

News Release

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Air Products Announces Multi-Billion Dollar Net-Zero Hydrogen Energy Complex in Edmonton, Alberta, Canada

A live media event will take place at 9:30 a.m. MDT/11:30 a.m. USET

An investor call will take place at 11:00 a.m. MDT/1:00 p.m. USET

See details below.

LEHIGH VALLEY, PA (June 9, 2021) – Air Products (NYSE:APD), the world leader in hydrogen production, and its subsidiary Air Products Canada Ltd., in conjunction with the Government of Canada and the Province of Alberta, today announced a multi-billion dollar plan to build a landmark new net-zero hydrogen energy complex that will make Edmonton, Alberta the centre of western Canada’s hydrogen economy and set the stage for Air Products to operate the most competitive and lowest-carbon-intensity hydrogen network in the world.

Canada’s clean energy diversification strategy and regulatory framework make clear that hydrogen is a key enabler for carbon neutrality by 2050. Aligned with that vision, Air Products began work in 2018 on the core of this world-scale energy complex in Edmonton, which will begin with a transformative \$1.3 billion (CAD) net-zero hydrogen production and liquefaction facility expected onstream in 2024. This project has been approved by Air Products’ Board of Directors, subject to final completion of the agreements contemplated in signed Memorandums of Understanding between Air Products and Canadian authorities, and with appropriate permit approvals. This development is consistent with Air Products’ growth strategy of executing global megaprojects that enable a transition to a cleaner, more sustainable energy future.

The project relies on an innovative combination of well-established technologies to jump-start an ambitious transition to carbon neutrality. It will take advantage of Canada’s abundant and low-cost natural resources, extensive infrastructure, highly skilled workforce, and innovative spirit to be a model for other jurisdictions around the globe.

“We sincerely appreciate the support of the Government of Canada, the Government of Alberta, Invest Alberta, the Mayor of Edmonton and Edmonton Global. We are proud to expand our presence in this dynamic region, where we have found a vision for decarbonization that mirrors our core values,” said [Seifi Ghasemi](#), Air Products’ Chairman, President and Chief Executive Officer. “Sustainability is our pathway to growth and central to Air Products’ business every day around the world. By being a first mover and investing in this innovative landmark project, we are paving the way for hydrogen from Edmonton to meet industrial and transportation needs throughout western Canada. Our highly integrated project will be a model for net-zero atmospheric gas, hydrogen and power production consistent with our announced growth platforms.”

“As the global leader in hydrogen production, Air Products is focused on providing competitive solutions for our customers. The combination of multiple facilities, state of the art technologies, our existing 55-kilometer Alberta Heartland Hydrogen pipeline, our project execution expertise, and our record of reliable operations will set the benchmark for competitive hydrogen to support growth in Alberta for many years to come,” said [Dr. Samir J. Serhan](#), Air Products’ Chief Operating Officer. “Air Products has decades of hydrogen fueling experience around the world and we are excited and ready for the developing market in Canada.”

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"Our well-established Edmonton team is proud of the outstanding safety and reliability record of our existing operations," said [Rachel Smith](#), Air Products Canada Vice President. "We fully intend to earn that same reputation with our new facility construction and operations while also creating well-paying jobs in the Edmonton region. By design, the new complex will utilize Alberta's natural gas resources to produce net-zero hydrogen, reducing the environmental footprint of the refining sector and facilitating future growth in the hydrogen economy in Edmonton and the Alberta Industrial Heartland."

Hon. **Jason Kenney**, Premier of Alberta, said, "Alberta is a leader in emission reduction and responsible energy development. Alberta's combination of competitive taxes, abundant natural resources, and innovation are attracting new investment by world-leading companies, like Air Products, to expand their operations right here in our province. This also demonstrates early success for Invest Alberta, with its mandate to promote our province as an international investment destination for new and exciting large-scale opportunities that build on Alberta's experience and expertise."

Hon. **François-Philippe Champagne**, Canadian Minister of Innovation, Science and Industry, said, "As consumers and investors demand lower-emitting products, we will continue to support Canadians and businesses who are ambitious about seizing these opportunities, creating good jobs, and helping Canada achieve net-zero by 2050. We are always ready to roll up our sleeves with provincial, municipal, and business partners to reach these goals. Today's Air Products announcement demonstrates that our government's policies are attracting investments in Canada's energy sector and ensuring that Alberta's workers and ingenuity play a key part in Canada's economic recovery."

