

Paris, February 20, 2024

## Building on a solid performance and a record investment dynamic in 2023, Air Liquide accelerates and doubles the margin ambition of its ADVANCE strategic plan

Key Figures (in millions of euros)	FY 2023	2023/2022 as published	2023/2022 comparable <sup>(a)</sup>
<b>Group Revenue</b>	<b>27,608</b>	<b>-7.8%</b>	<b>+3.7%</b>
of which Gas & Services	26,360	-7.7%	+4.2%
<b>Operating Income Recurring (OIR)</b>	<b>5,068</b>	<b>+4.2%</b>	<b>+11.4%</b>
Group OIR Margin	18.4%	+220 bps	
Variation excluding energy <sup>(b)</sup>		<b>+80 bps</b>	
Gas & Services OIR Margin	20.0%	+230 bps	
Variation excluding energy <sup>(b)</sup>		<b>+70 bps</b>	
Net Profit (Group Share)	3,078	+11.6%	
Net Profit Recurring (Group Share) <sup>(c)</sup>	3,320	+5.0%	
<b>Earnings per Share (in euros)</b>	<b>5.90</b>	<b>+11.7%</b>	
<b>2023 proposed Dividend per Share (in euros)</b>	<b>3.20</b>	<b>+8.5%</b>	
Cash flow from operating activities before changes in working capital	6,357	+1.6%	
Net Debt	€9.2 bn		
Return on Capital Employed after tax - ROCE	9.8%	+70 bps	
<b>Recurring ROCE<sup>(d)</sup></b>	<b>10.6%</b>	<b>+30 bps</b>	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in the appendices. (b) See reconciliation in the appendices. (c) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in the appendices. (d) Based on the recurring net profit, see reconciliation in appendix.

Commenting on 2023 results, **François Jackow, Chief Executive Officer of the Air Liquide Group**, stated:

*"In 2023, Air Liquide achieved a solid performance, highlighting the resilience and quality of our business model as well as the mobilization and agility of our teams in a complex and changing macroeconomic and geopolitical environment. The Group's performance was characterized by an increase in sales on a comparable basis, a further improvement in its operating margin excluding the energy impact and an accelerating investment momentum, particularly in decarbonization projects.*

*In particular, I am proud to highlight that we have practically reached, in two years, the margin ambition targeted for 2025 as part of our ADVANCE strategic plan. As a consequence, we announce today that we are doubling our initial ambition.*

*We also confirm our other ADVANCE financial objectives, sales growth on a comparable basis and Return on Capital Employed, as well as our investment decision ambition. In addition, on the extra-financial level, our many decarbonization initiatives give us confidence in our objective to combine growth in our business with a reduction in our CO<sub>2</sub> emissions in absolute value from 2025.*

**Revenue reached 27.61 billion euros, an increase of +3.7% on a comparable basis in 2023.** On a published basis, it stood at -7.8%, due to the drop in energy prices - for which variations are contractually passed through to Large Industries customers - as well as negative currency impacts. The **Gas & Services** business, which represented 95% of

the Group's revenue, was up +4.2% on a comparable basis. Within this activity, **all regions saw growth**, in particular the **Americas** and **Europe**, driven notably by **Industrial Merchant** and **Healthcare**.

In line with its **ADVANCE** strategic plan, Air Liquide continued to improve its operational performance. The Group generated record efficiencies of **466 million euros, up +23%** despite an inflationary context unfavorable to savings on procurement, and continued the dynamic management of its business portfolio. Its ability to provide its customers with value-added offerings allows it to adjust its prices in Industrial Merchant. As a result, the **operating margin** increased further, by **+80 basis points** in 2023 excluding the energy impact, and therefore by **+150 basis points** over 2022-2023. Having practically reached our margin target halfway through ADVANCE which was at +160 basis points, **we now aim for a +320 basis points increase, twice our initial ambition, over the duration of the plan.**

Net profit (Group share) amounted to 3.08 billion euros, up +11.6% as published. **Net profit recurring<sup>(1)</sup>** increased by **+13.3% excluding the currency impact**. Cash flow<sup>(2)</sup> grew by +12.8% excluding the currency impact. The balance sheet is strong with a net debt to equity ratio of 36.8%. At 10.6% at end-December, recurring ROCE<sup>(3)</sup> remained well above 10%, in line with the objectives of ADVANCE, despite the increase in our investments. Reflecting our confidence in the future, the dividend that will be submitted to the shareholders' vote in April amounts to **3.20 euros per share**, i.e. an increase of **+8.5%**. In addition, a **free share attribution** is scheduled for June 2024, on the basis of one share for every 10 shares held.

The **investment dynamic** of the Group is accelerating, supported in particular by our projects in the energy transition and electronics. The backlog is historically high at 4.4 billion euros. **Investment decisions reached a record level of 4.3 billion euros** in 2023.

**In 2024, Air Liquide is confident in its ability to further increase its operating margin and to deliver growth in Net profit recurring, at constant exchange rates<sup>(4)</sup>.**

## Highlights

### ■ Corporate

- **Air Liquide, Official Supporter in hydrogen of the Paris 2024 Olympic and Paralympic Games** to contribute to reducing the event's carbon emissions. The Group will supply hydrogen from renewable sources to power some of the vehicles in the official fleet of Paris 2024 and will contribute to the acceleration of the development of long-lasting infrastructures for hydrogen mobility (taxi fleets, refueling stations).
- Early bond redemption, **for a total of 382 million US dollars**, at the end of a Tender Offer process for two series of US dollar bonds maturing in 2026 for the first and 2046 for the second.

### ■ Asset portfolio management

- **Divestiture of Air Liquide's 19% stake in Hydrogenics Corporation** to Cummins, which owns the remaining 81% of the company.
- Signing of an agreement with Safran Aerosystems for the sale of Air Liquide's oxygen and nitrogen aeronautical technology businesses, excluding marine-related cryogenic businesses.
- **Realization of the Trinidad and Tobago business divestiture** to Massy Gas Products Holding Ltd.

### ■ Healthcare

- Business transformation project for **Home Healthcare in France** to align it with the needs and expectations of patients and healthcare professionals and adapt its business model to meet the challenges of the country's health system.

### ■ Electronics

- **Announcement of an investment of close to 200 million US dollars** in two new advanced material production centers in Taiwan and South Korea.

<sup>1</sup> Net profit recurring excluding exceptional and significant transactions that have no impact on the operating income recurring.

<sup>2</sup> Operating cash flow after change in working capital requirement.

<sup>3</sup> Based on Net profit recurring.

<sup>4</sup> Operating margin excluding energy passthrough impact. Net profit recurring excluding exceptional and significant transactions that have no impact on the operating income recurring.

## ■ Sustainable development

- Announcement by **Air Liquide and Sasol** of new long-term contracts (PPA) for **supplying renewable energy** to the Sasol site in Secunda, South Africa. In 2022 and 2023, the two groups announced 580 MW in capacity.
- Signature by Air Liquide of its **first long-term renewable electricity supply contract (PPA) in China**, which gives the Group access to an installed capacity of 200 MW.
- Signature with the energy company Vattenfall **of a long-term renewable electricity purchase agreement (PPA) in the Benelux for an installed offshore wind capacity of approximately 115 MW**.
- Inclusion in the **Dow Jones Sustainability Europe Index**, an index established by S&P Global that assesses the progress of companies in terms of sustainable development.

## ■ Hydrogen

- Announcement of an **investment of more than 400 million euros** for the **construction of the Air Liquide Normand'Hy electrolyzer**. In the framework of the Important Project of Common European Interest (IPCEI) approved by the European Commission, **the project received the support of the French State for an amount of 190 million euros**, as part of the "Plan de Relance".
- **Inauguration of the Air Liquide and Siemens Energy electrolyzer gigafactory**, which paves the way for the production of renewable hydrogen on an industrial scale at a competitive cost. This plant will count the Air Liquide Normand'Hy project among its first customers.
- Air Liquide is a member of a **record number of six of the seven** renewable and low-carbon **Hydrogen Hubs** selected in October for financial support by the **U.S.** government.
- **Creation with Groupe ADP of "Hydrogen Airport"**, the first engineering and consulting joint venture specialized in accompanying airports in their projects to integrate hydrogen in their infrastructure.
- Launch of **TEAL Mobility, a 50/50 joint venture with TotalEnergies**, to develop **a network of more than 100 hydrogen distribution stations for trucks** on major European highways.
- Signature with the Japanese energy giant **ENEOS Corporation** of a Memorandum of Understanding (MoU) to **accelerate the development of low-carbon hydrogen and the energy transition in Japan**.
- Selection of **Air Liquide's autothermal reforming (ATR) technology** for a project owned and operated by INPEX CORPORATION, for the **large-scale production of hydrogen and low-carbon ammonia, a first in Japan**.
- Development with KBR of a low-carbon ammonia and hydrogen production solutions offering based on **Air Liquide's Autothermal Reforming (ATR) technology**. In addition, a **project for an innovative industrial-scale ammonia cracking pilot plant** in the port of Antwerp, **Belgium**.

## ■ Decarbonizing industry

- Announcement of the **construction of a large-scale Cryocap™ CO<sub>2</sub> capture unit**, which will be installed at the Air Liquide hydrogen production plant located in the port of Rotterdam. This unit will be connected to **Porthos, one of the largest carbon capture and storage infrastructures in Europe** which aims at reducing emissions from this major industrial area.
- **Investment of 140 million euros** to build and operate an Air Separation Unit (ASU) in Quebec, Canada, to support the growth of the electric vehicle battery sector. **This ASU will be powered by renewable electricity**.
- **Investment of around 60 million euros** to transform two Air Separation Units (ASU) operated by Air Liquide in the Tianjin industrial area, **China**, as part of the **renewal of a long-term contract** with YLC, a subsidiary of the Bohua group. **The electrification of these two ASUs will enable CO<sub>2</sub> emissions to be reduced by 370,000 metric tonnes each year**.
- Signature with Holcim of a memorandum of understanding concerning a **decarbonization project for the new Holcim cement plant** under development in Belgium. Using Air Liquide's innovative and proprietary Cryocap™ technology, this project would enable Holcim to reduce this cement plant's CO<sub>2</sub> emissions by 1.1 million metric tonnes per year.
- **Decarbonization and reduction of energy consumption**: implementation of an **innovative** solution to support the conversion of the **Verallia plant in Pescia, Italy** to **optimized oxycombustion** on the occasion of the construction of a new glass furnace on the site.
- **Record number of signatures for 62 new small gas production units** directly installed on customers' sites in the industrial merchant and electronics sectors in 2023.

Financial performance

**Group** revenue for 2023 totaled **27,608 million euros**, posting **comparable growth of +3.7%** over 2022. The Group's **revenue as published** was down **-7.8%**, impacted by unfavorable energy (-7.6%) and currency (-4.2%) impacts, the significant perimeter impact being slightly positive at +0.3%.

**Gas & Services** revenue totaled **26,360 million euros** in 2023, an increase on a comparable basis of **+4.2%**. **Revenue as published** in the Gas & Services business was down **-7.7%**, penalized by negative energy (-8.0%) and currency (-4.2%) impacts, while the significant scope effect was slightly positive at +0.3%.

The two growth<sup>(5)</sup> drivers for 2023 were the **Industrial Merchant** business, with sales up **+8.5%**, benefiting from a **price impact** that remained high (**+8.4%**) and resilient volumes, and the **Healthcare** business (**+8.4%**), bolstered by the dynamic development of Home Healthcare and the increase in the prices of medical gases in an inflationary environment. Revenue from **Large Industries** was down **-1.8%** over the year, demand stabilized at a relatively low level. Sales in **Electronics** increased by **+2.4%** in 2023, following growth of +16% in 2022, the sharp drop in demand from memory manufacturers having impacted sales from the 2<sup>nd</sup> quarter.

- Gas & Services revenue in the **Americas** totaled **10,169 million euros** in 2023, up by **+5.1%**. Large Industries sales (-2.2%) were impacted by customer turnarounds and relatively low demand. The Industrial Merchant business posted strong growth of +6.7%, boosted by a high price impact (+6.3%) and slightly positive volumes. In Healthcare, the rise in prices in proximity care in the United States and the dynamism of the business in South America contributed to the strong increase in sales (+14.2%). Electronics revenue was down by -2.8% in a context of slowing demand from memory manufacturers impacting sales of materials.
- Gas & Services revenue in **Europe** was up **+4.2%** in 2023 and totaled **9,734 million euros**. Large Industries sales were slightly down (-0.9%) in a context of weak demand from customers in the Chemicals and Steel industries. Revenue from the Industrial Merchant business rose sharply, by +12.3%, driven by a price impact of +14.0% and resilient volumes excluding helium and liquefied CO<sub>2</sub>. Healthcare sales increased by +5.8%, benefiting from the dynamism of Home Healthcare and the increase in medical gas prices in an inflationary context.
- Gas & Services revenue for the **Asia Pacific** region in 2023 rose by **+1.8%**, to total **5,410 million euros**. The Large Industries business (-5.5%) was impacted by weak demand and customer turnarounds. Sales in the Industrial Merchant business were up sharply, by +9.9%, driven by a high price impact at +7.3% and by an increase in volumes, in China in particular. Growth in Electronics was +2.2% over the year: very dynamic in 1<sup>st</sup> quarter, it was then impacted by lower demand from memory manufacturers and a very high basis of comparison in 2022.
- Gas & Services revenue in the **Middle East & Africa** region increased by **+7.0%** to **1,047 million euros** in 2023. All business lines grew.

**Global Markets & Technologies** revenue for 2023 was down by **-1.0%** compared to 2022, at **858 million euros**. **Organic growth** reached **+9.7%**, excluding the divestitures carried out at the end of 2022. **Order intake** for Group projects and third-party customers amounted to **926 million euros**, up **+5.8%** compared to 2022.

Consolidated revenue from **Engineering & Construction** totaled **390 million euros** in 2023, down by **-15.6%**. Consolidated revenue excludes activities carried out as part of internal projects for Large Industries and Electronics, which are growing. **Order intake** amounted to **1,511 million euros** for **Group projects and third-party customers** and hence exceeded 1 billion euros for the third consecutive year.

