Third quarter 2017:
Accelerating comparable growth in Gas & Services sales
2017 objective confirmed

Q3 2017 Key Figures

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group revenue</td>
<td>€4,944M</td>
<td>-0.3%*</td>
</tr>
<tr>
<td>of which Gas &amp; Services</td>
<td>€4,787M</td>
<td>+0.1%*</td>
</tr>
</tbody>
</table>

Comparable growth**
<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas &amp; Services revenue</td>
<td>+4.0%</td>
<td></td>
</tr>
<tr>
<td>of which Industrial Merchant</td>
<td>+4.3%</td>
<td></td>
</tr>
</tbody>
</table>

Q3 2017 Highlights

- **External parameters**: industrial production index improving, negative currency impact, limited impact of hurricanes in the United States.
- **Airgas-related synergies ahead of forecasts**.
- **Long-term contracts**: hydrogen for oil refining in Mexico, air gases for an energy and chemicals customer in China.
- **Business portfolio management**: closed divestment of Air Liquide Welding and of the Airgas’ refrigerant business, Healthcare acquisition in Japan.
- **New markets**: entry into the Norwegian biogas market, launch of an e-health offer in Europe, first hydrogen charging station in Dubai.

* Change as published. 2016 restated, Welding and Diving activities reported as discontinued operations.
** Excluding currency and energy (natural gas and electricity) impacts. Variation Q3 2017 vs. restated Q3 2016, adjusted as if on January 1, 2016 Airgas had been fully consolidated and the divestments required by US competition regulators had been completed.

Commenting on the third quarter of 2017, Benoît Potier, Chairman and CEO of Air Liquide, said:

"During this quarter, Gas & Services sales growth accelerated on a comparable basis, supported by strong activity in all business lines. The ramp-up in activity in Industrial Merchant and the high growth in Electronics were confirmed over the period. In terms of geography, growth was driven in particular by developing economies and Asia-Pacific with very strong sales in China. Activity in North America was slightly impacted by the hurricanes which hit the United States, whereas Europe posted solid growth. The third quarter was also marked by a negative currency impact, which offset the positive impact of the first six months of the year.

The Group continued to generate operational efficiency gains, in addition to Airgas synergies which are ahead of our 2017 forecasts. Thanks to a good level of cash flow, debt now stands below 15 billion euros.

The Group can also rely on its 2.1 billion euro investment backlog, as well as on its innovations and new markets, to fuel future growth, as highlighted by the solid performance of the Global Markets & Technologies activity.

Assuming a comparable environment, Air Liquide is confident in its ability to deliver net profit growth in 2017."
Q3 2017 Group revenue reached **4,944 million euros**, an increase of +3.5% on a comparable basis as compared with Q3 2016. Revenue was nearly flat at -0.3% as published, impacted by a currency impact that turned negative this quarter (-4.0%). The positive energy impact softened to +1.0% this quarter.

**Gas & Services** revenue, which totaled **4,787 million euros**, was up +4.0% on a comparable basis versus Q3 2016. This reflects an acceleration in sales growth compared with the previous two quarters, despite the limited impact of the hurricanes in the United States. Excluding this impact, comparable growth reached +4.4%. Gas & Services revenue was stable at +0.1% as published, affected by the negative currency impact.

The **developing economies** posted strong growth, with Gas & Services revenue up **+10.4%** on a comparable basis.

Overall, all **Gas & Services** business lines grew this quarter on a comparable basis:

- The ramp-up in activity continued in **Industrial Merchant** with growth at **+4.3%**. Sales, which were up in all regions, were particularly strong in developing economies. In **Europe**, sales growth of +4.2% was driven by increased bulk and cylinder volumes, as well as a positive price impact. Business momentum was strong in Italy, Iberia, France and Benelux. In **North America**, the recovery was confirmed, notably with higher volumes. In the United States, sales improved in almost all market segments, whereas in Canada they were driven by the energy and metal fabrication sectors. **Asia-Pacific** enjoyed strong sales in China, where growth exceeded +15%, due to an increase in both prices and volumes. At the global level, the price impact for the World Business Line was positive at +1.3%.

