Q1 2023: Strong sales growth and solid investment momentum

<table>
<thead>
<tr>
<th>Key Figures</th>
<th>Q1 2023</th>
<th>2023/2022 as published</th>
<th>2023/2022 comparable(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Revenue</td>
<td>7,174</td>
<td>+4.2%</td>
<td>+6.2%</td>
</tr>
<tr>
<td>of which Gas &amp; Services</td>
<td>6,893</td>
<td>+4.6%</td>
<td>+6.7%</td>
</tr>
<tr>
<td>of which Engineering &amp; Construction</td>
<td>87</td>
<td>-19.0%</td>
<td>-18.6%</td>
</tr>
<tr>
<td>of which Global Markets &amp; Technologies</td>
<td>194</td>
<td>+2.4%</td>
<td>+2.8%</td>
</tr>
</tbody>
</table>

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

Commenting on sales in the first quarter of 2023, François Jackow, Chief Executive Officer of the Air Liquide Group, stated:

"Air Liquide started 2023 with a very solid performance. In the first quarter, growth was higher than in the fourth quarter and its investment momentum remained strong.

Group sales increased by +6.2% on a comparable basis, after growth of +4.5% in the fourth quarter. As published, sales were up by +4.2% year-over-year, integrating in particular the decline in energy prices, whose variations are passed on to Large Industries customers. Revenue reached 7.2 billion euros, including 6.9 billion euros for the Gas & Services business.

The Gas & Services business, which represents 96% of the Group’s revenue, was up +6.7% on a comparable basis and that of Global Markets & Technologies was up +2.8%, with divestitures impacting growth this quarter. Sales to third-party Engineering & Construction customers decreased by -18.6%; the outlook remaining solid with a high level of internal and external order intake.

Within Gas & Services, all our geographies posted comparable growth, in particular the Americas. By business line, Industrial Merchant and Electronics remained on a strong upward trend; growth in Healthcare accelerated and Large Industries recovered compared to the fourth quarter in a more favorable energy price environment in Europe.

In line with the priorities of its strategic plan, ADVANCE, Air Liquide continued to improve its operational performance. The Group generated significant efficiencies of 91 million euros, up +18.1% year-over-year despite an inflationary environment unfavorable to savings on purchases, and continued dynamic management of its business portfolio. The Group’s ability to create value allows it to adjust its prices in Industrial Merchant (+13%) while preserving sales volumes. The cashflow progressed by +14.3% in the first quarter.

Investment decisions amounted to close to 800 million euros. 12-month investment opportunities continued to rise, reaching 3.4 billion euros. More than 40% of these opportunities are related to the energy transition, with in particular decarbonization projects in the United States.

In 2023, the Group will continue deployment of its ADVANCE strategic plan. Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates *(1) .

(1) Operating margin excluding energy passthrough impact. Net profit recurring excluding exceptional and significant transactions that have no impact on the operating income recurring.
Highlights of the 1st quarter 2023

- **Sustainable development**
  - Signature by Air Liquide and Sasol of Power Purchase Agreements (PPA) to secure a **total capacity of 480 MW of renewable power** to supply Sasol’s Secunda site, in South Africa, where Air Liquide operates the **biggest oxygen production site in the world**. For Air Liquide, this will represent an annual reduction in its CO₂ emissions of more than 850,000 tonnes that will notably contribute to the targeted reduction by 30% to 40% of the CO₂ emissions associated with oxygen production by 2031.
  - **Appointment of Diana Schillag**, member of the Executive Committee in charge of Healthcare activities, Group Procurement and Efficiency Programs, as Head of Sustainable Development and the Group’s Societal Programs, including the Air Liquide Foundation in addition to her current role. Diana Schillag will take up her new responsibilities on May 4, the day after the Group General Meeting, replacing Fabienne Lecorvaisier, who will leave the Group on that date to focus on non-executive mandates.
  - Annual publication of the Air Liquide Sustainability Report, highlighting progress in this area as well as additional objectives, in particular for scope 3 and biodiversity.
  - 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**
  - Decision with TotalEnergies to create a 50/50 joint venture to develop a network of more than 100 hydrogen refueling stations for trucks on major European highways. This initiative will facilitate access to hydrogen, making it possible to develop its use in the transportation of goods and contribute to strengthening the hydrogen sector.
  - Selection of Air Liquide’s autothermal reforming (ATR) technology for a demonstration project, owned and operated by INPEX CORPORATION, for the **large-scale production of hydrogen and low-carbon ammonia, a first in Japan**.
  - Launch of a project for an **innovative industrial-scale ammonia cracking pilot plant** in the port of Antwerp, Belgium. Transformed into ammonia, hydrogen can be easily transported over long distances. Equipped with innovative technology, this unit will enable the conversion of ammonia into hydrogen (H₂), with an optimized carbon footprint.

