

Investor Presentation

November 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 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

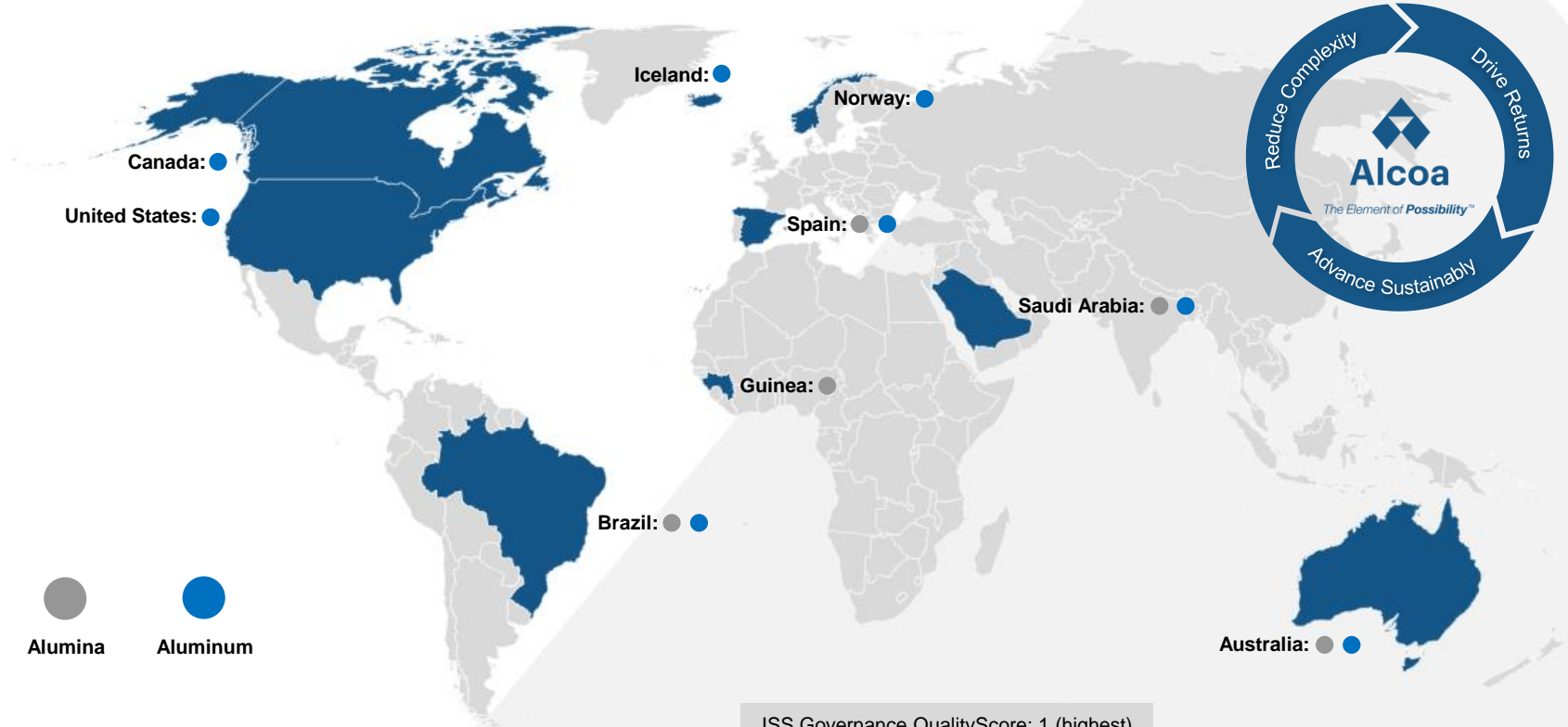
This presentation contains reference to certain financial measures that are not calculated and presented in accordance with generally accepted accounting principles in the United States (GAAP). Alcoa Corporation believes that the presentation of these non-GAAP financial measures is useful to investors 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

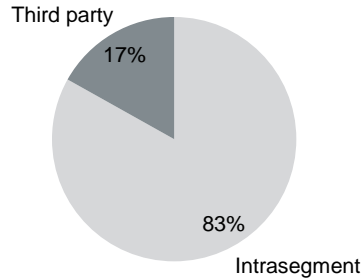
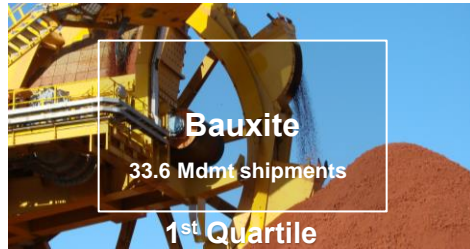
Alcoa global operations by business segment



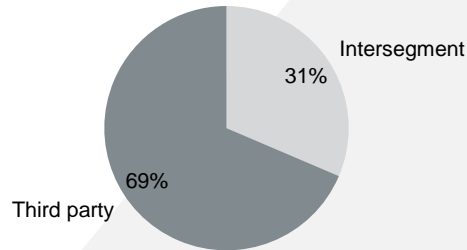
ISS Governance QualityScore: 1 (highest)

Aluminum value chain

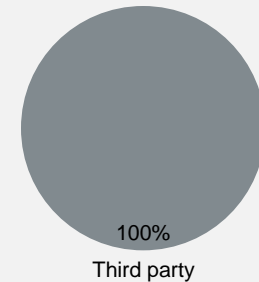
Alcoa portfolio 2023 cost curve position, key factors, 3Q23 YTD shipments



- World's second largest bauxite miner
- Assets across four continents
- Third party sales from mines in Africa and South America



- Largest third-party alumina long ex-China
- EcoSource™ low carbon alumina
- Increased costs due to lower bauxite grade in Australia, San Ciprián curtailment and operational issues in Brazil²

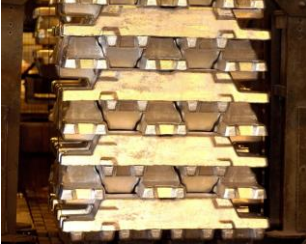






- Low CO₂e intensity producer, 86 percent of production from renewable energy
- EcoLum™ (low carbon), EcoDura™ (recycled content) products

Source: CRU, Alcoa analysis. 1. First quartile by CRU analysis 2. Full impacts being assessed and could place Alumina in second quartile

