

# Investor Presentation

May 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 the 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 the 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 Part I Item 1A of 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.

## Resources

This presentation can be found under the “Events and Presentations” tab of the “Investors” section of the Company’s website, [www.alcoa.com](http://www.alcoa.com).

# An upstream aluminum company with two business segments

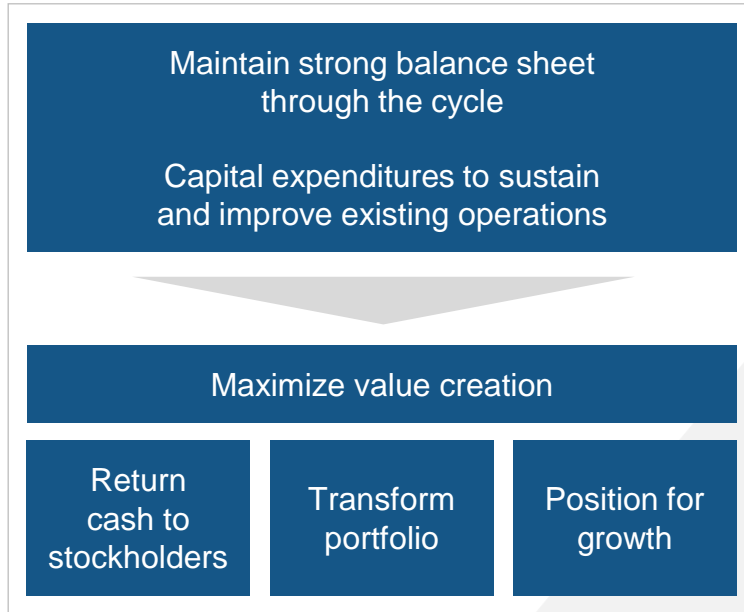
Alcoa global operations by business segment



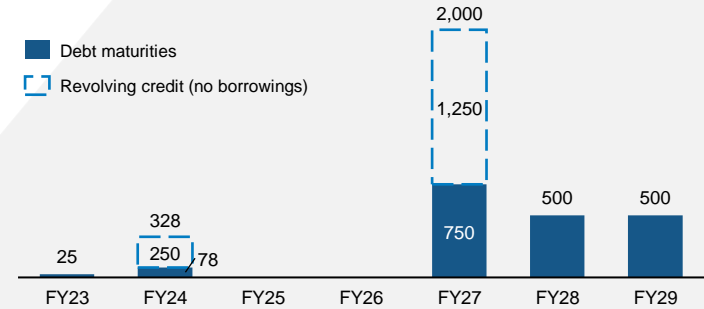
# Strong balance sheet, solid liquidity and stockholder returns

Capital allocation framework, debt maturity profile and key cash outflows

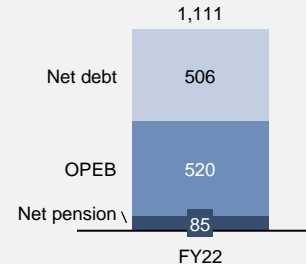
## Capital allocation framework



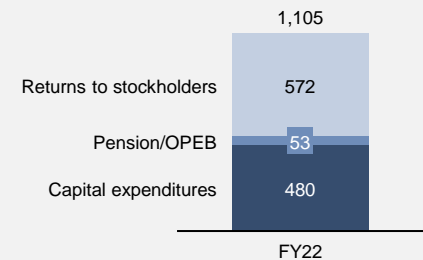
## Debt maturity profile and available credit, \$M



## Prop. adj. net debt, \$M



## Key cash outflows, \$M



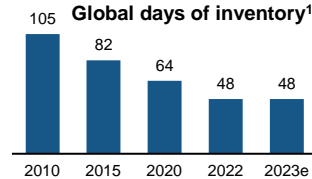
# Market balance expected for 2023; positive long term outlook

Current aluminum market considerations and long term outlook

## Current market considerations

### Projected 2023 global aluminum market balances and inventories

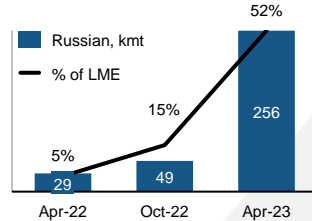
- Balanced global aluminum market expected in 2023; slight surplus in RoW and slight deficit in China
- Global inventories projected to remain historically low in 2023



### RoW

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

### Russian stocks in LME inventory<sup>2</sup>



### China

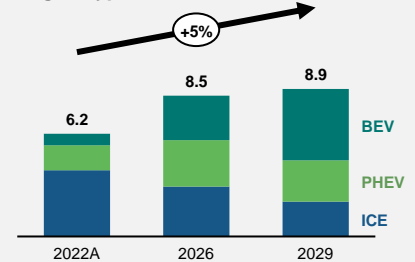
- Hydropower supply shortages in southwest China continue to limit restarts; Yunnan and Guizhou remain partially curtailed
- Uncertainty around demand growth as recovery weaker than expected in 1Q23

## Long term market outlook, 2022 - 2029

### Factors driving demand

- Transportation, electrical and packaging sectors expected to lead aluminum demand growth
- Continued transition to new energy vehicles expected to grow aluminum demand

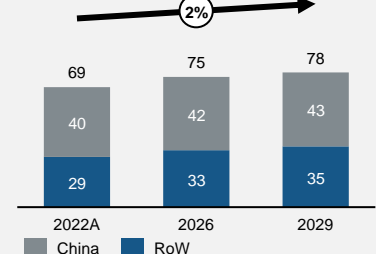
### NA and EU vehicle aluminum demand by engine type, Mmt<sup>3</sup>



### Factors constraining supply

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

### Global primary aluminum production, Mmt<sup>1</sup>



# ESG profile supports vision to reinvent aluminum industry

## Alcoa's ESG profile and vision

### Recognized ESG profile

#### Environmental

- Adopted 2050 net zero ambition; progressing towards 2025/2030 CO<sub>2</sub>e reduction targets
- Future-oriented R&D projects aiming to eliminate direct carbon emissions
- Aluminum smelters powered by 86 percent renewable energy<sup>1</sup>
- Strong climate, water and impoundment management processes
- Top performer in the 2022 S&P Dow Jones Sustainability Index

#### Social

- Implemented SP360 social management system
- Global Inclusion and Diversity Council accountable for long term I&D strategy
- Policies for Indigenous and Land-Connected Peoples; Human Rights Council
- Scored 90 out of 100 on the 2022 Corporate Equality Index
- Support local communities via Alcoa Foundation and employee volunteer efforts

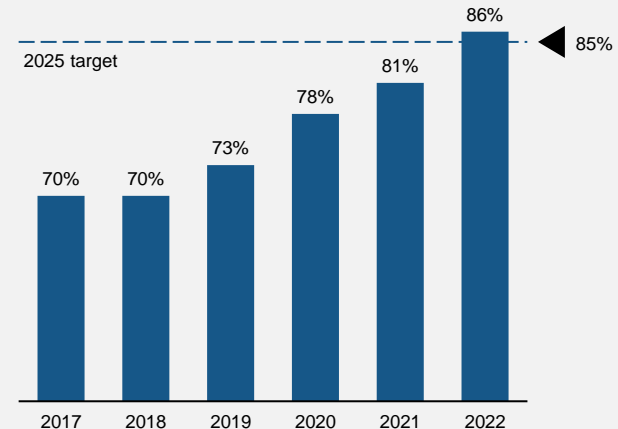
#### Governance

- Delaware incorporated; annual election of directors
- Independent board chair; separate from CEO
- Diverse Board of Directors, made up of 30 percent women
- Highly rated by ISS for strong corporate governance profile