The Group's **operating income recurring (OIR)** reached **5,068 million euros** in 2023, an increase of +4.2% as published. It increased by **+11.4% on a comparable basis**, which is significantly higher than the comparable sales growth of +3.7%, highlighting a strong leverage effect. This performance reflects the progress of the action plan deployed around 3 levers: efficiencies, pricing management in particular in Industrial Merchant and a dynamic asset portfolio management. Hence, the **efficiencies**<sup>(6)</sup> amounted to **466 million euros** in 2023, a sharp increase of **+23.2%** compared with 2022 and significantly above the annual target of 400 million euros.

**Excluding the energy impact, the operating margin improved very significantly by +80 basis points**. Thus, the sum of improvements in the operating margin excluding energy impact in **2022 and 2023** reached **+150 basis points** and compares to the +160 basis points expected over the 4-year period of the ADVANCE plan. Consequently, the **ambition for improvement in the margin** excluding the energy impact of the **ADVANCE strategic plan** is **raised to +320 basis**

<sup>5</sup> Unless otherwise stated, all variations in revenue outlined below are on a comparable basis, excluding currency, energy (natural gas and electricity) and significant scope impacts.

<sup>6</sup> See definition in appendix.

**points over 4 years**, which reflects an **acceleration**. This corresponds to **twice the improvement initially planned**. Hence, +170 basis points of improvement are expected for the remaining 2 years of the ADVANCE plan.

**Net profit (Group share)** reached **3,078 million euros** in 2023, showing strong growth of +11.6% as published and an increase of **+21.0% excluding the currency impact**. It exceeded 3 billion euros for the first time. **Net profit recurring (Group share)<sup>(7)</sup>** amounted to **3,320 million euros**, up by +5.0%, and **+13.3% excluding currency impact**.

**Net earnings per share**, stood at **5.90 euros** and were up **+11.7%** as published compared with 2022, in line with the increase in net profit (Group share).

**Net cash flow from operating activities after changes in working capital requirement** amounted to **6,263 million euros**, a strong increase of +7.8% compared with 2022 and **+12.8% excluding the currency impact**.

**Net debt** at December 31, 2023, amounted to **9,221 million euros**, a decrease of 1,040 million euros compared with December 31, 2022. Indeed, cash flows from operating activities allowed to reduce the net debt after the payment of over 3.4 billion euros in industrial investments and 1.6 billion euros in dividends.

The return on capital employed after tax (ROCE) was 9.8% in 2023. The **recurring ROCE<sup>(7)</sup>** stood at **10.6 %**, an improvement compared to 10.3% in 2022 and **aligned with the ADVANCE strategic plan's double-digit objective**.

**Industrial and financial investment decisions** reached a **high level of 4.3 billion euros** in 2023, up sharply from 4.0 billion euros in 2022. The **investment backlog** hit a record high of **4.4 billion euros** in 2023, a sharp increase from 3.5 billion euros in 2022.

At the General Meeting on April 30, 2024, the payment of a dividend of **3.20 euros per share** will be proposed to shareholders for the 2023 fiscal year, representing an increase of **+8.5%** compared with the previous year. The **ex-dividend date** has been set for **May 20, 2024**, and the **payment** is scheduled for **May 22, 2024**. Moreover, a **free share attribution**, on the basis of one free share for every 10 shares held, as well as the application of a loyalty bonus, are planned for June 2024.

#### Extra-financial performance

The Group's **scopes 1 and 2 CO<sub>2</sub> emissions** in 2023 totaled **37.6 million tonnes of CO<sub>2</sub> equivalent<sup>(8)</sup>**. They were down **-4.7% compared with 2022** and **-4.9% compared with the 2020 baseline**.

The Group announced in 2023 the signature of long-term **power purchase agreements (PPAs)**, for more than **1.5 TWh per year** aiming to reduce its annual emissions of CO<sub>2</sub> by **around -1.2 million tonnes**. Moreover the Group pursues carbon capture and energy efficiency project development.

With these achievements, Air Liquide is confident to accomplish its ADVANCE **near term goal of CO<sub>2</sub> emissions inflection in 2025**.

On the social aspect, safety is a priority. The **lost-time accident frequency rate<sup>(9)</sup>** stood at **1.0** in 2023. The share of **employees benefitting from a common basis of care coverage** reached **78%**, showing a sharp increase compared to 34% in 2021, in line with the objective of 100% by 2025.

Finally, the Access Oxygen program pursues its development. **Over 2 million people** have been facilitated with access to **medical oxygen in low and moderate income countries**, a +16% increase compared to 2022.

#### Governance

On the recommendation of the Appointments and Governance Committee, the Board of Directors also approved the draft resolutions which will be submitted to the General Meeting of April 30, 2024 in order to **renew for a period of four years, the term of office of two Directors**:

- **Ms Kim Ann Mink**, an American national, who has been a Director on the Board of Directors since May 2020 and a member of the Remuneration Committee since September 2021. Having spent most of her career in major international groups in the chemicals industry, where she held various management positions, Ms Kim Ann Mink brings her experience in the fields of research and innovation and her managerial skills to the Board of Directors, in addition to her scientific expertise.

<sup>7</sup> See definition and reconciliation in appendix.

<sup>8</sup> In metric tonnes of scopes 1 and 2 CO<sub>2</sub>-equivalent, "market based", restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope and which have a significant impact (upwards and downwards) on CO<sub>2</sub> emissions.

<sup>9</sup> Lost-time frequency rate for Group employees and temporary workers. Number of accidents with at least one day's absence from work per million hours worked.

- **Ms Monica de Virgiliis**, a French-Italian national, who has been a Director on the Board of Directors since February 15, 2023, following her provisional appointment by the Board of Directors (ratified by the General Meeting of May 3, 2023), replacing Ms Anette Bronder for the remainder of her term of office, i.e. until the end of the General Meeting of April 30, 2024. She has also been a member of the Environment and Society Committee since May 2023. Ms Monica de Virgiliis brings to the Board of Directors her experience of more than 15 years in the Electronics business, her skills in the field of technology and energy, her managerial skills and her commitment to energy transition.

The Board of Directors has qualified Ms. Kim Ann Mink and Ms. Monica de Virgiliis as **independent Directors**.

During its plenary meeting of November 9, 2023, the European Works Council renewed the term of office as Director representing the employees of Ms Fatima Tighlaline, (which expires at the end of the General Meeting of April, 30, 2024) for a period of four years expiring at the end of the 2028 General Meeting, which will approve the financial statements for the 2027 fiscal year.

At the end of the General Meeting, subject to approval by the Meeting of all the resolutions proposed, the **Board of Directors composition** would therefore remain **unchanged at 14 members**: 12 members appointed by the General Meeting, most of whom are independent (i.e. 83% independent Directors), including 5 women (i.e. 42%), 5 foreign nationals (i.e. 42%) and 2 Directors representing the employees.

Finally, the Board of Directors will submit to the vote of the General Meeting the elements of remuneration of Mr François Jackow, Chief Executive Officer, and of Mr Benoît Potier, Chairman of the Board of Directors, together with the information relating to the remuneration of all the corporate officers for 2023. The General Meeting will also be invited to decide upon the remuneration policy for the corporate officers which will apply to Mr. François Jackow, Chief Executive Officer, to Mr Benoît Potier, Chairman of the Board of Directors and to the Directors.

Air Liquide's Board of Directors, which met on February 19, 2024, approved the audited financial statements for the 2023 fiscal year. The Statutory Auditors are in the process of issuing a report with an unqualified opinion.

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# PERFORMANCE

Unless otherwise stated, all variations in revenue outlined below are on a **comparable basis**, excluding currency, energy (natural gas and electricity) and significant scope impacts.

## Key Figures

(in millions of euros)	FY 2022	FY 2023	2023/2022 published change	2023/2022 comparable change <sup>(a)</sup>
<b>Total Revenue</b>	<b>29,934</b>	<b>27,608</b>	<b>-7.8%</b>	<b>+3.7%</b>
Of which Gas & Services	28,573	26,360	-7.7%	+4.2%
Operating Income Recurring (OIR)	4,862	5,068	+4.2%	+11.4%
Group OIR Margin	16.2%	18.4%	+220 bps	
Variation excluding energy impact <sup>(b)</sup>			<b>+80 bps</b>	
Other Non-Recurring Operating Income and Expenses	(571)	(497)		
Net Profit (Group Share)	2,759	3,078	+11.6%	
Net Profit Recurring (Group share) <sup>(c)</sup>	3,162	3,320	+5.0%	
Variation excluding currency impact			<b>+13.3%</b>	
<b>Net earnings per share (in euros)</b>	<b>5.28</b>	<b>5.90</b>	<b>+11.7%</b>	
<b>Dividend per Share (in euros)</b>	<b>2.95</b>	<b>3.20<sup>(d)</sup></b>	<b>+8.5%</b>	
Cash flow from operating activities before changes in working capital	6,255	6,357	+1.6%	
Net cash flows from operating activities	5,810	6,263	+7.8%	
Variation excluding currency impact			<b>+12.8%</b>	
Industrial capital expenditure	3,273	3,393	+3.7%	
Net Debt	€10.3 bn	€9.2 bn		
Net Debt to Equity ratio	41.8%	36.8%		
Return on Capital Employed after tax - ROCE	9.1%	9.8%	+70 bps	
<b>Recurring ROCE<sup>(e)</sup></b>	<b>10.3%</b>	<b>10.6%</b>	<b>+30 bps</b>	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in the appendices

(b) See reconciliation in the appendices.

(c) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in the appendices.

(d) Dividend proposed to shareholders for the fiscal year 2023.

(e) Based on the recurring net profit, see reconciliation in the appendices.

# Income Statement

## REVENUE

Revenue (in millions of euros)	FY 2022	FY 2023	2023/2022 published change	2023/2022 comparable change
Gas & Services	28,573	26,360	-7.7%	+4.2%
Engineering & Construction	474	390	-17.7%	-15.6%
Global Markets & Technologies	887	858	-3.3%	-1.0%
<b>TOTAL REVENUE</b>	<b>29,934</b>	<b>27,608</b>	<b>-7.8%</b>	<b>+3.7%</b>

Revenue by Quarter (in millions of euros)	Q1 2023	Q2 2023	Q3 2023	Q4 2023
Gas & Services	6,893	6,512	6,483	6,472
Engineering & Construction	87	93	110	100
Global Markets & Technologies	194	201	218	245
<b>TOTAL REVENUE</b>	<b>7,174</b>	<b>6,806</b>	<b>6,811</b>	<b>6,817</b>
<b>2023/2022 Group published change</b>	<b>+4.2%</b>	<b>-7.0%</b>	<b>-17.4%</b>	<b>-8.9%</b>
<b>2023/2022 Group comparable change</b>	<b>+6.2%</b>	<b>+3.8%</b>	<b>+1.5%</b>	<b>+3.7%</b>
<b>2023/2022 Gas &amp; Services comparable change</b>	<b>+6.7%</b>	<b>+4.1%</b>	<b>+1.7%</b>	<b>+4.6%</b>

## Group

Group revenue for 2023 totaled **27,608 million euros**, posting comparable growth of **+3.7%** over 2022.

Sales in the **Global Markets & Technologies** activity were down by **-1.0%** on a comparable basis and posted organic growth of **+9.7%**, excluding the impact of divestitures finalized in the 4<sup>th</sup> quarter 2022. Consolidated revenue from **Engineering & Construction** was down **-15.6%**. This excludes activities carried out as part of internal projects for Large Industries and Electronics, which are growing.

The Group's **revenue as published** was down **-7.8%**, impacted by unfavorable energy (-7.6%) and currency (-4.2%) impacts, the significant perimeter impact being slightly positive at +0.3%. The latter corresponds to the re-invoicing of energy consumed by the 16 units taken-over in 2021 in South Africa, less the impact of the deconsolidation of businesses in Russia. The favorable impact on 2023 comparable sales growth of hyperinflation<sup>(10)</sup> in Argentina is estimated at approximately +0.6%.

## Gas & Services

**Gas & Services** revenue totaled **26,360 million euros** in 2023, an increase on a comparable basis of **+4.2%**.

The two growth drivers for 2023 were the **Industrial Merchant** business, with sales up **+8.5%**, benefiting from a **price impact** that remained high (**+8.4%**) and resilient volumes, and the **Healthcare** business (**+8.4%**), bolstered by the dynamic development of Home Healthcare and the increase in the prices of medical gases in an inflationary environment. Revenue from **Large Industries** was down **-1.8%** over the year: following a low point in the 4<sup>th</sup> quarter 2022 and a rebound in the 1<sup>st</sup> quarter 2023, demand stabilized at a relatively low level. Sales in **Electronics** increased by **+2.4%** in 2023, following growth of +16% in 2022, the sharp drop in demand from memory manufacturers having impacted sales from the 2<sup>nd</sup> quarter.

<sup>10</sup> See definition in Appendix.

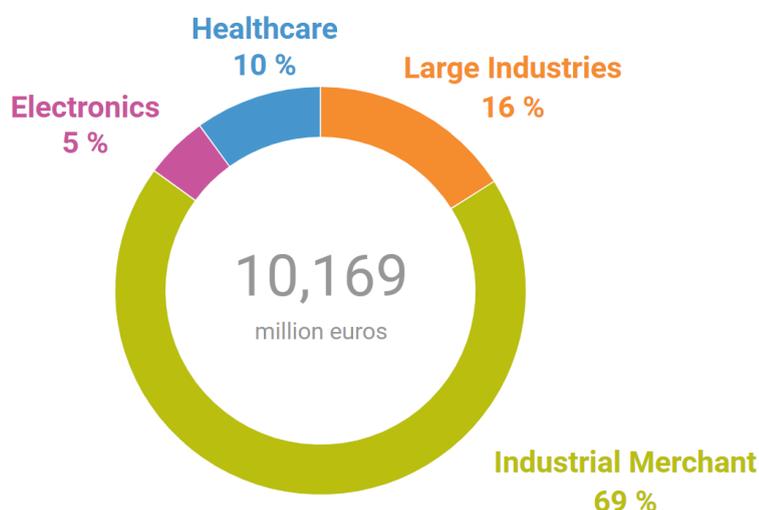
**Revenue as published** in the Gas & Services business was down **-7.7%**, penalized by negative energy (-8.0%) and currency (-4.2%) impacts, while the significant scope effect was slightly positive at +0.3%.