Offering a variety of value add aluminum products and P1020

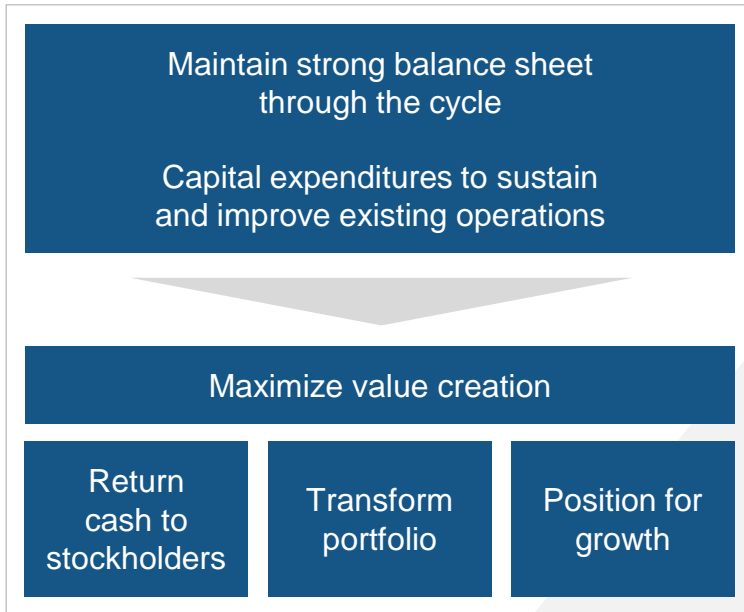
Aluminum segment product offerings and end markets examples

 <p>P1020</p>	 <p>SLAB</p>	 <p>FOUNDRY</p>	 <p>BILLET</p>	 <p>WIRE ROD</p>
GLOBAL	EUROPE AMERICAS	EUROPE AMERICAS	EUROPE AMERICAS ASIA	EUROPE AMERICAS
<p>End Markets Transportation, Building and Construction, Electrical Packaging, Aerospace, Industrial</p> <p>Main Uses Remelt inputs for slab, billet, wire rod; “sweetener” for high recycled content applications</p>	<p>End Markets Transportation, Industrial, Building and Construction, Packaging</p> <p>Main Uses Sheet and plate, can stock</p>	<p>End Markets Transportation, Building and Construction, Packaging, Aerospace, Industrial</p> <p>Main Uses Cast parts and remelt inputs for slab, billet, wire rod</p>	<p>End Markets Transportation, Building and Construction, Industrial</p> <p>Main Uses Extrusions, wheels</p>	<p>End Markets Industrial, Electrical</p> <p>Main Uses Overhead wire, mechanical and welding wire</p>

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

- 3Q23 YTD dividend payments totaled \$54 million

Transform portfolio

- Opportunistically restart curtailed smelter and refinery capacity
- Aggressively pursue productivity and competitiveness improvements at challenged locations

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

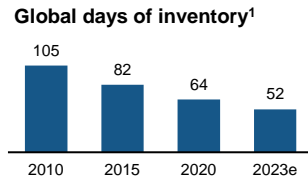
Mixed conditions for 2023 market; positive long-term outlook

Current aluminum market considerations and long-term outlook

Current market considerations

Projected 2023 global aluminum market dynamics

- 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

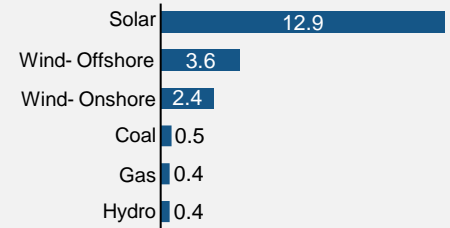
- Some curtailed capacity restarted in Yunnan, but energy conditions remain in question; additional cuts announced in early November
- Demand growth challenged by real estate slowdown; still strong electrical and transportation demand

Long-term market outlook

Factors driving demand

- Electrical, transportation, and packaging sectors expected to lead aluminum demand growth
- Energy transition, including renewable power generation, to be a driver of demand growth

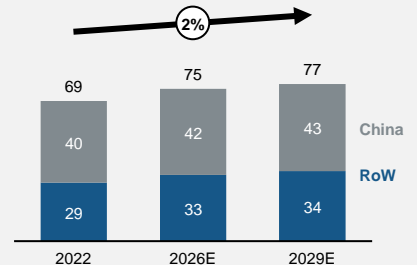
Aluminum intensity of renewable power generation, mt Al/MW³



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, Mmt⁴



Full product suite with carbon advantages, recycled content

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

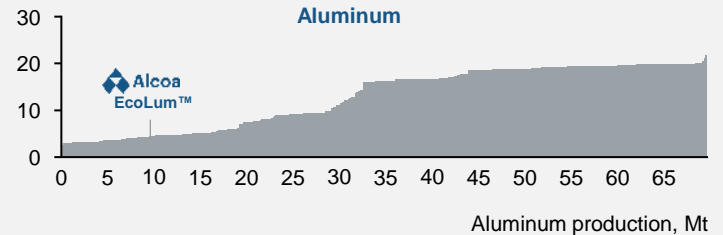
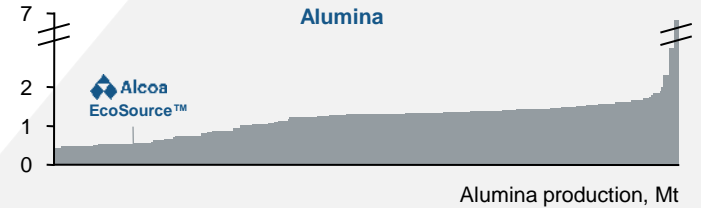


- Primary aluminum with emissions less than 4.0 tonne CO₂e per tonne aluminum (scope 1 and 2, from mining, refining, smelting and casting)
- Emission intensity less than one third the industry average¹
- Cradle-to-gate carbon footprint³ information for all product groups (ingot, foundry, slab, billet, wire rod)