- **Large Industries** revenue increased by **+2.0%**. Excluding the impact of hurricanes in the United States, sales were up +3.2%. The situation in **North America** was contrasted. Activity in the United States was impacted by customer unit shutdowns due to the hurricanes, in particular refineries, whereas sales growth in Canada was driven by greater demand for oxygen from steel producers. In **Europe**, hydrogen demand increased at the end of the quarter, however revenue for the region remained impacted by the cessation of operations in Ukraine. Sales in **Asia-Pacific** grew markedly (+8.1%) due to production unit start-ups in China and strong customer demand in both China and South Korea. Finally, in the **Middle-East**, growth continued to be driven by the hydrogen production units in Yanbu, Saudi Arabia.

- **Electronics** sales, which were up **+7.2%**, saw a strong growth level, thanks in particular to high demand in China and Taiwan. All regions contributed to growth. Carrier gases sales remained robust while equipment and installation sales were up slightly this quarter. Demand for Advanced Materials continued to be sound with revenue growth in this product category of almost +30%.

- **Healthcare** continued its steady growth, up **+4.5%**. It benefited from sustained demand in home healthcare services and robust specialty ingredients and medical equipment sales. Activity was particularly strong in developing economies, in particular in South America, which posted double-digit revenue growth. Acquisitions also contributed to growth in countries such as in Canada or Japan.

**Engineering & Construction** revenue totaled **75 million euros** this quarter, down -25.1% on a comparable basis, as a result of the low level of order intake in 2016. Order intake since the beginning of 2017 has improved significantly compared with last year.

**Global Markets & Technologies** revenue amounted to **82 million euros** this quarter. This represented an increase of +13.2% on a comparable basis, in line with the two previous quarters. Sales were particularly strong in the maritime and biogas sectors. Moreover, the Group made an acquisition in the biogas sector in Norway this quarter.

The Group continues to strengthen its competitiveness. Cumulated **operational efficiency gains** since the beginning of the year reached **229 million euros**, in line with the annual target of more than 300 million euros. **Airgas acquisition synergies** are a few months ahead of annual forecasts thanks to quicker project execution. The Group has therefore revised its synergies target upward for 2017 and now forecasts by year end 2017 a cumulated delivery of **195 million US dollars in synergies since the acquisition**, versus the 175 million US dollars previously announced.
Cash flow from operating activities before changes in Working Capital Requirements increased and amounted to **2.9 billion euros** at September 30, 2017, allowing the net debt level to be brought back below 15 billion euros.

---

The slideshow that accompanies this press release will be available starting at 9 am (Paris time) on the Air Liquide corporate website: airliquide.com.

Follow the announcement of third quarter revenue live on Twitter @AirLiquideGroup.

---

CONTACTS

Corporate Communications
Annie Fournier
+33 (0)1 40 62 51 31
Caroline Philips
+33 (0)1 40 62 50 84

Investor Relations
Paris - France
+33 (0)1 40 62 50 87
Philadelphia - USA
+1 610 263 8277

UPCOMING EVENTS

Actionaria trade show, Paris, France
November 23-24, 2017

2017 Annual results
February 15, 2018

---

The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 65,000 employees and serves more than 3 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.

Air Liquide’s ambition is to lead its industry, deliver long term performance and contribute to sustainability. The company’s customer-centric transformation strategy aims at profitable growth over the long term. It relies on operational excellence, selective investments, open innovation and a network organization implemented by the Group worldwide. Through the commitment and inventiveness of its people, Air Liquide leverages energy and environment transition, changes in healthcare and digitization, and delivers greater value to all its stakeholders.

Air Liquide’s revenue amounted to €18.1 billion in 2016 and its solutions that protect life and the environment represented more than 40% of sales. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, EURO STOXX 50 and FTSE4Good indexes.
The 3rd quarter 2017 saw an acceleration in Gas & Services revenue growth on a comparable basis, at +4.0%. Sales were up in all business lines, with a marked increase in growth in Industrial Merchant and Electronics.

