

Paris, October 23, 2024

Q3 2024: Air Liquide continues its trajectory by combining solid performance, sales growth and record investment decisions

Key Figures (in millions of euros)	Q3 2024	2024/2023 as published	2024/2023 comparable ^(a)
Group Revenue	6,762	-0.7%	+3.3%
of which Gas & Services	6,445	-0.6%	+3.6%
of which Engineering & Construction	110	+0.2%	-0.0%
of which Global Markets & Technologies	207	-5.0%	-4.6%

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

Commenting on sales in the third quarter of 2024, **François Jackow, Chief Executive Officer of the Air Liquide Group, stated:**

*"Air Liquide is continuing its trajectory and once again delivered a **solid quarter**. In a difficult market environment, our **sales increased**, demonstrating the resilience of our business model. We continued to **improve our margin and our investment decisions** reached a record level, paving the way for long-term growth. Through the tangible solutions we provide to our customers, our Group supports major transformations, such as the energy transition and those accelerated by digital technology and Artificial Intelligence, which are key **growth drivers**."*

At 6.8 billion euros in the third quarter of 2024, **our Group's revenue was up +3.3%⁽¹⁾** on a comparable basis (-0.7% as published, reflecting a negative currency impact and lower energy prices, which variations are passed through to our customers), an increase compared to the previous quarter (+3.1%). **Gas & Services, which represent 95% of Group revenue, were up +3.6%⁽¹⁾** on a comparable basis: all activities are growing, demonstrating the strength of our diversified business model. **Healthcare** in particular **increased sharply by +9%⁽¹⁾** on a comparable basis. Geographically, **the Americas and Asia were particularly dynamic**, with respective growth of **+8%⁽¹⁾** and **+4%**.

Air Liquide also continued to **improve its performance**. The transformation plan announced in July has now entered the **execution phase** across the entire Group, in particular through the simplification of our organization. **Group efficiencies, up +10%, reached a record level of 353 million euros** at the end of September. We also continued the dynamic management of our business portfolio, while adjusting our prices in Industrial Merchant thanks to our ability to create value. All of these actions contributed to the **continued improvement of +100 basis points in the Group's operating margin** excluding the energy impact since the beginning of the year, outpacing our **ADVANCE plan**, whose performance ambition was raised early in the year.

Paving the way for future growth, **our investment momentum is particularly strong**. Well diversified, our **investment backlog was still at the very high level of 4.2 billion euros** in this third quarter. **Reaching a record level, investment decisions** amounted to **1.4 billion euros** with major projects in Large Industries and Electronics. **12-month investment opportunities remained at a high level of more than 4 billion euros**, driven by the transformations that the Group accompanies, whether in **the energy transition** - for more than 40% of them - or in the field of electronics and **semiconductors**.

In 2024, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates⁽²⁾."

¹ See appendix for impact of Argentina.

² Operating margin excluding energy passthrough impact. Recurring net profit excluding exceptional and significant transactions that have no impact on the operating income recurring.

Highlights

■ Corporate

- As part of the **simplification of the Group organization** to meet **growing needs of the market** and increase its **performance**, an **adjusted governance** was announced with changes effective September 1, 2024.
- The **divestiture** of Air Liquide's businesses in **12 countries in Africa** was finalized on July 22, 2024, illustrating the Group's strategy of regular review of its business portfolio.

■ Industry and Energy Transition

- **Investment of approximately 150 million US dollars** to extend production capacities and the pipeline network in the United States, as part of a contract with **LG Chem** to supply oxygen to their battery plant for **electric vehicles** in Tennessee.
- **Investment of nearly 60 million euros to acquire and operate** an Air Separation Unit (ASU) in Yantai, China under a long-term contract with **Wanhua Chemical Group**.
- **Investment of 100 million euros**, including a new Air Separation Unit in Bulgaria and the modernization of four units in Germany, as part of the renewed partnership with **Aurubis AG**, one of the largest copper recycling groups in the world, to meet the demand for copper, a crucial element in the energy transition.
- Air Liquide's **innovative CO₂ liquefaction technology**, Cryocap™ LQ, was selected by Stockholm Exergi, an energy supplier in Sweden, to contribute to its bioenergy project.

Group revenue amounted to **6,762 million euros** in the 3rd quarter 2024 and posted growth of **+3.3%** compared to the 3rd quarter 2023, demonstrating the resilience of the portfolio of activities in a challenging environment. Growth was up slightly sequentially compared to the first two quarters of the year. The contribution of Argentina⁽³⁾ to comparable growth was +2.0%. The Group's **published revenue** decreased slightly by **-0.7%**, impacted by unfavorable energy (-0.9%) and currency (-3.1%) impacts. There was no significant scope impact.

Gas & Services revenue in the 3rd quarter of 2024 reached **6,445 million euros, up by +3.6%** on a **comparable basis** (including a contribution of +2.0% from Argentina).

