injuries (life-threatening, life-altering injury or illness)	5 fatal or serious injuries/illnesses	0 fatalities and 1 serious injury/illness
Diversity and inclusion	Attain an inclusive 'everyone culture' that reflects the diversity of the communities in which we operate	N/A	18.4% global women
Mine rehabilitation	Maintain a corporate-wide running 5-year average ratio of 1:1 or better for active mining disturbance (excluding long-term infrastructure) to mine rehabilitation	N/A	0.82:1
Bauxite residue	From a 2015 baseline, reduce bauxite residue land requirements per metric ton of alumina produced by 15% by 2030	53.2 m2/kmt Ala	15.6% reduction
Waste	From a 2015 baseline, reduce landfilled waste 15% by 2025 and 25% by 2030. Baseline restated to reflect divestiture of Warrick Rolling.	131.7 mt	37.6% reduction
Water	From a 2015 baseline, reduce the intensity of our total water use from Alcoa-defined water-scarce locations by 5% by 2025 and 10% by 2030	3.79 m3/mt	5.3% reduction
Greenhouse gas emissions	Align our greenhouse gas (direct + indirect) emissions reduction targets with the 2°C decarbonization path by reducing greenhouse gas intensity by 30% by 2025, and 50% by 2030 from a 2015 baseline	7.10 mt CO ₂ e/mt	25.1% reduction
Sustainable value chain	By 2022, implement a social management system at all locations, including the definition of performance metrics and long-term goals to be accomplished by 2025 and 2030	N/A	Launched SP360 – Alcoa Social Management System in 2021

Production and capacity information

Alcoa Corporation annual consolidated amounts as of June 30, 2023

Alumina refining, kmt

Facility	Country	Capacity	Curtailed
Kwinana	Australia	2,190	438
Pinjarra	Australia	4,700	-
Wagerup	Australia	2,879	-
Poços de Caldas	Brazil	390	214
São Luís (Alumar)	Brazil	2,084	-
San Ciprián	Spain	1,600	800
Total		13,843	1,452
<i>Ras Al Khair¹</i>	<i>Saudi Arabia</i>	<i>452</i>	<i>-</i>

Bauxite production, Mdmt

Mine	Country	2022 Production
Darling Range	Australia	31.4
Juruti	Brazil	4.9
Poços de Caldas	Brazil	0.4
Trombetas (MRN)	Brazil	0.5
Boké (CBG)	Guinea	3.6
Al Ba'itha ¹	Saudi Arabia	1.3
Total		42.1

Aluminum smelting, kmt

Facility	Country	Capacity	Curtailed
Portland	Australia	197	49
São Luís (Alumar) ²	Brazil	268	118
Baie Comeau	Canada	314	-
Bécancour	Canada	350	-
Deschambault	Canada	287	-
Fjarðaál	Iceland	351	-
Lista	Norway	95	31
Mosjøen	Norway	200	-
San Ciprián ³	Spain	228	228
Massena West	U.S.	130	-
Warrick	U.S.	269	162
Total		2,689	588
<i>Ras Al Khair¹</i>	<i>Saudi Arabia</i>	<i>202</i>	<i>-</i>

1. The Company's proportionate share of earnings from its equity investment in the Saudi Arabian joint venture does not impact Adjusted EBITDA.

2. On September 20, 2021, the Company announced plans to restart its 60% share of the Alumar smelter in São Luís, Brazil, equivalent to 268,000 metric tons per year (mtpy) of aluminum capacity. Production began in the second quarter of 2022.

3. On December 29, 2021, the Company announced a two-year curtailment of the San Ciprián smelter's 228,000 metric tons of annual capacity, and a commitment by the Company to begin the restart of the smelter in January 2024.

Valuation framework

Valuation framework key considerations

			LTM ending 6/30/23 Adj. EBITDA excl. special items	
Business Operations	+	Alumina segment	Economic value using market multiple of: i. AWAC joint venture, minus small portions of AWAC JV in Aluminum and Transformation ii. Ownership in certain mines and refineries outside the JV	\$264M
	+	Aluminum segment	Economic value using market multiple of: i. Smelters, casthouses, and energy assets ii. Smelters and casthouses restart optionality	\$477M
	-	Non-segment expenses (income)	Economic value using market multiple of: i. Transformation, intersegment eliminations, and other corporate	\$125M
	=	Enterprise value		
Financial Considerations	-	Noncontrolling interest	Implied value of noncontrolling interest in AWAC JV, based on Alumina Limited's observed enterprise value	
	-	Debt & debt-like items ¹	Book value of debt of \$1.8B (\$1.8B, >95% Alcoa), pension & OPEB net liabilities of \$0.6B (\$0.6B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of \$0.9B (\$1.1B, ~80% Alcoa)	
	+	Cash & equity investments ¹	Cash position of \$0.9B (\$1.0B, ~90% Alcoa) plus carrying value of investments in the Ma'aden joint venture and ELYSIS of \$0.5B (\$0.6B, ~85% Alcoa)	
	=	Equity value		