#### Our vision:

*Reinvent the aluminum industry for a sustainable future*

#### Aluminum smelting renewable energy consumption, 2017 – 2022<sup>2</sup>



1. Renewable energy, as used throughout this presentation, means energy derived from natural processes that are replenished constantly, such as sunlight, wind, and hydropower. 2. Source: 2017-2021 Alcoa Sustainability Reports and Alcoa Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2022

# Full suite of Sustana™ products addressing carbon footprint

Summary of Sustana products and position on carbon emissions curves

## Alcoa Sustana product line



- Produced at refineries with emissions intensity (scope 1 & 2) from mining and refining<sup>1</sup> of less than 0.6mt CO<sub>2</sub>e/mt alumina
- Available from all Alcoa alumina sites
- Now includes grades of non-metallurgical alumina

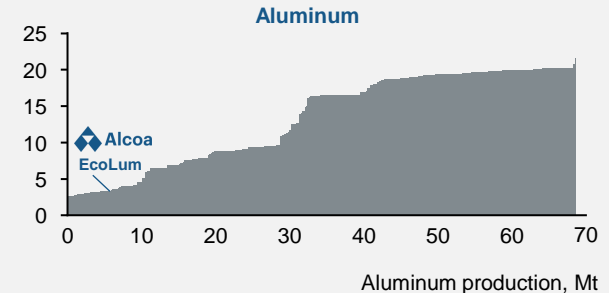
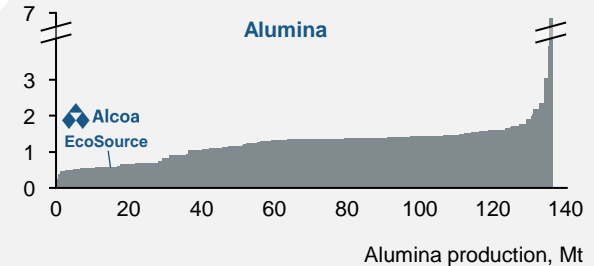


- Emissions less than 4.0mt CO<sub>2</sub>e/mt aluminum (scope 1 & 2) from mining, refining, smelting and casting<sup>1</sup>
- Available globally in all cast shapes
- Growing customer interest resulted in a five-fold year over year sales volume increase; continued growth expected in 2023



- Minimum 50% recycled content<sup>2</sup>
- Available globally

Metric tonne of CO<sub>2</sub>e/mt<sup>3</sup>



Sources: IAI, CRU, Alcoa analysis 1. Referring to Scope 1+2 from main relevant production stages vs same metric for other industry participants / global average emissions intensity (CRU emissions intensity data, 2022); 2. Pre-consumer scrap; recycled content is defined using mass balance / credit allocation system at facility and production line level; 3. Source: CRU



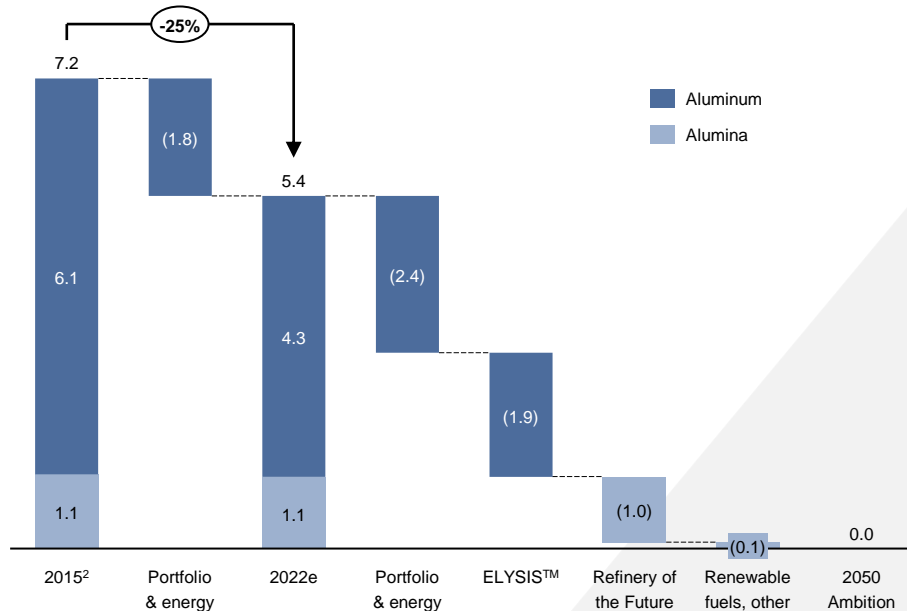
ASI certifications available for all products and 17 sites  
Learn more at [www.Alcoa.com/sustana](http://www.Alcoa.com/sustana)



# 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, CO<sub>2</sub>e/tonne<sup>1</sup>



## Emissions reduction progress to date

- 25 percent CO<sub>2</sub>e reduction against 2015 baseline; 2025 emissions reduction target is 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

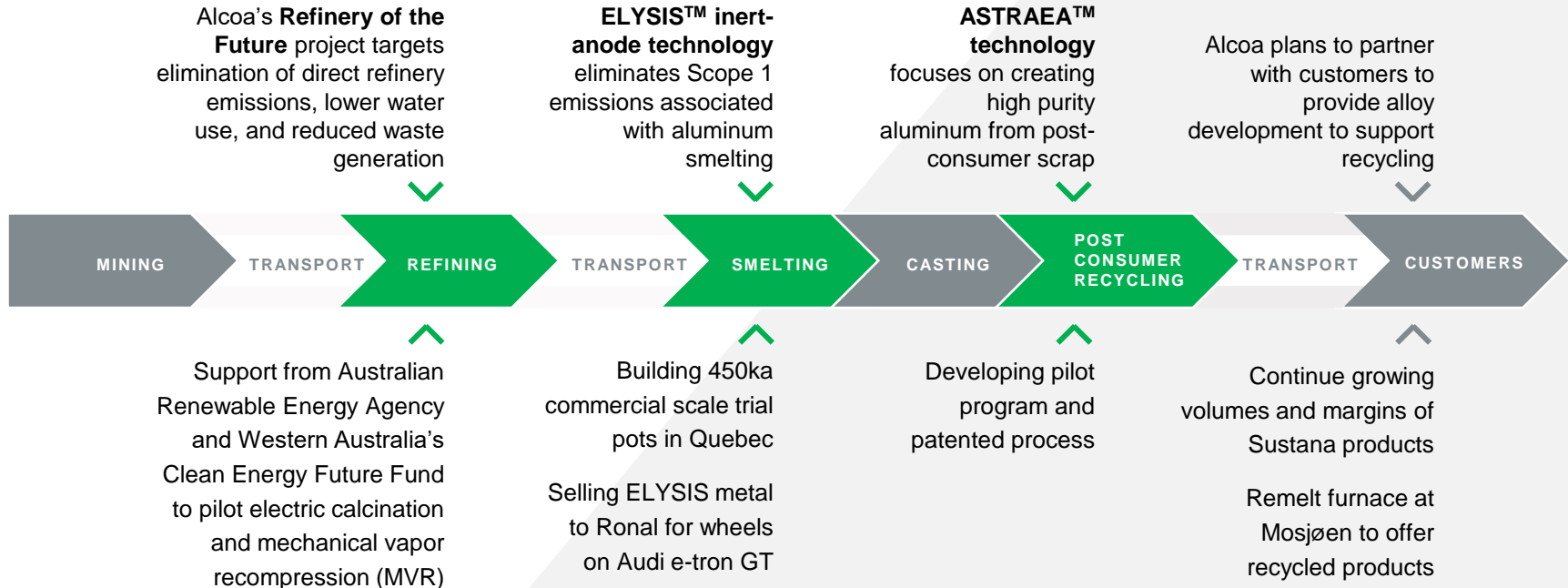
- ~2 tonnes of CO<sub>2</sub>e from portfolio and energy related emissions reductions linked to two facilities
- ~3 tonnes of CO<sub>2</sub>e related to R&D projects under development outlined in our technology roadmap