Group revenue for the 3rd quarter 2017 reached 4,944 million euros, up +3.5% on a comparable basis. It benefited from positive momentum in Gas & Services sales and the development of the Global Markets & Technology business, whereas the activity level in Engineering & Construction remained weak. The change in revenue was almost flat at -0.3% as published, affected by a negative currency impact this quarter (-4.0%) and a weaker contribution of the energy impact (+1.0%). On a comparable basis, Gas & Services revenue was up +4.0% at 4,787 million euros, a marked acceleration compared with growth of +2.7% in the 2nd quarter. The ramp-up in activity continued in Industrial Merchant (+4.3%), with higher liquid gas and cylinder volumes and pricing up slightly, at +1.3%. Electronics was also a very solid growth driver this quarter (+7.2%), benefiting from the start-up of new units and double-digit growth in Advanced Materials. Healthcare continued its steady development (+4.5%) and Large Industries revenue was in line with 2nd quarter growth (+2.0%). Revenue was up in all regions, with marked growth in developing economies and in Asia, in particular China. In North America, revenue was slightly impacted this quarter by the hurricanes.

Ongoing efforts to improve productivity continued throughout the Group, leading to 81 million euros in efficiencies this quarter, or 229 million euros at the end of September, in line with the NEOS objective. Airgas synergies are delivering more quickly than anticipated and have reached 177 million US dollars in total since 2016. The cumulated target at the end of 2017, which was exceeded at the end of September, has been revised upwards to 195 million US dollars. The total amount of synergies expected at the end of 2019 remains unchanged at 300 million US dollars.

Cash flow from operating activities before changes in working capital requirements amounted to 2,856 million euros at the end of September, up +12.4%. The net debt was brought back under 15 billion euros benefitting from a favorable currency impact.

The 12-month portfolio of investment opportunities remained stable at 2.1 billion euros at the end of September 2017. Investment decisions totaled 610 million euros for the quarter and 1.7 billion euros since the beginning of the year. Net capital expenditures represented 10.7% of sales, in line with the mid-term strategic plan.
Terms « published » and « comparable » used in this document refer to the definitions below:

- **Published growth**: vs 2016 data is calculated in accordance with IFRS 5. Other Activities (Aqua Lung and Air Liquide Welding) are reported under “Net income from discontinued operations” in the 2016 and 2017 income statement.

- **Adjusted 2016 revenue**: is computed as if, on January 1st 2016, Airgas had been fully consolidated and the divestitures requested by the U.S. Federal Trade Commission completed, and Aqua Lung and Air Liquide Welding had been deconsolidated.

- **Comparable growth**: in 2017, Air Liquide communicates a comparable sales growth based on 2016 adjusted sales, excluding currency and energy (natural gas and electricity) impacts.

- **Reference to Airgas**: now corresponds to the Group’s Industrial Merchant and Healthcare activities in the United States within the new scope, after the merger of Airgas and Air Liquide U.S. operations.

Unless otherwise stated, all variations in revenue outlined below are on a comparable basis.
Q3 2017 Highlights

DEVELOPMENTS IN LARGE INDUSTRIES

- In early September, Air Liquide announced the signature of a new long-term agreement with Pemex Transformación Industrial, a subsidiary of Petróleos Mexicanos (PEMEX), the state-owned oil & gas company, to supply hydrogen to PEMEX’s refinery located at Tula de Allende, in the state of Hidalgo in the central region of Mexico. Through a €50 million investment for the takeover and optimization of PEMEX’s existing hydrogen production unit, this agreement will allow Air Liquide to supply 90,000 Nm3 per hour of hydrogen to PEMEX refinery and to strengthen its presence in central Mexico.

- In mid-October, Air Liquide entered into a new joint venture with Sinopec in Beijing, for the takeover and optimization of three existing ASUs and the building of a new nitrogen unit, for a total investment of 40 million euros. In the third quarter 2017, Air Liquide also commissioned a new state-of-the-art ASU for the supply of oxygen and nitrogen to Sinopec in South China.