1. Dollar amounts reflect Alcoa Corporation's consolidated balance sheet values as of June 30, 2023. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliations

<i>Millions</i>	2Q22	3Q22	4Q22	FY22	1Q23	2Q23
Net income (loss) attributable to Alcoa	\$549	\$(746)	\$(395)	\$(123)	\$(231)	\$(102)
Add:						
Net income (loss) attributable to noncontrolling interest	125	(23)	(25)	161	(1)	(19)
Provision for income taxes	234	40	180	664	52	22
Other (income) expense, net	(206)	35	67	(118)	54	6
Interest expense	30	25	26	106	26	27
Restructuring and other charges, net	(75)	652	(6)	696	149	24
Depreciation, depletion and amortization	161	149	147	617	153	153
Adjusted EBITDA	818	132	(6)	2,003	202	111
Special items before tax and noncontrolling interest	95	78	35	221	38	26
Adjusted EBITDA excl. special items	\$913	\$210	\$29	\$2,224	\$240	\$137
Alumina Segment Adjusted EBITDA	\$358	\$78	\$50	\$788	\$103	\$33
Aluminum Segment Adjusted EBITDA	596	152	31	1,492	184	110
Transformation	(11)	(19)	(22)	(66)	(8)	(17)
Intersegment eliminations	10	23	5	138	(8)	31
Other corporate	(40)	(24)	(35)	(128)	(31)	(20)
Adjusted EBITDA excl. special items	\$913	\$210	\$29	\$2,224	\$240	\$137

Alcoa Corporation's definition of Adjusted EBITDA is net margin plus an add-back for depreciation, depletion, and amortization. Net margin is equivalent to Sales minus the following items: Cost of goods sold; Selling, general administrative, and other expenses; Research and development expenses; and Provision for depreciation, depletion, and amortization. Adjusted EBITDA is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because Adjusted EBITDA provides additional information with respect to Alcoa Corporation's operating performance and the Company's ability to meet its financial obligations. The Adjusted EBITDA presented may not be comparable to similarly titled measures of other companies.

Free cash flow reconciliation

<i>Millions</i>	2Q22	3Q22	4Q22	FY22	1Q23	2Q23
Cash provided from operations	\$536	\$134	\$118	\$822	\$(163)	\$(13)
Capital expenditures	(107)	(128)	(171)	(480)	(83)	(115)
Free cash flow	429	6	(53)	342	(246)	(128)
Contributions from noncontrolling interest	37	67	64	214	86	36
Distributions to noncontrolling interest	(83)	(74)	(60)	(379)	(6)	(16)
Free cash flow less net noncontrolling interest distributions	\$383	\$ (1)	\$ (49)	\$177	\$ (166)	\$ (108)

Free cash flow and Free cash flow less net distributions to noncontrolling interest are non-GAAP financial measures. Management believes that these measures are meaningful to investors because management reviews cash flows generated from operations after taking into consideration capital expenditures and net distributions to noncontrolling interest. Capital expenditures are necessary to maintain and expand Alcoa Corporation's asset base and are expected to generate future cash flows from operations, while net distributions to noncontrolling interest are necessary to fulfill our obligations to our joint venture partners. It is important to note that Free cash flow and Free cash flow less net distributions to noncontrolling interest do not represent the residual cash flows available for discretionary expenditures since other non-discretionary expenditures, such as mandatory debt service requirements, are not deducted from the measure.

Net debt reconciliations

\$M	<u>2Q22</u>			<u>1Q23</u>			<u>2Q23</u>		
	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.
Short-term borrowings	\$75	\$30	\$45	\$25	\$-	\$25	\$10	\$-	\$10
Long-term debt due within one year	1	-	1	1	-	1	1	-	1
Long-term debt, less amount due within one year	1,725	-	1,725	1,806	32	1,774	1,808	32	1,776
Total debt	1,801	30	1,771	1,832	32	1,800	1,819	32	1,787
Less: Cash and cash equivalents	1,638	166	1,472	1,138	120	1,018	990	91	899
Net debt (net cash)	163	(136)	299	694	(88)	782	829	(59)	888
Plus: Net pension	207	(5)	212	65	(7)	72	95	(1)	96
Plus: OPEB liability	686	21	665	528	16	512	500	12	488
Adjusted net debt	\$1,056	\$(120)	\$1,176	\$1,287	\$(79)	\$1,366	\$1,424	\$(48)	\$1,472

Net debt is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt. When cash exceeds total debt, the measure is expressed as net cash.