Hon. **Seamus O'Regan Jr.**, Minister of Natural Resources, said, "Hydrogen's moment has come. It's the low-carbon fuel that gets us to net zero. This opportunity will create thousands of jobs and use the skills and expertise of workers in Alberta to lead Canada to the forefront of the global hydrogen market. Working with Alberta and Air Products Canada, we are building a low-emissions energy future that leaves no one behind."

Don Iveson, Mayor of Edmonton, said, "This project is a key milestone for Edmonton's low carbon future. It will harness the energy expertise of the Edmonton metro region to produce liquid hydrogen that could be used to fuel city buses and other transportation applications across western Canada, and ultimately serve lucrative export markets as well. The 2,500 construction jobs, substantial local tax revenue, and spin-off benefits for decades to come are also welcome in the COVID recovery context. Along with our neighbours in the Edmonton Region Hydrogen Hub, we've leaned into Northern Alberta's competitive advantages to drive growth in the hydrogen economy. With that parallel focus on regional prosperity and energy transition, the team at Edmonton Global have engaged closely with Air Products for many months, leading to today's win for our community."

David Knight Legg, CEO of Invest Alberta Corporation, said, "The future of net-zero is in the hands of engineers, entrepreneurs, investors, and companies like Air Products. We're proud to welcome Air Products' expansion of its Alberta operations and look forward to working with Seifi's globally renowned team as they create jobs, investment and innovative solutions for net-zero hydrogen production and carbon capture and storage in Alberta."

Air Products will deploy advanced hydrogen technology and innovative design to deliver net-zero emissions. The new facility will capture over 95 percent of the carbon dioxide (CO₂) from the feedstock natural gas and store it safely back underground. Hydrogen-fueled electricity will offset the remaining five percent of emissions. The clean energy complex will help refining and petrochemical customers served by the Air Products Heartland Hydrogen Pipeline to reduce their

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carbon intensity. The complex also marks a first in the wider use of hydrogen in Alberta, enabling the production of liquid hydrogen to be an emissions-free fuel in the transportation sector, and to generate clean electricity. This is expected to have a positive impact in lowering Alberta's carbon emissions.

Air Products, already Canada's leading hydrogen supplier, is also considering further investments in both existing and new hydrogen facilities in Alberta and across Canada, helping customers improve their sustainability performance while bolstering the hydrogen economy and Canada's energy transition. The Edmonton project site was strategically selected to permit expansion of the energy complex, including replication of net-zero hydrogen production assets to meet growing demand. Air Products' existing Heartland Hydrogen Pipeline network was designed for growth and has the capability to more than triple current volumes.

Air Products' hydrogen business in Alberta is envisioned to reach over 1,500 tonnes of hydrogen production per day and achieve greater than three million tonnes per year of CO₂ capture. Initially, Air Products will build, own, and operate a new net-zero hydrogen complex consisting of a:

- World-scale Auto-Thermal Reformer (ATR) hydrogen production facility, featuring Haldor Topsoe technology, to be built on a large project site in Edmonton that has room for expansion;
- Carbon capture operations capable of achieving 95 percent removal of CO₂ from the complex. The CO₂ will be permanently sequestered by leveraging the Wolf Carbon Solutions wholly-owned and operated Alberta Carbon Trunk Line;
- Power generation facility fueled 100 percent by hydrogen, including NovaLT16 turbines provided by Baker Hughes, to produce clean electricity for the entire facility and export to the grid, offsetting the five percent remaining CO₂ to achieve the net-zero hydrogen facility design;
- 30 tonnes-per-day hydrogen liquefaction facility designed by Air Products, the first of such liquid hydrogen operations around the world to provide clean hydrogen to the growing industrial and mobility hydrogen markets across Western Canada;
- World-scale air separation facility, designed by Air Products to support the ATR operation and to produce clean liquid oxygen and nitrogen for the merchant industrial gas market; and
- Connection to Air Products' existing Alberta Heartland Hydrogen Pipeline network for enhanced reliability and phased decarbonization of the entire network.