All activities grew⁽⁴⁾ in the 3rd quarter of 2024. Revenue from **Large Industries** posted an increase of **+2.8%**, supported by the start-up of two large units at the beginning of the year and the strengthening of demand, particularly in Chemicals in the United States. This growth was impacted by the divestiture of a cogeneration unit in Europe in early January and customers maintenance turnarounds. Development continued in the **Industrial Merchant** business (**+1.7%**) in the 3rd quarter 2024 with a solid **price** effect of **+4.1%** offsetting slightly lower gas volumes and a marked decline in Hardgoods sales in the United States. In **Electronics (+5.9%)**, all segments contributed to growth, with the exception of Specialty Materials. In a difficult industrial context, the **Healthcare** business (**+9.2%**) was the main contributor to the growth in the 3rd quarter. It benefited from the dynamic development of Home Healthcare and the increase in volumes and prices of medical gases in an inflationary environment.

- In the **Americas**, Gas & Services revenue amounted to **2,562 million euros** and all businesses contributed to the strong growth of **+8.2%** (including the contribution of Argentina for +5.1%). Large Industries (+11.6%) benefited from the start-up of a major unit at the beginning of the year and the strengthening of demand notably in the United States. The increase in Industrial Merchant sales (+4.7%) was supported by a price effect that remained high (+6.9%). Growth was dynamic in Healthcare (+25.3%). In the Electronics business (+12.5%), sales of Carrier Gases and of Equipment & Installation posted double-digit growth.
- Revenue in **Europe** was down **-1.5%** in the 3rd quarter of 2024 at **2,247 million euros**. Revenue in Large Industries (-3.6%) would be up slightly excluding the divestiture of a cogeneration unit in the 1st quarter. In Industrial Merchant (-2.3%), volumes contracted but the price effect improved sequentially to -0.3%. The Healthcare

³ See impact of Argentina in Appendix.

⁴ 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.

business posted solid sales growth (+3.0%), supported by the development of Home Healthcare and medical gases.

- The **Asia-Pacific** region returned to growth (**+4.1%**) in the 3rd quarter of 2024 with revenue of **1,340 million euros**. Sales in Large Industries (+6.6%) benefited in particular from the start-up of a large hydrogen unit in China in March. Revenue in Industrial Merchant (-1.8%) was impacted by the marked decline in helium sales in China, while sales in the rest of Asia increased slightly. The dynamism of Carrier Gases and Advanced Materials were the main contributors to growth in Electronics (+6.8%).
- Revenue in the **Middle East & Africa** region increased by **+1.1%** to **296 million euros** in the 3rd quarter of 2024. It increased by +6.5% excluding the divestiture of businesses in 12 African countries finalized in July.

Global Markets & Technologies posted a **-4.6%** decrease in revenue on a comparable basis to **207 million euros** in the 3rd quarter of 2024. Excluding the divestiture of the technological activities for the Aeronautics sector in the 1st quarter, revenue from the business was stable compared to the 3rd quarter of 2023.

Consolidated revenue from **Engineering & Construction** amounted to **110 million euros** in the 3rd quarter and remained stable (**-0.0%**) compared to the 3rd quarter of 2023. Consolidated revenue excludes internal projects, in particular for Large Industries and Electronics, which are growing.

Industrial and financial investment decisions saw a **record level** of **1.4 billion euros** in the 3rd quarter of 2024, thus exceeding 3.0 billion euros since the beginning of the year. The **investment backlog** stood at a **very high level of 4.2 billion euros**.

The **additional contribution to sales** of unit start-ups and ramp-ups totaled **185 million euros** at the end of the 3rd quarter.

The portfolio of **12-month investment opportunities** remained at the very high level of **4.0 billion euros** at the end of September 2024 and the portfolio of opportunities at more than 12 months is continuing to grow and has reached a very high level.

The **operating margin** (OIR to revenue) in the nine first months of the year posted a **strong improvement of +100 basis points excluding the energy impact⁽⁵⁾**, driven by the three levers which are the efficiencies, price management and portfolio optimization.

Efficiencies⁽⁶⁾ totaled **120 million euros** in the 3rd quarter. They amounted to a record level of **353 million euros** in the first nine months of the year, up sharply by **+10.3%** compared to the same period in 2023. They are well ahead in respect of the annual target of 400 million euros. In an inflationary environment, the Group continued its **active price management**. Thus, the **price impact in the Industrial Merchant business** stood at **+4.1%** in the 3rd quarter 2024 and was in addition to the price increases of +18.0% and +6.5% in the 3rd quarters of 2022 and 2023 respectively. During the first nine months of the year, the Group continued its **active portfolio management** with **14 acquisitions and 5 divestitures**.

Cash flows from operating activities before changes in working capital reached **1,581 million euros** in the 3rd quarter 2024, up +4.0% excluding current taxes and +2.4% as published.

Net debt amounted to **9,615 million euros**, a decrease of 541 million euros compared to 10,156 million euros as of June 30, 2024.

In terms of **extra-financial performance**, the Group started up two Air Separation Units in China which were **electrified** and which had previously consumed steam produced by the customer from coal. This industrial transformation **reduces CO₂ emissions (scope 2) by approximately 370,000 metric tonnes per year**. Air Liquide has also decided to invest in Air Separation Units that will supply oxygen to customers producing **essential elements for the energy transition**.

⁵ No impact from Argentina.

⁶ See definition in appendix.

Analysis of 3rd quarter 2024 revenue

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.