Adjusted net debt and Proportional adjusted net debt are also non-GAAP financial measures. Management believes that these additional measures are meaningful to investors because management also assesses Alcoa Corporation's leverage position after considering available cash that could be used to repay outstanding debt and net pension/OPEB liability, net of the portion of those items attributable to noncontrolling interest (NCI).

DWC working capital and Days working capital reconciliations

<i>Millions</i>	2Q22	3Q22	4Q22	1Q23	2Q23
Receivables from customers	\$898	\$749	\$778	\$753	\$702
Add: Inventories	2,556	2,400	2,427	2,395	2,400
Less: Accounts payable, trade	1,752	1,590	1,757	1,489	1,491
DWC working capital	\$1,702	\$1,559	\$1,448	\$1,659	\$1,611
Sales	\$3,644	\$2,851	\$2,663	\$2,670	\$2,684
Number of days in the quarter	91	92	92	90	91
Days working capital¹	43	50	50	56	55

DWC working capital and Days working capital are non-GAAP financial measures. Management believes that these measures are meaningful to investors because management uses its working capital position to assess Alcoa Corporation's efficiency in liquidity management.

1. Days working capital is calculated as DWC working capital divided by the quotient of Sales and number of days in the quarter

Annualized Return on Equity (ROE)

ROE Reconciliation and calculation information as of June 30, 2023

Millions	1H22	1H23
<i>Numerator:</i>		
Net income (loss) attributable to Alcoa Corporation	\$1,018	\$(333)
Add: Special items ¹	55	230
ROE Adjusted Net income (loss) YTD	\$1,073	\$(103)
ROE Adjusted Net income (loss) multiplied by two	\$2,146	\$(206)
<i>Denominator²:</i>		
Total assets	\$15,848	\$14,248
Less: Total Liabilities	9,074	7,872
Less: Noncontrolling Interest	1,652	1,611
Shareholders' Equity	\$5,122	\$4,765
ROE	41.9%	(4.3)%

$$\text{ROE \%} = \frac{(\text{Net Loss/Income Attributable to Alcoa} + \text{Special Items}^1)}{(\text{Total Assets} - \text{Total Liabilities} - \text{Noncontrolling Interest})^2} \times 100$$

$$\begin{aligned} \text{1H22} \\ \text{ROE \%} &= \frac{(\$1,018 + \$55) \times 2}{(\$15,848 - \$9,074 - \$1,652)} \times 100 = 41.9\% \end{aligned}$$

$$\begin{aligned} \text{1H23} \\ \text{ROE \%} &= \frac{(\$ (333) + \$230) \times 2}{(\$14,248 - \$7,872 - \$1,611)} \times 100 = (4.3)\% \end{aligned}$$

1. Special items include provisions for income taxes, and noncontrolling interest.

2. Denominator calculated using quarter ending balances.

GAAP Return on Equity is calculated using Net income (loss) attributable to Alcoa Corporation divided by Shareholders' Equity.

Glossary of terms

Abbreviations listed in alphanumeric order

Abbreviation	Description
% pts	Percentage points
1H##	Six months ending June 30
1Q##	Three months ending March 31
2H##	Six months ending December 31
2Q##	Three months ending June 30
3Q##	Three months ending September 30
4Q##	Three months ending December 31
Adj.	Adjusted
API	Alumina Price Index
ARO	Asset retirement obligations
AUD	Australian dollar
AWAC	Alcoa World Alumina and Chemicals
B	Billion
BRL	Brazilian real
CAD	Canadian dollar
CIF	Cost, insurance and freight
CO ₂ e	Carbon dioxide equivalent
COGS	Cost of goods sold
Cons.	Consolidated
CPI	Consumer Price Index
dmt	Dry metric ton
DWC	Days working capital
EBITDA	Earnings before interest, taxes, depreciation and amortization
Elims.	Eliminations
EPS	Earnings per share
ERISA	Employee Retirement Income Security Act of 1974
EUR	Euro
Est.	Estimated
excl. or ex.	Excluding

Abbreviation	Description
FOB WA	Freight on board Western Australia
FY##	Twelve months ending December 31
GAAP	Accounting principles generally accepted in the United States of America
GJ	Gigajoule
GWh	Gigawatt hour
ISK	Icelandic krona
JV	Joint venture
kmt/kdmt	Thousand metric tonnes/Thousand dry metric tonnes
LME	London Metal Exchange
LTM	Last twelve months
M	Million
Mdmt	Million dry metric tons
Mmt	Million metric tons
mt	Metric ton
NCI	Noncontrolling interest
NI	Net income
NOK	Norwegian krone
OPEB	Other postretirement employee benefits
PBT	Profit before taxes
Prop.	Proportional
R&D	Research and development
RoW	Rest of world
SEC	Securities and Exchange Commission
SG&A	Selling, general administrative and other
SHFE	Shanghai Futures Exchange
TBD	To be determined
U.S.	United States of America
USD	United States dollar
YTD, YoY	Year to date, year over year

