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June
2009

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www.interactions.airliquide.com



IN BRIEF

Air Liquide highlights from recent weeks

- Healthcare: acquisition of Pacific Science in the U.S., a provider of cryobiology equipment and services to biobanks
- Air Liquide becomes the main supplier to the three largest photovoltaic production sites worldwide thus enhancing its leadership position

- Investments in Russia: building of an air separation unit, with a production capacity of 40 tonnes per day of gaseous oxygen
- Combined Shareholders' Meeting (May 7, 2009): record participation of more than 147,000 shareholders and approval of all the proposed resolutions

See all press releases at www.airliquide.com



EDITORIAL

Benoît Potier, Chairman and CEO

Ladies and Gentlemen, dear Shareholders,

You have been more than 147,000 shareholders to attend the Combined Shareholders' Meeting of May 7 last, and to vote on all resolutions proposed. This record participation, at a key moment in the Group's history, is the largest we recorded since we celebrated our 100th birthday in 2002. It is a testimony to the renewed interest of our shareholders and the trust they have placed in the Air Liquide group.

This Meeting was an opportunity to review the results of 2008, demonstrating the growth the Group has been driving over the last few years, but also its ability to withstand the economic downturn. In 2009, Air Liquide is facing new challenges, due to the unprecedented economic upheaval shaking the world. In this context, the Group can rely on solid assets: the diversity of its markets, a balanced sector and geographic positioning, products consumed in all circumstances and a solid contractual structure. We estimate that about 80% of our sales are of a nature to better resist the current slowdown. Hence, during the first quarter, half of the Gas and Services business has continued to show growth, in particular thanks to the Large Industries and Healthcare sectors.

In order to minimize the impact of the crisis, the ALMA strategic program's priorities were redefined in 2009 to favor cash flow, costs and investments.

Strict cash management must allow us to contain debt at a level equal to or lower than that of December 31, 2008. The cost reduction program was set at €300 million for 2009, due to strict control on current expenses and purchases. Finally, increased selectiveness of investments limited to €1.6 billion will allow developments to be self-financed without sacrificing the medium term.

The current economic and financial situation will evidently change many of our landmarks and will modify some major balances, but it will also reveal new opportunities for our businesses. The five growth drivers identified by the Group will last well beyond the current situation by providing solutions to meet the new expectations of citizens, consumers and customers. Energy and the Environment will have to combine rather than be in opposition, High-Tech will be redefined to meet less consumption-oriented lifestyles that respect balances, and Health to accompany the significant progress made by extended life expectancies. Finally, the market size and importance of so-called Emerging economies will increase to represent a major part of tomorrow's markets.

The vision drawn up with the ALMA company project remains complete, that of a strategy at the heart of the most important challenges facing the planet, a business which optimizes the use of air and the planet's natural resources enabling progress and preserving life.

A new page is being turned in the Group's history, as in global economy, on the lookout for a new climate of trust. In this context, I am delighted about the increase in share capital held by individual shareholders. This strengthened shareholding is great encouragement for the model we have been developing over many years with you, dear Shareholders. It is proof of your confidence in the Group and I thank you for it.



The **ALMA** program states Air Liquide's ambition: to be the recognized leader of its industry. The Group's development is based on five growth drivers: Energy, the Environment, Emerging economies, Health and High-Tech.

Objective: Big Bang

Air Liquide's cryogenic solutions secure the Group as a major technological partner for the Planck and Herschel European satellite missions.



On May 14, Planck and Herschel, the most complex satellites ever produced in Europe, were launched on an Ariane-5 rocket. These satellites will be placed in orbit around a point in space called the second Lagrangian Point, at approximately 1.5 million kilometers from Earth, or nearly four times the distance from the Moon.

Two missions...

The mission of the Planck satellite is to observe the Universe as it was more than 13 billion years ago by studying the light emitted about 380,000 years after the Big Bang and which is still traveling freely through space. While the extremely weak signals of this "fossil" radiation make it difficult to detect, the information obtained by Planck on the origins of the Universe will provide a better understanding of the initial physical conditions and the mechanisms of galaxy formation.

Weighing about two metric tons and carrying a telescope with a 1.5-meter mirror, as well as two detectors (High and Low Frequency Instruments – HFI and LFI, respectively), Planck will be in operation for approximately two years.

The Herschel satellite is expected to breach the mysteries surrounding the birth of stars and the evolution of galaxies by observing the Universe in wavelengths that remain largely uncharted to this day. Its observations will be able to reveal objects (such as galaxies or nascent stars) that discharge such weak emissions that they would be invisible even through the most sensitive optical telescopes. Equipped with a 3.5-meter diameter mirror, Herschel is the largest telescope ever installed in space. Its mission should last for about three years.