REVENUE

Revenue (in millions of euros)	Q3 2023	Q3 2024	2024/2023 published change	2024/2023 comparable change
Gas & Services	6,483	6,445	-0.6%	+3.6%
Engineering & Construction	110	110	+0.2%	-0.0%
Global Markets & Technologies	218	207	-5.0%	-4.6%
TOTAL REVENUE	6,811	6,762	-0.7%	+3.3%

Revenue by Quarter (in millions of euros)	Q1 2024	Q2 2024	Q3 2024
Gas & Services	6,358	6,438	6,445
Engineering & Construction	92	105	110
Global Markets & Technologies	200	186	207
TOTAL REVENUE	6,650	6,729	6,762
2024/2023 Group published change	-7.3%	-1.2%	-0.7%
2024/2023 Group comparable change	+2.1%	+3.1%	+3.3%
2024/2023 Gas & Services comparable change	+2.0%	+3.4%	+3.6%

Group

Group revenue amounted to **6,762 million euros** in the 3rd quarter 2024 and posted growth of **+3.3%** compared to the 3rd quarter 2023, demonstrating the resilience of the portfolio of activities in a challenging environment. Growth was up slightly sequentially compared to the first two quarters of the year. The contribution of Argentina⁷ to comparable growth was +2.0%. **Global Markets & Technologies** sales were down by **-4.6%** due in particular to the divestiture of the technological activities for the Aeronautics sector. Revenue from **Engineering & Construction** with third-party customers was stable (**-0.0%**), while project activity for the Group grew.

The Group's **published revenue** decreased slightly by **-0.7%**, impacted by unfavorable energy (-0.9%) and currency (-3.1%) impacts. There was no significant scope impact.

Gas & Services

Gas & Services revenue in the 3rd quarter of 2024 reached **6,445 million euros**, up by **+3.6%** on a **comparable basis** (including a contribution of +2.0% from Argentina).

All businesses grew in the 3rd quarter of 2024. Revenue from **Large Industries** posted an increase of **+2.8%**, supported by the start-up of two large units at the beginning of the year and the strengthening of demand, particularly in Chemicals in the United States. This growth was impacted by the divestiture of a cogeneration unit in Europe in early January and customer maintenance turnarounds. Development continued in the **Industrial Merchant** business (**+1.7%**) in the 3rd quarter 2024 with a solid **price** effect of **+4.1%** offsetting slightly lower gas volumes and a marked decline in Hardgoods sales in the United States. In **Electronics (+5.9%)**, all segments contributed to growth,

⁷ See impact of Argentina in Appendix.

with the exception of Specialty Materials. In a difficult industrial context, the **Healthcare** business (+9.2%) was the main contributor to the growth in the 3rd quarter. It benefited from the dynamic development of Home Healthcare and the increase in volumes and prices of medical gases in an inflationary environment.

Published revenue for Gas & Services was down **-0.6%** in the 3rd quarter of 2024, penalized by unfavorable currency (-3.3%) and energy (-0.9%) impacts. There was no significant scope impact in the 3rd quarter of 2024.

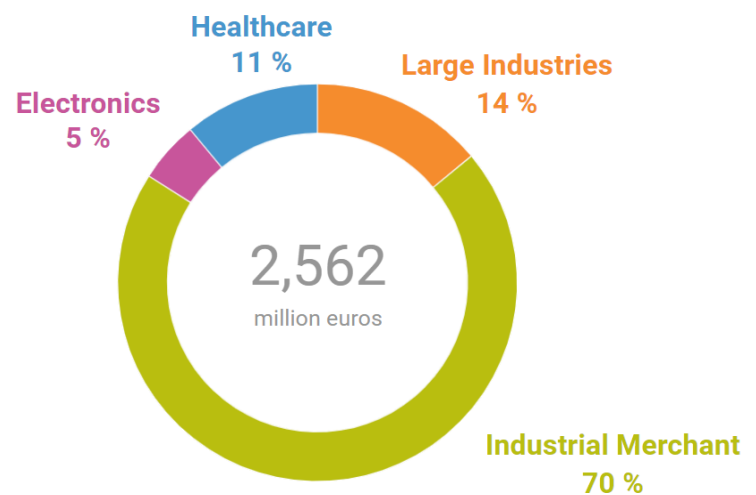
Revenue by geography and business line (in millions of euros)	Q3 2023	Q3 2024	2024/2023 published change	2024/2023 comparable change
Americas	2,556	2,562	+0.2%	+8.2%
Europe	2,331	2,247	-3.6%	-1.5%
Asia Pacific	1,313	1,340	+2.1%	+4.1%
Middle East & Africa	283	296	+4.6%	+1.1%
GAS & SERVICES REVENUE	6,483	6,445	-0.6%	+3.6%
Large Industries	1,882	1,818	-3.4%	+2.8%
Industrial Merchant	2,988	2,945	-1.4%	+1.7%
Healthcare	1,013	1,054	+4.0%	+9.2%
Electronics	600	628	+4.7%	+5.9%

Americas

In the Americas, Gas & Services revenue amounted to **2,562 million euros** and all activities contributed to the strong growth of **+8.2%** (including the contribution of Argentina for +5.1%). Large Industries (+11.6%) benefited from the start-up of a major unit at the beginning of the year and the strengthening of demand notably in the United States. The increase in Industrial Merchant sales (+4.7%) was supported by a price effect that remained high (+6.9%). Growth was dynamic in Healthcare (+25.3%). In the Electronics business (+12.5%), sales of Carrier Gases and of Equipment & Installation posted double-digit growth.