- Minimum 50% recycled content⁴ (pre-consumer scrap)
- Available globally

Metric tons of CO₂e/mt, by product



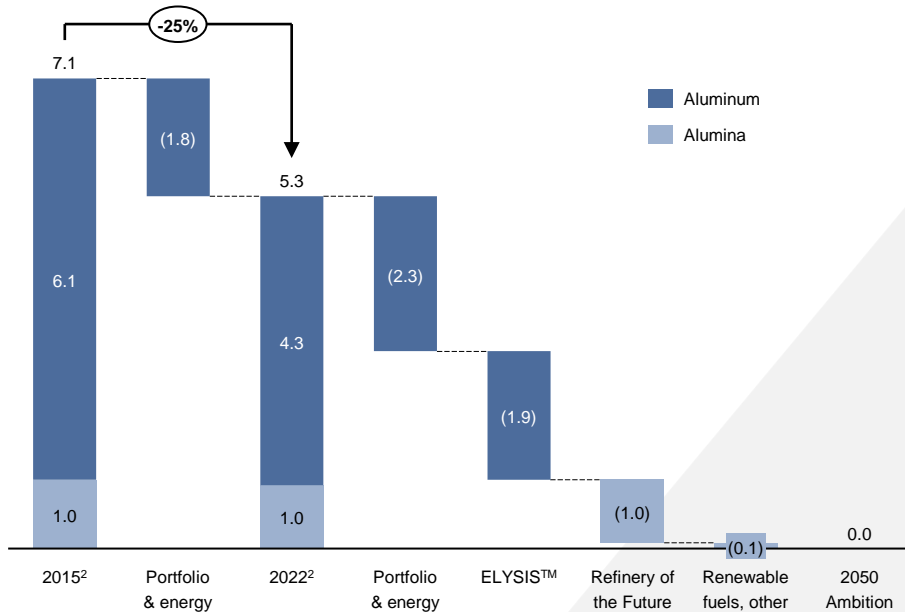
ASI certifications available for all products and 18 sites
Learn more at www.Alcoa.com/sustana

Sources: IAI, CRU, Alcoa analysis 1. Considering the same emission scopes for comparison purposes; 2. Third-party verified 3. Alcoa's third-party verified EcoLum cradle-to-gate carbon footprint numbers have been calculated using a location-based scope 2 reporting approach aligned with EN15804+A2 and ISO14040 and ISO14044 requirements. 4. Recycled content is defined using mass balance / credit allocation system at product line and production facility level

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 and ABI smelters
 - Closure of Intalco smelter
 - Curtailment of San Ciprián smelter
 - Continued decarbonization of electrical grid

Remaining keys to reach net zero ambition

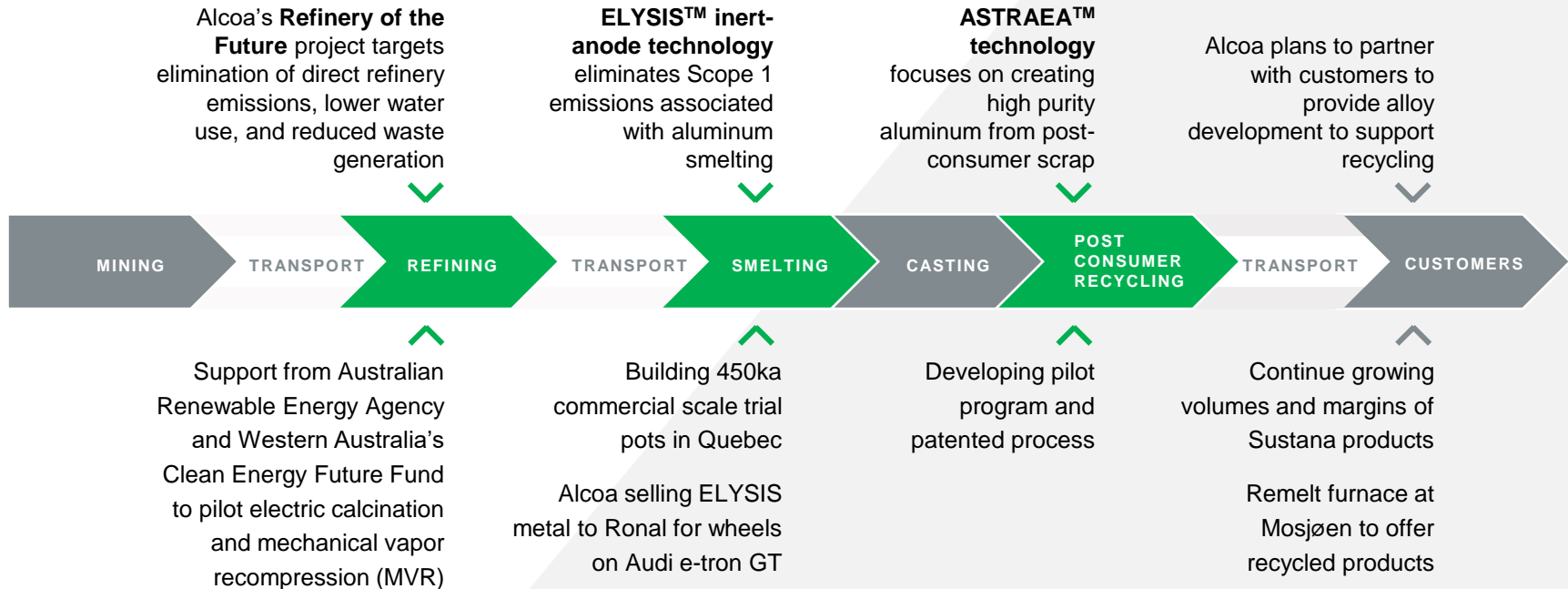
- ~2 tonnes of CO₂e from portfolio and energy related emissions reductions linked to two facilities
- ~3 tonnes of CO₂e related to R&D projects under development outlined in our technology roadmap

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**

**3Q23 Financial and other information
as presented on
October 18, 2023**



Performance expected, guided by our values

CEO Viewpoint

Values are constant guide



Our Values

- Act with Integrity
- Operate with Excellence
- Care for People
- Lead with Courage



Alcoa

Focus to perform both near term and long term

- Maintain positive operational momentum
 - Continue progress on safety and environment
 - Build on improvements to operational stability
- Key challenges and focal points
 - Near term
 - Obtain Australian bauxite mine approvals
 - Focus on productivity across the system
 - Drive further improvements in Brazil operations
 - Improve financial results at key locations
 - Longer term
 - Deliver R&D technologies for the future

3Q23 Net loss; ongoing commercial, operational improvements

Key takeaways for 3Q23

Ongoing strategic priorities



3Q23 Takeaways

- One serious injury (FSI-A) in the quarter, although other key indicators improving year over year
- Financial results for 3Q23
 - Net loss attributable to Alcoa of \$168 million; Adjusted net loss of \$202 million
 - Adjusted EBITDA excluding special items of \$70 million
 - Cash balance \$0.9 billion; paid quarterly cash dividend of \$0.10 per share
- Meaningful progress with state agencies for annual Australia bauxite mine approvals as WA EPA process progresses
- Broader EcoLum™ aluminum and EcoSource™ alumina market penetration
- Multiple production records for Canadian smelter system
- Demand in some sectors still soft; potential for rebound in 2024