... with one critical requirement: cold

To achieve optimum performance, Planck and Herschel must both be cooled to extremely low temperatures.

The Planck mission to study fossil radiation requires the satellite to detect temperature fluctuations to the millionth of a degree in an environment where the interstellar space temperature is already close to 2.725 K. Therefore, its measurement instruments them-

selves must be at a lower temperature than those observed. As for Herschel, it must reduce the heat emitted by the detectors to avoid hindering the results of the observation.

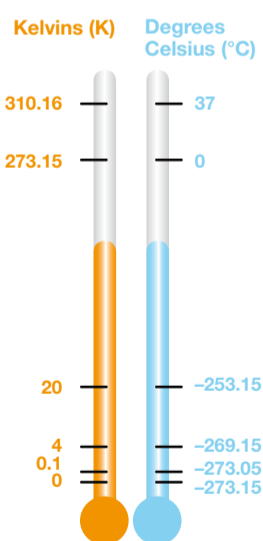
Air Liquide has demonstrated major technological prowess by developing the innovative - and absolutely crucial - cryogenic technologies installed onboard these two scientific satellites.

The Planck cooling system consists of a complete cryogenic chain in which the coldest link is the dilution cooler delivered by the Group. This cooler will lower the temperature of the detectors to 0.1 K, then stabilize this temperature to the millionth of a degree. Dilution is achieved by mixing very high purity helium 3 and helium 4 gases. Once in orbit, Planck will become the coldest point in space during the entire length of its mission!

For this exceptional project, Air Liquide's Advanced Technology teams worked in close collaboration with experts from the Néel Institute (National Center for Scientific Research - CNRS, France) and the Space Astrophysics Institute (IAS, France) on behalf of the National Center for Space Studies (CNES, France).

In addition to the cooler, the core element of Air Liquide's technological contribution, the Group also supplied several facilities to fill tanks on the ground with ultra pure helium to 300 bars, as well as a control unit to ensure that the cooler functions properly while in flight.

The detection instruments onboard the Herschel will be cooled to about 1.5 K using superfluid helium stored in an extraordinary 2,400-liter capacity cryostat tank designed and built by Air Liquide.



The tightness of the tank is a determining factor in the length of the mission: because the telescope depends directly on the helium available in order to operate, the mission will necessarily come to an end once all the helium has evaporated.

Air Liquide also delivered other equipment for this project, such as a second liquid helium tank for ground tests, helium transport lines and heat shields to insulate the tanks and instruments from the outside environment.

Advanced Technologies at the heart of the Air Liquide strategy

For several decades, the global Air Liquide Advanced Technologies division has been developing unique expertise in mastering gases to overcome challenging conditions that include very high pressure, very low temperature and very high purity levels. It has been a pioneer in innovative solutions to promote the advancement of knowledge and technologies.

Its partnerships in unique projects, such as the Planck and Herschel missions, the European Organization for Nuclear Research (CERN) or the International Space Station, testify to this know-how.

With its expert skills and technological mastery, the Group makes active efforts to open up new markets in fields involving superconductivity for energy transport and nuclear fusion, or hydrogen as a clean energy vector.

Viewpoint



Jean-Loup Puget, member of the Academy of Sciences, Scientific manager for the Planck satellite HFI at the Space Astrophysics Institute (IAS, France)

After a brief description of the Planck mission, Jean-Loup Puget turns again to the unique nature of this project, primarily due to the very low temperatures required, as well as the collaboration between IAS and Air Liquide.

Why would measuring fossil radiation be considered an unprecedented technological challenge?

The temperature of cosmic microwave background radiation is about three degrees above absolute zero. Therefore, it was necessary to lower the temperature of the detectors themselves to a tenth of a degree above absolute zero. The cooling system used is completely novel; no one has ever sent a detector into space that was cooled down to this temperature. The tests conducted revealed that the performance of the system surpassed expectations.

How did Air Liquide engineers contribute to the design of the cooling system?

IAS and Air Liquide engineers worked in close collaboration throughout the entire project. Each party contributed their respective skills to an enriching exchange of knowledge. With their mastery of very low temperature cooling techniques and space technologies, Air Liquide's engineers enabled the system to be deployed into space.

Find more information and the complete interview with Jean-Loup Puget at www.interactions.airliquide.com



SEEN AND HEARD

A day with an Air Liquide researcher

Interview with H el ene Daniel, researcher and project coordinator at the Claude Delorme Research Center (CRCD) in the surface treatment of polymers (plastics).

