

Hadron Energy Submits Principal Design Criteria Whitepaper to U.S. Nuclear Regulatory Commission, Marking Pivotal Licensing Milestone for Halo Microreactor



Submission Advances Formal 10 CFR Part 52 Licensing Pathway for 10 MWe Passive Safety Reactor Ahead of Company's Planned Public Listing

NEW YORK, NY — April 22, 2026 — Hadron Energy, Inc. (“Hadron” or “Company”), a developer of advanced nuclear microreactors, announced the submission of its Principal Design Criteria (PDC) White Paper for Hadron’s Halo Modular Microreactor (Halo MMR) to the U.S. Nuclear Regulatory Commission (NRC) as part of the formal pre-application engagement process under 10 CFR Part 52 (Project No. 99902144). The submission, dated April 10, 2026, formalizes the technical and safety framework that will govern all future license applications for the Halo MMR, including a Manufacturing License (ML) and a combined Construction Permit and Operating License (COL). It builds upon the Company’s prior regulatory filings including its Quality Assurance Program Description and Regulatory Engagement Plan.

The submission follows a productive pre-application meeting with NRC Staff on December 17, 2025, during which the NRC’s New Reactor Division, including senior technical reviewers from multiple branches, provided positive feedback on Hadron’s proposed regulatory approach. The NRC’s openness to Hadron’s PDC framework provides early validation of the Company’s licensing strategy and meaningfully de-risks the path to commercialization. The White Paper is submitted in direct fulfillment of the action item from that meeting.

A Licensing Strategy Built on Proven Regulatory Foundations

Hadron has selected 10 CFR Part 52 as its licensing pathway, which provides a combined COL process specifically designed for new reactor builds. Part 52 builds on the foundational regulatory principles established under Part 50 while offering a streamlined, design-oriented framework that resolves key licensing questions before construction begins. This approach reduces late-stage regulatory risk and aligns with the Halo MMR's standardized deployment model.

Hadron's PDC approach is grounded in well-established NRC regulatory precedent for integral pressurized water reactor (iPWR) designs that rely on inherent passive safety rather than active engineered systems. The NRC has previously approved exemptions from certain General Design Criteria for this class of reactor, recognizing that prescriptive requirements designed for large active-safety plants are unnecessary — and in some cases inapplicable — when the underlying safety functions are achieved through passive physics alone. Building on this established regulatory precedent and favorable NRC feedback during early engagement, Hadron is well-positioned to demonstrate compliance with applicable regulatory requirements and rigorous safety standards.

The PDC White Paper addresses nine General Design Criteria (GDC) exemption areas, including Electric Power Systems, Control Room and Shutdown, Combined Reactivity Control, Reactor Coolant Makeup, Passive Fluid Systems, Containment Heat Removal Testing, Containment Leakage Rate Testing, and Containment Isolation. An additional eight non-GDC regulatory exemptions with an established precedent are also addressed. In every case, Hadron's proposed PDC meets or exceeds the underlying safety objectives of the applicable requirement while reflecting the unique passive physics of the Halo MMR.

The Halo MMR: A New Standard in Passive Nuclear Safety

The Halo MMR is a 10 MWe integral pressurized water reactor (iPWR) of the “reactor-in-a-pool” configuration. The reactor core, steam generators, pressurizer, and all primary coolants are housed within a single integral reactor pressure vessel (RPV), enclosed within a close-fitting cylindrical containment vessel (CV). Both are partially submerged in a dedicated, below-grade, stainless-steel-lined flooded pool that serves as the module's passive ultimate heat sink. The entire system is factory-fabricated and semi-truck transportable.

The Halo MMR's safety philosophy centers on passive systems requiring no electrical power, no operator action, and no external water sources to achieve and maintain safe shutdown. Its key safety features include:

Passive Emergency Core Cooling (ECCS): Two independent vent paths automatically cool the core via gravity-driven natural circulation, satisfying single-failure requirements without pumps, diesel generators, or operator action.

Passive Containment Heat Removal: Decay heat transfers passively from the RPV through the containment vessel to the surrounding reactor pool by using conduction and convection needing no power or active components.

Elimination of Large-Break LOCA from the Design Basis: The integral design removes large-bore primary coolant piping eliminating the potential for large-break loss-of-coolant accidents.

10-Year Once-Through Fuel Cycle: Operating on Low-Enriched Uranium Plus (LEU+) fuel at no more than 8.0 wt% U-235, the Halo MMR is designed for a 10-year fuel cycle, minimizing operational complexity and long-term fuel costs.

The Halo MMR's thermal output produces lower decay heat loads, smaller fission product inventories, and reduced source terms, all of which enhance safety margins relative to larger light-water reactor designs and strengthen the technical basis for the proposed PDC exemptions.

Accelerating Momentum Ahead of Public Listing

The NRC submission arrives amid an accelerating period of technical and commercial progress for Hadron. The SEC on April 15, 2026 declared effective the Form S-4 registration statement filed by GigCapital7 Corp (Nasdaq: GIG) in connection with the proposed business combination with Hadron. GigCapital7 has scheduled its special shareholders meeting to approve the business combination for May 7, 2026. The PDC submission directly strengthens the technical credibility and licensing risk reduction profile that will underpin the Company's capitalization and commercialization roadmap.

Hadron continues to accelerate on multiple fronts — advancing critical subsystem partnerships while simultaneously laying the regulatory foundation for commercial deployment — positioning the Company to lead the next generation of nuclear energy in the United States.

“Submitting the PDC White Paper to the NRC is the most consequential technical milestone in Hadron's history. We have defined the regulatory framework for the Halo MMR, grounded in established NRC regulatory pathways, and earned early favorable feedback on the planned licensing path from NRC Staff through our pre-application engagement. The combination of our fully passive design, our proven licensing strategy, and our growing commercial pipeline puts Hadron in a position of real strength as we approach the public markets”, stated **Samuel Gibson, Founder and CEO of Hadron.**

About Hadron Energy, Inc.

Hadron is a pioneer in MMR technology. Designed to deliver 10 MWe 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 vessel, core, and containment shell to be truck transportable from a central manufacturing facility, 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.

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 regulatory pathway for the Halo MMR and potential licensure by the NRC; the outcome of Hadron’s regulatory submissions; the development and translation into an operational reactor of the Hadron Halo MMR, and its subsequent construction and performance, including with respect to quality control and safety; Hadron’s anticipated growth and other metrics; the anticipated future demand of energy; the future demand and commercialization of the Hadron Halo MMR; potential relationships or engagements; 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 Halo 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 Halo 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 filed in connection with the business combination (the "Registration Statement").

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 have filed with the SEC the Registration Statement that includes a prospectus relating to the offer of securities to be issued in connection with the business combination and GigCapital7 has filed a final prospectus/definitive proxy statement, 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 and other matters as described in the Registration Statement. GigCapital7 is mailing the final prospectus/definitive proxy 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 FINAL PROSPECTUS/DEFINITIVE PROXY STATEMENT 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 PROSPECTUS /PROXY STATEMENT BECAUSE THESE DOCUMENTS 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 GigCapital7'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, 2025, filed with the SEC on March 6, 2026. Information regarding the persons who may, under SEC rules, be deemed participants in the solicitation of proxies of GigCapital7 shareholders in connection with the business combination is 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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<https://www.hadronenergy.com/investor-relations>

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