

Behind the Technology: How Hadron Energy's 'Halo' Microreactor is Designed to Deliver 24/7 Clean Power

SAN FRANCISCO, CA – Hadron Energy, Inc. (“Hadron”), an advanced nuclear technology company, today revealed new details about the engineering and safety innovations powering its flagship 10 megawatt-electric (“MWe”) Micro-Modular Reactor (“MMR”), the “*Hadron Halo*”.

The Hadron Halo is a compact, factory-built light-water reactor that will deliver continuous, carbon-free power for up to 10 years without refueling with a 50-year useful life. Unlike experimental designs that rely on unproven coolants or fuels, the Hadron Halo uses familiar pressurized-water reactor (“PWR”) technology, the same proven foundation that powers every operating commercial reactor in the United States and 95% of all commercial nuclear power plants worldwide (1). By building on this mature platform, Hadron combines many decades of safety data, licensing, operating, and an existing global supply chain with a new, modular architecture engineered for simplicity and speed.

“Most so-called next-generation reactors have never been deployed commercially at scale and are still reinventing the wheel (2),” said Ross Ridenoure, Chief Nuclear Officer of Hadron Energy. “Our approach is different. We took the most commonly used reactor type in the world and reduced its size to a transportable scale. By utilizing already-approved and familiar light-water reactor technology into our design, we believe this will create shorter licensing timelines, lower costs, and faster deployment of reliable clean power.”

Each Hadron Halo unit will produce 10 MWe and occupy less than one acre, a fraction of the land required for wind or solar projects of similar output. The sealed reactor core will operate at lower power density than traditional plants, which will reduce mechanical stress and extend component life. All primary-loop equipment, including the reactor core, pumps, and steam generator, is housed inside a single pressure vessel. This configuration minimizes external piping and will virtually eliminate the possibility of a large-break coolant accident.

The Hadron Halo will be fueled by Low-Enriched Uranium Plus (LEU+), a slightly higher-enriched version of standard commercial nuclear fuel that is already qualified and supported by a robust domestic supply chain. Using LEU+ allows Hadron to achieve a 10-year fuel cycle while relying on a well-established, regulated fuel infrastructure rather than experimental materials or processes.

While some developers are pursuing sodium, gas, or molten-salt-cooled reactors, these approaches introduce significant new engineering and regulatory challenges (3). Liquid sodium reacts violently with air and water, requiring complex containment systems and specialized facilities (3). Gas-cooled and molten-salt designs operate at extremely high temperatures that

demand exotic materials and lengthy qualification testing (3). In contrast, light-water reactors like the Hadron Halo use ordinary water as both coolant and moderator, a technology the nuclear industry already understands deeply. This choice translates to proven operational safety, a well-established licensing framework, and compatibility with existing manufacturing and fuel supply infrastructure.

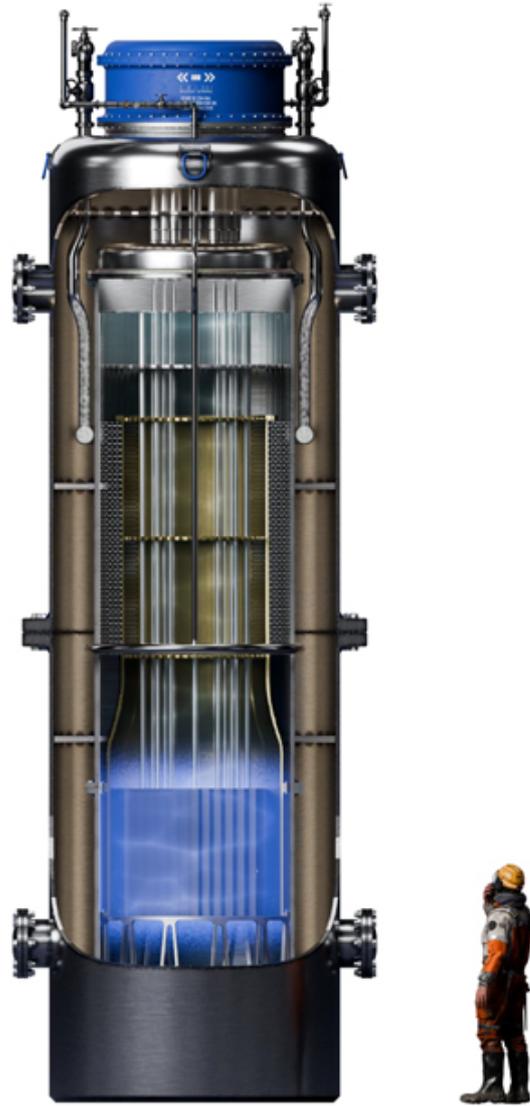
Factory production further distinguishes the Hadron Halo from conventional gigawatt-scale reactors that can take a decade to construct (4). Each unit will be assembled and tested in under a year, shipped by truck or rail, and installed with minimal on-site work. This approach allows communities, industrial sites, and data-center campuses to bring nuclear power online in months instead of years.

