

NEWS RELEASE

Advent Technologies Reports Q4 2023 Results

8/20/2024

LIVERMORE, Calif.--(BUSINESS WIRE)-- Advent Technologies Holdings, Inc. (NASDAQ: ADN) ("Advent" or the "Company"), an innovation-driven leader in the fuel cell and hydrogen technology space, announced on Tuesday, August 13, 2024 its consolidated financial results for the three months and year ended December 31, 2023. All amounts are in U.S. dollars unless otherwise noted and have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP").

Q4 2023 Financial Highlights

(All comparisons are to Q4 2022, unless otherwise stated)

- Revenue of \$1.5 million and income from grants of \$0.8 million, totaling \$2.3 million, which represents a decrease of (3.6)% year-over-year.
- Full year 2023 revenue of \$4.9 million and income from grants of \$2.5 million, totaling \$7.4 million. This represents a decrease of (20.9)% year-over-year.
- Operating expenses of \$44.6 million, representing a year-over-year decrease of \$1.1 million.
- Net loss in Q4 of \$(25.7) million or \$(12.04) per share, and adjusted net loss of \$(22.1) million or \$(10.32) per share. Adjusted net loss excludes a \$0.03 million gain from the change in the fair value of outstanding warrants, and a \$3.71 million goodwill and intangible asset impairment charge.
- Unrestricted cash reserves were \$3.6 million as of December 31, 2023, a decrease of \$0.1 million from September 30, 2023.

"Our product development efforts center around a common core technology: a fuel cell and MEA (membrane electrode assembly) designed to address heavy-duty automotive applications and large-scale stationary systems. Success with our MEA technology is key to unlocking these markets with the right OEM partnerships," said **Dr.**

Vasilis Gregoriou, Advent's Chairman and CEO . "Our recent restructuring initiatives have been pivotal in significantly reducing costs. We have already achieved a 70% cost reduction compared to the same time last year. As a result of our strategic shift and a reduction in direct sales efforts, particularly in remote regions, we experienced a decrease in revenue in 2023, which we view as a temporary adjustment. We believe it is prudent to demonstrate this short-term revenue reduction rather than overextend our financial resources. Our goal is to operate as close as possible to break-even relying on the strategic OEM partnership funds and R&D government funds and to have the maximum runway until the inflection point. The partnering OEMs plans for mass production will determine the inflection point timing. We appreciate your ongoing support and patience and look forward to updating you on our progress."

Company Updates

Technology Update

The Advent Fuel Cell platform, based on our new Ion Pair™ Membrane Electrode Assembly (MEA), offers superior heat management and the ability to operate with liquid eFuels and biofuels. These unique properties, combined with the MEA's increased power density, form the basis for breakthrough innovation in the fuel cell industry. Our partnerships with industry leaders such as Airbus, the US Army, Hyundai Motor Company, and Siemens Energy not only validate our technological achievements but also highlight the potential of our technology. Our HT-PEM fuel cell technology is ideal for marine and off-grid power applications, both of which are increasingly adopting methanol. Additionally, our high-temperature operation results in superior efficiency, reaching up to 85% when heat is utilized. This positions HT-PEM as optimal for a wide range of applications, including aviation and heavy-duty trucks. The Ion Pair MEA technology has achieved in 2024 approximately double the power of previous state of the art fuel cells per cm². We also have concrete data that we will achieve double the lifetime of competing HT-PEM fuel cell systems. Our fuel cells convert approximately 400 grams of methanol into 1kWh of electrical power, (equivalent to a battery with a power density of 2,500 Wh/kg)—exceeding by a factor of 10 the power density of lithium-ion batteries. Moreover, unlike batteries or hydrogen-based systems, our fuel cells utilize the existing global infrastructure for transporting and dispensing liquid fuels. This advantage is especially beneficial for developing regions. The Ion Pair MEA technology overcomes the prior limitations of the HT-PEM technology.