9:00 a.m.

Team meeting for a project launch

Accompanied by the two technicians and engineer who comprise her team, H el ene prepares to launch a project. Also in attendance are an Air Liquide subsidiary's head of development as well as an expert from the Group. Working in cooperation with various parties including customers reflects the willingness to be open-minded, one of the key qualities required of the coordinator position.

The start-up phase is pivotal: at this stage, a number of decisions are made concerning the resources necessary (skills, equipment), the intellectual property measures to take, the experimental installation design often created *ad hoc*, the applicable safety procedure, the planning and follow-up of the project, the collaboration agreements, etc.

11:00 p.m.

Conference call

For one of her projects, H el ene works closely with a researcher in Japan whose skills are invaluable for ensuring that experiments run smoothly.

Air Liquide encourages the share of knowledge and enables employees from anywhere in the world to take part in projects coordinated in another continent.

12:30 p.m.

Lunch

Lunch is a more convivial moment and allows for time with other researchers from the Group and to discuss the innovations being developed.

The CRCD hosts researchers of all nationalities with diverse educational backgrounds and skills who work in many of the Group's research areas.

2:00 p.m.

Safety evaluation with a technician

H el ene defines a protocol for setting up the experimental installation at a customer site, which is required for the process studied. Safety is of utmost importance at Research and Development to guarantee a safe work environment for researchers who handle gases and equipment and also for customers that often accommodate Air Liquide equipment at their sites.

3:30 p.m.

Laboratory results analysis

Following her exchanges with her colleague based in Japan, our researcher meets with one of the technicians to analyze the results obtained. These results confirm what H el ene and her team expected: the project can continue!

One of the objectives of Research and Development is to improve customer processes by finding new uses for gases.

6:30 p.m.

End of the day

To close this busy day, H el ene finalizes a report on her latest project. In her field of research, the range of possible applications is vast and can vary from polymer shaping for the chemical industry to improving the properties of polymer surfaces, for example.

Research and Development (R&D) at Air Liquide

The great diversity of the Group's R&D department is evidenced by its eight main research centers located in France, Germany, Japan and the United States, where 1,000 researchers of 30 nationalities work together.

With the expertise they acquire, researchers can pursue their career path either in the research environment or in operating entities.

Viewpoint



H el ene Daniel

What are the industrial applications of the plasma solutions developed by Air Liquide?

Air Liquide provides plasma solutions to treat plastic films used in food packaging, destroy toxic gases for the electronics industry or create deposits on metals and plastics to obtain specific surface properties.

What exactly is plasma?

Plasma is ionized gas, i.e. electrically charged under the effect of an electrical field. Currently, we are developing cold plasmas with which we can treat heat-sensitive materials such as plastics. The plasma will have specific properties depending on the gas used.

How does the Group's R&D operate in the field of plasma?

New applications are studied in the form of an R&D project. Our long-standing years of experience in this field allow us to meet even the most ambitious customer needs.

Listen to the complete interview at www.interactions.airliquide.com

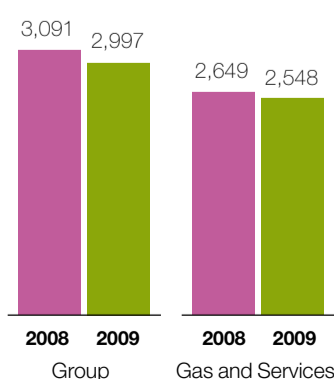


AS AN ASIDE

Group revenue

Resilient 1st quarter 2009

1st quarter revenue (in €M)



Activity in the 1st quarter was marked by **significant disparities** between geographic zones, markets and products. Thus, **cyclical sectors** experienced a reduction in volume in excess of 30%. However, **defensive sectors** generally resisted, subject to volume declines of less than 10%. This deterioration was partially offset, notably by start-ups and ramp-ups of new units and the effect of pricing campaigns.

Beno t Potier, Chairman and CEO, stated: "Despite weak global industrial production in the 1st quarter 2009, Group revenue was broadly resilient due to the solid mix of activities across different markets and the recent start-up of new units. This reflects the robustness of our business model.

The positive signs first observed at the end of the quarter do not yet provide indications of a trend. Thus, the recovery in our markets could take longer. Under these conditions, we have repositioned our objective for the

whole of 2009 for revenue and net income to be close to the 2008 levels. We have also strengthened cash management and increased our cost reduction efforts, for this year, to €300 million.