By combining proven PWR safety with modern modular design, Hadron Energy hopes to redefine how nuclear power can be delivered: scalable, transportable, and ready to meet the growing demand for reliable, zero-carbon electricity in the age of artificial intelligence and industrial electrification.

Hadron's technology development follows the recently announced \$1.2Bn definitive business combination agreement with GigCapital7 Corp. (Nasdaq: GIG), which will make Hadron the first publicly traded light-water microreactor company in the world. This communication strengthens Hadron's position as a leader in the emerging U.S. nuclear renaissance, helping deliver secure, zero-carbon energy where it is needed most.

Sources

- (1) <https://www.iaea.org/topics/water-cooled-reactors>
- (2) <https://www.cato.org/regulation/fall-2025/next-nuclear-renaissance#large-reactors>
- (3) <https://www.congress.gov/crs-product/R45706>
- (4) https://www.gao.gov/assets/gao-15-652.pdf?utm_source=chatgpt.com



About Hadron Energy, Inc.

Hadron is a pioneer in MMR technology. Designed to deliver 10 MW of power, Hadron's MMR will be smaller, more cost-effective, and faster to deploy than other proposed MMR power solutions. The revolutionary design of Hadron's MMR allows its reactor core and containment shell to be transportable in a shipping container, providing a versatile deployment model for end users. Whether powering an artificial intelligence data center, remote community, or an industrial hub, Hadron's MMR is expected to provide a reliable, safe and scalable nuclear energy solution. For more information, please visit <https://www.hadronenergy.com/>.

About GigCapital7 Corp.

GigCapital7 Corp. is a Private-to-Public Equity (PPE)[™] company, also known as a special purpose acquisition company (SPAC), with a Mentor-Investor[™] methodology and a mission to partner with a high technology differentiating company to forge a successful path to the public markets through a business combination. GigCapital7 Corp. aims to partner with an innovative company with exceptional leaders in order to create an industry-leading partnership that will be successful for years to come.

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Forward-Looking Statements

This press release includes certain statements that may be considered forward-looking statements within the meaning of the federal securities laws. Forward-looking statements include, without limitation, statements about future events or Hadron's or GigCapital7's future financial or operating performance. For example, statements regarding the construction and performance of the Hadron Halo, Hadron's anticipated growth and other metrics; the anticipated future demand of energy; the future demand and commercialization of the Hadron MMR; potential relationships or engagements; the outcome of Hadron's regulatory submissions; and statements regarding the benefits of the business combination between the parties and the anticipated timing of the completion of the business combination are all forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "should," "could," "might," "plan," "possible," "project," "strive," "budget," "forecast," "expect," "intend," "will," "estimate," "anticipate," "believe," "predict," "potential" or "continue," or the negatives of these terms or variations thereof or similar terminology.

These forward-looking statements regarding future events and the future results of Hadron and GigCapital7 are based upon estimates and assumptions that, while considered reasonable by Hadron, GigCapital7, and their respective management teams, are inherently uncertain and subject to risks, variability and contingencies, many of which are beyond Hadron's or GigCapital7's control. Factors that may cause actual results to differ materially from current expectations include, but are not limited to: the occurrence of any event, change or other circumstances that could give rise to the termination of the business combination agreement or

other definitive agreements in connection thereto; the outcome of any legal proceedings that may be instituted against Hadron, GigCapital7 or others following the announcement of the business combination and any definitive agreements with respect thereto; the inability to complete the business combination due to the failure to obtain consents and approvals of the shareholders of GigCapital7; failure to obtain financing to complete the business combination or to satisfy other conditions to closing; delays or failures to obtain necessary regulatory approvals required to complete the business combination or related transactions; changes to the proposed structure of the business combination as a result of applicable laws, regulations or conditions; projections, estimates and forecasts of revenue and other financial and performance metrics; projections about industry trends and market opportunity; expectations relating to the demand for Hadron's MMR; Hadron's ability to scale and grow its business; the cash position of Hadron following closing of the business combination; the ability to meet listing standards in connection with, and following, the consummation of the business combination the risk that the business combination disrupts current plans and operations of Hadron as a result of the announcement and consummation of the business combination; the ability to recognize the anticipated benefits of the business combination, which may be affected by, among other things, competition, the ability of Hadron to successfully commercialize its MMR, and Hadron's ability to source and maintain key relationships with management and key employees; costs related to the business combination; changes in applicable laws and regulations; political and economic developments and market volatility; the risk that Hadron does not ever enter into any definitive agreements in connection with commercialization of its technology; the risk that Hadron is pursuing an emerging market; and other risks and uncertainties set forth under "Risk Factors" and other documents filed, or to be filed, with the SEC by GigCapital7 and/or Hadron, including the Registration Statement that Hadron and GigCapital7 intend to file in connection with the business combination.