- **Industry & Decarbonization**
  - **Investment of around 60 million euros** to modernize 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 prevent the emission of 370,000 tonnes of CO₂ per year, which is comparable to the emissions related to the electricity consumption of more than one million Chinese households.
  - **Decarbonization and reduction of energy consumption**; as part of a long-term contract, implementation of an innovative solution to support the conversion of the Verallia plant in Pescia, Italy, from traditional combustion to **optimized oxycombustion** on the occasion of the construction of a new glass furnace on the site.
  - Announcement of the **signature of 52 new long-term contracts for on-site production in its Industrial Merchant business line in 2022**, following a record number of 48 new contracts in 2021 and continuous progress for more than five years.

- **Corporate**
  - Early bond redemption, for a **total of 382 million US dollars**, at the end of a Tender Offering process for two series of US dollar bonds maturing in 2026 for the first and 2046 for the second. This transaction enables the Group to reinforce its financing structure.
Group revenue totaled 7,174 million euros in the 1st quarter of 2023, up a strong +6.2% on a comparable basis. As published Group sales were up +4.2% with an energy impact (-2.0%) negative for the first time in 2 years and neutral currency (-0.1%) and significant scope (+0.1%) impacts.

Gas & Services revenue reached 6,893 million euros, up sharply by +6.7% on a comparable basis. As published revenue for Gas & Services were up +4.6% in the 1st quarter of 2023, with a negative energy impact of -2.1% and neutral currency (-0.1%) and significant scope (+0.1%) impacts.

- Gas & Services revenue in the Americas region totaled 2,629 million euros in the 1st quarter of 2023, showing a dynamic comparable growth of +9.2%. Industrial Merchant sales were up sharply by +13.2%, supported by price increases that remained high (+9.9%) and volumes which are back to positive. The increase in prices in proximity care in the United States and the dynamism of Home Healthcare in Canada were the main contributors to the strong growth in Healthcare revenue (+11.2%). Large Industries sales were down -3.0% impacted by customer turnarounds. Lastly, Electronics sales remained stable (-1.0%) this quarter, with no new unit start-ups.

- Revenue in Europe was up +5.5% during the 1st quarter of 2023 and reached 2,639 million euros. In Industrial Merchant, the strong increase in sales of +22.1% benefited from price increases that remained very high at +21.8%. Healthcare sales were up +5.7%, driven by strong development of diabetes treatment in Home Healthcare and higher medical gas prices in response to inflation. Strongly impacted by high energy prices in the 2nd half of 2022, activity in Large Industries saw a rebound in the 1st quarter of 2023: lower energy prices supported sales down by -4.1%, a sharp upturn following a -18% decline in the 4th quarter of 2022.

- Sales in Asia-Pacific were up +4.8% on a comparable basis in the 1st quarter of 2023 and amounted to 1,385 million euros. They were supported by price increases of +9.9% in Industrial Merchant, leading to sales rising by +11.0%, and by the continued strong growth in revenue in the Electronics business (+10.5%). In Large Industries, sales were down by -5.1%, impacted in particular by weak demand and customer turnarounds.

- Revenue in the Middle East and Africa reached 240 million euros, up +4.6%. Industrial Merchant sales were down slightly, impacted by divestitures in the Middle East in 2022. Large Industries revenue grew strongly in Egypt and South Africa. The Home Healthcare business also posted strong growth.

While the dynamism of the Industrial Merchant and Electronics activities continued in the 1st quarter of 2023, Healthcare became the 3rd growth driver. Industrial Merchant revenue continued to grow strongly (+14.8%), supported by a high price effect of +12.9% and growing volumes. Large Industries sales, down -3.6% in a context of weak demand, showed a strong sequential improvement linked to the recovery of activity in Europe in a more favorable environment of reduced energy prices. Electronics revenue posted dynamic growth (+10.4%), driven in particular by the ramp-up of carrier gas units, dynamic growth in sales of specialty materials, and strong Equipment & Installations sales in all regions. Lastly, Healthcare revenue growth accelerated (+7.7%) in the 1st quarter, due especially to the increase in medical gas prices in an inflationary context and the dynamism of Home Healthcare, particularly in Europe and Canada.