Revenue by geography and business line (in millions of euros)	FY 2022	FY 2023	2023/2022 published change	2023/2022 comparable change
Americas	10,680	10,169	-4.8%	+5.1%
Europe	11,390	9,734	-14.5%	+4.2%
Asia Pacific	5,608	5,410	-3.5%	+1.8%
Middle East & Africa	895	1,047	+17.1%	+7.0%
<b>GAS &amp; SERVICES REVENUE</b>	<b>28,573</b>	<b>26,360</b>	<b>-7.7%</b>	<b>+4.2%</b>
Large Industries	10,525	7,825	-25.7%	-1.8%
Industrial Merchant	11,567	11,975	+3.5%	+8.5%
Healthcare	3,923	4,077	+3.9%	+8.4%
Electronics	2,558	2,483	-2.9%	+2.4%

## Americas

Gas & Services revenue in the Americas totaled **10,169 million euros** in 2023, up by **+5.1%**. Large Industries sales (-2.2%) were impacted by customer turnarounds and relatively low demand. The Industrial Merchant business posted strong growth of +6.7%, boosted by a high price impact (+6.3%) and slightly positive volumes. In Healthcare, the rise in prices in proximity care in the United States and the dynamism of the business in South America contributed to the strong increase in sales (+14.2%). Electronics revenue was down by -2.8% in a context of slowing demand from memory manufacturers impacting sales of materials.

Americas Gas & Services 2023 Revenue



- Sales in **Large Industries** were down **-2.2%** in 2023, impacted in particular by customer turnarounds and the divestiture of the activity in Trinidad and Tobago. Business was also marked by relatively low demand, in particular from customers in the Steel industry. Oxygen volumes for Chemicals in the United States increased slightly in the 4<sup>th</sup> quarter, supported notably by the start-up of a new unit.
- In **Industrial Merchant**, the significant increase in sales of **+6.7%** in 2023 was supported by a strong **price impact** of **+6.3%**, in an inflationary context albeit slightly slowing sequentially (+5.2% in the 4<sup>th</sup> quarter). Volumes were up slightly over the year. They increased in the 1<sup>st</sup> half-year, in particular those of bulk gases. In the 2<sup>nd</sup> half of the year, hardgoods volumes were down but gas volumes remained resilient. They benefited from the demand increase in particular in the Construction, Research, Energy and Aeronautics sectors.
- In **Healthcare**, sales increased sharply, by **+14.2%** in 2023. The main drivers of this growth were price increase in proximity care in the United States, the development of sleep apnea treatment in Canada in the 1<sup>st</sup> half-year and the dynamism of the Medical Gases and Home Healthcare businesses in Latin America.

- Revenue from **Electronics** was down **-2.8%** over the year. Sales of specialty and advanced materials were strongly impacted by the memory manufacturer production slowdown. Carrier gas revenue growth was solid, driven by the start-up of new units. Sales of Equipment and Installations were up, particularly in the 4<sup>th</sup> quarter.



### Americas

- Through an investment of **more than 140 million euros**, Air Liquide announced that it will establish in Bécancour (Canada), a platform supplying low-carbon industrial gases. In addition to the **PEM\* electrolyzer** already in operation, the new infrastructure will include a **new air separation unit producing renewable oxygen and nitrogen** and a local pipeline network. This new unit is part of the industrial and port zone's decarbonization initiative. It will mostly supply **customers manufacturing battery components for electric vehicles** via long term contracts.
- Air Liquide is a partner **in a record six out of seven regional Clean Hydrogen Hubs** announced by the **U.S.** government to accelerate **low-carbon hydrogen** development.
- Air Liquide and **Trillium Energy Solutions**, a leading supplier of sustainable fueling infrastructure in the U.S., have signed a **Memorandum of Understanding (MoU)** to pursue the development of the heavy-duty **hydrogen** fueling market in the **U.S.**. The ambition through this partnership is to initially support the development of **150 tonnes per day** of hydrogen production and the **refueling infrastructure** capable of supplying **more than 2,000 heavy-duty vehicles**.

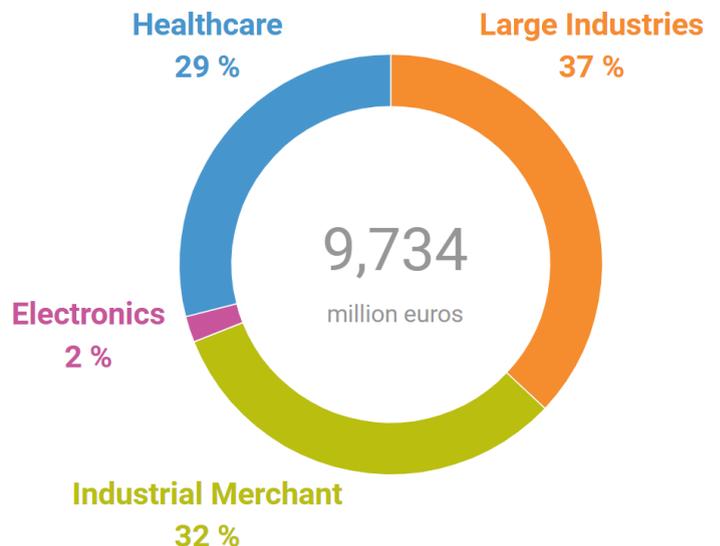
\*PEM: Proton Exchange Membrane.

### Europe

Revenue in Europe was up **+4.2%** in 2023 and totaled **9,734 million euros**. Large Industries sales were slightly down (-0.9%) in a context of weak demand from customers in the Chemicals and Steel industries. Revenue from the Industrial Merchant business rose sharply, by +12.3%, driven by a price impact of +14.0% and resilient volumes excluding helium and liquefied CO<sub>2</sub>. Healthcare sales increased by +5.8%, benefiting from the dynamism of Home Healthcare and the increase in medical gas prices in an inflationary context.

- Revenue from **Large Industries** was slightly down (**-0.9%**) over 2023. In the 1<sup>st</sup> quarter of 2023, demand strengthened in a context of decreasing energy prices and following a sharp drop in volumes in the 2<sup>nd</sup> half of 2022 due to the record increase in energy prices. Demand from Chemicals and Steel customers then stabilized at a low level until the end of the year. Sales of cogeneration units were down in 2023, penalized by lower electricity prices than in 2022. Hydrogen volumes for Refining increased compared to 2022, particularly in the 4<sup>th</sup> quarter.
- In the **Industrial Merchant** business, sales growth remained extremely strong at **+12.3%**, bolstered by a **price impact** of **+14.0%**, in addition to the increase of +23.6% in 2022. This price impact gradually eased over the year, reaching +8.4% in the 4<sup>th</sup> quarter. Volumes excluding helium and liquefied CO<sub>2</sub>, whose supply has been tight for several months, remained resilient, particularly in the Automotive, Manufacturing and Metallurgy markets.

Europe Gas & Services 2023 Revenue



- Revenue from **Healthcare** increased by **+5.8%** in 2023. Diabetes and sleep apnea treatments were the main contributors to the strong growth in Home Healthcare sales. Growth in Medical Gas revenue was driven by rising prices in an inflationary context. Sales of specialty ingredients and equipment also increased.



## Europe

- On the occasion of the signing of a Memorandum of Understanding to supply the **TotalEnergies** refinery in Gonfreville, Normandy, France, with **renewable and low-carbon hydrogen**, Air Liquide announced an investment of over **400 million euros** for the construction of its **Normand'Hy electrolyzer**. With a capacity of **200 MW**, it will be the largest PEM\* electrolyzer ever built and will integrate equipment manufactured by the joint-venture between Air Liquide and Siemens Energy. Connected to the Air Liquide local hydrogen network, this electrolyzer will contribute to the **decarbonization of the industry and transportation**. Normand'hy was recognized as an **Important Project of Common European Interest (IPCEI)** by the European Commission and received **support from the French State for an amount of 190 million euros**.
- Air Liquide and Vattenfall signed a new **Power Purchase Agreement (PPA)** for **115 MW of renewable** installed power capacity. This second PPA of such scale in **Benelux**, significantly expands Air Liquide's overall renewable power supply in the region. It reaffirms **Air Liquide's commitment to lead the way in decarbonizing the European industry** while **lowering its own carbon footprint**, in line with its Sustainable Development objectives.
- Air Liquide has announced that it will build, own and operate a world-scale **carbon capture unit** in the industrial basin of **Rotterdam** in the Netherlands, leveraging its proprietary **Cryocap™ technology**. The new unit will be installed at the Group's major hydrogen production plant located in the port of Rotterdam and will be connected to **Porthos**, one of Europe's largest carbon capture and storage infrastructure aiming at **significantly reducing CO<sub>2</sub> emissions** in this large industrial basin.
- Air Liquide and Holcim signed a Memorandum of Understanding regarding a **decarbonization project of the new Holcim cement factory in Belgium**. It will use oxy-combustion as well as Air Liquide's innovative proprietary technology **Cryocap™** for carbon capture. The joint funding application has been **awarded by the Innovation Fund of the European Union**.

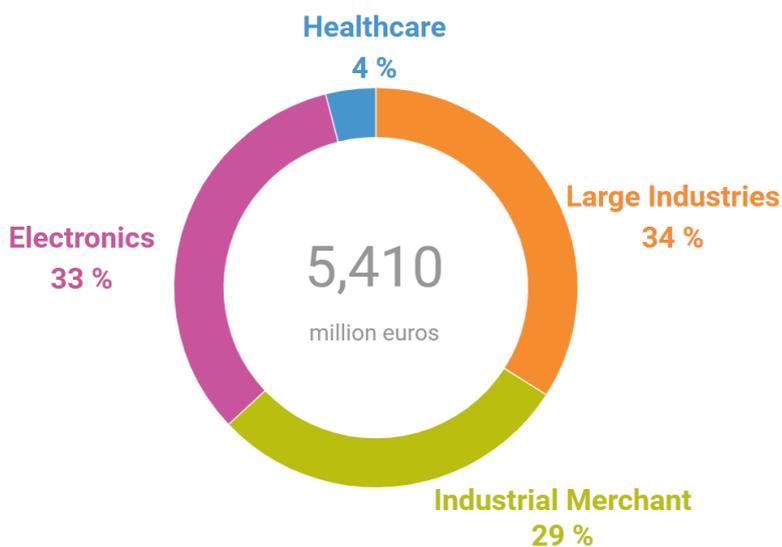
\*PEM: Proton Exchange Membrane.

## Asia Pacific

Revenue for the Asia Pacific region in 2023 rose by **+1.8%**, to total **5,410 million euros**. The Large Industries business (-5.5%) was impacted by weak demand and customer turnarounds. Sales in the Industrial Merchant business were up sharply, by +9.9%, driven by a high price impact at +7.3% and by an increase in volumes, in China in particular. Growth in Electronics was +2.2% over the year: very dynamic in the 1<sup>st</sup> quarter, it was then impacted by lower demand from memory manufacturers and a very high basis of comparison in 2022.

Asia Pacific Gas & Services 2023 Revenue

- Sales in **Large Industries** were down by **-5.5%** over the year. They were penalized by weak demand in the region, particularly in air gases for the Steel industry in Japan, and in Chemicals. Customer turnarounds in China also impacted sales.
- **Industrial Merchant** revenue was up sharply by **+9.9%** in 2023. The **price impact** stood at a very high level of **+7.3%**, with particularly strong price increases in Japan and Australia. In China, following a wave of covid-19 at the start of the year, volumes rose sharply from March until the end of the year. The Manufacturing and Technology sectors supported the increase in volumes in the region, as well as new gas supply contracts for the production of battery materials.



- Sales in the **Electronics** business were up by **+2.2%** in 2023. Following a double-digit increase in the 1<sup>st</sup> quarter, revenue slowed to a low point (-5.2%) in the 3<sup>rd</sup> quarter, before reaching a level stable compared to the 4<sup>th</sup> quarter of 2022 by the end of the year. This evolution is explained by the sharp decline in production by memory manufacturers, which directly affected the volumes of specialty and advanced materials, and by a high basis of comparison, with sales growth having hit +18% in 2022. In addition, growth in carrier gas sales continued, driven by the start-up of new units.



Asia Pacific

- Air Liquide and **ENEOS** Corporation, Japan’s leading energy company, have signed a **Memorandum of Understanding (MoU)** to collaborate on accelerating the development of **low-carbon hydrogen in Japan** and **contribute to the energy transition**. This partnership intends to capitalize on ENEOS’ **strong energy infrastructure and market presence in Japan** as well as on Air Liquide’s **expertise** across the entire hydrogen value chain - from production, liquefaction, transport, storage and distribution to usages - as well as mastery of Carbon Capture.
- Air Liquide is investing around **60 million euros** in **China** to **revamp two Air Separation Units (ASUs)** so they can **run on electrical power instead of steam produced from coal**. This will allow to **significantly reduce the CO<sub>2</sub> emissions**. This investment comes within the context of the renewal of a long-term industrial gases supply contract with **Tianjin Bohua Yongli Chemical Industry Co., Ltd (“YLC”)**.

Middle East and Africa

Revenue in the Middle East & Africa region increased by **+7.0%** to **1,047 million euros** in 2023. All business lines grew. The sales growth in air gases in South Africa and Egypt explained the solid performance of **Large Industries**. In **Industrial Merchant**, a very high **price impact** of **+9.9%** and rising volumes made it possible to achieve strong sales growth, despite the impact of the divestiture of businesses in the Middle East. In **Healthcare** the main drivers of dynamic sales growth were a solid price impact, the development of Home Healthcare in Saudi Arabia and strong activity in South Africa supported by the contribution of an acquisition.



