NEWS RELEASE

RiverCell Consortium announces Successful Demonstration of Advent Serene Fuel Cells to the Maritime Sector

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BOSTON--(BUSINESS WIRE)-- Advent Technologies Holdings, Inc. (NASDAQ: ADN) (“Advent”) today announced that its fuel cell unit for the Maritime Sector – developed within the frame of the RiverCell Consortium – has passed safety testing, as well as a safety assessment completed by DNV, one of the world's leading classification societies.

RiverCell, a demonstration project supported by a consortium of partners, was initiated in 2015 and is expected to be completed by the end of this year. Funded by Germany’s Federal Ministry for Digital and Transport and led by Meyer Werft, it consists of a range of experienced partners throughout the maritime sector, including DNV, HADAG, Helm Proman Methanol, Neptun Werft, Pella Sietas, Technische Universität Berlin, Viking River Technical Cruises, and Advent.

The project is dedicated to the design and development of a fuel cell hybrid system for inland vessels, and its realization has provided valuable insights in terms of the suitability, practical use, and economic efficiency of hybrid powertrains. In addition to cutting greenhouse gas emissions, the hybrid concept – featuring energy storage combined with sustainable fuel cell-powered energy production – demonstrated an increase to both safety and efficiency in shipping.

As part of the demonstration, a section of a river cruise vessel was set up on dryland at Neptun Werft, in Rostock, Germany. There, the prototype of Advent’s Serene marine fuel cell unit was successfully integrated into a modern hybrid DC electric energy grid, which was equipped with all relevant ship systems, including battery storage as well as a conventional diesel genset.

With current regulations still based on the traditional use of diesel-powered energy sources, another core objective of the demonstrations has been to encourage the development of new global regulatory frameworks for the shipping sector, thus paving the way for future use of sustainable technologies.

Commenting on the project, RiverCell's Project Manager, Ragnar Christenson from Meyer Werft, stated. "The maritime industry needs to find new ways to reduce all its emissions. Not only in the long run, but starting immediately, the shipping industry needs to deploy sustainable technologies and in particular speed up the change to renewable fuel sources. By RiverCell, we have demonstrated how fuel cell technology can be a safe, clean and efficient alternative to today's diesel gensets in marine use. We have also been able to demonstrate how hydrogen for fuel cells, in the form of methanol, can be safely and efficiently stored on ships. The HT PEM fuel cells developed and manufactured by Advent Technologies can use methanol, carrier of hydrogen, as the fuel source, and we consider methanol one of the most promising and practical future fuels for the shipping sector. At Meyer Werft, we are happy to pioneer alongside our partners with our demonstrations of fuel cell technology, both to gain a competitive edge but also to influence global standards, paving the way for this sustainable alternative."

Advent's Senior Vice President, Morten Hougaard Sørensen, similarly highlighted the importance of the project and its potential influence on future standards: "Fuel cell technologies to replace diesel gensets for inland and sea-going vessels will significantly reduce carbon dioxide emissions. Using methanol produced from natural gas offers reduction of local pollution (NOx, SOx emissions), and methanol produced from renewable sources can substantially contribute to reducing GHG emissions from shipping. In recent years, interest in methanol as a fuel for the shipping industry has grown significantly, but the industry is also waiting for the final regulatory frameworks to come into place before committing to large-scale investments. Now, with our prototype design of the marine fuel cell unit successfully passing its safety testing, and the safety assessment successfully completed with DNV, we hope to see this data included alongside equivalent standards using the technology, so the industry understands that fuel cells are both efficient, safe, and practical in use. And on that basis, we look forward to continuing our journey with Meyer Werft and lots of new customers in the industry. At Advent, we believe that only together can we build a better future".

About Advent Technologies Holdings, Inc.

Advent Technologies Holdings, Inc. is a U.S. corporation that develops, manufactures, and assembles complete fuel cell systems, and the 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 100 patents issued for its fuel cell technology, Advent holds the IP for next-generation HT-PEM that enable various fuels to function at high temperatures under extreme conditions – offering a flexible "Any Fuel. Anywhere." 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 our corporate reputation and brand; expectations concerning our relationships and actions with our 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 our Annual Report on Form 10-K/A filed with the Securities and Exchange Commission on May 20, 2021, as well as the other information we file with the SEC. We caution investors not to place considerable reliance on the forward-looking statements contained in this press release. You are encouraged to read our 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 we undertake no obligation to update or revise any of these statements. Our 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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