Consolidated revenue from Engineering & Construction totaled 87 million euros in the 1st quarter of 2023, down -18.6% compared to the high sales in the 1st quarter of 2022. Order intake amounted to 366 million euros, up sharply (+39%) compared to the 1st quarter of 2022.

Sales in Global Markets & Technologies totaled 194 million euros in the 1st quarter, up +2.8%. Organic growth reached +16.0%, excluding the divestiture of the biogas distribution for mobility and the manufacture of small-scale cryogenic vessels businesses. Order intake for Group projects and third-party customers amounted to 240 million euros, up +12% compared to 2022.

In the 1st quarter of 2023, industrial and financial investment decisions amounted to 0.8 billion euros. The investment backlog stood at a very high level of 3.5 billion euros, stable compared to the 4th quarter of 2022.

The additional contribution to sales of unit start-ups and ramp-ups totaled 66 million euros in the 1st quarter of 2023. Over the year, it is expected to be between 300 and 330 million euros.
The **12-month portfolio of investment opportunities** increased to the high level of **3.4 billion euros** at the end of March.

In an inflationary environment, the **price** effect in the **Industrial Merchant** activity remained very high, in the 1st quarter of 2023, at **+12.9%**. **Efficiencies**\(^1\) reached **91 million euros**, up **+18.1%** compared to the 1st quarter of 2022. **Portfolio management** continued in the 1st quarter with **2 acquisitions** in Industrial Merchant in the United States and Italy, and the **divestiture of Large Industries activities in Trinidad and Tobago**.

**Cash flow from operating activities before changes in net working capital** amounted to **1,600 million euros**, up sharply by **+14.3%** compared to the 1st quarter of 2022 and by **+12.3%** excluding currency impact and an exceptional indemnity payment received in the 1st quarter. In particular, cash flow from operating activities ensures the financing of **industrial investments**, which amounted to **815 million euros**.

In the 1st quarter of 2023, the Group was active in the field of **energy transition** in order to **reduce CO₂ emissions from its own assets and those of its customers**. It includes in particular the **electrification** of several ASUs in China, the signing of **major renewable energy power purchase agreements** in South Africa and the implementation of an **oxy-combustion** solution for a customer in the glass industry. In addition, the Group announced 2 projects in the **hydrogen value chain**: upstream, the construction of an industrial-scale pilot **ammonia cracking** unit, and downstream, the creation of a joint venture with TotalEnergies to develop a **network of hydrogen stations** in Europe. Finally, an **additional “scope 3” objective** and new **biodiversity commitments** were also announced in the 1st quarter.

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\(^1\) See definition in Appendix.
Analysis of 1st quarter 2023 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

<table>
<thead>
<tr>
<th>Revenue</th>
<th>Q1 2022</th>
<th>Q1 2023</th>
<th>2023/2022 published change</th>
<th>2023/2022 comparable change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas &amp; Services</td>
<td>6,590</td>
<td>6,893</td>
<td>+4.6%</td>
<td>+6.7%</td>
</tr>
<tr>
<td>Engineering &amp; Construction</td>
<td>108</td>
<td>87</td>
<td>-19.0%</td>
<td>-18.6%</td>
</tr>
<tr>
<td>Global Markets &amp; Technologies</td>
<td>189</td>
<td>194</td>
<td>+2.4%</td>
<td>+2.8%</td>
</tr>
<tr>
<td>TOTAL REVENUE</td>
<td>6,887</td>
<td>7,174</td>
<td>+4.2%</td>
<td>+6.2%</td>
</tr>
</tbody>
</table>

Group

Group revenue totaled 7,174 million euros in the 1st quarter of 2023, up a strong +6.2% on a comparable basis. Global Markets & Technologies sales were up +2.8% and showed an organic growth of +16.0%, excluding the impact of divestitures. Engineering & Construction revenue was down -18.6% compared to a high level in the 1st quarter of 2022. As published Group sales were up +4.2% with an energy impact (-2.0%) negative for the first time in 2 years and neutral currency (-0.1%) and significant scope (+0.1%) impacts.

Gas & Services

Gas & Services revenue reached 6,893 million euros, up sharply by +6.7% on a comparable basis.