1. Reductions in CO<sub>2</sub>e/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: 2021 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**

**1Q23 Financial and other information  
as presented on  
April 19, 2023**



# Improved financials; addressing operational challenges

Key takeaways for 1Q23



**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**

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## 1Q23 Takeaways

- No fatal or serious injuries (FSI-As) in the quarter
- Financial results for 1Q23
  - Net loss attributable to Alcoa of \$231 million; Adjusted net loss of \$41 million
  - Adjusted EBITDA excluding special items of \$240 million
  - Cash balance of \$1.1 billion, debt of \$1.8 billion, and proportional adjusted net debt at \$1.4 billion
  - Paid quarterly cash dividend
- Operating level adjustments
  - Announced closure of Intalco smelter
  - Reduced operating rate to 75% of capacity at Portland smelter
  - Curtailed one of five digestors at Kwinana refinery
  - Successfully negotiated restart timing of San Ciprián smelter
  - Progressing restart of Alumar smelter, now operating at ~60%
- Announced expansion of EcoSource™ alumina brand

# 1Q23 EPS of \$(1.30), Adjusted EPS of \$(0.23)

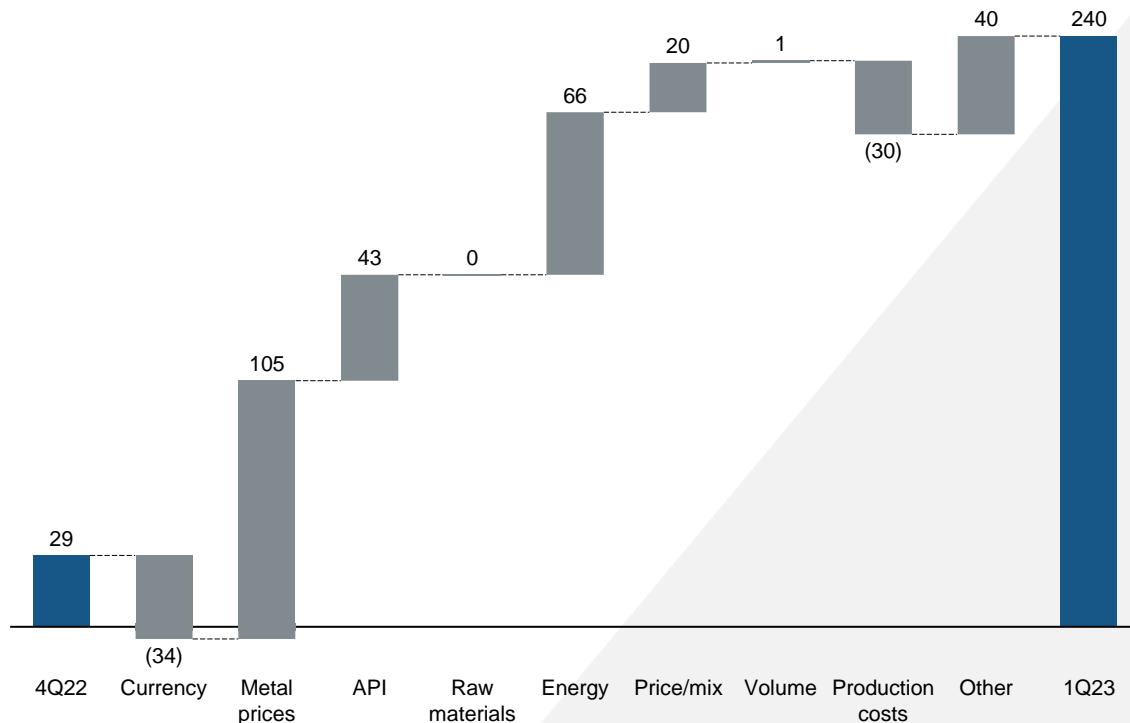
## Quarterly income statement summary

	4Q22	1Q23	Change
Realized prices (\$/mt)			
Realized primary aluminum price	\$2,889	<b>\$3,079</b>	\$190
Realized alumina price	\$342	<b>\$371</b>	\$29
Income statement highlights (millions, except per share amounts)			
Revenue	\$2,663	<b>\$2,670</b>	\$7
Net loss attributable to Alcoa Corporation	\$(395)	<b>\$(231)</b>	\$164
Loss per share <sup>1</sup>	\$(2.24)	<b>\$(1.30)</b>	\$0.94
Adjusted income statement highlights (millions, except per share amounts)			
Adjusted EBITDA excluding special items	\$29	<b>\$240</b>	\$211
Adjusted net loss attributable to Alcoa Corporation	\$(144)	<b>\$(41)</b>	\$103
Adjusted loss per share <sup>1</sup>	\$(0.82)	<b>\$(0.23)</b>	\$0.59

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

# Higher market prices, lower energy costs, improve Adj. EBITDA

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



	4Q22	1Q23	Change
Alumina <sup>1</sup>	\$50	\$103	53
Aluminum	31	184	153
Transformation	(22)	(8)	14
Intersegment eliminations	5	(8)	(13)
Other corporate	(35)	(31)	4
<b>Total</b>	<b>\$29</b>	<b>\$240</b>	<b>\$211</b>

1. Alumina segment includes the former Alumina and Bauxite segments

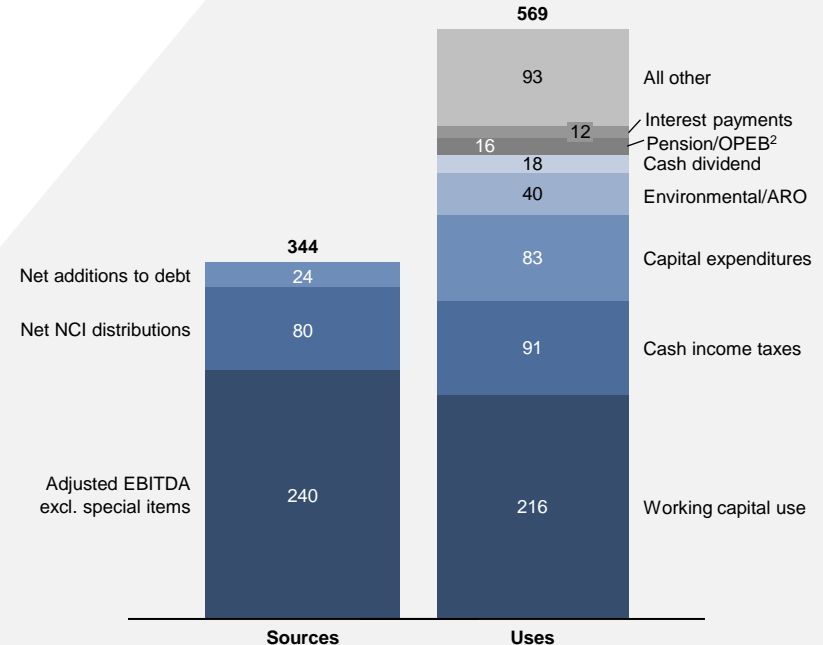
# Higher Adj. EBITDA offset by seasonal working capital build

Key financial metrics and cash flow information, 1Q23

## Key financial metrics

2023 YTD Return on equity	1Q23 Days working capital (DWC)
<b>(3.5)%</b>	<b>56 Days</b>
2023 YTD Capital returns to stockholders	1Q23 Proportional adjusted net debt
<b>\$18M</b>	<b>\$1.4B</b>
2023 YTD Free cash flow less net NCI distributions	1Q23 Cash balance
<b>\$(166)M</b>	<b>\$1.1B<sup>1</sup></b>