## Middle East and Africa

- In 2023, **Air Liquide and Sasol** have signed new Power Purchase Agreements (**PPAs**) with wind and solar energy suppliers to provide **renewable power** to Sasol's Secunda site, in South Africa, where Air Liquide operates the largest oxygen production site in the world. All these PPAs announced in 2022 and 2023 represent a **total installed renewable power capacity of 580 MW**. For Air Liquide, these contracts will contribute to the **targeted reduction by 30% to 40% of the CO<sub>2</sub> emissions** associated with oxygen production in Secunda by 2031.

## Engineering & Construction

Consolidated revenue from Engineering & Construction totaled **390 million euros** in 2023, down by **-15.6%**. Consolidated revenue excludes activities carried out as part of internal projects for Large Industries and Electronics, which are growing.

**Order intake** amounted to **1,511 million euros** for **Group projects and third-party customers** and hence **exceeded 1 billion euros for the third consecutive year**. For the Group, these include Air Separation Units, an industrial-scale pilot ammonia cracking unit, a Cryocap™ CO<sub>2</sub> capture unit and a large PEM electrolyzer (200 MW). Order intake for third-party customers includes large units for the production and liquefaction of hydrogen and air gases.



## Engineering & Construction

- On November 8<sup>th</sup>, 2023, Air Liquide and **Siemens Energy** officially inaugurated their joint venture **gigafactory** in Berlin. The mass production of PEM\* electrolyzer components will allow the production of **low-carbon hydrogen** at industrial scale and **competitive cost**, and foster an innovative European ecosystem. The state-of-the-art gigafactory will ramp-up to an **annual production capacity of 3 GW by 2025**. With two global leading companies in their field combining their expertises, this French-German partnership plays a pivotal role in the emergence of a sustainable hydrogen economy needed to forge the energy transition.
- Air Liquide, through its Engineering & Construction business, will work with **KBR** to offer **low-carbon ammonia technological production solutions** integrating its Autothermal Reforming (**ATR**) technology. Air Liquide is a world leader in ATR technology, one of the most suitable solutions for large-scale production of low-carbon hydrogen (H<sub>2</sub>), which is then combined with nitrogen (N<sub>2</sub>) to produce low-carbon ammonia (NH<sub>3</sub>). The solutions provided with KBR, the world leader in ammonia technology, will also contribute to the **development of a global low-carbon hydrogen market** as, when transformed into ammonia, hydrogen can be easily **transported over long distances**.
- Air Liquide announced the construction of an **industrial scale ammonia (NH<sub>3</sub>) cracking pilot plant** in the port of Antwerp, **Belgium**. When transformed into ammonia, hydrogen can be easily transported over long distances. Using innovative technology, this plant will make it possible to convert, with an optimized carbon footprint, **ammonia into hydrogen**.

\* PEM: Proton Exchange Membrane.

## Global Markets & Technologies

Global Markets & Technologies revenue for 2023 was down by **-1.0%** compared to 2022, at **858 million euros**. **Organic growth** reached **+9.7%**, excluding the divestitures of the mobility biogas distribution and the manufacture of small cryogenic tank businesses in the 4<sup>th</sup> quarter 2022. Hydrogen mobility posted very dynamic growth, boosted by the ramp-up of a hydrogen liquefier in the United States. The increase in sales of technological equipment, in

particular Turbo-Braytons, partially offset the decline in sales in the Biogas business, dragged down by lower energy prices.

**Order intake** for Group projects and third-party customers amounted to **926 million euros**, up **+5.8%** compared to 2022. This notably included orders for equipment for biogas processing, for advanced research laboratories, and for the electronics industry, as well as Turbo-Brayton LNG reliquefaction units, and hydrogen refueling stations.



### Global Markets & Technologies

- Air Liquide and **Groupe ADP** announced the creation of **Hydrogen Airport**, the first **engineering and consulting joint venture** specializing in supporting airports **integrating hydrogen** projects within their infrastructures.
- Air Liquide and **TotalEnergies** announced the creation of the equally owned **joint venture** TEAL, to develop a **network of hydrogen stations**, geared towards **heavy-duty vehicles** on **major European road corridors**. This initiative will help facilitate access to hydrogen, enabling the development of its use for goods transportation and further strengthening the hydrogen sector.
- With the **inauguration** in June 2023 of Air Liquide's high-pressure hydrogen refueling station in Fos-sur-Mer (Marseille, France) and **Iveco Group's readiness to deliver hydrogen trucks**, the two companies are paving the way for hydrogen **long-haul mobility in Europe**.
- In May 2023, **Future Proof Shipping (FPS)** inaugurated **the first hydrogen-powered river container ship**. "H2 Barge 1" carries cargo between the port of Rotterdam (Belgium) and the Antwerp region (Belgium) for sports equipment manufacturer Nike. Air Liquide contributed actively to this project through the **supply of hydrogen and the development of a specific storage system**.

## OPERATING INCOME RECURRING

**Operating income recurring before depreciation and amortization** totaled **7,550 million euros**, an increase of **+3.0%** as published and **+8.5% excluding the currency impact** compared with 2022. **Purchases** were down **-16.2% excluding the currency impact**, mainly due to the decrease in energy prices, in particular natural gas, following the sharp increase in 2022. **Personnel costs** increased by **+6.5% excluding currency impacts** in a context of continued inflation. **Other operating income and expenses** increased by **+5.8% excluding the currency impact** and included in particular an increase in maintenance costs.

The **efficiencies**<sup>(11)</sup> amounted to **466 million euros** in 2023, a sharp increase of **+23.2%** compared with 2022 and significantly above the annual target of 400 million euros. **Industrial efficiencies** represented more than 60% of efficiencies. They included energy efficiency and production optimization projects in Large Industries and supply chain improvements in Industrial Merchant. The Group's **digital transformation** continued: in Large Industries with the contribution of remote operation centers (Smart Innovative Operations, SIO), in Industrial Merchant and in Healthcare with the implementation of tools to optimize delivery routes for bulk gases and, increasingly, for cylinders. The continued implementation of **shared service centers** also contributed to efficiencies. In addition, the cross-functional program of **continuous improvement** actively supported the development of efficiencies, in particular through a digital platform that has already facilitated the replication of more than 200 projects. Efficiencies are one of the three levers for improving performance, with price management, particularly in Industrial Merchant, and dynamic management of the asset portfolio.

**Depreciation and amortization** amounted to **2,482 million euros**, up **+4.1% excluding the currency impact**, reflecting the impact of the start-up of new units.

<sup>11</sup> See definition in appendix.

The Group's **operating income recurring (OIR)** reached **5,068 million euros** in 2023, an increase of +4.2% as published. It increased by **+11.4% on a comparable basis**, which is significantly higher than the comparable sales growth of +3.7%, highlighting a strong leverage effect.

The **operating margin (OIR over revenue)** as published stood at 18.4%, up +220 basis points compared to 2022. Indeed, energy costs, which are contractually passed through to Large Industries customers, decreased significantly in 2023, following the drop in prices after the sharp increase in 2022. This reduced published sales, without affecting operating income recurring, and thus created an accretive effect on the published margin as a percentage of sales.

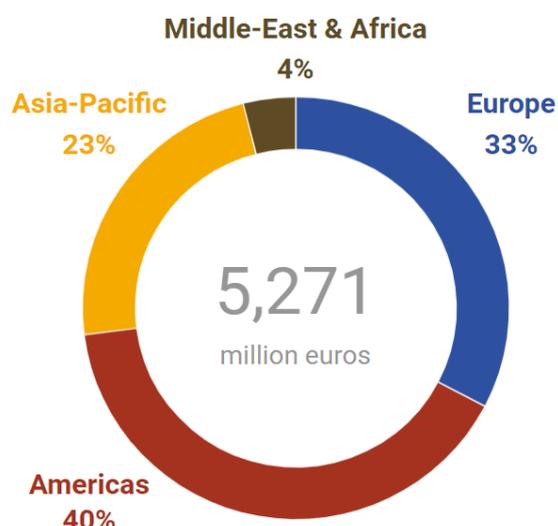
**Excluding the energy impact, the operating margin improved very significantly by +80 basis points.** Thus, the sum of improvements in the operating margin excluding energy impact in **2022 and 2023** reached **+150 basis points** and compares to the +160 basis points expected over the 4-year period of the ADVANCE plan. Consequently, the **ambition for improvement in the margin** excluding the energy impact of the **ADVANCE strategic plan** is **raised to +320 basis points over 4 years**, which reflects an **acceleration**. This corresponds to **twice the improvement initially planned**. Hence, +170 basis points of improvement are expected for the remaining 2 years of the ADVANCE plan.

## Gas & Services

The Gas & Services operating income recurring totaled **5,271 million euros**, representing an increase of +4.1% compared with 2022 and up **+10.8% on a comparable basis**. The **operating margin** stood at 20.0% as published, a sharp increase of **+70 basis points excluding the energy impact**.

The **price** increase of **+8.4%** in **Industrial Merchant** in 2023 followed the record increase of +14.7% in 2022, demonstrating the Group's ability to quickly transfer the rise in costs in an inflationary environment. Prices were also up in Large Industries, Electronics and Healthcare, in all regions.

Gas & Services 2023 Operating Income Recurring



Gas & Services Operating margin <sup>(a)</sup>	FY 2022	FY 2023	2023/2022 excluding energy impact
Americas	19.5%	20.9%	+60 bps
Europe	13.8%	17.7%	+90 bps
Asia Pacific	21.2%	22.4%	+150 bps
Middle East & Africa	23.6%	20.0%	-350 bps
<b>TOTAL</b>	<b>17.7%</b>	<b>20.0%</b>	<b>+70 bps</b>

(a) Operating income recurring / revenue as published.

Operating income recurring for the **Americas** reached **2,125 million euros** in 2023. **Excluding the energy impact**, the operating margin grew by **+60 basis points** compared with 2022. The Industrial Merchant business contributed significantly to this improvement, as did the Healthcare business, albeit to a lesser extent. Higher prices and significant efficiency gains, particularly in the United States, were the main drivers of margin growth.

Operating income recurring for **Europe** totaled **1,723 million euros**. **Excluding the energy impact**, the operating margin saw a **+90 basis points** increase compared with 2022. The Industrial Merchant business made a major

contribution, with an increase in prices and high efficiency gains supporting the rise in the operating margin. The efficiencies generated in other businesses also contributed to the improvement of the margin.

In **Asia Pacific**, operating income recurring stood at **1,214 million euros**. **Excluding the energy impact**, the operating margin saw a growth of **+150 basis points** compared with 2022. The margin increased in all businesses and in particular in the Industrial Merchant business, where the increase in prices and the high level of efficiencies contributed significantly to the improvement of the margin. The Large Industries business margin benefited from the payment of an indemnity by a customer.

Operating income recurring for the **Middle East and Africa** reached **209 million euros**. **Excluding the energy impact**, the operating margin was down by **-350 basis points** compared with 2022. In accordance with the Large Industries business model, the introduction of re-invoicing to the customer for the costs of the energy consumed by the 16 air separation units acquired at the Secunda site in South Africa had a highly dilutive effect on the margin<sup>(12)</sup>. Excluding this re-invoicing, the operating margin increased.

## Engineering & Construction

Operating income recurring for **Engineering & Construction** was **43 million euros** in 2023. The operating margin stood at **11.1%**. It amounted to 9.3% in 2022.

## Global Markets & Technologies

Operating income recurring for the **Global Markets & Technologies** business stood at **143 million euros** in 2023. The operating margin reached **16.7%**, a sharp increase of **+410 basis points** compared with 2022. This performance was notably boosted by the increase in volumes of hydrogen for mobility in the United States.

## Corporate Costs and Research & Development

**Corporate costs and Research & Development expenses** stood at **389 million euros**, up +9.4% compared with 2022, due particularly to the increase in personnel expenses, the development of research and the strengthening of IT security.

## NET PROFIT

**Other operating income and expenses** showed a net balance of **-497 million euros** in 2023 compared with -571 million in 2022. Other operating income amounted to 242 million euros and mainly included the sale of the Group's stake in Hydrogenics in the 1<sup>st</sup> half-year. Other operating expenses amounted to -739 million euros and included exceptional items, with no impact on cash, following a strategic review that led to the impairment of certain assets in several countries. They also included the impairment of assets held for sale (with no impact on cash) and restructuring costs in several countries and businesses.

**Financial income and expenses** amounted to **-416 million euros**, compared with -386 million euros in 2022. This included **a net cost of debt of -266 million euros**, down sharply by **-19.5% excluding currency impact**, mainly due to the decrease in average outstanding debt and thanks to the exceptional proceeds generated by the early redemption of bonds in U.S. dollars in the 1<sup>st</sup> half-year and in euros in the 2<sup>nd</sup> half-year. The **average net cost of debt at 3.4%**, was up compared with 3.0% in 2022, mainly due to the increase in factoring costs, which are directly related to the rise in interest rates. Furthermore, the average net cost of debt does not include the exceptional income related to the early redemption of bonds. **Other financial income and expenses** stood at **-151 million euros** compared with -98 million euros in 2022. This sharp increase is due to a provision for interest on arrears and the impact of the increase in interest rates on pension obligations.

The **tax expense** amounted to **972 million euros** in 2023, hence an effective tax rate of **23.4%**, a sharp decrease compared with 25.7% in 2022. Indeed, in 2023, the Group benefited from a reduced tax rate applicable to the capital

<sup>12</sup> For more information, see explanation in appendix.

gain on the divestiture of the Group's stake in Hydrogenics and the recognition of tax credits in Italy, whereas the effective tax rate was higher in 2022, impacted by significant non-recurring and non-taxable items<sup>(13)</sup>.

The **share of profit of associates** amounted to **5 million euros**. The share of **minority interests** in net profit totaled **110 million euros**, down -23.9%, mainly due to the impairment of an intangible asset in a company with minorities and the purchase of minority interests.