While the dynamism of the Industrial Merchant and Electronics activities continued in the 1st quarter of 2023, Healthcare became the 3rd growth driver. Industrial Merchant revenue continued to grow strongly (+14.8%), supported by a high price effect of +12.9% and growing volumes. Large Industries sales, down -3.6% in a context of weak demand, showed a strong sequential improvement linked to the recovery of activity in Europe in a more favorable environment of reduced energy prices. Electronics revenue posted dynamic growth (+10.4%), driven in particular by the ramp-up of carrier gas units, dynamic growth in sales of specialty materials, and strong Equipment & Installations sales in all regions. Lastly, Healthcare revenue growth accelerated (+7.7%) in the 1st quarter, due especially to the increase in medical gas prices in an inflationary context and the dynamism of Home Healthcare, particularly in Europe and Canada.

As published revenue for Gas & Services were up +4.6% in the 1st quarter of 2023, with a negative energy impact of -2.1% and neutral currency (-0.1%) and significant scope (+0.1%) impacts.

<table>
<thead>
<tr>
<th>Revenue by geography and business line</th>
<th>Q1 2022</th>
<th>Q1 2023</th>
<th>2023/2022 published change</th>
<th>2023/2022 comparable change</th>
</tr>
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<tbody>
<tr>
<td>Americas</td>
<td>2,331</td>
<td>2,629</td>
<td>+12.8%</td>
<td>+9.2%</td>
</tr>
<tr>
<td>Europe</td>
<td>2,718</td>
<td>2,639</td>
<td>-2.9%</td>
<td>+5.5%</td>
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<tr>
<td>Asia-Pacific</td>
<td>1,340</td>
<td>1,385</td>
<td>+3.4%</td>
<td>+4.8%</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>201</td>
<td>240</td>
<td>+19.4%</td>
<td>+4.6%</td>
</tr>
<tr>
<td>GAS &amp; SERVICES REVENUE</td>
<td>6,590</td>
<td>6,893</td>
<td>+4.6%</td>
<td>+6.7%</td>
</tr>
<tr>
<td>Large Industries</td>
<td>2,413</td>
<td>2,202</td>
<td>-8.8%</td>
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<td>Industrial Merchant</td>
<td>2,638</td>
<td>3,038</td>
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<tr>
<td>Healthcare</td>
<td>955</td>
<td>1,016</td>
<td>+6.4%</td>
<td>+7.7%</td>
</tr>
<tr>
<td>Electronics</td>
<td>584</td>
<td>637</td>
<td>+9.0%</td>
<td>+10.4%</td>
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</table>
Americas

Gas & Services revenue in the Americas region totaled **2,629 million euros** in the 1st quarter of 2023, showing a dynamic growth of +9.2%. Industrial Merchant sales were up sharply by +13.2%, supported by price increases that remained high (+9.9%) and volumes which are back to positive. The increase in prices in proximity care in the United States and the dynamism of Home Healthcare in Canada were the main contributors to the strong growth in Healthcare revenue (+11.2%). Large Industries sales were down -3.0% impacted by customer turnarounds. Lastly, Electronics sales remained stable (-1.0%) this quarter, with no new unit start-ups.

- Revenue in **Large Industries** was down -3.0%, impacted by customer turnarounds, especially in air gases in Mexico and in hydrogen in the United States. Oxygen volumes increased sequentially on the US Gulf Coast, supported in particular by the commissioning of a new Air Separation Unit. Sales of cogeneration units were also up in the United States.

- In **Industrial Merchant**, the strong increase in sales (+13.2%) was supported by **price increases** that remained high (+9.9%) in an inflationary context, and by volumes that are once again increasing (>3%) for hardgoods, bulk or cylinders. Volumes were up in most sectors, notably Manufacturing, Construction, Energy and Food.

- Sales growth in **Healthcare** accelerated to +11.2% in the 1st quarter of 2023. Price increases in proximity care in the United States, the dynamism of Home Healthcare in Canada, particularly for the treatment of sleep apnea, and the development of the Medical Gases and Home Healthcare businesses in Latin America were the drivers of this strong growth.

- Revenue from **Electronics** (-1.0%) was stable in the 1st quarter, with no additional contribution from new carrier gas production units. High Equipment & Installations sales offset lower volumes of specialty and advanced materials.
Europe

Revenue in Europe was up **+5.5%** during the 1st quarter of 2023 and reached **2,639 million euros**. In Industrial Merchant, the strong increase in sales of **+22.1%** benefited from price increases that remained very high at **+21.8%**. Healthcare sales were up **+5.7%**, driven by strong development of diabetes treatment in Home Healthcare and higher medical gas prices in response to inflation. Strongly impacted by high energy prices in the 2nd half of 2022, activity in Large Industries saw a rebound in the 1st quarter of 2023: lower energy prices supported sales down by **-4.1%**, a sharp upturn following a -18% decline in the 4th quarter of 2022.