DEVELOPMENTS IN HEALTHCARE

- In early September, Air Liquide announced the deployment of “Chronic Care Connect™”, an e-health solution in order to support remotely patients with chronic conditions at home using digital. Thanks to this technology, patients are monitored on a daily basis remotely with individualized support provided by Air Liquide nurses via a certified nursing center. This solution helps to improve patients’ quality of life. As for their physicians, they have access to an operational solution that allows for preventive management of patient condition evolution. By avoiding hospitalization, the Air Liquide connected solution for the remote monitoring of patients also meets the challenges facing health authorities.

- At the end of September, Air Liquide announced a major Healthcare acquisition in Japan. Air Liquide is expanding its healthcare business in Japan with the acquisition of Sogo Sangyo Kabushiki Kaisha (“SSKK”), a major Japanese player with a strong presence in the home healthcare and medical gases markets especially in the Tokyo region. Present in the Japanese market for 60 years, SSKK is specialized in the medical gases field serving more than 2,000 hospitals and clinics and home treatment for patients suffering from respiratory diseases including: sleep apnea, Chronic Obstructive Pulmonary Disease and chronic respiratory failure. This acquisition increases the number of patients served at home by Air Liquide in Japan to reach 20,000.

PORTFOLIO MANAGEMENT

- At the end of July 2017, Air Liquide announced that it had completed the sale of Air Liquide Welding, its subsidiary specialized in the manufacture of welding and cutting technologies, to Lincoln Electric France SAS, subsidiary of Lincoln Electric Holdings, Inc. (“Lincoln Electric”). Lincoln Electric is the world leader in design, development and manufacture of arc welding products, robotic arc welding systems, plasma and oxy-fuel cutting equipment. This sale follows the signed agreement announced on April 27th 2017 with Lincoln Electric, and the related usual regulatory approvals, including competition authorities’ approval.

- On October 10th, Airgas, completed the sale of Airgas-Refrigerants, Inc., its subsidiary specializing in the distribution, packaging and reclamation of refrigerant gases, to Hudson Technologies, Inc. The sale of this Airgas subsidiary is reflective of Airgas’ focus on its core business.
Analysis of 3rd quarter revenue

REVENUE

<table>
<thead>
<tr>
<th>Revenue (in millions of euros)</th>
<th>Q3 2016</th>
<th>Q3 2017</th>
<th>2017/2016 published change</th>
<th>2017/2016 comparable change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas &amp; Services</td>
<td>4,783</td>
<td>4,787</td>
<td>+0.1%</td>
<td>+4.0%</td>
</tr>
<tr>
<td>Engineering &amp; Construction</td>
<td>105</td>
<td>75</td>
<td>-28.1%</td>
<td>-25.1%</td>
</tr>
<tr>
<td>Global Markets &amp; Technologies</td>
<td>73</td>
<td>82</td>
<td>+11.5%</td>
<td>+13.2%</td>
</tr>
<tr>
<td>TOTAL REVENUE</td>
<td>4,961</td>
<td>4,944</td>
<td>-0.3%</td>
<td>+3.5%</td>
</tr>
</tbody>
</table>

Group

Group revenue for the third quarter of 2017 totaled 4,944 million euros, up +3.5% on a comparable basis. The quarter benefited from a significant acceleration in Gas & Services sales growth and activities in development in Global Markets & Technologies, whereas activity level remained weak in Engineering & Construction. The currency impact turned negative this quarter, at -4.0%, due to the appreciation of the euro against the US dollar, Japanese yen and Chinese yuan. The energy impact softened and only accounted for +1.0%. Thus, revenue as published was almost flat at -0.3%.

Gas & Services

Gas & Services revenue totaled 4,787 million euros. Comparable growth at +4.0%, and +4.4% excluding the limited impact of hurricanes in North America, was stronger than in the 1st half (+2.8%). Sales improved in all business lines, in particular in Industrial Merchant (+4.3%) and Electronics (+7.2%). The contribution from the base business was strong, exceeding +2.5%, to which is being added sales from the start-up and ramp-up of new units. Sales as published were stable at +0.1%, impacted by a negative currency effect of -4.1% and by a weaker energy contribution (+1.0%).