**Net profit (Group share)** stood at **3,078 million euros** in 2023, showing strong growth of **+11.6%** as published and an increase of **+21.0% excluding the currency impact**. It exceeded 3 billion euros for the first time. **Net profit recurring (Group share)**<sup>(14)</sup> is obtained by excluding the proceeds from the sale of the Group's stake in Hydrogenics, the impairment of assets held for sale and those of other assets identified in particular following a strategic business review, as well as the restructuring costs of the Home Healthcare business in France. It stood at **3,320 million euros**, up by +5.0%, and **+13.3% excluding currency impact**, compared with 2022 net profit recurring (Group share).

**Net earnings per share**, stood at **5.90 euros** and were up **+11.7%** as published compared with 2022, in line with the increase in net profit (Group share). The **average number of outstanding shares** used for the calculation of 2023 net earnings per share was **522,110,068**.

## Change in the number of shares

	FY 2022	FY 2023
Average number of outstanding shares	522,069,020	522,110,068

## DIVIDEND

At the General Meeting on April 30, 2024, the payment of a dividend of **3.20 euros per share** will be proposed to shareholders for the 2023 fiscal year, representing an increase of **+8.5%** compared with the previous year. The total estimated pay-out taking into account share repurchases, share cancellations and the exercising of stock-options would amount to **1,723 million euros**, representing a **pay-out ratio of 56%** of the published net profit. The ex-dividend date has been set for May 20, 2024, and the payment is scheduled for May 22, 2024. Moreover, a **free share attribution**, on the basis of one free share for every 10 shares held, as well as the application of a loyalty bonus, are planned for June 2024.

<sup>13</sup> Mainly non-deductible provisions on activities in Russia, and non-taxable capital gains relating to the takeover of a joint activity in Asia.

<sup>14</sup> See definition and reconciliation in appendix.

## Cash Flow and Balance Sheet

<i>(in millions of euros)</i>	<b>2022</b>	<b>2023</b>
<b>Cash flow from operating activities before changes in working capital</b>	<b>6,255</b>	<b>6,357</b>
Changes in working capital	(397)	(154)
Other cash items	(48)	60
<b>Net cash flows from operating activities</b>	<b>5,810</b>	<b>6,263</b>
Dividends	(1,487)	(1,667)
Industrial capital expenditure	(3,273)	(3,393)
Other financing operations	31	314
Transactions with minority shareholders	(4)	(142)
Proceeds from issues of share capital	38	129
Purchase of treasury shares	(192)	(82)
Lease liabilities repayments and net interests paid on lease liabilities	(283)	(280)
Impact of exchange rate changes and net indebtedness of newly consolidated companies & restatement of net finance costs	(454)	(102)
<b>Change in net debt</b>	<b>187</b>	<b>1,041</b>
Net debt as of December 31	(10,261)	(9,221)
<b>Debt-to-equity ratio as of December 31</b>	<b>41.8%</b>	<b>36.8%</b>

## NET CASH FLOW FROM OPERATING ACTIVITIES AND CHANGES IN WORKING CAPITAL REQUIREMENT

**Cash flows from operating activities before changes in working capital** amounted to **6,357 million euros**, up +1.6% as published and **+6.6% excluding the currency impact**. This corresponds to a high level of 23.0% of sales, an improvement of +40 basis points compared with 2022 excluding the energy impact.

**Working Capital Requirement (WCR)** rose by **154 million euros** compared with December 31, 2022, impacted notably by the decrease in energy prices generating an important decrease in the accounts payable, days payable outstanding remaining stable.

**Net cash flow from operating activities after changes in working capital requirement** amounted to **6,263 million euros**, a strong increase of +7.8% compared with 2022 and **+12.8% excluding the currency impact**.

## CAPITAL EXPENDITURE

<i>(in millions of euros)</i>	<b>Industrial Investments</b>	<b>Financial Investments<sup>(a)</sup></b>	<b>Total capital expenditures<sup>(a)</sup></b>
2019	2,636	568	<b>3,205</b>
2020	2,630	145	<b>2,775</b>
2021	2,917	696	<b>3,613</b>
2022	3,273	140	<b>3,413</b>
<b>2023</b>	<b>3,393</b>	<b>245</b>	<b>3,638</b>

*(a) Including transactions with minority shareholders.*

**Capital expenditure** was very high in 2023 at **3,638 million euros**, including transactions with minority shareholders.

**Industrial capital expenditure** amounted to **3,393 million euros**, compared with 3,273 million euros in 2022, an increase of +3.7% and +8.6% excluding the currency impact, reflecting dynamic project development activity. For the Gas & Services business, this expenditure totaled 3,152 million euros with the corresponding geographical breakdown presented in the table below.

(in millions of euros)	Gas & Services				Total
	Europe	Americas	Asia Pacific	Middle East and Africa	
2022	972	979	866	150	2,967
<b>2023</b>	<b>1,113</b>	<b>1,059</b>	<b>835</b>	<b>145</b>	<b>3,152</b>

**Financial investments** amounted to **245 million euros** in 2023 and comprised the acquisition of 14 entities with limited size, essentially in the Industrial Merchant and Healthcare business lines. They also included 142 million euros of transactions with minority shareholders and in particular the acquisition of minority shares in a subsidiary in the Middle East.

**Proceeds from the sale of assets** reached **403 million euros** in 2023 and reflected a dynamic management of the portfolio. They mainly included the sale of the Group's stake in Hydrogenics and the divestiture of the Large Industries business in Trinidad and Tobago.

**Net capital expenditure**<sup>(15)</sup> totaled **3,221 million euros**, stable compared with 2022.

## NET DEBT

**Net debt** at December 31, 2023, amounted to **9,221 million euros**, a decrease of 1,040 million euros compared with December 31, 2022. Indeed, cash flows from operating activities after changes in working capital allowed to reduce the net debt after the payment of over 3.4 billion euros in industrial investments and 1.6 billion euros in dividends. The net debt-to-equity ratio stood at 36.8%, highlighting the strength of cash flows.

## ROCE

The return on capital employed after tax (ROCE) was 9.8% in 2023. The **recurring ROCE**<sup>(16)</sup> stood at **10.6 %**, an improvement compared to 10.3% in 2022 and **aligned with the ADVANCE strategic plan's double-digit objective**.

<sup>15</sup> Including transactions with minority shareholders and dividends received from equity affiliates.

<sup>16</sup> See definition and reconciliation in the appendices.

## Extra-financial performance

**ADVANCE**, the Group's strategic plan 2022-2025 announced in March 2022, places sustainable development at the heart of the strategy and **combines financial and extra-financial performance**.

The Group's **scopes 1 and 2 CO<sub>2</sub> emissions** in 2023 totaled **37.6 million tonnes of CO<sub>2</sub> equivalent**<sup>(17)</sup>. They were down **-4.7% compared with 2022** and **-4.9% compared with the 2020 baseline**. In a context of soft demand from Large Industries customers, the Group's main actions driving this improvement were the **increase of voluntary low-carbon energy supplies** and to a lesser extent the **energy efficiency projects**. This decrease of emissions was however slightly penalized by a deterioration in the electricity networks carbon footprint<sup>(18)</sup>, especially in Europe.

Actions performed in 2023 will contribute to the reduction of CO<sub>2</sub> emissions in the coming years. Thus, in order to **accelerate the decarbonization of its production units**, the Group announced in 2023 the signature of long-term **power purchase agreements (PPAs)**, for more than **1.5 TWh per year** aiming to reduce its annual emissions of CO<sub>2</sub> by **around -1.2 million tonnes**. Air Liquide also decided on the construction of a large scale (200 MW) PEM **electrolyzer**, on the installation of a **carbon capture** unit on one of the Group's largest hydrogen production units and on an industrial scale ammonia cracking pilot plant to further develop its low-carbon hydrogen production portfolio of solutions. These projects will contribute to the decarbonization of the Group's assets after the commissioning of these renewable electricity sources and the start-up of the production units.

With these achievements, Air Liquide is confident to achieve its **ADVANCE near term goal of emissions inflection in 2025**.

The Group also offers efficient solutions to **decarbonize its customers production plant** and actively participates in their deployment. Hence, the European Commission granted subsidies to two new carbon capture projects in Germany and in Belgium which use Air Liquide solutions. This will allow the Group's clients in the cement and lime sectors to decrease their CO<sub>2</sub> emissions by -2.6 million tonnes per year. In addition, Air Liquide actively contributes to the **decarbonization of mobility**, in particular through joint ventures dedicated to hydrogen distribution in Europe and Asia.

On the social aspect, safety is a priority. Initiatives have been undertaken to raise awareness and to prevent accidents with a "zero accident" ambition. Furthermore, the **lost-time accident frequency rate**<sup>(19)</sup> stood at **1.0** in 2023.

The share of **employees benefitting from a common basis of care coverage** reached **78%**, showing a sharp increase compared to 34% in 2021, in line with the objective of offering coverage to all employees by 2025. The gender equality indicator improved again in 2023 and stood at a rate of **32% of women among managers and professionals**. Moreover, **73%** of the Group's employees now have the opportunity to engage in local initiatives to support communities as part of the **Citizen at Work** initiative, an increase compared to 43% in 2022.

Finally, the Access Oxygen program pursues its development. **Over 2 million people** have been facilitated with access to **medical oxygen in low and moderate income countries**, a +16% increase compared to 2022.

<sup>17</sup> In metric tonnes of scopes 1 and 2 CO<sub>2</sub>-equivalent, "market based", restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope and which have a significant impact (upwards and downwards) on CO<sub>2</sub> emissions.

<sup>18</sup> Electrical grid residual emission factors. Note that the calculation of scope 2 emissions from electrical network consumption is based on available data and therefore from the previous year, in this case 2022 for 2023 emissions.

<sup>19</sup> Lost-time frequency rate for Group employees and temporary workers. Number of accidents with at least one day's absence from work per million hours worked.



## Sustainable development

- Air Liquide continues its strategy regarding “scope 3” emissions reduction and made the pledge that **by 2025, 75% of its 50 largest customers will have a stated carbon neutrality commitment and 100% by 2035.**
- Air Liquide's commitments taken in 2022 regarding **biodiversity** have been recognized and validated by the **Act4nature International** initiative:
  - to **develop and implement an aggregated biodiversity KPI** by 2025, allowing the Group to monitor and communicate on its biodiversity performance.
  - to **reinforce its biodiversity assessment criteria** into the investment process **for all new projects** by 2024;
  - to **raise awareness** amongst employees on biodiversity;
  - to reaffirm the Group's **climate** and **water** ambition.
- Air Liquide signed its **first** long-term **virtual power purchase agreement (VPPA)** with **Statkraft**, the largest renewable energy producer in Europe. Thus, Air Liquide is innovating for the decarbonization and sustainable development of the Group. This contract will contribute to **reducing Air Liquide's CO<sub>2</sub> emissions by 38,000 tonnes per year.** The renewable energy will be produced by newly installed wind turbines in **Poland.**

# INVESTMENT CYCLE AND FINANCING

## Investments

### INVESTMENT DECISIONS AND INVESTMENT BACKLOG

<i>(in billions of euros)</i>	<b>Industrial Investment decisions</b>	<b>Financial investment decisions (acquisitions)</b>	<b>Total investment decisions</b>
2019	3.2	0.6	<b>3.7</b>
2020	3.0	0.1	<b>3.2</b>
2021	3.0	0.6	<b>3.6</b>
2022	3.9	0.1	<b>4.0</b>
<b>2023</b>	<b>4.2</b>	<b>0.1</b>	<b>4.3</b>

**Industrial and financial investment decisions** reached a **record level** of **4.3 billion euros** in 2023, up sharply from 4.0 billion euros in 2022.

**Industrial investment decisions** amounted to **4,189 million euros**, thereby exceeding 4 billion euros for the first time, and compared to 3,861 million euros in 2022.

- In **Large Industries**, they included in particular **three major projects** related to the **energy transition** in dynamic industrial areas. A new production unit is being built in Canada to supply manufacturers of battery materials with renewable air gases. In France, the first large electrolyzer (200 MW) will produce low-carbon and renewable hydrogen. In the 4<sup>th</sup> quarter, the Group decided to invest in a Cryocap™ CO<sub>2</sub> capture unit in the Netherlands to decarbonize one of the Group's largest hydrogen production units and meet the needs of customers in the Benelux network. This unit will be connected to Porthos, one of the largest carbon capture and storage infrastructures in Europe.
- Development of the **Electronics** business continued in 2023 with investments in carrier gas production units in Asia, Europe and America, including one large unit. Decisions also concerned the investment in a new advanced materials production site in Asia.
- In **Industrial Merchant**, for the 3<sup>rd</sup> consecutive year, investment decisions included around 50 small on-sites, to serve customers in secondary Electronics or with applications related to the energy transition, such as the production of battery materials.
- Investments in the **Healthcare** business included distribution equipment to support the growth of medical gas sales, particularly in South Africa and Spain. They also included investments in new innovative cylinders and efficiency projects.
- Within the **Global Markets & Technologies** business, the development of hydrogen mobility continued, in particular in China, Korea and Europe, with investment decisions in hydrogen filling centers and their logistics chain. The biomethane activity also continued to grow and a new investment in a production unit in the United States was decided in the 4<sup>th</sup> quarter.

**Financial investment decisions** totaled **94 million euros** in 2023 compared with 112 million euros in 2022. They included the acquisition of small distributors in the **Industrial Merchant** business in the United States, Canada, Italy, India and China. These acquisitions will contribute to growth and also strengthen the density of the Group's local presence, thus increasing the efficiency of its activities. Decisions also included the acquisition of companies in **Home Healthcare** in Benelux and Sweden, and in **Hydrogen mobility** in Germany. These financial investment decisions did not include 142 million euros of transactions with minority shareholders and in particular the acquisition of minority shares in a subsidiary in the Middle East.

The **investment backlog** hit a record high of **4.4 billion euros** in 2023, a sharp increase from 3.5 billion euros in 2022. Its composition is balanced between **Large Industries** and **Electronics**. In **Asia**, ongoing projects mainly concern the Electronics business. The **Americas** and **Europe** saw similar levels of investment, with projects in Large Industries and Electronics.