- In the 1st quarter of 2023, revenue in **Large Industries** declined **-4.1%**, a strong improvement compared to a decrease of -18% in the 4th quarter of 2022. In a context of declining energy prices, the beginning of the year was marked by stronger demand, particularly from customers in Chemicals. Hydrogen volumes saw a clear improvement compared to the 4th quarter of 2022, especially in Benelux and Germany. Sales in the quarter also benefited from the start-up of a new Air Separation Unit in Poland.

- The **Industrial Merchant** business line posted extremely strong sales growth, **+22.1%**, supported by **price increases** that remained very high, at **+21.8%**, in an inflationary context. Volumes remained resilient, especially those of packaged gases. Automotive and Metallurgy were the main markets that supported the increase in volumes this quarter.

- Sales growth in the **Healthcare** business increased by **+5.7%**. Diabetes treatment was the first contributor to the strong growth in Home Healthcare sales, followed by sleep apnea. Growth in the Medical Gases revenue was supported by rising prices in an inflationary context. The development of sales of specialty ingredients remained dynamic.

**Europe Gas & Services Q1 2023 Revenue**

![Chart showing revenue distribution by sector]

### Europe

- Air Liquide will implement **for Verallia**, the European leader and the world’s third largest producer of glass packaging for beverages and food products, a **customized solution allowing to reduce CO₂ emissions and energy consumption**. The Group is thus mobilizing its innovation capabilities and its know-how to accompany the conversion of Verallia’s plant in Pescia, Italy, from a traditional combustion process to an **optimized oxy-combustion** on the occasion of the construction of a new furnace on the site. Air Liquide will supply the oxygen to replace the air usually injected into the furnace, as well as its HeatOx™ proprietary technology to recover the heat emitted by the glass furnace.

- Air Liquide announces the construction of an **industrial scale ammonia (NH₃) 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**. With this cracking technology, Air Liquide will further contribute to the development of hydrogen as a key enabler of the energy transition.
Asia-Pacific

Sales in Asia-Pacific were up **4.8%** in the 1st quarter of 2023 and amounted to **1,385 million euros**. They were supported by price increases of +9.9% in Industrial Merchant, leading to sales rising by +11.0%, and by the continued strong growth in revenue in the Electronics business (+10.5%). In Large Industries, sales were down by -5.1%, impacted in particular by weak demand and customer turnarounds.

- **Large Industries** sales were down by -5.1% in the 1st quarter. Demand remained low, particularly in air gases for the Steel industry in Japan and in Chemicals. Sales were also impacted by customer maintenance turnarounds in air gases, including one extended stoppage in China.

- **Industrial Merchant** revenue was up sharply by +11.0%. Price increases stood at a very high level of +9.9%, and were sustained broadly in all countries. Volumes were up slightly, particularly in the Automotive, Food, Energy and Technology sectors. In China, following a start to the year marked by a wave of covid-19 and the New Year period, volumes began to rise again in March.

- **Electronics** posted a strong increase in revenue (+10.5%). Sales of Carrier Gases, Equipment & Installations and Specialty Materials posted double-digit growth. The development of Carrier Gases was driven by the ramp-up of several units and the high prices of helium. Sales of Specialty Materials, which were up sharply, notably in Japan and Singapore, benefited from the increase in rare gas prices. All countries contributed to growth, particularly China and Singapore.

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**Asia-Pacific Gas & Services Q1 2023 Revenue**

- Healthcare: 4%
- Electronics: 33%
- Large Industries: 35%
- Industrial Merchant: 28%

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**Asia-Pacific**

- Air Liquide will invest around 60 million euros to revamp two Air Separation Units (ASUs) the Group operates in the Tianjin industrial basin, in China. This announcement comes within the context of the renewal of a long-term industrial gases supply contract with Tianjin Bohua Yongli Chemical Industry Co., Ltd ("YLC"), a subsidiary of the Bohua Group. As part of this modernization plan, Air Liquide will significantly reduce the CO₂ emissions linked to the production of oxygen and other gases with the adaptation of these ASUs so they can run on electrical power instead of steam. In addition, the Group has signed a three-party Memorandum of Understanding with YLC and the Tianjin Binhai District, notably to explore the implementation of Carbon Capture, Use and Storage (CCUS) solutions.
**Middle East and Africa**

Revenue in the Middle East and Africa reached **240 million euros**, up **+4.6%**. In Large Industries, air gases sales saw strong growth in Egypt and South Africa. In Industrial Merchant, sales were down slightly, with the **+8.0%** increase in prices not fully offsetting the impact of the divestitures in the Middle East in 2022; excluding this impact, growth was up **+9%**. The strong increase in Home Healthcare sales was supported by the development of diabetes treatment in Saudi Arabia and the contribution of an acquisition in South Africa.