## 1Q23 Cash flow information, \$M



1. Excludes \$113 million in restricted cash

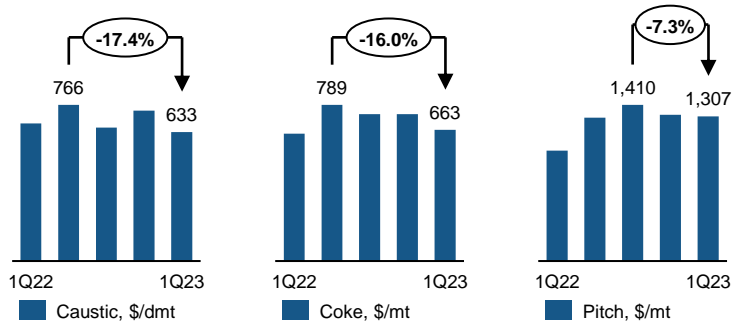
2. Pension/OPEB funding of \$16 million is reflected net of \$3 million related expenses within Adjusted EBITDA



# Key input prices declining; inventories expected to follow

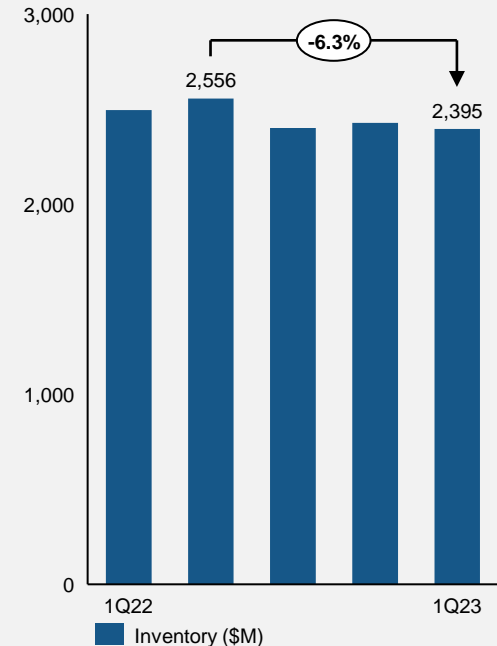
Key raw material purchase prices for refining and smelting and consolidated inventories, 1Q22 to 1Q23

## Average market prices of key raw materials<sup>1</sup>



- Caustic price declines being led by northeast Asia but declines in other markets as well
- Calcined petroleum coke price moderation starting and expected to continue
- Coal tar pitch pricing off peak but remains high

## Inventories



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

# 2023 Outlook

FY23 Key metrics as of March 31, 2023

Income statement excl. special items impacts		
	1Q23 YTD Actual	FY23 Outlook
Alumina shipments (Mmt)	3.0	12.7 – 12.9
Aluminum shipments (Mmt)	0.6	2.5 – 2.6
Transformation (adj. EBITDA impacts)	\$(8)M	~\$(80)M
Intersegment eliminations (adj. EBITDA impacts)	\$(8)M	Varies
Other corporate (adj. EBITDA impacts)	\$(31)M	~\$(130)M
Depreciation, depletion and amortization	\$153M	~\$645M
Non-operating pension/OPEB expense	\$3M	~\$15M
Interest expense	\$26M	~\$110M
Operational tax expense <sup>1</sup>	(731.3)%	Varies
Net loss of noncontrolling interest	\$(9)M	40% of AWAC NI

Cash flow impacts		
	1Q23 YTD Actual	FY23 Outlook
Pension / OPEB cash funding	\$19M	~ \$75M
Stock repurchases and dividends	\$18M	Varies
Return-seeking capital expenditures <sup>2</sup>	\$12M	~\$115M
Sustaining capital expenditures <sup>2</sup>	\$71M	~\$485M
Payment of prior year income taxes <sup>3</sup>	\$58M	~\$175M
Current period cash taxes <sup>1</sup>	\$33M	Varies
Environmental and ARO payments <sup>4</sup>	\$40M	~\$195M
Impact of restructuring and other charges	\$11M	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 March 31, 2023, the environmental remediation reserve balance was \$291M and the ARO liability was \$855M

# Market balanced today, future fundamentals remain positive

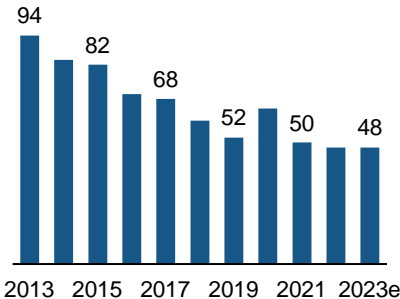
Global supply and demand dynamics; market and commercial developments

## Supply and demand dynamics

### Projected 2023 market balances<sup>1</sup>

	Global	Regional	
Alumina	Balanced	Slight surplus	RoW
		Slight deficit	China
Aluminum	Balanced	Slight surplus	RoW
		Slight deficit	China

### Global inventories, days of consumption<sup>2</sup>



- Stock levels in relation to consumption expected to remain historically low in 2023
- Inventories could be insufficient if demand normalizes in China or RoW

## Market developments

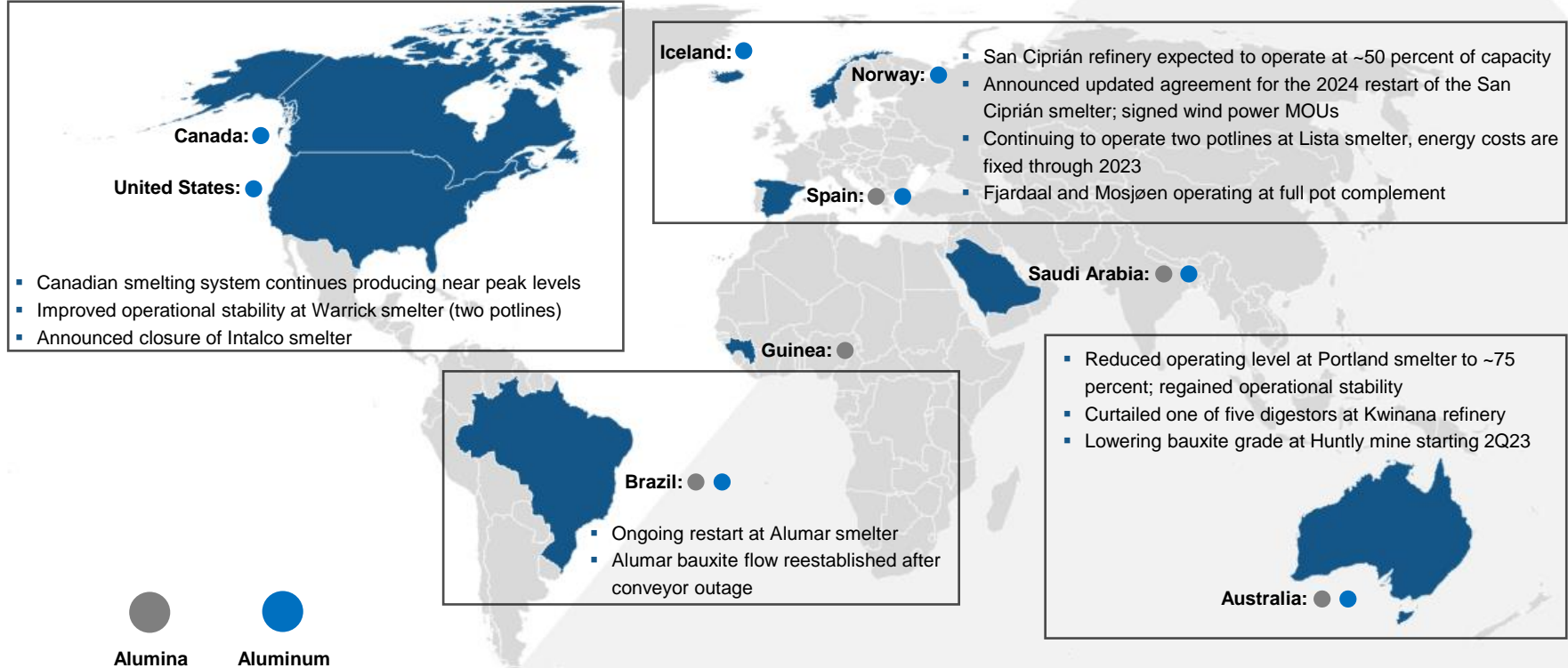
- Noteworthy announced global aluminum supply changes in 1Q23 (kmtpa):
  - RoW: restart at Dunkirk (~60); curtailments at Neuss and Talum (~80)
  - China: restart at Sichuan (~300); curtailments at Yunnan and Guizhou (~1,000)
- Automotive production recovering supportive of flat rolled products, while building and construction remains challenging
- Foundry, slab, and rod markets remain strong; billet demand soft in Europe and North America
- In February of 2023, the U.S. placed a 200 percent tariff on Russian aluminum imports including products made with Russian aluminum; potentially impacting downstream producers