In the medium term, the Group remains confident in the structural growth potential of the Energy, Environment, Health and High-Tech markets as well as in Emerging Economies. The portfolio of opportunities remains solid and a large majority of start-ups for 2009-2010 have been confirmed. "

The shareholder's page

SHAREHOLDERS TAKE THE FLOOR



"As a new shareholder, I am very impressed by the Shareholders Reception Lounge as well as the quality of the reception I receive."

Already one year has passed since the inauguration of the Shareholders Reception Lounge and there is no better time to take another look at this innovation designed to foster durable shareholder relations. The Air Liquide Shareholder Services has always put shareholders first and the Reception Lounge was created with the very aim of responding to your needs. Whatever your questions, you can find all the answers at this friendly and welcoming space. In 2008, nearly 2,000 shareholders came to meet us and increasing numbers continue to contact us at our toll-free number or by e-mail.

More than just a reception area, the Shareholders Reception Lounge also holds events associated with

the Group's current news and activities.

On March 23 on the occasion of the National Sleep Day, a round table of experts on sleep apnea was organized with guest speaker, Pr. Damien Léger, Chief of the Sleep and Wake Unit at the Hôtel-Dieu hospital (Paris, France).

Shareholders were able to follow the debates live on the Internet and ask their questions.

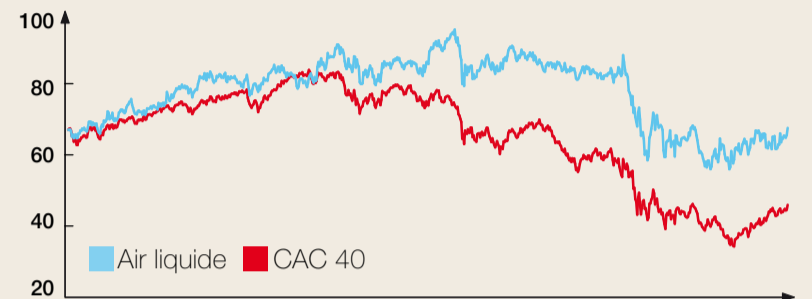
Find the complete round table under the heading Shareholders ("Events") at www.airliquide.com



REPORT

Air Liquide on the stock market

Evolution of share prices over three years (from May 31, 2006 to June 1, 2009)



Air Liquide +0.8% CAC 40 -31.7%

In figures

Become a member in 2009!

The creation of the Shareholders' Communication Committee over **20 years ago** was in itself a veritable Air Liquide innovation, with the objective of guaranteeing a channel of communication for its individual shareholders and providing quality information.

Headed by Benoît Potier, Chairman and CEO, the Committee is comprised of **12 members** who represent the diversity of individual shareholders. Four members are renewed each year after serving a **3-year term**. We would like to extend our sincere gratitude to all of the members for their active involvement, and particularly to those whose term will be ending in 2009.

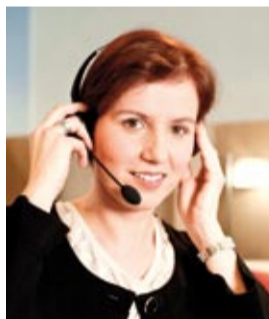
If you are motivated and want to contribute your skills and ideas to the Committee, please return your application duly completed to the Director of Shareholder Services **by July 31, 2009**.

Find all the details at www.airliquide.com



FROM US TO YOU

Shareholder Services answers your questions



I own administered registered shares through my bank and would like to buy new shares. What do I need to do?

You can purchase your shares through your bank, and these will then be held as bearer shares by default.

Warning: Shares are not automatically held in intermediary registered form. Each time you purchase shares (into your securities account or a share savings plan), don't forget to ask your financial intermediary for a new conversion.

Find the conversion form at the end of **MORE**, the Shareholder's Guide, or at www.airliquide.com, under Shareholders.



How to receive the latest news about the Group directly?

The Shareholders Service offers an alert system that automatically sends you an e-mail with the Group's latest news and events. Simply send us your contact information and e-mail address using the registration form available under the heading Shareholders on our website. You can find a direct link on our webzine.

You can also benefit from our rebroadcast tools that are available on the Air Liquide website. It is thus possible to follow live or recorded broadcast of our major annual events (Annual General Meeting, results and revenue presentations, Group news...).



2009 Calendar

July 30

H1 revenue and results

September 24

Information meeting in partnership with *Le Revenu* magazine (Lyon, France)

November 20-21

Actionaria Fair (Paris, France)

Would you like to send us feedback on one of the subjects in this issue? Do you have any questions? Your opinions matter to us.

Contact: <http://contact.actionnaires.airliquide.com>

WEBZINE

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