<table>
<thead>
<tr>
<th>(in millions of euros)</th>
<th>Q3 2016</th>
<th>Q3 2017</th>
<th>2017/2016 published change</th>
<th>2017/2016 comparable change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>2,042</td>
<td>1,968</td>
<td>-3.6%</td>
<td>+2.8%</td>
</tr>
<tr>
<td>Europe</td>
<td>1,601</td>
<td>1,657</td>
<td>+3.5%</td>
<td>+2.5%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>997</td>
<td>1,010</td>
<td>+1.3%</td>
<td>+7.6%</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>143</td>
<td>152</td>
<td>+6.8%</td>
<td>+10.9%</td>
</tr>
<tr>
<td>GAS &amp; SERVICES REVENUE</td>
<td>4,783</td>
<td>4,787</td>
<td>+0.1%</td>
<td>+4.0%</td>
</tr>
<tr>
<td>Large Industries</td>
<td>1,261</td>
<td>1,286</td>
<td>+2.0%</td>
<td>+2.0%</td>
</tr>
<tr>
<td>Industrial Merchant</td>
<td>2,308</td>
<td>2,265</td>
<td>-1.9%</td>
<td>+4.3%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>814</td>
<td>833</td>
<td>+2.3%</td>
<td>+4.5%</td>
</tr>
<tr>
<td>Electronics</td>
<td>400</td>
<td>403</td>
<td>+0.8%</td>
<td>+7.2%</td>
</tr>
</tbody>
</table>
Americas

Gas & Services revenue in the Americas zone stood at **1,968 million euros**, up +2.8% on a comparable basis and up +3.9% excluding the impact of the hurricanes which hit North America. They affected Large Industries sales and, to a lesser extent, those of Industrial Merchant. Excluding the impact of hurricane Harvey, Large Industries volumes remained sustained. The recovery continued in Industrial Merchant, with revenue growth of +3.8%, despite the unfavorable impact of one less working day. In South America, sales continued to climb strongly in all activities.

- **Large Industries** posted sales that were down -3.0% but up +1.4% excluding the impact of the hurricanes in the United States. In Canada, air gases sales benefitted from stronger demand from steel makers. In South America, high hydrogen volumes drove growth in this activity.

- The recovery in **Industrial Merchant** continued, with sales growth of +3.8%, +4.2% excluding the impact of hurricanes, despite one less working day than in the 3rd quarter 2016. Liquid gas and cylinder volumes were up in the United States and Canada. In the United States, sales improved in almost all market segments. In Canada, sales increased markedly in the energy and metal fabrication sectors. Growth in South America remained dynamic and improved notably in Brazil. The price effect in the zone was +1.2%.

- **Healthcare** revenue was up +4.8%, driven by solid growth in Canada, which benefited from the contribution from bolt-on acquisitions, and in South America where Home Healthcare continued to grow.

- **Electronics** revenue was up +6.0%, driven by double-digit growth in Advanced Materials.

Europe

Revenue in Europe zone totaled **1,657 million euros**, up +2.5% over the quarter. In Large Industries, volumes were strong even though sales remained slightly down by -0.9%, in particular due to the termination of activity in Ukraine. The ramp-up in activity continued in Industrial Merchant with growth of +4.2%, despite an unfavorable working day impact. Healthcare continued to improve regularly (+3.7%), with the contribution to growth of bolt-on acquisitions remaining limited.

- Down slightly by -0.9%, **Large Industries** remained penalized in particular by the termination of activity in Ukraine. Sales improved on a sequential basis in particular with hydrogen volumes experiencing a marked improvement during the quarter due to the positive activity level of refineries. Demand in Eastern Europe remained sustained.

- **Industrial Merchant** revenue was up +4.2%. The recovery continued in almost all countries, and was more pronounced in Southern Europe (Iberia, Italy), Benelux and France. Both liquid gas and cylinder volumes were growing. Sales continued their sustained increase in developing economies. At
+0.6%, pricing continued to improve and was positive for the second quarter in a row.

- **Healthcare** continued to improve regularly posting sales growth of +3.7%, with new acquisitions having a limited contribution. The number of patients continued to increase in Home Healthcare. Sales in Specialty Ingredients grew significantly, driven by a small acquisition.