3Q23 EPS of \$(0.94), Adjusted EPS of \$(1.14)

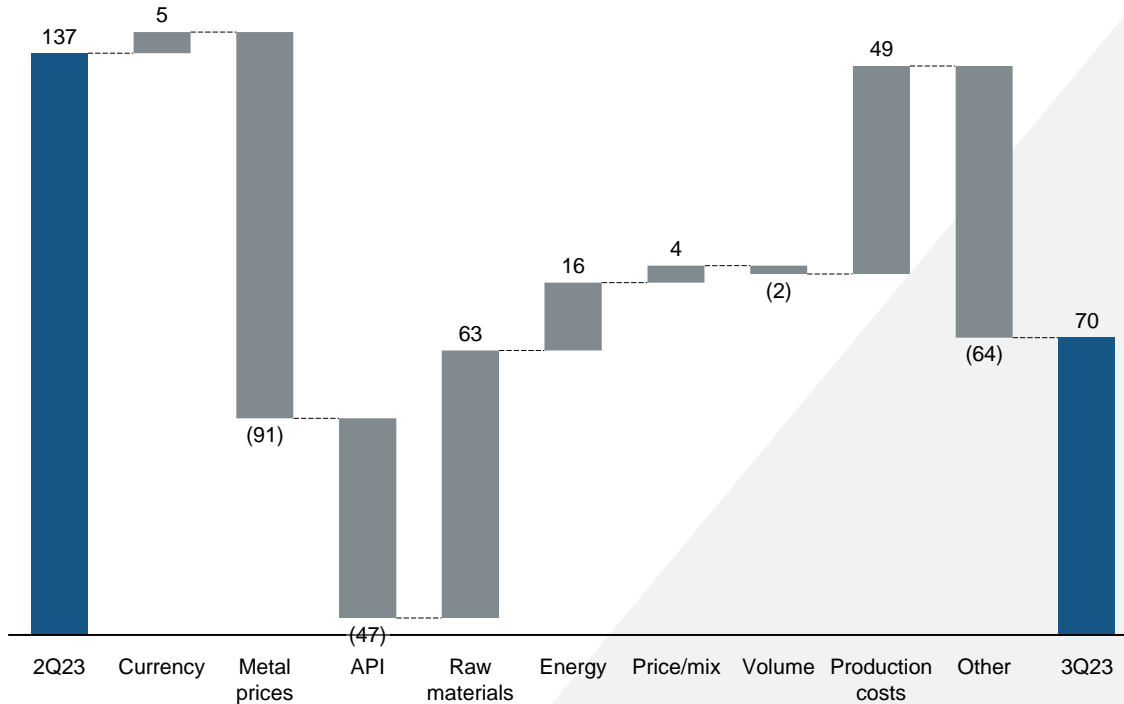
Quarterly income statement summary

	2Q23	3Q23	Change
Third Party Realized prices (\$/mt)			
Realized primary aluminum price	\$2,924	\$2,647	\$(277)
Realized alumina price	\$363	\$354	\$(9)
Income statement highlights (millions, except per share amounts)			
Revenue	\$2,684	\$2,602	\$(82)
Net loss attributable to Alcoa Corporation	\$(102)	\$(168)	\$(66)
Loss per share ¹	\$(0.57)	\$(0.94)	\$(0.37)
Adjusted income statement highlights (millions, except per share amounts)			
Adjusted EBITDA excluding special items	\$137	\$70	\$(67)
Adjusted net loss attributable to Alcoa Corporation	\$(62)	\$(202)	\$(140)
Adjusted loss per share ¹	\$(0.35)	\$(1.14)	\$(0.79)

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

Lower metal and alumina prices outweigh improvements

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



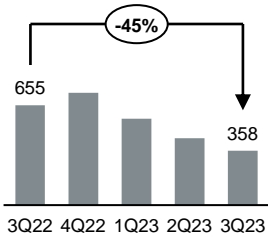
	2Q23	3Q23	Change
Alumina ¹	\$33	\$53	\$20
Aluminum ¹	110	79	(31)
Transformation	(17)	(29)	(12)
Intersegment eliminations	31	(4)	(35)
Other corporate	(20)	(29)	(9)
Total	\$137	\$70	\$(67)

1. Segment Adjusted EBITDA

Key raw material prices declining and improving EBITDA

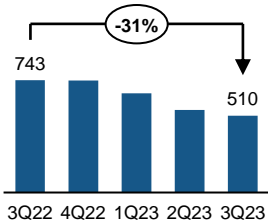
Key raw material global market prices and Segment Adjusted EBITDA impacts

Average market prices of key raw materials¹



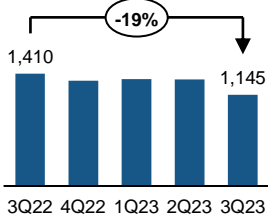
■ Caustic, \$/dmt

- Price reductions slowing as nearing historical averages
- Accounted for ~50 percent of major raw material spend in quarter



■ Calcined coke, \$/mt

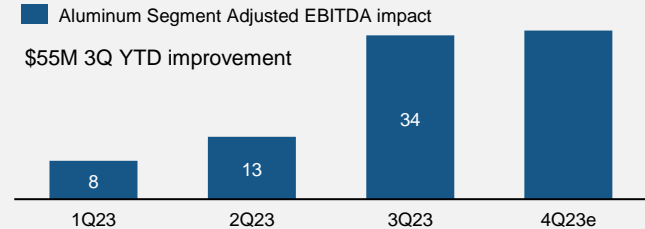
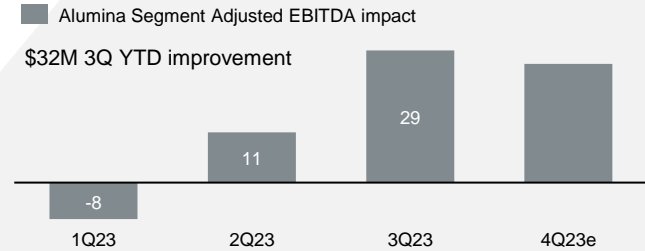
- Steady supply and lower feedstock costs have continued to drive lower prices
- Accounted for ~25 percent of major raw material spend in quarter



■ Pitch, \$/mt

- Recent price reduction driven by lower coal tar feedstock prices in Europe and China
- Accounted for ~25 percent of major raw material spend in quarter