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**Middle East and Africa**

- Air Liquide and Sasol have signed two *Power Purchase Agreements (PPA)* with TotalEnergies and its partner Mulilo for the long-term supply of a total capacity of **260 MW of renewable power** to Sasol’s Secunda site, in *South Africa*, where Air Liquide operates the biggest oxygen production site in the world. This is the second set of PPAs signed by Air Liquide and Sasol, after the PPAs announced in January with Enel Green Power for a capacity of 220 MW. Together, these PPAs represent a total of **480 MW of the joint commitment** by Air Liquide and Sasol to pursue the procurement of a total capacity of **900 MW of renewable energy**. These will significantly contribute to the decarbonization of the Secunda site.

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**Engineering & Construction**

Consolidated revenue from Engineering & Construction totaled **87 million euros** in the *1st* quarter of 2023, down **-18.6%** compared to the high sales in the *1st* quarter of 2022.

Order intake amounted to **366 million euros**, up sharply (+39%) compared to the *1st* quarter of 2022. Orders for third-party customers represented more than half of the total and included a large hydrogen liquefier in the United States. Group projects include Air Separation Units and an industrial scale pilot ammonia cracking unit.

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**Global Markets & Technologies**

Sales in Global Markets & Technologies totaled **194 million euros** in the *1st* quarter, up **+2.8%**. **Organic growth** reached **+16.0%**, excluding the divestiture of the biogas distribution for mobility and the manufacture of small-scale cryogenic vessels businesses. Sales of technological equipment for gas liquefaction (Turbo-Brayton), extreme cryogenics and aeronautics saw steady growth. Revenue from hydrogen mobility was up sharply, supported by the ramp-up of the hydrogen liquefier in the United States, which started up in 2022.

Order intake for Group projects and third-party customers amounted to **240 million euros**, up **+12%** compared to 2022. This notably included more than 10 Turbo-Brayton LNG reliquefaction units, hydrogen refueling stations and equipment for the Electronics industry.

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**Global Markets & Technologies**

- Air Liquide and *TotalEnergies* announce their decision to create an equally owned *joint venture* 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.
Investment cycle

INVESTMENT DECISIONS AND INVESTMENT BACKLOG

In the 1st quarter of 2023, industrial and financial investment decisions amounted to 0.8 billion euros.

The industrial investment decisions for the 1st quarter of 2023 amounted to 791 million euros. They include for the Large Industries business in Europe the replacement of several existing units reaching the end of their life cycle by a new generation Air Separation Unit, improving the energy efficiency and reducing CO₂ emissions, with the ambition of eventually using a significant share of renewable energy. Decisions for the Electronics business relate in particular to an ultra pure nitrogen unit in the United States. In Industrial Merchant, five on-site nitrogen generators will be invested to support the development of a customer’s activity in several provinces of China.

Financial investment decisions amounted to 6 million euros in the 1st quarter of 2023 and included two small acquisitions in Industrial Merchant in the United States and Italy.

The investment backlog stood at a very high level of 3.5 billion euros, stable compared to the 4th quarter of 2022. Its composition is balanced between Large Industries and Electronics. These investments should lead to a future contribution to annual revenue of approximately 1.3 billion euros per year after full ramp-up of the units.

START-UPS

Several units started-up in the 1st quarter of 2023, mainly three large Air Separation Units for Large Industries in Europe and the United States.

The additional contribution to sales of unit start-ups and ramp-ups totaled 66 million euros in the 1st quarter of 2023. Over the year, it is expected to be between 300 and 330 million euros.

INVESTMENT OPPORTUNITIES

The 12-month portfolio of investment opportunities increased to the high level of 3.4 billion euros at the end of March. Projects related to the energy transition account for more than 40% of the portfolio. Opportunities are well balanced between America, supported by the Inflation Reduction Act, Europe, where large electrolyzer and carbon capture projects are at the advanced development phase, and Asia, with projects for Large Industries and Electronics. The portfolio of opportunities beyond 12 months includes other significant projects related to the Inflation Reduction Act in the United States and the energy transition in Europe and Canada.
Operating Performance

In an inflationary environment, the price effect in the Industrial Merchant activity remained very high, in the 1st quarter of 2023, at +12.9%, demonstrating the Group's ability to transfer the sharp rise in costs. Prices also increased in Large Industries, Electronics and Healthcare.