**Asia-Pacific**

Revenue in Asia-Pacific zone totaled **1,010 million euros** in the 3rd quarter, up +7.6%. Strong growth was achieved across all business lines. In Large Industries, sales were very dynamic (+8.1%), driven by the start-up of new units and strong volumes. Industrial Merchant was up markedly (+5.4%) with very high growth in China. Electronics sales (+7.8%) enjoyed increased production capacities and the momentum of Advanced Materials.

- **Large Industries** sales were up +8.1%, driven by the start-up of three air separation units in China including one takeover, the ramp-up of a unit in Australia and strong customer demand, in particular in China and South Korea.

- **Industrial Merchant** reported a growth of +5.4% over the quarter. In China, growth exceeded +15% for the second quarter in a row, driven by increases in pricing and in liquid gas and cylinder volumes. Sales in Japan were down due to weak demand. Business in Australia enjoyed positive growth despite a sluggish environment. Pricing strengthened to +1.8% and was particularly strong in China.

- **Electronics** revenue was up by an impressive +7.8% over the quarter, driven in particular by double-digit sales growth in China and Taiwan. Advanced Materials and carrier gases were the growth engines in Asia. This quarter saw the end of the unfavorable comparison basis, in particular in Equipment & Installation sales.

**Middle East and Africa**

Revenue of Middle East and Africa zone amounted to **152 million euros**, a comparable increase of +10.9%. In the 3rd quarter, sales benefited from the operation at full capacity of the two large hydrogen production units in Yanbu, Saudi Arabia. In Egypt, the start-up of production units supported Large Industries and Industrial Merchant sales growth. South Africa continued its sustained growth in Healthcare.
Engineering & Construction

Engineering & Construction revenue totaled 75 million euros in the 3rd quarter of 2017, down -25.1%, due to the low level of order intake in 2016.

Order intake reached 175 million euros in the 3rd quarter of 2017 and 504 million euros at the end of September, twice that of the first nine months of 2016. Around 80% of orders concerned air separation units (ASU). These included Group projects as well as orders for third party customers, in particular in the Energy and Chemicals sectors. The number of calls for tender continued to increase.

Global Markets & Technologies

Global Markets & Technologies revenue was up +13.2% at 82 million euros. Sales were particularly strong in biogas, which benefited from the contribution of an acquisition in Norway, and in the maritime sectors. Helium sales increased in the 3rd quarter despite logistical challenges relating to the geopolitical context in Qatar.

Order intake totaled 45 million euros over the quarter.
Investment cycle

The Group’s steady long-term growth is largely due to its ability to invest in new projects every year. Investment projects in the industrial gas business are spread throughout the world, highly capital intensive and supported by long-term contracts, in particular for Large Industries.

INVESTMENT OPPORTUNITIES

The 12-month portfolio of opportunities totaled 2.1 billion euros at the end of September 2017 and remained stable compared to the end of June 2017. New projects entering the portfolio offset those signed by the Group, awarded to the competition or delayed.

Developing economies represented a little under half of the investment opportunities in the 12-month portfolio, down slightly compared with the breakdown at June 30, 2017. The share of projects in the Americas remained the highest, followed by Europe and then Asia. This breakdown of the portfolio of opportunities is similar to the new breakdown of Group sales.

More than 40% of the amount of the portfolio of opportunities corresponds to projects with investments less than 50 million euros; a few projects have investments greater than 100 million euros. The more modest size of projects contributes to a better distribution of risk.

INVESTMENT DECISIONS AND INVESTMENT BACKLOG

Industrial and financial investment decisions totaled 610 million euros for the quarter, and 1.7 billion euros since the beginning of the year. Industrial decisions accounted for more than 90% of that amount. They include, in particular, the takeover of a hydrogen unit for a major customer in Large Industries in Mexico and four ultra-pure nitrogen supply contracts for Electronics in China and Singapore. Financial decisions included a strategic Healthcare acquisition in Japan, a majority equity investment in a Norwegian biogas company and three bolt-on acquisitions carried out by Airgas.