Raw materials sequential impacts, \$M



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

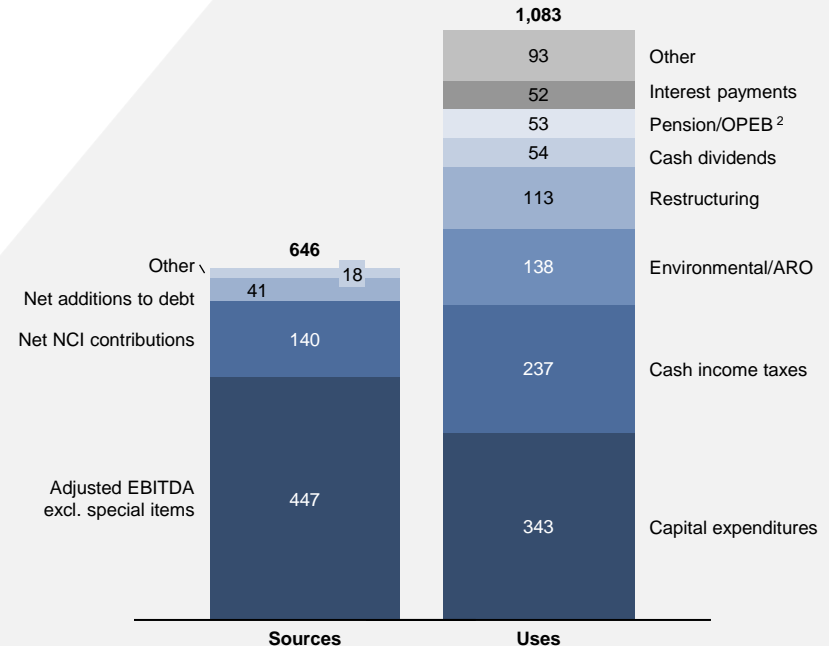
Capital expenditures and income taxes are top YTD cash uses

Key financial metrics and cash flow information, 3Q23 and YTD

Key financial metrics

2023 YTD Return on equity	3Q23 Days working capital
(8.7)%	50 Days
2023 YTD Capital returns to stockholders	3Q23 Proportional adjusted net debt
\$54M	\$1.6B
2023 YTD Free cash flow less net NCI contributions	3Q23 Cash balance
\$(310)M	\$0.9B¹

3Q23 YTD Cash flow information, \$M

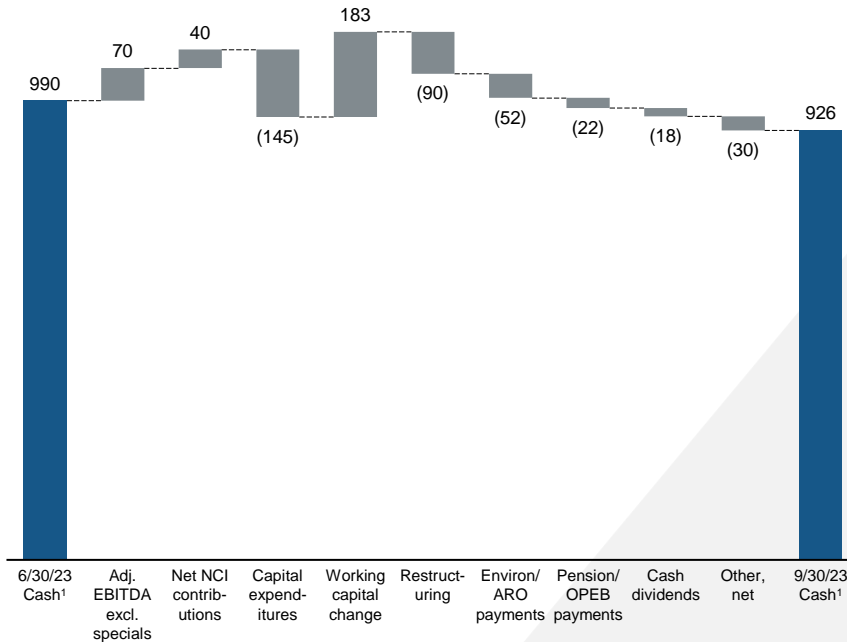


1. Excludes \$104 million in restricted cash
2. Pension/OPEB funding of \$53 million is reflected net of \$10 million related expenses within Adjusted EBITDA

Working capital becomes significant source of cash

3Q23 sequential quarter cash flow information

6/30/23 to 9/30/23 Cash balance changes, \$M



3Q23 Commentary

- Working capital change was a \$183 million source of cash, due mainly to a \$210 million decrease in Inventories
- Capital expenditures up \$30 million sequentially to \$145 million in 3Q23
- Restructuring includes \$75 million of payments related to Spain settlement
- Environmental/ARO payments of \$52 million for site remediation and mine rehabilitation
- Net noncontrolling interest contributions \$40 million in 3Q23

1. Excludes restricted cash of \$107 million at 6/30/23 and \$104 million at 9/30/23

2023 Outlook

FY23 Key metrics as of September 30, 2023

Income statement excl. special items impacts			Cash flow impacts		
	3Q23 YTD Actual	FY23 Outlook		3Q23 YTD Actual	FY23 Outlook
Alumina shipments (Mmt)	9.4	12.7 – 12.9	Pension / OPEB cash funding	\$63M	~ \$75M
Aluminum shipments (Mmt)	1.9	2.5 – 2.6	Stock repurchases and dividends	\$54M	Varies
Transformation (adj. EBITDA impacts)	\$(54)M	~\$(80)M	Return-seeking capital expenditures ²	\$54M	~\$90M
Intersegment eliminations (adj. EBITDA impacts)	\$19M	Varies	Sustaining capital expenditures ²	\$289M	~\$450M
Other corporate (adj. EBITDA impacts)	\$(80)M	~\$(120)M	Payment of prior year income taxes ³	\$138M	~\$175M
Depreciation, depletion and amortization	\$469M	~\$645M	Current period cash taxes ¹	\$99M	Varies
Non-operating pension/OPEB expense	\$10M	~\$15M	Environmental and ARO payments ⁴	\$139M	~\$195M
Interest expense	\$79M	~\$110M	Impact of restructuring and other charges	\$113M	TBD
Operational tax expense ¹	\$109M	Varies			
Net loss of noncontrolling interest	\$(43)M	40% of AWAC NI			

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: ~60% of return-seeking and sustaining capital expenditures
3. Net of pending tax refunds
4. As of September 30, 2023, the environmental remediation reserve balance was \$278M and the ARO liability was \$987M

