

Joint press release

München/ Paris, February 8, 2021

Press release by Siemens Energy and Air Liquide

Siemens Energy and Air Liquide to develop a large scale electrolyzer partnership for sustainable hydrogen production

- Both companies to initiate a European ecosystem for electrolysis and hydrogen technology
- Franco-German cooperation supported by French and German Governments
- Large hydrogen projects identified to lay the ground for industrial scale electrolyzer systems, one of these opportunities is the Air Liquide-H2V Normandy project in France with a capacity of 200 megawatts (MW)
- Joint application for funding of a large project under the European Union's Green Deal and joint participation of the German IPCEI-scheme for hydrogen

Siemens Energy and Air Liquide have signed a Memorandum of Understanding with the objective to combine their expertise in PEM (Proton Exchange Membrane) electrolysis technology. They intend to focus their activities on these key areas: co-creation of large industrial-scale hydrogen projects in collaboration with customers, laying the ground for mass manufacturing of electrolyzers in Europe, especially in Germany and France, and R&D activities to co-develop next generation electrolyzer technologies.

Hydrogen will play an essential role to achieve the European Union's objectives for CO₂ and greenhouse gas emission reduction. In order to meet rapidly growing demand, and to lower costs, it is key to accelerate the production of sustainably generated hydrogen through large-scale PEM electrolyzers. In the framework of their cooperation Siemens Energy and Air Liquide will jointly apply for large projects funding under the EU's Green Deal and Important Project of Common European Interest (IPCEI)-scheme for hydrogen, funded by the French and German Governments.



Siemens Energy AG
Communications
Head: Robin Zimmermann
Otto-Hahn-Ring 6
81739 Munich
Germany

Air Liquide
Corporate Communication
L75, quai d'Orsay
75007 Paris
Frankreich

The IPCEI-funding is required to fast start those activities and meet the challenging timeline set out by the European Green New Deal, the EU Hydrogen Strategy as well as the French and German National Hydrogen Strategies.

With this cooperation, Siemens Energy and Air Liquide will strengthen their core competencies enabling the emergence of a sustainable hydrogen economy in Europe and to initiate a European ecosystem for electrolysis and hydrogen technology together with other partners. The partners have already identified cooperation opportunities for large scale sustainable hydrogen projects both in France, Germany and other European countries. One of these opportunities is the Air Liquide-H2V Normandy project in France with a capacity of 200 MW, one of the most ambitious European projects for hydrogen production from renewable energies.

Christian Bruch, CEO of Siemens Energy, said: "Building up a sustainable hydrogen economy will still require to amend the framework conditions in the energy market. However, it will be through partnerships and collaboration that we can shape this market. We highly appreciate to co-create innovative solutions with Air Liquide. Collectively we will overcome the challenges that lie ahead to industrialize the technology and make sustainably generated hydrogen a success story."

Benoît Potier, Chairman and CEO of Air Liquide, said : "Hydrogen is a key enabler of the energy transition. In the context of an unprecedented acceleration in Europe of hydrogen technologies and markets, the time to scale-up is now, notably in France and Germany. The partnership between Air Liquide and Siemens Energy paves the way for the creation of a leading European ecosystem capable of supplying decarbonised hydrogen at competitive prices and promoting the emergence of a low-carbon society. We look forward to this Franco-German cooperation."

Federal Economy Minister Peter Altmaier: "Hydrogen is a key element for the success of Germany's energy transition and crucial for European and global efforts to combat climate change. Germany is strongly committed to support the market ramp up of hydrogen technologies and is working hard towards European Hydrogen IPCEIs. Against this background, I very much welcome that Siemens Energy and Air Liquide join forces in this domain and I am looking forward to seeing strong Franco-German hydrogen projects coming online soon."



Siemens Energy AG
Communications
Head: Robin Zimmermann
Otto-Hahn-Ring 6
81739 Munich
Germany

Air Liquide
Corporate Communication
L75, quai d'Orsay
75007 Paris
Frankreich

Bruno Le Maire, French Minister of Economy, Finance and Recovery, said: “Now, is the time to invest massively in order to develop new value chains and new technologies. Now, is the time to act. With “France Relance”, 7 billion euros will be invested in hydrogen between now and 2030 to make our economy more competitive and more decarbonised. The ambitious project of Air Liquide and Siemens Energy is only the beginning of an industrial cooperation that must develop beyond a Franco-German alliance. The recovery must be above all a European recovery. I also salute Air Liquide’s mobilization in the framework of the French hydrogen plan, notably through its participation and commitment within the National Hydrogen Council.”

Contacts for journalists

Siemens Energy

Alfons Benzinger

Phone: +49 174 155 9447

E-mail: alfons.benzinger@siemens-energy.com

Air Liquide

E-mail: media@airliquide.com

This press release and a press picture is available at www.siemens-energy.com/press

For further information on green hydrogen please see www.siemens-energy.com/hydrogen

Follow us on Twitter at: www.twitter.com/siemens_energy

Siemens Energy is one of the world’s leading energy technology companies. The company works with its customers and partners on energy systems for the future, thus supporting the transition to a more sustainable world. With its portfolio of products, solutions and services, Siemens Energy covers almost the entire energy value chain – from power generation and transmission to storage. The portfolio includes conventional and renewable energy technology, such as gas and steam turbines, hybrid power plants operated with hydrogen, and power generators and transformers. More than 50 percent of the portfolio has already been decarbonized. A majority stake in the listed company Siemens Gamesa Renewable Energy (SGRE) makes Siemens Energy a global market leader for renewable energies. An estimated one-sixth of the electricity generated worldwide is based on technologies from Siemens Energy. Siemens Energy employs more than 90,000 people worldwide in more than 90 countries and generated revenue of around €27.5 billion in fiscal year 2020. www.siemens-energy.com.



Siemens Energy AG
Communications
Head: Robin Zimmermann
Otto-Hahn-Ring 6
81739 Munich
Germany

Air Liquide
Corporate Communication
L75, quai d’Orsay
75007 Paris
Frankreich

Joint press release



A world leader in gases, technologies and services for Industry and Health, **Air Liquide** is present in 80 countries with approximately 67,000 employees and serves more than 3.7 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 be a leader in its industry, deliver long term performance and contribute to sustainability. The company's customer-centric transformation strategy aims at profitable, regular and responsible 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 22 billion euros in 2019 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. www.airliquide.com

Siemens Energy AG
Communications
Head: Robin Zimmermann
Otto-Hahn-Ring 6
81739 Munich
Germany



Air Liquide
Corporate Communication
L75, quai d'Orsay
75007 Paris
Frankreich