The total investment backlog amounted to 2.1 billion euros, an increase as compared with 2.0 billion euros at the end of June 2017. The investment backlog should lead to a future contribution to annual sales of approximately 0.8 billion euros per year after the full ramp-up of the units.

START-UPS

Seven new production units started up during the 3rd quarter of 2017, some of which in September. These included five units in China of which three Air Separation Units for Large Industries and two ultra-pure nitrogen production units for Electronics, one unit for Large Industries in Egypt and a CO₂ unit for Industrial Merchant in Canada.

The contribution of these unit start-ups and ramp-ups to sales totaled 51 million euros over the quarter and approximately 120 million euros since the beginning of the year.

Thus, for 2017 as a whole, the contribution to sales of unit ramp-ups and start-ups should reach approximately 170 million euros. This contribution is expected to be significantly higher in 2018, exceeding 370 million euros, as several major unit start-ups are scheduled for the end of 2017 and the 1st half of 2018.
Operating Performance

Group efficiency gains reached 81 million euros in the 3rd quarter and 229 million euros at the end of September, in line with the annual target of more than 300 million euros. This performance is part of an ongoing effort and includes numerous projects throughout the Group. More than 40% of these efficiencies related to industrial projects (optimization of production units in China and Benelux in particular, logistics, and maintenance), more than one third to purchasing gains (energy in Large Industries, molecules in Electronics), and the balance mainly to administrative efficiencies and restructuring. The Large Industries and Industrial Merchant were the business lines generating most of the efficiencies and accounted for almost two thirds of total efficiencies.

Thanks to projects delivering a few months ahead of plan, Airgas synergies have been achieved more rapidly than anticipated, in particular cost synergies. 3rd quarter synergies thus stood at 39 million US dollars and total synergies since January 2017 at 132 million US dollars, which exceeded the target for the year. This target has been revised upwards and now stands at 150 million US dollars. The total amount of synergies expected at the end of 2019 remains unchanged at 300 million US dollars.

Cash flow from operating activities before changes in working capital requirements for the first nine months of the year corresponded to 18.7% of sales. It allows in particular the financing of net capital expenditure that reached 1,625 million euros at the end of September, including 1,609 million euros for industrial capital expenditure. Net capital expenditure represented 10.7% of sales, in line with the mid-term strategic plan. The net debt amounted to 14.9 billion euros and benefitted from a favorable currency impact.

Outlook

During this quarter, Gas & Services sales growth accelerated on a comparable basis, supported by strong activity in all business lines. The ramp-up in activity in Industrial Merchant and the high growth in Electronics were confirmed over the period. In terms of geography, growth was driven in particular by developing economies and Asia-Pacific with very strong sales in China. Activity in North America was slightly impacted by the hurricanes which hit the United States, whereas Europe posted solid growth. The third quarter was also marked by a negative currency impact, which offset the positive impact of the first six months of the year.

The Group continued to generate operational efficiency gains, in addition to Airgas synergies which are ahead of our 2017 forecasts. Thanks to a good level of cash flow, debt now stands below 15 billion euros.

The Group can also rely on its 2.1-billion-euro investment backlog, as well as on its innovations and new markets, to fuel future growth, as highlighted by the solid performance of the Global Markets & Technologies activity.

Assuming a comparable environment, Air Liquide is confident in its ability to deliver net profit growth in 2017.
APPENDICES

Significant scope, currency and energy impact (Quarter)

Applied method

In addition to the comparison of published figures, financial information is given excluding significant scope, currency, and natural gas and electricity price fluctuation impact.

- 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.

- 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 over the year (N) - Average energy price over the year (N-1))

Neutralizing the impact of variations in energy prices against sales allows analysis of evolution in revenue on a comparable basis.