### Investissements

- In 2023, Air Liquide set a **new record** by signing **62 new small on-site production units** in the **Industrial Merchant** and **Electronics** businesses. This growth reflects the increased demand for these solutions, and illustrates our capacity to meet customers' needs. These units offer real advantages: a continuous, reliable supply of gas, adapted to each client's production needs and helping to reduce carbon emissions.

## START-UPS

The main start-ups in 2023 concerned production units in Large Industries and Electronics. In **Large Industries**, several Air Separation Units were started up in Europe and the United States, with in particular the commissioning at the end of the year of a major unit connected to the Group's pipeline network in the Gulf Coast. In **Electronics**, it was mainly carrier gas production units that were started up in Asia, the United States and Germany. In the **Global Markets & Technologies** activity, the Group's first biomethane unit in China was commissioned in the 3<sup>rd</sup> quarter of 2023.

The **additional contribution to sales** of unit start-ups and ramp-ups totaled **267 million euros** in 2023. Electronics was the main contributor in Asia, while in the Americas and Europe it was Large Industries. Hydrogen mobility benefited from the ramp-up of a major hydrogen production and liquefaction unit in the United States.

The **additional contribution to 2024 sales** of unit start-ups and ramp-ups is expected to be between **270 and 290 million euros**.

## INVESTMENT OPPORTUNITIES

The **portfolio of 12-month investment opportunities** remained high, at **3.4 billion euros** at the end of 2023. This reflects the dynamism of the development of projects in line with the **energy transition**, which represented **more than 40% of the portfolio**, particularly in Europe and the United States. Opportunities in **Electronics** are now spread across Asia, Europe and the United States and are no longer predominantly located in Asia. The portfolio of opportunities beyond 12 months is at a very high level and includes major projects related to the energy transition in Europe and North America.

## Financing

### “A” CATEGORY FINANCIAL RATING CONFIRMED

Since 2023, Scope Ratings, the leading European credit rating agency, is one of the rating agencies that evaluate Air Liquide. Air Liquide is thus rated by three rating agencies, Standard & Poor's, Moody's and Scope Ratings. The long-term ratings from **Standard & Poor's and Scope Ratings are “A”** and from **Moody's is “A2”**. Moreover, the short-term ratings are “A1” for Standard & Poor's, “S-1” for Scope Ratings and “P1” for Moody's. Standard & Poor's confirmed its ratings on December 15, 2023 and gave them a stable outlook. Moody's confirmed its long-term and short-term rating on September 29, 2023 and gave them a stable outlook.



#### Financial Rating Agency

- **Scope Ratings**, Europe's first credit rating agency, assigned a “A” issuer rate to Air Liquide, as well as a “A” rating for its senior unsecured debt and an “S-1” short-term rate for all debt instruments issued by Air Liquide SA and Air Liquide Finance. The outlook associated with the issuer rating is positive.

### DIVERSIFYING AND SECURING FINANCIAL SOURCES

As of December 31, 2023, **Group financing through capital markets** accounted for **85% of the Group's total debt**, for a **total amount of outstanding bonds of 8.9 billion euros** including all types of bonds, and 0.4 billion euros of commercial paper.

The **total amount of credit facilities** was **increased to 3.8 billion euros**. The syndicated credit facility covers an unchanged amount of **2.5 billion euros** and matures in December 2025. Since 2019, this facility includes an indexation mechanism of financial costs on three of the Group's CSR targets in the areas of carbon intensity, gender diversity, and safety.

### Issues and redemptions

In September 2023, the Group **issued a private placement** for an amount of **20 billion Japanese yen** (128 million euros equivalent) under the EMTN program, maturing in 8 years. At the end of 2023, **outstanding bonds** issued under the **EMTN program** amounted to **6.6 billion euros** (nominal amount).

As part of optimizing the management of its debt and cash surpluses, Air Liquide Finance proceeded in 2023 to several **early bonds redemption**:

- In March 2023, for a total of **383 million U.S. dollars** (nominal amount), following a Tender Offering process for two series of bonds in U.S. dollars, the first maturing in 2026 and the second in 2046.
- In November 2023, for a total of **236 million euros** (nominal amount), following a Tender Offering process for two series of bonds maturing in 2024 and a series of bonds maturing in 2025.

In addition, three **bond issues** were **repaid** at maturity in March and September 2023 for a total of **1,112 million euros equivalent**.

### Sustainable financing

Within the context of its project to build two low-carbon hydrogen production units in the Shanghai Chemical Industrial Park (SCIP), a subsidiary of Air Liquide signed a **bilateral Green Loan of 500 million RMB** (around 67 million euros). This green credit is in line with the **principles common to the green taxonomies of China and the European Union**, which define strict criteria for the production of hydrogen with an emission threshold for low-carbon hydrogen.

This Green Loan is the first granted in the world to finance low-carbon hydrogen production respecting the principles common to the green taxonomies of China and the European Union ("China-EU Common Ground Taxonomy").

## Net Debt by currency as of December 31, 2023

	December 31, 2022	December 31, 2023
Euro	46%	52%
U.S. Dollar	37%	30%
Japanese Yen	3%	3%
Chinese Renminbi	1%	1%
Taiwanese Dollar	4%	5%
Others	9%	9%

Investments are generally funded in the currency in which the cash flows are generated, creating a natural currency hedge. In 2023, net debt decreased in U.S. dollar and increased in euro and in Taiwanese dollar. The share of dollar in total net debt decreased in favor of these currencies.

## CENTRALIZATION OF CASH AND FUNDING

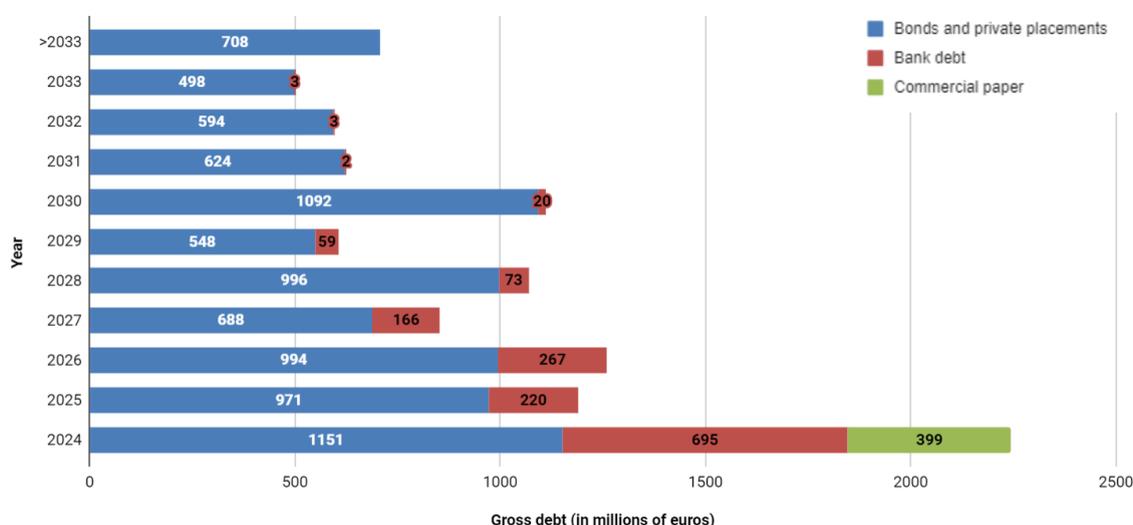
In 2023, Air Liquide Finance continued to pool the cash balances of Group entities.

On December 31, 2023, Air Liquide Finance had granted to Group subsidiaries, directly or indirectly, the equivalent of 12.3 billion euros in loans and received 3.1 billion euros in excess cash as deposits from them. These transactions were denominated in 24 currencies (mainly the euro, U.S. dollar, Japanese yen, Canadian dollar, Chinese renminbi, Singapore dollar, British pound). Approximately 400 subsidiaries are included in the Group cash pooling, directly or indirectly (including subsidiaries where cash pooling is carried out locally before being centralized at Air Liquide Finance).

## DEBT MATURITY AND SCHEDULE

The **average of the Group's debt maturity** was **5.5 years** at December 31, 2023, decreasing compared with December 31, 2022 (5.9 years). Due to the generation of net cash flow in 2023, bond issues reached maturity without the need for refinancing and early repayments of bonds were made possible.

Finally, the single largest annual maturity represents approximately 12% of total debt and the debt maturing in the next 12 months is less than 2.3 billion euros.



# OUTLOOK

In 2023, Air Liquide achieved a **solid performance**, highlighting **the resilience and quality of its business model** as well as the **mobilization and agility of its teams** in a complex and changing macroeconomic and geopolitical environment. The Group's performance was characterized by an **increase in sales** on a comparable basis, a **further improvement in its operating margin** excluding the energy impact and an **accelerating investment momentum**, particularly in decarbonization projects.

In particular, the Group has practically reached, **in two years**, the margin ambition targeted for 2025 as part of its ADVANCE strategic plan. As a consequence, it is **announcing today a doubling of its initial ambition**.

Air Liquide also confirms its ADVANCE financial objectives, related to sales growth on a comparable basis and Return on Capital Employed, as well as its investment decision ambition. In addition, on the extra-financial level, the many decarbonization initiatives give the Group confidence in its objective to combine growth in its business with a reduction in its CO<sub>2</sub> emissions in absolute value from 2025.

**Revenue reached 27.61 billion euros, an increase of +3.7% on a comparable basis** in 2023. On a published basis, it stood at -7.8%, due to the drop in energy prices - energy costs being contractually passed through to Large Industries customers - as well as negative currency impacts. The **Gas & Services** business, which represented 95% of the Group's revenue, was up +4.2% on a comparable basis. Within this activity, **all regions saw growth**, in particular the **Americas** and **Europe**, driven notably by **Industrial Merchant** and **Healthcare**.

In line with its **ADVANCE** strategic plan, Air Liquide continued to improve its operational performance. The Group generated record efficiencies of **466 million euros, up +23%** despite an inflationary context unfavorable to savings on procurement, and continued the dynamic management of its business portfolio. Its ability to provide its customers with value-added offerings allows it to adjust its prices in Industrial Merchant. As a result, the **operating margin** increased further, by **+80 basis points** in 2023 excluding the energy impact, and therefore the sum of improvements in the operating margin excluding energy impact in **2022 and 2023** reached **+150 basis points**. Having practically reached its margin target halfway through ADVANCE which was at +160 basis points, **Air Liquide now aims for a +320 basis points increase, twice its initial ambition, over the duration of the plan**.

Net profit (Group share) amounted to 3.08 billion euros, up +11.6% as published. **Net profit recurring<sup>(20)</sup>** increased by **+13.3% excluding the currency impact**. Cash flow<sup>(21)</sup> grew by +12.8% excluding the currency impact. The balance sheet is strong with a net debt to equity ratio of 36.8%. At 10.6% at end-December, recurring ROCE<sup>(22)</sup> remained well above 10%, in line with the objectives of ADVANCE, despite the increase in investments. Reflecting Air Liquide's confidence in the future, the **dividend** that will be submitted to the shareholders' vote in April amounts to **3.20 euros per share**, i.e. an increase of **+8.5%**. In addition, a **free share attribution** is scheduled for June 2024, on the basis of one share for every 10 shares held.

The **investment dynamic** of the Group is accelerating, supported in particular by its projects in the energy transition and electronics. The backlog is historically high at 4.4 billion euros. Investment decisions reached a record level of 4.3 billion euros in 2023.

**In 2024, Air Liquide is confident in its ability to further increase its operating margin and to deliver growth in Net profit recurring, at constant exchange rates<sup>(23)</sup>.**

<sup>20</sup> Net profit recurring excluding exceptional and significant transactions that have no impact on the operating income recurring.

<sup>21</sup> Cash Flow from Operations after changes in working capital requirement.

<sup>22</sup> Based on Net profit recurring.

<sup>23</sup> Operating margin excluding energy passthrough impact. Net profit recurring excluding exceptional and significant transactions that have no impact on the operating income recurring.

# APPENDICES

## Performance indicators

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Performance indicators used by the Group that are not directly defined in the financial statements have been prepared in accordance with the AMF position 2015-12 about alternative performance measures.

The performance indicators are the following:

- Currency, energy and significant scope impacts
- Comparable sales change and comparable operating income recurring change
- Operating margin and operating margin excluding energy
- Reported and restated CO<sub>2</sub> emissions
- Operating income recurring before depreciation and amortization excluding IFRS16 at 2015 exchange rate to calculate the carbon intensity
- Recurring net profit Group share
- Recurring net profit excluding currency effect
- Net Profit Excluding IFRS16
- Net Profit Recurring Excluding IFRS16
- Efficiencies
- Return on Capital Employed (ROCE)
- Recurring ROCE

## DEFINITION OF CURRENCY, ENERGY AND SIGNIFICANT SCOPE IMPACTS

Since industrial and medical gases are rarely exported, the impact of currency fluctuations on activity levels and results is limited to euro translation impacts with respect to the financial statements of subsidiaries located outside the euro zone. **The currency effect** is calculated based on the aggregates for the period converted at the exchange rate for the previous period.

In addition, the Group passes on variations in the cost of energy (electricity and natural gas) to its customers via indexed invoicing integrated into their medium and long-term contracts. This indexing can lead to significant variations in sales (mainly in the Large Industries Business Line) from one period to another depending on fluctuations in prices on the energy market.

**An energy impact** is calculated based on the sales of each of the main subsidiaries in Large Industries. Their consolidation allows the determination of the energy impact for the Group as a whole. The foreign exchange rate used is the average annual exchange rate for the year N-1. Thus, at the subsidiary level, the following formula provides the energy impact, calculated for natural gas and electricity respectively:

Energy impact =

Share of sales indexed to energy year (N-1) x (Average energy price in year (N) - Average energy price in year (N-1))

This indexation effect of electricity and natural gas does not impact the operating income recurring.