Americas Gas & Services Q3 2024 Revenue

- Revenue from **Large Industries** posted strong growth of **+11.6%** in the 3rd quarter of 2024 despite customer turnarounds. The start-up of a major unit at the beginning of the year and the strengthening of demand from Chemicals customers were the main contributors to the sharp increase in air gas sales in the United States. In North America, the sale of electricity from cogeneration units and of hydrogen also increased. In Latin America, hydrogen volumes were down due to the nationalization of a production unit in Mexico at the end of 2023.



- Sales in the **Industrial Merchant** business posted an increase of **+4.7%** in the 3rd quarter. The **price** effect (**+6.9%**) remained high. It benefited from proactive price campaigns, particularly in the United States (50% of the +6.9% increase in the 3rd quarter) in the 1st semester and in Argentina to counter hyperinflation (40% of the increase). Gas volumes remained resilient, while Hardgoods posted a marked decline. Growth in industrial markets was still mainly driven by prices, but volumes increased in the Technology, Research, Chemicals and Food sectors.

- In the **Healthcare** business, sales rose by **+25.3%** in the 3rd quarter of 2024, driven by the strong increase in prices in the United States (+5.3%) and in Argentina in a context of hyperinflation. Sales growth outside Argentina was significantly higher than that of the 2nd quarter of 2024. In the United States, the volumes of medical gases increased, particularly in Proximity care. In Latin America, the number of patients in Home Healthcare as well as the volumes of medical gases increased significantly.
- **Electronics** saw an increase of **+12.5%** in revenue in the 3rd quarter of 2024. Carrier Gas sales posted double-digit growth, supported by the start-up of a nitrogen generator and higher helium volumes. Equipment and Installation sales remained very high, while Materials sales were still down.



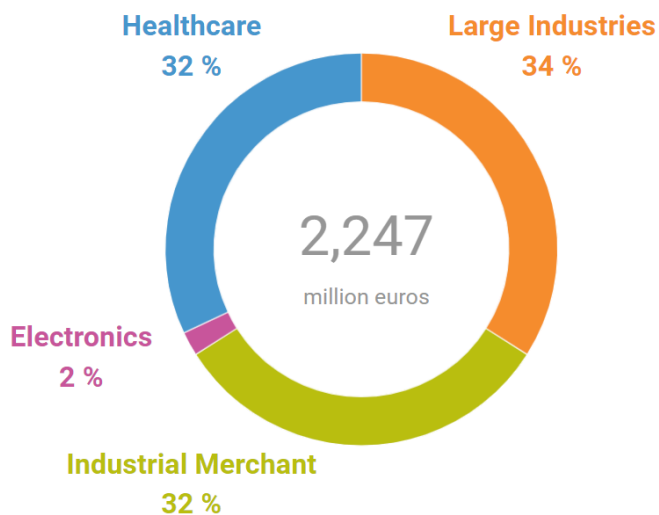
Americas

- Air Liquide will invest around **150 million US dollars** to expand its production capacity and pipeline network in Clarksville, in Tennessee, **United States**, in the context of a new **long-term contract** with **LG Chem**. The new **air separation unit** will supply oxygen to LG Chem's battery materials production site and will also have significant liquefaction capacity to **support the development of the Industrial Merchant business** in Tennessee and Kentucky.

Europe

Revenue in Europe was down **-1.5%** in the 3rd quarter of 2024 at **2,247 million euros**. Sales in Large Industries (-3.6%) would be up slightly excluding the divestiture of a cogeneration unit in the 1st quarter. In Industrial Merchant (-2.3%), volumes contracted but the price effect improved sequentially to -0.3%. The Healthcare business posted solid sales growth (+3.0%), supported by the development of Home Healthcare and medical gases.

Europe Gas & Services Q3 2024 Revenue



- In the 3rd quarter of 2024, revenue in **Large Industries** was down **-3.6%**. Excluding the divestiture of a cogeneration unit in the 1st quarter (impact of approximately -5.5%), it would have been up slightly. Hydrogen volumes for Refining and Chemicals rose slightly. Air gas sales to Steel customers remained stable overall at a low level.
- Sales in the **Industrial Merchant** business declined by **-2.3%** following growth of +6.5% in the 3rd quarter of 2023. The **price** effect improved sequentially at **-0.3%**. The decline in the price of bulk gas (indexed to energy prices for an estimated decrease of -5.7%) was offset by proactive actions to increase prices (for +5.4%), supported by innovation and quality of customer service. Volumes remained down but the trend improved compared to the previous quarter. Volumes were resilient in the Construction, Food and Water Treatment sectors.
- In the **Healthcare** business, sales increased by **+3.0%** in the 3rd quarter. Home Healthcare continued its growth, with a sharp increase in the number of patients cared for, particularly for sleep apnea and diabetes. Growth in sales of medical gases remained solid, supported by a balanced contribution from volumes and prices in line with inflation.