## Commercial developments

- Alcoa customers have signed new annual contracts as self sanctioning of Russian material occurs; further scrutiny around metal supply due to new U.S. tariff
- Continued interest in EcoLum™ product offerings, notably in Europe, resulting in year over year EcoLum sales growth
- Announced expansion of EcoSource low carbon alumina brand to include grades of non-metallurgical alumina

# Adjusting portfolio operating levels and addressing challenges

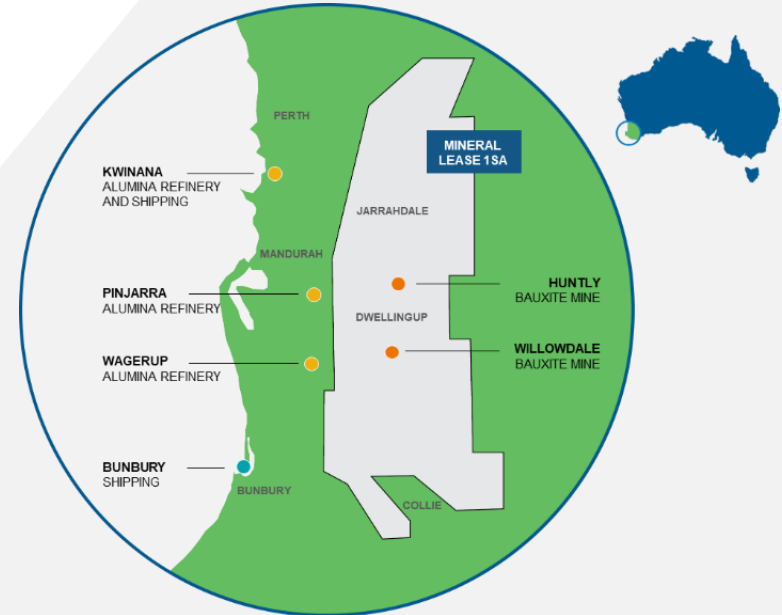
## Alcoa global operations overview



# Extended approval process affecting Western Australia mines

## Overview of WA mine plan approval process, impacts, and actions

- Background:
  - Huntly bauxite mine feeds Pinjarra and Kwinana alumina refineries; Willowdale mine feeds Wagerup alumina refinery
  - Current bespoke, annual mine plan approval process is conducted on five-year rolling basis
- Challenges:
  - Annual approval process is taking longer than in previous years due to increased expectations
  - Future and existing mine plans have been referred by a third party to the State Environmental Protection Authority (EPA); EPA is considering whether the referrals are valid and should be assessed
- Actions and impacts:
  - Continuing to mine in areas already permitted under existing approvals; impacts from lower bauxite quality expected into 2024
  - Keeping one of five digesters curtailed at Kwinana
  - Working through the regulatory process with the appropriate entities; providing additional information and enhancing environmental controls



# Improving financials and operations, positive fundamentals

1Q23 Summary

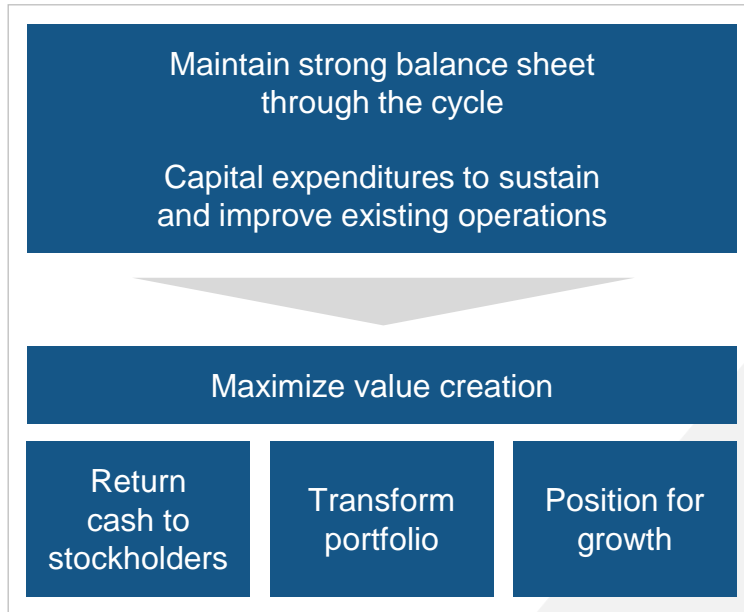


- **Improved financial results:** Increased Adjusted EBITDA from \$29 million to \$240 million; balance sheet remains strong with \$1.1 billion cash and \$1.4 billion proportional adjusted net debt
- **Focused on operations:** Addressing challenges at locations with curtailed capacity while maintaining performance levels at fully operational sites
- **Balanced market and positive aluminum fundamentals:** Aluminum and alumina markets remain balanced and long term growth and decarbonization factors remain formative, expected to continue developing in 2023

# 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

- 1Q23 dividend payments totaled \$18 million

### Transform portfolio

- Continuing restart of Alumar smelter production based on renewable energy
- Renegotiated improved restart plan for San Ciprián smelter
- Announced closure of Intalco smelter in 1Q23

### Position for value creating growth; key timeframe 2024 - 2025

- Implement breakthrough technologies, when proven, 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 1Q22, 4Q22 and 1Q23

<i>Millions, except realized prices and per share amounts</i>	1Q22	4Q22	1Q23	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$3,861	\$2,889	<b>\$3,079</b>	\$(782)	\$190
Realized alumina price (\$/mt)	\$375	\$342	<b>\$371</b>	\$(4)	\$29
Revenue	\$3,293	\$2,663	<b>\$2,670</b>	\$(623)	\$7
Cost of goods sold	2,181	2,596	<b>2,404</b>	223	(192)
SG&A and R&D expenses	53	73	<b>64</b>	11	(9)
Depreciation, depletion and amortization	160	147	<b>153</b>	(7)	6
Other (income) expense, net	(14)	67	<b>54</b>	68	(13)
Interest expense	25	26	<b>26</b>	1	0
Restructuring and other charges, net	125	(6)	<b>149</b>	24	155
Total costs and expenses	2,530	2,903	<b>2,850</b>	320	(53)
Income (loss) before income taxes	763	(240)	<b>(180)</b>	(943)	60
Provision for income taxes	210	180	<b>52</b>	(158)	(128)
Net income (loss)	553	(420)	<b>(232)</b>	(785)	188
Less: Net income (loss) attributable to noncontrolling interest	84	(25)	<b>(1)</b>	(85)	24
Net income (loss) attributable to Alcoa Corporation	\$469	\$(395)	<b>\$(231)</b>	\$(700)	\$164
Earnings (loss) per share	\$2.49	\$(2.24)	<b>\$(1.30)</b>	\$(3.79)	\$0.94
Average shares <sup>1</sup>	188.5	177.0	<b>178.0</b>	(10.5)	1.0

