NEWS RELEASE

Advent Technologies Celebrates National Hydrogen and Fuel Cell Day

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Advent Technologies is proud to support tomorrow's 8th annual National Hydrogen and Fuel Cell Day at a critical time for the broader adoption of hydrogen and fuel cell technologies across the globe

BOSTON--(BUSINESS WIRE)-- Advent Technologies Holdings, Inc. (NASDAQ: ADN) ("Advent" or the "Company"), an innovation-driven leader in the fuel cell and hydrogen technology sectors, is pleased to join the U.S.A. in celebrating the eighth annual National Hydrogen and Fuel Cell Day, taking place on October 8, 2022. This day marks the growth of the industry by raising the awareness of the benefits that hydrogen energy and fuel cell technologies provide in reducing emissions while driving economic growth.

The National Hydrogen and Fuel Cell Day is observed on October 8 in recognition of the atomic mass of hydrogen - 1.008. As countries worldwide increasingly look to hydrogen as a critical tool to decarbonize, the U.S.A. is uniquely positioned to take a leadership role. Aiming to play an active role in decarbonizing the world quickly with green hydrogen and innovative fuel cell technology, Advent is on a mission to bring its proprietary high temperature-proton exchange membrane ("HT-PEM") technology to the market by building world-class fuel cells and electrolysers that have a low total cost of ownership and high environmental impact. More information about Advent's innovative technology can be found through Advent's newly released **video** on YouTube, where the Company's Chief Technology Officer, Dr. Emory De Castro, provides an overview of its unique competitive advantages.

Since last year's National Hydrogen and Fuel Cell Day, Advent has been selected as a key driver of large-scale decarbonization projects in Southeastern Europe and has accelerated its efforts by launching new innovative

products and partnering with some of the world's leading laboratories. At the same time, Advent has substantially increased its global workforce and has invested in the build-out of new facilities that will create numerous job opportunities in the global clean energy space.

Some of these developments include:

- Development of next-generation Advent MEAs: On March 2022, Advent **announced** the availability of its next-generation MEAs ("Advent MEA"), which are currently being developed within the framework of L'Innovator, Advent's joint development program with the U.S. Department of Energy's Los Alamos National Laboratory, Brookhaven National Laboratory, and National Renewable Energy Laboratory.
- Advent's Green HiPo IPCEI Project: On June 16, 2022, Advent announced that it had received **notification from the Greek State** for funding under the IPCEI Hydrogen – Technology. The notification from the Greek State was submitted to the European Union ("E.U.") under the IPCEI framework and was subsequently **ratified by the E.U**. Green HiPo is expected to be based in the region of Western Macedonia, Greece, and will involve the construction of a state-of-the-art development and manufacturing facility to produce fuel cells and electrolyser systems. Advent intends to create up to 650 direct jobs for qualified scientific and technical personnel and 4,620 indirect jobs over a six-year period.
- Advent as a Key Partner to Co-Sign Multi-State Memorandum of Understanding for a U.S. Northeast Clean Hydrogen Hub: Advent has co-signed a **MoU** with the New York State Energy Research and Development Authority and more than 60 clean hydrogen ecosystem partners to collaborate on the development of a proposal that will enable the Northeastern United States to become one of at least four regional clean hydrogen hubs designated through the federal Regional Clean Hydrogen Hubs program.
- Progress towards the completion of Advent's new Hood Park facility build-out: The new state-of-the-art manufacturing facility in Charlestown, Massachusetts, is expected to be operational in Autumn 2022 and will create numerous job opportunities by primarily focusing on the development and production of next generation fuel cell components.
- Rapid expansion of Advent's innovative technologies and product offerings worldwide: Advent is now rolling out complete hydrogen fuel cell systems, and its global salesforce has expanded the Company's reach across North America, Continental Europe, the Middle East, and Asia.
- Launch of portable fuel cell system for use in off-grid field applications: The Company **launched** Honey Badger 50™, a compact portable fuel cell system and quiet power supply for use in off-grid field applications, such as military and rescue operations. The launch of Advent's portable power system coincided with the Company's fulfillment of its first shipment order from the United States Department of Defense.
- New innovative fuel cell systems that can decarbonize hard-to-abate sectors: Advent's new **DIGI-TRONIC™** solution will be based on Advent's next-generation MEAs and unique engineering architecture. This net-zero solution aims to redefine the future of mobility and solve the key problems of EVs, such as range, refill time,

flexibility, payload, and cost per mile. DIGI-TRONIC is developed with an architecture that can be massively scaled from 50W to 1MW with the same basic design.

