## PRESS RELEASE

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# Air Liquide plans network of new hydrogen filling stations in the United States

Air Liquide announces plans to develop and supply a fully-integrated hydrogen fueling infrastructure in the northeast United States, in collaboration with Toyota Motor Sales USA, Inc. (Toyota), to support Toyota's introduction of a new hydrogen fuel cell electric vehicle (FCEV), the "Mirai", and its plans to deliver hydrogen FCEVs in the United States.

Air Liquide's U.S. hydrogen fueling infrastructure in the northeast will initially consist of twelve filling stations across a number of states, with plans to extend the network as demand warrants. The hydrogen filling stations will offer a typical vehicle filling experience. The stations developed by Air Liquide allow Fuel Cell Electric Vehicles to fill up in less than 5 minutes, and FCEVs themselves offer an autonomy that can reach up to 300 miles (500 km) in range, depending on the model.

This initiative is the latest in the company's current portfolio of hydrogen fuel cell energy activities in the U.S. and across North America, which also include recently awarded hydrogen fueling stations in California, and a number of fleet fueling projects for public buses and warehouse vehicles.

Air Liquide is actively involved in setting up the hydrogen energy industry at global level. The Group has delivered more than 60 hydrogen stations worldwide. Air Liquide already operates hydrogen filling stations for the general public in Europe, including Rotterdam, Netherlands and Düsseldorf, Germany. In Germany, Air Liquide is also a partner of the "H2 Mobility initiative" which aims to deploy about 400 hydrogen stations covering the whole country by 2023. In 2014, the Group announced the installation of four new hydrogen filling stations in Denmark (the first hydrogen infrastructure network in Europe at national level).

Hydrogen has great potential to provide **clean energy**. Used in the fuel cell, hydrogen combines with oxygen from the air to produce electricity, with water as the only by-product. **Air Liquide is present across the entire hydrogen supply chain**, from production to storage, distribution and the development of end user applications, thus helping to drive the widespread use of hydrogen as a clean energy.

Michael J. Graff, Air Liquide Group Senior Vice-President for the Americas and Executive Committee member, commented: "Air Liquide and Toyota share a common and clear commitment to innovation and the vision of a clean energy future for vehicle transportation. Air Liquide sees great promise in the emergence of hydrogen FCEVs in the transportation sector around the world. We are proud to be on the forefront of hydrogen fuel cell technology and the deployment of the necessary infrastructure. We support the creation of a new mobility ecosystem and the widespread use of hydrogen as a clean and reliable energy source in the transportation sector."



#### Hydrogen, a clean energy carrier

Hydrogen can be produced from a wide range of energy sources, natural gas in particular, but also from renewable energy sources.

With its **Blue Hydrogen commitment**, Air Liquide is moving towards a gradual decarbonisation of its hydrogen production dedicated to energy applications. In practical terms, Air Liquide is committed to producing at least 50 % of the hydrogen necessary for 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.

Hydrogen is already a highly efficient energy carrier when produced from natural gas: for the same distance covered, hydrogen vehicles enable to reduce well to wheel greenhouse gas emissions by 20% compared with internal combustion vehicles

#### Air Liquide in the U.S.

employs more than 5,000 people in the U.S. in over 200 locations. The company offers industrial and medical gases, technologies and related services to customers in energy, industrial, electronics and healthcare markets. <a href="https://www.us.airliquide.com">www.us.airliquide.com</a>

#### **AIR LIQUIDE PRESS KITS**

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World leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with more than 50,000 employees and serves more than 2 million customers and patients. Oxygen, nitrogen and hydrogen have been at the core of the company's activities since its creation in 1902. Air Liquide's ambition is to be the leader in its industry, delivering long-term performance and acting responsibly.

Air Liquide ideas create value over the long term. At the core of the company's development are the commitment and constant inventiveness of its people.

Air Liquide anticipates the challenges of its markets, invests locally and globally, and delivers high-quality solutions to its customers and patients, and the scientific community.

The company relies on competitiveness in its operations, targeted investments in growing markets and innovation to deliver profitable growth over the long-term.

Air Liquide's revenues amounted to € 15.2 billion in 2013, and its solutions that protect life and the environment represented around 40% of sales. 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.