Operations improved, addressing challenges

3Q23 Operations update

Operations

- Canadian smelter system set quarterly and YTD production records
- Productivity initiatives underway to increase competitiveness; first action taken at Kwinana refinery
- Alumar smelter stability established, operating at approximately 65 percent capacity
- Disclosed progress against Global Industry Standard on Tailings Management (GISTM) requirements for applicable facilities, aligned with International Council on Mining and Metals (ICMM) commitments

Western Australia

- Submitted revised Mine Management Program that includes increased protections for environment and biodiversity; working toward approval in 4Q23
- WA EPA referral decision and comment period complete; assessment decision expected by yearend
- Alumina Segment Adjusted EBITDA impact of lower bauxite quality in 3Q23 was \$44 million, \$1 million better than 2Q23 impact
- Bauxite quality similar to recent grades expected until move to new mining area, no earlier than 2027; implementing measures to mitigate financial impacts

Commercial progress as market seeks recovery

3Q23 Commercial update

Commercial highlights

- Sustana™ product family broadening market reach:
 - First EcoSource non-metallurgical alumina (NMA) sale
 - Additional EcoLum sales in North America
 - Double digit growth in EcoLum sales YoY
- North American Die Casting Association award for megacastings for second straight year
- Announced nine year power contract for 50% of Portland smelter capacity starting in 2026

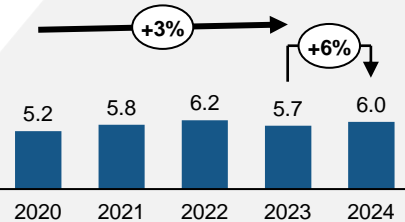
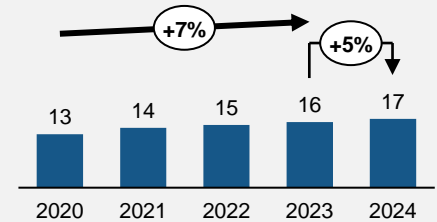
Global market view

- Global market currently balanced to slight surplus for both alumina and aluminium
- Aluminum inventory days of consumption remain low
- Demand improvement expected; timing uncertain

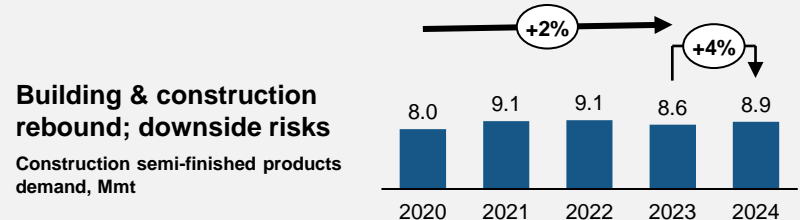
Rest of world (RoW) aluminum demand trends

2020-2023 CAGR, 2023-2024 YoY estimate

Transport growth to continue
Transportation semi-finished products demand, Mmt



Packaging to grow; inventory levels normalizing
Can stock consumption, Mmt



Building & construction rebound; downside risks
Construction semi-finished products demand, Mmt

Operations improved in 3Q; workplan in place, outlook positive

3Q23 Summary



Our Purpose:
**Turn Raw Potential
Into Real Progress**

Our Vision
Reinvent the aluminum industry for a sustainable future

Our Priorities
Reduce Complexity | Drive Returns | Advance Sustainably

Our Values
Act with Integrity | Operate with Excellence | Care for People | Lead with Courage

Third quarter summary

- Financial results reflect lower sales prices partially offset by lower costs; \$0.9 billion cash balance with no major debt maturities until 2027
- Several smelters set production records; improved stability and safety performance across portfolio
- Increasingly selling Sustana products and new alloys

Future expectations

- Australia mine permit progress in 4Q23
- Solid focus on productivity and cost control, adjusting portfolio operating levels as appropriate
- Continued development of transformative R&D roadmap
- Some soft sectors now; long-term outlook remains positive as higher demand growth expected

Quarterly income statement

Quarterly income statement for 3Q22, 2Q23 and 3Q23

<i>Millions, except realized prices and per share amounts</i>	3Q22	2Q23	3Q23	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$3,204	\$2,924	\$2,647	\$(557)	\$(277)
Realized alumina price (\$/mt)	\$371	\$363	\$354	\$(17)	\$(9)
Revenue	\$2,851	\$2,684	\$2,602	\$(249)	\$(82)
Cost of goods sold	2,668	2,515	2,469	(199)	(46)
SG&A and R&D expenses	51	58	65	14	7
Depreciation, depletion and amortization	149	153	163	14	10
Other expense, net	35	6	85	50	79
Interest expense	25	27	26	1	(1)
Restructuring and other charges, net	652	24	22	(630)	(2)
Total costs and expenses	3,580	2,783	2,830	(750)	47
Loss before income taxes	(729)	(99)	(228)	501	(129)
Provision for (benefit from) income taxes	40	22	(35)	(75)	(57)
Net loss	(769)	(121)	(193)	576	(72)
Less: Net loss attributable to noncontrolling interest	(23)	(19)	(25)	(2)	(6)
Net loss attributable to Alcoa Corporation	\$(746)	\$(102)	\$(168)	\$578	\$(66)
Loss per share	\$(4.17)	\$(0.57)	\$(0.94)	\$3.23	\$(0.37)
Average shares ¹	178.8	178.4	178.4	(0.4)	0.0

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>	3Q22	2Q23	3Q23	Description of significant <u>3Q23</u> special items
Net loss attributable to Alcoa Corporation	\$(746)	\$(102)	\$(168)	
Loss per share ¹	\$(4.17)	\$(0.57)	\$(0.94)	
Special items	\$686	\$40	\$(34)	
<i>Cost of goods sold</i>	77	26	2	<i>Alumar and San Ciprián smelter restarts \$2</i>
<i>SG&A and R&D expenses</i>	1	-	-	
<i>Restructuring and other charges, net</i>	652	24	22	<i>Remediation and demolition costs at closed locations \$14, Kwinana productivity program \$6</i>
<i>Interest</i>	-	-	-	
<i>Other (income) expense, net</i>	(6)	9	11	<i>Mark to market energy contracts \$21, sale of non-core rights \$(9)</i>
<i>Provision for income taxes</i>	(22)	(12)	(66)	<i>Valuation allowance reversal on Iceland deferred tax assets, tax on special items</i>
<i>Noncontrolling interest</i>	(16)	(7)	(3)	<i>Partner's share of special items</i>
Adjusted loss attributable to Alcoa Corporation	\$(60)	\$(62)	\$(202)	
Adjusted loss per share ¹	\$(0.33)	\$(0.35)	\$(1.14)	