The hydrogen liquefaction facility will play a critical role in the developing hydrogen economy across Western Canada. Hydrogen will help to meet society's need for sustainable transportation, especially for heavy duty vehicles where hydrogen excels compared to other technologies. Hydrogen is seen as having a substantial technological advantage over battery electric vehicles in heavy-duty applications due to those vehicles' duty-cycles, especially in Canada's extreme climate conditions. Hydrogen as a transportation fuel most closely mirrors the traditional consumer transportation fuel experience, and Air Products has been a pioneer in this area for decades. The company's technologies are used in over 1.5 million refuelings annually across 20 countries, with Air Products having been involved in over 250 projects.

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As the world's largest hydrogen producer, Air Products has experience across the full value chain for hydrogen and is driving sustainable growth by building, owning and operating the world's largest production, gasification, carbon capture, transportation and fueling projects. With over 60 years of global hydrogen experience operating in over 50 countries, Air Products has the proven capability and know-how to make hydrogen through all available production methods and to distribute this increasingly important emission-free fuel safely, reliably, and economically.

Air Products Canada currently operates three hydrogen production facilities in Alberta, and a 55-kilometer hydrogen pipeline in the Alberta Industrial Heartland. The company also operates a hydrogen production facility, a 30-kilometer pipeline network and a liquefaction facility in Sarnia, Ontario. The company's excellent safety record includes operating over 1,100-kilometers of hydrogen pipelines worldwide with no incidents.

For more detailed background information about the project: www.airproducts.com/bluebutbetter.

Media Event

The Government of Canada and Air Products will host a livestream event at 9:30 a.m. MDT/11:30 a.m. USET on June 9, 2021.

- Members of the media are invited to contact ISED Media Relations (ic.mediarelations-mediasrelations.ic@canada.ca) to register and receive a link to the Zoom virtual event. Media are asked to join the call at 11:15 a.m. (USET).
- The general public can access the event at:
 - Innovation, Science and Economic Development Canada's (ISED) [Facebook page](#)
 - Government of Alberta [YouTube channel](#)

Air Products Investor Call

Air Products will host an investor teleconference at 11:00 a.m. MDT/1:00 p.m. USET on June 9, 2021. The teleconference will be open to the public and the media in listen-only mode by telephone and Internet broadcast.

Live teleconference: 323-994-2093

Passcode: 3062363

Internet broadcast/slides: Available on the [Event Details](#) page on Air Products' Investor Relations website.

Telephone replay: 888-203-1112 (domestic) or 719-457-0820 (international)

Passcode: 3062363

Available from 5:00 p.m. ET on June 9, 2021 through 5:00 p.m. ET on June 16, 2021.

Internet replay: Available on the [Event Details](#) page on Air Products' Investor Relations website.

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About Air Products

Air Products (NYSE:[APD](#)) is a world-leading industrial gases company in operation for over 80 years. Focused on serving energy, environment and emerging markets, the Company provides essential industrial gases, related equipment and applications expertise to customers in dozens of industries, including refining, chemical, metals, electronics, manufacturing, and food and beverage. Air Products is also the global leader in the supply of liquefied natural gas process technology and equipment. The Company develops, engineers, builds, owns and operates some of the world's largest industrial gas projects including: gasification projects that sustainably convert abundant natural resources into syngas for the production of high-value power, fuels and chemicals; carbon capture projects; and world-scale carbon-free hydrogen projects supporting global transportation and the energy transition.

The Company had fiscal 2020 sales of \$8.9 billion from operations in 50 countries and has a current market capitalization of about \$65 billion. More than 19,000 passionate, talented and committed employees from diverse backgrounds are driven by Air Products' higher purpose to create innovative solutions that benefit the environment, enhance sustainability and address the challenges facing customers, communities, and the world. For more information, visit airproducts.com or follow us on [LinkedIn](#), [Twitter](#), [Facebook](#) or [Instagram](#).

Cautionary Note Regarding Forward-Looking Statements: This release contains "forward-looking statements" within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on management's expectations and assumptions as of the date of this release and are not guarantees of future performance. While forward-looking statements are made in good faith and based on assumptions, expectations and projections that management believes are reasonable based on currently available information, actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors, including risk factors described in our Annual Report on Form 10-K for the fiscal year ended September 30, 2020. Except as required by law, we disclaim any obligation or undertaking to update or revise any forward-looking statements contained herein to reflect any change in the assumptions, beliefs, or expectations or any change in events, conditions, or circumstances upon which any such forward-looking statements are based.

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