Operations Update

In the past year, our journey has been marked by a blend of both encouraging and challenging developments. On a positive note, there has been an unprecedented surge in interest across various markets for methanol fuel cells and clean power solutions. However, the financial landscape for clean energy investments has been less favorable, pushing us to seek support through EU infrastructure loans and grants and a private loan from a US-based

institutional investor. These processes are typically accompanied by extended bureaucratic processes. Over the years, particularly after our acquisition of Serenergy (Denmark), we have advanced our hardware technology, selling 1,200 systems mainly to the telecom industry. This expertise provides a solid foundation for accelerating partnerships through technology transfer and licensing. However, we have chosen not to remain an end-product OEM across multiple markets, as achieving this would require very significant investment and considerable time. As a result, we have discontinued operations of certain subsidiaries that focused on end-system production, which demanded increasing capital for low-margin or negative-margin revenues.

We have closed non-profitable subsidiaries and facilities in Boston and Denmark, and the Philippines. The Danish subsidiary, in particular, was producing fuel cells with older HT-PEM technology at a cost exceeding \$2,000 per kW. In contrast, with our Ion Pair MEA technology, we anticipate that OEMs can develop systems at a cost approaching \$500 per kW at scale. Advent is now focusing on advancing MEA innovation, expanding intellectual property footprint, and scaling manufacturing in the future primarily through technology licensing and Joint Development Agreements. This strategic pivot enables us to reduce capital expenditures while maintaining high margins and a sustainable business model.

Business Update

Our new approach involves forming joint ventures and technology transfer agreements with major local integrators, Tier 1 suppliers, and OEMs. By focusing on manufacturing the MEA and potentially the fuel cell stack, we are establishing a scalable, low-capex, and high-margin operational framework.

Global Market Expansion and Partnerships

1. Automotive

In the automotive industry, our MEA technology is currently evaluated by four of the top ten global automakers. In addition, our collaboration with Hyundai Motors has progressed to a Joint Development Agreement, and we aim to secure similar agreements with other major automakers by the end of 2024. Our high-temperature fuel cells offer exceptional benefits for trucks and heavy-duty vehicles, particularly in regions with extreme heat.

2. Aerospace

In aerospace, we have established a \$13-million strategic partnership with Airbus to develop our Ion Pair MEA for aviation applications. This two-year Joint Development Agreement is designed to meet aviation performance standards, paving the way for test flights and hardware systems in the near future, with the ultimate goal of enabling fuel cell-powered aircraft.

3. Defense

In the defense sector, we signed in September and December 2023 two contracts (representing total value to the Company of \$5 million), with the U.S. Department of Defense. These contracts refer to the HB50 product, a human-portable fuel cell that delivers power for military missions. We are integrating our Ion Pair MEA technology to enhance the HB50's performance and scale up production by 2026. The objective is to facilitate the shift from low-prototype volume to manufacturing-scale volume. The program is advancing steadily, with daily collaboration with the U.S. Department of Defense. Significant milestones to date have been successfully achieved.

4. Marine

Our technology is already deployed in Sanlorenzo's 50Steel methanol fuel cell superyacht, Almax. We believe methanol, including biomethanol and e-methanol, is crucial for decarbonizing the marine industry. With over 130 methanol projects globally, we anticipate significant adoption in both retrofitted and new yachts.

5. Data Centers

We are also pursuing collaborations with OEMs in the data center off-grid power market, where we believe our fuel cell technology presents distinct advantages. Data centers currently account for 1-2% of global power usage, a figure expected to rise to 3-4% by 2030 (1000TWhs per year). We anticipate that this increase will drive substantial growth in electricity demand, particularly in the US and Europe, and could double carbon emissions from data centers by 2030.

We believe that our fuel cells can reduce capex and accelerate deployment by eliminating the need for grid upgrades and extensive permits. Our technology's multifuel capability allows for immediate deployment with methanol (on green eMethanol), biogas and the option to switch to hydrogen or other fuels We are actively engaging with companies interested in leveraging our HT-PEM technology for large-scale data center projects.

R&D Programs

Our teams are actively engaged in a comprehensive portfolio of 13 research and development programs, with total funding amounting to approximately \$10 million. These programs receive support from notable sources, including the European Union and key European institutions such as Horizon Europe and the Clean Hydrogen Partnership. In addition to these ongoing initiatives, we are also forming strategic partnerships and submitting proposals for new programs with substantial funding opportunities, such as the European Innovation Fund. These efforts are designed to further advance our technology and expand our collaborative network with leading industry partners. This extensive network not only enhances our technological capabilities but also ensures that we remain at the

forefront of innovation in our field.

