

Paris, November 9, 2011

## Partnership for the development of the European market for hydrogen forklift trucks

press release



### Contacts:

#### Corporate Communications

Corinne Estrade-Bordry  
+ 33 (0)1 40 62 51 31  
Garance Bertrand  
+ 33 (0)1 40 62 59 62

#### Investor Relations

Virginia Jeanson  
+33 (0)1 40 62 57 37  
Annie Fournier  
+33 (0)1 40 62 57 18

#### Air Liquide - Technologies of the Future

Dominique Lecoq  
+ 33 (0)4 76 43 64 97

### Hydrogen

Hydrogen can be produced from a various range of energy sources, natural gas, in particular, but also renewable energy sources. Hydrogen thus has great potential to provide clean energy and ensure reliability of supplies.

Air Liquide is present across the entire hydrogen energy chain (production, distribution, high-pressure storage, fuel cells and hydrogen filling stations).

### Axane

In 2001, Air Liquide created Axane, a subsidiary dedicated to developing fuel cells. Axane designs, manufactures and commercializes these fuel cells.

**Air Liquide and Plug Power announce their intent to join forces** to develop the market for hydrogen-powered forklift trucks in Europe. Among all the markets for hydrogen energy that of fuel-cell powered forklift trucks is today the **fastest growing** one. This initiative should lead to the creation of a joint venture based in France.

This anticipated joint venture between **Plug Power and Axane** (subsidiary of the Air Liquide group) would rely on the advanced technology of the GenDrive<sup>®</sup> fuel cell solution from Plug Power, world leader in fuel cells for forklift trucks, for developing, manufacturing and marketing a range of fuel cells for forklift trucks in Europe.

The vehicles **running on hydrogen** emit almost **no greenhouse gases**, offer **productivity gains** and are highly flexible. Hydrogen offers users a source of power that is reliable, profitable and **environmentally friendly**.

These advantages have been highlighted in the North-American market where more than **2,300 forklift trucks running on hydrogen will be deployed by the end of 2011**. The potential development of this market in Europe could be around 10,000 units by 2015.

**An overall package that is totally clean**, composed of the GenDrive fuel cell associated with hydrogen supplied by Air Liquide filling stations, would be offered to the European market. Used in a fuel cell, hydrogen combines with oxygen from the air to produce electricity, discharging only water. In the context of the Group's **Blue Hydrogen approach**, this hydrogen will be **gradually produced without discharge of CO<sub>2</sub>**.

**Andy Marsh**, CEO at Plug Power Inc., said: *"As a leading global provider of hydrogen, Air Liquide is the ideal partner to help spearhead our expansion into the European market. We look forward to working hand-in-hand with Air Liquide to bring the economic and environmental benefits of our fuel cell products to the European material handling industry."*

**François Darchis**, Senior Vice-President and a member of Air Liquide's Executive Committee, commented: *"This partnership will allow us to contribute throughout Europe to the deployment of hydrogen fleets. The forklift market prefigures the future development of the hydrogen-powered automobile market. Hydrogen is one of the solutions that offer a response in the short term to the challenges of sustainable mobility: reducing greenhouse gases, local pollution in our cities and dependency on oil-based fuels thus contributing to the preservation of the environment. Energy and the Environment are growth drivers for the Air Liquide Group."*

## Blue Hydrogen

With Blue Hydrogen, Air Liquide is moving towards a gradual decarbonization of its hydrogen production dedicated to energy applications.

In practical terms, Air Liquide takes a commitment to produce at least 50% of the hydrogen necessary to these applications through carbon-free processes by 2020, by combining:

- renewable energy sources, water electrolysis and biogas reforming,
- carbon capture and storage technologies during the hydrogen production process based on natural gas.

**Air Liquide is the world leader in gases for industry, health and the environment, and is present in 80 countries with 43,600 employees.** Oxygen, nitrogen, hydrogen and rare gases have been at the core of Air Liquide's activities since its creation in 1902. Using these molecules, Air Liquide continuously reinvents its business, anticipating the needs of current and future markets. The Group innovates to enable progress, to achieve dynamic growth and a consistent performance.

**Innovative technologies** that curb polluting emissions, lower industry's energy use, recover and reuse natural resources or develop the energies of tomorrow, such as hydrogen, biofuels or photovoltaic energy... Oxygen for hospitals, homecare, fighting nosocomial infections... Air Liquide combines many products and technologies to develop valuable applications and services not only for its customers but also for society.

**A partner for the long term**, Air Liquide relies on employee commitment, customer trust and shareholder support to pursue its vision of sustainable, competitive growth. The **diversity** of Air Liquide's teams, businesses, markets and geographic presence provides a solid and sustainable base for its development and strengthens its ability to push back its own limits, conquer new territories and build its future.

**Air Liquide explores the best that air can offer to preserve life, staying true to its sustainable development approach.** In 2010, the Group's revenues amounted to **€13.5 billion**, of which more than 80% were generated outside France. Air Liquide is listed on the Paris Euronext stock exchange (compartment A) and is a member of the CAC 40 and Dow Jones Euro Stoxx 50 indexes.

### About Plug Power Inc.

The architects of modern fuel cell technology, Plug Power revolutionized the industry with cost-effective power solutions that increase productivity, lower operating costs and reduce carbon footprints. Long-standing relationships with industry leaders forged the path for Plug Power's key accounts, including Wegmans, Whole Foods, and FedEx Freight. With more than 1,200 GenDrive units shipped to material handling customers, accumulating over 5 million hours of runtime, Plug Power manufactures tomorrow's incumbent power solutions today. Additional information about Plug Power is available at [www.plugpower.com](http://www.plugpower.com).