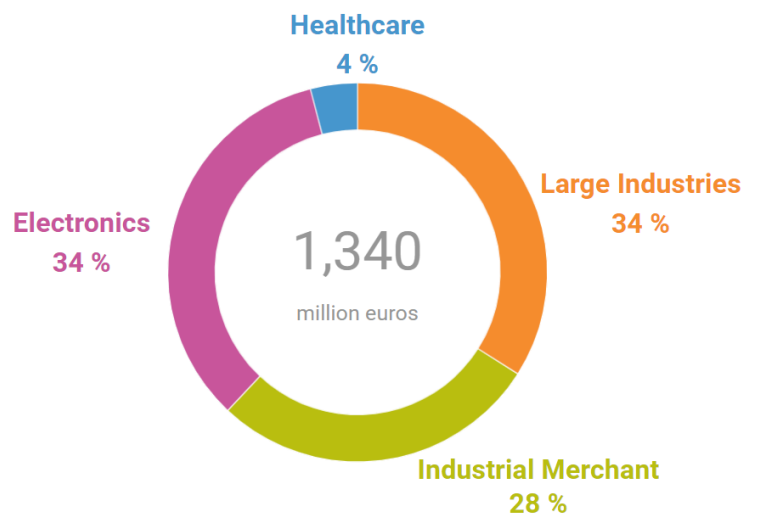
Europe

- Air Liquide will invest approximately **100 million euros** to supply Aurubis AG, a leading global provider of non-ferrous metals and one of the largest copper recyclers worldwide, in Bulgaria and in Germany. This investment will cover a **new Air Separation Unit (ASU)** in Bulgaria which will **replace older units** to produce larger oxygen and nitrogen volume. In Germany, Air Liquide will modernize four existing units on the Aurubis site. These units will provide **large volumes of oxygen and nitrogen for Aurubis' growing production of copper and other metals** and will support the **development of the Industrial Merchant markets** in these two regions.

Asia-Pacific

The Asia-Pacific region returned to growth (**+4.1%**) in the 3rd quarter of 2024 with revenue of **1,340 million euros**. Sales in Large Industries (+6.6%) benefited in particular from the start-up of a large hydrogen unit in China in March. Revenue in Industrial Merchant (-1.8%) was impacted by the marked decline in helium sales in China, while sales in the rest of Asia increased slightly. The dynamism of Carrier Gases and Advanced Materials were the main contributors to growth in Electronics (+6.8%).

Asia-Pacific Gas & Services Q3 2024 Revenue



- Revenue in **Large Industries** saw a sharp rise of **+6.6%**. Sales benefited from the start-up of a large hydrogen production unit in China in March and fewer customer shutdowns than in previous quarters.
- In **Industrial Merchant**, revenue was down **-1.8%**. The **price** effect, impacted by the decline in helium prices, particularly in China, remained slightly negative (**-0.7%**) but improved sequentially. In China, volumes of gas in cylinders were up sharply, also supported by recent acquisitions. In the rest of Asia, sales increased slightly, helped by higher volumes and a positive price effect. Volumes were up in Secondary Electronics, Manufacturing and Food.
- Revenue in **Electronics** increased by **+6.8%** compared to a relatively low basis of comparison in the 3rd quarter of 2023. All business segments, with the exception of Specialty Materials, contributed to this growth. The start-up of several production units since the beginning of the year contributed to the strong increase in Carrier Gas sales. Revenue in Advanced Materials saw double-digit growth, while sales in Equipment & Installation were at a high level.



Asia-Pacific

- Air Liquide has decided to invest close to **60 million euros** to **take over** and operate an **Air Separation Unit (ASU)** within the context of a **long-term contract** with **Wanhua Chemical Group (Wanhua)**, a global leading supplier of chemical innovative products, in the city of **Yantai, China**. In this context, Air Liquide will also build, own and operate **a new liquid argon production unit** on this ASU - built by Air Liquide Engineering & Construction - to serve Industrial Merchant markets in Yantai and the wider province of Shandong. This long-term contract, the first signed by the Group with Wanhua, will allow Air Liquide to start **supplying industrial and medical gases in the city of Yantai** and to reinforce its presence in the region of Shandong.

Middle East and Africa

Revenue in the Middle East & Africa region increased by **+1.1%** to **296 million euros** in the 3rd quarter of 2024. It increased by +6.5% excluding the divestiture of businesses in 12 African countries finalized in July. Large Industries benefited from resilient activity in the region. In the 4th quarter of 2024, a major customer in Saudi Arabia scheduled an extended shutdown for maintenance. Industrial Merchant revenue was down due to the divestiture of businesses in 12 African countries at the end of July 2024. Excluding this divestiture, activity posted dynamic growth, supported by the increase in **prices (+6.7%)**. In Healthcare, the rise in medical gas volumes in South Africa and the development of diabetes treatment in Saudi Arabia were the main contributors to revenue growth.



Middle East and Africa

- Air Liquide finalized on July 22nd, 2024, the **sale to Adenia Partners Ltd of the Group's activities in twelve countries^(a) in Africa**, representing an annual revenue of approximately 60 million euros.
 - This transaction illustrates Air Liquide's strategy to **regularly review its portfolio of activities**.
 - With approximately 1,600 employees in the region and 700 million euros invested in the last three years, **Air Liquide remains a major industrial and medical gases player in Africa**, where it continues to pursue development opportunities, particularly in the fields of energy transition, hydrogen and healthcare.

(a) Benin, Burkina Faso, Cameroon, Congo, Côte d'Ivoire, Gabon, Ghana, Madagascar, Mali, Democratic Republic of Congo, Senegal and Togo.