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>	1Q22	4Q22	1Q23	Description of significant <u>1Q23</u> special items
Net income (loss) attributable to Alcoa Corporation	\$469	\$(395)	<b>\$(231)</b>	
Earnings (loss) per share <sup>1</sup>	\$2.49	\$(2.24)	<b>\$(1.30)</b>	
Special items	\$108	\$251	<b>\$190</b>	
<i>Cost of goods sold</i>	12	35	<b>38</b>	<i>Alumar smelter restart \$19, Intalco smelter closure \$16</i>
<i>SG&amp;A and R&amp;D expenses</i>	1	-	-	
<i>Restructuring and other charges, net</i>	125	(6)	<b>149</b>	<i>Intalco smelter closure \$101, San Ciprián smelter restart plan \$47</i>
<i>Interest</i>	-	-	-	
<i>Other (income) expense, net</i>	(15)	29	<b>(13)</b>	<i>Mark to market energy contracts \$(26), net loss on asset sales \$13</i>
<i>Provision for income taxes</i>	(6)	196	<b>8</b>	<i>Tax on special items</i>
<i>Noncontrolling interest</i>	(9)	(3)	<b>8</b>	<i>Partner's share of special items</i>
Adjusted net income (loss) attributable to Alcoa Corporation	\$577	\$(144)	<b>\$(41)</b>	
Adjusted earnings (loss) per share <sup>1</sup>	\$3.06	\$(0.82)	<b>\$(0.23)</b>	

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 1Q22, 4Q22 and 1Q23

<i>Millions, except realized prices and per share amounts</i>	1Q22	4Q22	1Q23	Prior Year Change	Sequential Change
Realized primary aluminum price (\$/mt)	\$3,861	\$2,889	<b>\$3,079</b>	\$(782)	\$190
Realized alumina price (\$/mt)	\$375	\$342	<b>\$371</b>	\$(4)	\$29
Revenue	\$3,293	\$2,663	<b>\$2,670</b>	\$(623)	\$7
Cost of goods sold	2,169	2,561	<b>2,366</b>	197	(195)
COGS % of Revenue	65.9%	96.2%	<b>88.6%</b>	22.7% pts.	(7.6)% pts.
SG&A and R&D expenses	52	73	<b>64</b>	12	(9)
SG&A and R&D % of Revenue	1.6%	2.7%	<b>2.4%</b>	0.8% pts.	(0.3)% pts.
Adjusted EBITDA	1,072	29	<b>240</b>	(832)	211
Depreciation, depletion and amortization	160	147	<b>153</b>	(7)	6
Other expenses, net	1	38	<b>67</b>	66	29
Interest expense	25	26	<b>26</b>	1	0
Provision for income taxes	216	(16)	<b>44</b>	(172)	60
Operational tax rate	24.4%	8.4%	<b>(731.3)%</b>	(755.7)% pts.	(739.7)% pts.
Adjusted net income (loss)	670	(166)	<b>(50)</b>	(720)	116
Less: Adjusted net income (loss) attributable to noncontrolling interest	93	(22)	<b>(9)</b>	(102)	13
Adjusted net income (loss) attributable to Alcoa Corporation	\$577	\$(144)	<b>\$(41)</b>	\$(618)	\$103
Adjusted earnings (loss) per share	\$3.06	\$(0.82)	<b>\$(0.23)</b>	\$(3.29)	\$0.59
Average shares <sup>1</sup>	188.5	177.0	<b>178.0</b>	(10.5)	1.0

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

# 1Q23 Financial summary

Three months ending March 31, 2023, excluding special items

Millions	Alumina <sup>3</sup>	Aluminum <sup>4</sup>	Transformation	Intersegment eliminations	Other corporate	Alcoa Corporation
Total revenue	\$1,278	\$1,813	\$2	\$(427)	\$4	\$2,670
Third-party revenue	\$857	\$1,810	\$2	-	\$1	\$2,670
Adjusted EBITDA <sup>1</sup>	\$103	\$184	\$(8)	\$(8)	\$(31)	\$240
<i>Adjusted EBITDA margin %</i>	<i>8.1%</i>	<i>10.1%</i>				<i>9.0%</i>
Depreciation, depletion and amortization	\$77	\$70	-	-	\$6	\$153
Other expenses (income), net <sup>2</sup>	\$17	\$57	-	-	\$(7)	\$67
Interest expense						\$26
Provision for income taxes						\$44
Adjusted net loss						\$(50)
Net loss attributable to noncontrolling interest						\$(9)
Adjusted net loss attributable to Alcoa Corporation						\$(41)

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. Beginning in 1Q23, the Alumina segment includes the former Alumina and Bauxite segments

4. Third-party energy sales volume, revenue and adjusted EBITDA in Brazil were 518GWh, \$8 million and \$(4) million, respectively

# 1Q23 Adjusted EBITDA drivers by segment

Adjusted EBITDA excluding special items sequential changes by segment, \$M

Segment	Adjusted EBITDA 4Q22	Currency	Metal prices	API	Raw materials	Energy	Price/mix	Volume	Production costs	Other	Adjusted EBITDA 1Q23
Alumina	\$50	(16)	0	56	(8)	6	9	9	(20)	17	\$103
Aluminum	\$31	(18)	105	6	8	60	11	(8)	(10)	(1)	\$184
<b>Segment Total</b>	<b>\$81</b>	<b>(34)</b>	<b>105</b>	<b>62</b>	<b>0</b>	<b>66</b>	<b>20</b>	<b>1</b>	<b>(30)</b>	<b>16</b>	<b>\$287</b>

# Recast of former Bauxite and Alumina Segments Adj. EBITDA

2022 Quarterly Adjusted EBITDA excluding special items recast to new Alumina Segment, \$M

<i>Millions</i>	1Q22	2Q22	3Q22	4Q22	FY22
Former Bauxite Segment	\$38	\$5	\$15	\$24	\$82
Former Alumina Segment	262	343	69	27	701
Intersegment eliminations	2	10	(6)	(1)	5
<b>Alumina Segment Adj. EBITDA excl. special items</b>	<b>\$302</b>	<b>\$358</b>	<b>\$78</b>	<b>\$50</b>	<b>\$788</b>

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.

# Aluminum value chain

1Q23 Alcoa shipments by product type



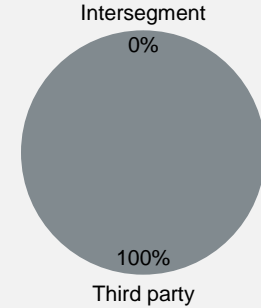
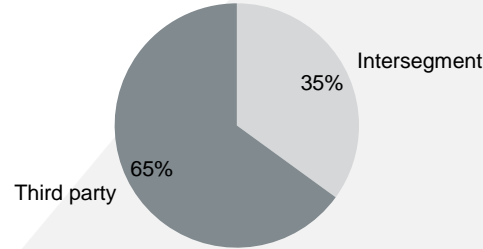
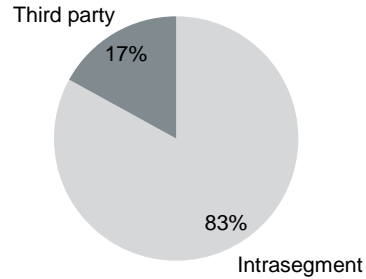
10.9 Mmt shipments