Conference Call

The Company will host a conference call on Tuesday, August 20, 2024, at 9:00 AM ET to discuss its results. To access the call please dial (800) 715-9871 from the United States, or +1 (646) 307-1963 from outside the U.S. The conference call I.D. number is 9909908. Participants should dial in 5 to 10 minutes before the scheduled time. Participants can also attend the call virtually by visiting the homepage of Advent's Investor Relations (IR) website, where they can register for the event under the "Latest Events" section.

A replay of the call can also be accessed via phone through September 3, 2024, by dialing (800) 770-2030 from the U.S., or +1(609) 800-9909 from outside the U.S. The conference I.D. number is 9909908. An archived version will be available after the event on the homepage of Advent's Investor Relations (IR) website, under the "Latest Events" section.

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 California and holds the IP for next-generation HT-PEM that enables various fuels to function at high temperatures and under extreme conditions, suitable 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 August 13, 2024, 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.

Presentation of Non-GAAP Financial Measures

In addition to the results provided in accordance with U.S. GAAP throughout this press release, the Company has provided non-GAAP financial measures - Adjusted Net Income / (Loss) and Adjusted EBITDA - which present results on a basis adjusted for certain items. The Company uses these non-GAAP financial measures for business planning purposes and in measuring its performance relative to that of its competitors. The Company believes that these non-GAAP financial measures are useful financial metrics to assess its operating performance from period-to-period by excluding certain items that the Company believes are not representative of its core business. These non-GAAP financial measures are not intended to replace, and should not be considered superior to, the presentation of the Company's financial results in accordance with GAAP. The use of the terms Adjusted Net Income / (Loss) and Adjusted EBITDA may differ from similar measures reported by other companies and may not be comparable to other similarly titled measures. These measures are reconciled from the respective measures under GAAP in the appendix below.

ADVENT TECHNOLOGIES HOLDINGS, INC. CONSOLIDATED BALANCE SHEETS (Amounts in USD thousands, except share and per share amounts)

	December 31, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 3,562	\$ 32,869
Restricted cash, current	100	
Accounts receivable, net	191	979
Contract assets	21	52
Inventories	2,707	12,620
Prepaid expenses and Other current assets	2,254	2,980

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Total current assets	8,835	49,500
Non-current assets:		
Goodwill		5,742
Intangibles, net Property and equipment, net	79 21.549	6,062 17,938
Right-of-use assets	3,216	4,055
Restricted cash, non-current	750	750
Other non-current assets	308	5,221 320
Available for sale financial asset	 25.002	
Total non-current assets	 25,902	 40,088
Total assets	\$ 34,737	\$ 89,588
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Trade and other payables	\$ 5,087	\$ 4,680
Deferred income from grants, current	530	801
Contract liabilities Other current liabilities	2,015 1,916	1,019 4,703
Operating lease liabilities	2,186	2,280
Income tax payable	179	183
Total current liabilities	11,913	13,666
Non-current liabilities:		
Warrant liability	59	998
Long-term operating lease liabilities Defined benefit obligation	8,230 83	9,802 72
Deferred income from grants, non-current	320	50
Other long-term liabilities	684	852
Total non-current liabilities	9,376	11,774
Total liabilities	21,289	25,440
Commitments and contingent liabilities		
Stockholders' equity		
Common stock (\$0.0001 par value per share; Shares authorized: 110,000,000 at December 31, 2023 and		
December 31, 2022; Issued and outstanding: 2,580,159 and 1,723,924 at December 31, 2023 and December	0	_
31, 2022, respectively) Preferred stock (\$0.0001 par value per share; Shares authorized: 1,000,000 at December 31, 2023 and	8	5
December 31, 2022; nil 0 issued and outstanding at December 31, 2023 and December 31, 2022)	-	_
Additional paid-in capital	194,933	174,509
Accumulated other comprehensive loss Accumulated deficit	(2,334) (179,159 ₎	(2,604) (107,762 ₎
	13,448	64,148
Total stockholders' equity	<u> </u>	
Total liabilities and stockholders' equity	\$ 34,737	\$ 89,588