Consolidated Q3 2017 revenue includes the following impact:

<table>
<thead>
<tr>
<th></th>
<th>Revenue Q3 2017</th>
<th>Q3 2017/2016 Change</th>
<th>Currency</th>
<th>Natural gas</th>
<th>Electricity</th>
<th>Q3 2017/2016 Comparable change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Group</strong></td>
<td>4,944</td>
<td>-0.3%</td>
<td>(199)</td>
<td>41</td>
<td>9</td>
<td>+3.5%</td>
</tr>
<tr>
<td><strong>Gas and Services</strong></td>
<td>4,787</td>
<td>+0.1%</td>
<td>(194)</td>
<td>41</td>
<td>9</td>
<td>+4.0%</td>
</tr>
</tbody>
</table>

(a) Comparable change based on 2016 adjusted sales excluding currency and energy impacts.
For the Group,

- The currency impact was -4.0%.
- The impact of natural gas price fluctuations was +0.8%.
- The impact of electricity price fluctuations was +0.2%.

For Gas & Services,

- The currency impact was -4.1%.
- The impact of natural gas price fluctuations was +0.8%.
- The impact of electricity price fluctuations was +0.2%.
Consolidated Revenue Year-to-Date 2016

Impact of currency, energy (natural gas and electricity) on year-to-date 2016 revenue:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>15,237</td>
<td>+17.4%</td>
<td>(32)</td>
<td>220</td>
<td>52</td>
<td>+2.3%</td>
</tr>
<tr>
<td>Gas &amp; Services</td>
<td>14,765</td>
<td>+19.1%</td>
<td>(29)</td>
<td>220</td>
<td>52</td>
<td>+3.2%</td>
</tr>
</tbody>
</table>

(a) Comparable change based on 2016 adjusted sales excluding currency and energy impacts.

BY GEOGRAPHY

<table>
<thead>
<tr>
<th>Revenue (in millions of euros)</th>
<th>YTD 2016</th>
<th>YTD 2017</th>
<th>Published change</th>
<th>Comparable change (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>4,227</td>
<td>6,219</td>
<td>+47.1%</td>
<td>+3.1%</td>
</tr>
<tr>
<td>Europe</td>
<td>4,826</td>
<td>5,028</td>
<td>+4.2%</td>
<td>+2.2%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>2,917</td>
<td>3,042</td>
<td>+4.3%</td>
<td>+4.5%</td>
</tr>
<tr>
<td>Middle-East &amp; Africa</td>
<td>431</td>
<td>476</td>
<td>+10.5%</td>
<td>+6.0%</td>
</tr>
<tr>
<td>Gas &amp; Services Revenue</td>
<td>12,401</td>
<td>14,765</td>
<td>+19.1%</td>
<td>+3.2%</td>
</tr>
<tr>
<td>Engineering &amp; Construction</td>
<td>359</td>
<td>221</td>
<td>-38.4%</td>
<td>-38.0%</td>
</tr>
<tr>
<td>Global Markets &amp; Technologies</td>
<td>219</td>
<td>251</td>
<td>+14.3%</td>
<td>+15.3%</td>
</tr>
<tr>
<td>GROUP REVENUE</td>
<td>12,979</td>
<td>15,237</td>
<td>+17.4%</td>
<td>+2.3%</td>
</tr>
</tbody>
</table>

BY WORLD BUSINESS LINE

<table>
<thead>
<tr>
<th>Revenue (in millions of euros)</th>
<th>YTD 2016</th>
<th>YTD 2017</th>
<th>Published change</th>
<th>Comparable change (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large industries</td>
<td>3,649</td>
<td>3,980</td>
<td>+9.1%</td>
<td>+2.2%</td>
</tr>
<tr>
<td>Industrial Merchant</td>
<td>5,272</td>
<td>7,022</td>
<td>+33.2%</td>
<td>+3.3%</td>
</tr>
<tr>
<td>Healthcare</td>
<td>2,265</td>
<td>2,523</td>
<td>+11.4%</td>
<td>+4.5%</td>
</tr>
<tr>
<td>Electronics</td>
<td>1,215</td>
<td>1,240</td>
<td>+2.1%</td>
<td>+2.6%</td>
</tr>
<tr>
<td>GAS &amp; SERVICES REVENUE</td>
<td>12,401</td>
<td>14,765</td>
<td>+19.1%</td>
<td>+3.2%</td>
</tr>
</tbody>
</table>

(a) Comparable change based on 2016 adjusted sales excluding currency and energy impacts.

This activity report is also available on our website:
https://www.airliquide.com/investors/documents-presentations