3.0 Mmt shipments



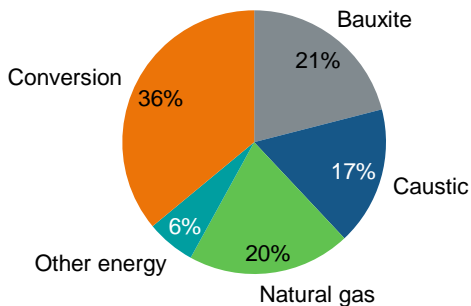
0.6 Mmt shipments



# Composition of alumina and aluminum production costs

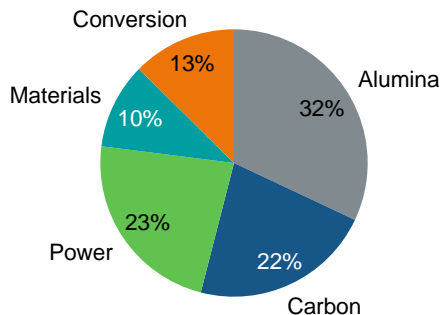
Alcoa 1Q23 production cash costs

## 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 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 0.68 <sup>1</sup>	BRL + 0.10 5.20 <sup>1</sup>	CAD + 0.01 1.35 <sup>1</sup>	EUR + 0.01 1.07 <sup>1</sup>	ISK + 10 142.14 <sup>1</sup>	NOK + 0.10 10.22 <sup>1</sup>
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"> <li>~95% of third-party smelter grade alumina priced on API/spot</li> <li>API based on prior month average of spot prices</li> <li>Negotiated bauxite prices</li> </ul>
Aluminum	<ul style="list-style-type: none"> <li>LME + regional premium + product premium</li> <li>Primary aluminum 15-day lag</li> <li>Brazilian hydroelectric sales at market prices</li> </ul>

## Regional premium breakdown

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



# Currency impacts on Adjusted EBITDA

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

	AUD	BRL	CAD	EUR	ISK	NOK	Total
<b>3/31/23 currencies</b>	0.67	5.13	1.36	1.09	136.16	10.42	
<b>1Q23 currency avg.</b>	0.68	5.20	1.35	1.07	142.14	10.22	
<b>1Q23 Balance sheet revaluation impact</b>							
Alumina	4.3	0.1		(0.7)			3.7
Aluminum	2.2	0.5	2.0	(2.7)	(5.4)	(5.6)	(9.0)
<b>Subtotal</b>	<b>6.5</b>	<b>0.6</b>	<b>2.0</b>	<b>(3.4)</b>	<b>(5.4)</b>	<b>(5.6)</b>	<b>(5.3)</b>
<b>1Q23 Currency sensitivity impact</b>							
Alumina	(14.2)	(3.1)		(2.5)			(19.8)
Aluminum	(1.2)	(0.6)	(0.5)	(0.9)	(0.8)	(5.3)	(9.3)
<b>Subtotal</b>	<b>(15.4)</b>	<b>(3.7)</b>	<b>(0.5)</b>	<b>(3.4)</b>	<b>(0.8)</b>	<b>(5.3)</b>	<b>(29.1)</b>
<b>1Q23 Total EBITDA currency impact</b>							
Alumina	(9.9)	(3.0)		(3.2)			(16.1)
Aluminum	1.0	(0.1)	1.5	(3.6)	(6.2)	(10.9)	(18.3)
<b>Total</b>	<b>(8.9)</b>	<b>(3.1)</b>	<b>1.5</b>	<b>(6.8)</b>	<b>(6.2)</b>	<b>(10.9)</b>	<b>(34.4)</b>

# Additional business considerations

## Items expected to impact Adjusted EBITDA and Adjusted net income for 2Q23

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

- In the Alumina segment, we expect an approximately \$55 million unfavorable impact from lower bauxite grades in Australia. In addition, we expect an unfavorable net impact of \$10 million as seasonal maintenance and impacts associated with the Alumar conveyor system recovery are partially offset by improvements in raw materials and energy.
- In the Aluminum segment, we expect a net improvement of \$30 million on favorable raw materials, volume and lower production costs, partially offset by changes in value add premiums. In addition, we expect \$5 million to \$10 million in unfavorable impacts associated with the Portland partial curtailment. Finally, we expect alumina costs in the Aluminum segment to be unfavorable by \$15 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.
- Computed using quarter end exchange rates, 1Q23 Adjusted EBITDA included a favorable balance sheet revaluation impact of \$9 million (\$5 million unfavorable sequentially compared to 4Q22); impacts related to balance sheet revaluation are not incorporated into the currency sensitivities provided for Adjusted EBITDA.

Below Adjusted EBITDA:

- Other expense is expected to be ~\$30 million favorable primarily due to the absence of a one-time charge.
- Based on recent pricing, the Company expects 2Q23 operational tax expense to approximate \$30 million to \$40 million.

# Investments summary

## Investments listing and income statement location

Investee	Country	Nature of investment <sup>4</sup>	Ownership interest	Carrying value as of March 31, 2023	Income statement location of equity earnings
ELYSIS Limited Partnership	Canada	Aluminum smelting technology	48.235%		
Ma'aden Aluminium Company <sup>1</sup>	Saudi Arabia	Aluminum smelter	25.1%		
Ma'aden Bauxite and Alumina Company <sup>1</sup>	Saudi Arabia	Bauxite mine and Alumina refinery	25.1% <sup>5</sup>		
<b>Subtotal Ma'aden and ELYSIS</b>				<b>\$620M</b>	<b>Other expenses (income), net</b>
Consortio Serra do Facão	Brazil	Hydroelectric generation facility	34.97%		
Energetica Barra Grande S.A.	Brazil	Hydroelectric generation facility	42.18%		
Halco Mining, Inc. <sup>2</sup>	Guinea	Bauxite mine	45.0% <sup>5</sup>		
Manicouagan Power Limited Partnership	Canada	Hydroelectric generation facility	40.0%		
Pechiney Reynolds Quebec, Inc. <sup>3</sup>	Canada	Aluminum smelter	50.0%		
<b>Subtotal other</b>				<b>\$431M</b>	<b>Cost of goods sold</b>
<b>Total investments</b>				<b>\$1,051M</b>	

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	2021 Progress
<b>Safety</b>	Zero fatalities and serious injuries (life-threatening, life-altering injury or illness)	5 fatal or serious injuries/illnesses	0 fatal or serious injury/illness
<b>Diversity and inclusion</b>	Attain an inclusive 'everyone culture' that reflects the diversity of the communities in which we operate	N/A	17.2% global women
<b>Mine rehabilitation</b>	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
<b>Bauxite residue</b>	From a 2015 baseline, reduce bauxite residue land requirements per metric ton of alumina produced by 15% by 2030	53.2 m2/kmt Ala	14.8% reduction
<b>Waste</b>	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	36.0% reduction
<b>Water</b>	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	3.37 m3/mt	0.8% reduction
<b>Greenhouse gas emissions</b>	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 <sub>2</sub> e/mt	23.9% reduction
<b>Sustainable value chain</b>	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 March 31, 2023

## Alumina refining, kmt

Facility	Country	Capacity	Curtailed
Kwinana <sup>1</sup>	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
<b>Total</b>		<b>13,843</b>	<b>1,452</b>
Ras Al Khair <sup>2</sup>	Saudi Arabia	452	-

## 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 <sup>2</sup>	Saudi Arabia	1.3
<b>Total</b>		<b>42.1</b>

## Aluminum smelting, kmt

Facility	Country	Capacity	Curtailed
Portland <sup>3</sup>	Australia	197	49
São Luís (Alumar) <sup>4</sup>	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 <sup>5</sup>	Spain	228	228
Massena West	U.S.	130	-
Warrick	U.S.	269	162
<b>Total<sup>6</sup></b>		<b>2,689</b>	<b>588</b>
Ras Al Khair <sup>2</sup>	Saudi Arabia	202	-

1. On January 9, 2023, the Company announced the idling of one of five digestors at the Kwinana refinery.

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

3. On March 15, 2023, the Company announced the curtailment of the Portland smelter in Australia to 75% of its current capacity.

4. 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.

5. 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.

6. On March 16, 2023, the Company announced the closure of 279,000 metric tons of aluminum smelting capacity at the Intalco Works aluminum smelter located in the state of Washington.