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 3Q22, 2Q23 and 3Q23

<i>Millions, except realized prices and per share amounts</i>	3Q22	2Q23	3Q23	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$3,204	\$2,924	\$2,647	\$(557)	\$(277)
Realized alumina price (\$/mt)	\$371	\$363	\$354	\$(17)	\$(9)
Revenue	\$2,851	\$2,684	\$2,602	\$(249)	\$(82)
Cost of goods sold	2,591	2,489	2,467	(124)	(22)
SG&A and R&D expenses	50	58	65	15	7
Adjusted EBITDA	210	137	70	(140)	(67)
Depreciation, depletion and amortization	149	153	163	14	10
Other expenses (income), net	41	(3)	74	33	77
Interest expense	25	27	26	1	(1)
Provision for income taxes	62	34	31	(31)	(3)
Adjusted loss	(67)	(74)	(224)	(157)	(150)
Less: Adjusted net loss attributable to noncontrolling interest	(7)	(12)	(22)	(15)	(10)
Adjusted net loss attributable to Alcoa Corporation	\$(60)	\$(62)	\$(202)	\$(142)	\$(140)
Adjusted loss per share	\$(0.33)	\$(0.35)	\$(1.14)	\$(0.81)	\$(0.79)
Average shares ¹	178.8	178.4	178.4	(0.4)	0.0

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

3Q23 Financial summary

Three months ending September 30, 2023, excluding special items

<i>Millions</i>	Alumina ³	Aluminum ^{3,4}	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	\$1,338	\$1,648	\$5	\$(389)	-	\$2,602
Third-party revenue	\$957	\$1,644	\$2	-	\$(1)	\$2,602
Adjusted EBITDA ¹	\$53	\$79	\$(29)	\$(4)	\$(29)	\$70
Depreciation, depletion and amortization	\$89	\$69	-	-	\$5	\$163
Other expenses, net ²	\$9	\$15	-	-	\$50	\$74
Interest expense						\$26
Provision for income taxes						\$31
Adjusted net loss						\$(224)
Net loss attributable to noncontrolling interest						\$(22)
Adjusted net loss attributable to Alcoa Corporation						\$(202)

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 874GWh, \$11 million and \$(1) million, respectively

3Q23 Segment Adjusted EBITDA drivers

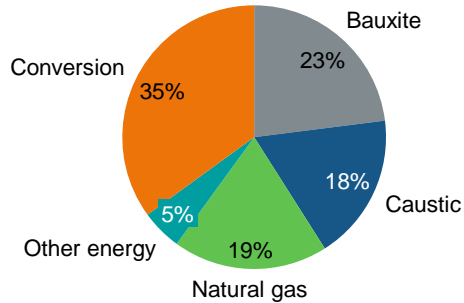
Segment Adjusted EBITDA sequential changes, \$M

	Segment Adjusted EBITDA 2Q23	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Segment Adjusted EBITDA 3Q23
Alumina	\$33	12		(51)	29	3	3	3	32	(11)	\$53
Aluminum	\$110	(3)	(91)	5	34	13	1	(5)	17	(2)	\$79
Total	\$143	9	(91)	(46)	63	16	4	(2)	49	(13)	\$132

Composition of alumina and aluminum production costs

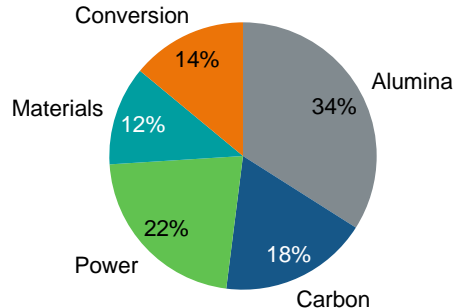
Alcoa 3Q23 production cash costs

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	\$42M 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>						AUD + 0.01 0.65 ¹	BRL + 0.10 4.88 ¹	CAD + 0.01 1.34 ¹	EUR + 0.01 1.09 ¹	ISK + 10 133.25 ¹	NOK + 0.10 10.48 ¹
Segment	LME + \$100/mt	API + \$10/mt	Midwest + \$100/mt	Europe + \$100/mt	Japan + \$100/mt						
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
9/30/23 currencies	0.64	5.05	1.35	1.05	137.45	10.74	
3Q23 currency avg.	0.65	4.88	1.34	1.09	133.25	10.48	
3Q23 Balance sheet revaluation impact							
Alumina		4.0		(0.1)			3.9
Aluminum	0.8	(0.8)	4.3	(0.3)	(2.4)	(1.8)	(0.2)
Corporate	(0.2)	(0.9)	(2.2)	(0.2)			(3.5)
Subtotal	0.6	2.3	2.1	(0.6)	(2.4)	(1.8)	0.2
3Q23 Currency sensitivity impact							
Alumina	10.3	(2.7)		0.1			7.7
Aluminum	0.6	(1.3)	(0.3)		(1.4)	(0.6)	(3.0)
Subtotal	10.9	(4.0)	(0.3)	0.1	(1.4)	(0.6)	4.7
3Q23 Total EBITDA currency impact							
Alumina	10.3	1.3					11.6
Aluminum	1.4	(2.1)	4.0	(0.3)	(3.8)	(2.4)	(3.2)
Corporate	(0.2)	(0.9)	(2.2)	(0.2)			(3.5)
Total	11.5	(1.7)	1.8	(0.5)	(3.8)	(2.4)	4.9

Additional business considerations

Items expected to impact Adjusted EBITDA and Adjusted net income for 4Q23

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

- In the Alumina segment, we expect a benefit of approximately \$50 million due to lower raw material prices, better production costs, and higher volumes, partially offset by approximately \$10 million in higher energy prices. In addition, we expect impacts related to lower bauxite grades in Australia to be similar to 3Q23.
- In the Aluminum segment, we expect unfavorable energy impacts of approximately \$30 million mainly due to CO₂ compensation changes in Norway. In addition, we expect \$35 million in lower raw material prices to be offset by unfavorable product mix and higher production costs. Alumina costs in the Aluminum segment are expected 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, 3Q23 Adjusted EBITDA included an unfavorable balance sheet revaluation impact of \$1 million (flat sequentially compared to 2Q23); impacts related to balance sheet revaluation are not incorporated into the currency sensitivities provided for Adjusted EBITDA.