**The significant scope effect** corresponds to the impact on sales of all acquisitions or disposals of a significant size for the Group. These changes in scope of consolidation are determined:

- for acquisitions during the period, by deducting from the aggregates for the period the contribution of the acquisition,
- for acquisitions during the previous period, by deducting from the aggregates for the period the contribution of the acquisition between January 1 of the current period and the anniversary date of the acquisition,
- for disposals during the period, by deducting from the aggregates for the previous period the contribution of the disposed entity as of the anniversary date of the disposal,
- for disposals during the previous period, by deducting from the aggregates for the previous period the contribution of the disposed entity.

Note: exceptionally, the acquisition of Sasol production units in 2021 had an impact in 2 steps on Group sales. After the acquisition of the assets in July 2021 (1<sup>st</sup> step), devices were installed on the units in 2022 in order to measure the energy consumed which, from October 2022 (2<sup>nd</sup> step), could be re-invoiced to the customer according to the standard Large Industries contractual frame. For the sake of transparency in financial communication, sales related to energy consumed and contractually re-invoiced to the customer are identified within the significant scope and are therefore excluded from the comparable growth. This element has thus been accounted for in the significant scope during 12 months from October 2022.

## Calculation of performance indicators (Year)

### COMPARABLE SALES CHANGE AND COMPARABLE OPERATING INCOME RECURRING CHANGE

Comparable changes for sales and operating income recurring **exclude the currency, energy and significant scope impacts described above.**

<i>(in millions of euros)</i>	FY 2023	FY 2023/2022 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	FY 2023/2022 Comparable Growth
<b>Revenue</b>							
Group	27,608	-7.8%	(1,255)	(1,765)	(503)	97	+3.7%
Impacts in %			-4.2%	-5.9%	-1.7%	+0.3%	
Gas & Services	26,360	-7.7%	(1,225)	(1,765)	(503)	97	+4.2%
Impacts in %			-4.2%	-6.2%	-1.8%	+0.3%	
<b>Operating Income Recurring</b>							
Group	5,068	+4.2%	(318)	-	-	(25)	+11.4%
Impacts in %			-6.6%	-	-	-0.6%	
Gas & Services	5,271	+4.1%	(311)	-	-	(24)	+10.8%
Impacts in %			-6.2%	-	-	-0.5%	

### OPERATING MARGIN AND OPERATING MARGIN EXCLUDING ENERGY

The operating margin is the ratio of the operating income recurring divided by revenue. The operating margin excluding the energy impact corresponds to operating income recurring (which is not impacted in absolute value by the energy costs contractually re-invoiced to Large Industries customers) divided by revenue restated for the energy impact to which the corresponding currency impact is attached. The ratio of operating income recurring divided by revenue (whether restated or not for the energy impact) is calculated with a one decimal place rounded number. The variation between 2 periods is calculated as the difference between these rounded ratios, which can result in positive or negative differences compared to a more precise calculation, due to rounding.

		FY 2023	Natural gas impact <sup>(a)</sup>	Electricity impact <sup>(a)</sup>	FY 2023, excluding energy impact
<b>Revenue</b>	Group	27,608	(1,776)	(514)	29,898
	Gas & Services	26,360	(1,776)	(514)	28,650
<b>Operating Income Recurring</b>	Group	5,068			5,068
	Gas & Services	5,271			5,271
<b>Operating Margin</b>	<b>Group</b>	<b>18.4%</b>			<b>17.0%</b>
	<b>Gas &amp; Services</b>	<b>20.0%</b>			<b>18.4%</b>

(a) Including the currency impact linked to the considered energy impact.

## REPORTED AND RESTATED CO<sub>2</sub> EMISSIONS

<i>(in thousands of metric tonnes CO<sub>2</sub> eq.)</i>	FY 2020	FY 2022	FY 2023	2023/2020 change	2023/2022 change
Scope 1: total direct greenhouse gas emissions (GHG) <sup>(a)</sup>	15,345	16,273	16,107	+4.9%	-1.1%
Scope 2: total indirect greenhouse gas emissions (GHG) <sup>(a)</sup>	17,184	23,033	21,510	+25.2%	-6.6%
<b>Total emissions as reported<sup>(a)</sup></b>	<b>32,529</b>	<b>39,306</b>	<b>37,617</b>	<b>+15.6%</b>	<b>-4.3%</b>
<b>Total restated emissions<sup>(b)</sup></b>	<b>39,564</b>	<b>39,464</b>	<b>37,617</b>	<b>-4.9%</b>	<b>-4.7%</b>

(a) « Market based », actual Group emissions including changes in scope having an impact (upward and downward) on CO<sub>2</sub> emissions during the year from the effective date.

(b) « Market based », restated to take into account over a full year from 2020 and each subsequent year, the emissions of the assets which correspond to changes in scope and which have a significant impact (upwards and downwards) on CO<sub>2</sub> emissions.

## OPERATING INCOME RECURRING BEFORE DEPRECIATION AND AMORTIZATION EXCLUDING IFRS 16 AT 2015 EXCHANGE RATE TO CALCULATE THE CARBON INTENSITY

<i>(in millions of euros and thousand of tonnes)</i>	2015	2023	2023/2015 change
<b>(A) Operating income recurring before depreciation and amortization</b>	<b>4,033</b>	<b>7,550</b>	
(B) Currency impact (2015) <sup>(a)</sup>		(361)	
(C) IFRS16 Impact <sup>(b)</sup>		260	
<b>(A) - (B) - (C) = (D) EBITDA used for Carbon Intensity calculation</b>	<b>4,033</b>	<b>7,651</b>	
(E) CO <sub>2</sub> equivalent emissions (Scopes 1 + 2 <sup>(c)</sup> ) in thousands of tonnes	29,413	37,617	
<b>Carbon Intensity (E) / (D)</b>	<b>7.3</b>	<b>4.9</b>	<b>-33%</b>

(a) At 2015 exchange rate for countries in hyperinflationary context, their EBITDA being converted at 2023 rate.

(b) The IFRS 16 impact on operating income recurring before depreciation and amortization includes the neutralization of rental expenses, which are then reintegrated into depreciation and amortization and other financial expenses booked in relation to IFRS 16.

(c) Scope 2 emissions calculated from the specific supplies (market-based): the Group hence adopted the methodology recommended by the GHG Protocol.

## RECURRING NET PROFIT GROUP SHARE AND RECURRING NET PROFIT GROUP SHARE EXCLUDING CURRENCY IMPACT

The recurring net profit Group share corresponds to the net profit Group share excluding exceptional and significant transactions that have no impact on the operating income recurring.

	FY 2022	FY 2023	2023/2022 variation
<b>(A) Net Profit (Group Share) - As Published</b>	<b>2,758.8</b>	<b>3,078.0</b>	<b>+11.6%</b>
<i>(B) Exceptional and significant transactions after-tax with no impact on OIR</i>			
- Exceptional provisions on industrial assets in Russia and other related costs	(575.6)		
- Exceptional income related to joint-venture take-over in Asia Pacific	205.5		
- Provision for risks in Engineering & Construction activity	(32.8)		
- Sales of Group stake in Hydrogenics		159.4	
- Impairment of assets held for sale and of other assets identified in particular following a strategic review		(345.7)	
- Restructuring costs of Home Healthcare activity in France		(55.7)	
<b>(A) - (B) = Net Profit Recurring (Group Share)</b>	<b>3,161.7</b>	<b>3,320.0</b>	<b>+5.0%</b>
(C) Currency impact		(262.0)	
<b>(A) - (B) - (C) = Net Profit Recurring (Group Share) excluding currency impact</b>		<b>3,582.0</b>	<b>+13.3%</b>

## NET PROFIT EXCLUDING IFRS 16 AND NET PROFIT RECURRING EXCLUDING IFRS 16

Net profit excluding IFRS 16:

	FY 2022	FY 2023
<b>(A) Net Profit as Published</b>	<b>2,903.9</b>	<b>3,188.4</b>
(B) = IFRS16 Impact <sup>(a)</sup>	(15.6)	(17.8)
<b>(A) - (B) = Net Profit excluding IFRS16</b>	<b>2,919.5</b>	<b>3,206.2</b>

(a) The IFRS 16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS 16.

Net profit recurring excluding IFRS 16:

	FY 2022	FY 2023
<b>(A) Net Profit as Published</b>	<b>2,903.9</b>	<b>3,188.4</b>
(B) Exceptional and significant transactions after-tax with no impact on OIR	(402.9)	(266.1)
<b>(A) - (B) = Net Profit recurring</b>	<b>3,306.8</b>	<b>3,454.5</b>
(C) IFRS16 Impact <sup>(a)</sup>	(15.6)	(17.8)
<b>(A) - (B) - (C) = Net Profit recurring excluding IFRS16</b>	<b>3,322.4</b>	<b>3,472.3</b>

(a) The IFRS16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS 16.

## EFFICIENCIES

**Efficiencies** represent a sustainable cost reduction resulting from an action plan on a specific project. Efficiencies are identified and managed on a per project basis. Each project is followed by a team composed in alignment with the nature of the project (purchasing, operations, human resources...).

## RETURN ON CAPITAL EMPLOYED - ROCE

Return on capital employed after tax is calculated based on the Group's consolidated financial statements, by applying the following ratio for the period in question.

For the numerator: net profit excluding IFRS16 - net finance costs after taxes for the period in question.

For the denominator: the average of (total shareholders' equity excluding IFRS16 + net debt) at the end of the past three half-years.

(in millions of euros)		FY 2022 (a)	H1 20223 (b)	FY 2023 (c)	ROCE Calculation
Numerator (c)	Net Profit Excluding IFRS16			3,206.2	<b>3,206.2</b>
	Net Finance costs			(265.5)	(265.5)
	Effective Tax Rate <sup>(1)</sup>			23.6%	
	Net Finance costs after tax			(202.9)	<b>(202.9)</b>
	<b>Net Profit - Net financial costs after tax</b>			<b>3,409.1</b>	<b>3,409.1</b>
Denominator ((a)+(b)+(c))/3	Total Equity Excluding IFRS16	24,628.5	24,110.1	25,117.5	<b>24,618.7</b>
	Net Debt	10,261.3	10,550.4	9,220.8	<b>10,010.8</b>
	<b>Average of (total equity + net debt)</b>	<b>34,889.8</b>	<b>34,660.5</b>	<b>34,338.3</b>	<b>34,629.5</b>
<b>ROCE</b>					<b>9.8%</b>

<sup>(1)</sup> Excluding non-recurring tax impact.

## RECURRING ROCE

The recurring ROCE is calculated in the same manner as the ROCE using the recurring net profit for the numerator.

<i>(in millions of euros)</i>		FY 2022 (a)	H1 20223 (b)	FY 2023 (c)	Recurring ROCE Calculation
Numerator (c)	<b>Net Profit Recurring Excluding IFRS16</b>			3,472.2	<b>3,472.3</b>
	Net Finance costs			(265.5)	(265.5)
	Effective Tax Rate <sup>(a)</sup>			23.6%	
	Net Finance costs after tax			(202.9)	(202.9)
	<b>Recurring Net Profit Excluding IFRS16 - Net financial costs after tax</b>			3,675.1	<b>3,675.2</b>
Denominator ((a)+(b)+(c))/3	Total Equity Excluding IFRS16	24,628.5	24,110.1	25,117.5	24,618.7
	Net Debt	10,261.3	10,550.4	9,220.8	10,010.8
	<b>Average of (total equity + net debt)</b>	<b>34,889.8</b>	<b>34,660.5</b>	<b>34,338.3</b>	<b>34,629.5</b>
<b>Recurring ROCE</b>					<b>10.6%</b>

(a) Excluding non-recurring tax impact

## Calculation of performance indicators - Quarter

	Q4 2023	Q4 2023/2022 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	Q4 2023/2022 Comparable Growth
<b>Revenue</b>							
Group	6,817	-8.9%	(435)	(377)	(124)	(3)	+3.7%
<i>Impacts in %</i>			-5.8%	-5.1%	-1.6%	-0.1%	
Gas & Services	6,472	-8.5%	(426)	(377)	(124)	(3)	+4.6%
<i>Impacts in %</i>			-6.0%	-5.3%	-1.8%	-	

## BY GEOGRAPHY

Revenue (in millions of euros)	Q4 2022	Q4 2023	Published change	Comparable change
Americas	2,727	2,454	-10.0%	+5.6%
Europe	2,700	2,428	-10.1%	+4.7%
Asia Pacific	1,388	1,334	-3.9%	+1.8%
Middle East & Africa	261	256	-1.6%	+8.0%
<b>Gas &amp; Services Revenue</b>	<b>7,076</b>	<b>6,472</b>	<b>-8.5%</b>	<b>+4.6%</b>
Engineering & Construction	138	100	-27.1%	-25.4%
Global Markets & Technologies	266	245	-8.3%	-5.7%
<b>GROUP REVENUE</b>	<b>7,480</b>	<b>6,817</b>	<b>-8.9%</b>	<b>+3.7%</b>

## BY WORLD BUSINESS LINE

Revenue (in millions of euros)	Q4 2022	Q4 2023	Published change	Comparable change
Large industries	2,473	1,883	-23.9%	+1.9%
Industrial Merchant	2,965	2,937	-0.9%	+5.5%
Healthcare	999	1,030	+3.2%	+9.9%
Electronics	639	622	-2.8%	+2.7%
<b>GAS &amp; SERVICES REVENUE</b>	<b>7,076</b>	<b>6,472</b>	<b>-8.5%</b>	<b>+4.6%</b>

## Definitions

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Portfolio of 12-month investment opportunities: Cumulative value of investment opportunities taken into account by the Group for a decision within the next 12 months. Industrial projects with a value of more than 5 million euros for Large Industries and more than 3 million euros for other business lines, including replacement assets and efficiency projects.

Investment decisions: Cumulative value of industrial and financial investment decisions. Growth and non-growth industrial projects, including the renewal of assets, efficiency projects, maintenance and safety, as well as financial decisions (acquisitions).

Investment backlog: Cumulative value of investments for projects that have been decided but not yet started up. Industrial projects of more than 10 million euros, including the renewal of assets and efficiency projects.

Impact of hyperinflation in Argentina: Estimation calculated by capping the price increase in 2023 at 26% (an average annual level of 26% over 3 years corresponds to the definition of hyperinflation).