Global Markets & Technologies

Global Markets & Technologies posted a **-4.6%** decrease in revenue on a comparable basis to **207 million euros** in the 3rd quarter of 2024. Excluding the divestiture of the technological activities for the Aeronautics sector in the 1st quarter, revenue from the business was stable compared to the 3rd quarter of 2023. Sales of rare gases were particularly high in the 3rd quarter. Biomethane volumes were stable in Europe and benefited from the start-up of a unit in the United States. Sales of hydrogen for mobility were down compared to the exceptionally high sales in the 3rd quarter of 2023.

Order intake for Group projects and third-party customers amounted to **157 million euros** in the 3rd quarter. They included Turbo-Brayton LNG reliquefaction units, special systems for the Electronics industry and for the purification of rare gases, as well as biogas processing equipment.

Engineering & Construction

Consolidated revenue from Engineering & Construction amounted to **110 million euros** in the 3rd quarter and remained stable (**-0.0%**) compared to the 3rd quarter of 2023. Consolidated revenue excludes internal projects, in particular for Large Industries and Electronics, which are growing.

Order intake amounted to **505 million euros** in the 3rd quarter. This mainly involved Air Separation Units for the Group and third-party customers. It also included cryogenic equipment and studies for projects related to the energy transition. Group orders represent a large majority of new projects.



Engineering & Construction

- Air Liquide's **innovative large scale CO₂ liquefaction technology, Cryocap™ LQ, has been selected by Stockholm Exergi**, Stockholm's energy company, **to contribute to its Bio-Energy Carbon Capture & Storage (BECCS) project**. This new technology is an important additional brick in **Air Liquide's portfolio of proprietary technologies** that paves the way to developing large-scale Carbon Capture & Storage (CCS) value chains.

Investment Cycle

INVESTMENT DECISIONS AND INVESTMENT BACKLOG

Industrial and financial investment decisions saw a **record level** of **1.4 billion euros** in the 3rd quarter of 2024, thus exceeding 3.0 billion euros since the beginning of the year.

Industrial investment decisions reached **1,213 million euros**, close to the all-time high of 1,273 million euros in the 3rd quarter of 2023.

- Industrial investment decisions were particularly high in **Asia** this quarter. In particular, the Group completed the acquisition of an ASU in Yantai (China) as part of a long-term contract with Wanhua Chemical Group, at an investment of 60 million euros, which also included a new argon production facility for local customers. In addition, Air Liquide decided to invest in new carrier gas units to serve customers in the Electronics business in China and in a new Advanced Materials production center in South Korea. Lastly, the Group signed several contracts to build and operate six nitrogen generators for an Industrial Merchant customer in Taiwan.
- In the **Americas**, investment decisions included a new ASU that will supply oxygen to the LG Chem battery materials production site in Clarksville (United States), for an amount of approximately 150 million US dollars. This unit will also have a significant liquefaction capacity to support the development of the Industrial Merchant business in Tennessee and Kentucky. Furthermore, investment decisions included a new Specialty Materials production unit to serve Electronics customers in the United States.
- The main investment decision in **Europe** concerned the replacement of two Air Separation Units (ASUs) in Bulgaria by a modern larger capacity ASU to serve Aurubis. This project completes the modernization of four production units in Germany that began in the 1st quarter and thus brings the investments decided in 2024 as part of the renewal of contracts with Aurubis to 100 million euros.
- To be noted that investment decisions to generate **efficiencies** represented approximately 10% of total industrial investment decisions in the 3rd quarter of 2024.

Financial investment decisions totaled **162 million euros** in the 3rd quarter, compared with 30 million euros in the 3rd quarter of 2023. In **Industrial Merchant**, these included a major acquisition in China, two acquisitions in the United States and one in Italy. They will contribute to growth and strengthen the density of the Group's local presence. Financial decisions also included the acquisition of a biogas producer in Sweden for the **Global Markets & Technologies** business.

The **investment backlog** stood at a **very high level of 4.2 billion euros**. The breakdown is well balanced between Large Industries projects located in all regions and those in Electronics, mainly in Asia and Americas.

START-UPS

The main start-ups in the 3rd quarter of 2024 included the **electrification of two Air Separation Units** in Large Industries **in China**, which will allow CO₂ emissions (scope 2) to be reduced by approximately 370,000 metric tons per year. They also included the **start-up of a carrier gas production unit** for an Electronics customer in the **United States** and a **liquefied biomethane unit** for the Global Markets & Technologies business.

The **additional contribution to sales** of unit start-ups and ramp-ups totaled **185 million euros** at the end of the 3rd quarter. **In 2024**, it is expected to be **between 230 and 250 million euros**. In 2025, it is forecasted to be above 250 million euros.

INVESTMENT OPPORTUNITIES

The portfolio of **12-month investment opportunities** remained at the very high level of **4.0 billion euros** at the end of September 2024, up sharply compared to 3.4 billion euros at the end of September 2023. **Energy transition** projects represent more than 40% of the portfolio. Their development is very dynamic in Europe and America, supported by the Inflation Reduction Act and illustrated by the major project announced in the 2nd quarter for ExxonMobil in Baytown, Texas (United States). In **Electronics**, opportunities are now spread between Asia, Europe and the United States and are bolstered by incentive programs (Chips Acts).