ADVENT TECHNOLOGIES HOLDINGS, INC. CONSOLIDATED STATEMENTS OF OPERATIONS (Amounts in USD thousands, except share and per share amounts)

	Three mor	nths ended		
		nber 31, udited)		December 31,
	2023	2022	2023	2022
Revenue, net	\$ 1,506	\$ 1,957	\$ 4,859	\$ 7,837
Cost of revenues	(12,442)	(2,455)	(18,287)	(8,581)
Gross profit / (loss)	(10,936)	(498)	(13,428)	(744)
Income from grants	814	449	2,504	1,460
Research and development expenses	(3,957)	(2,458)	(12,112)	(9,796)
Administrative and selling expenses	(6,732)	(9,258)	(32,468)	(35,915)
Sublease income	139		543	-
Amortization of intangible assets	(116)	(651)	(642)	(2,764)
Credit loss – customer contracts	(1,207)	(1,116)	(1,270)	(1,116)
Gain from purchase price adjustment	-	2,370	-	2,370
Impairment losses	(3,705)	(38,922)	(13,468)	(38,922)

Operating loss	(25,700)	(50,084)	(70,341)	(85,427)
Fair value change of warrant liability	39	2,127	394	9,375
Finance income / (expenses), net	(44)	61	74	52
Foreign exchange gains / (losses), net Other income / (expenses), net	(9)	(40)	97	(91)
	 (19)	4	(902)	 (216)
Loss before income tax	(25,733)	(47,932)	(70,678)	(76,307)
Income taxes	1	307	(719)	1,970
Net loss	\$ (25,732)	\$ (47,625)	\$ (71,397)	\$ (74,337)
Net loss per share				
Basic loss per share	(12.04)	(27.63)	(37.24)	(43.28)
Basic weighted average number of shares	2,136,840	1,723,924	1,917,179	1,717,623
Diluted loss per share	(12.04)	(27.63)	(37.24)	(43.28)
Diluted weighted average number of shares	2,136,840	1,723,924	1,917,179	1,717,623

ADVENT TECHNOLOGIES HOLDINGS, INC. CONSOLIDATED STATEMENTS OF CASH FLOWS (Amounts in USD thousands)

	Ye	ars Ended [(Unau	
Net Cash used in Operating Activities	\$	2023 (32,115)	\$ 2022 (32,125)
Cash Flows from Investing Activities: Proceeds from sale of property and equipment Purchases of property and equipment		256 (3,371)	- (11,527)
Purchases of property and equipment Purchases of intangible assets Advances for the acquisition of property and equipment Acquisition of a subsidiary, net of cash acquired		(1,255) (1,864)	(117) (2,557) (316)
Acquisition of available for sale financial assets Net Cash used in Investing Activities	\$	(6,234)	\$ (14,517)
Cash Flows from Financing Activities: Issuance of common stock and paid-in capital, net of issuance costs paid Repayments of debt		9,059	(40)
Net Cash (used in) provided by Financing Activities	\$	9,059	\$ (40)
Net (decrease) / increase in cash, cash equivalents, restricted cash and restricted cash equivalents Effect of exchange rate changes on cash, cash equivalents, restricted cash and restricted cash equivalents	\$	(29,290)	\$ (46,682)
Cash, cash equivalents, restricted cash and restricted cash equivalents at the beginning of year Cash, cash equivalents, restricted cash and restricted cash equivalents at the beginning of year		33,619	 79,764
year	\$	4,412	\$ 33,619

Supplemental Non-GAAP Measures and Reconciliations

In addition to providing measures prepared in accordance with GAAP, we present certain supplemental non-GAAP measures. These measures are EBITDA, Adjusted EBITDA and Adjusted Net Income / (Loss), which we use to evaluate our operating performance, for business planning purposes and to measure our performance relative to that of our peers. These non-GAAP measures do not have any standardized meaning prescribed by GAAP and therefore may differ from similar measures presented by other companies and may not be comparable to other similarly titled measures. We believe these measures are useful in evaluating the operating performance of the

Company's ongoing business. These measures should be considered in addition to, and not as a substitute for net income, operating expense and income, cash flows and other measures of financial performance and liquidity reported in accordance with GAAP. The calculation of these non-GAAP measures has been made on a consistent basis for all periods presented.