If any of these risks materialize or Hadron's assumptions prove incorrect, actual results could differ materially from the results implied by the forward-looking statements. There may be additional risks that Hadron or GigCapital7 do not presently know or currently believe are immaterial that could also cause actual results to differ from those contained in the forward-looking statements. Any forward-looking statements made by or on behalf of Hadron or GigCapital7 reflect the expectations, plans or forecasts of future events and views of Hadron and GigCapital7 and speak only as of the date they are made. Neither Hadron nor GigCapital7 undertake any obligation to update any forward-looking statements to reflect any changes in their respective expectations with regard thereto or any changes in events, conditions or circumstances on which any such statement is based. These forward-looking statements should not be relied upon as representing Hadron's or GigCapital7's assessments as of any date subsequent to the date of this communication. Accordingly, undue reliance should not be placed upon the forward-looking statements.

Additional Information About the Transaction and Where to Find It

The proposed transaction will be submitted to GigCapital7's shareholders for their consideration and approval. GigCapital7 and Hadron intend to file the Registration Statement with the SEC, which will include preliminary and definitive proxy statements to be distributed to GigCapital7's shareholders in connection with GigCapital7's solicitation of proxies for the shareholder vote in connection with the proposed business combination, the prospectus relating to the offer of securities to be issued in connection with the business combination, and other matters to be described in the Registration Statement. After the Registration Statement has been filed and declared effective by the SEC, GigCapital7 will mail a definitive proxy statement/prospectus/consent solicitation statement and other relevant documents (the "GigCapital7 Shareholder Materials") to its shareholders as of the record date established for voting on the proposed business combination. BEFORE MAKING ANY VOTING OR INVESTMENT DECISION, GIGCAPITAL7'S SHAREHOLDERS AND OTHER INTERESTED PARTIES ARE URGED TO READ, WHEN AVAILABLE, THE PRELIMINARY PROXY STATEMENT/PROSPECTUS, AND AMENDMENTS THERETO, AND THE DEFINITIVE PROXY STATEMENT/PROSPECTUS AND ALL OTHER RELEVANT DOCUMENTS FILED OR THAT WILL BE FILED WITH THE SEC IN CONNECTION WITH GIGCAPITAL7'S SOLICITATION OF PROXIES FOR THE EXTRAORDINARY GENERAL MEETING OF ITS SHAREHOLDERS TO BE HELD TO APPROVE THE BUSINESS COMBINATION AND OTHER MATTERS AS DESCRIBED IN THE PROXY STATEMENT/PROSPECTUS BECAUSE THESE DOCUMENTS WILL CONTAIN IMPORTANT INFORMATION ABOUT GIGCAPITAL7, HADRON AND THE PROPOSED BUSINESS COMBINATION. Shareholders and other interested parties may obtain a copy of these documents, without charge, at the SEC's website located at www.sec.gov or by directing a written request to GigCapital7 Corp., Attn: Corporate Secretary, 1731 Embarcadero Rd., Suite 200, Palo Alto, CA.

NEITHER THE SEC NOR ANY STATE SECURITIES REGULATORY AGENCY HAS APPROVED OR DISAPPROVED THE BUSINESS COMBINATION OR ANY INVESTMENT IN ANY SECURITIES DESCRIBED HEREIN, PASSED UPON THE MERITS OR FAIRNESS OF THE BUSINESS COMBINATION OR ANY RELATED TRANSACTIONS OR PASSED UPON THE ADEQUACY OR ACCURACY OF THE DISCLOSURE IN THIS COMMUNICATION. ANY REPRESENTATION TO THE CONTRARY CONSTITUTES A CRIMINAL OFFENSE.

Participants in the Solicitation

Hadron, GigCapital7 and their respective directors, executive officers, management and employees, under SEC rules, may be deemed to be participants in a solicitation of proxies of GIG's shareholders in connection with the business combination. Investors and shareholders may obtain more detailed information regarding the names, affiliations, and interests of GigCapital7's directors and executive officers in its filings with the SEC, including GigCapital7's Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on March 6, 2025, as amended by Amendment No. 1 on Form 10-K/A filed with the SEC on April 16, 2025. Information regarding the persons who may, under SEC rules, be deemed participants in the solicitation of proxies of GIG shareholders in connection with the business combination will be set forth in the Registration Statement, along with information concerning the interests of Hadron's and GigCapital7's participants in the solicitation. Such interests may in some cases be different from those of Hadron's or GigCapital7's equity holders generally.

No Offer or Solicitation

This communication does not constitute an offer to sell or the solicitation of an offer to buy any securities, or a solicitation of any vote or approval, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. This communication is not, and under no circumstances is to be construed as, a prospectus, an advertisement or a public offering of the securities described herein in the United States or any other jurisdiction. No offer of securities shall be made except by means of a prospectus filed with the SEC meeting the requirements of Section 10 of the Securities Act of 1933, as amended, or exemptions therefrom.

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