The **portfolio of opportunities at more than 12 months** is continuing to grow and has reached a very high level. It includes in particular significant projects in energy transition and the Electronics sector.

Operating Performance

FINANCIAL PERFORMANCE

The **operating margin** (OIR to revenue) in the nine first months of the year posted a **strong improvement of +100 basis points excluding the energy impact⁽⁸⁾**, driven by the three levers which are the efficiencies, price management and portfolio optimization.

Efficiencies⁽⁹⁾ totaled **120 million euros** in the 3rd quarter. They amounted to a record level of **353 million euros** in the first nine months of the year, up sharply by **+10.3%** compared to the same period in 2023. They are well ahead in respect of the annual target of 400 million euros. The Group's **transformation** programs accelerated and included the rollout of digital tools to support operations, the optimization of the logistics chain (particularly in North America) and the reorganization of the Home Healthcare businesses in France. Efficiencies related to **purchasing**, which make up more than a quarter of the total, were increasing. In addition, the cross-functional program of **continuous improvement**, comprising in particular more than a thousand industrial efficiency projects, actively supported the achievement of more than a third of efficiencies.

In an inflationary environment, the Group continued its **active price management**. Thus, the **price impact in the Industrial Merchant business** stood at **+4.1%** in the 3rd quarter 2024 and was in addition to the price increases of +18.0% and +6.5% in the 3rd quarters of 2022 and 2023 respectively.

During the first nine months of the year, the Group continued its **active portfolio management** with **14 acquisitions and 5 divestitures**. In the 3rd quarter 2024, these were mainly Industrial Merchant acquisitions, including a significant size acquisition in China, two in the United States and one in Italy. A biogas producer in Sweden has also been integrated in the Global Markets & Technologies business. Furthermore, the divestiture of the Group's businesses in 12 African countries, representing an annual revenue of approximately 60 million euros, was completed in July. Lastly, in Healthcare, a small business unrelated to the Group's core business was disposed of during the 3rd quarter.

Cash flows from operating activities before changes in working capital reached **1,581 million euros** in the 3rd quarter 2024, up +4.0% excluding current taxes and +2.4% as published. It notably ensures the payment of **industrial investments**, which totaled **928 million euros**.

Net debt amounted to **9,615 million euros**, a decrease of 541 million euros compared to 10,156 million euros as of June 30, 2024.

EXTRA-FINANCIAL PERFORMANCE

During the 3rd quarter of 2024, the Group started up two Air Separation Units in China which were **electrified** and which had previously consumed steam produced by the customer from coal. This industrial transformation **reduces CO₂ emissions (scope 2) by approximately 370,000 metric tonnes per year**.

Air Liquide has also decided to invest in Air Separation Units that will supply oxygen to customers producing battery materials (LG Chem in the United States) and copper (Aurubis in Bulgaria), **essential elements for the energy transition**.

⁸ No impact from Argentina.

⁹ See definition in appendix.

Outlook

Air Liquide is continuing its trajectory and once again delivered **a solid quarter**. In a difficult market environment, our **sales increased**, demonstrating the resilience of our business model. We continued to **improve our margin and our investment decisions** reached a record level, paving the way for long-term growth. Through the tangible solutions we provide to our customers, our Group supports major transformations, such as the energy transition and those accelerated by digital technology and Artificial Intelligence, which are key **growth drivers**.

Air Liquide also continued to **improve its performance**. The transformation plan announced in July has now entered the **execution phase** across the entire Group, in particular through the simplification of our organization. **Group efficiencies, up +10%, reached a record level of 353 million euros** at the end of September. We also continued the dynamic management of our portfolio of activities, while adjusting our prices in Industrial Merchant thanks to our ability to create value. All of these actions contributed to the **continued improvement of +100 basis points in the Group's operating margin** excluding the energy impact since the beginning of the year, outpacing our **ADVANCE plan**, whose performance ambition was raised early in the year.

Paving the way for future growth, **our investment momentum is particularly strong**. Well diversified, our **investment backlog was still at the very high level of 4.2 billion euros** in this third quarter. **Reaching a record level, investment decisions** amounted to **1.4 billion euros** with major projects in Large Industries and Electronics. **12-month investment opportunities remained at a high level of more than 4 billion euros**, driven by the transformations that the Group accompanies, whether in **the Energy Transition** - for more than 40% of them - or in the field of **Electronics**.

In 2024, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates⁽¹⁰⁾.

¹⁰ Operating margin excluding energy passthrough impact. Recurring net profit excluding exceptional and significant transactions that have no impact on the operating income recurring.

Appendices - Performance indicators

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
- Efficiencies

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.

COMPARABLE SALES CHANGE

Comparable change for sales **excludes the currency, energy and significant scope impacts** described above.

<i>(in millions of euros)</i>	Q3 2024	Q3 2024/2023 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	Q3 2024/2023 Comparable Growth
Revenue							
Group	6,762	-0.7%	(212)	(28)	(32)	0	+3.3%
<i>Impacts in %</i>			-3.1%	-0.4%	-0.5%	-%	
Gas & Services	6,445	-0.6%	(211)	(28)	(32)	0	+3.6%
<i>Impacts in %</i>			-3.3%	-0.4%	-0.5%	-%	

<i>(in millions of euros)</i>	YTD 2024	YTD 2024/2023 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	YTD 2024/2023 Comparable Growth
Revenue							
Group	20,140	-3.1%	(682)	(392)	(165)	-	+2.8%
<i>Impacts in %</i>			-3.3%	-1.8%	-0.8%	-%	
Gas & Services	19,241	-3.3%	(679)	(392)	(165)	-	+3.0%
<i>Impacts in %</i>			-3.5%	-1.9%	-0.9%	-%	

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...).