Efficiencies(2) reached 91 million euros in the 1st quarter, up +18.1% compared to the 1st quarter of 2022. In a context of high inflation unfavorable to procurement efficiencies, limiting the cost increase remained a priority and increased focus was put on operational efficiencies. Thus, industrial efficiencies posted a strong growth and contributed to more than half of the total. They included in Large Industries energy efficiency and in Industrial Merchant the logistical gains linked to the optimization of deliveries of gas. The pursuit of the global program of continuous improvement, facilitating the replication of initiatives, also contributed to efficiencies.

Portfolio management continued in the 1st quarter with 2 acquisitions in Industrial Merchant in the United States and Italy, and the divestiture of Large Industries activities in Trinidad and Tobago.

In terms of sustainable development, Air Liquide and Sasol have signed long-term power purchase agreements for the supply of a total capacity of 480 MW of renewable energy to the Sasol site in Secunda in South Africa, which will represent for Air Liquide an annual reduction in its CO₂ emissions of more than 850,000 tonnes. The electrification of 2 ASUs in China will also reduce CO₂ emissions by 370,000 tons per year. Moreover, an additional “scope 3” objective and new biodiversity commitments were also announced in the 1st quarter.

Cash flow from operating activities before changes in net working capital amounted to 1,600 million euros, up sharply by +14.3% compared to the 1st quarter of 2022 and by +12.3% excluding currency impact and an exceptional indemnity payment received in the 1st quarter. In particular, cash flow from operating activities ensures the financing of industrial investments, which amounted to 815 million euros.

Sustainable development

- Aware of the importance of contributing to the achievement of carbon neutrality throughout its value chain and the importance of its customer relationships, the Group made a pledge that 75% of its 50 largest customers will have a stated carbon neutrality commitment by 2025 and 100% by 2035.

- New biodiversity objectives:
  - Air Liquide committed to submit a set of engagements towards biodiversity conservation to Act4nature International.
  - Air Liquide committed to develop and implement an aggregated biodiversity KPI by 2025, allowing the Group to monitor and communicate on its biodiversity performance. This will be defined in 2023 and be deployed thereafter.
  - Air Liquide committed to reinforce its biodiversity assessment criteria into the investment process for all new projects by 2024.

(2) See definition in Appendix.
Air Liquide - Q1 2023 Activity report

Outlook

Air Liquide started 2023 with a very solid performance. In the first quarter, growth was higher than in the fourth quarter and the investment momentum remained strong.

Group sales increased by +6.2% on a comparable basis, after growth of +4.5% in the fourth quarter. As published, sales were up by +4.2% year-over-year, integrating in particular the decline in energy prices, whose variations are passed on to Large Industries customers. Revenue reached 7.2 billion euros, including 6.9 billion euros for the Gas & Services business.

The Gas & Services business, which represents 96% of the Group’s revenue, was up +6.7% on a comparable basis and that of Global Markets & Technologies was up +2.8%, with divestitures impacting growth this quarter. Sales to third-party Engineering & Construction customers decreased by -18.6%; the outlook remaining solid with a high level of internal and external order intake.

Within Gas & Services, all the geographies posted comparable growth, in particular the Americas. By business line, Industrial Merchant and Electronics remained on a strong upward trend; growth in Healthcare accelerated and Large Industries recovered compared to the fourth quarter in a more favorable energy price environment in Europe.

In line with the priorities of its strategic plan, ADVANCE, Air Liquide continued to improve operational performance. The Group generated significant efficiencies of 91 million euros, up +18.1% year-over-year, despite an inflationary environment unfavorable to savings on purchases, and continued dynamic management of its business portfolio. The Group’s ability to create value allows it to adjust prices in Industrial Merchant (+13%) while preserving sales volumes. The cashflow progressed by +14.3% in the first quarter.

Investment decisions amounted to close to 800 million euros. 12-month investment opportunities continued to rise, reaching 3.4 billion euros. More than 40% of these opportunities are related to the energy transition, with in particular decarbonization projects in the United States.

In 2023, the Group will continue deployment of its ADVANCE strategic plan. Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates.