# Valuation framework

## Valuation framework key considerations

			LTM ending 3/31/23 Adj. EBITDA excl. special items
Business Operations	+	Alumina <sup>1</sup> 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	\$589M
	+	Aluminum Economic value using market multiple of: i. Smelters, casthouses, and energy assets ii. Smelters and casthouses restart optionality	\$963M
	-	Non-segment expenses (income) Economic value using market multiple of: i. Net corporate expenses and Transformation	\$160M
	=	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 <sup>2</sup> 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 <sup>2</sup> Cash position of \$1.0B (\$1.1B, ~90% Alcoa) plus carrying value of investments in the Ma'aden joint venture and ELYSIS of \$0.6B (\$0.6B, ~95% Alcoa)	
	=	Equity value	

1. Alumina segment includes the former Alumina and Bauxite segments

2. Dollar amounts reflect Alcoa Corporation's consolidated balance sheet values as of March 31, 2023. The "Alcoa" percentages exclude amounts attributable to Alcoa Corporation's partner in the AWAC JV.

## Adjusted EBITDA reconciliation

<i>Millions</i>	1Q22	2Q22	3Q22	4Q22	FY22	1Q23
<b>Net income (loss) attributable to Alcoa</b>	<b>\$469</b>	<b>\$549</b>	<b>\$(746)</b>	<b>\$(395)</b>	<b>\$(123)</b>	<b>\$(231)</b>
Add:						
Net income (loss) attributable to noncontrolling interest	84	125	(23)	(25)	161	(1)
Provision for income taxes	210	234	40	180	664	52
Other (income) expense, net	(14)	(206)	35	67	(118)	54
Interest expense	25	30	25	26	106	26
Restructuring and other charges, net	125	(75)	652	(6)	696	149
Depreciation, depletion and amortization	160	161	149	147	617	153
<b>Adjusted EBITDA</b>	<b>1,059</b>	<b>818</b>	<b>132</b>	<b>(6)</b>	<b>2,003</b>	<b>202</b>
Special items before tax and noncontrolling interest	13	95	78	35	221	38
<b>Adjusted EBITDA excl. special items</b>	<b>\$1,072</b>	<b>\$913</b>	<b>\$210</b>	<b>\$29</b>	<b>\$2,224</b>	<b>\$240</b>

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>	1Q22	2Q22	3Q22	4Q22	FY22	1Q23
Cash provided from operations	\$34	\$536	\$134	\$118	\$822	\$(163)
Capital expenditures	(74)	(107)	(128)	(171)	(480)	(83)
<b>Free cash flow</b>	<b>(40)</b>	<b>429</b>	<b>6</b>	<b>(53)</b>	<b>342</b>	<b>(246)</b>
Contributions from noncontrolling interest	46	37	67	64	214	86
Distributions to noncontrolling interest	(162)	(83)	(74)	(60)	(379)	(6)
<b>Free cash flow less net noncontrolling interest distributions</b>	<b>\$(156)</b>	<b>\$383</b>	<b>\$(1)</b>	<b>\$(49)</b>	<b>\$177</b>	<b>\$(166)</b>

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 reconciliation

Millions	FY18			FY19			FY20			FY21			FY22			1Q23 YTD		
	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.	Cons.	NCI	Alcoa Prop.
Short-term borrowings	\$-	\$-	\$-	\$-	\$-	\$-	\$77	\$31	\$46	\$75	\$30	\$45	\$-	\$-	\$-	\$25	\$-	\$25
Long-term debt due within one year	1	-	1	1	-	1	2	-	2	1	-	1	1	-	1	1	-	1
Long-term debt, less amount due within one year	1,801	34	1,767	1,799	31	1,768	2,463	-	2,463	1,726	-	1,726	1,806	32	1,774	1,806	32	1,774
Total debt	1,802	34	1,768	1,800	31	1,769	2,542	31	2,511	1,802	30	1,772	1,807	32	1,775	1,832	32	1,800
Less: Cash and cash equivalents	1,113	296	817	879	167	712	1,607	176	1,431	1,814	177	1,637	1,363	94	1,269	1,138	120	1,018
<b>Net debt (net cash)</b>	<b>689</b>	<b>(262)</b>	<b>951</b>	<b>921</b>	<b>(136)</b>	<b>1,057</b>	<b>935</b>	<b>(145)</b>	<b>1,080</b>	<b>(12)</b>	<b>(147)</b>	<b>135</b>	<b>444</b>	<b>(62)</b>	<b>506</b>	<b>694</b>	<b>(88)</b>	<b>782</b>
Plus: Net pension	1,354	5	1,349	1,482	18	1,464	1,503	28	1,475	263	(7)	270	78	(7)	85	65	(7)	72
Plus: OPEB Liability	973	23	950	848	22	826	892 <sup>1</sup>	24	868 <sup>1</sup>	710	22	688	536	16	520	528	16	512
<b>Adjusted net debt</b>	<b>\$3,016</b>	<b>(\$234)</b>	<b>\$3,250</b>	<b>\$3,251</b>	<b>(\$96)</b>	<b>\$3,347</b>	<b>\$3,330</b>	<b>(\$93)</b>	<b>\$3,423</b>	<b>\$961</b>	<b>\$(132)</b>	<b>\$1,093</b>	<b>\$1,058</b>	<b>\$(53)</b>	<b>\$1,111</b>	<b>\$1,287</b>	<b>\$(79)</b>	<b>\$1,366</b>

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 tried up in 2021. Recorded in Liabilities held for sale.

# Days working capital reconciliation

<i>Millions</i>	<b>1Q22</b>	<b>2Q22</b>	<b>3Q22</b>	<b>4Q22</b>	<b>1Q23</b>
Receivables from customers	\$952	\$898	\$749	\$778	\$753
Add: Inventories	2,495	2,556	2,400	2,427	2,395
Less: Accounts payable, trade	1,645	1,752	1,590	1,757	1,489
DWC working capital	\$1,802	\$1,702	\$1,559	\$1,448	\$1,659
Sales	\$3,293	\$3,644	\$2,851	\$2,663	\$2,670
Number of days in the quarter	90	91	92	92	90
<b>Days working capital<sup>1</sup></b>	<b>49</b>	<b>43</b>	<b>50</b>	<b>50</b>	<b>56</b>

Days working capital is a non-GAAP financial measure. Management believes that this measure is meaningful to investors because management uses its working capital position to assess Alcoa Corporation's efficiency in liquidity management.

1. Days working capital = DWC working capital divided by (Sales / number of days in the quarter).

# Annualized Return on Equity (ROE)

ROE Reconciliation and calculation information as of March 31, 2023

<i>Millions</i>	1Q22	1Q23
<i>Numerator:</i>		
Net income (loss) attributable to Alcoa Corporation	\$469	\$(231)
Add: Special items <sup>1</sup>	108	190
<b>ROE Adjusted Net income YTD</b>	<b>\$577</b>	<b>\$(41)</b>
<b>ROE Adjusted Net income multiplied by four</b>	<b>\$2,308</b>	<b>\$(164)</b>
<i>Denominator<sup>2</sup>:</i>		
Total assets	\$15,988	\$14,369
Less: Total Liabilities	9,731	8,073
Less: Noncontrolling Interest	1,678	1,606
<b>Shareholders' Equity</b>	<b>\$4,579</b>	<b>\$4,690</b>
<b>ROE</b>	<b>50.4%</b>	<b>(3.5)%</b>

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

$$\begin{aligned} \text{1Q22 YTD ROE \%} &= \frac{(\$469 + \$108) \times 4}{(\$15,988 - \$9,731 - \$1,678)} \times 100 = 50.4\% \end{aligned}$$

$$\begin{aligned} \text{1Q23 YTD ROE \%} &= \frac{(\$ (231) + \$190) \times 4}{(\$14,369 - \$8,073 - \$1,606)} \times 100 = (3.5)\% \end{aligned}$$

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 <sub>2</sub> 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