Year to date revenue

BY GEOGRAPHY

Revenue (in millions of euros)	YTD 2023	YTD 2024	YTD Published change	YTD Comparable change
Americas	7,715	7,737	+0.3%	+8.0%
Europe	7,306	6,722	-8.0%	-1.4%
Asia Pacific	4,076	3,933	-3.5%	+0.8%
Middle East & Africa	791	849	+7.3%	+4.9%
GAS & SERVICES REVENUE	19,888	19,241	-3.3%	+3.0%
Engineering & Construction	290	306	+5.9%	+6.2%
Global Markets & Technologies	613	593	-3.3%	-3.0%
GROUP REVENUE	20,791	20,140	-3.1%	+2.8%

BY BUSINESS LINE

Revenue (in millions of euros)	YTD 2023	YTD 2024	YTD Published change	YTD Comparable change
Large Industries	5,942	5,275	-11.2%	+1.6%
Industrial Merchant	9,038	8,944	-1.0%	+1.9%
Healthcare	3,047	3,175	+4.2%	+9.1%
Electronics	1,861	1,847	-0.8%	+2.1%
GAS & SERVICES REVENUE	19,888	19,241	-3.3%	+3.0%

Complementary geographic and segment information

CONTRIBUTION OF THE ARGENTINA TO THE COMPARABLE GROWTH

Contribution of the Argentina to the comparable growth of revenue in Q3 (in %)	Total	Large Industries	Industrial Merchant	Healthcare	Electronics
Americas	+5.1%	+6.1%	+3.3%	+18.1%	-
Gas & Services	+2.0%	+1.3%	+1.9%	+4.8%	-
Group	+2.0%				

Argentina's contribution is calculated as the difference between the amounts consolidated at Group level and the same amounts consolidated excluding Argentina's data. The same method applies to the Gas & Services activity.

EUROPE, MIDDLE EAST AND AFRICA

	Q3 revenue (in millions of euros)	As published growth	Q3 comparable growth (in %)				
			Total	Large Industries	Industrial Merchant	Healthcare	Electronics
Europe	2,247	-3.6%	-1.5%	-3.6%	-2.3%	+3.0%	N.C.
Middle East and Africa	296	+4.6%	+1.1%	N.C.	N.C.	N.C.	-
Europe + Middle East and Africa	2,543	-2.7%	-1.2%	-2.2%	-3.1%	+3.4%	N.C.

N.C.: Not communicated.

Air Liquide will start **reporting** the Gas & Services performance of the Middle East and Africa region (also including India) **with Europe from Q4 2024**.

Sales and investments key figures summary

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

Sales

Q3 2024 split of revenue and comparable growth in %	Total	Large Industries	Industrial Merchant	Electronics	Healthcare
Americas	100%	14%	70%	5%	11%
	+8.2%	+11.6%	+4.7%	+12.5%	+25.3%
Europe	100%	34%	32%	2%	32%
	-1.5%	-3.6%	-2.3%	N.C.	+3.0%
Asia Pacific	100%	34%	28%	34%	4%
	+4.1%	+6.6%	-1.8%	+6.8%	N.C.
Middle-East and Africa	100%	N.C.	N.C.	N.C.	N.C.
	+1.1%				
Gas & Services	100%	28%	46%	10%	16%
	+3.6%	+2.8%	+1.7%	+5.9%	+9.2%
Engineering & Construction	-0.0%				
Global Markets & Technologies	-4.6%				
GROUP TOTAL	+3.3%				

N.C.: Not communicated.

Investments

(in billion euros)	Q3 2024
12-month portfolio of investment opportunities ^(a)	4.0
Investment decisions on the period	1.4
Investment backlog ^(a)	4.2
Additional contribution to revenue of unit start-ups and ramp-ups ^(b) (in million euros)	185

(a) At the end of the reporting period.

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

Definitions:

Portfolio of 12-month investment opportunities (at end of the period):

- Investment opportunities under consideration by the Group for decision within 12 months;
- Industrial projects with investment value above 5 million euros for Large Industries and above 3 million euros for other business lines;
- Includes asset replacements or efficiency projects. Excludes maintenance and safety.

Investment backlog (at end of the period):

- Cumulated industrial investment value of projects decided but not yet started;
- Industrial projects with value above 10 million euros, including asset replacements, excluding maintenance, efficiency and safety projects.

Decisions (of the period):

- Cumulated value of industrial and financial investment decisions;
- Industrial, growth and non-growth projects including asset replacements, efficiency, maintenance and safety;
- Financial decisions (acquisitions).

The slideshow that accompanies this release is available as of 7:20 a.m. (Paris time) at www.airliquide.com

Throughout the year, follow Air Liquide on [LinkedIn](#).

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UPCOMING EVENTS

2024 Full Year results:

February 21, 2025

Air Liquide is a world leader in gases, technologies and services for industry and healthcare. Present in 60 countries with 66,300 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.