Below Adjusted EBITDA:

- 3Q23 Other expenses included negative impacts of \$35 million, primarily related to foreign currency losses that may not recur.
- Based on recent pricing, the Company expects 4Q23 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 September 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				\$564M	Other expenses (income), net
Serra do Facão Energia S/A	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				\$440M	Cost of goods sold
Total investments				\$1,004M	

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 tonne 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 September 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	94
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	564
<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 tonnes per year (mtpa) 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 tonnes 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 9/30/23 Adj. EBITDA excl. special items	
Business Operations	+	Alumina segment <ul style="list-style-type: none"> Economic value using market multiple of: <ul style="list-style-type: none"> i. AWAC joint venture, minus small portions of AWAC JV in Aluminum and Transformation ii. Ownership in certain mines and refineries outside the JV 	\$239M
	+	Aluminum segment <ul style="list-style-type: none"> Economic value using market multiple of: <ul style="list-style-type: none"> i. Smelters, casthouses, and energy assets ii. Smelters and casthouses restart optionality 	\$404M
	-	Non-segment expenses (income) <ul style="list-style-type: none"> Economic value using market multiple of: <ul style="list-style-type: none"> i. Transformation, intersegment eliminations, and other corporate 	\$167M
=	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 (\$1.9B, >95% Alcoa), pension & OPEB net liabilities of \$0.6B (\$0.6B, >95% Alcoa; U.S. contributions not tax deductible), environmental & ARO liabilities of \$1.0B (\$1.3B, ~75% Alcoa)	
	+	Cash & equity investments ¹ Cash position of \$0.8B (\$0.9B, ~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 September 30, 2023. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

Adjusted EBITDA reconciliations

<i>Millions</i>	3Q22	4Q22	FY22	1Q23	2Q23	3Q23
Net loss attributable to Alcoa	\$(746)	\$(395)	\$(123)	\$(231)	\$(102)	\$(168)
Add:						
Net (loss) income attributable to noncontrolling interest	(23)	(25)	161	(1)	(19)	(25)
Provision for (benefit from) income taxes	40	180	664	52	22	(35)
Other expenses (income), net	35	67	(118)	54	6	85
Interest expense	25	26	106	26	27	26
Restructuring and other charges, net	652	(6)	696	149	24	22
Depreciation, depletion and amortization	149	147	617	153	153	163
Adjusted EBITDA	132	(6)	2,003	202	111	68
Special items before tax and noncontrolling interest	78	35	221	38	26	2
Adjusted EBITDA excl. special items	\$210	\$29	\$2,224	\$240	\$137	\$70
Alumina Segment Adjusted EBITDA	\$78	\$50	\$788	\$103	\$33	\$53
Aluminum Segment Adjusted EBITDA	152	31	1,492	184	110	79
Transformation	(19)	(22)	(66)	(8)	(17)	(29)
Intersegment eliminations	23	5	138	(8)	31	(4)
Other corporate	(24)	(35)	(128)	(31)	(20)	(29)
Adjusted EBITDA excl. special items	\$210	\$29	\$2,224	\$240	\$137	\$70

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>	3Q22	4Q22	FY22	1Q23	2Q23	3Q23
Cash provided from operations	\$134	\$118	\$822	\$(163)	\$(13)	\$69
Capital expenditures	(128)	(171)	(480)	(83)	(115)	(145)
Free cash flow	6	(53)	342	(246)	(128)	(76)
Contributions from noncontrolling interest	67	64	214	86	36	42
Distributions to noncontrolling interest	(74)	(60)	(379)	(6)	(16)	(2)
Free cash flow less net noncontrolling interest distributions	\$(1)	\$(49)	\$177	\$(166)	\$(108)	\$(36)

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>3Q22</u>			<u>2Q23</u>			<u>3Q23</u>		
	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.
Short-term borrowings	\$75	\$30	\$45	\$10	\$-	\$10	\$42	\$-	\$42
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	1,808	32	1,776	1,809	32	1,777
Total debt	1,801	30	1,771	1,819	32	1,787	1,852	32	1,820
Less: Cash and cash equivalents	1,432	138	1,294	990	91	899	926	106	820
Net debt (net cash)	369	(108)	477	829	(59)	888	926	(74)	1,000
Plus: Net pension	175	(13)	188	95	(1)	96	77	(3)	80
Plus: OPEB liability	676	21	655	500	12	488	495	12	483
Adjusted net debt	\$1,220	\$(100)	\$1,320	\$1,424	\$(48)	\$1,472	\$1,498	\$(65)	\$1,563

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>	3Q22	4Q22	1Q23	2Q23	3Q23
Receivables from customers	\$749	\$778	\$753	\$702	\$691
Add: Inventories	2,400	2,427	2,395	2,400	2,190
Less: Accounts payable, trade	1,590	1,757	1,489	1,491	1,472
DWC working capital	\$1,559	\$1,448	\$1,659	\$1,611	\$1,409
Sales	\$2,851	\$2,663	\$2,670	\$2,684	\$2,602
Number of days in the quarter	92	92	90	91	92
Days working capital¹	50	50	56	55	50

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 September 30, 2023

<i>Millions</i>	2022 YTD	2023 YTD
<i>Numerator:</i>		
Net income (loss) attributable to Alcoa Corporation	\$272	\$(501)
Add: Special items ¹	741	196
ROE Adjusted Net income (loss) YTD	\$1,013	\$(305)
ROE Adjusted Net income (loss) multiplied by four divided by three	\$1,351	\$(407)
<i>Denominator²:</i>		
Total assets	\$15,527	\$14,138
Less: Total Liabilities	8,714	7,856
Less: Noncontrolling Interest	1,608	1,602
Shareholders' Equity	\$5,205	\$4,680
ROE	25.9%	(8.7)%

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

$$\begin{array}{l} \text{2022 YTD} \\ \text{ROE \%} = \frac{(\$272 + \$741) \times 4/3}{(\$15,527 - \$8,714 - \$1,608)} \times 100 = 25.9\% \end{array}$$

$$\begin{array}{l} \text{2023 YTD} \\ \text{ROE \%} = \frac{(\$501 + \$196) \times 4/3}{(\$14,138 - \$7,856 - \$1,602)} \times 100 = (8.7)\% \end{array}$$

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

2. Denominator calculated using quarter ending balances.

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 tonne
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
Mmt/Mdmt	Million metric tonnes/Million dry metric tonnes
Mtpa/kmtpa	Metric tonnes per annum/thousand metric tonnes per annum
mt	Metric tonne
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