## Geographic and segment information

<i>(in millions of euros and %)</i>	FY 2022			FY 2023		
	Revenue	Operating income recurring	OIR margin	Revenue	Operating income recurring	OIR margin
Americas	10,680	2,084	19.5%	10,169	2,125	20.9%
Europe	11,390	1,577	13.8%	9,734	1,723	17.7%
Asia Pacific	5,608	1,190	21.2%	5,410	1,214	22.4%
Middle East and Africa	895	211	23.6%	1,047	209	20.0%
<b>Gas &amp; Services</b>	<b>28,573</b>	<b>5,062</b>	<b>17.7%</b>	<b>26,360</b>	<b>5,271</b>	<b>20.0%</b>
Engineering and Construction	474	44	9.3%	390	43	11.1%
Global Markets & Technologies	887	112	12.6%	858	143	16.7%
Reconciliation	-	(356)	-	-	(389)	-
<b>TOTAL GROUP</b>	<b>29,934</b>	<b>4,862</b>	<b>16.2%</b>	<b>27,608</b>	<b>5,068</b>	<b>18.4%</b>

## Consolidated income statement

<i>(in millions of euros)</i>	FY 2022	FY 2023
<b>Revenue</b>	<b>29,934.0</b>	<b>27,607.6</b>
Other income	244.3	233.9
Purchases	(13,813.0)	(11,146.8)
Personnel expenses	(4,963.4)	(5,099.5)
Other expenses	(4,074.2)	(4,045.2)
<b>Operating income recurring before depreciation and amortization</b>	<b>7,327.7</b>	<b>7,550.0</b>
Depreciation and amortization expenses	(2,465.9)	(2,482.0)
<b>Operating income recurring</b>	<b>4,861.8</b>	<b>5,068.0</b>
Other non-recurring operating income	262.4	242.3
Other non-recurring operating expenses	(833.1)	(738.8)
<b>Operating income</b>	<b>4,291.1</b>	<b>4,571.5</b>
Net finance costs	(288.4)	(265.5)
Other financial income	32.4	15.4
Other financial expenses	(130.0)	(166.1)
Income taxes	(1,002.3)	(971.8)
Share of profit of associates	1.1	4.9
<b>PROFIT FOR THE PERIOD</b>	<b>2,903.9</b>	<b>3,188.4</b>
- Minority interests	145.1	110.4
<b>- Net profit (Group share)</b>	<b>2,758.8</b>	<b>3,078.0</b>
<b>Basic earnings per share (in euros)</b>	<b>5.28</b>	<b>5.90</b>

## Consolidated balance sheet

ASSETS (in millions of euros)	December 31, 2022	December 31, 2023
Goodwill	14,587.2	14,194.2
Other intangible assets	1,811.4	1,631.3
Property, plant and equipment	23,646.9	23,652.2
<b>Non-current assets</b>	<b>40,045.5</b>	<b>39,477.7</b>
Non-current financial assets	775.5	696.7
Investments in equity affiliates	185.7	180.1
Deferred tax assets	232.3	225.2
Fair value of non-current derivatives (assets)	40.8	35.1
<b>Other non-current assets</b>	<b>1,234.3</b>	<b>1,137.1</b>
<b>TOTAL NON-CURRENT ASSETS</b>	<b>41,279.8</b>	<b>40,614.8</b>
Inventories and work-in-progress	1,961.0	2,027.6
Trade receivables	3,034.8	2,993.7
Other current assets	985.4	862.7
Current tax assets	196.3	42.9
Fair value of current derivatives (assets)	107.6	70.7
Cash and cash equivalents	1,911.4	1,624.9
<b>TOTAL CURRENT ASSETS</b>	<b>8,196.5</b>	<b>7,622.5</b>
<b>ASSETS HELD FOR SALE</b>	<b>41.7</b>	<b>95.1</b>
<b>TOTAL ASSETS</b>	<b>49,518.0</b>	<b>48,332.4</b>

EQUITY AND LIABILITIES (in millions of euros)	December 31, 2022	December 31, 2023
Share capital	2,879.0	2,884.8
Additional paid-in capital	2,349.0	2,447.7
Retained earnings	15,868.0	16,063.7
Treasury shares	(118.4)	(152.7)
Net profit (Group share)	2,758.8	3,078.0
<b>Shareholders' equity</b>	<b>23,736.4</b>	<b>24,321.5</b>
<b>Minority interests</b>	<b>835.6</b>	<b>721.6</b>
<b>TOTAL EQUITY</b>	<b>24,572.0</b>	<b>25,043.1</b>
Provisions, pensions and other employee benefits	1,991.1	2,004.8
Deferred tax liabilities	2,465.4	2,329.0
Non-current borrowings	10,168.8	8,560.5
Non-current lease liabilities	1,052.2	1,046.3
Other non-current liabilities	317.8	454.7
Fair value of non-current derivatives (liabilities)	54.5	48.0
<b>TOTAL NON-CURRENT LIABILITIES</b>	<b>16,049.8</b>	<b>14,443.3</b>
Provisions, pensions and other employee benefits	282.4	363.8
Trade payables	3,782.6	3,310.5
Other current liabilities	2,215.6	2,310.1
Current tax payables	260.1	236.4
Current borrowings	2,003.9	2,285.3
Current lease liabilities	227.6	219.7
Fair value of current derivatives (liabilities)	108.6	76.2
<b>TOTAL CURRENT LIABILITIES</b>	<b>8,880.8</b>	<b>8,802.0</b>
<b>LIABILITIES HELD FOR SALE</b>	<b>15.4</b>	<b>44.0</b>
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>49,518.0</b>	<b>48,332.4</b>

## Consolidated cash flow statement

(in millions of euros)	FY 2022	FY 2023
<b>Operating activities</b>		
<b>Net profit (Group share)</b>	<b>2,758.8</b>	<b>3,078.0</b>
<b>Minority interests</b>	<b>145.1</b>	<b>110.4</b>
Adjustments:		
• Depreciation and amortization expense	2,465.9	2,482.0
• Changes in deferred taxes	92.6	(59.8)
• Changes in provisions	565.9	471.2
• Share of profit of equity affiliates	(1.1)	(4.9)
• Profit/loss on disposal of assets	(129.9)	(126.9)
• Net finance costs	215.4	192.9
• Other non cash items	142.5	214.4
<b>Cash flow from operating activities before changes in working capital</b>	<b>6,255.2</b>	<b>6,357.3</b>
Changes in working capital	(396.8)	(154.4)
Other cash items	(48.3)	60.1
<b>Net cash flows from operating activities</b>	<b>5,810.1</b>	<b>6,263.0</b>
<b>Investing activities</b>		
Purchase of property, plant and equipment and intangible assets	(3,273.0)	(3,393.4)
Acquisition of consolidated companies and financial assets	(135.8)	(103.0)
Proceeds from sale of property, plant and equipment and intangible assets	92.0	63.2
Proceeds from the sale of subsidiaries, net of net debt sold and from the sale of financial assets	61.1	339.7
Dividends received from equity affiliates	13.8	14.5
<b>Net cash flows used in investing activities</b>	<b>(3,241.9)</b>	<b>(3,079.0)</b>
<b>Financing activities</b>		
Dividends paid		
• L'Air Liquide S.A.	(1,410.5)	(1,581.2)
• Minority interests	(76.3)	(85.4)
Proceeds from issues of share capital	37.7	128.8
Purchase of treasury shares	(191.5)	(81.9)
Net financial interests paid	(236.1)	(222.5)
Increase (decrease) in borrowings	(617.7)	(1,215.6)
Lease liabilities repayments	(249.0)	(240.1)
Net interests paid on lease liabilities	(33.6)	(39.8)
Transactions with minority shareholders	(4.0)	(142.0)
<b>Net cash flows from (used in) financing activities</b>	<b>(2,781.0)</b>	<b>(3,479.7)</b>
Effect of exchange rate changes and change in scope of consolidation	(165.2)	(61.6)
<b>Net increase (decrease) in net cash and cash equivalents</b>	<b>(378.0)</b>	<b>(357.3)</b>
<b>NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD</b>	<b>2,138.9</b>	<b>1,760.9</b>
<b>NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD</b>	<b>1,760.9</b>	<b>1,403.6</b>

The analysis of net cash and cash equivalents at the end of the period is as follows:

<i>(in millions of euros)</i>	December 31, 2022	December 31, 2023
Cash and cash equivalents	1,911.4	1,624.9
Bank overdrafts (included in current borrowings)	(150.5)	(221.3)
<b>NET CASH AND CASH EQUIVALENTS</b>	<b>1,760.9</b>	<b>1,403.6</b>

## Net debt calculation

<i>(in millions of euros)</i>	December 31, 2022	December 31, 2023
Non-current borrowings	(10,168.8)	(8,560.5)
Current borrowings	(2,003.9)	(2,285.3)
<b>TOTAL GROSS DEBT</b>	<b>(12,172.7)</b>	<b>(10,845.8)</b>
Cash and cash equivalents	1,911.4	1,624.9
<b>TOTAL NET DEBT AT THE END OF THE PERIOD</b>	<b>(10,261.3)</b>	<b>(9,220.9)</b>

## Statement of changes in net debt

<i>(in millions of euros)</i>	FY 2022	FY 2023
<b>Net debt at the beginning of the period</b>	<b>(10,448.3)</b>	<b>(10,261.3)</b>
Net cash flows from operating activities	5,810.1	6,263.0
Net cash flows used in investing activities	(3,241.9)	(3,079.0)
Net cash flows used in financing activities excluding changes in borrowings	(1,927.2)	(2,041.6)
<b>Total net cash flows</b>	<b>641.0</b>	<b>1,142.4</b>
Effect of exchange rate changes, opening net debt of newly acquired companies and others	(248.0)	150.7
Adjustment of net finance costs	(206.0)	(252.7)
<b>Change in net debt</b>	<b>187.0</b>	<b>1,040.4</b>
<b>NET DEBT AT THE END OF THE PERIOD</b>	<b>(10,261.3)</b>	<b>(9,220.9)</b>

## Sales, Operating Income Recurring and investments key figures synthesis

The following tables **gather data already available** in this report. They **complement the key figures** indicated in the table on the **first page**.

### Sales

<i>FY 2023 split of revenue and comparable growth in %</i>	Total	Large Industries	Industrial Merchant	Electronics	Healthcare
Americas	100%	16%	69%	5%	10%
	+5.1%	-2.2%	+6.7%	-2.8%	+14.2%
Europe	100%	37%	32%	2%	29%
	+4.2%	-0.9%	+12.3%	N.C.	+5.8%
Asia Pacific	100%	34%	29%	33%	4%
	+1.8%	-5.5%	+9.9%	+2.2%	N.C.
Middle-East and Africa	100%	N.C.	N.C.	N.C.	N.C.
	+7.0%				
<b>Gas &amp; Services</b>	<b>100%</b>	<b>30%</b>	<b>45%</b>	<b>9%</b>	<b>15%</b>
	<b>+4.2%</b>	<b>-1.8%</b>	<b>+8.5%</b>	<b>+2.4%</b>	<b>+8.4%</b>
Engineering & Construction	-15.6%				
Global Markets & Technologies	-1.0%				
<b>GROUP TOTAL</b>	<b>+3.7%</b>				

N.C.: Not communicated.

### Operating Income Recurring

<i>Operating margin in %<sup>(a)</sup></i>				
<i>Operating Income Recurring in million euros</i>	FY 2022	FY 2023	2023/2022 excluding energy impact	Operating Income Recurring FY 2023
Americas	19.5%	20.9%	+60 bps	2,125
Europe	13.8%	17.7%	+90 bps	1,723
Asia Pacific	21.2%	22.4%	+150 bps	1,214
Middle-East and Africa	23.6%	20.0%	-350 bps	209
<b>Gas &amp; Services</b>	<b>17.7%</b>	<b>20.0%</b>	<b>+70 bps</b>	<b>5,271</b>
Engineering & Construction	9.3%	11.1%	+180 bps	43
Global Markets & Technologies	12.6%	16.7%	+410 bps	143
<b>GROUP</b>	<b>16.2%</b>	<b>18.4%</b>	<b>+ 80 bps</b>	<b>5,068</b>

(a) Operating income recurring / revenue as published.

### Investments

<i>(in billion euros)</i>	2023
12-month portfolio of investment opportunities <sup>(a)</sup>	3.4
Investment decisions <sup>(b)</sup>	4.3
Investment backlog <sup>(a)</sup>	4.4
Additional contribution to revenue of unit start-ups and ramp-ups <sup>(b)</sup> <i>(in million euros)</i>	267

(a) At the end of the reporting period.

(b) Cumulated from the beginning of the calendar year until the end of the reporting period.

**François Jackow also comments the Group's 2023 results in a video interview, available in French and English at [www.airliquide.com](http://www.airliquide.com).**

**The slideshow that accompanies this release is available as of 7:20 am (Paris time) at [www.airliquide.com](http://www.airliquide.com). Throughout the year, follow Air Liquide on [LinkedIn](#).**

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## UPCOMING EVENTS

### 2024 1<sup>st</sup> Quarter Revenue

April 24, 2024

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Air Liquide is a world leader in gases, technologies and services for industry and healthcare. Present in 72 countries with 67,800 employees, the Group serves more than 4 million customers and patients. Oxygen, nitrogen and hydrogen are essential small molecules for life, matter and energy. They embody Air Liquide's scientific territory and have been at the core of the Group's activities since its creation in 1902.

Taking action today while preparing the future is at the heart of Air Liquide's strategy. With ADVANCE, its strategic plan for 2025, Air Liquide is targeting a global performance, combining financial and extra-financial dimensions. Positioned on new markets, the Group benefits from major assets such as its business model combining resilience and strength, its ability to innovate and its technological expertise. The Group develops solutions contributing to climate and the energy transition—particularly with hydrogen—and takes action to progress in areas of healthcare, digital and high technologies.

Air Liquide's revenue amounted to more than 27.5 billion euros in 2023. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, CAC 40 ESG, EURO STOXX 50, FTSE4Good and DJSI Europe indexes.