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2 Operating margin excluding energy passsthrough impact. Net profit recurring 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 eurozone. The currency impact 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 impact 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.
**Comparative Sales Change**

Comparable changes for sales exclude the currency, energy and significant scope impacts described above. The calculations are the following:

<table>
<thead>
<tr>
<th></th>
<th>Q1 2023</th>
<th>Q1 2023/2022 Published Growth</th>
<th>Currency impact</th>
<th>Natural gas impact</th>
<th>Electricity impact</th>
<th>Significant scope impact</th>
<th>Q1 2023/2022 Comparable Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>7,174</td>
<td>+4.2%</td>
<td>(11)</td>
<td>(123)</td>
<td>(14)</td>
<td>13</td>
<td>+6.2%</td>
</tr>
<tr>
<td><strong>Impacts in %</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td>-0.1%</td>
<td></td>
<td>-1.8%</td>
<td>-0.2%</td>
<td>+0.1%</td>
<td></td>
</tr>
<tr>
<td>Gas &amp; Services</td>
<td>6,893</td>
<td>+4.6%</td>
<td>(10)</td>
<td>(123)</td>
<td>(14)</td>
<td>13</td>
<td>+6.7%</td>
</tr>
<tr>
<td><strong>Impacts in %</strong></td>
<td></td>
<td>-0.1%</td>
<td></td>
<td>-1.9%</td>
<td>-0.2%</td>
<td>+0.1%</td>
<td></td>
</tr>
</tbody>
</table>

**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...).
Sales 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

<table>
<thead>
<tr>
<th>Q1 2023 split of revenue and comparable growth in %</th>
<th>Total</th>
<th>Large Industries</th>
<th>Industrial Merchant</th>
<th>Electronics</th>
<th>Healthcare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>100%</td>
<td>18%</td>
<td>68%</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>+9.2%</td>
<td>-3.0%</td>
<td>+13.2%</td>
<td>-1.0%</td>
<td>+11.2%</td>
</tr>
<tr>
<td>Europe</td>
<td>100%</td>
<td>41%</td>
<td>31%</td>
<td>2%</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>+5.5%</td>
<td>-4.1%</td>
<td>+22.1%</td>
<td>N.C.</td>
<td>+5.7%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>100%</td>
<td>35%</td>
<td>28%</td>
<td>33%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>+4.8%</td>
<td>-5.1%</td>
<td>+11.0%</td>
<td>+10.5%</td>
<td>N.C.</td>
</tr>
<tr>
<td>Middle-East and Africa</td>
<td>100%</td>
<td>N.C.</td>
<td>N.C.</td>
<td>N.C.</td>
<td>N.C.</td>
</tr>
<tr>
<td></td>
<td>+4.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas &amp; Services</td>
<td>100%</td>
<td>32%</td>
<td>44%</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>+6.7%</td>
<td>-3.6%</td>
<td>+14.8%</td>
<td>+10.4%</td>
<td>+7.7%</td>
</tr>
<tr>
<td>Engineering &amp; Construction</td>
<td></td>
<td>-18.6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Markets &amp; Technologies</td>
<td></td>
<td>+2.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROUP TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>+6.2%</td>
</tr>
</tbody>
</table>

N.C.: Not communicated

Investments

<table>
<thead>
<tr>
<th>(in billions of euros)</th>
<th>Q1 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-month portfolio of investment opportunities$^{(a)}$</td>
<td>3.4</td>
</tr>
<tr>
<td>Investment decisions$^{(b)}$</td>
<td>0.8</td>
</tr>
<tr>
<td>Investment backlog$^{(c)}$</td>
<td>3.5</td>
</tr>
<tr>
<td>Additional contribution to revenue of unit start-ups and ramp-ups$^{(d)}$ (in million euros)</td>
<td>66</td>
</tr>
</tbody>
</table>

(a) At the end of the reporting period.
(b) Cumulated value from the beginning of the calendar year until the end of the reporting period.
The slideshow that accompanies this release is available as of 7:20 am (Paris time) at www.airliquide.com.
Throughout the year, follow Air Liquide on Twitter: @AirLiquideGroup.

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UPCOMING EVENTS
Annual General Meeting of Shareholders:
May 3, 2023
Dividend Ex-coupon Date:
May 15, 2023
Dividend Payout Date:
May 17, 2023
2023 First Half Revenue and Results:
July 27, 2023

A world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 73 countries with approximately 67,100 employees and serves more than 3.9 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 company’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 29.9 billion euros in 2022. 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.