EBITDA and Adjusted EBITDA

These supplemental non-GAAP measures are provided to assist readers in determining our operating performance. We believe this measure is useful in assessing performance and highlighting trends on an overall basis. We also believe EBITDA and Adjusted EBITDA are frequently used by securities analysts and investors when comparing our results with those of other companies. EBITDA differs from the most comparable GAAP measure, net income / (loss), primarily because it does not include interest, income taxes, depreciation of property, plant and equipment, and amortization of intangible assets. Adjusted EBITDA adjusts EBITDA for one-time transaction costs, asset impairment charges, changes in warrant liability, and executive severance.

The following tables show a reconciliation of net income / (loss) to EBITDA and Adjusted EBITDA for the three months and years ended December 31, 2023 and 2022.

	Tł	ree month	s ended [31.	December	Years	Ende	ed Decem	ber 31.
EBITDA and Adjusted EBITDA	(Unaudited) (Unaudited)						,	
(in Millions of U.S. dollars)		2023	2022	\$ change	202	3	2022	\$ change
Net loss	\$	(25.73) \$	(47.63)	21.90	\$ (71.40)) \$	(74.34)	2.94
Depreciation of property and equipment	\$	0.91 \$	0.36	0.55	\$ 3.0	1 \$	1.49	1.52
Amortization of intangibles	\$	0.11 \$	0.65	(0.54)	\$ 0.6	4 \$	2.76	(2.12)
Finance income / (expenses), net	\$	0.05 \$	(0.06)	0.11	\$ (0.0)	7) \$	(0.05)	(0.02)
Other income / (expenses), net	\$	0.02 \$	0.00	0.02	\$ 0.9	0 \$	0.22	0.68
Foreign exchange differences, net	\$	0.01 \$	0.04	(0.03)	\$ (0.1	0) \$	0.09	(0.19)
Income taxes	\$	- \$	(0.31)	0.31	\$ 0.7	2 \$	(1.97)	2.69
EBITDA	\$	(24.63) \$	(46.95)	22.32	\$ (66.30)) \$	(71.80)	5.50
Net change in warrant liability	\$	(0.03) \$	(2.13)	2.10	\$ (0.3)	9) \$	(9.38)	8.99
Gain from purchase price adjustment	\$	- \$	(2.37)	2.37	\$	- \$	(2.37)	2.37
Impairment loss – intangible assets and goodwill	\$	3.71 \$	38.92	(35.21)	\$ 13.4	7 \$	38.92	(25.45)
Adjusted EBITDA	\$	(20.95) \$	(12.53)	(8.42)	\$ (53.22	2) \$	(44.63)	(8.59)

Adjusted Net Income / (Loss)

This supplemental non-GAAP measure is provided to assist readers in determining our financial performance. We believe this measure is useful in assessing performance and highlighting trends on an overall basis. Adjusted Net Loss differs from the most comparable GAAP measure, net income / (loss), primarily because it does not include one-time transaction costs, asset impairment charges, changes in warrant liability, and executive severance. The following table shows a reconciliation of net income / (loss) for the three months and years ended December 31,

Adjusted Net Loss

Three months ended December 31, 31, (Unaudited) 2023 2022 \$ change 2023 2022 \$ change \$ (25.73) \$ (47.63) 21.90 \$ (71.40) \$ (74.34) 2.94

(in Millions of U.S. dollars)	2023	2022	\$ change	2023	2022	\$ change
Net loss	\$ (25.73) \$	(47.63)	21.90 \$	(71.40) \$	(74.34)	2.94
Net change in warrant liability	\$ (0.03) \$	(2.13)	2.10 \$	(0.39) \$	(9.38)	8.99
Gain from purchase price adjustment	\$ - \$	(2.37)	2.37 \$	- \$	(2.37)	2.37
Impairment loss – intangible assets and goodwill	\$ 3.71 _{\$}	38.92	(35.21) \$	13.47 \$	38.92	(25.45)
Adjusted Net Loss	\$ (22.05) \$	(13.21)	(8.84) \$	(58.32) \$	(47.17)	(11.15)

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Source: Advent Technologies Inc.