The **Road Map to a U.S. Hydrogen Economy** report projects that continued investment in hydrogen will support more than 3 million jobs and $750 billion in revenue by 2050, meeting 14% of total energy demand and reducing total carbon dioxide emissions by 16%. In the transportation sector alone, hydrogen energy can provide 33% of fuel for heavy trucks and aviation globally and 60% of fuel for marine shipping, helping to reduce U.S. transportation system emissions by 30%.

Dr. Vasilis Gregoriou, Chairman and CEO of Advent, commented on this celebration, "Advent Technologies is thrilled to celebrate the 8th Annual National Hydrogen and Fuel Cell Day at a time of significant momentum for America's transition to clean energy technologies. I strongly believe in hydrogen's future as a zero-carbon solution for many industries and a significant contributor to the energy mix. We have seen many positive developments and multilateral actions that have accelerated global decarbonization efforts. Hydrogen's moment is here, right now; and all of us at Advent Technologies are thrilled to be contributors. We are filled with enthusiasm and ambition about the future and the potential for a cleaner world."

Dr. Emory De Castro, CTO of Advent, stated: "Decarbonization and cleaner air is a top priority for many governments and industries around the world. Advent is a clean energy pioneer making the engines of the future. Advent's fuel cells are adaptable, durable, and extremely flexible when converting hydrogen and other fuels to electricity. We look forward to further accelerating the global move to net-zero by providing the clean power from hydrogen fuels needed to move away from polluting diesel generators and combustion engines, towards a brighter future."

For more information on the multiple benefits of Advent's innovative Fuel Cell technology, please visit: **https://www.youtube.com/watch?v=W8qkwuIqK4A**

For more information on National Hydrogen and Fuel Cell Day, please visit: **www.hydrogenandfuelcellday.org**.

About Advent Technologies Holdings, Inc.

Advent Technologies Holdings, Inc. is a U.S. corporation that develops, manufactures, and assembles complete fuel cell systems as well as supplying customers with critical components for fuel cells in the renewable energy sector. Advent is headquartered in Boston, Massachusetts, with offices in California, Greece, Denmark, Germany, and the Philippines. With more than 150 patents issued, pending, and/or licensed for fuel cell technology, Advent holds the IP for next-generation HT-PEM that enables various fuels to function at high temperatures and under extreme conditions – offering a flexible fuel option for the automotive, aviation, defense, oil and gas, marine, and power

generation sectors. For more information, visit **www.advent.energy**.

Cautionary Note Regarding Forward-Looking Statements

This press release includes forward-looking statements. These forward-looking statements generally can be identified by the use of words such as “anticipate,” “expect,” “plan,” “could,” “may,” “will,” “believe,” “estimate,” “forecast,” “goal,” “project,” and other words of similar meaning. Each forward-looking statement contained in this press release is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statement. Applicable risks and uncertainties include, among others, the Company’s ability to maintain the listing of the Company’s common stock on Nasdaq; future financial performance; public securities’ potential liquidity and trading; impact from the outcome of any known and unknown litigation; ability to forecast and maintain an adequate rate of revenue growth and appropriately plan its expenses; expectations regarding future expenditures; future mix of revenue and effect on gross margins; attraction and retention of qualified directors, officers, employees and key personnel; ability to compete effectively in a competitive industry; ability to protect and enhance Advent’s corporate reputation and brand; expectations concerning its relationships and actions with technology partners and other third parties; impact from future regulatory, judicial and legislative changes to the industry; ability to locate and acquire complementary technologies or services and integrate those into the Company’s business; future arrangements with, or investments in, other entities or associations; and intense competition and competitive pressure from other companies worldwide in the industries in which the Company will operate; and the risks identified under the heading “Risk Factors” in Advent’s Annual Report on Form 10-K filed with the Securities and Exchange Commission (“SEC”) on March 31, 2022, as well as the other information filed with the SEC. Investors are cautioned not to place considerable reliance on the forward-looking statements contained in this press release. You are encouraged to read Advent’s filings with the SEC, available at **www.sec.gov**, for a discussion of these and other risks and uncertainties. The forward-looking statements in this press release speak only as of the date of this document, and the Company undertakes no obligation to update or revise any of these statements. Advent’s business is subject to substantial risks and uncertainties, including those referenced above. Investors, potential investors, and others should give careful consideration to these risks and uncertainties.

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